



Wisconsin Department of Natural Resources

# Wetland Delineation Report

Havenwoods State Forest Milwaukee, WI 53209

WDNR Project #MKE2007 Grant ID# GL00E02824

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# **Acronyms and Abbreviations**

AOI	Area of Interest
DP	Data Point
FAC	Facultative Indicator Species
FACU	Facultative Upland Indicator Species
FACW	Facultative Wetland Indicator Species
GPS	Global Positioning System
HSF	Havenwoods State Forest
NRCS	Natural Resources Conservation Service
NTCHS	National Technical Committee for Hydric Soils
NWI	National Wetland Inventory
OBL	Obligate Wetland Indicator Species
PI	Prevalence Index
PP	Photo-point
Regional Supplement	Regional Supplement to the Corps of Engineers Wetland
	Delineation Manual: Midwest Region (Version 2.0)
RES	RES Great Lakes, LLC
UPL	Upland Indicator Species
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
WDNR	Wisconsin Department of Natural Resources
WWI	Wisconsin Wetland Inventory

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## Introduction

RES Great Lakes, LLC (RES) staff conducted a wetland delineation at Havenwoods State Forest (HSF) in the City of Milwaukee, Milwaukee County, Wisconsin (Appendix A, Figure 1). HSF is an approximately 237-acre nature preserve in northern Milwaukee, Wisconsin consisting of a variety of naturalized and restored habitats, a visitor center, an extensive trail network, and two creeks running north to south through the site. The site is bounded by urban residential neighborhoods to the east, McGovern Park to the south, and railroads to the west and north.

This report was prepared based on RES's understanding and interpretation of the wetland delineation methods described in the U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual (Environmental Laboratory 1987), Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0) (hereafter, Regional Supplement) (USACE 2010), and Guidance for Submittal of Delineation Reports to the St. Paul District Army Corps of Engineers and the Wisconsin Department of Natural Resources (USACE 2015).

The objective of this wetland delineation was to provide the spatial boundary of wetlands within the AOI in support of a habitat rehabilitation project. RES Ecologist, Matt Parsons, conducted the wetland delineation on May 11, 12, and 21, 2021. Mr. Parsons is an assured delineator and was lead investigator.



# **Regulatory Definitions**

### Wetlands

Wetlands are areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

## Methods

### Desktop Analysis and Background Information Review

Several sources of information were reviewed to evaluate the property and identify potential wetland soil map units and potential wetlands onsite. The general topography of the site was reviewed using an online two-foot topographic map (Figure 2). Soil types were identified using the NRCS Web Soil Survey for Milwaukee County, Wisconsin (Figure 3). Potential wetlands were identified using the Wisconsin Wetlands Inventory (WWI) (Figure 4). Maps can only be used to establish the probability and approximate location of wetlands on the site; therefore, the USACE does not accept the use of these maps to make final wetland determinations. Final wetland determinations were made with onsite observations and fieldwork. Prior to the fieldwork, background information was reviewed to establish the probability and approximate location of wetlands on the site. The following maps were reviewed offsite or onsite as part of the wetland determination:

- <u>Milwaukee County Topographic Map</u> The topographic map of the site (Figure 2) shows the general topography and elevations of the site. The topography at HSF is relatively level to gently rolling and variable, generally sloping from north to south. Elevations range from approximately 710 feet on a hillslope in the northeastern portion of the site to approximately 668 feet in the southeastern portion of the site.
- <u>Soil Survey Map</u> The NRCS Web Soil Survey Map (Figure 3) identifies seven soil map units within the site boundaries: Ashkum silty clay loam, 0-2% slopes (AsA); clayey land (Cv); Landfill (LDF); loamy land (Lu); Mequon silt loam, 1-3% slopes; Ozaukee silt loam, carbonate substratum, 2-6% slopes (OuB); and Ozaukee silt loam, high carbonate substratum, 2-6% slopes, eroded (OuB2). Data associated with each soil map unit are presented in Table 1.
- <u>WWI Map</u> the WWI map of the area (Figure 4) indicates that nine wetlands are mapped within HSF:
  - One excavated wetland is mapped along the southeast bank of Lincoln Creek. This feature represents three individual flood control basins designed and constructed to attenuate flood flows and sediment and improve downstream water quality. The wetland is classified as E1/W0Hx (emergent, persistent/open water, standing water, palustrine, excavated wetland).
  - One emergent/wet meadow, narrow-leaved persistent, wet soil, palustrine, excavated wetland (E2Kx) is mapped in the south-central portion of the site.
  - One emergent/wet meadow, persistent, wet soil, palustrine, excavated wetland (E1Kx) is mapped in the south-central portion of the site.
  - Two scrub/shrub, broad-leaved deciduous, wet soil, palustrine wetlands (S3K) are mapped in the south-central portion of HSF.
  - Two forested, broad-leaved deciduous, wet soil, palustrine wetlands (T3K) and two scrub/shrub, broad-leaved deciduous, wet soil, palustrine wetlands (S3K) are mapped in the eastern portion of the site and are associated with an intermittent creek.

All figures are presented in Appendix A.

Soil Map Unit Symbol and Name	% of AOI	Drainage Classification*	Major/Minor Components	Map Unit % Composition	Hydric Soil Rating
			Ashkum, drained	92%	Yes
AsA, Ashkum silty			Peotone, drained	5%	Yes
clay loam, 0-2%	6.5%	Poorly drained	Orthents, clayey	2%	No
slopes			Urban land	1%	No
	70/	Moderately	Clayey land	90%	No
Cv, Clayey land	7%	well drained	Ashkum	10%	Yes
LDF, Landfill	0.5%	Not classified	Urban land, landfill	100%	Unranked
	CO/	Moderately	Loamy land	90%	No
Lu, Loamy land	6%	well drained	Pella	10%	Yes
			Mequon	90%	No
MtA, Mequon silt	29%	Somewhat	Ashkum	4%	Yes
loam, 1-3% slopes	29%	poorly drained	Martinton	3%	No
			Ozaukee	3%	No
OuB, Ozaukee silt loam, high carbonate	270/	Moderately	Ozaukee, high carbonate substratum	96%	No
substratum, 2-6%	27%	well drained	Ashkum, drained	2%	Yes
slopes			Orthents, clayey	1%	No
			Urban land	1%	No
OuB2, Ozaukee silt loam, high carbonate	24%	Moderately	Ozaukee, high carbonate substratum, eroded	96%	No
substratum, 2-6%		well drained	Ashkum, drained	2%	Yes
slopes, eroded			Urban land	1%	No
			Orthents, clayey	1%	No

#### Table 1. Soils Data

\* Pertains to major component soil.

#### Site Investigation

On May 11, 12, and 21, 2021, RES searched for wetlands contained within the 237-acre AOI. Figure 5 depicts the location of the delineated wetlands and the GPS surveyed boundaries.

Thirty-one (31) soil test pits that were representative of the AOI were excavated and investigated for evidence of wetland conditions (Figure 5). At each soil pit a Midwest Region wetland delineation data form was prepared and a determination was made as to whether each was in a wetland or upland based on the three criteria: vegetation, soils, and hydrology.

#### Wetlands

The Regional Supplement was used to provide technical guidance and procedures for identifying and delineating wetlands. The three essential characteristics of a wetland are hydrophytic vegetation, wetland hydrology, and hydric soils. All three characteristics must be present to be considered wetland.

- Vegetation: The principal hydrophytic vegetation criteria to be met are when all dominant species across all strata are rated OBL and/or FACW based on visual assessment (rapid test) or when greater than 50% of the dominant plant species are hydrophytes (dominance test) (USACE 2018). The indicator status of plant species is expressed in terms of the estimated probabilities of that species occurring in wetland conditions within a given region. Hydrophytes include all plants classified as "FAC", "FACW" or "OBL". If the plant community failed the dominance test but indicators of hydric soils and wetland hydrology were present, the prevalence index (PI) was calculated. The PI is a weighted average wetland indicator status of all species in a plot. Absolute percent cover for each species is weighted based on the species indicator status (OBL = 1, FACW = 2, FAC = 3, FACU = 4, UPL = 5). PI is the sum of the weighted absolute cover values divided by the sum of the absolute percent cover values. If PI is 3.0 or less, the plant community is considered hydrophytic.
- 2. Hydrology: Wetland hydrology is present if an area contains one or more "primary indicators" and/or two or more "secondary indicators" for USACE jurisdictional wetlands and isolated wetlands. Primary indicators include either the direct presence of water as inundation or saturation within the upper 12 inches of the soil profile, or direct evidence of recent inundation, such as water marks, drift lines, sediment deposits, or drainage patterns. Secondary indicators include surface soil cracks, geomorphic position that could collect or concentrate water, and positive FAC-Neutral Test (i.e., dominant FACW and OBL species account for more than 50% of the total number of dominant species across strata, excluding FAC-rated dominants).
- 3. **Soils:** The National Technical Committee for Hydric Soils (NTCHS) defines a hydric soil as a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (NRCS 2018). Nearly all hydric soils exhibit characteristic morphologies that result from repeated periods of saturation or inundation for more than a few days. Saturation or inundation, when combined with microbial activity in the soil, causes the depletion of oxygen. This anaerobic condition promotes certain biogeochemical processes, such as the accumulation of organic matter and the reduction, translocation, and accumulation of iron and other reducible elements. These processes result in distinctive characteristics that persist in the soil during both wet and dry periods, making them particularly useful for identifying hydric soils in the field.

Some of the field indicators include dark color (low chroma), redoximorphic features, gleying, and/or the presence of a sulfurous odor. Although USDA soil maps are useful for soil identification, they should be used only as general guides. Soils are evaluated directly by excavating a test pit at each of the data point locations. In this report, soil colors are described using the Munsell notation system.



#### Routine Wetland Delineation Data Forms

Completed Routine Wetland Delineation Data Forms – Midwest Region for this delineation are in Appendix B. These forms are the written documentation of how the 31 data points do or do not meet all three of the wetland criteria. Thirty-one (31) data points (DP01-DP05, DP06A, DP06B, DP07-17, DP18A, DP18B, DP19-21, DP22A, DP22B, DP23, DP24A, DP24B, and DP25-DP27) were selected to document the conditions of the site.

#### Site Photographs

Photographs of the site are presented in Appendix C. These photographs are the visual documentation of site conditions at the time of the May inspection. The photographs are intended to provide representative visual samples of soil test pits, upland data points, or other special features found on or near the site investigated. Photos were taken at all 31 data points and at other features of note.

### Results

#### **General Site Conditions**

HSF is an approximately 237-acre nature preserve in northern Milwaukee, Wisconsin consisting of a variety of naturalized and restored habitats, a visitor center, an extensive trail network, and two creeks running north to south through the site. The site is bounded by urban residential neighborhoods to the east, McGovern Park to the south, and railroads to the west and north. HSF has a long and well-documented history of widespread and intense disturbance dating back to the 1800's. The history of this property includes family homesteads from the mid-1800's transitioning to the Milwaukee County House of Corrections in the early 1900's. Army Disciplinary Barracks, a Nike Missile site, and Milwaukee landfill were subsequently established in 1945, 1956, and 1974, respectively. The land was eventually set aside as green space and in 1979, the WDNR began ecological rehabilitation and restoration efforts. Due to the disruption of the site over the past 150 years, the landscape is scarred and subject to habitat degradation from soil disturbance and invasive species colonization.

AA forest regeneration project consisting of woody invasive species removal, herbicide application, and native tree planting is currently underway on the property. At the time of field surveys, this work was occurring in the western wooded portions of the site and is expected to be completed in spring 2022.

#### **Antecedent Precipitation**

Average precipitation for February-April at the Milwaukee Mitchell International Airport, Wisconsin precipitation gauge is 8.02 inches (Table 2). At the time of the field investigation in early May 2021, precipitation from February-April was 3.44 inches. Precipitation in February was normal and precipitation in March and April was below normal. Completion of the rainfall documentation worksheet in Table 2 resulted in a weighted condition value sum of 7 indicating hydrologic conditions in early May 2021 were drier than normal.

#### Wetlands

Field observations revealed that wetland conditions (i.e., positive indicators of wetland hydrology, vegetation, and soils) were present on the day of inspection. Six (6) wetlands (Wetland 1-Wetland 6) totaling approximately 18.35 acres were delineated within the AOI (Figure 5). Four of the delineated wetlands (Wetland 1-Wetland 4) encompassed some or all of the nine WWI-mapped wetlands. Wetlands 5 and 6 were delineated wetlands not mapped by WWI. Topographic breaks and changes in soils, vegetation, and hydrology were used to determine representative transect locations and to delineate the wetland boundaries.

#### Wetland 1

Wetland 1 is a 2.21-acre riverine wetland composed of mosaic of forested, scrub, and emergent wetlands in the eastern portion of the site. The creek flows southerly through a series trail-crossing culverts. Six (6) data points were established in Wetland 1 (DP15, DP17, DP19, DP23, DP25, and DP27).

<u>Soils.</u> The hydric soil indicator Depleted Below Dark Surface (A11) was observed at DP15, DP17, DP19, DP25, and DP27 in Wetland 1 (Appendix B). The indicator Depleted Matrix (F3) was observed at DP17, DP19, DP25, and DP27. The indicator Redox Dark Surface (F6) was observed at DP19 and the indicator Thick Dark Surface was observed at DP23.

#### Table 2. Rainfall Documentation Worksheet

Long-	term rainfa	all records (†	from WETS	Table)			Site	Determinat	ion	
	Month	3 years in 10 less than	Normal	3 years in 10 greater than		Site rainfall (in)	Condition Dry, Normal*, or Wet	Condition Value**	Month Weight	Product
1st month prior	Apr	2.83	3.78	4.42		1.41	Dry	1	3	3
2 <sup>nd</sup> month prior	Mar	1.63	2.59	3.13		0.84	Dry	1	2	2
3 <sup>rd</sup> month prior	Feb	0.97	1.65	2.00		1.19	Normal	2	1	2
			8.02		Sum=	3.44			Sum=	7
•	•	vith 30-70%	probability o	of occurrence					Determination: X	Wet Dry Normal
**Condition Dry = 1	value	**If sum is								
Normal = 2 Wet = 3		6-9 then p 10-14 then	period has	r than normal been normal been wetter tl	han norm	al				
Precipitation	n data sour	ce: NOAA, M	ILWAUKEE I	MITCHELL INT	_ AP, WI					



Hydrology. The following primary indicators of wetland hydrology were observed in Wetland 1:

- Surface Water (A1) at DP19.
- High Water Table (A2) at DP15, DP19, and DP27.
- Saturation (A3) at DP15, DP17, and DP19.
- Water Marks (B1) at DP25 and DP27.
- Sediment Deposits (B2) at DP27.
- Oxidized Rhizospheres on Living Roots (C3) at DP17, DP19, DP23, DP25, and DP27.

The following secondary indicators of wetland hydrology were observed in Wetland 1:

- Drainage Patterns (B10) at DP15, DP25, and DP27
- Geomorphic Position (D2) and FAC-Neutral Test (D5) at DP15, DP17, DP19, DP23, DP25, and DP27

<u>Vegetation</u>. Dominant species observed in Wetland 1 include the following:

- Black willow (*Salix nigra*) (OBL) in the tree stratum at DP15 and silver maple (*Acer saccharinum*) (FACW) in the tree stratum at DP25 and DP27.
- Common buckthorn (*Rhamnus cathartica*) (FAC) in the sapling/shrub stratum at DP15, DP17, DP19, DP23, DP25, and DP27 and gray dogwood (*Cornus racemosa*) (FAC) in the sapling/shrub stratum at DP23.
- Redtop (Agrostis gigantea) (FACW) and lance-leaved aster (Symphyotrichum lanceolatum) (FAC) in the herb stratum at DP15; orange jewelweed (Impatiens capensis) (FACW) at DP17; tussock sedge (Carex stricta) (OBL) at DP19 and DP27; gray dogwood, black raspberry (Rubus occidentalis) (UPL), wood sedge (Carex blanda) (FAC), common fox sedge (Carex stipata) (OBL), common buckthorn, and white avens (Geum canadense) (FAC) at DP23; and white avens, common buckthorn, and garlic mustard (Alliaria petiolata) (FAC) at DP25.

All data points taken in Wetland 1 passed the dominance test for the presence of hydrophytic vegetation.

#### Wetland 2

Wetland 2 is a 0.69-acre depressional forested wetland in the southcentral portion of the site. One (1) data point was established in Wetland 2 (DP09).

<u>Soils.</u> The hydric soil indicator Depleted Below Dark Surface (A11) was observed at DP09 in Wetland 2 (Appendix B).

<u>Hydrology.</u> The primary indicators of wetland hydrology, Saturation (A3) and Oxidized Rhizospheres on Living Roots (C3); and secondary indicators, Geomorphic Position (D2) and FAC-Neutral Test (D5), were observed at DP09 in Wetland 2 (Appendix B).

<u>Vegetation.</u> The dominant species at DP09 in Wetland 2 were black willow in the tree stratum, common buckthorn and boxelder (*Acer negundo*) (FAC) in the sapling/shrub stratum, and boxelder and common fox sedge in the herb stratum which passed the dominance test for the presence of hydrophytic vegetation.

#### Wetland 3

Wetland 3 is a large 8.37-acre depressional wetland in the central portion of the site comprised of a mosaic of emergent, wet meadow, and scrub wetlands. Two (2) data points were established in Wetland 3 (DP11 and DP13). Wetland 3 is hydrologically connected to Wetland 2 via a culvert.

<u>Soils.</u> The hydric soil indicators Depleted Below Dark Surface (A11) and Depleted Matrix (F3) were observed at DP11, and the indicator Thick Dark Surface (A12) was observed at DP13 in Wetland 3 (Appendix B).

<u>Hydrology.</u> The secondary indicators of wetland hydrology, Geomorphic Position (D2) and FAC-Neutral Test (D5), were observed at DP11 and DP13 in Wetland 3 (Appendix B). In addition, the primary indicator Oxidized Rhizospheres on Living Roots (C3) was observed at DP11.

<u>Vegetation.</u> The dominant species at DP11 in Wetland 3 were sandbar willow (*Salix interior*) (FACW) in the sapling/shrub stratum and lance-leaved aster, American black currant (*Ribes americanum*) (FACW), and sandbar willow in the herb stratum which passed the dominance test for the presence of hydrophytic vegetation. The dominant species at DP13 in Wetland 3 was reed canary grass (*Phalaris arundinacea*) (FACW) in the herb stratum which passed the rapid test for the presence of hydrophytic vegetation.

#### Wetland 4

Wetland 4 is a 6.89-acre segment of Lincoln Creek composed of floodplain scrub, wet meadow, and emergent wetlands in the western portion of the site. The creek flows southerly and contains three constructed stormwater/sediment wetlands along its eastern bank. Three (3) data points were established in Wetland 4 (DP01, DP03, and DP05).

<u>Soils.</u> The hydric soil indicator Depleted Below Dark Surface (A11) was observed at DP01, DP03, and DP05 in Wetland 4 (Appendix B). The indicator Depleted Matrix (F3) was also observed at DP03 and DP05.

<u>Hydrology.</u> The primary indicator of wetland hydrology, Oxidized Rhizospheres on Living Roots (C3), and secondary indicator, Geomorphic Position (D2), were observed at DP01 in Wetland 4 (Appendix B). The primary indicators, Drift Deposits (B3) and Water-Stained Leaves (B9); and secondary indicators, Geomorphic Position (D2) and FAC-Neutral Test (D5), were observed at DP03 and DP05.

<u>Vegetation.</u> The dominant species at DP01 in Wetland 4 were cottonwood (*Populus deltoides*) (FAC) in the sapling/shrub stratum and Indian grass (*Sorghastrum nutans*) (FACU) and lance-leaved aster in the herb stratum which passed the dominance test for the presence of hydrophytic vegetation. Dominant species at DP03 in Wetland 4 were sandbar willow in the sapling/shrub stratum and reed canary grass in the herb stratum which passed the rapid test for the presence of hydrophytic vegetation. Dominant species at DP05 in Wetland 4 were sandbar willow in the sapling/shrub stratum and reed canary grass and giant goldenrod (*Solidago gigantea*) (FACW) in the herb stratum which passed the rapid test for the presence of hydrophytic vegetation.

#### Wetland 5

Wetland 5 is a small 0.08-acre forested ephemeral pond wetland in the northwest portion of the site. One (1) data point was established in Wetland 5 (DP07).

<u>Soils.</u> The hydric soil indicators Depleted Below Dark Surface (A11) and Redox Dark Surface (F6) were observed at DP07 in Wetland 5 (Appendix B).

<u>Hydrology.</u> The primary indicators of wetland hydrology, Saturation (A3) and Water-Stained Leaves (B9); and secondary indicators, Geomorphic Position (D2) and FAC-Neutral Test (D5), were observed at DP07 in



#### Wetland 5 (Appendix B).

<u>Vegetation</u>. The dominant species at DP07 in Wetland 5 were American elm (*Ulmus americana*) (FACW) in the tree stratum, common buckthorn in the sapling/shrub stratum, and rosy sedge (*Carex rosea*) (FACU) and common buckthorn in the herb stratum which passed the dominance test for the presence of hydrophytic vegetation.

#### Wetland 6

Wetland 6 is a small 0.11-acre depressional forested wetland in the southern portion of the site. Water is impounded in this area due to the presence of a raised trail to the north and the railroad bed to the south. One (1) data point was established in Wetland 6 (DP21).

<u>Soils.</u> The hydric soil indicators Depleted Below Dark Surface (A11) and Depleted Matrix (F3) were observed at DP21 in Wetland 6 (Appendix B).

<u>Hydrology.</u> The primary indicators of wetland hydrology, Saturation (A3) and Oxidized Rhizospheres on Living Roots (C3); and secondary indicators, Crayfish Burrows (C8) and Geomorphic Position (D2), were observed at DP21 in Wetland 6 (Appendix B).

<u>Vegetation</u>. The dominant species at DP21 in Wetland 6 were bur oak (*Quercus macrocarpa*) (FAC) in the tree stratum, common buckthorn in the sapling/shrub stratum, and reed canary grass and Tartarian honeysuckle (*Lonicera tatarica*) (FACU) in the herb stratum which passed the dominance test for the presence of hydrophytic vegetation.

#### Uplands

Representative and paired data points were taken in upland areas outside of delineated wetland areas to help confirm the delineated wetland boundaries. Upland data points include DP02, DP04, DP06A, DP06B, DP08, DP10, DP12, DP14, DP16, DP18A, DP18B, DP20, and DPDP22A, DP22B, DP24A, DP24B, and DP26 (Figure 5).

Hydric soil indicators were absent from all upland data points except DP02 (Depleted Below Dark Surface [A11]), DP08 (Thick Dark Surface [A12]), DP18A (Thick Dark Surface [A12]), DP22B (Thick Dark Surface [A12]), and DP26 (Depleted Below Dark Surface [A11] and Depleted Matrix [F3]).

Wetland hydrology indicators were completely absent from all upland data points except DP08 and DP16 which both met the requirement for FAC-Neutral Test (D5).

Hydrophytic vegetation was observed at several upland data points; however, these areas failed to meet wetland hydrology and/or hydric soil criteria. The plant community at DP6A passed the rapid test for the presence of hydrophytic vegetation. The plant communities at DP08, DP16, DP18A, DP20, DP22A, DP24A, DP24B, and DP26 passed the dominance test for the presence of hydrophytic vegetation. All other upland data points were dominated by upland vegetation.

All upland Data Points lacked at least one of the three parameters required to be classified as wetland (wetland hydrology, hydric soil, and hydrophytic vegetation) and were therefore classified as uplands. Data forms are presented in Appendix B.



### **Jurisdictional Analysis Opinion**

Based on observations in 2021, it is RES' professional opinion that Wetland 4 is likely under USACE and WDNR jurisdiction due to hydrologic connection with the Milwaukee River, a navigable waterway. Hydrologic connection with navigable waterways or tributaries to navigable waterways is less clear for Wetland 1. Wetland 2, Wetland 3, Wetland 5, and Wetland 6 appear to be isolated and may not be under USACE jurisdiction; however, only the USACE can make this determination.

# **Literature Cited**

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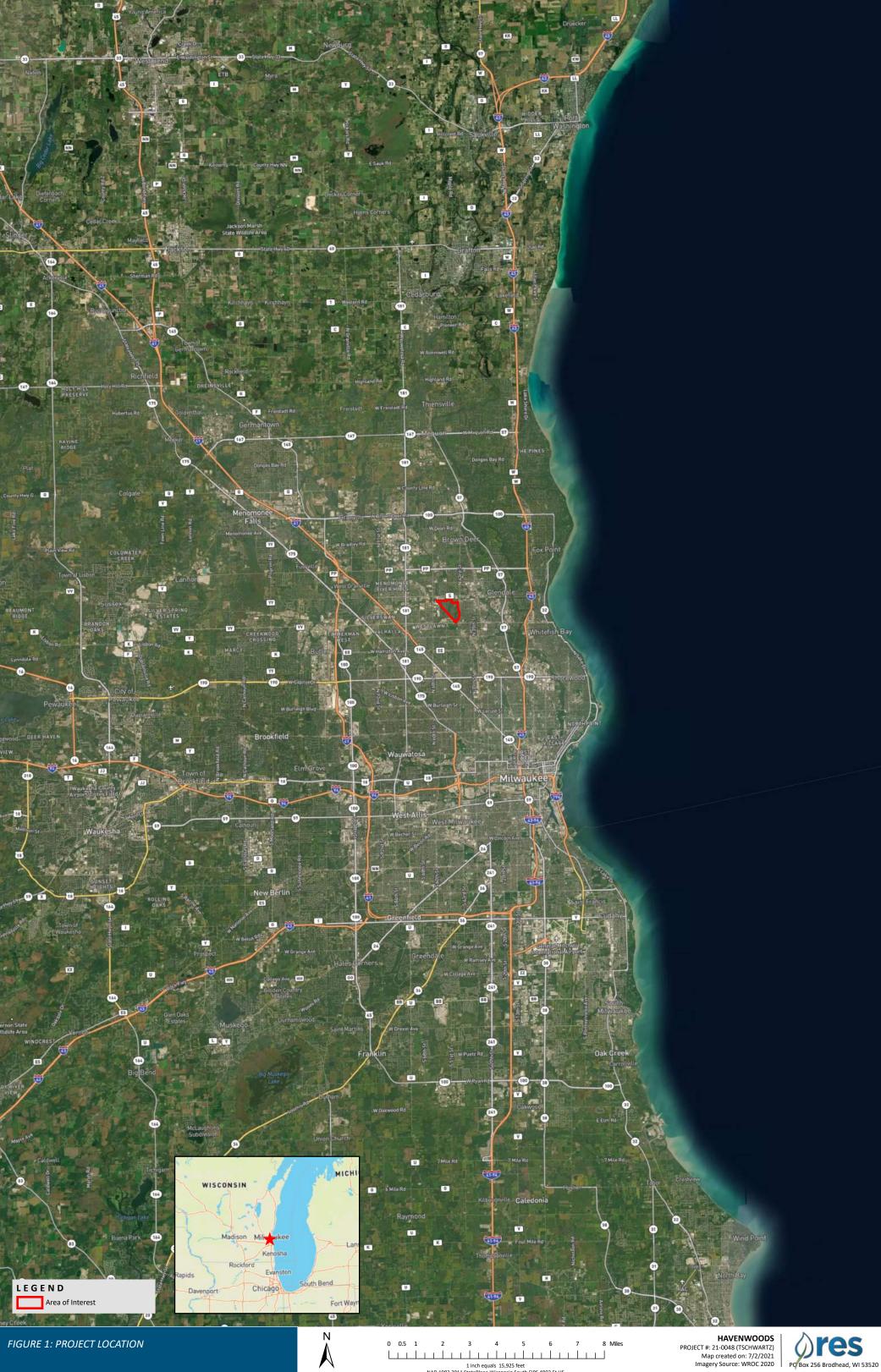
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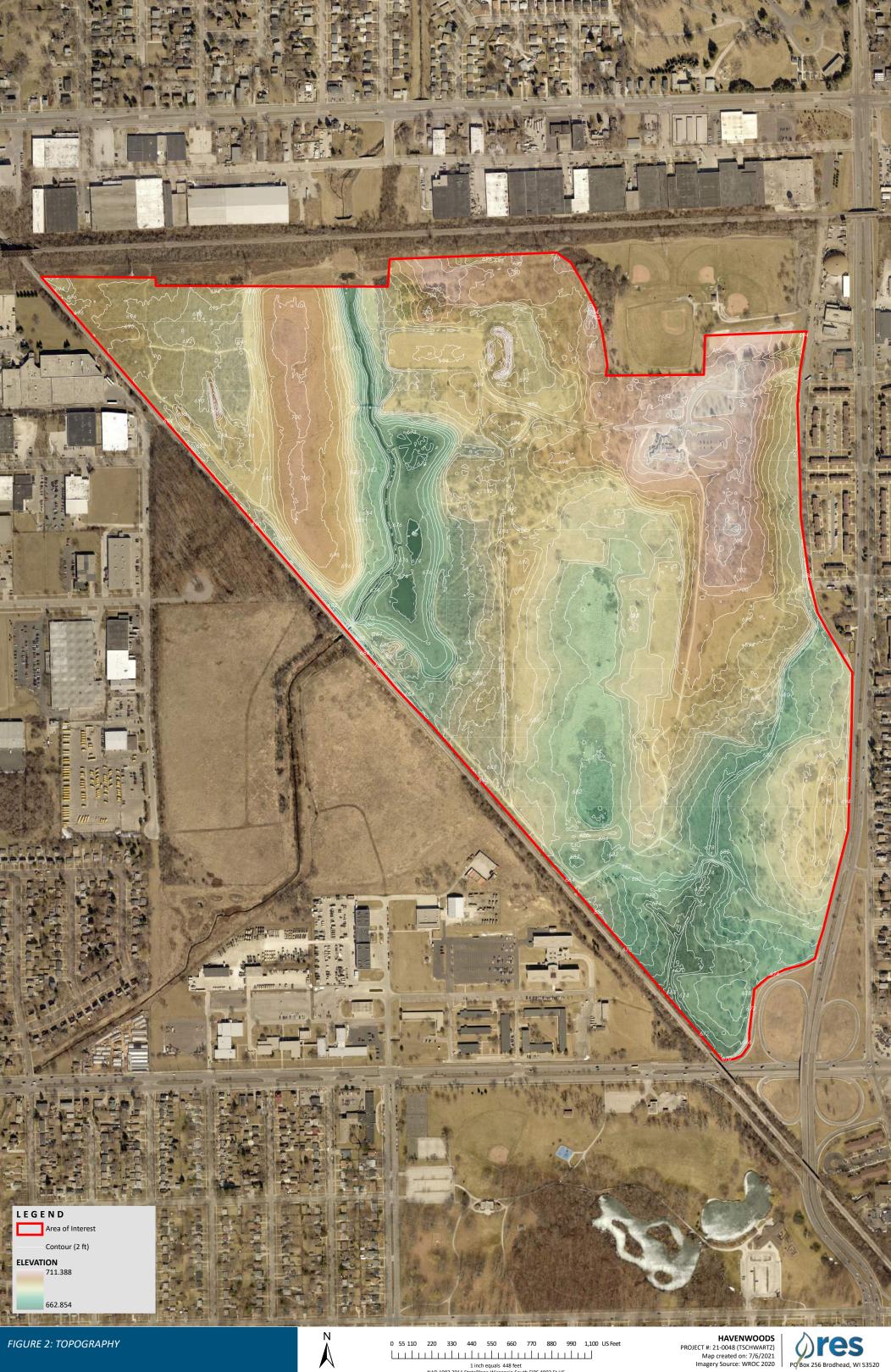
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# **Appendix A. Figures**

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1 inch equals 15,925 feet
NAD 1983 2011 StatePlane Wisconsin South FIPS 4803 Ft US



0	5	55	1	10			22	20			3	30			44	ю		3	55	0		6	60	)		77	70			88	30			9	90	)	1,1	00	ι	JS F	e
L	1	1			L	1			L	1			L	1			L	L		1			L	1	1			L	1			L	1		L	1					
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							N,	AE	) 1	.98	3	20	)1:	LS	tat	tel	Pla	ne	W I	/isc	or	ısi	n :	S0	uth	۱F	IP	S۷	180	23	Ft	t U	JS								

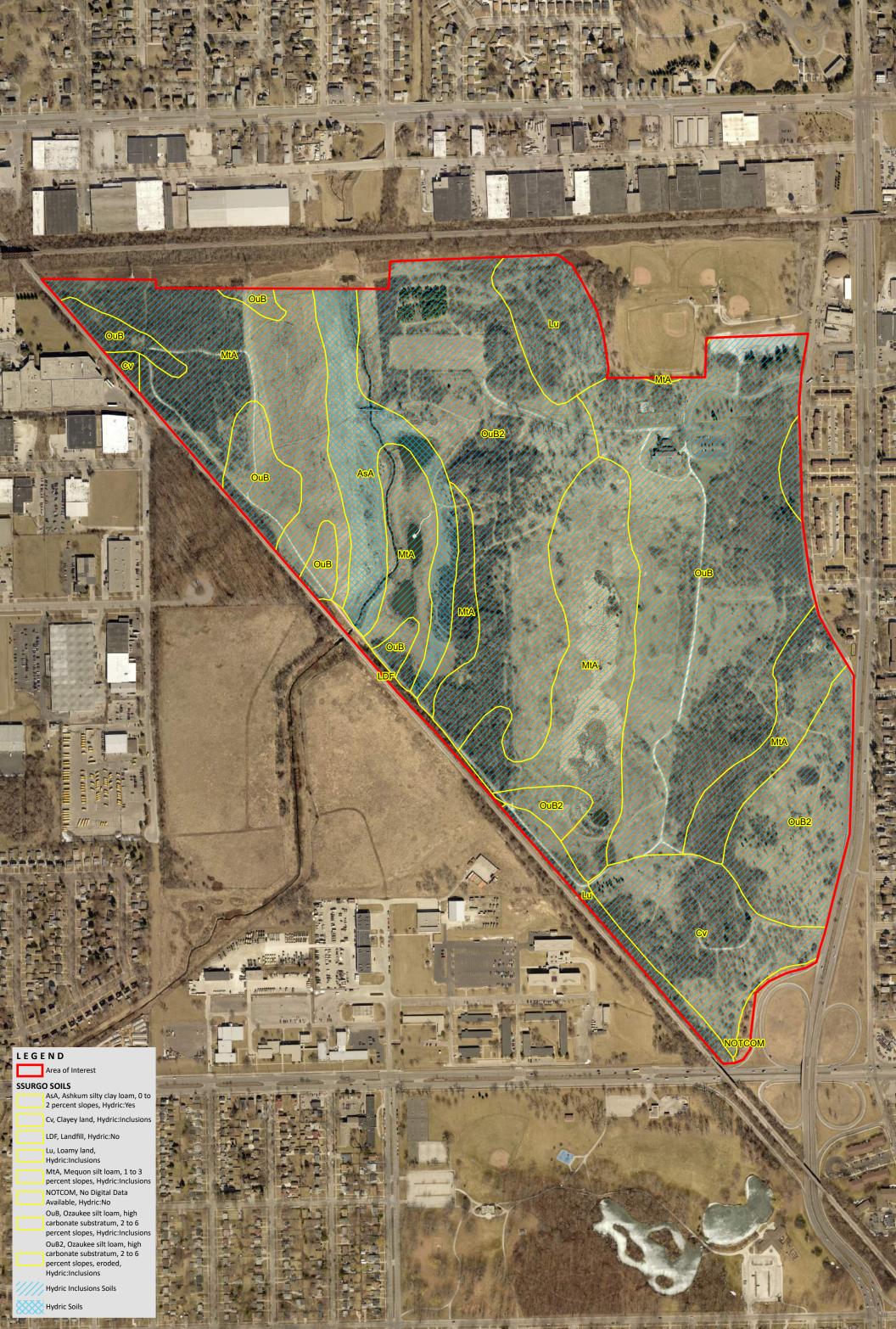




FIGURE 3: SSURGO SOILS

0 55 110	220	330	440	550	660	770	880	990	1,100	US Feet
					448 feet					
	NAD 1	983 2011	L StatePla	ane Wisc	onsin Sou	uth FIPS 4	4803 Ft U	S		

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HAVENWOODS PROJECT #: 21-0048 (TSCHWARTZ) Map created on: 7/6/2021 Imagery Source: WROC 2020





FIGURE 4: WISCONSIN WETLAND INVENTORY

(	)	5	5	11	0	2	22	0		į	33	0			44	10			55	50		(	56	0	ŝ	77	0		8	80	)	1	99	0		1,	100	)	US	Fe	et
		Ĺ	I			L			L	I			L	1			L	1			L	L			L						I	I			Ĺ	L					
									1	00	<b>.</b>	20										44					nc	40													

HAVENWOODS PROJECT #: 21-0048 (TSCHWARTZ) Map created on: 7/6/2021 Imagery Source: WROC 2020





0	55	11	0	2	220	)	3	330	)	44	D	55	50		e	60	)	7	770	)	1	88	0		9	90	)	1,	100	US	5 Fe
L	1					1			1					L	L		I			I	1			1	L		1				
							<u> </u>		~						44										~						

# **Appendix B. Data Forms**

Ø

#### WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Havenwoods State Forest Rehab	oilitation	City/Count	y: Milwauk	ee/Milwaukee	Sampling Date: 2021-	05-11
Applicant/Owner: Wisconsin Department of Na	tural Resour	ces		State: Wisconsin	Sampling Point: DP01	
Investigator(s): Matt Parsons		Section, T	ownship, Rar	<sub>ige:</sub> <u>Sec. 26, T8N, R</u>	21E	
Landform (hillslope, terrace, etc.): Depression			Local relief (	concave, convex, none):	Concave	
Slope (%): <u>1-2</u> Lat: <u>43.12593207</u>						
Soil Map Unit Name: Mequon silt loam, 1 to 3 p				NWI classific		
Are climatic / hydrologic conditions on the site typical for	or this time of ye					
Are Vegetation, Soil, or Hydrology					present? Yes 🔽 N	0
Are Vegetation, Soil, or Hydrology				eded, explain any answe		
SUMMARY OF FINDINGS – Attach site m				ocations, transects	, important feature	s, etc.
Hydrophytic Vegetation Present? Yes	No					
Hydric Soil Present? Yes _	No	ls t	he Sampled			
Wetland Hydrology Present? Yes _	No	wit	hin a Wetlan	d? Yes 🗸	No	
Remarks:						
Antecedent precipitation analysis resulted	in a weighte	d conditi	on value s	um of 7 indicating h	ydrologic condition	s were
drier than normal for this time period and re	egion.					
VEGETATION – Use scientific names of pla	ants.					
a contraction and the contraction of the contractio	Absolute		t Indicator	Dominance Test work	sheet:	
Tree Stratum         (Plot size:30 ft r)           1	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominant S That Are OBL, FACW,	· •	(A)

1				That Are OBL, FACW, or FAC: 2 (A)	)
23				Total Number of Dominant Species Across All Strata: <u>3</u> (B)	)
4 5				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7</u> (A	′B)
Sapling/Shrub Stratum (Plot size: 15 ft r )		_ = 10(a) C0	vei	Prevalence Index worksheet:	
1. Populus deltoides	25	~	FAC	Total % Cover of: Multiply by:	
2.				OBL species <u>5</u> x 1 = <u>5</u>	
3.				FACW species 17 x 2 = 34	
4				FAC species 45 x 3 = 135	
				FACU species 60 x 4 = 240	
5	25%	= Total Co		UPL species $0 \times 5 = 0$	
Herb Stratum (Plot size: <u>5 ft r</u> )	2070	_ = 10tai C0	vei	Column Totals: 127 (A) 414 (B	8)
1. Sorghastrum nutans	50	~	FACU		,
2. Symphyotrichum lanceolatum	20	~	FAC	Prevalence Index = B/A = 3.26	
3. Anemone canadensis	10		FACW	Hydrophytic Vegetation Indicators:	
4. Dipsacus fullonum	10		FACU	1 - Rapid Test for Hydrophytic Vegetation	
5. Phalaris arundinacea	7		FACW	✓ 2 - Dominance Test is >50%	
6. Carex tribuloides	5		OBL	3 - Prevalence Index is ≤3.0 <sup>1</sup>	
7				4 - Morphological Adaptations <sup>1</sup> (Provide support data in Remarks or on a separate sheet)	ing
8				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
9					
10		_ = Total Co	ver	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	t
1				Hydrophytic	
2.				Vegetation	
		= Total Co	ver	Present? Yes No No	
Remarks: (Include photo numbers here or on a separate	sheet.)			1	

# Best professional judgement used to ID sedges due to lack of distinguishable characteristics.

#### SOIL

Depth	Matrix			ox Featur					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	_Loc <sup>2</sup>		Remarks	
0 - 7	10YR 3/2	100					Silt Loam		
7 <sup>-</sup> 13	10YR 5/1	85	5YR 4/6	15	<u> </u>	<u>PL / M</u>	Silt Loam		
13 <sup>-</sup> 16	10YR 5/1	80	5YR 4/6	20	<u> </u>	PL/M	Loam		
-									
-									
_									
-									
~ ~ ~		pletion, RI	M=Reduced Matrix, N	IS=Maske	d Sand Gr	ains.		=Pore Lining, M=Matrix.	
Hydric Soil	Indicators:						Indicators for I	Problematic Hydric Soils <sup>3</sup> :	
Histosol					atrix (S4)			rie Redox (A16)	
	pipedon (A2)			Redox (S			Dark Surface (S7)		
	istic (A3)			d Matrix			Iron-Manganese Masses (F12)		
	en Sulfide (A4)				ineral (F1)		Very Shallow Dark Surface (TF12)		
	d Layers (A5)			2	latrix (F2)		Other (Exp	lain in Remarks)	
	uck (A10)			ed Matrix	. ,				
	d Below Dark Surfac	ce (A11)		Dark Sur			3 and a stars of h		
	ark Surface (A12)				urface (F7	)		ydrophytic vegetation and	
	Aucky Mineral (S1)	2)	Redox	Depressi	ons (F8)		,	drology must be present,	
	ucky Peat or Peat (S Layer (if observed)						uniess disti	urbed or problematic.	
Type: G	• • •								
	ches): 16						Hydric Soil Pres	sent? Yes 🖌 No	
Remarks:	onooj								
Actiliarity.									
YDROLO	GY								
Wetland Hy	drology Indicators	:							
Primary Indi	cators (minimum of	one is req	uired; check all that a	pply)			Secondary In	ndicators (minimum of two requir	
Surface	Water (A1)		Water-St	ained Lea	(BQ)		Surface	Soil Cracks (B6)	

Primary Indicators (minimum of one is required	; check all that apply)	Secondary Indicators (minimum of two required)					
Surface Water (A1)	Water-Stained Leaves (B9)	Surface Soil Cracks (B6)					
High Water Table (A2)	Aquatic Fauna (B13)	Drainage Patterns (B10)					
Saturation (A3)	True Aquatic Plants (B14)	Dry-Season Water Table (C2)					
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)					
Sediment Deposits (B2)	<ul> <li>Oxidized Rhizospheres on Living</li> </ul>	Roots (C3) Saturation Visible on Aerial Imagery (C9)					
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)					
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled So	oils (C6) 🖌 Geomorphic Position (D2)					
Iron Deposits (B5)	Thin Muck Surface (C7)	FAC-Neutral Test (D5)					
Inundation Visible on Aerial Imagery (B7)	Gauge or Well Data (D9)	Gauge or Well Data (D9)					
Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remarks)						
Field Observations:							
Surface Water Present? Yes No	Depth (inches):						
Water Table Present? Yes No	Depth (inches):						
	Depth (inches): <u>13</u>	Wetland Hydrology Present? Yes No					
(includes capillary fringe)							
Describe Recorded Data (stream gauge, monit	oring well, aerial photos, previous inspec	tions), if available:					
Remarks:							

#### WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Havenwoods State Forest Rehabilitation	City/County: Milwaukee/Milwaukee	Sampling Date: 2021-05-11						
Applicant/Owner: Wisconsin Department of Natural Resour	rces State: Wisconsin	Sampling Point: DP02						
Investigator(s): Matt Parsons	Section, Township, Range: Sec. 26, T8N, R	21E						
Landform (hillslope, terrace, etc.): Hillslope	Local relief (concave, convex, none):							
Slope (%): 2-3 Lat: 43.12580715	Long: -87.97518742	Datum: WGS 84						
Soil Map Unit Name: Ashkum silty clay loam, 0 to 2 percent	t slopes NWI classific	cation: none						
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes No 🖌 (If no, explain in R	emarks.)						
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "Normal Circumstances" p	present? Yes 🦯 No						
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed, explain any answe	ers in Remarks.)						
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.								
Hydrophytic Vegetation Present? Yes No								
Hydric Soil Present? Yes 🖌 No	Is the Sampled Area							
Wetland Hydrology Present? Yes No	within a Wetland? Yes	No						
Hydrophytic Vegetation Present?     Yes No       Hydric Soil Present?     Yes No	Is the Sampled Area							

Remarks:

Antecedent precipitation analysis resulted in a weighted condition value sum of 7 indicating hydrologic conditions were drier than normal for this time period and region.

VEGETATION - Use scientific names of plants.

20.64 -	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r )	<u>% Cover</u>	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 0 (A)
2				Total Number of Dominant
3				Species Across All Strata: 1 (B)
4				(/
5.				Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)
		= Total Cov		That Are OBL, FACW, of FAC: 0 (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft r )		- 10101 001		Prevalence Index worksheet:
1				Total % Cover of: Multiply by:
2				OBL species 0 x 1 = 0
3.				FACW species 0 x 2 = 0
				FAC species $10$ $x_3 = 30$
4				FACU species $60 \times 4 = 240$
5				UPL species $0$ $x 5 = 0$
Herb Stratum (Plot size: 5 ft r )		= Total Cov	/er	
1 Sorghastrum nutans	60	~	FACU	Column Totals: <u>70</u> (A) <u>270</u> (B)
2. Lathyrus latifolius	5		NI	Prevalence Index = B/A = 3.86
3 Poa pratensis	5		FAC	Hydrophytic Vegetation Indicators:
4. Symphyotrichum lanceolatum	5		FAC	1 - Rapid Test for Hydrophytic Vegetation
				2 - Dominance Test is >50%
5				
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				
10				1
00 (1	75%	= Total Cov	/er	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: <u>30 ft r</u> )				
1				Hydrophytic
2				Vegetation
		= Total Cov	/er	Present? Yes No
Remarks: (Include photo numbers here or on a separate s	sheet.)			

#### SOIL

Profile Desc	cription: (Describe	to the dep	oth needed to docur	nent the	indicator	or confir	m the absence of indicators.)			
Depth	Matrix			x Featur			_			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	_Loc <sup>2</sup>				
0-8	10YR 3/2	100					Silt Loam			
8 - 13	10YR 5/1	90	7.5YR 5/6	10	С	М	Silt Loam			
-	· · · ·		· · · ·							
-										
-										
	oncentration D-Den	letion RM	=Reduced Matrix, MS			aine	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.			
Hydric Soil				J-Waske	u Sanu Gi	an15.	Indicators for Problematic Hydric Soils <sup>3</sup> :			
Histosol			Sandy (	Gleved M	latrix (S4)		Coast Prairie Redox (A16)			
	pipedon (A2)			Redox (S	. ,		Dark Surface (S7)			
· - ·	istic (A3)			d Matrix (	,		Iron-Manganese Masses (F12)			
Hydroge	en Sulfide (A4)		Loamy I	Mucky M	ineral (F1)		Very Shallow Dark Surface (TF12)			
Stratified	d Layers (A5)		Loamy (	Gleyed N	Aatrix (F2)		Other (Explain in Remarks)			
2 cm Mu	uck (A10)		Deplete	d Matrix	(F3)					
	d Below Dark Surface	e (A11)			face (F6)					
	ark Surface (A12)				urface (F7	)	<sup>3</sup> Indicators of hydrophytic vegetation and			
	lucky Mineral (S1)		Redox [	Depressi	ons (F8)		wetland hydrology must be present,			
	ucky Peat or Peat (S3						unless disturbed or problematic.			
1	Layer (if observed):									
Type: G							Hydric Soil Present? Yes No			
Depth (in	ches): <u>13</u>									
Remarks:										
HYDROLO	GY									
Wetland Hy	drology Indicators:									

Primary Indicators (minimum of one is required; check a	all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1) V	Water-Stained Leaves (B9)	Surface Soil Cracks (B6)
High Water Table (A2) A	Aquatic Fauna (B13)	Drainage Patterns (B10)
Saturation (A3) T	Γrue Aquatic Plants (B14)	Dry-Season Water Table (C2)
Water Marks (B1) H	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2) C	Oxidized Rhizospheres on Living Roots (C3	<ol> <li>Saturation Visible on Aerial Imagery (C9)</li> </ol>
Drift Deposits (B3) P	Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) R	Recent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)
Iron Deposits (B5) T	Гhin Muck Surface (С7)	FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7) G	Gauge or Well Data (D9)	
Sparsely Vegetated Concave Surface (B8) C	Other (Explain in Remarks)	
Field Observations:		
Surface Water Present? Yes No I	Depth (inches):	
Water Table Present? Yes No I	Depth (inches):	
Saturation Present? Yes No 🖌	Depth (inches): Wetland	d Hydrology Present? Yes No
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring we	ell, aerial photos, previous inspections), if a	vailable:
Remarks:		

#### WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Havenwoods State Forest Rehabilitation	n Cit	y/County:	Milwauk	ee/Milwaukee Sampling Date: 2021-05-11
Applicant/Owner: Wisconsin Department of Natural Re	esource	s		State: Wisconsin Sampling Point: DP03
Investigator(s): Matt Parsons	Se	ection, Tow	vnship, Ran	nge: Sec. 26, T8N, R21E
Landform (hillslope, terrace, etc.): Floodplain				
Slope (%): 0-1 Lat: 43.12738461				
Soil Map Unit Name: Mequon silt loam, 1 to 3 percent				NWI classification: none
Are climatic / hydrologic conditions on the site typical for this tim	ne of year?			
Are Vegetation, Soil, or Hydrology signit				
Are Vegetation, Soil, or Hydrology natur				
SUMMARY OF FINDINGS – Attach site map sho	owing s	ampling	g point lo	ocations, transects, important features, etc.
Hydrophytic Vegetation Present?       Yes       V       No         Hydric Soil Present?       Yes       V       No         Wetland Hydrology Present?       Yes       V       No         Remarks:       Antecedent precipitation analysis resulted in a we		withi	e Sampled n a Wetlan n value su	d? Yes <u>/</u> No
drier than normal for this time period and region.				
<b>VEGETATION</b> – Use scientific names of plants.				
00 ft	Cover S		Status	Dominance Test worksheet:         Number of Dominant Species         That Are OBL, FACW, or FAC:       2         (A)
2				Total Number of Dominant       Species Across All Strata:   (B)
4				Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft r )				Prevalence Index worksheet:
1. Salix interior 40	0	<u> </u>	FACW	Total % Cover of: Multiply by:
2				OBL species $\frac{0}{25}$ x 1 = $\frac{0}{100}$
3				FACW species 95 x 2 = 190
4				FAC species $\frac{10}{2}$ x 3 = $\frac{30}{22}$
5				FACU species $9$ x 4 = $36$
Herb Stratum (Plot size: 5 ft r)	-0% =	Total Cove	er	UPL species $\frac{0}{114}$ x 5 = $\frac{0}{250}$
	5	~	FACW	Column Totals: <u>114</u> (A) <u>256</u> (B)
2. Symphyotrichum lanceolatum 10	0 -		FAC	Prevalence Index = B/A = 2.25
3. Solidago canadensis 5	; – –		FACU	Hydrophytic Vegetation Indicators:
4. Taraxacum officinale 4	ι –		FACU	✓ 1 - Rapid Test for Hydrophytic Vegetation
5				✓ 2 - Dominance Test is >50%
6				✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
7				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
8				data in Remarks or on a separate sheet)
9				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
10		Total Cove	ər	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1				Hydrophytic
2		Total Cove	er	Vegetation Present? Yes No

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

#### SOIL

Profile Desc	ription: (Describe	to the de	pth needed to docu	ment the	indicator	or confir	m the absence of indicators.)			
Depth	Matrix		Redo	ox Feature						
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	_Loc <sup>2</sup>	Texture Remarks			
0 - 5	10YR 3/2	100					Silt Loam			
5-20	10YR 5/1	90	5YR 4/6	10	С	М	Silty Clay Loam			
-										
<sup>1</sup> Type: C=C	oncentration, D=Dep	letion, RM	I=Reduced Matrix, M	S=Maske	d Sand Gr	ains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.			
Hydric Soil	Indicators:						Indicators for Problematic Hydric Soils <sup>3</sup> :			
Histosol	· /				atrix (S4)		Coast Prairie Redox (A16)			
· — ·	pipedon (A2)			Redox (S5) Dark Surface (S7)						
	stic (A3) en Sulfide (A4)			d Matrix (	S6) ineral (F1)		Iron-Manganese Masses (F12) Very Shallow Dark Surface (TF12)			
	d Layers (A5)				latrix (F2)		Other (Explain in Remarks)			
	ick (A10)			ed Matrix						
	d Below Dark Surfac	e (A11)		Dark Surf						
Thick Da	ark Surface (A12)		Deplete	ed Dark S	urface (F7	)	<sup>3</sup> Indicators of hydrophytic vegetation and			
·	lucky Mineral (S1)		Redox	Depressio	ons (F8)		wetland hydrology must be present,			
	icky Peat or Peat (S						unless disturbed or problematic.			
	Layer (if observed)									
							Hydric Soil Present? Yes No			
Depth (in	ches):									
Remarks:										
HYDROLO	GY									
Wetland Hy	drology Indicators:									
Primary India	cators (minimum of o	one is requ	ired; check all that a	oply)			Secondary Indicators (minimum of two required			
Surface	Water (A1)		🖌 Water-Sta	ined Leav	<b>/es (</b> B9)		Surface Soil Cracks (B6)			
High Wa	ater Table (A2)		Aquatic Fa	auna (B13	3)		Drainage Patterns (B10)			

		Water-Stained Leaves (D9)	
High Water Table (A2)		Aquatic Fauna (B13)	Drainage Patterns (B10)
Saturation (A3)		True Aquatic Plants (B14)	Dry-Season Water Table (C2)
Water Marks (B1)		Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)		Oxidized Rhizospheres on Living R	Roots (C3) Saturation Visible on Aerial Imagery (C9)
<ul> <li>Drift Deposits (B3)</li> </ul>		Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)		Recent Iron Reduction in Tilled So	ils (C6) 🖉 Geomorphic Position (D2)
Iron Deposits (B5)		Thin Muck Surface (C7)	FAC-Neutral Test (D5)
Inundation Visible on Aeri	al Imagery (B7)	Gauge or Well Data (D9)	
Sparsely Vegetated Conc	ave Surface (B8)	Other (Explain in Remarks)	
Field Observations:			
Surface Water Present?	Yes No _	✓ Depth (inches):	
Water Table Present?	Yes 🗾 No _	Depth (inches): <u>18</u>	
Saturation Present? (includes capillary fringe)	Yes 🖌 No _	Depth (inches): <u>18</u>	Wetland Hydrology Present? Yes <u>V</u> No
	am gauge, monitor	ring well, aerial photos, previous inspect	ions), if available:
Remarks:			

#### WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Havenwoods State Forest Rehabilitat	tion	City/Count		kee/Milwaukee	Samp	ing Date: 202	21-05-11
Applicant/Owner: Wisconsin Department of Natura		-		State: Wiscon		-	
						ing Point: DI	
Investigator(s): Matt Parsons							
Landform (hillslope, terrace, etc.): Hillslope							
Slope (%): <u>8-12</u> Lat: <u>43.12736601</u>			/.9/59606	51	Datum	. WGS 84	
Soil Map Unit Name: Mequon silt loam, 1 to 3 perce				NWI clas			
Are climatic / hydrologic conditions on the site typical for this	-	_					
Are Vegetation, Soil, or Hydrology si	gnificantly	disturbed?	P Are	Normal Circumstance	es" present?	Yes 🗸	No
Are Vegetation, Soil, or Hydrology n	aturally pro	blematic?	(lf ne	eded, explain any an	swers in Re	emarks.)	
SUMMARY OF FINDINGS – Attach site map	showing	sampli	ng point l	ocations, transe	cts, impo	ortant featu	ires, etc.
Hydrophytic Vegetation Present? Yes No	·						
Hydric Soil Present? Yes No			he Sampled				
Wetland Hydrology Present? Yes No	>_ <b>/</b>	wit	hin a Wetlar	nd? Yes_	N	lo	
Remarks:							
Antecedent precipitation analysis resulted in a	-	d conditi	on value s	sum of 7 indicatin	g hydrolo	ogic conditio	ons were
drier than normal for this time period and region							
<b>VEGETATION</b> – Use scientific names of plants.							
Tree Stratum (Plot size:30 ft r)	Absolute		nt Indicator	Dominance Test w	/orksheet:		
			? Status	Number of Dominal		0	
1				That Are OBL, FAC	W, of FAC:	0	(A)
2				Total Number of Do		2	(5)
3				Species Across All	Strata:	3	(B)
4 5				Percent of Dominar		0	
				That Are OBL, FAC	W, or FAC:	0	(A/B)
Sapling/Shrub Stratum (Plot size: 15 ft r )		rotar of		Prevalence Index	worksheet:	:	
1				Total % Cover			
2				OBL species 0		x 1 =	
3				FACW species 0			
4						x 3 = <u>0</u>	
5				FACU species 55			
5 ft r		= Total Co	over	· · —			
Herb Stratum (Plot size: 5 ft r ) 1 Sorghastrum nutans	25	~	FACU	Column Totals: 5	<u> </u>	(A) <u>220</u>	(B)
2. Lathyrus latifolius	20			Prevalence In	idex = B/A	= 4.00	
3. Monarda fistulosa	15		FACU	Hydrophytic Vege			
4. Dipsacus fullonum	5		FACU	1 - Rapid Test			n
5. Solidago canadensis	5		FACU	2 - Dominance	• •		
6. Taraxacum officinale	5		FACU	3 - Prevalence	Index is ≤3	.0 <sup>1</sup>	
7				4 - Morphologi	cal Adaptati	ons <sup>1</sup> (Provide :	supporting
8						a separate she	
9				Problematic Hy	drophytic V	egetation <sup>1</sup> (Ex	plain)
10				1			
	75%	= Total Co	over	<sup>1</sup> Indicators of hydrid be present, unless			gy must
Woody Vine Stratum (Plot size: 30 ft r )						-	
1				Hydrophytic Vegetation			
2		- Tatal C		Present?	Yes	No	_

\_ = Total Cover

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

Yes \_\_\_\_\_ No \_\_\_\_

#### SOIL

Profile Desc	cription: (Describe	to the dep	oth needed to docur	nent the	indicator	or confir	m the absence of indicators.)			
Depth	Matrix		x Featur							
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	_Loc <sup>2</sup>	Texture Remarks			
0-6	10YR 3/2	100					Silt Loam			
6 - 12	10YR 4/3	90	5YR 4/6	10	С	М	Loam			
-										
-							2			
Type: C=C Hydric Soil		letion, RM	=Reduced Matrix, M	S=Maske	ed Sand Gr	ains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.			
							Indicators for Problematic Hydric Soils <sup>3</sup> :			
Histosol	· /				latrix (S4)		Coast Prairie Redox (A16)			
· — ·	pipedon (A2)			Redox (S	,		Dark Surface (S7) Iron-Manganese Masses (F12)			
	istic (A3) en Sulfide (A4)		Stripped Matrix (S6) Loamy Mucky Mineral (F1)				Very Shallow Dark Surface (TF12)			
	d Layers (A5)		Loamy Gleyed Matrix (F2)				Other (Explain in Remarks)			
	uck (A10)		Depleted Matrix (F2)							
	d Below Dark Surfac	ρ (Δ11)	Redox Dark Surface (F6)							
	ark Surface (A12)	0 (411)			urface (F7	)	<sup>3</sup> Indicators of hydrophytic vegetation and			
	lucky Mineral (S1)		Redox Depressions (F8)				wetland hydrology must be present,			
· —	ucky Peat or Peat (S	3)	_				unless disturbed or problematic.			
	Layer (if observed):	,								
Type: G	ravel									
I	ches): 12						Hydric Soil Present? Yes No	_		
Remarks:	,									
HYDROLO	GY									
vvetiand Hy	drology Indicators:									

Primary Indicators (minimum of one is required;	check all that apply)	\$	Secondary Indicators (minimum of two required)
Surface Water (A1)	Water-Stained Leaves (B9)	-	Surface Soil Cracks (B6)
High Water Table (A2)	Aquatic Fauna (B13)	-	Drainage Patterns (B10)
Saturation (A3)	True Aquatic Plants (B14)	-	Dry-Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	-	Crayfish Burrows (C8)
Sediment Deposits (B2)	Roots (C3)	Saturation Visible on Aerial Imagery (C9)	
Drift Deposits (B3)	Presence of Reduced Iron (C4)	-	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled So	ils (C6)	Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	-	FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7)	Gauge or Well Data (D9)		
Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remarks)		
Field Observations:			
Surface Water Present? Yes No	Depth (inches):		
Water Table Present? Yes No	Depth (inches):		
Saturation Present? Yes No	Depth (inches):	Wetland Hy	/drology Present? Yes No
(includes capillary fringe)			
Describe Recorded Data (stream gauge, monito	oring well, aerial photos, previous inspec	tions), if avail	able:
Remarks:			

#### WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Havenwoods State Forest Rehabilitation	City/County: Milwa	ukee/Milwaukee	Sampling Date: 2021-05-12					
Applicant/Owner: Wisconsin Department of Natural Re	sources	State: Wisconsir	Sampling Point: DP05					
Investigator(s): Matt Parsons	Section, Township,	Range: Sec. 26, T8N, F	R21E					
Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): None								
Slope (%): 0-1 Lat: 43.13048455	Long: <u>-87.97657</u>	585	Datum: WGS 84					
Soil Map Unit Name: Ashkum silty clay loam, 0 to 2 percent slopes NWI classification: none								
Are climatic / hydrologic conditions on the site typical for this time	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 signifi			present? Yes No					
Are Vegetation, Soil, or Hydrology natura	ally problematic? (If	needed, explain any answ	ers in Remarks.)					
SUMMARY OF FINDINGS – Attach site map sho	wing sampling poin	t locations, transect	s, important features, etc.					
Hydrophytic Vegetation Present? Yes No								
Hydric Soil Present? Yes No	Is the Samp	ed Area						
Wetland Hydrology Present? Yes Ves No	within a Wet	land? Yes	No					
Remarks:								
Antecedent precipitation analysis resulted in a wei	ghted condition value	e sum of 7 indicating	hydrologic conditions were					
drier than normal for this time period and region.	-	-						
			,					

VEGETATION - Use scientific names of plants.

20.4	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:30 ft r)		Species?		Number of Dominant Species
1				That Are OBL, FACW, or FAC: <u>3</u> (A)
2				Total Number of Dominant
3				Species Across All Strata: <u>3</u> (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
		= Total Cov	ver	
Sapling/Shrub Stratum (Plot size: 15 ft r )				Prevalence Index worksheet:
1. Salix interior	25	<u> </u>	FACW	Total % Cover of: Multiply by:
2				OBL species 0 x 1 = 0
3.				FACW species 110 x 2 = 220
4				FAC species 5 x 3 = 15
5.				FACU species 4 x 4 = 16
	25%	= Total Cov		UPL species $0 \times 5 = 0$
Herb Stratum (Plot size: 5 ft r )	2070	- 10(a) CO	ver	Column Totals: 119 (A) 251 (B)
1 Phalaris arundinacea	50	~	FACW	$\frac{100}{100}$ (A) $\frac{201}{100}$ (B)
2. Solidago gigantea	25	~	FACW	Prevalence Index = B/A = 2.11
3. Anemone canadensis	10		FACW	Hydrophytic Vegetation Indicators:
4. Symphyotrichum lanceolatum	5		FAC	✓ 1 - Rapid Test for Hydrophytic Vegetation
5. Taraxacum officinale	4		FACU	✓ 2 - Dominance Test is >50%
6				✓ 3 - Prevalence Index is $\leq 3.0^1$
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				
10	0.1%			<sup>1</sup> Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size: 30 ft r )	94% = Total Cover			be present, unless disturbed or problematic.
1				Hydrophytic Vegetation
2				Present? Yes No
Remarks: (Include photo numbers here or on a separate		= Total Cov	ver	
remarks. (include photo numbers here of on a separate	sneet.)			

#### SOIL

	Color (moist) 10YR 3/2	%							
	10YR 3/2		Color (moist)	%	Type <sup>1</sup>	_Loc <sup>2</sup>	Texture	Remarks	
<u>6 <sup>-</sup> 12</u> 1		100					Silt Loam		
	10YR 4/1	100	7.5YR 5/6	10	<u> </u>	<u>PL / M</u>	Silty Clay Loam		
12 - 20	10YR 5/1	90	5YR 4/6	10	<u> </u>	PL/M	Silty Clay Loam		
-									
-									
-									
Type: C=Con	centration, D=Dep	letion, RM=	Reduced Matrix, M	S=Maske	d Sand Gr	ains.	<sup>2</sup> Location: PL=	=Pore Lining, M=Mati	rix.
Hydric Soil Ind	dicators:						Indicators for P	Problematic Hydric S	Soils <sup>3</sup> :
Histosol (A	(1)				atrix (S4)		Coast Prairie Redox (A16)		
Histic Epip				Redox (S			Dark Surface (S7)		
Black Histi			Stripped Matrix (S6)				Iron-Manganese Masses (F12)		
Hydrogen Sulfide (A4)			Loamy Mucky Mineral (F1)				Very Shallow Dark Surface (TF12)		
Stratified L			Loamy Gleyed Matrix (F2)				Other (Explain in Remarks)		
2 cm Muck	· /			<ul> <li>Depleted Matrix (F3)</li> <li>Redox Dark Surface (F6)</li> </ul>					
	Below Dark Surface	e (A11)					3		
	Surface (A12)		Depleted Dark Surface (F7)				<sup>3</sup> Indicators of hydrophytic vegetation and		
	cky Mineral (S1)		Redox Depressions (F8)			wetland hydrology must be present, unless disturbed or problematic.			
	<pre>xy Peat or Peat (S3 yer (if observed):</pre>						unless distu	irbed or problematic.	
	yer (il observeu).								
·	es):						Hydric Soil Pres	ent? Yes 🖌	No
Remarks:									

Primary Indicators (minimum of one is required;	check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1)	Surface Soil Cracks (B6)	
High Water Table (A2)	Aquatic Fauna (B13)	Drainage Patterns (B10)
Saturation (A3)	True Aquatic Plants (B14)	Dry-Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living	Roots (C3) Saturation Visible on Aerial Imagery (C9)
✓ Drift Deposits (B3)	Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled So	bils (C6) 🖉 Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7)		
Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remarks)	
Field Observations:		
Surface Water Present? Yes No	Depth (inches):	
Water Table Present? Yes 🖌 No	Depth (inches): 16	
	Depth (inches): 16	Wetland Hydrology Present? Yes 🔽 No
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monito	oring well, aerial photos, previous inspec	tions), if available:
Remarks:		

#### WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Havenwoods State Forest Rehabilitation	_ City/County: Milwaukee/Milwaukee Sampling Date: 2021-05-12						
Applicant/Owner: Wisconsin Department of Natural Reso	urces State: Wisconsin Sampling Point: DP06A						
Investigator(s): Matt Parsons	_ Section, Township, Range: Sec. 26, T8N, R21E						
Landform (hillslope, terrace, etc.): Hillslope	Local relief (concave, convex, none): <u>Convex</u>						
Slope (%): 10-14 Lat: 43.13049425	_ Long:87.97666056 Datum: WGS 84						
Soil Map Unit Name: Ashkum silty clay loam, 0 to 2 perce	nt slopes 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 significar							
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							
Hydric Soil Present? Yes No	Is the Sampled Area						
Wetland Hydrology Present? Yes No _	within a Wetland? Yes No						
Remarks:							
Antecedent precipitation analysis resulted in a weigh	ted condition value sum of 7 indicating hydrologic conditions were						
drier than normal for this time period and region.							
VEGETATION – Use scientific names of plants.							
Absolu							
Tree Stratum (Plot size: 30 ft r ) % Cov	er Species? Status Number of Dominant Species						
1	That Are OBL, FACW, or FAC: 1 (A)						
2	Total Number of Dominant						

23				Total Number of Dominant Species Across All Strata: <u>1</u> (B)
4				Demonst of Demoissont Operation
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
		= Total Co	ver	、
Sapling/Shrub Stratum (Plot size: 15 ft r )		-		Prevalence Index worksheet:
1				Total % Cover of:Multiply by:
2				OBL species 0 x 1 = 0
3				FACW species <u>50</u> x 2 = <u>100</u>
4				FAC species <u>8</u> x 3 = <u>24</u>
5				FACU species <u>5</u> x 4 = <u>20</u>
		= Total Co	ver	UPL species 0 x 5 = 0
Herb Stratum (Plot size: 5 ft r )		_		Column Totals: 63 (A) 144 (B)
1. Anemone canadensis	50	_ <u> </u>	FACW	
2. Lathyrus latifolius	10		<u>NI</u>	Prevalence Index = B/A = 2.29
3. Pastinaca sativa	10		NI	Hydrophytic Vegetation Indicators:
4. Poa pratensis	8		FAC	✓ 1 - Rapid Test for Hydrophytic Vegetation
5. Solidago canadensis	5		FACU	✓ 2 - Dominance Test is >50%
6				$\checkmark$ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
7.				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
8				data in Remarks or on a separate sheet)
9				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
10.				
····	83%	= Total Co	ver	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size: 30 ft r )			101	be present, unless disturbed or problematic.
1				Hydrophytic
2				Vegetation
		= Total Co	ver	Present? Yes No No
Remarks: (Include photo numbers here or on a separate s	sheet.)			1

#### SOIL

Profile Des	cription: (Describe to	o the depth	needed to docum	ent the indicator	or confirn	n the absence of ind	licators.)
Depth	Matrix			Features	. 2		
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u> <u>Type</u>	_Loc <sup>2</sup>	Texture	Remarks
0 - 4	10YR 3/2	100				Silt Loam	
<u>4 <sup>-</sup> 8</u>	10YR 4/3	100				Loam	
-							
-							
-							
_							
-						2	
'Type: C=C Hydric Soil	oncentration, D=Deple	etion, RM=Re	educed Matrix, MS	=Masked Sand Gr	ains.		Pore Lining, M=Matrix. oblematic Hydric Soils <sup>3</sup> :
			Sandy C	loved Metrix (CA)			-
— Histoso Histic F	pipedon (A2)			edox (S5)		Dark Surface	Redox (A16)
	listic (A3)			Matrix (S6)			ese Masses (F12)
	en Sulfide (A4)			lucky Mineral (F1)			Dark Surface (TF12)
	d Layers (A5)			Bleyed Matrix (F2)			in in Remarks)
2 cm M	uck (A10)		Depleted	d Matrix (F3)			
· — ·	d Below Dark Surface	(A11)		ark Surface (F6)		2	
	ark Surface (A12)			Dark Surface (F7	)		drophytic vegetation and
	Mucky Mineral (S1) ucky Peat or Peat (S3)	\ \	Redox D	epressions (F8)		•	ology must be present, bed or problematic.
	Layer (if observed):	)					bed of problematic.
Type: _G							
	iches): 8		_			Hydric Soil Prese	ent? Yes No
Remarks:			_				
Remarks.							
HYDROLC	GY						
	drology Indicators:						
Primary Indi	cators (minimum of on	e is required	; check all that ap	ply)		Secondary Ind	icators (minimum of two required)
Surface	Water (A1)		Water-Stair	ned Leaves (B9)			oil Cracks (B6)
	ater Table (A2)		Aquatic Fa	, ,			Patterns (B10)
_ •	ion (A3)			tic Plants (B14)			on Water Table (C2)
	/larks (B1)			Sulfide Odor (C1)			urrows (C8)
Sedime	nt Deposits (B2)			hizospheres on Liv	ing Roots	(C3) Saturation	Visible on Aerial Imagery (C9)
Drift De	posits (B3)		Presence of	of Reduced Iron (C	4)	Stunted or	Stressed Plants (D1)
Algal M	at or Crust (B4)		Recent Iror	n Reduction in Tille	d Soils (C6	δ) Geomorph	ic Position (D2)
Iron De	posits (B5)		Thin Muck	Surface (C7)		FAC-Neut	ral Test (D5)
Inundat	ion Visible on Aerial In	nagery (B7)	Gauge or V	Vell Data (D9)			
				( )			
Sparsel	y Vegetated Concave	Surface (B8)	Other (Exp	lain in Remarks)			

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 (str	eam gauge,	monitori	ng well, aerial photos, previous inspec	tions), if available:	
Remarks:					

Project/Site: Havenwoods State Forest Rehabilitation	City/County: Milwaukee/Milwaukee Sampling Date: 2021-05-12
Applicant/Owner: Wisconsin Department of Natural Resource	rces State: Wisconsin Sampling Point: DP06B
Investigator(s): Matt Parsons	_ Section, Township, Range: Sec. 26, T8N, R21E
Landform (hillslope, terrace, etc.): Hillslope	Local relief (concave, convex, none): Convex
Slope (%): 8-10 Lat: 43.13055279	Long: -87.97637517 Datum: WGS 84
Soil Map Unit Name: Ozaukee silt loam, high carbonate substratu	m, 2 to 6 percent slopes, eroded NWI classification: none
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes No (If no, explain in Remarks.)
	y disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally p	
SUMMARY OF FINDINGS – Attach site map showing	g sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?       Yes No         Hydric Soil Present?       Yes No         Wetland Hydrology Present?       Yes No	Is the Sampled Area within a Wetland? Yes No
Remarks:	
Antecedent precipitation analysis resulted in a weighted drier than normal for this time period and region.	ed condition value sum of 7 indicating hydrologic conditions were
VEGETATION – Use scientific names of plants.	
Tree Stratum         (Plot size:30 ft r)         Absolute % Cover           1	e       Dominant Indicator       Dominance Test worksheet:         r       Species?       Status       Number of Dominant Species           That Are OBL, FACW, or FAC:       1       (A)

1				That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3				Species Across All Strata: <u>2</u> (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: <u>50</u> (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft r )		_ = Total Co	ver	Prevalence Index worksheet:
1				Total % Cover of: Multiply by:
2				OBL species 0 x 1 = 0
3				FACW species 25 x 2 = 50
4				FAC species <u>5</u> x 3 = <u>15</u>
5				FACU species <u>20</u> x 4 = <u>80</u>
		= Total Co	ver	UPL species x 5 =
Herb Stratum (Plot size: 5 ft r )		_		Column Totals: 50 (A) 145 (B)
1. Phalaris arundinacea	25	⁄	FACW	
2. Solidago canadensis	15	⁄	FACU	Prevalence Index = B/A = 2.90
3. Alliaria petiolata	_ <u>5</u>		FAC	Hydrophytic Vegetation Indicators:
4. Rubus allegheniensis	5		FACU	1 - Rapid Test for Hydrophytic Vegetation
5				2 - Dominance Test is >50%
6				✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
7				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
8				data in Remarks or on a separate sheet)
9				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
10.				
<u></u>	= = 0.04	= Total Co	ver	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size: 30 ft r )		10(a) 00	VCI	be present, unless disturbed or problematic.
1				Hydrophytic
2.				Vegetation
	= Total Cover		ver	Present? Yes No
Remarks: (Include photo numbers here or on a separate	sheet.)			
	-			

US Army Corps of Engineers

Depth       Matrix       Redox Features         (inches)       Color (moist)       %       Type       Loc*         0 - 20       10YR 3/2       100       Silt Loam         -       -       -       -       -         -       -       -       -       -         -       -       -       -       -         -       -       -       -       -         -       -       -       -       -         -       -       -       -       -         -       -       -       -       -         -       -       -       -       -         -       -       -       -       -         -       -       -       -       -         -       -       -       -       -         -       -       -       -       -       -         -       -       -       -       -       -       -         -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -	Profile Desc	cription: (Describe	to the depth	needed to document the indicator or c	confirm the absence of indicators.)
0 - 20       10YR 3/2       100	Depth	Matrix		Redox Features	
.	(inches)	Color (moist)	%	Color (moist)%Type <sup>1</sup> _L	_oc <sup>2</sup> Texture Remarks
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Sandy Gleyed Matrix (S4)       Coast Prairie Redox (A16)         Histo Epipedon (A2)       Sandy Redox (S5)       Dark Surface (S7)         Black Histic (A3)       Stripped Matrix (S6)       Iron-Manganese Masses (F12)         Hydrogen Suffide (A4)       Loamy Mucky Mineral (F1)       Very Shallow Dark Surface (TF12)         Stratified Layers (A5)       Loamy Gleyed Matrix (F2)       Other (Explain in Remarks)         2 cm Muck (A10)       Depleted Matrix (F3)       Other (Explain in Remarks)         5 cm Mucky Paet or Peat (S3)       Redox Dark Surface (F7) <sup>a</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Type:	0 - 20	10YR 3/2	100		Silt Loam
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Sandy Gleyed Matrix (S4)       Coast Prairie Redox (A16)         Histo Epipedon (A2)       Sandy Redox (S5)       Dark Surface (S7)         Black Histic (A3)       Stripped Matrix (S6)       Iron-Manganese Masses (F12)         Hydrogen Suffide (A4)       Loamy Mucky Mineral (F1)       Very Shallow Dark Surface (TF12)         Stratified Layers (A5)       Loamy Gleyed Matrix (F2)       Other (Explain in Remarks)         2 cm Muck (A10)       Depleted Matrix (F3)       Other (Explain in Remarks)         5 cm Mucky Paet or Peat (S3)       Redox Dark Surface (F7) <sup>a</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Type:	-				
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Sandy Gleyed Matrix (S4)       Coast Prairie Redox (A16)         Histo Epipedon (A2)       Sandy Redox (S5)       Dark Surface (S7)         Black Histic (A3)       Stripped Matrix (S6)       Iron-Manganese Masses (F12)         Hydrogen Suffide (A4)       Loamy Mucky Mineral (F1)       Very Shallow Dark Surface (TF12)         Stratified Layers (A5)       Loamy Gleyed Matrix (F2)       Other (Explain in Remarks)         2 cm Muck (A10)       Depleted Matrix (F3)       Other (Explain in Remarks)         5 cm Mucky Paet or Peat (S3)       Redox Dark Surface (F7) <sup>a</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Type:					
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Sandy Gleyed Matrix (S4)       Coast Prairie Redox (A16)         Histo Epipedon (A2)       Sandy Redox (S5)       Dark Surface (S7)         Black Histic (A3)       Stripped Matrix (S6)       Iron-Manganese Masses (F12)         Hydrogen Suffide (A4)       Loamy Mucky Mineral (F1)       Very Shallow Dark Surface (TF12)         Stratified Layers (A5)       Loamy Gleyed Matrix (F2)       Other (Explain in Remarks)         2 cm Muck (A10)       Depleted Matrix (F3)       Other (Explain in Remarks)         5 cm Mucky Paet or Peat (S3)       Redox Dark Surface (F7) <sup>a</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Type:					
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Sandy Gleyed Matrix (S4)       Coast Prairie Redox (A16)         Histo Epipedon (A2)       Sandy Redox (S5)       Dark Surface (S7)         Black Histic (A3)       Stripped Matrix (S6)       Iron-Manganese Masses (F12)         Hydrogen Suffide (A4)       Loamy Mucky Mineral (F1)       Very Shallow Dark Surface (TF12)         Stratified Layers (A5)       Loamy Gleyed Matrix (F2)       Other (Explain in Remarks)         2 cm Muck (A10)       Depleted Matrix (F3)       Other (Explain in Remarks)         5 cm Mucky Paet or Peat (S3)       Redox Dark Surface (F7) <sup>a</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Type:					
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Sandy Gleyed Matrix (S4)       Coast Prairie Redox (A16)         Histo Epipedon (A2)       Sandy Redox (S5)       Dark Surface (S7)         Black Histic (A3)       Stripped Matrix (S6)       Iron-Manganese Masses (F12)         Hydrogen Suffide (A4)       Loamy Mucky Mineral (F1)       Very Shallow Dark Surface (TF12)         Stratified Layers (A5)       Loamy Gleyed Matrix (F2)       Other (Explain in Remarks)         2 cm Muck (A10)       Depleted Matrix (F3)       Other (Explain in Remarks)         5 cm Mucky Paet or Peat (S3)       Redox Dark Surface (F7) <sup>a</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Type:	-				
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Sandy Gleyed Matrix (S4)       Coast Prairie Redox (A16)         Histo Epipedon (A2)       Sandy Redox (S5)       Dark Surface (S7)         Black Histic (A3)       Stripped Matrix (S6)       Iron-Manganese Masses (F12)         Hydrogen Suffide (A4)       Loamy Mucky Mineral (F1)       Very Shallow Dark Surface (TF12)         Stratified Layers (A5)       Loamy Gleyed Matrix (F2)       Other (Explain in Remarks)         2 cm Muck (A10)       Depleted Matrix (F3)       Other (Explain in Remarks)         5 cm Mucky Paet or Peat (S3)       Redox Dark Surface (F6)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Type:					
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Sandy Gleyed Matrix (S4)       Coast Prairie Redox (A16)         Histo Epipedon (A2)       Sandy Redox (S5)       Dark Surface (S7)         Black Histic (A3)       Stripped Matrix (S6)       Iron-Manganese Masses (F12)         Hydrogen Suffide (A4)       Loamy Mucky Mineral (F1)       Very Shallow Dark Surface (TF12)         Stratified Layers (A5)       Loamy Gleyed Matrix (F2)       Other (Explain in Remarks)         2 cm Muck (A10)       Depleted Matrix (F3)       Other (Explain in Remarks)         5 cm Mucky Paet or Peat (S3)       Redox Dark Surface (F6)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Type:					
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Sandy Gleyed Matrix (S4)       Coast Prairie Redox (A16)         Histo Epipedon (A2)       Sandy Redox (S5)       Dark Surface (S7)         Black Histic (A3)       Stripped Matrix (S6)       Iron-Manganese Masses (F12)         Hydrogen Suffide (A4)       Loamy Mucky Mineral (F1)       Very Shallow Dark Surface (TF12)         Stratified Layers (A5)       Loamy Gleyed Matrix (F2)       Other (Explain in Remarks)         2 cm Muck (A10)       Depleted Matrix (F3)       Other (Explain in Remarks)         5 cm Mucky Paet or Peat (S3)       Redox Dark Surface (F6)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Type:					
			letion, RM=F	Reduced Matrix, MS=Masked Sand Grains	
	·				-
Black Histic (A3)       Stripped Matrix (S6)       Iron-Manganese Masses (F12)         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1)       Very Shallow Dark Surface (TF12)         Stratified Layers (A5)       Loamy Gleyed Matrix (F2)       Other (Explain in Remarks)         2 cm Muck (A10)       Depleted Matrix (F3)       Other (Explain in Remarks)         3 cm Muck (A10)       Redox Dark Surface (F6)       Thick Dark Surface (A12)       Depleted Dark Surface (F7)         Sandy Mucky Mineral (S1)       Redox Depressions (F8)       unless disturbed or problematic.         Restrictive Layer (if observed):       unless disturbed or problematic.         Type:	I —	. ,			
	· — ·	,			
2 cm Muck (A10)       Depleted Matrix (F3)         Depleted Below Dark Surface (A11)       Redox Dark Surface (F6)         Thick Dark Surface (A12)       Depleted Dark Surface (F7)         Sandy Mucky Mineral (S1)       Redox Depressions (F8)         wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (if observed):         Type:         Depth (inches):         Depth (inches):         Remarks:             Wetland Hydrology Indicators:    Primary Indicators (minimum of one is required: check all that apply)          Surface Water (A1)       Water-Stained Leaves (B9)         High Water Table (A2)       Aquatic Fauna (B13)         High Water Table (A2)       Aquatic Fauna (B13)         Drainage Patterns (B10)       Drainage Patterns (B10)					
		· · ·	e (A11)		
5 cm Mucky Peat or Peat (S3)       unless disturbed or problematic.         Restrictive Layer (if observed):	1		,	Depleted Dark Surface (F7)	<sup>3</sup> Indicators of hydrophytic vegetation and
Restrictive Layer (if observed):       Type:	Sandy N	lucky Mineral (S1)		Redox Depressions (F8)	wetland hydrology must be present,
Type:   Depth (inches):     Remarks:     Hydric Soil Present? Yes   No     Remarks:     HYDROLOGY     Wetland Hydrology Indicators:   Primary Indicators (minimum of one is required: check all that apply)   Surface Water (A1)   Water-Stained Leaves (B9)   Surface Water (A1)   High Water Table (A2)   Aquatic Fauna (B13)   True Aquatic Plants (B14)     Dry-Season Water Table (C2)	5 cm Mu	ucky Peat or Peat (S	3)		unless disturbed or problematic.
Depth (inches):	Restrictive	Layer (if observed):			
Depth (inches):	Type:				
Remarks:	Depth (in	ches):			Hydric Soil Present? Yes No
Wetland Hydrology Indicators:       Secondary Indicators (minimum of one is required: check all that apply)       Secondary Indicators (minimum of two required)					
Wetland Hydrology Indicators:       Secondary Indicators (minimum of one is required: check all that apply)       Secondary Indicators (minimum of two required)					
Wetland Hydrology Indicators:       Secondary Indicators (minimum of one is required: check all that apply)       Secondary Indicators (minimum of two required)					
Wetland Hydrology Indicators:       Secondary Indicators (minimum of one is required: check all that apply)       Secondary Indicators (minimum of two required)					
Wetland Hydrology Indicators:       Secondary Indicators (minimum of one is required: check all that apply)       Secondary Indicators (minimum of two required)					
Primary Indicators (minimum of one is required: check all that apply)       Secondary Indicators (minimum of two required)         Surface Water (A1)       Water-Stained Leaves (B9)       Surface Soil Cracks (B6)         High Water Table (A2)       Aquatic Fauna (B13)       Drainage Patterns (B10)         Saturation (A3)       True Aquatic Plants (B14)       Dry-Season Water Table (C2)		GY			
Primary Indicators (minimum of one is required: check all that apply)       Secondary Indicators (minimum of two required)         Surface Water (A1)       Water-Stained Leaves (B9)       Surface Soil Cracks (B6)         High Water Table (A2)       Aquatic Fauna (B13)       Drainage Patterns (B10)         Saturation (A3)       True Aquatic Plants (B14)       Dry-Season Water Table (C2)	Wetland Hy	drology Indicators:			
Surface Water (A1)       Water-Stained Leaves (B9)       Surface Soil Cracks (B6)         High Water Table (A2)       Aquatic Fauna (B13)       Drainage Patterns (B10)         Saturation (A3)       True Aquatic Plants (B14)       Dry-Season Water Table (C2)		07		d <sup>:</sup> check all that apply)	Secondary Indicators (minimum of two required)
High Water Table (A2)       Aquatic Fauna (B13)       Drainage Patterns (B10)         Saturation (A3)       True Aquatic Plants (B14)       Dry-Season Water Table (C2)					
Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2)		. ,			
	I —	. ,			
		( )		<u> </u>	
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)					

Drift Deposits (B3)		Presence of Reduced Iron (C4)	Stunted or Stressed Pla	nts (D1)
Algal Mat or Crust (B4)		Recent Iron Reduction in Tille	d Soils (C6) Geomorphic Position (D	2)
Iron Deposits (B5)		Thin Muck Surface (C7)	FAC-Neutral Test (D5)	
Inundation Visible on Aeria	al Imagery (B7)	Gauge or Well Data (D9)		
Sparsely Vegetated Conca	ave Surface (B8	8) Other (Explain in Remarks)		
Field Observations:				
Surface Water Present?	Yes No	o Depth (inches):	_	
Water Table Present?		o Depth (inches):		
Water Table Tresent:	163 14	o Deptil (ilicites)	_	
Saturation Present? (includes capillary fringe)		o Depth (inches):	Wetland Hydrology Present? Yes _	No
Saturation Present? (includes capillary fringe)	Yes No			No
Saturation Present? (includes capillary fringe)	Yes No	o _ <b>/</b> Depth (inches):		No
Saturation Present? (includes capillary fringe)	Yes No	o _ <b>/</b> Depth (inches):		No
Saturation Present? (includes capillary fringe) Describe Recorded Data (strea	Yes No	o _ <b>/</b> Depth (inches):		No
Saturation Present? (includes capillary fringe) Describe Recorded Data (strea	Yes No	o _ <b>/</b> Depth (inches):		No

Project/Site: Havenwoods State Forest Rehabilita	ition	City/County:	Milwau	kee/Milwaukee	Sam	pling Date: 20	21-05-12
Applicant/Owner: Wisconsin Department of Natura	al Resour	ces		State: Wisc	onsin Sam	pling Point: DP	07
Investigator(s): Matt Parsons		Section, To	wnship, Ra	<sub>nge:</sub> <u>Sec. 26, T8</u>	3N, R21E		
				(concave, convex,		ncave	
Slope (%): 0-1 Lat: 43.13067663							
Soil Map Unit Name: Mequon silt loam, 1 to 3 perce	ent slopes	S		NWI cl	assification	PSS1C	
Are climatic / hydrologic conditions on the site typical for thi	s time of ye	ar? Yes	No	<ul> <li>(If no, explain</li> </ul>	in in Remar	ks.)	
Are Vegetation, Soil, or Hydrologys							No
Are Vegetation, Soil, or Hydrology r				eded, explain any a			
SUMMARY OF FINDINGS – Attach site map						,	ures, etc.
Hydrophytic Vegetation Present? Yes N							
Hydric Soil Present? Yes N			e Sampled				
Wetland Hydrology Present? Yes <u>Ves</u> N Remarks:	lo	with	in a Wetla	nd? Yes	·	No	
Antecedent precipitation analysis resulted in a drier than normal for this time period and region	on.	d conditio	n value s	um of 7 indicat	ing hydro	logic conditi	ons were
VEGETATION – Use scientific names of plants		Deminent	Indicator	Dominanaa Taa	tworkshop	4.	
Tree Stratum (Plot size:30 ft r)	Absolute <u>% Cover</u>	Dominant Species?		Dominance Test Number of Domin			
1. Ulmus americana	10	<ul> <li>✓</li> </ul>	FACW	That Are OBL, F/			(A)
2				Total Number of	Dominant		
3				Species Across A		4	(B)
4				Percent of Domir	ant Species	5	
5				That Are OBL, FA			(A/B)
Sapling/Shrub Stratum (Plot size: 15 ft r )	10%	= Total Cov	er	Prevalence Inde	x workshe	et:	
1. Rhamnus cathartica	60	~	FAC	Total % Cov	er of:	Multiply by	<i>r</i> :
2. Cornus racemosa	5		FAC	OBL species	0	x 1 = _0	
3				FACW species	10		
4					70		
5				FACU species			
Herb Stratum (Plot size: <u>5 ft r</u> )	65%	= Total Cov	er		0	050	
1. Carex rosea	5	~	FACU	Column Totals:	85	(A) <u>250</u>	(B)
2. Rhamnus cathartica	5	· · · ·	FAC	Prevalence	Index = B/	A = 2.94	
3				Hydrophytic Veg	getation Inc	dicators:	
4				1 - Rapid Te	st for Hydro	phytic Vegetatio	n
5.				🖌 🖌 2 - Dominan	ce Test is >	50%	
6				2 - Prevalence	ce Index is a	≤3.0 <sup>1</sup>	
7						ations <sup>1</sup> (Provide	
8						n a separate she	· /
9					nyaropnytic	Vegetation <sup>1</sup> (E)	(piairi)
10 (Plot size: <u>30 ft r</u> )	10%	= Total Cov	er	<sup>1</sup> Indicators of hyd be present, unles			gy must
1				Hydrophytic			
2				Vegetation Present?	Yes	No	
		= Total Cov	er	Present	165		-
Remarks: (Include photo numbers here or on a separate	sheet.)						

# Best professional judgement used to ID sedges due to lack of distinguishing characteristics.

Profile Desc	cription: (Describe	to the de	pth needed to docur	nent the	indicator	or confir	m the absence of indicators.)		
Depth	Matrix			x Feature					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture Remarks		
0 - 12	10YR 2.5/1	95	5YR 4/6	5	<u> </u>	M	Silt Loam		
12 - 20	10YR 4/1	95	7.5YR 5/6	5	С	М	Silty Clay Loam		
-					_				
							·		
							· ·		
							·		
-									
<sup>1</sup> Type: C=C	oncentration, D=Dep	letion, RM	I=Reduced Matrix, MS	S=Maske	d Sand G	rains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.		
Hydric Soil	Indicators:						Indicators for Problematic Hydric Soi	ls³:	
Histosol	(A1)		Sandy (	Gleyed M	atrix (S4)		Coast Prairie Redox (A16)		
Histic E	pipedon (A2)		Sandy F	Redox (S	5)		Dark Surface (S7)		
	istic (A3)			Matrix (	,		Iron-Manganese Masses (F12)		
	en Sulfide (A4)				ineral (F1)		Very Shallow Dark Surface (TF12)		
	d Layers (A5)			2	latrix (F2)		Other (Explain in Remarks)		
	uck (A10)	( ( ) ( )		d Matrix					
· — ·	d Below Dark Surfac ark Surface (A12)	æ (A11)			ace (F6) urface (F7	7)	<sup>3</sup> Indicators of hydrophytic vegetation an	d	
	Aucky Mineral (S1)			Depressio		)	wetland hydrology must be present,	a	
	ucky Peat or Peat (S	3)		Jepiessi	5115 (1-0)		unless disturbed or problematic.		
	Layer (if observed):								
Type:									
I	ches):						Hydric Soil Present? Yes N	lo	
Remarks:									
HYDROLO	GY								
Wetland Hy	drology Indicators:								
-			uired; check all that ap	ply)			Secondary Indicators (minimum of two	o required)	

Primary Indicators (minimum	<u>t of one is requ</u>	Secondary Indicators (minimum of two required)			
Surface Water (A1)		~	Water-Stained Leaves (B9)		Surface Soil Cracks (B6)
High Water Table (A2)			Aquatic Fauna (B13)		Drainage Patterns (B10)
Saturation (A3)			True Aquatic Plants (B14)		Dry-Season Water Table (C2)
Water Marks (B1)			Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C8)
Sediment Deposits (B2)	1		Oxidized Rhizospheres on Living I	Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)			Presence of Reduced Iron (C4)		Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)			Recent Iron Reduction in Tilled Sc	oils (C6)	<ul> <li>Geomorphic Position (D2)</li> </ul>
Iron Deposits (B5)			Thin Muck Surface (C7)		FAC-Neutral Test (D5)
Inundation Visible on Ae	rial Imagery (E	37)	Gauge or Well Data (D9)		
Sparsely Vegetated Cor	ncave Surface	(B8)	Other (Explain in Remarks)		
Field Observations:					
Surface Water Present?	Yes	No	Depth (inches):		
Water Table Present?	Yes 🖌	No	Depth (inches): 14		
Saturation Present?	Yes 🖌	No	Depth (inches): 0	Wetland I	Hydrology Present? Yes 🖌 No
(includes capillary fringe)					
Describe Recorded Data (st	ream gauge, m	onitoring w	ell, aerial photos, previous inspec	tions), if ava	allable:
Remarks:					

Applicant/Owner:       Wisconsin Department of Natural Resources       State:       Wisconsin       Sampling Point:       DP08         Investigator(s):       Matt Parsons       Section, Township, Range:       Sec. 26, T8N, R21E       DP08         Landform (hillslope, terrace, etc.):       Upland, Flat       Local relief (concave, convex, none):       None
Slope (%): <u>1-2</u> Lat: <u>43.13063458</u> Long: <u>-87.98037549</u> Datum: <u>WGS 84</u>
Soil Map Unit Name: Mequon silt loam, 1 to 3 percent slopes NWI classification: PSS1C
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 <u>V</u> No
Hydric Soil Present?       Yes       No       Is the Sampled Area         Wetland Hydrology Present?       Yes       No       within a Wetland?       Yes       No
Remarks: Antecedent precipitation analysis resulted in a weighted condition value sum of 7 indicating hydrologic conditions wer
drier than normal for this time period and region.
VEGETATION – Use scientific names of plants.
Tree Stratum         Plot size:         30 ft r         Absolute         Dominant         Indicator         Dominance Test worksheet:
Tree Stratum       (Plot size:       30 TT       % Cover       Species?       Status       Number of Dominant Species         1.       Ulmus americana       10       ✓       FACW       That Are OBL, FACW, or FAC:       3       (A)
2
3.           Total Number of Dominant           Species Across All Strata:         3          (B)
4 Percent of Dominant Species
5 That Are OBL, FACW, or FAC: 100 (A/B)
Sapling/Shrub Stratum       (Plot size: 15 ft r )
1. Rhamnus cathartica 60 ✓ FAC <u>Total % Cover of:</u> <u>Multiply by:</u>
2 OBL species 0 x 1 = 0
3 FACW species 10 x 2 = 20
4 FAC species 65 x 3 = 195
5 FACU species 0 x 4 = 0
$\frac{60\%}{100} = \text{Total Cover} \qquad \text{UPL species}  \frac{0}{100} \times 5 = \frac{0}{100}$
Herb Stratum       (Plot size: 5 ft r       )       Column Totals:       75       (A)       215       (B)         1       Rhamnus cathartica       5 <b>v</b> FAC       Column Totals:       75       (A)       215       (B)
1.         1.<
3.
4 1 - Rapid Test for Hydrophytic Vegetation
5.         2 - Dominance Test is >50%
6 3 - Prevalence Index is ≤3.0 <sup>1</sup>
74 - Morphological Adaptations <sup>1</sup> (Provide supporting
8.
10 Indicators of hydric soil and wetland hydrology must
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft r</u> )
1 Hydrophytic
2. Vegetation
= Total Cover
Remarks: (Include photo numbers here or on a separate sheet.)

L

Profile Desc	ription: (Describe	to the dep	oth needed to docun	nent the	indicator	or confir	m the absence of indicators.)		
Depth	Matrix		Redo	x Featur	es				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	_Loc <sup>2</sup>	Texture Remarks		
0 - 13	10YR 2.5/1	100					Silt Loam		
13 - 20	10YR 5/1	80	7.5YR 5/6	20	<u> </u>	М	Silty Clay Loam		
-									
-								_	
-								_	
<u> </u>								_	
								_	
-									
		letion, RM	Reduced Matrix, MS	S=Maske	ed Sand Gr	ains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.		
Hydric Soil							Indicators for Problematic Hydric Soils <sup>3</sup> :		
Histosol	· /				latrix (S4)		Coast Prairie Redox (A16)		
· — ·	pipedon (A2)		Sandy F				Dark Surface (S7)		
	istic (A3)		Stripped		· ·		Iron-Manganese Masses (F12)		
	en Sulfide (A4)		_ /		ineral (F1)		Very Shallow Dark Surface (TF12)		
	d Layers (A5)				Matrix (F2)		Other (Explain in Remarks)		
2 cm Mu	. ,	( ( ) ( )	Depleted						
· — ·	d Below Dark Surfac	e (A11)			face (F6)		3 Indiantana of builden builden contation and		
	ark Surface (A12)				urface (F7)	)	<sup>3</sup> Indicators of hydrophytic vegetation and		
· —	lucky Mineral (S1)		Redox Depressions (F8)				wetland hydrology must be present,		
	ucky Peat or Peat (S: Layer (if observed):						unless disturbed or problematic.		
	,								
							Hydric Soil Present? Yes No	_	
	ches):								
Remarks:									
HYDROLO	GY								
Wetland Hy	drology Indicators:								

Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9)	Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13)	Drainage Patterns (B10)
Saturation (A3) True Aquatic Plants (B14)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizospheres on Living	Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Se	bils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface (C7)	FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9)	
Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)	
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes <u>V</u> No Depth (inches): <u>17</u>	
Saturation Present? Yes <u>V</u> No <u>Depth</u> (inches): <u>17</u>	Wetland Hydrology Present? Yes No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:
Remarks:	

Havenue de Otata Fanad Debekilitet	•		N 411		05 40
Project/Site: Havenwoods State Forest Rehabilitat					
Applicant/Owner: Wisconsin Department of Natural				State: Wisconsin Sampling Point: DP09	
Investigator(s): Matt Parsons		Section, To	wnship, Ra	nge: Sec. 26, T8N, R21E	
Landform (hillslope, terrace, etc.): Depression				(concave, convex, none): Concave	
Slope (%): <u>1-2</u> Lat: <u>43.12274548</u>		•	.9716989	06 Datum: WGS 84	
Soil Map Unit Name: Mequon silt loam, 1 to 3 percent	nt slope:	S		NWI classification: none	
Are climatic / hydrologic conditions on the site typical for this	time of ye	ar? Yes	No	<ul> <li>(If no, explain in Remarks.)</li> </ul>	
Are Vegetation, Soil, or Hydrology si	gnificantly	disturbed?	Are	'Normal Circumstances" present? Yes 🔽 N	o
Are Vegetation, Soil, or Hydrology na	aturally pro	oblematic?	(lf ne	eeded, explain any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map s	howing	samplin	g point l	ocations, transects, important feature	s, etc.
Hydrophytic Vegetation Present?       Yes        V       No         Hydric Soil Present?       Yes        V       No         Wetland Hydrology Present?       Yes        V       No         Remarks:       V       V       No			e Sampled in a Wetla		
Antecedent precipitation analysis resulted in a drier than normal for this time period and region <b>VEGETATION</b> – Use scientific names of plants.	ı.				swere
Tree Stratum (Plot size: 30 ft r )		Dominant Species?		Dominance Test worksheet:	
1. Salix nigra	50	<u>✓</u>	OBL	Number of Dominant Species That Are OBL, FACW, or FAC: 5	(A)
2 3 4				Total Number of Dominant Species Across All Strata: <u>5</u>	
5.				Percent of Dominant Species That Are OBL, FACW, or FAC: 100	(A/B)
45.6	50%	= Total Cov	/er		(/////
Sapling/Shrub Stratum (Plot size: 15 ft r )	40			Prevalence Index worksheet:	
1. Rhamnus cathartica	40 10		FAC FAC	$\begin{array}{ c c c c c }\hline \hline Total \% Cover of: & Multiply by: \\\hline OBL species 55 & x 1 = 55 \\\hline \end{array}$	-
2. Acer negundo				OBL species55 $x 1 = 55$ FACW species0 $x 2 = 0$	-
3				FAC species $61$ x 3 = 183	-
4				FACU species $0 \times 4 = 0$	-
5	50%	= Total Cov		$\begin{array}{c} 1 \text{ Not objected s} \\ 1 \text{ UPL species} \\ \hline 0 \\ x 5 = \\ \hline 0 \\ \end{array}$	-
Herb Stratum (Plot size: 5 ft r )				Column Totals: 116 (A) 238	(B)
1. Acer negundo	5	·	FAC		_ ` /
2. Carex stipata	5	<ul> <li>✓</li> </ul>	OBL	Prevalence Index = B/A = 2.05	
3. Equisetum arvense	3		FAC	Hydrophytic Vegetation Indicators:	
4. Rhamnus cathartica	3		FAC	1 - Rapid Test for Hydrophytic Vegetation	

	1 - Rapid Test for Hydrophytic Vege
V	2 - Dominance Test is >50%

✓ 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)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic			
Vegetation			
Present?	Yes _	~	No

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

16% = Total Cover

Best professional judgement used to ID sedges.

5. \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_

9. \_\_\_\_\_ \_\_\_\_

10. \_\_\_\_\_

2.

1. \_\_\_\_\_

Woody Vine Stratum (Plot size: 30 ft r )

Depth	Matrix			ox Featur					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	_Loc <sup>2</sup>	Texture	Remarks	
0 - 12	10YR 3/2	98	7.5YR 5/6	_ 2	<u> </u>	<u>M</u>	Silt Loam		
12 <sup>-</sup> 20	10YR 4/1	95	7.5YR 5/6	_ 5	<u> </u>	PL/M	Silt Loam	Gravelly with some sand	
-									
-									
-					_				
-									
-							2,		
	oncentration, D=Dep Indicators:	pletion, RM=	Reduced Matrix, N	1S=Maske	ed Sand Gr	ains.		: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils <sup>3</sup> :	
Histosol			Sandy	Cloved M	atrix (S4)			Prairie Redox (A16)	
	pipedon (A2)			Redox (S	. ,			Surface (S7)	
	istic (A3)			ed Matrix (				anganese Masses (F12)	
	en Sulfide (A4)				ineral (F1)			Shallow Dark Surface (TF12)	
Stratified	d Layers (A5)		Loamy	Gleyed N	latrix (F2)			(Explain in Remarks)	
2 cm Mu	uck (A10)		Deplet	ed Matrix	(F3)				
	d Below Dark Surfac	e (A11)		Dark Sur					
	ark Surface (A12)				urface (F7	)	<sup>3</sup> Indicators of hydrophytic vegetation and		
Sandy Mucky Mineral (S1) Redox Depressions (F8)						wetland hydrology must be present,			
	ucky Peat or Peat (S						unless	disturbed or problematic.	
	Layer (if observed)	•							
Type:							Hydric Soil	Present? Yes _ No	
Depth (in	cnes):								
Remarks:									
YDROLO	GY								
Netland Hy	drology Indicators:								
Primary India	cators (minimum of o	one is require	ed; check all that a	pply)			Seconda	ary Indicators (minimum of two requi	
Surface	Water (A1)		Water-St	ained Lea	ves (B9)		Surf	face Soil Cracks (B6)	
High Wa	ater Table (A2)		Aquatic F	auna (B1	3)		Drai	inage Patterns (B10)	
Saturation	on (A3)		True Aqu	atic Plant	s (B14)		Dry-	-Season Water Table (C2)	
_ Water M	larks (B1)		Hydroger	n Sulfide C	Odor (C1)		Cray	yfish Burrows (C8)	
Sedimer	nt Deposits (B2)		<ul> <li>Oxidized</li> </ul>	Rhizosph	eres on Liv	ing Roots	(C3) Satu	uration Visible on Aerial Imagery (C9	
Drift Dep	posits (B3)		Presence	of Reduc	ed Iron (C	4)	Stur	nted or Stressed Plants (D1)	
_ Algal Ma	at or Crust (B4)		Recent Ir	on Reduc	tion in Tille	d Soils (Ce	6) 🖌 Geo	pmorphic Position (D2)	
Iron Dep	oosits (B5)		Thin Muc	k Surface	(C7)		🖌 FAC	C-Neutral Test (D5)	
								. ,	

Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)							
Field Observations:							
Surface Water Present?	Yes No	_ Depth (inches):					
Water Table Present?	Yes 🖍 No	_ Depth (inches): 14					
Saturation Present? (includes capillary fringe)	Yes 🖌 No	_ Depth (inches): 12	Wetland Hydrology Present?	Yes No			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:							
Remarks:							
Surface water present downslope of data point							

Project/Site: Havenwoods State Forest Rehabilitat	ion	Citv/Countv	Milwaul	kee/Milwaukee	e Sa	ampling Date: 2	021-05-12
Applicant/Owner: Wisconsin Department of Natural				State: Wis			
Investigator(s): Matt Parsons							
Landform (hillslope, terrace, etc.): Hillslope							
Slope (%): <u>6-8</u> Lat: <u>43.12290573</u>							
Sold Map Unit Name: Mequon silt loam, 1 to 3 percer							·
· ·				NWI o			
Are climatic / hydrologic conditions on the site typical for this							
Are Vegetation, Soil, or Hydrology sig							No
Are Vegetation, Soil, or Hydrology na	aturally pro	blematic?	(lf ne	eded, explain any	answers i	n Remarks.)	
SUMMARY OF FINDINGS – Attach site map s	howing	samplin	g point l	ocations, tran	sects, i	mportant fea	tures, etc.
Hydrophytic Vegetation Present? Yes No							
Hydric Soil Present? Yes No	· <u>·</u>		e Sampled				
Wetland Hydrology Present? Yes No Remarks:	·	with	in a Wetlar	nd? Ye	s	No	
Antecedent precipitation analysis resulted in a drier than normal for this time period and region <b>VEGETATION</b> – Use scientific names of plants.	ı.						
00 ft	Absolute		Indicator	Dominance Tes	st worksh	eet:	
1				Number of Dom That Are OBL, F			(A)
2				Total Number of	f Dominant		
3				Species Across	All Strata:	3	(B)
4 5				Percent of Domi That Are OBL, F	inant Spec ACW, or F	ies -AC: <u>33.3</u>	(A/B)
Sapling/Shrub Stratum (Plot size: 15 ft r)		= Total Co	ver	Prevalence Ind	ex works	neet:	
1				Total % Cov			by:
2				OBL species	0	x 1 = 0	
3				FACW species			
4				FAC species	15	x 3 = <u>45</u>	
5				FACU species	45	x 4 = <u>180</u>	
		= Total Co	ver	UPL species	0	x 5 =	
Herb Stratum (Plot size: 5 ft r ) Bromus inermis	20	V	FACU	Column Totals:	60	(A) <u>225</u>	(B)
1. Bronius merinis 2. Poa pratensis	15		FAC	Broyalana	a Inday –	B/A = 3.75	
3. Solidago canadensis	15		FACU	Hydrophytic Ve			
A Pastinaca sativa	10		NI		-	Irophytic Vegetat	ion
5. Lathyrus latifolius	5		NI	2 - Dominar			.011
				3 - Prevaler			
6 7				4 - Morphol	ogical Ada	ptations <sup>1</sup> (Provid r on a separate s	e supporting
8				Problematio			-
9					, i yai opity	the vegetation (	
10	75%	= Total Co	ver	,		nd wetland hydro ed or problematio	0,
1				Hydrophytic			
2		- Total Co		Vegetation Present?	Yes _	No•	<u> </u>

= Total Cover

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

Profile Desc	cription: (Describe	to the dep	oth needed to docun	nent the	indicator	or confiri	m the absence of indicators.)			
Depth	Matrix		Redo	x Feature	s					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	_Loc <sup>2</sup>	Remarks			
0 - 11	10YR 3/1	100					Silt Loam			
11 - 17	10YR 4/3	95	7.5YR 5/6	5	<u>C</u>	M	Loam			
-										
-										
-										
<sup>1</sup> Type: C=C	oncentration, D=Dep	letion, RM	Reduced Matrix, MS	S=Maske	d Sand Gr	ains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.			
Hydric Soil	Indicators:						Indicators for Problematic Hydric Soils <sup>3</sup> :			
Histosol	(A1)				atrix (S4)		Coast Prairie Redox (A16)			
Histic E	oipedon (A2)		Sandy F	Redox (St	5)		Dark Surface (S7)			
Black Hi	istic (A3)		Stripped	Matrix (	S6)		Iron-Manganese Masses (F12)			
Hydroge	en Sulfide (A4)		Loamy M	Mucky Mi	neral (F1)		Very Shallow Dark Surface (TF12)			
Stratified	d Layers (A5)		Loamy (	Gleyed M	atrix (F2)		Other (Explain in Remarks)			
2 cm Mu	uck (A10)		Deplete	d Matrix (	F3)					
Deplete	d Below Dark Surface	e (A11)		Dark Surf						
· ·	ark Surface (A12)	. ,	Deplete	d Dark Si	urface (F7	)	<sup>3</sup> Indicators of hydrophytic vegetation and			
	lucky Mineral (S1)			Depressio		,	wetland hydrology must be present,			
· —	ucky Peat or Peat (S	3)					unless disturbed or problematic.			
Restrictive	Layer (if observed):									
Type: G	ravel									
Depth (in	ches): <u>17</u>						Hydric Soil Present? Yes No	—		
Remarks:										
HYDROLO	GY									

Wetland Hydrology Indica	tors:			
Primary Indicators (minimur	n of one is requ	 Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required: check all that apply)			<ul> <li>Surface Soil Cracks (B6)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>FAC-Neutral Test (D5)</li> </ul>	
	•••	·	Other (Explain in Remarks)	
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (st	Yes Yes	No No	_ Depth (inches): _ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Hydrology Present? Yes No
Remarks:				

Project/Site: Havenwoods State Forest Rehabilitation	City/County: Milwaukee/Milwauk	cee Sampling Date: 2021-05-12					
Applicant/Owner: Wisconsin Department of Natural Reso	ources State:	Wisconsin Sampling Point: DP11					
Investigator(s): Matt Parsons	Section, Township, Range: Sec. 26	, T8N, R21E					
Landform (hillslope, terrace, etc.): Fringe	Local relief (concave, conv						
Slope (%): 2-3 Lat: 43.12300974	Long: -87.97181173	Datum: WGS 84					
Soil Map Unit Name: Mequon silt loam, 1 to 3 percent slo	ppes N\	WI classification: none					
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes No 🖌 (If no, e	xplain in Remarks.)					
Are Vegetation, Soil, or Hydrology significa	ntly disturbed? Are "Normal Circum	nstances" present? Yes 🖌 No					
Are Vegetation, Soil, or Hydrology naturally	y problematic? (If needed, explain a	any answers in Remarks.)					
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.							
Hydrophytic Vegetation Present? Yes No							
Hydric Soil Present? Yes Ves No							
Wetland Hydrology Present? Yes <u>Ves</u> No	within a Wetland?	Yes No					

Remarks:

Antecedent precipitation analysis resulted in a weighted condition value sum of 7 indicating hydrologic conditions were drier than normal for this time period and region.

VEGETATION - Use scientific names of plants.

00 ()	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r )	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 4 (A)
2				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
		= Total Cov		
Sapling/Shrub Stratum (Plot size: 15 ft r )		- 10(a) 000		Prevalence Index worksheet:
1 Salix interior	60	~	FACW	Total % Cover of: Multiply by:
			FACW	
2. Ribes americanum	8			OBL species 0 x 1 = 0
3. Lonicera tatarica	5		FACU	FACW species <u>78</u> x 2 = <u>156</u>
4 Rhamnus cathartica	5		FAC	FAC species <u>15</u> x 3 = <u>45</u>
5				FACU species 5 x 4 = 20
5	70%			
Herb Stratum (Plot size: 5 ft r )	78%	= Total Cov	ver	· <u> </u>
1 Symphyotrichum lanceolatum	10	~	FAC	Column Totals: <u>98</u> (A) <u>221</u> (B)
				0.00
2. Ribes americanum	5	<u> </u>	FACW	Prevalence Index = B/A = 2.26
3. Salix interior	5	~	FACW	Hydrophytic Vegetation Indicators:
4.				1 - Rapid Test for Hydrophytic Vegetation
5				✓ 2 - Dominance Test is >50%
6				✓ 3 - Prevalence Index is $\leq 3.0^1$
				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
7				data in Remarks or on a separate sheet)
8				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
9				
10				
	20%	= Total Cov	er	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size: <u>30 ft r</u> )		- 10(a) 001		be present, unless disturbed or problematic.
1				Hydrophytic Vegetation
2				Present? Yes No
		= Total Cov	/er	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Depth	Matrix		Red	ox Featur	es				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0 - 6	10YR 3/1	100					Silt Loam		
6 <sup>-</sup> 17	10YR 4/1	85	5YR 4/6	15	<u> </u>	PL/M	Silty Clay Loam		
<u>17 <sup>-</sup> 20</u> -	10YR 4/1	95	5YR 4/6	5	<u>C</u>	<u>M</u>	Sandy Loam	Gravelly with coarse sand	
-									
-									
Type: C=C	oncentration, D=Dep	letion, RI	/=Reduced Matrix, N	– IS=Maske	d Sand Gr	ains.	<sup>2</sup> Location	: PL=Pore Lining, M=Matrix.	
Hydric Soil								for Problematic Hydric Soils <sup>3</sup> :	
Histosol	(A1)		Sandy	Gleyed N	latrix (S4)		Coast	Prairie Redox (A16)	
	oipedon (A2)		Sandy	Redox (S	5)			Surface (S7)	
	istic (A3)			d Matrix (	,		Iron-Manganese Masses (F12)		
_ , .	en Sulfide (A4)				ineral (F1)		Very Shallow Dark Surface (TF12)		
	d Layers (A5)			-	latrix (F2)		Other (	(Explain in Remarks)	
	uck (A10) d Dataw Dark Swrfaa	- (444)		ed Matrix					
	d Below Dark Surfac ark Surface (A12)	e (ATT)	_	Dark Sur	ace (F6) Jurface (F7	<b>`</b>	<sup>3</sup> Indicators	of bydrophytic vocatation and	
	lucky Mineral (S1)			Depressi		)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,		
	ucky Peat or Peat (S	3)		Depressi	0115 (1-0)			disturbed or problematic.	
	Layer (if observed)								
Type:									
	ches):						Hydric Soil	Present? Yes No	
Remarks:	ciico).								
temarks.									
	GY								
YDROLO									
	drology Indicators:								
Netland Hy			uired; check all that a	pply)			<u>Seconda</u>	ary Indicators (minimum of two required	
Vetland Hy Primary India			uired: check all that a Water-Sta		ves (B9)			ary Indicators (minimum of two required ace Soil Cracks (B6)	
Netland Hy Primary India Surface	cators (minimum of c			ained Lea	. ,		Surf		
Primary India	cators (minimum of c Water (A1) ater Table (A2)		Water-Sta	ained Lea auna (B1	3)		Surf Drai	ace Soil Cracks (B6)	

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9)	Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13)	Drainage Patterns (B10)
Saturation (A3) True Aquatic Plants (B14)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled So	bils (C6) 🖉 Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface (C7)	FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9)	
Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)	
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes <u>V</u> No Depth (inches): <u>16</u>	
Saturation Present? Yes <u>Ves</u> No Depth (inches): <u>14</u> (includes capillary fringe)	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:
Remarks:	
Surface water downslope of data point	

Project/Site: Havenwoods State Forest Rel	nabilitation	City/County	Milwau	kee/Milwaukee Sampling Date: 2021-05-12
Applicant/Owner: Wisconsin Department of	Natural Resour	ces		State: <u>Wisconsin</u> Sampling Point: DP12
Investigator(s): Matt Parsons		Section, To	wnship, Ra	ange: Sec. 26, T8N, R21E
Landform (hillslope, terrace, etc.): Hillslope				(concave, convex, none): Convex
Slope (%): <u>3-6</u> Lat: <u>43.12700457</u>				79 Datum: WGS 84
Soil Map Unit Name: Mequon silt loam, 1 to 3	3 percent slope:	S		NWI classification: _none
Are climatic / hydrologic conditions on the site typic	al for this time of ye	ar? 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				eeded, explain any answers in Remarks.)
			g point l	locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	No			
Hydric Soil Present? Yes	No		e Sampleo	
	No	with	in a Wetla	nd? Yes No
Remarks:				
	-	d conditio	n value s	sum of 7 indicating hydrologic conditions were
drier than normal for this time period an				
VEGETATION – Use scientific names of	plants.			
Tree Stratum (Plot size:30 ft r)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC: 1(A)
2				
3				Total Number of Dominant Species Across All Strata: 2 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft r		= Total Cov	/er	Prevalence Index worksheet:
				Total % Cover of:Multiply by:
1 2				$\begin{array}{c c} \hline \hline \\ $
3		·		FACW species $0$ $x 2 = 0$
4				FAC species 40 x 3 = 120
5.				FACU species 30 x 4 = 120
		= Total Cov	ver	UPL species 0 x 5 = 0
Herb Stratum (Plot size: <u>5 ft r</u> ) Poa pratensis	40	~	FAC	Column Totals: 70 (A) 240 (B)
2. Bromus inermis		·	FACU	Prevalence Index = $B/A = 3.43$
3.				Hydrophytic Vegetation Indicators:
4				1 - Rapid Test for Hydrophytic Vegetation
5				2 - Dominance Test is >50%
6				3 - Prevalence Index is ≤3.0 <sup>1</sup>
7				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
8				data in Remarks or on a separate sheet)
9				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
10				<sup>1</sup> Indiantara of hydria apil and watland hydrology must
Woody Vine Stratum (Plot size: 30 ft r	_) 70%	= Total Cov	/er	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1				Hydrophytic
2				Vegetation Present? Yes No
		= Total Cov	/er	
Remarks: (Include photo numbers here or on a s	eparate sneet.)			

Profile Description: (Describe to the dep	oth needed to document the indicator or confi	rm the absence of indicators.)			
Depth <u>Matrix</u>	Redox Features	_			
(inches) Color (moist) %	<u>Color (moist)</u> <u>%</u> <u>Type<sup>1</sup></u> Loc <sup>2</sup>	Remarks			
<u>0-20</u> 10YR 3/2 100		Silt Loam			
-					
-					
<u> </u>					
-					
<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:		Indicators for Problematic Hydric Soils <sup>3</sup> :			
Histosol (A1)	Sandy Gleyed Matrix (S4)	Coast Prairie Redox (A16)			
Histic Epipedon (A2)	Sandy Redox (S5)	Dark Surface (S7)			
Black Histic (A3)	Stripped Matrix (S6)	Iron-Manganese Masses (F12)			
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1) Very Shallow Dark Surface (TF12)				
Stratified Layers (A5)	Loamy Gleyed Matrix (F2) Other (Explain in Remarks)				
2 cm Muck (A10)	Depleted Matrix (F3)				
Depleted Below Dark Surface (A11)	Redox Dark Surface (F6)				
Thick Dark Surface (A12)	Depleted Dark Surface (F7)	<sup>3</sup> Indicators of hydrophytic vegetation and			
Sandy Mucky Mineral (S1)	Redox Depressions (F8)	wetland hydrology must be present,			
5 cm Mucky Peat or Peat (S3)		unless disturbed or problematic.			
Restrictive Layer (if observed):					
Туре:					
Depth (inches):		Hydric Soil Present? Yes No			
Remarks:					
HYDROLOGY					
Wetland Hydrology Indicators:					

Primary Indicators (minimum of one is required;	check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1)	Surface Soil Cracks (B6)	
High Water Table (A2)	Drainage Patterns (B10)	
Saturation (A3)	True Aquatic Plants (B14)	Dry-Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living	Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Sc	oils (C6) Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7)	Gauge or Well Data (D9)	
Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remarks)	
Field Observations:		
Surface Water Present? Yes No _	Depth (inches):	
Water Table Present? Yes No _	Depth (inches):	
Saturation Present? Yes No	✓ Depth (inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monito	oring well, aerial photos, previous inspec	ctions), if available:
Remarks:		

Project/Site: Havenwoods State Forest Rehabilitation	City/County: Milwau	kee/Milwaukee Sampling Date: 2021-05-12
Applicant/Owner: Wisconsin Department of Natural Resc	ources	State: Wisconsin Sampling Point: DP13
Investigator(s): Matt Parsons	Section, Township, Ra	nge: Sec. 26, T8N, R21E
		(concave, convex, none): Concave
Slope (%): 0-1 Lat: 43.12692947	Long: -87.9712315	58 Datum: WGS 84
Soil Map Unit Name: Mequon silt loam, 1 to 3 percent slo	pes	NWI classification: none
Are climatic / hydrologic conditions on the site typical for this time o	f year? Yes No _	<ul> <li>(If no, explain in Remarks.)</li> </ul>
Are Vegetation, Soil, or Hydrology significat	ntly disturbed? Are	"Normal Circumstances" present? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally	problematic? (If no	eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map show	ing sampling point l	ocations, transects, important features, etc.
Hydrophytic Vegetation Present?       Yes       V       No         Hydric Soil Present?       Yes       V       No         Wetland Hydrology Present?       Yes       V       No         Remarks:       Antecedent precipitation analysis resulted in a weight	Is the Sampled within a Wetla	nd? Yes <u>/</u> No
drier than normal for this time period and region.		
VEGETATION – Use scientific names of plants.		
1.	ver         Species?         Status	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:100(A/B)Total % Cover of:Multiply by: Species(A)OBL species0 $x 1 = 0$ FACW species95 $x 2 = 190$ FAC species0 $x 3 = 0$ FACU species0 $x 5 = 0$ Column Totals:95(A)Prevalence Index = B/A =2.00Hydrophytic Vegetation Indicators: $\checkmark$ $\checkmark$ 1 - Rapid Test for Hydrophytic Vegetation $\checkmark$ 2 - Dominance Test is >50% $\checkmark$ 3 - Prevalence Index is $\leq 3.0^1$ $4$ - Morphological Adaptations <sup>1</sup> (Provide supporting
8 9 10 95%		data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.		Hydrophytic Vegetation Present? Yes <u>V</u> No

Profile Desc	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix		Redo	x Featur	es				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	_Loc <sup>2</sup>	Texture Remarks		
0 - 16	10YR 2/1	100					Silt Loam		
<u>    16 <sup>-</sup> 22  </u>	10YR 5/1	98	7.5YR 5/6	2	<u> </u>	М	Silty Clay Loam		
-									
		letion, RM	=Reduced Matrix, MS	S=Maske	d Sand Gr	ains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.		
Hydric Soil	Indicators:						Indicators for Problematic Hydric Soils <sup>3</sup> :		
Histosol	(A1)		Sandy G	Bleyed M	latrix (S4)		Coast Prairie Redox (A16)		
Histic Ep	oipedon (A2)		Sandy F	Redox (S	5)		Dark Surface (S7)		
Black Hi	istic (A3)		Stripped	Matrix (	S6)		Iron-Manganese Masses (F12)		
Hydroge	en Sulfide (A4)		Loamy N	Aucky M	ineral (F1)		Very Shallow Dark Surface (TF12)		
Stratified	d Layers (A5)		Loamy (	Gleyed N	latrix (F2)		Other (Explain in Remarks)		
2 cm Mu	uck (A10)		Depleted Matrix (F3)						
	d Below Dark Surface	e (A11)			face (F6)				
1	ark Surface (A12)				urface (F7)		<sup>3</sup> Indicators of hydrophytic vegetation and		
	Aucky Mineral (S1)		Redox D		•		wetland hydrology must be present,		
· —	ucky Peat or Peat (S3	8)					unless disturbed or problematic.		
	Layer (if observed):	,							
Туре:									
Depth (in	ches):						Hydric Soil Present? Yes No		
Remarks:									
HYDROLO	GY								

Wetland Hydrology Indicat	tors:				
Primary Indicators (minimum	n of one is required	Secondary Indicators (minimum of two required)			
Surface Water (A1)		Water-Stained Leaves (B9)	Surface Soil Cracks (B6)		
High Water Table (A2)		Drainage Patterns (B10)			
Saturation (A3)		True Aquatic Plants (B14)	Dry-Season Water Table (C2)		
Water Marks (B1)		Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)		
Sediment Deposits (B2)	1	Oxidized Rhizospheres on Living	Roots (C3) Saturation Visible on Aerial Imagery (C9)		
Drift Deposits (B3)		Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)		
Algal Mat or Crust (B4)		Recent Iron Reduction in Tilled S	oils (C6) 🖌 Geomorphic Position (D2)		
Iron Deposits (B5)		Thin Muck Surface (C7)	FAC-Neutral Test (D5)		
Inundation Visible on Ae	erial Imagery (B7)	Gauge or Well Data (D9)			
Sparsely Vegetated Cor	ncave Surface (B8)	) Other (Explain in Remarks)			
Field Observations:					
Surface Water Present?	Yes No	Depth (inches):			
Water Table Present?	Yes No	Depth (inches):			
Saturation Present?	Yes No	Depth (inches):	Wetland Hydrology Present? Yes 🖌 No		
(includes capillary fringe)	room gougo monit	aring well, parial photog, providuo inches	tiona) if available:		
Describe Recorded Data (sti	ream gauge, monit	oring well, aerial photos, previous inspec	ctions), if available.		
Remarks:					

				5	
Project/Site: Havenwoods State Forest Rehabilitat	tion	_ City/County: Milwaukee/Milwaukee Sampling Date: 2021-05-			
Applicant/Owner: Wisconsin Department of Natura	l Resour	ces		State: <u>Wisconsin</u> Sampling Point: DP14	
Investigator(s): Matt Parsons				nge: Sec. 26, T8N, R21E	
Landform (hillslope, terrace, etc.): Upland, Flat			Local relief	(concave, convex, none): Undulating	
				38 Datum: WGS 84	
Soil Map Unit Name: Clayey land				NWI classification: _none	
Are climatic / hydrologic conditions on the site typical for this	s time of v	ear? Yes	No		
Are Vegetation, Soil, or Hydrology si				"Normal Circumstances" present? Yes No	
Are Vegetation, Soil, or Hydrology n				eeded, explain any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map	snowing	g samp	ling point i	ocations, transects, important features, etc.	
Hydrophytic Vegetation Present? Yes No			the Comular	4.6	
Hydric Soil Present? Yes No			the Sampled		
Wetland Hydrology Present? Yes No	• <u> </u>	W	rithin a Wetla	nd? Yes <u>No</u>	
Remarks:					
Antecedent precipitation analysis resulted in a	-	ed condi	tion value s	sum of 7 indicating hydrologic conditions were	
drier than normal for this time period and region	n.				
VEGETATION - Use scientific names of plants.					
	Absolute	Domina	ant Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size: <u>30 ft r</u> )	% Cover	Specie	s? Status	Number of Dominant Species	
1				That Are OBL, FACW, or FAC: <u>1</u> (A)	
2				Total Number of Dominant	
3				Species Across All Strata: (B)	
4				Percent of Dominant Species	
5				That Are OBL, FACW, or FAC: 25 (A/B)	
Sapling/Shrub Stratum (Plot size: 15 ft r )		_ = Total (	Cover	Prevalence Index worksheet:	
1. Rhamnus cathartica	30	~	FAC	Total % Cover of: Multiply by:	
				$\begin{array}{c c} \hline \hline \\ $	
2				FACW species $0 \times 2 = 0$	
3		_		FAC species $41$ x 3 = 123	
4				FACU species 38 x 4 = 152	
5	30%	= Total (		UPL species $0$ $x = 0$	
Herb Stratum (Plot size: 5 ft r )				Column Totals: 79 (A) 275 (B)	
1. Bromus inermis	20	~	FACU		
2. Pastinaca sativa	15	~	NI	Prevalence Index = B/A = 3.48	
3. Lathyrus latifolius	10	~	NI	Hydrophytic Vegetation Indicators:	
4. Taraxacum officinale	8		FACU	1 - Rapid Test for Hydrophytic Vegetation	
5. Eurybia macrophylla	5		FACU	2 - Dominance Test is >50%	
6. Monarda fistulosa	5		FACU	3 - Prevalence Index is ≤3.0 <sup>1</sup>	
7. Symphyotrichum lanceolatum	5		FAC	4 - Morphological Adaptations <sup>1</sup> (Provide supporting	
8. Equisetum arvense	3		FAC	data in Remarks or on a separate sheet)	
Phampus cathartica	2			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	

9. Rhamnus cathartica 3 \_ <u>FAC</u>\_\_\_ 10. \_\_\_\_\_ <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 74% = Total Cover Woody Vine Stratum (Plot size: 30 ft r ) 1. \_\_\_\_\_ Hydrophytic Vegetation Yes \_\_\_\_\_ No \_\_\_\_ Present? = Total Cover

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

2.

Profile Description: (Describe to the depth i	needed to document the indicator or confirm	m the absence of indicators.)			
Depth Matrix	Redox Features				
(inches) Color (moist) %	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	Texture Remarks			
0-8 10YR 3/2 100		Loam			
-					
——  —  —  —					
		·			
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Re	educed Matrix, MS=Masked Sand Grains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators:		Indicators for Problematic Hydric Soils <sup>3</sup> :			
Histosol (A1)	Sandy Gleyed Matrix (S4)	Coast Prairie Redox (A16)			
Histic Epipedon (A2)	Sandy Redox (S5)	Dark Surface (S7)			
Black Histic (A3)	Stripped Matrix (S6)	Iron-Manganese Masses (F12)			
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1)	Very Shallow Dark Surface (TF12)			
Stratified Layers (A5)	Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)			
2 cm Muck (A10)	Depleted Matrix (F3)				
Depleted Below Dark Surface (A11)	Redox Dark Surface (F6)				
Thick Dark Surface (A12)	Depleted Dark Surface (F7)	<sup>3</sup> Indicators of hydrophytic vegetation and			
Sandy Mucky Mineral (S1)	Redox Depressions (F8)	wetland hydrology must be present,			
5 cm Mucky Peat or Peat (S3)		unless disturbed or problematic.			
Restrictive Layer (if observed):					
Type: Gravel	_				
Depth (inches): 8	_	Hydric Soil Present? Yes No			
Remarks:		•			
HYDROLOGY					
Wetland Hydrology Indicators:					
Primary Indicators (minimum of one is required:	; check all that apply)	Secondary Indicators (minimum of two required)			

Primary indicators (minimum of one is required, check an triat apply)	Secondary indicators (minimum or two required)
Surface Water (A1)       Water-Stained Leaves (B9)         High Water Table (A2)       Aquatic Fauna (B13)	Surface Soil Cracks (B6) Drainage Patterns (B10)
Saturation (A3) True Aquatic Plants (B14)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizospheres on Living I	Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Sc	ils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface (C7)	FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9)	
Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)	
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	
Saturation Present? Yes No 🖌 Depth (inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	tions), if available:
Remarks:	

Project/Site: Havenwoods State Forest Rehabilitat	ion o	_ City/County: Milwaukee/Milwaukee Sampling Date: 2021-05-12				
Applicant/Owner: Wisconsin Department of Natural	Resourc	rces State: Wisconsin Sampling Point: DP15				
Investigator(s): Matt Parsons	9	Section, Tov	vnship, Rai	nge: <u>Sec. 26, T8N, R21E</u>		
				(concave, convex, none): Concave		
Slope (%): 0-1 Lat: 43.12187078						
Soil Map Unit Name: Clayey land				NWI classification: _none		
Are climatic / hydrologic conditions on the site typical for this						
Are Vegetation, Soil, or Hydrology sig	gnificantly o	listurbed?	Are "	Normal Circumstances" present? Yes 🗾 No		
Are Vegetation, Soil, or Hydrology na	aturally prot	plematic?		eded, explain any answers in Remarks.)		
SUMMARY OF FINDINGS – Attach site map s			g point le	ocations, transects, important features, etc.		
Hydrophytic Vegetation Present? Yes No			_			
Hydric Soil Present? Yes Ves No			e Sampled	I		
Wetland Hydrology Present? Yes Ves No	)	with	n a Wetlar	nd? Yes <u>V</u> No		
Remarks: Antecedent precipitation analysis resulted in a weight	ted condit	ion value s	sum of 7 ir	adicating hydrologic conditions were drier than		
normal for this time period and region. Wetland area of						
VEGETATION – Use scientific names of plants.						
Tree Stratum (Plot size:30 ft r)	Absolute	Dominant		Dominance Test worksheet:		
<u>1.</u> Salix nigra	<u>% Cover</u> 5	Species?	<u>Status</u> OBL	Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)		
2				That Are OBL, FACW, or FAC: 4 (A)		
3				Total Number of Dominant Species Across All Strata: 4 (B)		
4						
5				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)		
15 ft r	5%	= Total Cov	er			
Sapling/Shrub Stratum (Plot size: 15 ft r )	20	~	FAC	Prevalence Index worksheet:		
···				$\frac{\text{Total \% Cover of:}}{\text{OBL species } \frac{10}{x \ 1 = $		
2				FACW species $42$ x 2 = 84		
3 4				FAC species $35$ x 3 = 105		
5				FACU species $0 \times 4 = 0$		
	20%		er	UPL species 0 x 5 = 0		
Herb Stratum (Plot size: 5 ft r )			-	Column Totals: 87 (A) 199 (B)		
1. Agrostis gigantea	35	<u> </u>	FACW	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		
2. Symphyotrichum lanceolatum 3. Impatiens capensis	15 7	<u> </u>	FAC FACW	Prevalence Index = B/A = 2.29		
A Carex tribuloides	<del>,</del> 5		OBL	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation		
				✓ 2 - Dominance Test is >50%		
5				$\checkmark$ 3 - Prevalence Index is $\leq 3.0^1$		
6 7				4 - Morphological Adaptations <sup>1</sup> (Provide supporting		
8				data in Remarks or on a separate sheet)		
9				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
10						
	62%	= Total Cov	er	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
Woody Vine Stratum (Plot size: 30 ft r )						
1				Hydrophytic		
2				Vegetation Present? Yes No		
Remarks: (Include photo numbers here or on a separate si		= Total Cov	er			
Bets professional judgement used t	o ID se	ages.				

Profile Desc	cription: (Describe	to the dep	th needed to docur	ment the	indicator	or confirm	n the absence	of indicators.)			
Depth	Matrix		Redo	x Feature							
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	_Loc <sup>2</sup>	Texture	Remarks			
0-4	10YR 3/2	100					Mucky Peat				
4 - 12	10YR 3/2	100					Sandy Loam	Gravelly			
12 - 20	10YR 4/2	80	5YR 4/6	20	С	М	Silty Clay Loam				
-											
-											
-											
Type: C=C Hydric Soil	oncentration, D=Dep	letion, RM	=Reduced Matrix, M	S=Maske	d Sand Gr	ains.		: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils <sup>3</sup> :			
· ·			Candu		atrix (CA)			Prairie Redox (A16)			
Histosol	oipedon (A2)			Redox (S	atrix (S4)			Surface (S7)			
· — ·	istic (A3)			d Matrix (				Iron-Manganese Masses (F12)			
	en Sulfide (A4)			,	ineral (F1)		Very Shallow Dark Surface (TF12)				
	d Layers (A5)				latrix (F2)		Other (Explain in Remarks)				
2 cm Mu	uck (A10)		Deplete	d Matrix	(F3)		_				
Deplete	d Below Dark Surface	e (A11)		Dark Surf							
Thick Da	ark Surface (A12)		Deplete	d Dark S	urface (F7	)	<sup>3</sup> Indicators	s of hydrophytic vegetation and			
Sandy N	lucky Mineral (S1)		Redox	Depressio	ons (F8)		wetland hydrology must be present,				
5 cm Mu	ucky Peat or Peat (S3	3)					unless	disturbed or problematic.			
Restrictive	Layer (if observed):										
Туре:							Hydric Soil	Present? Yes No			
Depth (in	ches):						Hydric Soli	Present? fes No			
Remarks:											
HYDROLO	GY										
Wetland Hy	drology Indicators:										
Primary India	cators (minimum of o	ne is requi	red: check all that ap	oply)			Seconda	ary Indicators (minimum of two required)			
Surface	Water (A1)		Water-Sta	ined Lea	ves (B9)		Surl	face Soil Cracks (B6)			
High Wa	ater Table (A2)		Aquatic Fa	auna (B13	3)		👱 Drai	inage Patterns (B10)			
	, ,		 	,	-		Druinager allering (Bre)				

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one is required; che	eck all that apply)	Secondary Indicators (minimum of two required)						
✓       High Water Table (A2)         ✓       Saturation (A3)	<ul> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> <li>True Aquatic Plants (B14)</li> <li>Hydrogen Sulfide Odor (C1)</li> <li>Oxidized Rhizospheres on Living Roots (C</li> <li>Presence of Reduced Iron (C4)</li> </ul>	<ul> <li>Surface Soil Cracks (B6)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> </ul>						
Algal Mat or Crust (B4)	_ Recent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)						
Iron Deposits (B5)	_ Thin Muck Surface (C7)	✓ FAC-Neutral Test (D5)						
Inundation Visible on Aerial Imagery (B7)	_ Gauge or Well Data (D9)							
Sparsely Vegetated Concave Surface (B8)	_ Other (Explain in Remarks)							
Field Observations:								
Surface Water Present? Yes No 🗹	Depth (inches):							
	Depth (inches): 4							
Saturation Present? Yes <u>/</u> No (includes capillary fringe)	Depth (inches): 0 Wetlan	nd Hydrology Present? Yes 🔽 No						
Describe Recorded Data (stream gauge, monitoring	g well, aerial photos, previous inspections), if	available:						
Remarks:								

Project/Site: Havenwoods State Forest Rehabilita	tion	City/County:	Milwau	kee/Milwaukee	Sam	pling Date:	2021-05	i-12
Applicant/Owner: Wisconsin Department of Natura	l Resourc	rces State: <u>Wisconsin</u> Sampling Point: DP16						
Investigator(s): Matt Parsons		Section, Township, Range: Sec. 26, T8N, R21E						
		Local relief (concave, convex, none): Convex						
Slope (%): 2-3 Lat: 43.12234223		Long: -87.96924477 Datum: WGS 84					4	
Soil Map Unit Name: Clayey land				NWI cla	assification:	PFO1C		
Are climatic / hydrologic conditions on the site typical for this	s time of ye	ar?Yes	No	(If no, explain	n in Remark	ks.)		
Are Vegetation, Soil, or Hydrology s	ignificantly	disturbed?	Are	Normal Circumstan	ces" presen	nt?Yes 🖊	No	
Are Vegetation, Soil, or Hydrology r	aturally pro	blematic?	(lf ne	eded, explain any a	inswers in F	Remarks.)		
SUMMARY OF FINDINGS – Attach site map	showing	samplin	g point l	ocations, trans	ects, imp	oortant fea	atures,	etc.
Hydrophytic Vegetation Present? Yes N	0							
Hydric Soil Present? Yes N			e Sampled					
Wetland Hydrology Present? Yes N	o_ <b>/</b>	with	in a Wetla	nd? Yes		No		
Remarks:							•••	
Antecedent precipitation analysis resulted in a	-	d conditio	n value s	sum of 7 indicati	ng hydrol	logic cond	itions w	'ere
drier than normal for this time period and regio								
VEGETATION – Use scientific names of plants.								
Tree Stratum (Plot size: <u>30 ft r</u> )	Absolute % Cover	Dominant Species?		Dominance Test				
1. Acer saccharinum	40	~	FACW	Number of Domina That Are OBL, FA			(A	۰) (۱
2. Acer negundo	25	~	FAC	Total Number of D	Dominant			
3				Species Across A		6	(B	3)
4				Percent of Domina	ant Species			
5				That Are OBL, FA			(A	√В)
Sapling/Shrub Stratum (Plot size: 15 ft r )	<u>65%</u>	= Total Cov	/er	Prevalence Index	x workshee	۰t۰		
1. Rhamnus cathartica	25	~	FAC	Total % Cove			by:	
2. Celtis occidentalis	5		FAC	OBL species		x 1 = 0		
3				FACW species 7				
4				FAC species _8	38	x 3 = <u>264</u>		
5				FACU species 5		x 4 = <u>20</u>		
5 ft r	30%	= Total Cov	/er		)	x 5 = 0		
Herb Stratum (Plot size: 5 ft r ) 1 Impatiens capensis	35	~	FACW	Column Totals: 1	68	(A) <u>434</u>	· (	(B)
2. Alliaria petiolata	15		FAC	Prevalence	Index = B//	A = 2.58		
3. Carex blanda	15	·	FAC	Hydrophytic Veg				
4. Parthenocissus quinquefolia	5		FACU	1 - Rapid Tes	t for Hydror	ohytic Vegeta	ation	
5. Geum canadense	3		FAC	2 - Dominanc	e Test is >5	50%		
6				3 - Prevalence	e Index is ≤	3.0 <sup>1</sup>		
7				4 - Morpholog	gical Adapta	ations <sup>1</sup> (Provi	de suppor	ting
8				data in Re		a separate	-	
9					Tydrophytic	vegetation	(Explain)	
10				<sup>1</sup> Indicators of hydr	ric soil and	wetland hydro	oloav mue	st
Woody Vine Stratum (Plot size: <u>30 ft r</u> )	73%	= Total Cov	/er	be present, unless				^
1)				Liver and the state				$\neg$
2				Hydrophytic Vegetation				
		= Total Cov	/er	Present?	Yes	No		
Remarks: (Include photo numbers here or on a separate s	sheet.)			I				$\neg$

Profile Desc	ription: (Describe	to the de	pth needed to docu	ment the	indicator	or confiri	m the absence of indicators.)	_	
Depth Matrix Redox Features									
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture Remarks		
0-9	10YR 2/1	100					Loam	_	
<u>9 <sup>-</sup> 17</u>	10YR 4/3	100					Silt Loam	_	
	10YR 3/1	90	5YR 4/6	10	С	М	Silt Loam		
-									
-				_				_	
								-	
								-	
<sup>1</sup> Type: C=Co	<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 I							Indicators for Problematic Hydric Soils <sup>3</sup> :		
Histosol	(A1)		Sandy	Gleyed M	atrix (S4)		Coast Prairie Redox (A16)		
Histic Ep	pipedon (A2)			Redox (S			Dark Surface (S7)		
Black Hi	stic (A3)		Stripped Matrix (S6)				Iron-Manganese Masses (F12)		
Hydroge	n Sulfide (A4)		Loamy Mucky Mineral (F1)				Very Shallow Dark Surface (TF12)		
Stratified	Layers (A5)		Loamy Gleyed Matrix (F2)				Other (Explain in Remarks)		
	ick (A10)		Depleted Matrix (F3)				_ ( ]		
I —	Below Dark Surfac	e (A11)		Dark Sur					
I — ·	ark Surface (A12)	• (* * * * * *	Depleted Dark Surface (F7)				<sup>3</sup> Indicators of hydrophytic vegetation and		
	lucky Mineral (S1)		Redox Depressions (F8)				wetland hydrology must be present,		
· · ·	icky Peat or Peat (S	3)					unless disturbed or problematic.		
	_ayer (if observed):								
Type:									
Depth (inc	ches):						Hydric Soil Present? Yes No	-	
Remarks:									
HYDROLO									

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required;	Secondary Indicators (minimum of two required)		
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Imagery (B7)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> </ul>	<ul> <li>Presence of Reduced Iron (C4)</li> <li>Recent Iron Reduction in Tilled Soils (C6)</li> <li>Thin Muck Surface (C7)</li> <li>Gauge or Well Data (D9)</li> </ul>	<ul> <li>Surface Soil Cracks (B6)</li> <li>Drainage Patterns (B10)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>✓ FAC-Neutral Test (D5)</li> </ul>	
Field Observations:         Surface Water Present?       Yes No         Water Table Present?       Yes No         Saturation Present?       Yes No         (includes capillary fringe)       Yes No	Depth (inches):      Depth (inches):	Hydrology Present? Yes No	

Project/Site: Havenwoods State Forest Rehabilita	tion	City/County	. Milwaul	cee/Milwaukee Sampling Date: 2021-05-12		
Applicant/Owner: Wisconsin Department of Natura				State: Wisconsin Sampling Point: DP17		
Investigator(s): Matt Parsons		Section, To	wnship, Ra	nge: <u>Sec. 26, T8N, R21E</u>		
				(concave, convex, none): Concave		
Slope (%): 1-2 Lat: 43.12242847						
Soil Map Unit Name: Clayey land		-		NWI classification: none		
Are climatic / hydrologic conditions on the site typical for this						
Are Vegetation, Soil, or Hydrology s				Normal Circumstances" present? Yes 🔽 No		
Are Vegetation, Soil, or Hydrology r				eded, explain any answers in Remarks.)		
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.						
Hydrophytic Vegetation Present?       Yes       V         Hydric Soil Present?       Yes       V         Wetland Hydrology Present?       Yes       V         Remarks:       Antocodent procipitation analysis resulted in a	o o	with	ne Sampled hin a Wetlar	nd? Yes <u>/ No</u>		
Antecedent precipitation analysis resulted in a drier than normal for this time period and regio	-		on value s			
VEGETATION – Use scientific names of plants.				1		
<u>Tree Stratum</u> (Plot size: <u>30 ft r</u> ) 1	Absolute <u>% Cover</u>	Dominant Species?	Indicator Status	Dominance Test worksheet:           Number of Dominant Species           That Are OBL, FACW, or FAC:         2		
2 3				Total Number of Dominant Species Across All Strata: <u>2</u> (B)		
4 5				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)		
Sapling/Shrub Stratum         (Plot size: 15 ft r )           1.         Rhamnus cathartica           2.	20	= Total Co	FAC	Prevalence Index worksheet:Total % Cover of:Multiply by:OBL species7 $x 1 = 7$ FACW species45 $x 2 = 90$ FAC species31 $x 3 = 93$ FACU species10 $x 4 = 40$		
Herb Stratum (Plot size: 5 ft r)	20%	= Total Co	ver	UPL species $\frac{0}{22}$ x 5 = $\frac{0}{222}$		
Impatiens capensis	45	~	FACW	Column Totals: <u>93</u> (A) <u>230</u> (B)		
2. Glechoma hederacea	10		FACU	Prevalence Index = $B/A = 2.47$		
3. Carex tribuloides	7		OBL	Hydrophytic Vegetation Indicators:		
4. Geum canadense	5		FAC	1 - Rapid Test for Hydrophytic Vegetation		
5. Alliaria petiolata	3		FAC	✓ 2 - Dominance Test is >50%		
6. Rhamnus cathartica	3		FAC	✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>		
7 8 9				<ul> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> <li>Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</li> </ul>		
10	73%	= Total Co	ver	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic		
2		= Total Co	ver	Vegetation Present? Yes <u>V</u> No		

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

Dead ash trees present. Best professional Judgement used to ID sedges.

Profile Desc	ription: (Describe	to the dep	oth needed to docu	ment the	indicator	or confirm	n the absence	of indicators.)		
Depth	Matrix			ox Featur	es					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks		
0-5	10YR 3/1	100					Silt Loam			
<u>5 <sup>-</sup> 18</u>	10YR 4/2	80	5YR 4/6	20	<u> </u>	<u>PL / M</u>	Silty Clay Loam			
	10YR 4/2	75	5YR 4/6	25	С	М	Silty Clay Loam	Gravelly		
-										
-										
-										
		·								
	oncentration, D=Dep	lotion PM					<sup>2</sup> Location	n: PL=Pore Lining, M=Matrix.		
Hydric Soil				IO-Maske	a Sana Gr	ans.		for Problematic Hydric Soils <sup>3</sup> :		
Histosol			Sandy	Gleved M	atrix (S4)			Prairie Redox (A16)		
	pipedon (A2)			Redox (S				Surface (S7)		
· — ·	stic (A3)			d Matrix (				langanese Masses (F12)		
	n Sulfide (A4)				ineral (F1)		Very Shallow Dark Surface (TF12)			
Stratified Layers (A5)					latrix (F2)		Other (Explain in Remarks)			
2 cm Mu	ick (A10)		<ul> <li>Deplete</li> </ul>	ed Matrix	(F3)					
✓ Depleted	d Below Dark Surfac	e (A11)	Redox	Dark Sur	face (F6)					
Thick Dark Surface (A12)			Deplete	ed Dark S	urface (F7)	)	<sup>3</sup> Indicators	s of hydrophytic vegetation and		
Sandy Mucky Mineral (S1)			Redox	Depressi	ons (F8)		wetlan	wetland hydrology must be present,		
5 cm Mu	icky Peat or Peat (S	3)					unless	s disturbed or problematic.		
Restrictive	Layer (if observed):									
Type:							Hydric Soil	Present? Yes No		
Depth (in	ches):						Thyunc oon			
Remarks:										
HYDROLO	GY									
Wetland Hy	drology Indicators:									
Primary India	cators (minimum of o	one is requ	ired; check all that a	pply)			Seconda	ary Indicators (minimum of two required)		
Surface	Water (A1)		Water-Sta	ained Lea	ves (B9)		Sur	face Soil Cracks (B6)		
High Wa	iter Table (A2)		Aquatic F	auna (B1	3)		Dra	inage Patterns (B10)		
🖌 🗹 Saturatio	on (A3)		True Aqu	atic Plants	s (B14)		Dry-	-Season Water Table (C2)		
Water M	arks (B1)		Hydrogen	Sulfide C	Odor (C1)		Cra	yfish Burrows (C8)		
Sedimer	nt Deposits (B2)		<ul> <li>Oxidized</li> </ul>	Rhizosph	eres on Liv	ing Roots	(C3) Sati	uration Visible on Aerial Imagery (C9)		
Drift Dep	oosits (B3)		Presence	Presence of Reduced Iron (C4)				Stunted or Stressed Plants (D1)		
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6)					6) 🖌 Geo	omorphic Position (D2)				

✓ FAC-Neutral Test (D5)

Iron Deposits (B5) \_\_\_\_ Thin Muck Surface (C7) \_\_\_ Gauge or Well Data (D9) \_\_\_\_ Inundation Visible on Aerial Imagery (B7) \_\_\_\_ Sparsely Vegetated Concave Surface (B8) \_\_\_\_ Other (Explain in Remarks) Field Observations: \_ No \_\_\_\_ Depth (inches): \_ Surface Water Present? Yes\_ Yes <u>V</u> No <u>Depth (inches): 14</u> Water Table Present? Yes 🖌 No \_ \_\_ Depth (inches): 12 Wetland Hydrology Present? Yes \_\_\_\_ Saturation Present? \_ No \_ (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

Project/Site: Havenwoods State Forest Rehabilitation	_ City/County: Milwaukee/Milwaukee Sampling Date: 2021-05-12						
Applicant/Owner: Wisconsin Department of Natural Resou	urces State: Wisconsin Sampling Point: DP18A						
Investigator(s): Matt Parsons	_ Section, Township, Range: Sec. 26, T8N, R21E						
Landform (hillslope, terrace, etc.): Hillslope	Local relief (concave, convex, none): Convex						
Slope (%): 2-3 Lat: 43.12455068	_ Long: -87.96796116 Datum: WGS 84						
Soil Map Unit Name: Mequon silt loam, 1 to 3 percent slop	Des NWI classification: none						
Are climatic / hydrologic conditions on the site typical for this time of	Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)						
	tly disturbed? Are "Normal Circumstances" present? Yes 🔽 No						
Are Vegetation, Soil, or Hydrology naturally p							
SUMMARY OF FINDINGS – Attach site map showin	ng sampling point locations, transects, important features, etc.						
Hydrophytic Vegetation Present? Yes No							
Hydric Soil Present? Yes Ves No							
Wetland Hydrology Present? Yes No	within a Wetland? Yes No						
Remarks:							
Antecedent precipitation analysis resulted in a weight	ted condition value sum of 7 indicating hydrologic conditions were						
drier than normal for this time period and region.							
VEGETATION – Use scientific names of plants.							
Absolut	te Dominant Indicator Dominance Test worksheet:						
Tree Stratum (Plot size: <u>30 ft r</u> ) <u>% Cove</u>	Number of Dominant Openes						
1							
2							
3							
4	Percent of Dominant Species						

2 3				Total Number of Dominant Species Across All Strata: <u>5</u> (B)
4 5				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80</u> (A/B)
15 ft r		_ = Total Co	over	Decoder a la decorrecta la str
Sapling/Shrub Stratum (Plot size: 15 ft r )	_			Prevalence Index worksheet:
1. Rhamnus cathartica	5	⁄	FAC	Total % Cover of: Multiply by:
2				OBL species <u>10</u> x 1 = <u>10</u>
3.				FACW species <u>3</u> x 2 = <u>6</u>
4				FAC species 45 x 3 = 135
5.				FACU species 0 x 4 = 0
	5%	= Total Co		UPL species 13 x 5 = 65
Herb Stratum (Plot size: <u>5 ft r</u> )				Column Totals: 71 (A) 216 (B)
1. Poa pratensis	30	~	FAC	
2. Carex stricta	10	~	OBL	Prevalence Index = $B/A = 3.04$
3. Pastinaca sativa	10	~	UPL	Hydrophytic Vegetation Indicators:
4. Symphyotrichum lanceolatum	10	~	FAC	1 - Rapid Test for Hydrophytic Vegetation
5. Lathyrus latifolius	5		<u>NI</u>	✓ 2 - Dominance Test is >50%
6. Daucus carota	3		UPL	3 - Prevalence Index is ≤3.0 <sup>1</sup>
7. Solidago gigantea	3		FACW	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
8				data in Remarks or on a separate sheet)
9				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
10				
Woody Vine Stratum (Plot size: 30 ft r )	71%	_ = Total Co	over	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1				Hydrophytic
2				Vegetation
		_ = Total Co	over	Present? Yes No
Remarks: (Include photo numbers here or on a separate	sheet.)			

Profile Desc	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth Matrix Redox Features										
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	_Loc <sup>2</sup>	Texture Remarks			
0 - 17	10YR 2.5/1	100					Silt Loam	_		
<u>    17 <sup>-</sup> 23  </u>	10YR 5/1	95	7.5YR 5/6	5	<u>C</u>	М	Silt Loam	_		
-										
-								_		
-								_		
-								_		
<sup>1</sup> Type: C=C	oncentration, D=Dep	letion, RM	=Reduced Matrix, MS	S=Maske	d Sand Gr	ains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.			
Hydric Soil	Indicators:						Indicators for Problematic Hydric Soils <sup>3</sup> :			
Histosol	(A1)		Sandy (	Gleyed M	atrix (S4)		Coast Prairie Redox (A16)			
Histic Ep	pipedon (A2)		Sandy F	Redox (S	5)		Dark Surface (S7)			
Black Hi	stic (A3)		Stripped	Matrix (	S6)		Iron-Manganese Masses (F12)			
Hydroge	en Sulfide (A4)		Loamy I	Mucky Mi	ineral (F1)		Very Shallow Dark Surface (TF12)			
	Layers (A5)		/		latrix (F2)		Other (Explain in Remarks)			
	ick (A10)			d Matrix			<u> </u>			
	d Below Dark Surfac	ο (Δ11)		Dark Surf	. ,					
	ark Surface (A12)				urface (F7	``````````````````````````````````````	<sup>3</sup> Indicators of hydrophytic vegetation and			
	· · /					)	, , , , ,			
· · ·	lucky Mineral (S1)		Redox L	Depressio	ons (F8)		wetland hydrology must be present,			
	icky Peat or Peat (S						unless disturbed or problematic.			
1	Layer (if observed):									
1	ches):						Hydric Soil Present? Yes 🖌 No	_		
	(nes).									
Remarks:										
HYDROLO	GY									
	drology Indicators:									
	anology mulcators.									

Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)					
Surface Water (A1) Water-Stained	Leaves (B9) Surface Soil Cracks (B6)					
High Water Table (A2) Aquatic Fauna	a (B13) Drainage Patterns (B10)					
Saturation (A3) True Aquatic I	Plants (B14) Dry-Season Water Table (C2)					
Water Marks (B1) Hydrogen Sul	fide Odor (C1) Crayfish Burrows (C8)					
Sediment Deposits (B2) Oxidized Rhiz	ospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)					
Drift Deposits (B3) Presence of R	Reduced Iron (C4) Stunted or Stressed Plants (D1)					
Algal Mat or Crust (B4) Recent Iron R	eduction in Tilled Soils (C6) Geomorphic Position (D2)					
Iron Deposits (B5) Thin Muck Su	rface (C7) FAC-Neutral Test (D5)					
Inundation Visible on Aerial Imagery (B7) Gauge or Wel	I Data (D9)					
Sparsely Vegetated Concave Surface (B8) Other (Explain	ı in Remarks)					
Field Observations:						
Surface Water Present? Yes No Depth (inches	s):					
Water Table Present? Yes No 🔽 Depth (inche	s):					
Saturation Present? Yes No 🖌 Depth (inche	s): Wetland Hydrology Present? Yes No					
(includes capillary fringe)						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:						
Remarks:						

Project/Site: Havenwoods State Forest Rehabilitat	ion (	City/County:	Milwaul	kee/Milwaukee	Sampling Date: 2021-0	5-12	
Applicant/Owner: Wisconsin Department of Natural				State: Wisconsin			
				nge: Sec. 26, T8N, R21			
		(concave, convex, none):					
Slope (%): 8-10 Lat: 43.12458500							
Soll Map Unit Name: Mequon silt loam, 1 to 3 percer		·					
-				NWI classificat			
Are climatic / hydrologic conditions on the site typical for this							
	re 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 s	howing	sampling	g point l	ocations, transects,	important features,	, etc.	
Hydrophytic Vegetation Present? Yes No	<u> </u>						
Hydric Soil Present? Yes No	<u> </u>		e Sampled				
Wetland Hydrology Present? Yes No	<u> </u>	with	in a Wetlar	nd? Yes	No		
Remarks:							
Antecedent precipitation analysis resulted in a	weighted	l conditio	n value s	um of 7 indicating hyd	drologic conditions	were	
drier than normal for this time period and regior	ı.						
VEGETATION – Use scientific names of plants.							
00.0	Absolute	Dominant	Indicator	Dominance Test works	neet:		
		Species?		Number of Dominant Spe			
1. Acer saccharinum	10	<u> </u>	FACW	That Are OBL, FACW, or	FAC: <u>3</u>	(A)	
2				Total Number of Dominar	nt		
3				Species Across All Strata	<u>^</u>	(B)	
4				Percent of Dominant Spe			
5				That Are OBL, FACW, or		(A/B)	
15 ft r	10%	= Total Cov	er	Durana la dan marka			
Sapling/Shrub Stratum (Plot size: 15 ft r )	40	~	FACU	Prevalence Index works			
1. Lonicera tatarica	10		FAC	<u>Total % Cover of:</u> OBL species 5	$\frac{\text{Multiply by:}}{x \ 1 = 5}$	·	
2. Rhamnus cathartica							
3				FACW species 20	x 3 = 40		
4					$x_{3} = \frac{43}{236}$		
5	<b>F0%</b>				$x = \frac{250}{115}$		
Herb Stratum (Plot size: 5 ft r )	50%	= Total Cov	er	UPL species 23 Column Totals: 122			
1. Pastinaca sativa	20	~	UPL		(A)	(B)	
2 Dipsacus fullonum	10	· ·	FACU	Prevalence Index =	= B/A = <u>3.61</u>	.	
3. Thalictrum dasycarpum	10	~	FACW	Hydrophytic Vegetation	Indicators:		
4 Carex stricta	5		OBL	1 - Rapid Test for Hy	drophytic Vegetation		
5. Lathyrus latifolius	5		NI	2 - Dominance Test i	s >50%		
6. Rhamnus cathartica	5		FAC	3 - Prevalence Index	is ≤3.0 <sup>1</sup>		
7. Solidago canadensis	5		FACU		aptations <sup>1</sup> (Provide suppo	orting	
8. Lactuca serriola	4		FACU	data in Remarks of	or on a separate sheet)		
g Daucus carota	3		UPL	Problematic Hydroph	nytic Vegetation <sup>1</sup> (Explain)	)	
10.							
	67%	= Total Cov	er.		and wetland hydrology mu	Jst	
Woody Vine Stratum (Plot size: 30 ft r )		10101 000		be present, unless disturb	bed of problematic.		

= Total Cover

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

1. \_ 2. \_

~

Yes \_\_\_\_\_ No \_

Hydrophytic Vegetation Present?

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth Matrix	Redox Features	_					
(inches) Color (moist) %	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	Texture Remarks					
0 - 20 10YR 3/2 100		Silt Loam					
-							
-							
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=I	Reduced Matrix, MS=Masked Sand Grains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.					
Hydric Soil Indicators:		Indicators for Problematic Hydric Soils <sup>3</sup> :					
Histosol (A1)	Sandy Gleyed Matrix (S4)	Coast Prairie Redox (A16)					
Histic Epipedon (A2)	Sandy Redox (S5)	Dark Surface (S7)					
Black Histic (A3)	Stripped Matrix (S6)	Iron-Manganese Masses (F12)					
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1)	Very Shallow Dark Surface (TF12)					
Stratified Layers (A5)	Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)					
2 cm Muck (A10)	Depleted Matrix (F3)						
Depleted Below Dark Surface (A11)	Redox Dark Surface (F6)						
Thick Dark Surface (A12)	Depleted Dark Surface (F7)	<sup>3</sup> Indicators of hydrophytic vegetation and					
Sandy Mucky Mineral (S1)	Redox Depressions (F8)	wetland hydrology must be present,					
5 cm Mucky Peat or Peat (S3)		unless disturbed or problematic.					
Restrictive Layer (if observed):							
Туре:							
Depth (inches):		Hydric Soil Present? Yes No					
Remarks:							
HYDROLOGY							
Wetland Hydrology Indicators:							
Wedand Hydrology indicators.							

Primary Indicators (minimum of one is required;	Secondary Indicators (minimum of two required)						
Surface Water (A1)	Surface Soil Cracks (B6)						
High Water Table (A2)	Drainage Patterns (B10)						
Saturation (A3)	True Aquatic Plants (B14)	Dry-Season Water Table (C2)					
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)					
Sediment Deposits (B2)	Oxidized Rhizospheres on Living I	Roots (C3) Saturation Visible on Aerial Imagery (C9)					
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)					
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Sc	oils (C6) Geomorphic Position (D2)					
Iron Deposits (B5)	Thin Muck Surface (C7)	FAC-Neutral Test (D5)					
Inundation Visible on Aerial Imagery (B7)							
Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remarks)						
Field Observations:	_						
Surface Water Present? Yes No _	Depth (inches):						
Water Table Present? Yes No _	✓ Depth (inches):						
Saturation Present? Yes No _	Depth (inches):	Wetland Hydrology Present? Yes No					
(includes capillary fringe)							
Describe Recorded Data (stream gauge, monito	Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:						
Remarks:							

Project/Site: Havenwoods State Forest Rehabilitation			_ City/County: Milwaukee/Milwaukee Sampling Date: 2021-05		
Applicant/Owner: Wisconsin Depart	tural Resour	rces	State: Wisconsin	Sampling Point: DP19	
Investigator(s): Matt Parsons			Section, Township, Ra	<sub>nge:</sub> <u>Sec. 26, T8N, F</u>	21E
Landform (hillslope, terrace, etc.): Rive				(concave, convex, none)	
Slope (%): 1-2 Lat: 43.1245					
Soil Map Unit Name: Mequon silt loam, 1 to 3 percent slopes NWI classification: none					<sub>cation:</sub> 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 H	-lydrology		y disturbed? Are	'Normal Circumstances"	present? Yes 🔽 No
Are Vegetation, Soil, or H	-lydrology	naturally pr	roblematic? (If ne	eded, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS - A	tach site m	ap showing	g sampling point l	ocations, transects	s, important features, etc.
Hydrophytic Vegetation Present?	Yes 🖌	No			
Hydric Soil Present?					
Wetland Hydrology Present?	Yes 🖌	No	within a Wetlan	nd? Yes	No
Remarks:			1		
Antecedent precipitation analysis resulted in a weighted condition value sum of 7 indicating hydrologic conditions were					
drier than normal for this time period and region.					
VEGETATION – Use scientific names of plants.					
Tree Stratum (Plot size: 30 ft r	)	Absolute	Dominant Indicator	Dominance Test wor	ksheet:

Tree Stratum (Plot size: 30 ft r )	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 2 (A)
2.				
3				Total Number of Dominant       Species Across All Strata:   (B)
4				(2)
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
		= Total Cov	/er	(A/B)
Sapling/Shrub Stratum (Plot size: 15 ft r )				Prevalence Index worksheet:
1. Rhamnus cathartica	_ 5	<u> </u>	FAC	Total % Cover of: Multiply by:
2				OBL species <u>40</u> x 1 = <u>40</u>
3				FACW species <u>15</u> x 2 = <u>30</u>
4				FAC species <u>10</u> x 3 = <u>30</u>
5				FACU species x 4 =
		= Total Cov	/er	UPL species 0 x 5 = 0
Herb Stratum (Plot size: 5 ft r )				Column Totals: 65 (A) 100 (B)
1. Carex stricta	40	<u> </u>	OBL	
2. Phalaris arundinacea	8		FACW	Prevalence Index = B/A = <u>1.54</u>
3. Poa pratensis	_ 5		FAC	Hydrophytic Vegetation Indicators:
4. Thalictrum dasycarpum			FACW	1 - Rapid Test for Hydrophytic Vegetation
5. Solidago gigantea	3		FACW	∠ 2 - Dominance Test is >50%
6				✓ 3 - Prevalence Index is $\leq 3.0^1$
7				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
8				data in Remarks or on a separate sheet)
9				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
10				
	000/	= Total Cov	/er	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: <u>30 ft r</u> )				be present, unless disturbed or problematic.
1				Hydrophytic
2				Vegetation
		= Total Cov	/er	Present? Yes No
Remarks: (Include photo numbers here or on a separate	sheet.)			

Profile Desc	cription: (Describe	to the dep	oth needed to docu	ment the	indicator	or confirm	n the absence	of indicators.)
Depth	Matrix		Red	ox Feature	es			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4	10YR 3/1	80	5YR 4/6	20	<u> </u>	PL / M	Silt Loam	
<u>4 <sup>-</sup> 20</u>	10YR 5/1	75	5YR 4/6	25	<u> </u>	<u>PL / M</u>	Silty Clay Loam	
-								
-				_				
-								
17			- De duce d Metric M				21	DI - Dana Liaina M-Matrix
	oncentration, D=Dep	pletion, Rivi	=Reduced Matrix, M	IS=Maske	a Sand Gr	ains.		: PL=Pore Lining, M=Matrix.
Hydric Soil				~				for Problematic Hydric Soils <sup>3</sup> :
Histosol	. ,			Gleyed M				Prairie Redox (A16)
· — ·	pipedon (A2)			Redox (S				Surface (S7)
	istic (A3)			d Matrix (	,			anganese Masses (F12)
	en Sulfide (A4)				ineral (F1)			Shallow Dark Surface (TF12)
	d Layers (A5)			ed Matrix	latrix (F2)		Other	(Explain in Remarks)
	uck (A10) d Below Dark Surfac	o (A11)		Dark Surf				
I — ·	ark Surface (A12)	æ (ATT)			urface (F0)	<b>`</b>	<sup>3</sup> Indicators	of hydrophytic vegetation and
	lucky Mineral (S1)			Depression		)		d hydrology must be present,
· — ·	ucky Peat or Peat (S	3)		Depressio	0115 (FO)			disturbed or problematic.
	Layer (if observed)	,						distarbed of problemate.
Type:	Lujer (il ebeerteu)							
	ches):						Hydric Soil	Present? Yes <u>V</u> No
Remarks:							1	
HYDROLO	GY							
Wetland Hy	drology Indicators:	:						
-	cators (minimum of o		ired: check all that a	(vlaa			Seconda	ary Indicators (minimum of two required)
	Water (A1)		Water-Sta		ves (B9)			face Soil Cracks (B6)
High Wa	ater Table (A2)		Aquatic F		, ,			inage Patterns (B10)
Saturati	. ,		True Aqu	•	,			-Season Water Table (C2)
1—	larks (B1)		Hydrogen		· · /			yfish Burrows (C8)
1—	nt Deposits (B2)		_ , ,		eres on Liv	ing Roote		uration Visible on Aerial Imagery (C9)
I —	posits (B3)			•	eres on En	•	· · <u> </u>	nted or Stressed Plants (D1)
I — ·	· · /					,		
	at or Crust (B4)		Recent In	on Reduct	tion in Tille	u Solis (Ce	i 🕑 Geo	omorphic Position (D2)

- \_\_\_\_ Stunted or Stressed Plants (D1)
  - ✓ Geomorphic Position (D2)

Iron Deposits (B5)		Thin Muck Surface (C7)	FAC-Neutral Test (D5)
Inundation Visible on A	erial Imagery (B7)	Gauge or Well Data (D9)	
Sparsely Vegetated Co	ncave Surface (B8)	) Other (Explain in Remarks)	
Field Observations:			
Surface Water Present?	Yes 🖌 No	Depth (inches): 2	_
Water Table Present?	Yes 🖌 No	Depth (inches): 7	-
Saturation Present?	Yes 🖌 No	Depth (inches): 0	Wetland Hydrology Present? Yes No
(includes capillary fringe)			
Describe Recorded Data (st	ream gauge, monit	toring well, aerial photos, previous inspe	ections), if available:
Remarks:			

Project/Site: Havenwoods State Forest Rehabilita	tion	City/County: Milwaukee/Milwaukee Sampling Date: 2021-05-12					
Applicant/Owner: Wisconsin Department of Natura	l Resour	ces		State: <u>Wisconsin</u> Sampling Point: DP20			
Investigator(s): Matt Parsons		Section, To	wnship, Ra	<sub>nge:</sub> Sec. 26, T8N, R21E			
Landform (hillslope, terrace, etc.): Upland, Flat	(concave, convex, none): None						
		Long: -87	.9726631	2 Datum: WGS 84			
Soil Map Unit Name: Loamy land		·		NWI classification: _none			
Are climatic / hydrologic conditions on the site typical for this	time of ye	ear? Yes	No				
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.)							
					oto		
SUMMARY OF FINDINGS – Attach site map		j sampin	ig point i	ocations, transects, important leatures	, etc.		
Hydrophytic Vegetation Present? Yes <u>Vegetation</u>		ls th	ne Sampled	Area			
Hydric Soil Present?       Yes Ni         Wetland Hydrology Present?       Yes Ni			nin a Wetlar				
Remarks:	<u> </u>						
Antecedent precipitation analysis resulted in a	weighte	d conditio	on value s	um of 7 indicating hydrologic conditions	were		
drier than normal for this time period and region	-	a contanti					
VEGETATION – Use scientific names of plants.							
VEGETATION – Ose scientific flames of plants.	Absolute	Dominon	Indicator	Dominance Test worksheet:			
Tree Stratum (Plot size: 30 ft r )		Species?	Indicator	Number of Dominant Species			
<u> </u>				· •	(A)		
2				Total Number of Dominant			
3					(B)		
4				Percent of Dominant Species			
5					(A/B)		
Sapling/Shrub Stratum (Plot size: 15 ft r )		_ = Total Co	ver	Prevalence Index worksheet:			
1. Rhamnus cathartica	20	~	FAC	Total % Cover of: Multiply by:			
2. Cornus racemosa	10	· · ·	FAC	OBL species         0         x 1 = 0			
3.				FACW species 5 x 2 = 10			
4				FAC species 55 x 3 = 165			
5.				FACU species <u>48</u> x 4 = <u>192</u>			
	30%	= Total Co	ver	UPL species 0 x 5 = 0			
Herb Stratum (Plot size: <u>5 ft r</u> )	40		FACU	Column Totals: 108 (A) 367	(B)		
1. Bromus inermis	25			Prevalence Index = $B/A = 3.40$			
2. Poa pratensis 3. Phalaris arundinacea	<u>25</u> 5	<b>/</b>	FAC FACW	Hydrophytic Vegetation Indicators:			
3. Phalans arundinacea 4. Solidago canadensis	5		FACU	1 - Rapid Test for Hydrophytic Vegetation			
5. Taraxacum officinale	3			$\checkmark$ 2 - Dominance Test is >50%			
	5		FACU	$3 - Prevalence Index is \leq 3.0^{1}$			
6				4 - Morphological Adaptations <sup>1</sup> (Provide suppo	ortina		
8				data in Remarks or on a separate sheet)			
9.				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain	)		
				1			

78% = Total Cover

= Total Cover

2.

10. \_\_\_\_\_

Woody Vine Stratum (Plot size: 30 ft r )
1.

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

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Yes \_\_\_\_\_ No \_\_\_\_

Hydrophytic Vegetation

Present?

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Depth Matrix Redox Features									
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	_Loc <sup>2</sup>	Texture Remarks			
0-6	10YR 3/3	100					Silt Loam			
6 - 10	10YR 4/3	85	7.5YR 5/6	15	<u> </u>	M	Silt Loam	_		
-										
								_		
-										
-								_		
-								_		
<sup>1</sup> Type: C=C	oncentration, D=Dep	letion, RM	=Reduced Matrix, MS	S=Maske	d Sand Gr	ains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.	_		
Hydric Soil	Indicators:						Indicators for Problematic Hydric Soils <sup>3</sup> :			
Histosol	(A1)		Sandy G	Gleyed M	latrix (S4)		Coast Prairie Redox (A16)			
Histic Epipedon (A2)		Sandy F	Redox (S	5)		Dark Surface (S7)				
Black Hi	stic (A3)		Stripped	l Matrix (	S6)		Iron-Manganese Masses (F12)			
Hydroge	en Sulfide (A4)		Loamy M	Mucky M	ineral (F1)		Very Shallow Dark Surface (TF12)			
Stratified	d Layers (A5)		Loamy (	Gleyed N	latrix (F2)		Other (Explain in Remarks)			
2 cm Mu	ıck (A10)		Deplete	d Matrix	(F3)					
Depleted	d Below Dark Surface	e (A11)	Redox D	Dark Sur	face (F6)					
Thick Da	ark Surface (A12)	. ,	Deplete	d Dark S	urface (F7	)	<sup>3</sup> Indicators of hydrophytic vegetation and			
	lucky Mineral (S1)				ons (F8)		wetland hydrology must be present,			
· · ·	icky Peat or Peat (S	3)					unless disturbed or problematic.			
Restrictive	Layer (if observed):									
Type: G	ravel						Hydric Soil Present? Yes No			
Depth (in	ches): <u>10</u>						Hydric Soil Present? Yes No	-		
Remarks:										
HYDROLO	GY									

Wetland Hydrology Indicat	tors:		
Primary Indicators (minimum	n of one is required	l; check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1)		Water-Stained Leaves (B9)	Surface Soil Cracks (B6)
High Water Table (A2)		Aquatic Fauna (B13)	Drainage Patterns (B10)
Saturation (A3)		True Aquatic Plants (B14)	Dry-Season Water Table (C2)
Water Marks (B1)		Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	)	Oxidized Rhizospheres on Living	Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)		Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)		Recent Iron Reduction in Tilled S	Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5)		FAC-Neutral Test (D5)	
Inundation Visible on Ae	erial Imagery (B7)	Gauge or Well Data (D9)	
Sparsely Vegetated Cor	ncave Surface (B8)	) Other (Explain in Remarks)	
Field Observations:		_	
Surface Water Present?	Yes No	Depth (inches):	
Water Table Present?	Yes No	Depth (inches):	
Saturation Present?	Yes No	Depth (inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe)			-Alexandria Marca Nach I.a.
Describe Recorded Data (sti	ream gauge, monito	toring well, aerial photos, previous inspec	ctions), if available:
Remarks:			

Project/Site: Havenwoods State Forest Rehabilitat	tion	City/County:	Milwau	kee/Milwaukee	Sam	pling Date: 202	1-05-12	
Applicant/Owner: Wisconsin Department of Natura				State: Wisco				
Investigator(s): Matt Parsons		Section, Township, Range: Sec. 26, T8N, R21E						
				(concave, convex, r		icave		
Slope (%): 0-1 Lat: 43.12249402		Long: <u>-87.</u>	9727209	90	Datu	m: WGS 84		
Soil Map Unit Name: Loamy land				NWI cla	assification:	none		
Are climatic / hydrologic conditions on the site typical for this								
Are Vegetation, Soil, or Hydrologys	gnificantly	disturbed?	Are	Normal Circumstan	ices" presen	t?Yes 🖌	No	
Are Vegetation, Soil, or Hydrology n	aturally pro	blematic?	(lf ne	eeded, explain any a	answers in F	Remarks.)		
SUMMARY OF FINDINGS – Attach site map	showing	sampling	g point l	ocations, trans	ects, imp	ortant featu	res, etc.	
Hydrophytic Vegetation Present?       Yes       ✓       No         Hydric Soil Present?       Yes       ✓       No         Wetland Hydrology Present?       Yes       ✓       No         Remarks:       Antecedent precipitation analysis resulted in a	o o	withi	e Sampled in a Wetlan n value s	nd? Yes		No logic conditio	ns were	
drier than normal for this time period and region	า.							
VEGETATION – Use scientific names of plants.								
Tree Stratum (Plot size: <u>30 ft r</u> ) 1. Quercus macrocarpa	40	Dominant Species?		Dominance Test Number of Domin That Are OBL, FA	nant Species		_ (A)	
2				Total Number of D		4		
4				Species Across A	Il Strata:	4	- (B)	
5				Percent of Domina That Are OBL, FA			(A/B)	
15 ft r	40%	= Total Cov	er				_ (/	
Sapling/Shrub Stratum (Plot size: 15 ft r ) 1. Rhamnus cathartica	60	~	FAC	Prevalence Index		Multiply by:		
2						$x_1 = 0$		
3.				FACW species 1				
4				· · –		x 3 = <u>309</u>		
5				FACU species	5	x 4 = <u>20</u>		
Herb Stratum (Plot size: _5 ft r)	60%	= Total Cov	er			x = 0		
1 Phalaris arundinacea	10	~	FACW	Column Totals: 1	118	(A) <u>349</u>	(B)	
2. Lonicera tatarica	5	~	FACU	Prevalence	Index = B/A	4 = 2.96		
3. Rhamnus cathartica	3		FAC	Hydrophytic Veg				
4				1 - Rapid Tes				
5				2 - Dominance				
6				4 - Morpholog				
7						a separate shee		
8				Problematic H	Hydrophytic	Vegetation <sup>1</sup> (Exp	lain)	
10				1				
Woody Vine Stratum (Plot size: 30 ft r )	18%	= Total Cov	er	<sup>1</sup> Indicators of hydrophysical be present, unless			y must	
1				Hydrophytic Vegetation				
£		= Total Cov	er	Present?	Yes 🧹	No	.	
Remarks: (Include photo numbers here or on a separate s				1				

Profile Desc	cription: (Describe	to the dep	oth needed to docur	nent the	indicator	or confirm	n the absence of indicators.)	
Depth	Matrix		Redo	x Feature				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture Remarks	
0 - 10	10YR 2/1	100					Silt Loam	
_10 - 20	10YR 4/1	60	7.5YR 5/6	40	С	PL/M	Silty Clay Loam	
-								
-								
-								
<sup>1</sup> Type <sup>-</sup> C=Ce	oncentration D=Der	letion RM	I=Reduced Matrix, MS	S=Maske	d Sand Gr	ains	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.	
Hydric Soil				o maone		uno.	Indicators for Problematic Hydric Soils <sup>3</sup> :	
Histosol	(A1)		Sandy (	Gleyed M	atrix (S4)		Coast Prairie Redox (A16)	
Histic Ep	oipedon (A2)		Sandy F	Redox (S	5)		Dark Surface (S7)	
Black Hi	istic (A3)		Stripped	d Matrix (	S6)		Iron-Manganese Masses (F12)	
Hydroge	Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1)					Very Shallow Dark Surface (TF12)		
Stratified	d Layers (A5)		Loamy	Gleyed N	latrix (F2)		Other (Explain in Remarks)	
2 cm Mu	uck (A10)		<ul> <li>Deplete</li> </ul>	d Matrix	(F3)			
Depleted	d Below Dark Surfac	e (A11)	Redox [	Dark Surf	ace (F6)			
· — ·	ark Surface (A12)	( )			urface (F7	)	<sup>3</sup> Indicators of hydrophytic vegetation and	
	lucky Mineral (S1)			Depressio		/	wetland hydrology must be present,	
	ucky Peat or Peat (S	3)		- oprocon			unless disturbed or problematic.	
	Layer (if observed)							
Type:								
Depth (in	ches):						Hydric Soil Present? Yes No	
Remarks:							•	
HYDROLO	GY							
Wetland Hy	drology Indicators:							

Primary Indicators (minimum of one is required;	check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1)	Water-Stained Leaves (B9)	Surface Soil Cracks (B6)
High Water Table (A2)	Aquatic Fauna (B13)	Drainage Patterns (B10)
<ul> <li>Saturation (A3)</li> </ul>	True Aquatic Plants (B14)	Dry-Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	<ul> <li>Oxidized Rhizospheres on Living I</li> </ul>	Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Sc	ils (C6) 🖉 Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7)	Gauge or Well Data (D9)	
Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remarks)	
Field Observations:		
Surface Water Present? Yes No	Depth (inches):	
Water Table Present? Yes <u>Ves</u> No	Depth (inches): 14	
Saturation Present? Yes 🖌 No	Depth (inches): 9	Wetland Hydrology Present? Yes No
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monito	oring well, aerial photos, previous inspec	ions), if available:
Remarks:		

Project/Site: Havenwoods State Forest Rehabilitati	on (	City/County:	Milwaul	kee/Milwaukee	Sar	mpling Date: _2	021-05-21
Applicant/Owner: Wisconsin Department of Natural	Resourc	ces		State: Wis	consin Sar	npling Point:	P22A
Investigator(s): Matt Parsons		Section, Township, Range: Sec. 26, T8N, R21E					
				(concave, convex,			
Slope (%): <u>5-8</u> Lat: <u>43.12091144</u>		Long: <u>-87.</u>	970443	39	Dat	um: WGS 84	
Soil Map Unit Name: Clayey land				NWI (	classification	n: none	
Are climatic / hydrologic conditions on the site typical for this	time of yea	ar? Yes	No	(If no, explained as a construction of the second secon	ain in Rema	rks.)	
Are Vegetation, Soil, or Hydrology sig	nificantly	disturbed?	Are	Normal Circumsta	ances" prese	ent?Yes 🖌	No
Are Vegetation, Soil, or Hydrology na	turally pro	blematic?	(lf ne	eded, explain any	answers in	Remarks.)	
SUMMARY OF FINDINGS – Attach site map s	howing	sampling	g point l	ocations, tran	sects, in	portant fea	tures, etc.
Hydrophytic Vegetation Present? Yes No							
Hydric Soil Present? Yes No	<u> </u>		e Sampled				
Wetland Hydrology Present? Yes No	<u> </u>	with	in a Wetlar	nd? Ye	s	No	
Remarks:				( <b>-</b> · · · ·			
Antecedent precipitation analysis resulted in a v	-	d conditio	n value s	sum of / indica	ting hydr	ologic condi	tions were
drier than normal for this time period and region	•						
<b>VEGETATION</b> – Use scientific names of plants.	<b>A b a a b d a</b>	Device	1	<b>D</b>		- 4	
	Absolute <u>% Cover</u>	Dominant Species?		Dominance Tes Number of Dom			
1. Acer negundo	50	<u> </u>	FAC	That Are OBL, F			(A)
2				Total Number of	f Dominant		
3				Species Across	All Strata:	3	(B)
4				Percent of Domi			
5	 50%	= Total Cov		That Are OBL, F	FACW, or FA	AC: <u>66.7</u>	(A/B)
Sapling/Shrub Stratum (Plot size: 15 ft r )		- 10tal C0v	ei	Prevalence Ind	ex workshe	eet:	
1. Rhamnus cathartica	65	<u> </u>	FAC	Total % Cov			by:
2				OBL species		$x = \frac{0}{0}$	
3				FACW species		$x^{2} = \frac{0}{486}$	
4				FAC species FACU species	~~	$x_{4} = \frac{480}{240}$	
o	65%		er	UPL species		x = 0	
Herb Stratum (Plot size: 5 ft r )				Column Totals:		(A) 726	(B)
1. Glechoma hederacea	55	<u> </u>	FACU				
2. Alliaria petiolata 3. Carex blanda	15 10		FAC FAC	Prevalence Hydrophytic Ve	e Index = B		
4. Geum canadense	10		FAC	1 - Rapid Te	0		tion
5. Rhamnus cathartica	7		FAC	2 - Dominar			
6. Taraxacum officinale	5		FACU	3 - Prevaler			
7. Viola sororia	5		FAC	4 - Morphol			
8				1		on a separate s	
9				Problematio	; Hydrophyti	ic vegetation (	Explain)
10	1070/			<sup>1</sup> Indicators of hy	dric soil and	d wetland hvdro	ology must
Woody Vine Stratum (Plot size: 30 ft r )	107%	= Total Cov	er	be present, unle			
1				Hydrophytic			
2.				Vegetation	V	<b>/</b> N-	
		= Total Cov	er	Present?	Yes	No	
Remarks: (Include photo numbers here or on a separate sh	leet.)						

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix		Redo	x Features				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	_Loc <sup>2</sup>	Texture	Remarks
0-7	10YR 3/2	100					Silt Loam	
7 - 11	10YR 4/1	100					Silt Loam	
11 - 15	10YR 2/2	100					Silt Loam	
-								
<sup>1</sup> Type: C=C	oncentration, D=Dep	etion, RM=	Reduced Matrix, MS	6=Masked	Sand Gra	ains.	<sup>2</sup> Location: PL=Pe	ore Lining, M=Matrix.
Hydric Soil	Indicators:						Indicators for Pro	blematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Sandy C	Sleyed Ma	trix (S4)		Coast Prairie F	Redox (A16)
Histic E	pipedon (A2)			Redox (S5)			Dark Surface (	
	istic (A3)			Matrix (S				se Masses (F12)
Hydroge	en Sulfide (A4)		Loamy I	Mucky Min	eral (F1)		Very Shallow [	Dark Surface (TF12)
	d Layers (A5)		/	Gleyed Ma			Other (Explain	in Remarks)
	uck (A10)			d Matrix (F	,			
· ·	d Below Dark Surfac	e (A11)		Dark Surfa	` '		31	
	ark Surface (A12)			d Dark Su	· · ·			ophytic vegetation and
· —	Mucky Mineral (S1)	0)	Redox L	Depressior	ıs (F8)		-	ogy must be present,
	ucky Peat or Peat (S Layer (if observed)							ed or problematic.
1	ree roots	•						
1 7 -	ches): 15						Hydric Soil Presen	t? Yes No
Remarks:								
HYDROLO	GY							
Wetland Hy	drology Indicators:							
Primary Indi	cators (minimum of c	one is require	ed; check all that ap	ply)			Secondary Indic	ators (minimum of two required)
Surface	Water (A1)		Water-Sta	ned Leave	es (B9)		Surface Soil	Cracks (B6)
High Wa	ater Table (A2)		Aquatic Fa	una (B13)	)		Drainage Pa	atterns (B10)
Saturati	on (A3)		True Aqua	tic Plants	(B14)		Dry-Season	Water Table (C2)
Water M	larks (B1)		Hydrogen	Sulfide Od	lor (C1)		Crayfish Bu	rrows (C8)
Sedime	nt Deposits (B2)		Oxidized F	Rhizospher	res on Livi	ing Roots	(C3) Saturation V	/isible on Aerial Imagery (C9)

 outaration	100010	onviona	magoi
Chunted or	Chrones	d Dianta	(D1)

 Stunte	d or	Stressed	Plants	(D1)	
				· /	

Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Sc	bils (C6) Geomorphic Position (D2)					
Iron Deposits (B5)	Thin Muck Surface (C7)	FAC-Neutral Test (D5)					
Inundation Visible on Aerial Imagery (B7)	Gauge or Well Data (D9)						
Sparsely Vegetated Concave Surface (B8	) Other (Explain in Remarks)						
Field Observations:							
Surface Water Present? Yes No	Depth (inches):						
Water Table Present? Yes No	Depth (inches):						
Saturation Present? Yes No (includes capillary fringe)	Depth (inches):	Wetland Hydrology Present? Yes No					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:							
Remarks:							

\_\_\_\_ Presence of Reduced Iron (C4)

\_\_\_ Drift Deposits (B3)

Project/Site: Havenwoods State Forest Rehabilitat	ion	City/Causty	Milwauk		21
					21
Applicant/Owner: Wisconsin Department of Natura				State: Wisconsin Sampling Point: DP22B	
				<sub>nge:</sub> <u>Sec. 26, T8N, R21E</u>	
Landform (hillslope, terrace, etc.): Hillslope				(concave, convex, none): Convex	
Slope (%): <u>1-2</u> Lat: <u>43.12081558</u>		Long: -87.	.969496′	11 Datum: WGS 84	
Soil Map Unit Name: Clayey land				NWI classification: PSS1C	
Are climatic / hydrologic conditions on the site typical for this	time of ye	ear? Yes	No	(If no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology si	gnificantly	disturbed?	Are °	'Normal Circumstances" present? Yes 🔽 No 🔜	
Are Vegetation, Soil, or Hydrology na	aturally pro	oblematic?	(lf ne	eeded, explain any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map s	showing	g sampling	g point l	ocations, transects, important features, e	tc.
Hydrophytic Vegetation Present? Yes No	~				
Hydric Soil Present? Yes <u>V</u> No		Is th	e Sampled	Area	
Wetland Hydrology Present? Yes No		with	in a Wetlar	nd? Yes No	
Remarks:					$\neg$
Antecedent precipitation analysis resulted in a	weighte	d conditio	n value s	um of 7 indicating hydrologic conditions we	re
drier than normal for this time period and region	-				
VEGETATION – Use scientific names of plants.					
	Absolute	Dominant	Indicator	Dominance Test worksheet:	
		Species?		Number of Dominant Species	
1. Juglans nigra	30	·	FACU	That Are OBL, FACW, or FAC: $2$ (A)	
2				Total Number of Dominant	
3				Species Across All Strata: 7 (B)	
4				Percent of Dominant Species	
5	20%			That Are OBL, FACW, or FAC: 28.6 (A/E	3)
Sapling/Shrub Stratum (Plot size: 15 ft r )	30%	_ = Total Cov	/er	Prevalence Index worksheet:	-
1. Lonicera tatarica	35	~	FACU	Total % Cover of: Multiply by:	
2. Fraxinus pennsylvanica	10	·	FACW	OBL species         0         x 1 = 0	
3. Rhamnus cathartica	5		FAC	FACW species 10 x 2 = 20	
4.				FAC species 30 x 3 = 90	
5.				FACU species 75 x 4 = 300	
	50%	= Total Cov	/er	UPL species $0 \times 5 = 0$	
Herb Stratum (Plot size: 5 ft r )				Column Totals: 115 (A) 410 (B	s)
1. Rubus occidentalis	20	·	NI		
2. Geum canadense	10	<u> </u>	FAC	Prevalence Index = B/A = <u>3.57</u>	
3. Monarda fistulosa	10	· /	FACU	Hydrophytic Vegetation Indicators:	
4. Cornus racemosa	5		FAC	1 - Rapid Test for Hydrophytic Vegetation	
5. Poa pratensis	5		FAC	2 - Dominance Test is >50%	

55% = Total Cover

~

= Total Cover

NI

50

50%

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

10. \_\_\_\_\_

Woody Vine Stratum (Plot size: 30 ft r

1. Rubus occidentalis

6. Rhamnus cathartica 5 FAC

)

7.\_\_\_\_\_

9.\_\_\_\_\_

8. \_\_\_\_\_ \_ \_\_\_\_

2.

\_\_\_\_ 3 - Prevalence Index is ≤3.0<sup>1</sup>

Hydrophytic Vegetation

Present?

4 - Morphological Adaptations<sup>1</sup> (Provide supporting

Yes \_\_\_\_\_ No \_\_\_\_

data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must

be present, unless disturbed or problematic.

Profile Desci	ription: (Describe	to the dep	th needed to docur	nent the i	indicator	or confirr	n the absence of in	dicators.)	
Depth	Matrix		Redo	x Feature	s				
(inches)	Color (moist)	%	Color (moist)	%	_Type <sup>1</sup>	_Loc <sup>2</sup>	Texture	Remarks	
0 - 14	10YR 2.5/1	100					Silt Loam		
14 <sup>-</sup> 20	10YR 4/1	90	7.5YR 5/6	10	С	М	Silt Loam		
-									
-									
<u> </u>					·				
					·				
-									
		letion, RM	Reduced Matrix, MS	S=Masked	d Sand Gr	ains.		Pore Lining, M=Matrix.	
Hydric Soil I								roblematic Hydric Soils <sup>3</sup> :	
Histosol (				Gleyed Ma				e Redox (A16)	
· ·	ipedon (A2)			Redox (S5			Dark Surfac	· · /	
Black His	( )			d Matrix (S				nese Masses (F12)	
	n Sulfide (A4)				neral (F1)			w Dark Surface (TF12)	
	Layers (A5)			Gleyed Ma			Other (Explana	ain in Remarks)	
2 cm Mu	. ,			d Matrix (	,				
· ·	Below Dark Surface	e (A11)		Dark Surfa			2		
	rk Surface (A12)				Irface (F7	)		drophytic vegetation and	
· · ·	ucky Mineral (S1)		Redox [	Depressio	ns (F8)		-	rology must be present,	
	cky Peat or Peat (S	-					unless distu	rbed or problematic.	
	ayer (if observed):								
Type:							Hydric Soil Pres	ent? Yes 🖌 No	
Depth (inc	nes):						-		
Remarks:									
HYDROLOG	GY								
Wetland Hyd	Irology Indicators:								
Primary Indic	ators (minimum of o	ne is requi	red; check all that ap	ply)			Secondary Inc	dicators (minimum of two req	uired)
	Water (A1)		Water-Sta		, ,			Soil Cracks (B6)	
High Wat	ter Table (A2)		Aquatic Fa	una (B13	)		Drainage	Patterns (B10)	
Saturatio	n (A3)		True Aqua					on Water Table (C2)	
Water Ma	arks (B1)		Hydrogen	Sulfide O	dor (C1)		Crayfish I	Burrows (C8)	
Cadiman			Outidine d F	) + :  +	and an Liv			· Maible an Assist Income (/	201

- \_\_\_ Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- \_\_\_\_ Oxidized Rhizospheres on Living Roots (C3) \_\_\_\_ Saturation Visible on Aerial Imagery (C9)
  - \_\_\_\_ Stunted or Stressed Plants (D1)

Drift Deposits (B3)		Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)	
Algal Mat or Crust (B4)		Recent Iron Reduction in Tilled So	bils (C6) Geomorphic Position (D2)	
Iron Deposits (B5)		Thin Muck Surface (C7)	FAC-Neutral Test (D5)	
Inundation Visible on Aeria	al Imagery (B7)	Gauge or Well Data (D9)		
Sparsely Vegetated Conca	ave Surface (B8)	Other (Explain in Remarks)		
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 (strea	am gauge, monito	ring well, aerial photos, previous inspec	tions), if available:	
Remarks:				
Remarks:				
Remarks:				

Sediment Deposits (B2)

Project/Site: Havenwoods State Forest Rehabilitation	City/County: Milwauk	ee/Milwaukee	Sampling Date: 2021-05-21
Applicant/Owner: Wisconsin Department of Natural Resource	rces	State: Wisconsin	Sampling Point: DP23
Investigator(s): Matt Parsons	Section, Township, Rar	<sub>ige:</sub> <u>Sec. 26, T8N, R</u>	21E
Landform (hillslope, terrace, etc.): Floodplain		concave, convex, none):	
	Long: -87.9696610		
Soil Map Unit Name: Clayey land		NWI classific	
Are climatic / hydrologic conditions on the site typical for this time of y			
Are Vegetation, Soil, or Hydrology significantly			present? Yes No
Are Vegetation, Soil, or Hydrology naturally p		eded, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling point lo	cations, transects	, important features, etc.
Hydrophytic Vegetation Present? Yes No			
Hydric Soil Present? Yes No			
Wetland Hydrology Present? Yes Ves No	within a Wetlan	d? Yes 🗸	No
Remarks:			
Antecedent precipitation analysis resulted in a weighte	ed condition value s	um of 7 indicating h	ydrologic conditions were
drier than normal for this time period and region.			
VEGETATION – Use scientific names of plants.			
Absolute		Dominance Test work	sheet:
Tree Stratum (Plot size: <u>30 ft r</u> ) <u>% Cove</u>	r <u>Species?</u> Status	Number of Dominant S	

1				That Are OBL, FACW, or FAC: / (A)
2 3				Total Number of Dominant Species Across All Strata: <u>8</u> (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 87.5 (A/B)
Conting/Christian (Distring) 15 ft r		_ = Total Co	ver	Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft r )	50	~	FAC	
••	$-\frac{30}{40}$		FAC	Total % Cover of:     Multiply by:       OBL species     10     v 1 = 10
2. Cornus racemosa				
3				FACW species $\frac{0}{140}$ x 2 = $\frac{0}{120}$
4				FAC species $\frac{140}{10}$ x 3 = $\frac{420}{10}$
5				FACU species $\frac{10}{2}$ x 4 = $\frac{40}{2}$
5 ft r	90%	_ = Total Co	over	UPL species $0 \times 5 = 0$
Herb Stratum (Plot size: <u>5 ft r</u> ) 1. Cornus racemosa	20	~	FAC	Column Totals: <u>160</u> (A) <u>470</u> (B)
2. Carex blanda	10	· ·	FAC	Prevalence Index = B/A = 2.94
3. Carex stipata	10	~	OBL	Hydrophytic Vegetation Indicators:
4. Geum canadense	10	~	FAC	1 - Rapid Test for Hydrophytic Vegetation
5. Rhamnus cathartica	10	~	FAC	✓ 2 - Dominance Test is >50%
6. Rubus occidentalis	10	~	NI	✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
7. Circaea canadensis	5		FACU	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
8. Hackelia virginiana	5		FACU	data in Remarks or on a separate sheet)
9				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
10				
Woody Vine Stratum (Plot size: <u>30 ft r</u> )	80%	= Total Co	ver	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1				Hydrophytic
2				Vegetation
		_ = Total Co	ver	Present? Yes No
Remarks: (Include photo numbers here or on a separate	sheet.)	-		
Dead ash in overstory				

Profile Desc	cription: (Describe	to the dep	oth needed to docur	nent the	indicator	or confirn	n the absence of indicators.)		
Depth	Matrix			x Feature					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Remarks		
0 - 14	10YR 2.5/1	100					Silt Loam		
<u>14 <sup>-</sup> 20</u>	10YR 4/1	90	7.5YR 5/6	10	<u> </u>	<u>PL / M</u>	Silt Loam		
-									
-									
-									
- 1Turnet 0=0		lation DM	=Reduced Matrix, MS				<sup>2</sup> Location: PL=Pore Lining, M=Matrix.		
Hydric Soil			-Reduced Matrix, Ma	5-Maske	a Sana Gr	ans.	Indicators for Problematic Hydric Soils <sup>3</sup> :		
Histosol			Sandy (	Gleved M	atrix (S4)		Coast Prairie Redox (A16)		
	pipedon (A2)			Redox (S			Dark Surface (S7)		
· — ·	istic (A3)			d Matrix (			Iron-Manganese Masses (F12)		
Hydroge	en Sulfide (A4)		Loamy I	Mucky M	ineral (F1)		Very Shallow Dark Surface (TF12)		
Stratified	d Layers (A5)		Loamy (	Gleyed N	latrix (F2)		Other (Explain in Remarks)		
2 cm Mu	uck (A10)			d Matrix					
Deplete	d Below Dark Surfac	e (A11)	Redox [	Dark Surf	ace (F6)				
<ul> <li>Thick Data</li> </ul>	ark Surface (A12)		Deplete	d Dark S	urface (F7	)	<sup>3</sup> Indicators of hydrophytic vegetation and		
Sandy N	lucky Mineral (S1)		Redox [	Depressio	ons (F8)		wetland hydrology must be present,		
5 cm Mu	ucky Peat or Peat (S	3)					unless disturbed or problematic.		
Restrictive	Layer (if observed):	:							
Type:							Hydric Soil Present? Yes No		
Depth (in	ches):						Hydric Soli Present? Yes No		
Remarks:									
HYDROLO	GY								
Wetland Hy	drology Indicators:								

Primary Indicators (minimum of one is required;	check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1)	Water-Stained Leaves (B9)	Surface Soil Cracks (B6)
High Water Table (A2)	Aquatic Fauna (B13)	Drainage Patterns (B10)
Saturation (A3)	True Aquatic Plants (B14)	Dry-Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	<ul> <li>Oxidized Rhizospheres on Living F</li> </ul>	Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled So	ils (C6) 🖌 Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	<ul> <li>FAC-Neutral Test (D5)</li> </ul>
Inundation Visible on Aerial Imagery (B7)	Gauge or Well Data (D9)	
Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remarks)	
Field Observations:		
Surface Water Present? Yes No _	Depth (inches):	
Water Table Present? Yes No _	Depth (inches):	
Saturation Present? Yes No _	Depth (inches):	Wetland Hydrology Present? Yes 🗹 No
(includes capillary fringe)	in a contrata de la c	
Describe Recorded Data (stream gauge, monitor	ring well, aerial photos, previous inspect	ions), it available:
Remarks:		

Project/Site: Havenwoods State Forest Rehabilitation	on c	City/County:	Milwauk	ee/Milwaukee	Sampli	ing Date: <u>2</u>	<u>:021-05-2</u>	21
Applicant/Owner: Wisconsin Department of Natural	Resourc	es		State: Wiscor	nsin Sampli	ing Point: <u> </u>	)P24A	
Investigator(s): Matt Parsons	9	Section, Tov	vnship, Rar	nge: <u>Sec. 26, T8N</u>	N, R21E			
Landform (hillslope, terrace, etc.): Hillslope				concave, convex, no		'ex		
Slope (%): 2-3 Lat: 43.12341315				2			L .	
Soil Map Unit Name: Mequon silt loam, 1 to 3 percen	t slopes			NWI clas	ssification: F	PFO1C		
Are climatic / hydrologic conditions on the site typical for this t	ime of yea							
Are Vegetation, Soil, or Hydrology sig				Normal Circumstanc			No	
Are Vegetation, Soil, or Hydrology nat				eded, explain any ar				
SUMMARY OF FINDINGS – Attach site map sl				ocations, transe	ects, impo	ortant fea	utures, et	c.
Hydrophytic Vegetation Present? Yes No								
Hydric Soil Present? Yes No	<ul> <li></li> </ul>	Is the	e Sampled					
Wetland Hydrology Present? Yes No	<u>~</u>	withi	n a Wetlan	id? Yes_	N	°		
Remarks:								
Antecedent precipitation analysis resulted in a w		conditio	n value s	um of 7 indicatin	ig hydrolo	gic condi	itions wei	re
drier than normal for this time period and region.								
<b>VEGETATION</b> – Use scientific names of plants.								
20 ft #	Absolute % Cover	Dominant Species?		Dominance Test v				
	25	<u> </u>	FACU	Number of Domina That Are OBL, FAC		2	(A)	
2				, , , , , , , , , , , , , , , , , , ,	,		(,	
3				Total Number of Do Species Across All		3	(B)	
4							(=)	
5				Percent of Domina That Are OBL, FAC		66.7	(A/B	3)
15 ft r	25% :	= Total Cov	er		-		`	_
Sapling/Shrub Stratum (Plot size: 15 ft r )	40	~	FAC	Prevalence Index			bur	
	40					$\frac{\text{Multiply}}{x \ 1 = 0}$	Dy:	
2				FACW species 3		$x^{2} = 6$		
۵ ـ						x 3 = 339		
5.				FACU species 2		x 4 = 112		
	40%	 = Total Cov	er	UPL species 0		x 5 = 0		
Herb Stratum (Plot size: <u>5 ft r</u> )		,		Column Totals: 14	44 (	(A) 457	(B)	)
	65	<u> </u>	FAC			2 17		
2	8		FAC	Prevalence Ir				$\square$
3. Acer saccharinum	3		FACW FACU	Hydrophytic Vege 1 - Rapid Test			tion	
	<u> </u>		FACU	2 - Dominance			lion	
				3 - Prevalence				
6				4 - Morphologi			te supportir	na
7				data in Ren	marks or on a	a separate s	sheet)	·9
8				Problematic H	ydrophytic V	egetation <sup>1</sup> (	Explain)	
10								
	79%	= Total Cov	er	<sup>1</sup> Indicators of hydri be present, unless				
1)				Hudrophutic				
2				Hydrophytic Vegetation				
		= Total Cov	er	Present?	Yes 🧹	No		
Remarks: (Include photo numbers here or on a separate sh				I				$\neg$

Profile Description: (Describe to the depth	needed to document the indicator or confirm	n the absence of indicators.)
Depth Matrix	Redox Features	
(inches) Color (moist) %	Color (moist)%Type <sup>1</sup> Loc <sup>2</sup>	Texture Remarks
<u>0 - 13</u> <u>10YR 3/1</u> <u>100</u>		Silt Loam
-		
-		
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=R	educed Matrix, MS=Masked Sand Grains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:		Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Sandy Gleyed Matrix (S4)	Coast Prairie Redox (A16)
Histic Epipedon (A2)	Sandy Redox (S5)	Dark Surface (S7)
Black Histic (A3)	Stripped Matrix (S6)	Iron-Manganese Masses (F12)
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1)	Very Shallow Dark Surface (TF12)
Stratified Layers (A5)	<ul> <li>Loamy Gleyed Matrix (F2)</li> <li>Depleted Matrix (F3)</li> </ul>	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Redox Dark Surface (F6)	
Thick Dark Surface (A12)	Depleted Dark Surface (F7)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Redox Depressions (F8)	wetland hydrology must be present,
5 cm Mucky Peat or Peat (S3)		unless disturbed or problematic.
Restrictive Layer (if observed):		
Type: Gravel	_	
Depth (inches): 13		Hydric Soil Present? Yes No
Remarks:		
HYDROLOGY		
Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required	check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1)	Water-Stained Leaves (B9)	Surface Soil Cracks (B6)
Ligh Water Table (A2)	Aquatic Fauna (B13)	Drainage Patterns (B10)
Saturation (A3)	True Aquatic Plants (B14)	Dry-Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots	
	Oxidized Knizospheres on Living Roots	(C3) Saturation visible on Aenal Imagery (C9)

wedand nydrology malcators.		
Primary Indicators (minimum of one is required	Secondary Indicators (minimum of two required)	
Surface Water (A1)	Water-Stained Leaves (B9)	Surface Soil Cracks (B6)
High Water Table (A2)	Aquatic Fauna (B13)	Drainage Patterns (B10)
Saturation (A3)	True Aquatic Plants (B14)	Dry-Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living F	Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled So	ils (C6) Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7)	Gauge or Well Data (D9)	
Sparsely Vegetated Concave Surface (B8)	) Other (Explain in Remarks)	
Field Observations:		
Surface Water Present? Yes No	Depth (inches):	
Water Table Present? Yes No	Depth (inches):	
	Depth (inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe)		
Describe Recorded Data (stream gauge, moni	toring well, aerial photos, previous inspect	ions), if available:
Remarks:		

Project/Site: Havenwoods State Forest Rehabilitat	ion o	City/County:	Milwauk	cee/Milwaukee Sampling Date: 2021-05-21
Applicant/Owner: Wisconsin Department of Natural	Resourc	es		State: <u>Wisconsin</u> Sampling Point: DP24B
Investigator(s): Matt Parsons	9	Section, Tov	vnship, Rai	nge: <u>Sec. 26, T8N, R21E</u>
				(concave, convex, none): <u>Convex</u>
Slope (%): <u>3-4</u> Lat: <u>43.12341897</u>	I	_ong:87.	9694171	7 Datum: WGS 84
Soil Map Unit Name: Mequon silt loam, 1 to 3 percent	nt slopes	-		NWI classification: none
Are climatic / hydrologic conditions on the site typical for this	time of yea	ar? Yes	No	<ul> <li>(If no, explain in Remarks.)</li> </ul>
Are Vegetation, Soil, or Hydrology si	gnificantly o	disturbed?	Are "	Normal Circumstances" present? Yes 🗾 No
Are Vegetation, Soil, or Hydrology na				
SUMMARY OF FINDINGS – Attach site map s	showing	sampling	g point le	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	o			
Hydric Soil Present? Yes No	· <u>·</u>		e Sampled	
Wetland Hydrology Present? Yes No	·	withi	n a Wetlan	nd? Yes <u>No</u>
Remarks:				
Antecedent precipitation analysis resulted in a drier than normal for this time period and region	-	conditio	n value s	um of 7 indicating hydrologic conditions were
<b>VEGETATION</b> – Use scientific names of plants.				
	Absolute	Dominant	Indicator	Dominance Test worksheet:
		Species?		Number of Dominant Species
1. <u>Tilia americana</u> 2. Ulmus americana	50	<u> </u>	FACU	That Are OBL, FACW, or FAC: (A)
	20	<u> </u>	FACW	Total Number of Dominant
3				Species Across All Strata: <u>5</u> (B)
4 5.				Percent of Dominant Species
- J	70%	= Total Cov		That Are OBL, FACW, or FAC: <u>80</u> (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft r )		- 10(a) 000		Prevalence Index worksheet:
1. Rhamnus cathartica	80	<u> </u>	FAC	Total % Cover of:Multiply by:
2				OBL species $\frac{0}{22}$ x 1 = $\frac{0}{12}$
3				FACW species $23$ x 2 = $46$
4				FAC species $\frac{160}{50}$ x 3 = $\frac{480}{200}$
5				FACU species $50$ x 4 = $200$
Herb Stratum (Plot size: 5 ft r )	80%	= Total Cov	er	
1. Alliaria petiolata	40	~	FAC	Column Totals: 233 (A) 726 (B)
2. Carex blanda	25	~	FAC	Prevalence Index = B/A = 3.12
3. Rhamnus cathartica	10		FAC	Hydrophytic Vegetation Indicators:
4. Geum canadense	5		FAC	1 - Rapid Test for Hydrophytic Vegetation
5. Acer saccharinum	3		FACW	∠ 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				
10	83%			<sup>1</sup> Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size: <u>30 ft r</u> )	03/0	= Total Cov	er	be present, unless disturbed or problematic.
1,				Hydrophytic
2				Vegetation
		= Total Cov	er	Present? Yes No
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Desc	cription: (Describe	to the dept	h needed to document the indicator or confirm	the absence of indicators.)
Depth	 Matrix		Redox Features	
(inches)	Color (moist)	%	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	Texture Remarks
0-4	10YR 3/1	100		Silt Loam
<u>4 <sup>-</sup> 14</u>	10YR 4/3	100		Silt Loam
	10YR 3/1	100		Silt Loam
-				
-				
-				
-				
<sup>1</sup> Type: C=C	oncentration, D=Der	letion, RM=	Reduced Matrix, MS=Masked Sand Grains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil				Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Sandy Gleyed Matrix (S4)	Coast Prairie Redox (A16)
	pipedon (A2)		Sandy Redox (S5)	Dark Surface (S7)
Black Hi	istic (A3)		Stripped Matrix (S6)	Iron-Manganese Masses (F12)
Hydroge	en Sulfide (A4)		Loamy Mucky Mineral (F1)	Very Shallow Dark Surface (TF12)
Stratified	d Layers (A5)		Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
2 cm Mu	uck (A10)		Depleted Matrix (F3)	
Deplete	d Below Dark Surfac	æ (A11)	Redox Dark Surface (F6)	
Thick Da	ark Surface (A12)		Depleted Dark Surface (F7)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy N	/lucky Mineral (S1)		Redox Depressions (F8)	wetland hydrology must be present,
	ucky Peat or Peat (S			unless disturbed or problematic.
Restrictive	Layer (if observed)	:		
Туре:				Hydric Soil Present? Yes No
Depth (in	ches):			Hydric Soil Present? Yes No
Remarks:				
HYDROLO	GY			
Wetland Hy	drology Indicators:	:		
Primary India	cators (minimum of o	one is requir	ed; check all that apply)	Secondary Indicators (minimum of two required)
Surface	Water (A1)		Water-Stained Leaves (B9)	Surface Soil Cracks (B6)
High Wa	ater Table (A2)		Aquatic Fauna (B13)	Drainage Patterns (B10)
Saturati	on (A3)		True Aquatic Plants (B14)	Dry-Season Water Table (C2)
Water M	larks (B1)		Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
	nt Deposits (B2)		Oxidized Rhizospheres on Living Roots	(C3) Saturation Visible on Aerial Imagery (C9)
	posits (B3)		Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
· — ·	at or Crust (B4)		Recent Iron Reduction in Tilled Soils (C6	
	posits (B5)		Thin Muck Surface (C7)	FAC-Neutral Test (D5)

Inundation Visible on Aer	ial Imagery (B7)	Gauge or Well Data (D9)				
Sparsely Vegetated Conc	ave Surface (B8)	Other (Explain in Remarks)				
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 (stre	am gauge, monito	ring well, aerial photos, previous inspec	tions), if available:			
Remarks:						

Project/Site: Havenwoods State Forest Rehabilita	tion (	City/County:	Milwaul	kee/Milwaukee	Samp	oling Date: 2	021-05-21
Applicant/Owner: Wisconsin Department of Natura	State: Wisco	onsin Samp	oling Point: D	P25			
Investigator(s): Matt Parsons		Section, To	wnship, Ra	nge: <u>Sec. 26, T8</u>	N, R21E		
Landform (hillslope, terrace, etc.): Riverine				(concave, convex, ne		cave	
Slope (%): 0-1 Lat: 43.12339662		Long: <u>-87</u> .	969343	90	Datur	m: WGS 84	
Soil Map Unit Name: Mequon silt loam, 1 to 3 perce	ent slopes	;		NWI cla	assification:	PFO1C	
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ar? Yes	No	(If no, explain	n in Remark	s.)	
Are Vegetation, Soil, or Hydrology s	ignificantly	disturbed?	Are	Normal Circumstanc	ces" present	? Yes 🖌	No
Are Vegetation, Soil, or Hydrology n	aturally pro	blematic?	(lf ne	eded, explain any a	nswers in R	emarks.)	
SUMMARY OF FINDINGS – Attach site map	showing	sampling	g point l	ocations, transe	ects, imp	ortant fea	tures, etc.
Hydrophytic Vegetation Present? Yes N	o						
Hydric Soil Present? Yes N			e Sampled				
Wetland Hydrology Present? Yes <u>V</u> N	0	with	in a Wetlar	nd? Yes	<u> </u>	No	
Remarks:		!!!					
Antecedent precipitation analysis resulted in a drier than normal for this time period and regio	-	i conditio	n value s	sum of 7 indicatir	ng nyaroi	ogic condi	lions were
VEGETATION – Use scientific names of plants.					<u> </u>		
Tree Stratum (Plot size:30 ft r)	Absolute % Cover	Dominant Species?		Dominance Test			
1. Acer saccharinum	70	<ul> <li>✓</li> </ul>	FACW	That Are OBL, FA			(A)
2				Total Number of D	ominant		
3				Species Across Al		5	(B)
4				Percent of Domina	ant Species		
5	70%			That Are OBL, FA			(A/B)
Sapling/Shrub Stratum (Plot size: 15 ft r )	70%	= Total Cov	er	Prevalence Index	workshee	t:	
1. Rhamnus cathartica	40	~	FAC	Total % Cover	r of:	Multiply	by:
2				OBL species 0	)	x 1 =	
3				FACW species 7			
4					18		
5				FACU species 0		x 4 = 0	
Herb Stratum (Plot size: 5 ft r)	40%	= Total Cov	er			$x 5 = \frac{0}{284}$	
1 Geum canadense	3	~	FAC	Column Totals: 1	18	(A) <u>284</u>	(B)
2. Rhamnus cathartica	3	~	FAC	Prevalence I	Index = B/A	= 2.41	
3. Alliaria petiolata	2	<ul> <li>✓</li> </ul>	FAC	Hydrophytic Veg	etation Indi	icators:	
4				1 - Rapid Test	t for Hydrop	hytic Vegetat	ion
5				2 - Dominance			
6				3 - Prevalence			
7				4 - Morpholog		tions <sup>1</sup> (Provid a separate s	
8				Problematic H			· ·
9					i yai opinyao	regetation (t	
10	8%			<sup>1</sup> Indicators of hydri	ric soil and v	vetland hydrol	logy must
Woody Vine Stratum (Plot size: <u>30 ft r</u> )	070	= Total Cov	er	be present, unless	s disturbed o	or problematio	2.
1,				Hydrophytic			
2.				Vegetation	Ver V	N -	
		= Total Cov	er	Present?	Yes	No	—
Remarks: (Include photo numbers here or on a separate s	sheet.)						
							I

Profile Desc	ription: (Describe	e to the de	pth needed to docu	ment the	indicator	or confirm	n the absence	of indicators.)	
Depth	Matrix			ox Feature			_		
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		Remarks	
0-4	10YR 3/1	_ 100					Silt Loam		
4 <sup>-</sup> 13	10YR 4/1	80	5YR 4/6	20	С	PL / M	Silt Loam		
-									
——									
-									
<sup>1</sup> Type: C=C	oncentration. D=De	pletion, RM	/=Reduced Matrix, M	– IS=Maske	d Sand Gr	ains.	<sup>2</sup> Location:	PL=Pore Lining, M=Matrix.	
Hydric Soil								for Problematic Hydric Soils <sup>3</sup> :	
Histosol	(A1)		Sandy	Gleyed M	atrix (S4)		Coast F	Prairie Redox (A16)	
Histic E	oipedon (A2)		Sandy	Redox (S	5)		Dark S	urface (S7)	
	Black Histic (A3) Stripped Matrix (S6)				Iron-Manganese Masses (F12)				
	Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1)			Very Shallow Dark Surface (TF12)					
	d Layers (A5)			-	latrix (F2)		Other (Explain in Remarks)		
	uck (A10) d Below Dark Surfa	co (A11)		ed Matrix ( Dark Surf					
· · ·	ark Surface (A12)				urface (F0)	)	<sup>3</sup> Indicators	of hydrophytic vegetation and	
	Aucky Mineral (S1)			Depressio		,		hydrology must be present,	
	ucky Peat or Peat (S	53)			( /		unless disturbed or problematic.		
Restrictive	Layer (if observed	):							
Type: G	ravel								
Depth (in	ches): <u>13</u>						Hydric Soil	Present? Yes 🦯 No	
Remarks:									
HYDROLO	GY								
Wetland Hy	drology Indicators	:							
Primary Indi	cators (minimum of	one is requ	uired; check all that a	pply)			<u>Secon</u> da	ry Indicators (minimum of two required)	
Surface	Water (A1)		Water-Sta	ained Leav	ves (B9)		Surfa	ace Soil Cracks (B6)	
	ater Table (A2)		Aquatic F		` '			nage Patterns (B10)	
Saturation (A3) True Aquatic Plants (B14)				Dry-Season Water Table (C2)					

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one is required;	Secondary Indicators (minimum of two required)				
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Imagery (B7)</li> <li>Sparsely Vegetated Concave Surface (B8)</li> </ul>	<ul> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> <li>True Aquatic Plants (B14)</li> <li>Hydrogen Sulfide Odor (C1)</li> <li>Oxidized Rhizospheres on Living Roots ( Presence of Reduced Iron (C4)</li> <li>Recent Iron Reduction in Tilled Soils (C6)</li> <li>Thin Muck Surface (C7)</li> <li>Gauge or Well Data (D9)</li> <li>Other (Explain in Remarks)</li> </ul>	Stunted or Stressed Plants (D1)			
Field Observations:	<i>st</i>				
	Depth (inches):				
	Depth (inches):	,			
Saturation Present? Yes No _ (includes capillary fringe)	Depth (inches): Wetla	and Hydrology Present? Yes No			
Describe Recorded Data (stream gauge, monito	ring well, aerial photos, previous inspections),	if available:			
Remarks:					

Project/Site: Havenwoods State Forest Rehabilitation	on c	ity/County:	Milwauk	ee/Milwaukee g	Sampling Date:	2021-05-21	
Applicant/Owner: Wisconsin Department of Natural		State: Wisconsin	Sampling Point:	DP26			
Investigator(s): Matt Parsons	S	Section, Township, Range: Sec. 26, T8N, R21E					
				(concave, convex, none): _			
Slope (%): 1-2 Lat: 43.12429795						34	
Soil Map Unit Name: Mequon silt loam, 1 to 3 percen	t slopes	-		NWI classificat	ion: PFO1C		
Are climatic / hydrologic conditions on the site typical for this t	ime of yea						
Are Vegetation, Soil, or Hydrology sig				Normal Circumstances" pre		✓No	
Are Vegetation, Soil, or Hydrology nat				eded, explain any answers			
SUMMARY OF FINDINGS – Attach site map sl			g point lo	ocations, transects,	important fe	eatures, etc.	
Hydrophytic Vegetation Present? Yes <u>Ves</u> No				-			
Hydric Soil Present? Yes <u>V</u> No			Sampled				
Wetland Hydrology Present? Yes No		with	n a Wetlan	ia? Tes	No		
Remarks:	vaightad	oonditio		um of 7 indicating by	drologio con	ditions wore	
Antecedent precipitation analysis resulted in a w drier than normal for this time period and region.	-	conultion	i value s			ultions were	
<b>VEGETATION</b> – Use scientific names of plants.							
20 ft r		Dominant		Dominance Test works	neet:		
	<u>% Cover</u> _ 60	Species?	<u>Status</u> FACU	Number of Dominant Spe			
	35		FACW	That Are OBL, FACW, or	FAC: 5	(A)	
	<u> </u>		FACW	Total Number of Dominar	^	(P)	
4				Species Across All Strata	<u> </u>	(B)	
5.				Percent of Dominant Spe That Are OBL, FACW, or		(A/B)	
	105% =	= Total Cov	er	That Ale OBL, PACW, O	FAC. 00.0	(АВ)	
Sapling/Shrub Stratum (Plot size: 15 ft r )			540	Prevalence Index works			
	70	<u> </u>	FAC	<u>Total % Cover of:</u>		ly by:	
					$x_1 = \frac{0}{96}$		
3				FACW species 48	x 3 = 315		
4				FAC species 105 FACU species 60			
D	70% =	= Total Cov			x = 0		
Herb Stratum (Plot size: <u>5 ft r</u> )	<u>/////</u> _	- 10tai 00v	ei	Column Totals: 213	(A) 65	51 (B)	
1	15	<ul> <li>✓</li> </ul>	FAC			(0)	
2	10	<u> </u>	FAC	Prevalence Index =			
S	10	<u> </u>	FAC	Hydrophytic Vegetation			
4. Fraxinus pennsylvanica	3		FACW	1 - Rapid Test for Hy		tation	
5				2 - Dominance Test i			
6				3 - Prevalence Index		ide constantion	
7				4 - Morphological Ad data in Remarks of	or on a separate	vide supporting e sheet)	
8				Problematic Hydroph	-	-	
9							
10	38% =	- Total Cav		<sup>1</sup> Indicators of hydric soil a			
Woody Vine Stratum (Plot size: 30 ft r )		= Total Cov	er	be present, unless distur	oed or problema	atic.	
1				Hydrophytic			
2				Vegetation	✓No		
		= Total Cov	er	Present? Yes	NO		
Remarks: (Include photo numbers here or on a separate sh	eet.)						

Profile Desc	cription: (Describe	to the dep	oth needed to docum	nent the	indicator	or confirr	n the absence of indicator	rs.)
Depth	Matrix			Feature				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	_Loc <sup>2</sup>	Texture	Remarks
0-6	10YR 3/1	100					Silt Loam	
<u>6 <sup>-</sup> 13</u>	10YR 5/1	100					Silt Loam	
<u>13 <sup>-</sup> 15</u>	10YR 5/1	80	7.5YR 5/6	20	<u> </u>	М	Silt Loam	
-								
<sup>1</sup> Type: C=C	oncentration, D=Dep	letion, RM	Reduced Matrix, MS	=Maske	d Sand Gr	ains.	<sup>2</sup> Location: PL=Pore L	ining, M=Matrix.
Hydric Soil	Indicators:						Indicators for Problen	natic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Sandy G	leyed M	atrix (S4)		Coast Prairie Redo	x (A16)
Histic E	pipedon (A2)		Sandy R	edox (S	5)		Dark Surface (S7)	
Black H	istic (A3)			Matrix (	,		Iron-Manganese M	. ,
	_ Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1)			Very Shallow Dark Surface (TF12)				
	_ Stratified Layers (A5) Loamy Gleyed Matrix (F2)				Other (Explain in Remarks)			
	uck (A10)		✓ Depleted		· ·			
I — ·	d Below Dark Surface	e (A11)			ace (F6)		31	
	ark Surface (A12)				urface (F7)	)	<sup>3</sup> Indicators of hydrophy	-
	Aucky Mineral (S1)		Redox L	epressio)	ons (F8)		wetland hydrology i	
	ucky Peat or Peat (S3 Layer (if observed):						unless disturbed or	problematic.
1	• • •							
Type: R							Hydric Soil Present?	Yes No
``	ches): <u>15</u>							
Remarks:								
HYDROLO	GY							
Wetland Hy	drology Indicators:							
Primary Indi	cators (minimum of o	ne is requ	ired: check all that ap	ply)			Secondary Indicators	(minimum of two required)
Surface	Water (A1)		Water-Stai	ned Leav	<b>/es (B9</b> )		Surface Soil Cra	cks (B6)
High Wa	ater Table (A2)		Aquatic Fa	una (B13	3)		Drainage Pattern	ns (B10)
Saturati	on (A3)		True Aquat	tic Plants	s (B14)		Dry-Season Wat	er Table (C2)
Water M	larks (B1)		Hydrogen S	Sulfide O	dor (C1)		Crayfish Burrows	s (C8)
Sedime	nt Deposits (B2)		Oxidized R	hizosphe	eres on Liv	ing Roots	(C3) Saturation Visibl	e on Aerial Imagery (C9)

Sediment Deposits (B2)	Oxidized Milzospheres on Living i	Roots (C3) Saturation visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Sc	bils (C6) Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7)	Gauge or Well Data (D9)	
Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remarks)	
Field Observations:		
Surface Water Present? Yes No _	Depth (inches):	
Water Table Present? Yes No _	✓ Depth (inches):	
	Depth (inches):	Wetland Hydrology Present? Yes No
Saturation Present? Yes No _		
Saturation Present? Yes No _ (includes capillary fringe)		
Saturation Present? Yes No _ (includes capillary fringe)		
Saturation Present? Yes No _ (includes capillary fringe) Describe Recorded Data (stream gauge, monito		
Saturation Present? Yes No _ (includes capillary fringe) Describe Recorded Data (stream gauge, monito		

Project/Site: Havenwoods State Forest Rehabilitat	ion City	County: Milwau	ıkee/Milwaukee	Sampling Date: 2021-05-21		
Applicant/Owner: Wisconsin Department of Natural	Resources		State: Wisconsin	Sampling Point: DP27		
Investigator(s): Matt Parsons	Sec	tion, Township, R	ange: Sec. 26, T8N, R2	21E		
			f (concave, convex, none):			
		Long: -87.96816212 Datum: WGS 84				
Soil Map Unit Name: Mequon silt loam, 1 to 3 percer			NWI classific			
Are climatic / hydrologic conditions on the site typical for this						
Are Vegetation, Soil, or Hydrology sig				resent? Yes 🔽 No		
Are Vegetation, Soil, or Hydrology na	aturally probler	natic? (If r	needed, explain any answe	rs in Remarks.)		
SUMMARY OF FINDINGS – Attach site map s		mpling point	locations, transects	, important features, etc.		
Hydrophytic Vegetation Present? Yes No						
Hydric Soil Present? Yes No		Is the Sample				
Wetland Hydrology Present? Yes Ves No		within a Wetla	and? Yes	No		
Remarks:						
Antecedent precipitation analysis resulted in a v	-	ondition value	sum of 7 indicating hy	ydrologic conditions were		
drier than normal for this time period and regior	1.					
<b>VEGETATION</b> – Use scientific names of plants.						
a contraction 20 ft r		minant Indicator	Dominance Test work	sheet:		
Tree Stratum (Plot size: 30 ft r ) Acer saccharinum	<u>% Cover Sp</u> 50	ecies? <u>Status</u> ✓ FACW	Number of Dominant Sp			
··			That Are OBL, FACW, o	or FAC: <u>3</u> (A)		
2			Total Number of Domina	0		
3			. Species Across All Stra	ta: <u>3</u> (B)		
4			Percent of Dominant Sp			
5	50% = T	otal Cover	That Are OBL, FACW, o	or FAC: <u>100</u> (A/B)		
Sapling/Shrub Stratum (Plot size: 15 ft r )	<u>5070</u> = 1	otal Cover	Prevalence Index work	ksheet:		
1. Rhamnus cathartica	50	✓ FAC	Total % Cover of:	Multiply by:		
2			OBL species 40	x 1 = <u>40</u>		
3			FACW species 63	x 2 = <u>126</u>		
4			FAC species 60			
5			FACU species 3	x 4 = <u>12</u>		
F 44 -	<u>50%</u> = T	otal Cover	UPL species 0	x 5 =		
Herb Stratum (Plot size: 5 ft r ) 1. Carex stricta	35	🖌 OBL	Column Totals: 166	(A) <u>358</u> (B)		
2. Symphyotrichum lanceolatum	6	FAC	Prevalence Index	= B/A = 2.16		
3. Carex stipata	5		Hydrophytic Vegetatio			
Fraxinus pennsylvanica	5	FACW	1 - Rapid Test for H			
5. Phalaris arundinacea	5	FACW	2 - Dominance Tes	I		
6. Geum canadense	4	FAC	3 - Prevalence Inde	ex is ≤3.0 <sup>1</sup>		
7. Parthenocissus quinquefolia	3	FACU	4 - Morphological A	daptations <sup>1</sup> (Provide supporting		
8. Thalictrum dasycarpum	3	FACW		s or on a separate sheet)		
9			Problematic Hydrop	ohytic Vegetation <sup>1</sup> (Explain)		
10						
	66% = T	otal Cover	<sup>1</sup> Indicators of hydric soil be present, unless distu	and wetland hydrology must irbed or problematic.		
Woody Vine Stratum (Plot size: 30 ft r )						
1			Hydrophytic			
2			Vegetation Present? Yes	s No		
Pemarke: (Include photo numbers here or on a separate s		otal Cover				

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

Profile Desc	ription: (Describe	to the dep	th needed to docur	nent the	indicator	or confirn	the absence of indicate	ors.)
Depth	Matrix			x Feature				
(inches)	Color (moist)	%	Color (moist)	%		Loc <sup>2</sup>	Texture	Remarks
0 - 4	10YR 2.5/1	100					Silt Loam	
4 - 20	10YR 4/1	75	5YR 4/6	25	c	PL / M	Silt Loam	
		<u> </u>				<u> </u>		
<sup>1</sup> Type: C=C	oncentration, D=Dep	letion, RM	=Reduced Matrix, MS	S=Maske	d Sand Gr	ains.	<sup>2</sup> Location: PL=Pore	Lining, M=Matrix.
Hydric Soil							Indicators for Proble	
Histosol	(A1)		Sandy C	Gleyed M	atrix (S4)		Coast Prairie Rec	lox (A16)
Histic E	oipedon (A2)		Sandy F	Redox (S	5)		Dark Surface (S7	)
Black Hi	istic (A3)			d Matrix (			Iron-Manganese	. ,
	en Sulfide (A4)				ineral (F1)		Very Shallow Dar	
	d Layers (A5)				latrix (F2)		Other (Explain in	Remarks)
	uck (A10)			d Matrix				
· — ·	d Below Dark Surfac	e (A11)		Dark Surf	· ,		3 matter sterre of building a	
	ark Surface (A12) /lucky Mineral (S1)			o Dark S Depressio	urface (F7	)	<sup>3</sup> Indicators of hydropi	y must be present,
· —	ucky Peat or Peat (ST)	3)		Jepressio	ons (Fo)		unless disturbed	, , ,
	Layer (if observed)	,						or problematic.
Type:								
	ches):						Hydric Soil Present?	Yes 🦯 No
Remarks:								
HYDROLO	GY							
Wetland Hy	drology Indicators:							
Primary India	cators (minimum of c	one is requi	red; check all that ap	ply)			Secondary Indicato	ors (minimum of two required)
Surface	Water (A1)		Water-Sta	ined Lea	ves (B9)		Surface Soil C	racks (B6)
🖌 🖌 High Wa	ater Table (A2)		Aquatic Fa	una (B13	3)		🖌 Drainage Patte	erns (B10)
🖌 Saturati	on (A3)		True Aqua	tic Plants	s (B14)		Dry-Season W	ater Table (C2)
🖌 🗹 Water M	larks (B1)		Hydrogen	Sulfide C	dor (C1)		Crayfish Burrow	ws (C8)
Sedimer	nt Deposits (B2)		✓ Oxidized F	Rhizosph	eres on Liv	ing Roots	(C3) Saturation Visi	ble on Aerial Imagery (C9)
Drift Dep	posits (B3)		Presence	of Reduc	ed Iron (C4	4)	Stunted or Stre	essed Plants (D1)

\_\_\_\_ Recent Iron Reduction in Tilled Soils (C6)

\_\_\_\_ Thin Muck Surface (C7)

\_\_\_ Gauge or Well Data (D9)

\_\_ Depth (inches): 0

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

Remarks:

\_\_\_ Algal Mat or Crust (B4)

\_\_\_\_ Inundation Visible on Aerial Imagery (B7)

\_\_\_\_ Sparsely Vegetated Concave Surface (B8) \_\_\_\_ Other (Explain in Remarks)

Yes 🖌 No \_

 Yes
 No
 ✓
 Depth (inches):
 \_\_\_\_\_

 Yes
 ✓
 No
 Depth (inches):
 10

\_\_\_ Iron Deposits (B5)

Field Observations:

Saturation Present?

Surface Water Present? Water Table Present? ✓ Geomorphic Position (D2)

Wetland Hydrology Present? Yes \_\_\_\_ No \_

✓ FAC-Neutral Test (D5)

# **Appendix C. Site Photographs**

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Photo 1. DP01 looking northwest at Wetland 4 (May 11, 2021).



Photo 3. DP03 looking east at Wetland 4 (May 11, 2021).



Photo 5. DP05 looking east at Wetland 4 (May 12, 2021).



Photo 2. DP02 looking northwest at uplands outside Wetland 4 (May 11, 2021).



Photo 4. DP04 looking east at uplands outside Wetland 4 (May 11, 2021).



Photo 6. DP06A looking west at uplands outside Wetland 4 (May 12, 2021).



Photo 7. DP06B looking east at uplands outside Wetland 4 (May 4, 2021).



Photo 9. Upstream extent of Wetland 4 looking southeast (May 11, 2021).



Photo 11. Southern-most constructed basin within Wetland 4 looking northwest (May 11, 2020).



Photo 8. Culverts at upstream extent of Wetland 4 looking northeast (May 11, 2021).



Photo 10. Downstream extent of Wetland 4 looking north (May 11, 2021).



Photo 12. DP07 looking north at Wetland 5 (May 12, 2020).



Photo 13. DP08 looking south at uplands outside Wetland 5 (May 12, 2020).



Photo 15. DP09 looking southeast at Wetland 2 (May 12, 2020).



Photo 17. Wetland 2 looking northeast (May 11, 2020).



Photo 14. Wetland 5 looking southwest (May 11, 2020).



Photo 16. DP10 looking north at upland berm outside Wetland 2 and Wetland 3 (May 12, 2020).



Photo 18. Wetland 2 looking south (May 11, 2020).



Photo 19. South end of culvert connecting Wetland 2 to Wetland 3 looking south (May 11, 2020).



Photo 21. DP11 looking north at Wetland 3 (May 12, 2020).



Photo 23. DP12 looking northeast at uplands outside Wetland 3 (May 12, 2020).



Photo 20. North end of culvert connecting Wetland 3 to Wetland 2 looking northeast (May 11, 2020).



Photo 22. Wetland 3 from the southern extent looking north (May 11, 2020).



Photo 24. DP13 looking southwest at Wetland 3 (May 12, 2020).



Photo 25. Wetland 3 from east portion of wetland looking west (May 11, 2021).



Photo 27. DP14 looking northwest at uplands outside Wetland 1 (May 12, 2021).



Photo 29. DP16 looking east at uplands outside Wetland 1 (May 12, 2021).



Photo 26. Railroad bed culverts at downstream end of Wetland 1 (May 11, 2021).



Photo 28. DP15 looking northwest at upstream extent of swale tributary portion of Wetland 1 (May 12, 2021).



Photo 30. DP17 looking west at Wetland 1 (May 12, 2021).



Photo 31. DP18A looking east at uplands outside Wetland 1 (May 12, 2021).



Photo 33. DP19 looking west at Wetland 1 (May 12, 2021).



Photo 35. DP22B looking east at uplands outside Wetland 1 (May 21, 2021).



Photo 32. DP18B looking west at uplands outside Wetland 1 (May 12, 2021).



Photo 34. DP22A looking east at uplands outside Wetland 1 (May 21, 2021).



Photo 36. DP23 looking west at Wetland 1 (May 21, 2021).



Photo 37. DP24A looking west at uplands outside Wetland 1 (May 21, 2021).



Photo 39. DP25 looking east at Wetland 1 (May 21, 2021).



Photo 41. DP27 looking east at Wetland 1 (May 21, 2021).



Photo 38. DP24B looking west at uplands outside Wetland 1 (May 21, 2021).



Photo 40. DP26 looking west at uplands outside Wetland 1 (May 21, 2021).



Photo 42. Culvert at upstream extent of Wetland 1 looking northeast (May 11, 2021).



Photo 43. Forested wetlands in central portion of Wetland 1 looking north (May 11, 2021).



Photo 45. DP20 looking southeast at upland area outside Wetland 6 (May 12, 2021).



Photo 44. Wetland 1 looking north from southern end of Wetland 1 (May 11, 2021).



Photo 46. DP21 looking south at Wetland 6 (May 12, 2021).



Photo 47. Wetland 6 looking south (May 12, 2021).