Winnebago County Planning and Zoning Department

NOTICE OF PUBLIC HEARING PLANNING AND ZONING COMMITTEE 3/28/2017

TO WHOM IT MAY CONCERN:

The applicant(s) listed below has requested a Zoning Map Amendment which is regulated by the <u>Town/County Zoning Code</u>, Chapter 23. You are receiving this notice because this application or petition for action: 1. affects area in the immediate vicinity of property which you own; 2. requires your agency to be notified; 3. requires your Town to be notified; or 4. requires you, as the applicant, to be notified.

The Winnebago County Planning and Zoning Committee will be holding a public hearing on 3/28/2017 at 6:30 p.m. in Conference Room 408 of the County Administration Building located at 112 Otter Ave, Oshkosh, WI.

All interested persons wishing to be heard at the public hearing are invited to be present. For further detailed information concerning this notice, contact the Town Clerk or the Winnebago County Zoning Office, where the application is available for viewing.

INFORMATION ON ZONING MAP AMENDMENT REQUEST

Application No.: 2017-ZC-4010

Applicant: BUSER, DANNY DENU, AMANDA M

Location of Premises: 8966 FAITH RD LARSEN, WI 54947

Tax Parcel No.: Pt 028-0449 Pt 028-0450

Legal Description:

Being a part of the S 1/2 of the SW 1/4, Section 10, and also a part of the N 1/2 of the NW 1/4, Section 15, all in Township 20 North, Range 15 East, Town of Winchester, Winnebago County, Wisconsin.

Explanation:

Applicant is requesting a zoning map amendment to R-1 Rural Residential for parts of two parcels.

INITIAL STAFF REPORT

Sanitation: System Required

Private System

Overlays:

Floodplain Shoreland Wetlands

Current Zoning: A-2 General Agriculture

Proposed Zoning: R-1 Rural Residential

Surrounding Zoning:

North: A-2 South: A-2 East: R-1 West: A-1

THE FOLLOWING INFORMATION HAS BEEN PROVIDED BY THE OWNER / APPLICANT

Describe Present Use(s): Agricultural use

Describe Proposed Use(s): Single Family Residential

Describe The Essential Services For Present And Future Uses: Sewer (mound) and water will be required.

Describe Why The Proposed Use Would Be The Highest And Best Use For The Property: Area already has several residential properties.

Describe The Proposed Use(s) Compatibility With Surrounding Land Uses: Property will be located within several residential properties - homes.

SECTION REFERENCE AND BASIS OF DECISION

23.7-5 Basis of decision

(b) **Zoning map amendment initiated by a property owner**. If a proposed zoning map amendment is initiated by a property owner and would change the zoning classification of a parcel not classified as A-1, the Planning and Zoning Committee in making its recommendation and the Board of County Supervisors in making its decision shall consider the following factors:

(1) whether the amendment is consistent with the county's comprehensive plan, including any future land use maps or similar maps;

(2) the extent to which the lot and structures on the subject property conform to the dimensional standards that apply to the proposed zoning district; and

(3) any other factor not specifically or generally listed, but deemed appropriate by the committee or board given the particular circumstances.

If a proposed zoning map amendment is initiated by a property owner and would change the zoning classification of land classified as A-1, the Planning and Zoning Committee shall only recommend approval and the Board of County Supervisors shall only approve the proposed amendment when all of the following findings can be made:

(1) Such land is better suited for a use not otherwise allowed in the A-1 district.

(2) The amendment is consistent with the county's comprehensive plan.

(3) The amendment is substantially consistent with the county's farmland preservation plan as certified by the Wisconsin Department of Agriculture, Trade and Consumer Protection.

(4) The amendment will not substantially impair or limit current or future agricultural use of other protected farmland in the area.

The special requirements stated above relating to the rezoning of land in a A-1 district do not apply to a map amendment that (1) is certified by the Wisconsin Department of Agriculture, Trade and Consumer Protection under ch. 91, Wis. Stats., or (2) makes the zoning map more consistent with county's farmland preservation plan map, certified under ch. 91, Wis. Stats., which is in effect at the time of the amendment.

(c) **Zoning map amendment initiated by the county.** If a proposed zoning map amendment is initiated by the county, the Planning and Zoning Committee in making its recommendation and the Board of County Supervisors in making its decision shall consider the following factors:

(1) whether the amendment is consistent with the county's comprehensive plan, including any future land use maps or similar maps;

(2) whether the amendment is consistent with other planning documents adopted by the Board of County Supervisors; and

(3) any other factor not specifically or generally listed, but deemed appropriate by the committee or board given the particular circumstances.

WINNEBAGO COUNTY CERTIFIED SURVEY MAP NO._

ALL OF LOT 1 AND A PART OF LOT 2 OF CSM NO. 3675 LOCATED IN THE SW.1/4 OF THE SW.1/4 AND THE SE.1/4 OF THE SW.1/4 OF SECTION 10 ALSO LOCATED THE NW.1/4 OF THE NW.1/4 AND THE NE.1/4 OF THE NW.1/4 OF SECTION 15, T.20N., R.15E SHEET 1 OF 3 TOWN OF WINCHESTER, WINNEBAGO COUNTY, WISCONSIN.

SURVEY FOR: DAN BUSER 8965 FAITH ROAD LARSEN, WI 54947

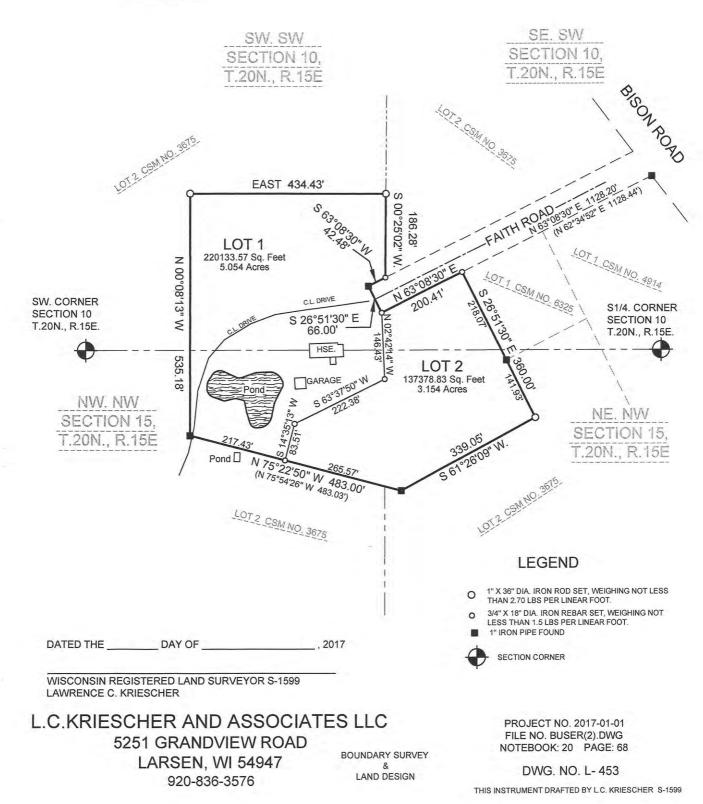
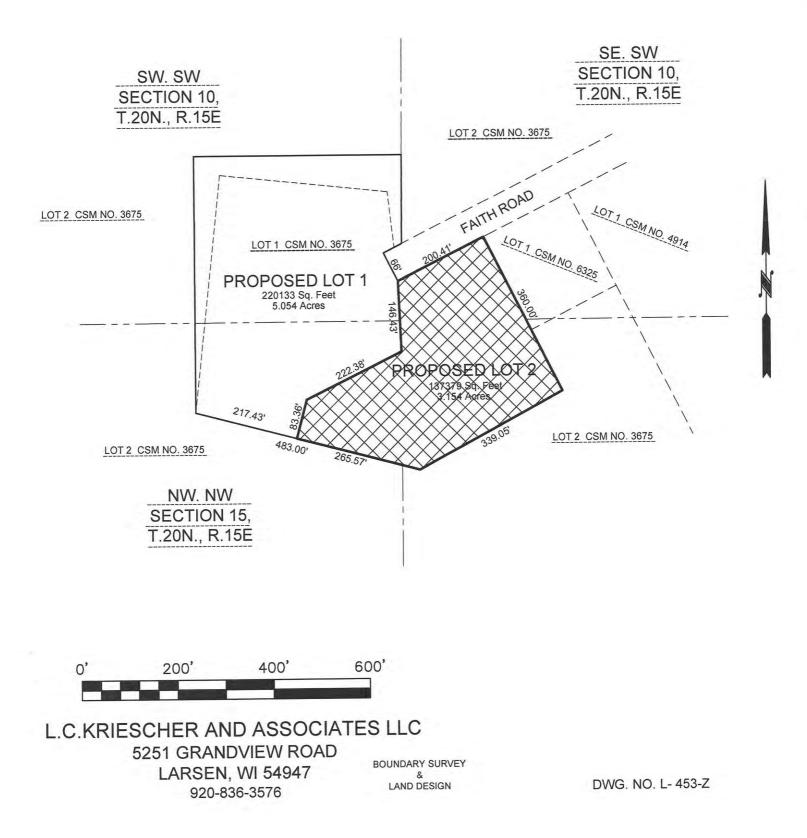
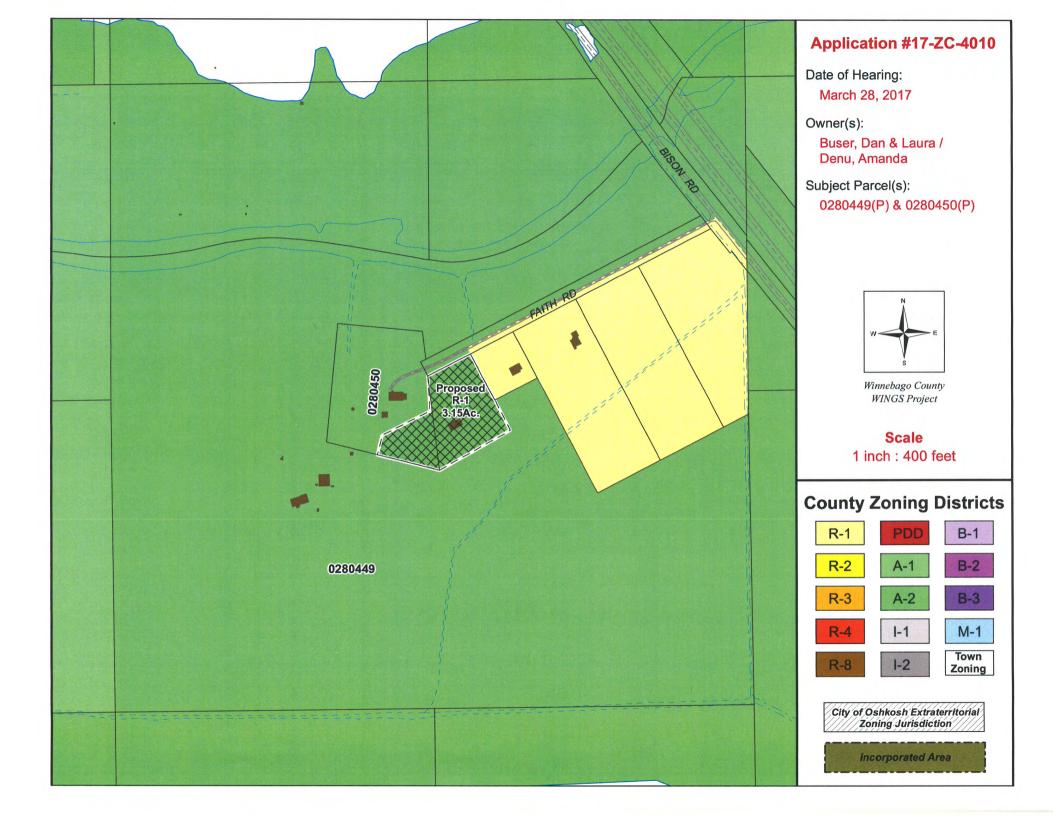
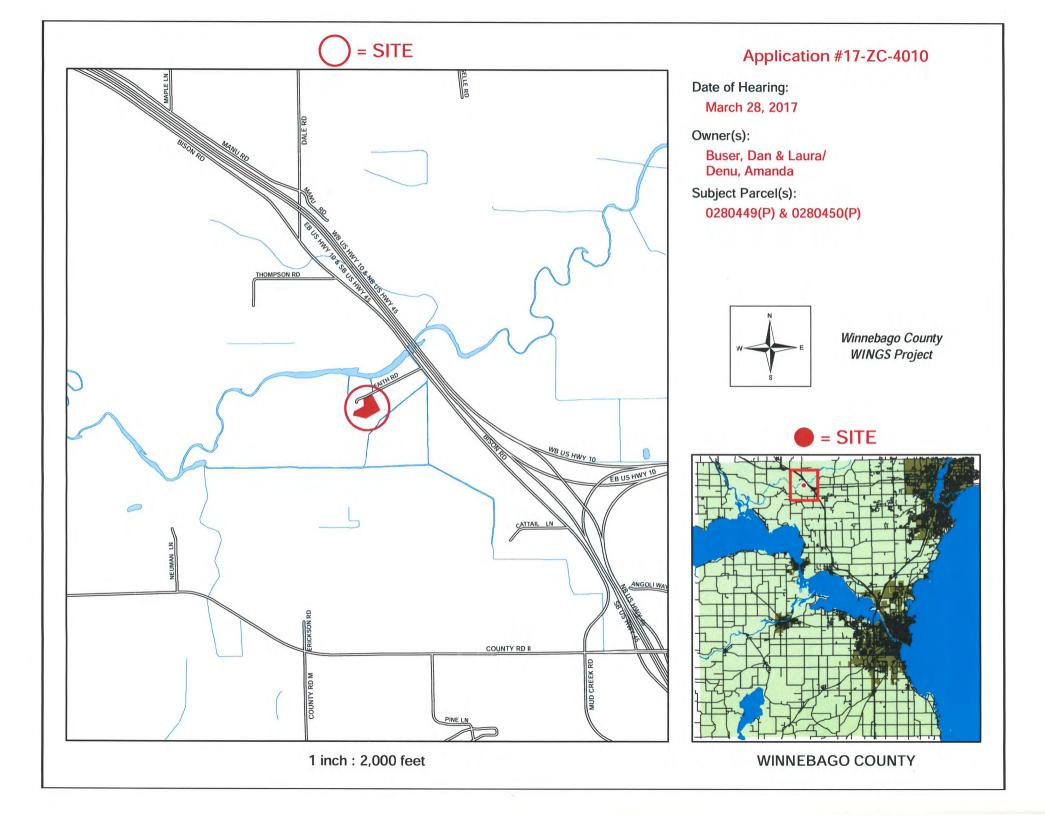


EXHIBIT MAP PROPOSED ZONING CHANGE

ALL OF LOT 1 OF CSM NO. 3675 AND A PART OF LOT 2 OF CSM NO, 3675 LOCATED IN THE SW.1/4 OF THE SW.1/4 AND THE SE.1/4 OF THE SW.1/4 OF SECTION 10 AND LOCATED IN THE NW.1/4 OF THE NW.1/4 AND THE NE.1/4 OF THE NW.1/4 OF SECTION 15, T.20N., R.15E TOWN OF WINCHESTER, WINNEBAGO COUNTY, WISCONSIN.







Winnebago County Planning and Zoning Department

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All interested persons wishing to be heard at the public hearing are invited to be present. For further detailed information concerning this notice, contact the Town Clerk or the Winnebago County Zoning Office, where the application is available for viewing.

INFORMATION ON ZONING MAP AMENDMENT REQUEST

Application No.: 2017-ZC-4020

Applicant: JUDGES POINT LLC

Location of Premises: COUNTY RD E RIPON, WI 54971

Tax Parcel No.: 014-053301

Legal Description:

Being a part of Government Lot 3, Section 27, Township 17 North, Range 14 East, Town of Nepeuskun, Winnebago County, Wisconsin.

Explanation:

Applicant is requesting a zoning map amendment to remove a wetland overlay over a portion of a property.

INITIAL STAFF REPORT

Sanitation:

System Required Private System

Overlays:

Floodplain Shoreland Wetlands

Current Zoning: A-2 General Agriculture, with wetlands

Proposed Zoning:

A-2 General Agriculture, without wetlands

Surrounding Zoning:

North: A-1 South: A-2 East: Water West: A-1

THE FOLLOWING INFORMATION HAS BEEN PROVIDED BY THE OWNER / APPLICANT

Describe Present Use(s):

Recreational with cabin.

Describe Proposed Use(s):

Use of the property will not change but the cabin needs repairs and we may want to make some alterations to it which could include adding some plumbing infrastructure.

Describe The Essential Services For Present And Future Uses:

Currently no internal plumbing in cabin. Existing sand point well and outhouse on site. If required in future the appropriate plumbing infrastructure will be installed.

Describe Why The Proposed Use Would Be The Highest And Best Use For The Property:

Application is to correct wetland boundaries on DNR wetland map.

Describe The Proposed Use(s) Compatibility With Surrounding Land Uses:

Neighboring properties are also residential/recreational.

SECTION REFERENCE AND BASIS OF DECISION

23.7-5 Basis of decision

(b) Zoning map amendment initiated by a property owner. If a proposed zoning map amendment is initiated by a property owner and would change the zoning classification of a parcel not classified as A-1, the Planning and Zoning Committee in making its recommendation and the Board of County Supervisors in making its decision shall consider the following factors:

(1) whether the amendment is consistent with the county's comprehensive plan, including any future land use maps or similar maps;

(2) the extent to which the lot and structures on the subject property conform to the dimensional standards that apply to the proposed zoning district; and

(3) any other factor not specifically or generally listed, but deemed appropriate by the committee or board given the particular circumstances.

If a proposed zoning map amendment is initiated by a property owner and would change the zoning classification of land classified as A-1, the Planning and Zoning Committee shall only recommend approval and the Board of County Supervisors shall only approve the proposed amendment when all of the following findings can be made:

(1) Such land is better suited for a use not otherwise allowed in the A-1 district.

(2) The amendment is consistent with the county's comprehensive plan.

(3) The amendment is substantially consistent with the county's farmland preservation plan as certified by the Wisconsin Department of Agriculture, Trade and Consumer Protection.

(4) The amendment will not substantially impair or limit current or future agricultural use of other protected farmland in the area.

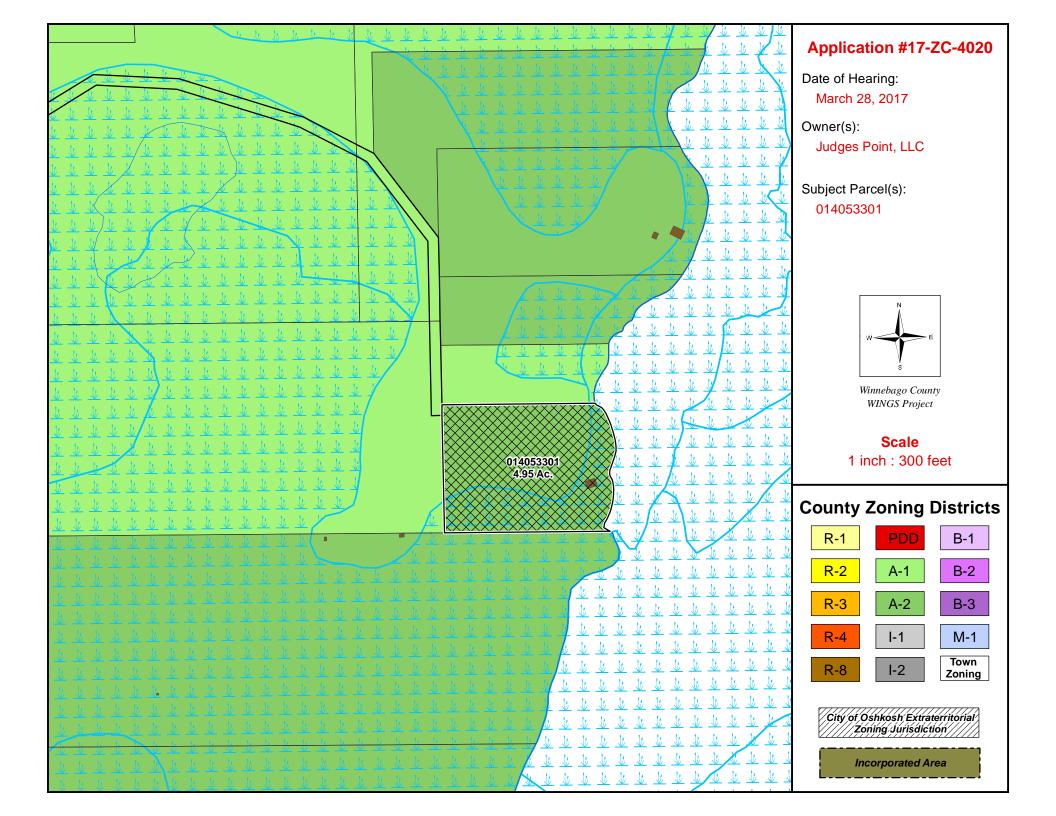
The special requirements stated above relating to the rezoning of land in a A-1 district do not apply to a map amendment that (1) is certified by the Wisconsin Department of Agriculture, Trade and Consumer Protection under ch. 91, Wis. Stats., or (2) makes the zoning map more consistent with county's farmland preservation plan map, certified under ch. 91, Wis. Stats., which is in effect at the time of the amendment.

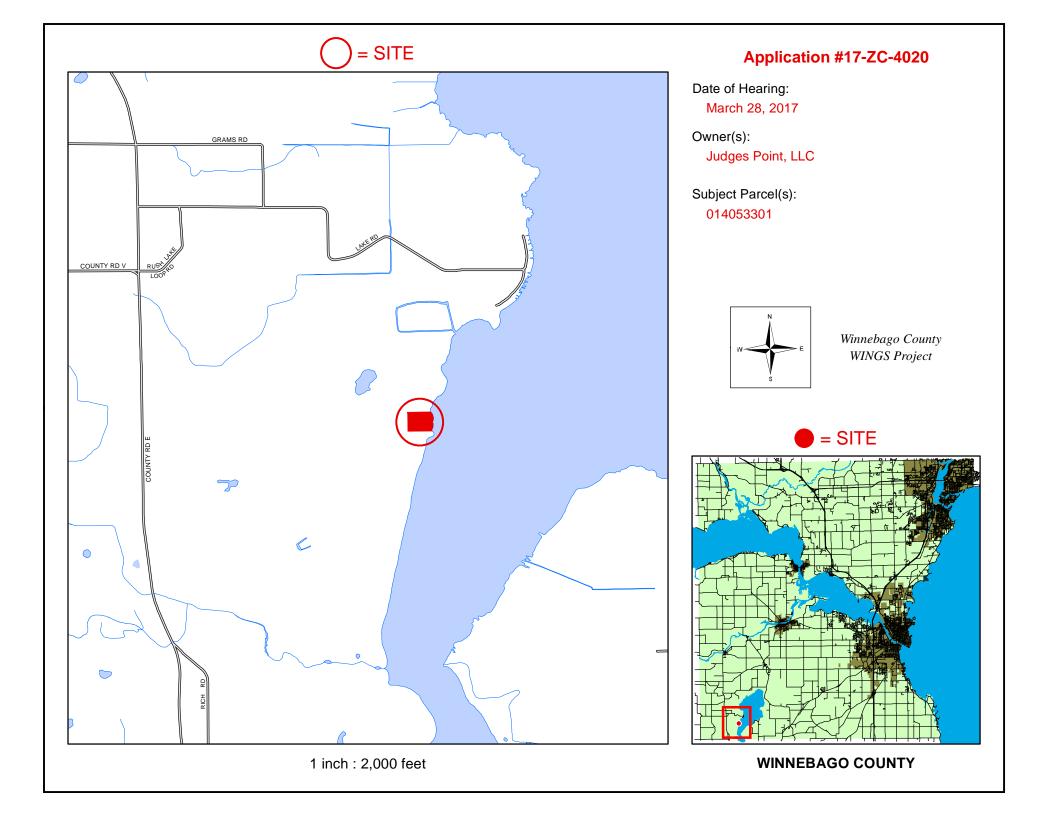
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(2) whether the amendment is consistent with other planning documents adopted by the Board of County Supervisors; and

(3) any other factor not specifically or generally listed, but deemed appropriate by the committee or board given the particular circumstances.





Wetland Delineation Report

Hahn Property Town of Nepeuskun | Winnebago County, Wisconsin

Prepared For

DAVE HAHN

DECEMBER 13, 2016 McM. No. H1043-9-16-00878.00

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- II. METHODS
- III. RESULTS & DISCUSSION
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- Figure 2 Winnebago County Soil Survey & WDNR Wetland Inventory Map
- Figure 3 Wetland Delineation Map

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- Appendix A COE Wetland Determination Data Forms
- Appendix B Wetland Photographs
- Appendix C Winnebago County Soil Resource Map & Hydric Soil Report



Wetland Delineation Report

Hahn Property Town of Nepeuskun | Winnebago County, Wisconsin

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DECEMBER 13, 2016 McM. No. H1043-9-16-00878.00

I. INTRODUCTION

The project objective was to delineate wetlands located within the project area located on the western shore of Rush Lake off of an easement driveway accessed from CTH 'E'. The site is approximately 4.80 acres located in Section Twenty-Seven (27), Township Seventeen (17) North, Range Fourteen (14) East, Town of Nepeuskun, Winnebago County, Wisconsin. The location of the project and regional topography is shown on Figure 1. The contact person and address for this project is provided below:

Dave Hahn N6919 Wilderness Way Sussex, WI 53089 Phone: 262-527-8513 Email: mercrestor@hotmail.com

The wetland delineation was completed by Garek Holley, Environmental Scientist of McMAHON, on October 28, 2016. Mr. Holley has completed 38 hours of wetland delineation training that was sponsored by various regulatory agencies, including the Wisconsin Department of Natural Resources (DNR) and U.S. Army Corps of Engineers.

This report consists of a description of the methods used, results, conclusions and supporting documentation.

Wetland Delineation Report

II. METHODS

The Winnebago County Soil Survey Map and Wisconsin DNR Wetland Inventory Map are shown on Figure 2. The wetland and project area are shown on Figure 3.

The wetland delineation was performed using the routine determination method in the Corps of Engineers Wetland Delineation Manual, 1987 and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, January, 2012. Furthermore, the resource, "Field Indicators of Hydric Soils in the United States, Guide for Identifying and Delineating Hydric Soils", Version 7.0, 2010, and the Version 7.0, 2015 Errata was also used for determining whether the soils were hydric. The report was prepared in accordance with document titled "Guidance for Submittal of Delineation Reports to the St. Paul District Army Corps of Engineers and the Wisconsin Department of Natural Resources", March 4, 2015.

Percent cover was used to measure dominant species of vegetation. The sampling plots were a 5 feet radius for herbaceous plants, 15 feet for shrubs and saplings which measure less than 3.5 inches DBH, and 30 feet for trees and woody vines. The "50/20 Rule" was used to determine the dominant species for each stratum.

Soil pits were completed in the field using a 16-inch spade shovel and a hand auger to a minimum depth of 20 inches, unless refusal was encountered. Test pits were left open to observe hydrologic conditions and later backfilled when activities were completed.

The wetland boundary was delineated based upon changes in vegetation, soil, hydrology, topography and professional judgment. The following documents were reviewed to aid in characterizing the vegetation, soil and hydrology of the project area prior to field delineation activities.

- Winnebago County Soil Survey
- 7.5 Minute Series Topographic Map
- Wisconsin Wetland Inventory Map
- USDA Field Office Climate Data

A total of five transects were completed to delineate wetlands within the project area. A total of nineteen sampling points were documented using COE Wetland Determination Forms. Copies of the forms are presented in Appendix A. The wetland boundaries and test pits were marked with labeled pin flags. Each pin flag was subsequently located with a Global Positioning System (GPS) capable of sub-foot accuracy. The points were then mapped using Geographic Information System (GIS) software to produce a wetland delineation map.

The project objective was to delineate wetlands located within on Hahn Property. The project area is 4.80 acres. Photographs of the wetlands are presented in Appendix B. The photos were taken on December 5, 2016; approximately a month and a half after field work was completed. Five wetlands, a total of 1.92 acres were delineated.

A USDA Wetness Evaluation Table was used to determine antecedent precipitation. This USDA climate data provides a range of normal precipitation for each month. The actual monthly precipitation is compared with this range to determine wetness conditions at the time of the wetland delineation. The Oshkosh WETS station received 2.55-inches of precipitation in October, indicating normal conditions. In September, 6.58-inches of precipitation were recorded, indicating wetter than normal conditions. In the month of August the station received 2.44-inches, indicating drier than normal conditions. Based on this data, the period prior to the field work was normal.

Figure 2 shows the Wisconsin Wetland Inventory Map for the project area. Wetlands are mapped within a majority of the project area, except for the western quarter. Rush Lake is located just east of the project area. Figure 2 also shows the Winnebago County Soil Survey Map. Soil Resource & Hydric Soil Reports are presented in Appendix C. The Soil Survey Map shows three different soil map units in the project area. The map units are listed below:

- Fox Silt Loam, 2 to 6% Slopes (FsB) This soil is well drained. The map unit hydric category is nonhydric. It is not included on the County Hydric Soil List.
- Houghton Muck, Ponded, 0 to 2% Slopes (HW) This soil is very poorly drained. The map unit hydric category is hydric; the cumulative percentage of components that meet the criteria for hydric soils is 100%. The component soil is included on the County Hydric Soil List.
- Ossian Silt Loam (Os) This soil is poorly drained. The map unit hydric category is hydric; the cumulative percentage of components that meet the criteria for hydric soils is 100%. The component soil is included on the County Hydric Soil List.

Wetland #1 (0.20 acres), is a wooded swale extending from an emergent wetland. The wetland is surrounded by relatively significant contour breaks which help define the boundary. Indicators of hydrology found within Wetland 1 included Geomorphic Position (D2), FAC Neutral Test (D5), and Saturation (A3) in the northern section of the wetland. Soils consisted of a Depleted Matrix (F3) in the northern section and Thick Dark Surface (A12) up-gradient to the south. Vegetation within the wetland included *Populus tremuloides* and *Fraxinus pennsylvanica* in the tree layer and *Rhamnus cathartica* in the shrub and herbaceous layer. *Phalaris arundinacea* and *Pilea pumila* are found to the north near a clearing on the border of the project area. Defining the wetland extent was done in large part using the tree canopy and hydrology.

A profound break from wetland area was observed where vegetation transitioned to *Quercus spp., Carya ovata, Prunus serotina,* and *Anemone quinquefolia*.

Wetland #2 (188 ft²) is a small extension of a wet meadow north of the project area. Observed hydrology indicators included Geomorphic Position (D3) and FAC Neutral Test (D5). Vegetation included *Fraxinus pennsylvanica, Rhamnus cathartica,* and *Phalaris arundinacea*.

Wetland #3 (241 ft²) is a depression in a topographically low wooded area. Like Wetland 1, Wetland 3 is defined by a steep contour break in addition to the tree and herbaceous vegetation. Hydrology indicators in the wetland included Dry-Season Water Table (C2), Geomorphic Position (D3), and the FAC Neutral Test (D5). Soils consisted of a thick dark surface described as a 20 inch A horizon, followed by a depleted B horizon. Vegetation within the wetland included *Fraxinus pennsylvanica* and *Rhamnus cathartica*. Adjacent upland species included *Quercus macrocarpa*, *Anemone quinquefolia*, *Prunus serotina*, and *Carya ovata*.

Wetland #4 (0.20 acres) is an emergent/wet meadow wetland located on the shore of Rush Lake. The wetland extends along the entire eastern shore of the property. A significant topographic break and hydrophytic vegetation were used to denote the boundary. Vegetation was primarily comprised of *Phalaris arundinacea* and *Typha angustifolia*.

Wetland #5 (1.51 acres) is an emergent/wet meadow wetland located on the shore of Rush Lake. The wetland extends along the entire southern shore of the property. A significant topographic break and hydrophytic vegetation were used to denote the boundary. Vegetation was primarily comprised of *Phalaris arundinacea* and *Typha angustifolia*. Soils, like much of the rest of the property, met the Thick Dark Surface (A12) hydric soil indicator.

The uplands within the project area consisted largely of a mature Oak/Hickory tree stand, with buckthorn in a majority of the understory. Since trees are good indicators of historic hydrology, it can be deduced that areas which are comprised primarily of Oak, Hickory, and Cherry are not susceptible to seasonal wetland conditions. Furthermore, in some upland areas, wetland criteria for vegetation and soils are met, however, the vegetation is skewed by the presence of buckthorn. Since buckthorn was established in the herbaceous layer and shrub layer, these pits automatically passed the Dominance Test despite the limited diversity and presence of upland trees. Thus, wetlands were primarily mapped by the presence hydrology indicators, and hydrophytic trees.

IV. CONCLUSIONS

McMAHON completed a wetland delineation on Hahn Property. Five wetlands, a total of 1.92 acres were mapped within the 4.80 acre project area. The final authorities for the wetland area are the appropriate State and Federal authorities.

V. LITERATURE CITED

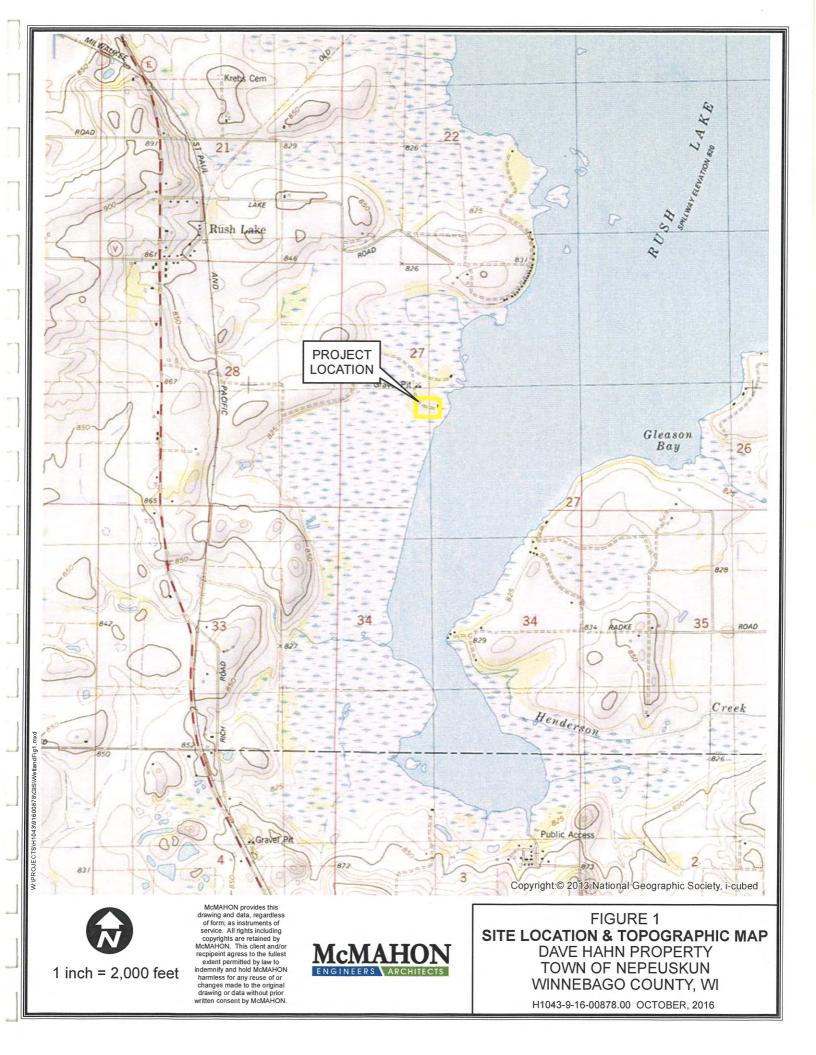
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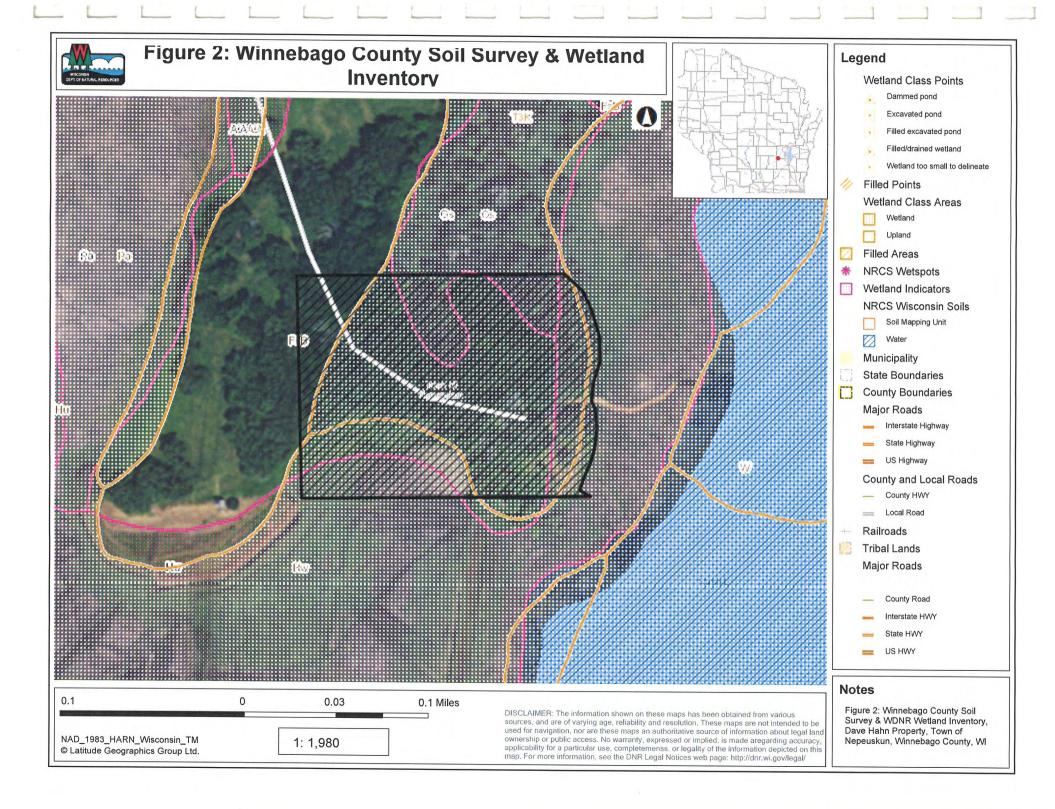
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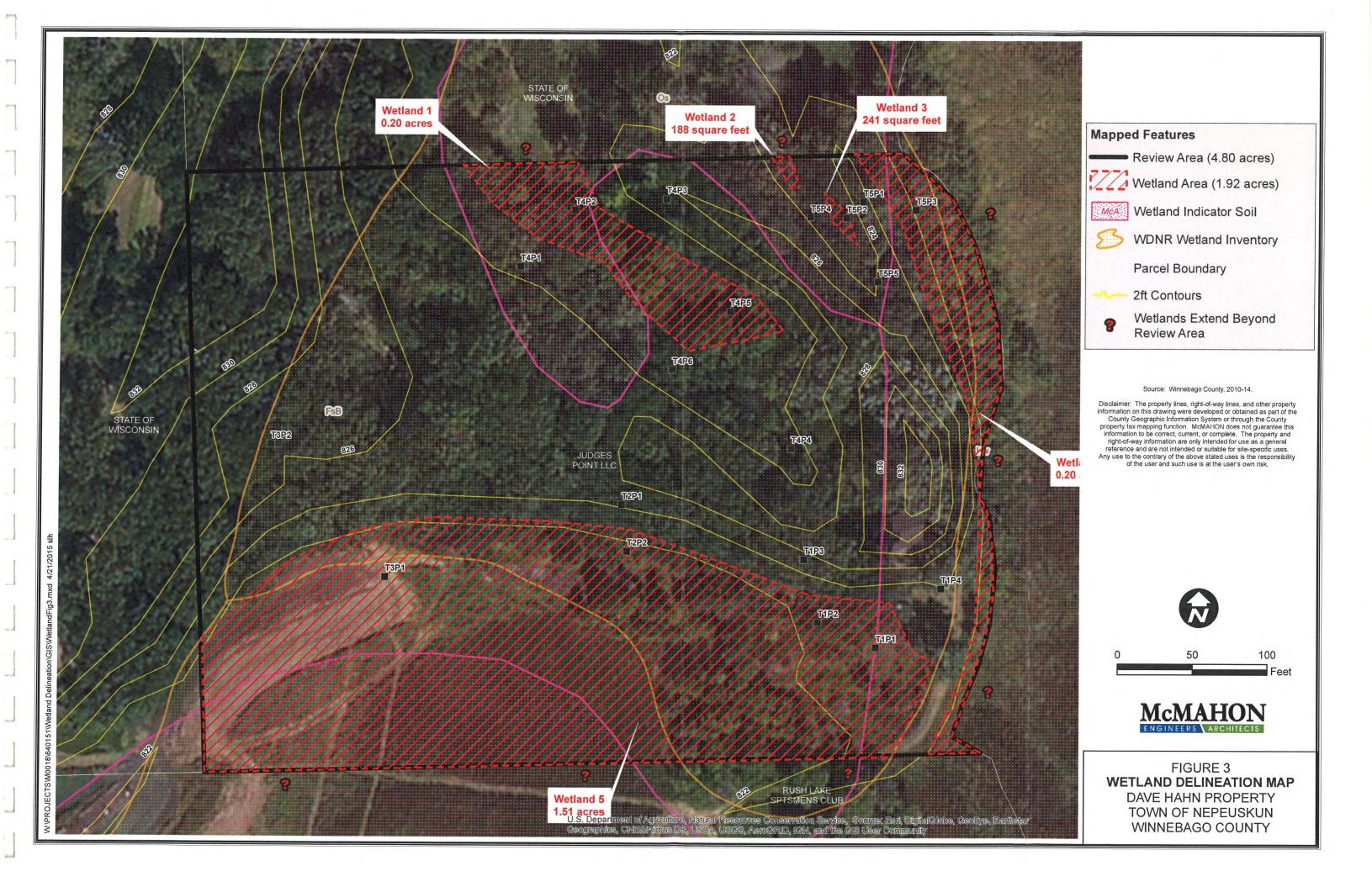
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Wetland Delineation Report







APPENDIX A

COE WETLAND DETERMINATION DATA FORMS

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Dave Hahn Property	City/County:	Rush Lake/Winnebago Sampling Date: 10/28/2016
Applicant/Owner: Dave Hahn		State: WI Sampling Point T1P1
Investigator(s): Stacey Henk, Garek H	olley	Section, Township, Range: Sec 27, T17N, R14E
Landform (hillslope, terrace, etc.): For	otslope Loc	al relief (concave, convex, none): concave
Slope (%): 0-1 Lat.:	Long.:	Datum:
Soil Map Unit Nam(FsB		NWI Classification:
Are climatic/hydrologic conditions of th	e site typical for this time of the year	? Yes (If no, explain in remarks)
Are vegetation X, soil	, or hydrologysignificantly	
Are vegetation, soil, for the second sec	, or hydrology naturally pro	oblematic? circumstances" present? No
(in needed, explain any answers in rem	arks	
SUMMARY OF FINDINGS		
Hydrophytic vegetation present? Hydric soil present?	Y Is the sampled a	area within a wetland? Y
Indicators of wetland hydrology presen	t? Y If yes, optional v	wetland site ID:
Remarks: (Explain alternative procedu		
ternarks. (Explain alternative procedul	es here or in a separate report.)	
Mowed Lawn		
Nowed Lawn		
HYDROLOGY		
		Secondary Indicators (minimum of two
Primary Indicators (minimum of one is	required: check all that apply)	required)
Surface Water (A1)	Water-Stained Leaves (B9)	Surface Soil Cracks (B6)
X High Water Table (A2)	Aquatic Fauna (B13)	Drainage Patterns (B10)
X Saturation (A3)	Marl Deposits (B15)	Moss Trim Lines (B16)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Oxidized Rhizospheres on	Crayfish Burrows (C8)
Drift Deposits (B3)	Living Roots (C3)	Saturation Visible on Aerial Imagery
Algal Mat or Crust (B4)	Presence of Reduced Iron (C-	
Iron Deposits (B5)	Recent Iron Reduction in Tille	
Inundation Visible on Aerial	Soils (C6)	X Geomorphic Position (D2)
Imagery (B7)	Thin Muck Surface (C7)	Shallow Aquitard (D3)
Sparsely Vegetated Concave	Other (Explain in Remarks)	X FAC-Neutral Test (D5)
Surface (B8)		Microtopographic Relief (D4)
ield Observations:		
urface water present? Yes	No X Depth (inches):	Indicators of
/ater table present? Yes		7 wetland
aturation present? Yes		0 hydrology
ncludes capillary fringe)		present? Y
,		
escribe recorded data (stream gauge,	monitoring well, aerial photos, previ	ous inspections), if available:
	and a second	
) om only of		
Remarks:		

Depth Matrix				ox Fea			or or confirm the absenc	
(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-12	10YR 2/1	100					SL	
12-20	2.5Y 7/1	60	5Y 8/1	20	D	M	LS	
			7.5YR 5/6	20	С	M		
		-						
-								
					-			
	0.000							
5	19.000	12.0						
						1		
				1.00		6 m - 1 c		
				ed Matr	ix, CS=0	Covered	or Coated Sand Grains	
	PL=Pore Lining,	M=Ma	trix			_		
lydric Soi	I Indicators:						Indicators for Prob	lematic Hydric Soils:
His	tisol (A1)		Poly	value	Below St	Irface	2 cm Muck (A10)) (LRR K, L, MLRA 149B
	tic Epipedon (A2	2)			R, MLR			dox (A16) (LRR K, L, R)
	ck Histic (A3)				Surface		5 cm Mucky Pea	t or Peat (S3) (LRR K, L, F
	drogen Sulfide (A				LRA 149		Dark Surface (S7	7) (LRR K, L
	atified Layers (As pleted Below Dar				cky Mine	ral		Surface (S8) (LRR K, L)
	ck Dark Surface) (LRR my Gle	n, ∟) yed Mati	ix (F2)		ce (S9) (LRR K, L) Masses (F12) (LRR K, L, I
	ndy Mucky Miner				latrix (F3		Piedmont Floodp	
Sar	idy whicky while							Main Sons (F19) (WILKA 14:
Sar	ndy Gleyed Matri				k Surfac			A6) (MLRA 144A, 145, 149
Sar	ndy Gleyed Matri ndy Redox (S5)	x (S4)	Dep	leted D	ark Surf	ace (F7)	Red Parent Mate	A6) (MLRA 144A, 145, 149 erial (F21)
Sar Sar Stri	ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6)	x (S4)	Dep Red	leted D		ace (F7)	Red Parent Mate	A6) (MLRA 144A, 145, 149 erial (F21) rk Surface (TF12)
Sar Sar Stri Dar 149	ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6) k Surface (S7) (B)	x (S4) LRR R,	MLRA Dep	leted D lox Dep	ark Surf pressions	ace (F7) (F8)	Red Parent Mate Very Shallow Da Other (Explain in	A6) (MLRA 144A, 145, 149 erial (F21) rk Surface (TF12) Remarks)
Sar Sar Stri Dar 149	ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6) k Surface (S7) (B)	x (S4) LRR R,	MLRA Dep	leted D lox Dep	ark Surf pressions	ace (F7) (F8)	Red Parent Mate	A6) (MLRA 144A, 145, 149 erial (F21) rk Surface (TF12) Remarks)
Sar Sar Stri Dar 149	ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6) k Surface (S7) (B)	x (S4) LRR R,	MLRA Dep	leted D lox Dep	ark Surf pressions	ace (F7) (F8)	Red Parent Mate Very Shallow Da Other (Explain in	A6) (MLRA 144A, 145, 149 erial (F21) rk Surface (TF12) Remarks)
Sar Sar Stri Dar 149	ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6) k Surface (S7) (B) of hydrophytic ve	x (S4) LRR R, egetatio	MLRA Dep	leted D lox Dep	ark Surf pressions	ace (F7) (F8)	Red Parent Mate Very Shallow Da Other (Explain in	A6) (MLRA 144A, 145, 149 erial (F21) rk Surface (TF12) Remarks)
Sar Sar Stri Dar 149 Indicators Restrictive	ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6) k Surface (S7) (B) of hydrophytic ve Layer (if observe	x (S4) LRR R, egetatio	MLRA Dep	leted D lox Dep	ark Surf pressions	ace (F7) (F8)	Red Parent Mate Very Shallow Da Other (Explain in	A6) (MLRA 144A, 145, 149 erial (F21) rk Surface (TF12) Remarks) roblematic
Sar Sar Stri Dar 149 Indicators Restrictive	ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6) k Surface (S7) (B) of hydrophytic ve Layer (if observe	x (S4) LRR R, egetatio	MLRA Dep	leted D lox Dep	ark Surf pressions	ace (F7) (F8)	Red Parent Mate Very Shallow Da Other (Explain in nt, unless disturbed or pr	A6) (MLRA 144A, 145, 149 erial (F21) rk Surface (TF12) Remarks) roblematic
Sar Sar Stri Dar 149 Indicators Restrictive	ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6) k Surface (S7) (B) of hydrophytic ve Layer (if observe	x (S4) LRR R, egetatio	MLRA Dep	leted D lox Dep	ark Surf pressions	ace (F7) (F8)	Red Parent Mate Very Shallow Da Other (Explain in nt, unless disturbed or pr	A6) (MLRA 144A, 145, 149 erial (F21) rk Surface (TF12) Remarks) roblematic
Sar Sar Stri Dar 149 Indicators Restrictive	ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6) k Surface (S7) (B) of hydrophytic ve Layer (if observe	x (S4) LRR R, egetatio	MLRA Dep	leted D lox Dep	ark Surf pressions	ace (F7) (F8)	Red Parent Mate Very Shallow Da Other (Explain in nt, unless disturbed or pr	A6) (MLRA 144A, 145, 149 erial (F21) rk Surface (TF12) Remarks) roblematic
Sar Sar Stri Dar 149 Indicators Restrictive	ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6) k Surface (S7) (B) of hydrophytic ve Layer (if observe	x (S4) LRR R, egetatio	MLRA Dep	leted D lox Dep	ark Surf pressions	ace (F7) (F8)	Red Parent Mate Very Shallow Da Other (Explain in nt, unless disturbed or pr	A6) (MLRA 144A, 145, 149 erial (F21) rk Surface (TF12) Remarks) roblematic
Sar Sar Stri Dar 149 Indicators Restrictive	ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6) k Surface (S7) (B) of hydrophytic ve Layer (if observe	x (S4) LRR R, egetatio	MLRA Dep	leted D lox Dep	ark Surf pressions	ace (F7) (F8)	Red Parent Mate Very Shallow Da Other (Explain in nt, unless disturbed or pr	A6) (MLRA 144A, 145, 149 erial (F21) rk Surface (TF12) Remarks) roblematic
Sar Sar Stri Dar 149 Indicators Restrictive	ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6) k Surface (S7) (B) of hydrophytic ve Layer (if observe	x (S4) LRR R, egetatio	MLRA Dep	leted D lox Dep	ark Surf pressions	ace (F7) (F8)	Red Parent Mate Very Shallow Da Other (Explain in nt, unless disturbed or pr	A6) (MLRA 144A, 145, 149 erial (F21) rk Surface (TF12) Remarks) roblematic
Sar Sar Stri Dar 149 Indicators Restrictive	ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6) k Surface (S7) (B) of hydrophytic ve Layer (if observe	x (S4) LRR R, egetatio	MLRA Dep	leted D lox Dep	ark Surf pressions	ace (F7) (F8)	Red Parent Mate Very Shallow Da Other (Explain in nt, unless disturbed or pr	A6) (MLRA 144A, 145, 149 erial (F21) rk Surface (TF12) Remarks) roblematic
Sar Sar Stri Dar 149 Indicators Restrictive	ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6) k Surface (S7) (B) of hydrophytic ve Layer (if observe	x (S4) LRR R, egetatio	MLRA Dep	leted D lox Dep	ark Surf pressions	ace (F7) (F8)	Red Parent Mate Very Shallow Da Other (Explain in nt, unless disturbed or pr	A6) (MLRA 144A, 145, 149 erial (F21) rk Surface (TF12) Remarks) roblematic
Sar Sar Stri Dar 149 Indicators Restrictive	ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6) k Surface (S7) (B) of hydrophytic ve Layer (if observe	x (S4) LRR R, egetatio	MLRA Dep	leted D lox Dep	ark Surf pressions	ace (F7) (F8)	Red Parent Mate Very Shallow Da Other (Explain in nt, unless disturbed or pr	A6) (MLRA 144A, 145, 149 erial (F21) rk Surface (TF12) Remarks) roblematic
Sar Sar Stri Dar 149 Indicators Restrictive	ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6) k Surface (S7) (B) of hydrophytic ve Layer (if observe	x (S4) LRR R, egetatio	MLRA Dep	leted D lox Dep	ark Surf pressions	ace (F7) (F8)	Red Parent Mate Very Shallow Da Other (Explain in nt, unless disturbed or pr	A6) (MLRA 144A, 145, 149 erial (F21) rk Surface (TF12) Remarks) roblematic
Sar Sar Stri Dar 149 Indicators Restrictive	ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6) k Surface (S7) (B) of hydrophytic ve Layer (if observe	x (S4) LRR R, egetatio	MLRA Dep	leted D lox Dep	ark Surf pressions	ace (F7) (F8)	Red Parent Mate Very Shallow Da Other (Explain in nt, unless disturbed or pr	A6) (MLRA 144A, 145, 149 erial (F21) rk Surface (TF12) Remarks) roblematic
Sar Sar Stri Dar 149 Indicators estrictive ype: pepth (inch	ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6) k Surface (S7) (B) of hydrophytic ve Layer (if observe	x (S4) LRR R, egetatio	MLRA Dep	leted D lox Dep	ark Surf pressions	ace (F7) (F8)	Red Parent Mate Very Shallow Da Other (Explain in nt, unless disturbed or pr	A6) (MLRA 144A, 145, 149 erial (F21) rk Surface (TF12) Remarks) roblematic

US Army Corps of Engineers

Northcentral and Northeast Region

EGETATION - Use scientific names of pla				Sampling Point: T1P1
Tree Stratum Plot Size (30) Fraxinus pennsylvanica	Absolute % Cover 10	Dominant Species Y	Indicator Status FACW	20%50%Tree Stratum3Sapling/Shrub Stratum0
Populus tremuloides	5	<u>Y</u>	FAC	Herb Stratum 22 55 Woody Vine Stratum 0 0
	_		=	Dominance Test Worksheet Number of Dominant Species that are OBL,
	_		_	FACW, or FAC:4 (A Total Number of
	15:	Total Cover		Dominant Species Across <u>4</u> (B Percent of Dominant Species that are OBL,
Sapling/Shrub Plot Size(15)) Stratum	Absolute % Cover	Dominant Species	Indicator Status	FACW, or FAC:100.00% (A
				Prevalence Index WorksheetTotal % Cover of:OBL species 0 X 1 = 0 FACW species 90 X 2 = 180 FAC species 5 X 3 = 15 FACU species 30 X 4 = 120 UPL species 0 Column totals 125 (A) 315 Prevalence Index = B/A = 2.52
	0 =	Total Cover	Indicator	Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation
Herb Stratum Plot Size (5) Phalaris arundinacea Agrostis gigantea Poa pratensis Trifolium repens Taraxacum officinale Potentilla simplex	% Cover 50 30 10 5 5 5	Species Y N N N N N	Status FACW FACU FACU FACU FACU FACU	X Dominance test is >50% X Prevalence index is ≤3.0* Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet) Problematic hydrophytic vegetation* (explain)
	=			present, unless disturbed or problematic Definitions of Vegetation Strata:
				Tree - Woody plants 3 in. (7.6 cm) or more in diame at breast height (DBH), regardless of height.
		Total Cover		Sapling/shrub - Woody plants less than 3 in. DBH greater than 3.28 ft (1 m) tall.
Noody Vine Plot Size(30)	Absolute	Dominant	Indicator	Herb - All herbaceous (non-woody) plants, regardle size, and woody plants less than 3.28 ft tall.
Stratum , Not 0120 (000)	% Cover	Species	Status	Woody vines - All woody vines greater than 3.28 ft height.
				Hydrophytic vegetation
	0 =	Total Cover		present? Y

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Dave Hahn Property	City/County: Rus	h Lake/Winnebago Sampling Date: 10/28/2016
Applicant/Owner: Dave Hahn	Sta	te: WI Sampling Point T1P2
nvestigator(s): Stacey Henk, Garek Ho	lley Sec	tion, Township, Range: Sec 27, T17N, R14E
andform (hillslope, terrace, etc.): Foot	slope-upgradient W of T1P1 Local re	elief (concave, convex, none): concave
Slope (%): 0-2 Lat.:	Long.:	Datum:
Soil Map Unit Nam(FsB		NWI Classification:
Are climatic/hydrologic conditions of the		
Are vegetation X, soil	or hydrologysignificantly dis	
	or hydrology naturally proble	matic? circumstances" present?
If needed, explain any answers in rema	rks)	
SUMMARY OF FINDINGS		
Hydrophytic vegetation present? Hydric soil present?	Y Is the sampled area	a within a wetland? Y
ndicators of wetland hydrology present	P Y If yes, optional wet	and site ID:
Remarks: (Explain alternative procedure	s here or in a separate report)	
tomano. (Explain alternative procedure	s nore of in a separate report.)	
Mourad Louis		
Mowed Lawn		
HYDROLOGY		
		Secondary Indicators (minimum of two
Primary Indicators (minimum of one is re	ocuired: check all that apply)	required)
Surface Water (A1)	Water-Stained Leaves (B9)	Surface Soil Cracks (B6)
X High Water Table (A2)	Aquatic Fauna (B13)	Drainage Patterns (B10)
\overline{X} Saturation (A3)	Marl Deposits (B15)	Moss Trim Lines (B16)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Oxidized Rhizospheres on	Crayfish Burrows (C8)
Drift Deposits (B3)	Living Roots (C3)	Saturation Visible on Aerial Imagery
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4)	(C9)
Iron Deposits (B5)	Recent Iron Reduction in Tilled	Stunted or Stressed Plants (D1)
Inundation Visible on Aerial	Soils (C6)	X Geomorphic Position (D2)
Imagery (B7)	Thin Muck Surface (C7)	Shallow Aquitard (D3)
Sparsely Vegetated Concave	Other (Explain in Remarks)	X FAC-Neutral Test (D5)
Surface (B8)		Microtopographic Relief (D4)
ield Observations:		
urface water present? Yes	No X Depth (inches):	Indicators of
Vater table present? Yes X		10 wetland
aturation present? Yes X	No Depth (inches):	2 hydrology
ncludes capillary fringe)		present? Y
popular recorded data (stars and	and the state of the	
escribe recorded data (stream gauge,	nonitoring well, aerial photos, previous	inspections), if available:
emarks:		
emarks:		

	Depth Matrix			ription: (Describe to the depth needed to document the indica Matrix Redox Features				
	Color (moist) %		%	Type*	Loc**	Texture	Remarks	
101112/1	100	Color (moist)				SIL		
2.5Y 7/1	60	5Y 8/1	20	D	М	C		
		7.5YR 5/6	20	C	М			
					i			
			4	1.00				
	2							
			1-1		1			
-			-					
	1							
	1							
ncentration, D	=Deplet	ion, RM=Reduce	ed Matr	ix, CS=C	Covered	or Coated Sand Grains		
ndicators:						Indicators for Proble	ematic Hydric Soils:	
ted Below Dar Dark Surface / Mucky Miner / Gleyed Matri / Redox (S5) ed Matrix (S6) Surface (S7) (hydrophytic ve	rk Sufac (A12) ral (S1) x (S4) LRR R,	e (A11)(F1) Loai Dep Red Red MLRA	(LRR my Gle leted M ox Darl leted D ox Dep	K, L) yed Matr latrix (F3 k Surface ark Surfa ressions	ix (F2)) e (F6) ace (F7) (F8)	Thin Dark Surface Iron-Manganese I Piedmont Floodpl Mesic Spodic (TA Red Parent Mater Very Shallow Darl Other (Explain in I	Masses (F12) (LRR K, L, ain Soils (F19) (MLRA 14 6) (MLRA 144A, 145, 14 ial (F21) k Surface (TF12) Remarks)	
yer (if observe	ed):							
).						Hydric soil present?	<u>Y</u>	
)								
	L=Pore Lining ndicators: ol (A1) Epipedon (A2 Histic (A3) gen Sulfide (A fied Layers (A4 ted Below Dar Dark Surface y Mucky Miner y Gleyed Matri y Redox (S5) ed Matrix (S6) Surface (S7) (hydrophytic ve	L=Pore Lining, M=Mai ndicators: ol (A1) Epipedon (A2) Histic (A3) ogen Sulfide (A4) fied Layers (A5) ted Below Dark Suface Dark Surface (A12) y Mucky Mineral (S1) y Gleyed Matrix (S4) y Gleyed Matrix (S4) y Gleyed Matrix (S6) Surface (S7) (LRR R,) hydrophytic vegetatio yer (if observed):	L=Pore Lining, M=Matrix ndicators: ol (A1) Poly Epipedon (A2) (S8) Histic (A3) Thir ogen Sulfide (A4) (LR fied Layers (A5) Loa ted Below Dark Suface (A11) (F1) Dark Surface (A12) Loa y Mucky Mineral (S1) Dep y Gleyed Matrix (S4) Red y Redox (S5) Dep ed Matrix (S6) Red Surface (S7) (LRR R, MLRA) hydrophytic vegetation and weltand hydrophytic	L=Pore Lining, M=Matrix ndicators: ol (A1) Polyvalue B Epipedon (A2) (S8) (LRR Histic (A3) Thin Dark S ogen Sulfide (A4) (LRR R, M fied Layers (A5) Loamy Muc ted Below Dark Suface (A11) (F1) (LRR I) Dark Surface (A12) Loamy Gley Y Mucky Mineral (S1) Depleted M Y Redox (S5) Depleted D Surface (S7) (LRR R, MLRA Redox Dep hydrophytic vegetation and weltand hydrolog Yer (if observed):	L=Pore Lining, M=Matrix ndicators: ol (A1) Polyvalue Below Su Epipedon (A2) (S8) (LRR R, MLRA Histic (A3) Thin Dark Surface (ogen Sulfide (A4) (LRR R, MLRA 149) fied Layers (A5) Loamy Mucky Mine ted Below Dark Suface (A11) (F1) (LRR K, L) Dark Surface (A12) Loamy Gleyed Matrix (F3) y Mucky Mineral (S1) Depleted Matrix (F3) y Gleyed Matrix (S4) Redox Dark Surface y Redox (S5) Depleted Dark Surface Surface (S7) (LRR R, MLRA Redox Depressions hydrophytic vegetation and weltand hydrology must b yer (if observed):	L=Pore Lining, M=Matrix ndicators: ol (A1) Polyvalue Below Surface Epipedon (A2) (S8) (LRR R, MLRA Histic (A3) Thin Dark Surface (S9) ogen Sulfide (A4) (LRR R, MLRA 149B fied Layers (A5) Loamy Mucky Mineral ted Below Dark Suface (A11) (F1) (LRR K, L) Dark Surface (A12) Loamy Gleyed Matrix (F2) y Mucky Mineral (S1) Depleted Matrix (F3) y Gleyed Matrix (S4) Redox Dark Surface (F6) y Redox (S5) Depleted Dark Surface (F7) Burface (S7) (LRR R, MLRA N hydrophytic vegetation and weltand hydrology must be preser yer (if observed): Yer (if observed):	Indicators: Indicators for Problem Indicators: Indicators for Problem Image: Stress of the stress	

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				50/20 Thresholds
Tree Stratum Plot Size(30) <i>Fraxinus pennsylvanica</i> <i>Populus tremuloides</i>	Absolute % Cover 10 5	Dominant Species Y Y	Indicator Status FACW FAC	20%50%Tree Stratum3Sapling/Shrub Stratum0Herb Stratum22Woody Vine Stratum0
	\equiv		_	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 4 Total Number of Dominant Species Across 5
Sapling/Shrub Plot Size(15)) Stratum	<u> </u>	Total Cover Dominant Species	Indicator Status	Percent of Dominant Species that are OBL, FACW, or FAC: <u>80.00%</u> (A/E
		Total Cover		Prevalence Index WorksheetTotal % Cover of: OBL species0 $x 1 = 0$ FACW species0 $x 2 = 160$ FAC species5 $x 3 = 15$ FACU species40 $x 4 = 160$ UPL species0 $x 5 = 0$ Column totals125(A)Prevalence Index = B/A = 2.68
Herb Stratum Plot Size(5) Phalaris arundinacea Agrostis gigantea Poa pratensis Taraxacum officinale Trifolium repens	0 = Absolute % Cover 40 30 25 10 5 	Dominant Species Y Y Y N N	Indicator Status FACW FACU FACU FACU FACU	Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation X Dominance test is >50% X Prevalence index is \$3.0* Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet) Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must present, unless disturbed or problematic
	\equiv			Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
		Total Cover		Sapling/shrub - Woody plants less than 3 in. DBH ar greater than 3.28 ft (1 m) tall.
Woody Vine Plot Size(30) Stratum	Absolute % Cover	Dominant Species	Indicator Status	Herb - All herbaceous (non-woody) plants, regardless size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height.
		Total Cover		Hydrophytic vegetation present? Y

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Dave Hahn Property	City/County: R	ush Lake/Winnebago	Sampling Date: 10/28/2	2016
Applicant/Owner: Dave Hahn	S	State: WI	Sampling Point	T1P3
Investigator(s): Stacey Henk, Garek Holley	S	Section, Township	, Range: Sec 27, T17N,	R14E
Landform (hillslope, terrace, etc.): Backslope-up	gradient N of T1P2 Local	I relief (concave,	convex, none): nonc	
Slope (%): 6 Lat.:	Long.:	Datum:		
Soil Map Unit Nam FsB			Classification:	
Are climatic/hydrologic conditions of the site typic	al for this time of the year?	Yes (If no,	explain in remarks)	
Are vegetation , soil , or hydro	logy significantly of	disturbed?	Are "normal	
Are vegetation , soil , or hydro			circumstances" preser	nt? Yes
(If needed, explain any answers in remarks)			a second second second	

SUMMARY OF FINDINGS

HYDROLOGY

Primary Indicators (minimum of one is re Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	equired; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks)	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Crayfish Burro
Field Observations: Surface water present? Yes Water table present? Yes Saturation present? Yes (includes capillary fringe) Image: Comparison of the second seco	No X Depth (inches): No X Depth (inches): No X Depth (inches):	Indicators of wetland hydrology present? <u>N</u>
Describe recorded data (stream gauge, r Remarks:	nonitoring well, aerial photos, previous ins	pections), if available:
Approximately 2ft upgradient of T	⁻ 1P2	

			Matrix Redox Features				Texture		
(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks	
0-10	10YR 2/1	100			1	-	SIL	Rock at 10"	
			1						
				-					
		[-]							
Type: C=C	Concentration. D	=Deplet	ion. RM=Reduce	ed Matr	ix. CS=0	Covered	or Coated Sand Grai	ns	
	PL=Pore Lining,				.,				
ydric Soi	Indicators:						Indicators for P	roblematic Hydric Soils:	
His	tisol (A1)		Poly	walue F	Below Su	Irface	2 cm Muck (A10) (LRR K, L, MLRA 149B	
	tic Epipedon (A2	2)			R, MLR			Redox (A16) (LRR K, L, R)	
	ck Histic (A3)				Surface (5 cm Mucky	Peat or Peat (S3) (LRR K, L, I	
	Irogen Sulfide (A				LRA 149		Dark Surface	e (S7) (LRR K, L	
	atified Layers (A			my Muc	ckv Mine	ral			
1100	lated Rolow Day	L Cufac	0 (A11) (E1)			i ui		low Surface (S8) (LRR K, L)	
	leted Below Dar k Dark Surface			(LRR	K, L)		Thin Dark Su	rface (S9) (LRR K, L)	
Thio Sar	ck Dark Surface dy Mucky Miner	(A12) al (S1)	Loa	(LRR) my Gle		ix (F2)	Thin Dark Su Iron-Mangan	rface (S9) (LRR K, L) ese Masses (F12) (LRR K, L,	
Thio Sar Sar	ck Dark Surface dy Mucky Miner dy Gleyed Matri	(A12) al (S1)	Loa Dep Red	(LRR my Gle leted M lox Dark	K, L) yed Matr latrix (F3 k Surface	rix (F2) 3) e (F6)	Thin Dark Su Iron-Mangan Piedmont Flo Mesic Spodic	nface (S9) (LRR K, L) ese Masses (F12) (LRR K, L, podplain Soils (F19) (MLRA 14 c (TA6) (MLRA 144A, 145, 145	
Thio Sar Sar Sar	ck Dark Surface dy Mucky Miner dy Gleyed Matri dy Redox (S5)	(A12) ral (S1) ix (S4)	Loan Dep Red	(LRR) my Gley leted M ox Darl leted D	K, L) yed Matr latrix (F3 k Surface ark Surface	rix (F2) 3) e (F6) ace (F7)	Thin Dark Su Iron-Mangan Piedmont Flo Mesic Spodic Red Parent M	nrface (S9) (LRR K, L) ese Masses (F12) (LRR K, L, podplain Soils (F19) (MLRA 14 c (TA6) (MLRA 144A, 145, 149 Material (F21)	
Thio Sar Sar Sar Stri	ck Dark Surface dy Mucky Miner dy Gleyed Matri dy Redox (S5) pped Matrix (S6)	(A12) ral (S1) ix (S4)	Loan Dep Red Dep Red	(LRR) my Gley leted M ox Darl leted D	K, L) yed Matr latrix (F3 k Surface	rix (F2) 3) e (F6) ace (F7)	Thin Dark Su Iron-Mangan Piedmont Flo Mesic Spodic Red Parent M	nrface (S9) (LRR K, L) ese Masses (F12) (LRR K, L, podplain Soils (F19) (MLRA 14 c (TA6) (MLRA 144A, 145, 149 Material (F21) Dark Surface (TF12)	
Thio Sar Sar Sar Sar Sar Stri Dar 149	ck Dark Surface ady Mucky Miner ady Gleyed Matri ady Redox (S5) pped Matrix (S6) k Surface (S7) (B)	(A12) al (S1) x (S4) LRR R,	Loa Dep Red MLRA	(LRR my Gle leted M ox Dark leted D ox Dep	K, L) yed Matri latrix (F3 k Surface ark Surface ressions	rix (F2) 8) e (F6) ace (F7) e (F8)	Thin Dark Su Iron-Mangan Piedmont Flo Mesic Spodic Red Parent M Very Shallow Other (Explai	nrface (S9) (LRR K, L) ese Masses (F12) (LRR K, L, bodplain Soils (F19) (MLRA 14 c (TA6) (MLRA 144A, 145, 149 Material (F21) Dark Surface (TF12) n in Remarks)	
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Thio Sar Sar Sar Stri Dar 149	ck Dark Surface ady Mucky Miner ady Gleyed Matri ady Redox (S5) pped Matrix (S6) k Surface (S7) (B) of hydrophytic ve	(A12) ral (S1) ix (S4) LRR R, egetatio	Loa Dep Red MLRA	(LRR my Gle leted M ox Dark leted D ox Dep	K, L) yed Matri latrix (F3 k Surface ark Surface ressions	rix (F2) 8) e (F6) ace (F7) e (F8)	Thin Dark Su Iron-Mangan Piedmont Flo Mesic Spodic Red Parent M Very Shallow Other (Explai	nrface (S9) (LRR K, L) ese Masses (F12) (LRR K, L, bodplain Soils (F19) (MLRA 14 c (TA6) (MLRA 144A, 145, 149 Material (F21) Dark Surface (TF12) n in Remarks)	
Thio Sar Sar Sar Stri Dar 149 ndicators	ck Dark Surface ady Mucky Miner ady Gleyed Matri ady Redox (S5) pped Matrix (S6) k Surface (S7) (B)	(A12) ral (S1) ix (S4) LRR R, egetatio	Loa Dep Red MLRA	(LRR my Gle leted M ox Dark leted D ox Dep	K, L) yed Matri latrix (F3 k Surface ark Surface ressions	rix (F2) 8) e (F6) ace (F7) e (F8)	Thin Dark Su Iron-Mangan Piedmont Flo Mesic Spodic Red Parent N Very Shallow Other (Explai	arface (S9) (LRR K, L) ese Masses (F12) (LRR K, L, podplain Soils (F19) (MLRA 14 c (TA6) (MLRA 144A, 145, 149 Material (F21) Dark Surface (TF12) in in Remarks) or problematic	
Thio Sar Sar Sar Stri Dar 149 ndicators	ck Dark Surface ady Mucky Miner ady Gleyed Matri ady Redox (S5) pped Matrix (S6) k Surface (S7) (B) of hydrophytic ve Layer (if observe	(A12) ral (S1) ix (S4) LRR R, egetatio	Loa Dep Red MLRA	(LRR my Gle leted M ox Dark leted D ox Dep	K, L) yed Matri latrix (F3 k Surface ark Surface ressions	rix (F2) 8) e (F6) ace (F7) e (F8)	Thin Dark Su Iron-Mangan Piedmont Flo Mesic Spodic Red Parent M Very Shallow Other (Explai	arface (S9) (LRR K, L) ese Masses (F12) (LRR K, L, podplain Soils (F19) (MLRA 14 c (TA6) (MLRA 144A, 145, 149 Material (F21) Dark Surface (TF12) in in Remarks) or problematic	
Thio Sar Sar Sar Stri Dar 149 ndicators estrictive l ype: epth (inch	ck Dark Surface ady Mucky Miner ady Gleyed Matri ady Redox (S5) pped Matrix (S6) k Surface (S7) (B) of hydrophytic ve Layer (if observe	(A12) ral (S1) ix (S4) LRR R, egetatio	Loa Dep Red MLRA	(LRR my Gle leted M ox Dark leted D ox Dep	K, L) yed Matri latrix (F3 k Surface ark Surface ressions	rix (F2) 8) e (F6) ace (F7) e (F8)	Thin Dark Su Iron-Mangan Piedmont Flo Mesic Spodic Red Parent N Very Shallow Other (Explai	arface (S9) (LRR K, L) ese Masses (F12) (LRR K, L, podplain Soils (F19) (MLRA 14 c (TA6) (MLRA 144A, 145, 149 Material (F21) Dark Surface (TF12) in in Remarks) or problematic	
Thio Sar Sar Sar Stri Dar 149 ndicators	ck Dark Surface ady Mucky Miner ady Gleyed Matri ady Redox (S5) pped Matrix (S6) k Surface (S7) (B) of hydrophytic ve Layer (if observe	(A12) ral (S1) ix (S4) LRR R, egetatio	Loa Dep Red MLRA	(LRR my Gle leted M ox Dark leted D ox Dep	K, L) yed Matri latrix (F3 k Surface ark Surface ressions	rix (F2) 8) e (F6) ace (F7) e (F8)	Thin Dark Su Iron-Mangan Piedmont Flo Mesic Spodic Red Parent N Very Shallow Other (Explai	arface (S9) (LRR K, L) ese Masses (F12) (LRR K, L, podplain Soils (F19) (MLRA 14 c (TA6) (MLRA 144A, 145, 149 Material (F21) Dark Surface (TF12) in in Remarks) or problematic	
Thio Sar Sar Sar Stri Dar 149 ndicators estrictive l ype: epth (inch	ck Dark Surface ady Mucky Miner ady Gleyed Matri ady Redox (S5) pped Matrix (S6) k Surface (S7) (B) of hydrophytic ve Layer (if observe	(A12) ral (S1) ix (S4) LRR R, egetatio	Loa Dep Red MLRA	(LRR my Gle leted M ox Dark leted D ox Dep	K, L) yed Matri latrix (F3 k Surface ark Surface ressions	rix (F2) 8) e (F6) ace (F7) e (F8)	Thin Dark Su Iron-Mangan Piedmont Flo Mesic Spodic Red Parent N Very Shallow Other (Explai	urface (S9) (LRR K, L) ese Masses (F12) (LRR K, L, bodplain Soils (F19) (MLRA 14 c (TA6) (MLRA 144A, 145, 149 Material (F21) Dark Surface (TF12) in in Remarks) or problematic	
Thio Sar Sar Sar Stri Dar 149 ndicators estrictive l ype: epth (inch	ck Dark Surface ady Mucky Miner ady Gleyed Matri ady Redox (S5) pped Matrix (S6) k Surface (S7) (B) of hydrophytic ve Layer (if observe	(A12) ral (S1) ix (S4) LRR R, egetatio	Loa Dep Red MLRA	(LRR my Gle leted M ox Dark leted D ox Dep	K, L) yed Matri latrix (F3 k Surface ark Surface ressions	rix (F2) 8) e (F6) ace (F7) e (F8)	Thin Dark Su Iron-Mangan Piedmont Flo Mesic Spodic Red Parent N Very Shallow Other (Explai	urface (S9) (LRR K, L) ese Masses (F12) (LRR K, L, bodplain Soils (F19) (MLRA 14 c (TA6) (MLRA 144A, 145, 149 Material (F21) Dark Surface (TF12) in in Remarks) or problematic	
Thio Sar Sar Sar Stri Dar 149 ndicators estrictive l /pe: epth (inch	ck Dark Surface ady Mucky Miner ady Gleyed Matri ady Redox (S5) pped Matrix (S6) k Surface (S7) (B) of hydrophytic ve Layer (if observe	(A12) ral (S1) ix (S4) LRR R, egetatio	Loa Dep Red MLRA	(LRR my Gle leted M ox Dark leted D ox Dep	K, L) yed Matri latrix (F3 k Surface ark Surface ressions	rix (F2) 8) e (F6) ace (F7) e (F8)	Thin Dark Su Iron-Mangan Piedmont Flo Mesic Spodic Red Parent N Very Shallow Other (Explai	urface (S9) (LRR K, L) ese Masses (F12) (LRR K, L, bodplain Soils (F19) (MLRA 14 c (TA6) (MLRA 144A, 145, 149 Material (F21) Dark Surface (TF12) in in Remarks) or problematic	
Thio Sar Sar Sar Stri Dar 149 ndicators estrictive l ype: epth (inch	ck Dark Surface ady Mucky Miner ady Gleyed Matri ady Redox (S5) pped Matrix (S6) k Surface (S7) (B) of hydrophytic ve Layer (if observe	(A12) ral (S1) ix (S4) LRR R, egetatio	Loa Dep Red MLRA	(LRR my Gle leted M ox Dark leted D ox Dep	K, L) yed Matri latrix (F3 k Surface ark Surface ressions	rix (F2) 8) e (F6) ace (F7) e (F8)	Thin Dark Su Iron-Mangan Piedmont Flo Mesic Spodic Red Parent N Very Shallow Other (Explai	urface (S9) (LRR K, L) ese Masses (F12) (LRR K, L, bodplain Soils (F19) (MLRA 14 c (TA6) (MLRA 144A, 145, 149 Material (F21) Dark Surface (TF12) in in Remarks) or problematic	
Thio Sar Sar Sar Stri Dar 149 ndicators estrictive l ype: epth (inch	ck Dark Surface ady Mucky Miner ady Gleyed Matri ady Redox (S5) pped Matrix (S6) k Surface (S7) (B) of hydrophytic ve Layer (if observe	(A12) ral (S1) ix (S4) LRR R, egetatio	Loa Dep Red MLRA	(LRR my Gle leted M ox Dark leted D ox Dep	K, L) yed Matri latrix (F3 k Surface ark Surface ressions	rix (F2) 8) e (F6) ace (F7) e (F8)	Thin Dark Su Iron-Mangan Piedmont Flo Mesic Spodic Red Parent N Very Shallow Other (Explai	arface (S9) (LRR K, L) ese Masses (F12) (LRR K, L, podplain Soils (F19) (MLRA 14 c (TA6) (MLRA 144A, 145, 149 Material (F21) Dark Surface (TF12) in in Remarks) or problematic	
Thio Sar Sar Sar Stri Dar 149 ndicators estrictive l ype: epth (inch	ck Dark Surface ady Mucky Miner ady Gleyed Matri ady Redox (S5) pped Matrix (S6) k Surface (S7) (B) of hydrophytic ve Layer (if observe	(A12) ral (S1) ix (S4) LRR R, egetatio	Loa Dep Red MLRA	(LRR my Gle leted M ox Dark leted D ox Dep	K, L) yed Matri latrix (F3 k Surface ark Surface ressions	rix (F2) 8) e (F6) ace (F7) e (F8)	Thin Dark Su Iron-Mangan Piedmont Flo Mesic Spodic Red Parent N Very Shallow Other (Explai	urface (S9) (LRR K, L) ese Masses (F12) (LRR K, L, bodplain Soils (F19) (MLRA 14 c (TA6) (MLRA 144A, 145, 149 Material (F21) Dark Surface (TF12) in in Remarks) or problematic	
Thio Sar Sar Sar Stri Dar 149 ndicators estrictive l ype: epth (inch	ck Dark Surface ady Mucky Miner ady Gleyed Matri ady Redox (S5) pped Matrix (S6) k Surface (S7) (B) of hydrophytic ve Layer (if observe	(A12) ral (S1) ix (S4) LRR R, egetatio	Loa Dep Red MLRA	(LRR my Gle leted M ox Dark leted D ox Dep	K, L) yed Matri latrix (F3 k Surface ark Surface ressions	rix (F2) 8) e (F6) ace (F7) e (F8)	Thin Dark Su Iron-Mangan Piedmont Flo Mesic Spodic Red Parent N Very Shallow Other (Explai	urface (S9) (LRR K, L) ese Masses (F12) (LRR K, L, bodplain Soils (F19) (MLRA 14 c (TA6) (MLRA 144A, 145, 149 Material (F21) Dark Surface (TF12) in in Remarks) or problematic	
Thio Sar Sar Sar Stri Dar 149 estrictive l vpe: epth (inch	ck Dark Surface ady Mucky Miner ady Gleyed Matri ady Redox (S5) pped Matrix (S6) k Surface (S7) (B) of hydrophytic ve Layer (if observe	(A12) ral (S1) ix (S4) LRR R, egetatio	Loa Dep Red MLRA	(LRR my Gle leted M ox Dark leted D ox Dep	K, L) yed Matri latrix (F3 k Surface ark Surface ressions	rix (F2) 8) e (F6) ace (F7) e (F8)	Thin Dark Su Iron-Mangan Piedmont Flo Mesic Spodic Red Parent N Very Shallow Other (Explai	arface (S9) (LRR K, L) ese Masses (F12) (LRR K, L, bodplain Soils (F19) (MLRA 14 c (TA6) (MLRA 144A, 145, 149 Material (F21) Dark Surface (TF12) in in Remarks) or problematic	

US Army Corps of Engineers

	ints			Sampling Point: T1P3 50/20 Thresholds
Tree Stratum Plot Size(30) Quercus alba	Absolute % Cover 30	Dominant Species Y	Indicator Status FACU	20%50%Tree Stratum615Sapling/Shrub Stratum0Herb Stratum2358Woody Vine Stratum0
	\equiv	\equiv	<u> </u>	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A) Total Number of
		Tetal One		Dominant Species Across 3 (B)
Sapling/Shrub Plot Size(15))	30 Absolute % Cover	 Total Cover Dominant Species 	Indicator Status	Percent of Dominant Species that are OBL, FACW, or FAC: <u>33.33%</u> (A/E
				Prevalence Index WorksheetTotal % Cover of:OBL species $0 \times 1 = 0$ FACW species $45 \times 2 = 90$ FAC species $0 \times 3 = 0$ FACU species $100 \times 4 = 400$ UPL species $0 \times 5 = 0$ Column totals 145 (A)Prevalence Index = B/A = 3.38
Herb Stratum Plot Size(5) Poa pratensis Phalaris arundinacea Solidago canadensis Fraxinus pennsylvanica	0 = 40 % Cover 60 40 10 5	= Total Cover Dominant Species Y Y N N N	Indicator Status FACU FACW FACU FACW	Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is ≤3.0* Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet) Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must present, unless disturbed or problematic
	=	_		Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diamete at breast height (DBH), regardless of height.
		_		Sapling/shrub - Woody plants less than 3 in. DBH ar greater than 3.28 ft (1 m) tall.
Woody Vine Plot Size(30) Stratum	115 = Absolute % Cover	Total Cover Dominant Species	Indicator Status	Herb - All herbaceous (non-woody) plants, regardless size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height.
				Hydrophytic vegetation

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Dave Hahn Property	City/County:	Rush Lake/Winnebago Sampling Date: 10/28/2016			
Applicant/Owner: Dave Hahn		State: WI Sampling Point T1P4			
Investigator(s): Stacey Henk, Garek Ho	olley	Section, Township, Range: Sec 27, T17N, R14E			
Landform (hillslope, terrace, etc.): Bac		ocal relief (concave, convex, none): none			
Slope (%): <u>4</u> Lat.: Soil Map Unit Nam(Hw	Long.:	Datum:			
	a site typical for this time of the ye	ar? Yes (If no, explain in remarks)			
Are vegetation X soil	or hydrology significant	thy disturbed? Are "normal			
Are vegetation X, soil Are vegetation , soil	, or hydrology naturally p	problematic? circumstances" present? N			
(If needed, explain any answers in rema	arks)				
SUMMARY OF FINDINGS					
Hydrophytic vegetation present?	N Is the sampled	d area within a water d2			
Hydric soil present?	Y is the sampled	d area within a wetland? N			
Indicators of wetland hydrology present		I wetland site ID:			
Remarks: (Explain alternative procedur	es here or in a separate report.)				
	F				
Mowed lawn					
HYDROLOGY					
IIBROEDET					
Primary Indicators (minimum of one is r	convirad: chack all that apply)	Secondary Indicators (minimum of two			
Surface Water (A1)	Water-Stained Leaves (B9)	required) Surface Soil Cracks (B6)			
High Water Table (A2)	Aquatic Fauna (B13)	Drainage Patterns (B10)			
Saturation (A3)	Marl Deposits (B15)	Moss Trim Lines (B16)			
Water Marks (B1)	Hydrogen Sulfide Odor (C1)				
Sediment Deposits (B2)	Oxidized Rhizospheres on				
Drift Deposits (B3)	Living Roots (C3)	Saturation Visible on Aerial Imagery			
Algal Mat or Crust (B4)	Presence of Reduced Iron (
Iron Deposits (B5)	Recent Iron Reduction in Til	lled Stunted or Stressed Plants (D1)			
Inundation Visible on Aerial	Soils (C6)	Geomorphic Position (D2)			
Imagery (B7)	Thin Muck Surface (C7)	Shallow Aquitard (D3)			
Sparsely Vegetated Concave	Other (Explain in Remarks)				
Surface (B8)		Microtopographic Relief (D4)			
ield Observations:					
Surface water present? Yes	No X Depth (inches)	Indicators of			
Vater table present? Yes	No X Depth (inches)	wetland			
aturation present? Yes	No X Depth (inches)				
		present? N			
ncludes capillary fringe)					
ncludes capillary fringe)	monitoring well, aerial photos, pre-	vious inspections), if available:			
ncludes capillary fringe)	monitoring well, aerial photos, pre-	vious inspections), if available:			
ncludes capillary fringe)	monitoring well, aerial photos, pre	vious inspections), if available:			
ncludes capillary fringe) Describe recorded data (stream gauge,	monitoring well, aerial photos, pre	vious inspections), if available:			
ncludes capillary fringe) Describe recorded data (stream gauge, Demarks:		evious inspections), if available:			
Describe recorded data (stream gauge, Remarks: Approximately 1ft upgradient of		evious inspections), if available:			

Depth	Matrix	Red	ox Feat	ures		or or confirm the absence		
(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-13	10YR 2/1	100					LS	
13-20	2.5Y 6/2	85	7.5YR 5/6	15	С	М	LS	
-		1					(
		1			1			
		· · · · ·					(1)	
				-				
	-	-						
						-		
Type: C=C	oncentration, D	=Deplet	tion. RM=Reduce	ed Matri	x. CS=0	Covered	or Coated Sand Grains	
*Location: I	PL=Pore Lining	, M=Ma	trix		, 00 0		or oblice ound orallis	
	Indicators:						Indicators for Proble	matic Hydric Soils:
	isol (A1)				Below Su			LRR K, L, MLRA 149B
	ic Epipedon (A2 k Histic (A3)	2)			R, MLR		Coast Prairie Red	ox (A16) (LRR K, L, R)
No. of Concession, Name	rogen Sulfide (/	AA)			_RA 149		Dark Surface (S7)	or Peat (S3) (LRR K, L, F
	tified Layers (A				ky Mine			Surface (S8) (LRR K, L)
	leted Below Da			(LRR)		i ci	Thin Dark Surface	(S9) (LRR K. L)
	k Dark Surface				ed Mat	rix (F2)	Iron-Manganese M	lasses (F12) (LRR K, L, I
and the second se	dy Mucky Mine				atrix (F3		Piedmont Floodpla	ain Soils (F19) (MLRA 149
	dy Gleyed Matr	ix (S4)			Surfac			6) (MLRA 144A, 145, 149
	dy Redox (S5) oped Matrix (S6	6			ressions	ace (F7)	Red Parent Mater Very Shallow Dark	
Dark	Surface (S7) (LRR R,	MLRA	or Depi	03510113	(10)	Other (Explain in F	
1498	B)							
ndicators c	of hydrophytic v	egetatio	on and weltand h	ydrology	y must b	preser	nt, unless disturbed or pro	blematic
				_				
estrictive L	ayer (if observe	ed):						
ype:		/-					Hydric soil present?	Y
epth (inche	es):							
emarks:								

EGETATION -							Sampling Point: T1P4 50/20 Thresholds
Tree Stratum 1 2 3	Plot Size (30)	Absolute % Cover	Dominant Species	Indicator Status	20%50%Tree Stratum000Sapling/Shrub Stratum0Herb Stratum1948Woody Vine Stratum00
4				0 s	Total Cover		Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 1 Total Number of Dominant Species Across 2 Percent of Dominant Species that are OBL, FACW, or FAC: 5 Species that are OBL, FACW, or FAC: 50.00% (A/E)
Stratum	Plot Size (15)	% Cover	Species	Status	OutputPrevalence Index WorksheetTotal % Cover of:OBL species $0 \times 1 = 0$ FACW species $0 \times 3 = 0$ FAC species $0 \times 3 = 0$ FACU species $0 \times 5 = 0$ UPL species $0 \times 5 = 0$ Column totals 95 (A) 290 Prevalence Index = B/A = 3.05
Herb Stratum <u>Poa pratensis</u> <u>Agrostis giga</u> Phalaris arun	ntea	5)	0 = = = = = = = = = = = = = = = = = = =	= Total Cover Dominant Species Y Y N N	Indicator Status FACU FACW FACW	Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is <3.0*
							Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diamet at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH ai greater than 3.28 ft (1 m) tall.
Woody Vine Stratum	Plot Size (30)	95 = Absolute % Cover	Total Cover Dominant Species	Indicator Status	Herb - All herbaceous (non-woody) plants, regardless size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height.
				0 =	Total Cover		Hydrophytic vegetation present? N

Project/Site: Dave Hahn Property	City/County:	Rush Lake/W	/innebago_Sampling Date: 10/28/2016
Applicant/Owner: Dave Hahn		State: WI	Sampling Point T2P1
Investigator(s): Stacey Henk, Garek Holley		Section, To	ownship, Range: Sec 27, T17N, R14E
Landform (hillslope, terrace, etc.): Shoulder	Lo	cal relief (co	ncave, convex, none): convex
Slope (%): 6 Lat.: Lo	ng.:	Datum	
Soil Map Unit Nam(FsB			NWI Classification:
Are climatic/hydrologic conditions of the site typical for	r this time of the year	? Yes	(If no, explain in remarks)
Are vegetation, soil, or hydrology		disturbed?	Are "normal
Are vegetation, soil, or hydrology	naturally pro	oblematic?	circumstances" present? Yes
(If needed, explain any answers in remarks)			

SUMMARY OF FINDINGS

Hydrophytic vegetation present? Hydric soil present?	<u>N</u>	Is the sampled area within a wetland?	<u> N </u>
ndicators of wetland hydrology present?	N	If yes, optional wetland site ID:	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) required) Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10) Saturation (A3) Marl Deposits (B15) Moss Trim Lines (B16) Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (A2) Sediment Deposits (B2) Oxidized Rhizospheres on Living Crayfish Burrows (C8) Drift Deposits (B3) Roots (C3) Saturation Visible on A Iron Deposits (B5) Recent Iron Reduction in Tilled Stunted or Stressed PI Inundation Visible on Aerial Soils (C6) Geomorphic Position (I Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3) Surface (B8) FAC-Neutral Test (D5) Microtopographic Relie Field Observations: No X Depth (inches): Indicators of wetland Saturation present? Yes No X Depth (inches): Indicators of wetland hydrology Includes capillary fringe) No X Depth (inches): Indicators of wetland	nimum of two
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10) Saturation (A3) Marl Deposits (B15) Moss Trim Lines (B16) Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (A2) Sediment Deposits (B2) Oxidized Rhizospheres on Living Crayfish Burrows (C8) Drift Deposits (B3) Roots (C3) Saturation Visible on A Algal Mat or Crust (B4) Presence of Reduced Iron (C4) (C9) Iron Deposits (B5) Recent Iron Reduction in Tilled Stunted or Stressed PI Inundation Visible on Aerial Soils (C6) Geomorphic Position (I Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3) Sparsely Vegetated Concave Other (Explain in Remarks) FAC-Neutral Test (D5) Surface (B8) No X Depth (inches): Indicators of wetland Water table present? Yes No X Depth (inches): Indicators of wetland Saturation present? Yes No X Depth (inches): present? present? (includes capillary fringe) Yes No X Depth (inches): present? Vest No	-
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escribe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	N
Remarks:	

Northcentral and Northeast Region

Depth	Matrix	-		ox Feat	tures		or or confirm the abs Texture	Demarka
(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	C BOOKENDA	Remarks
0-8	10YR 2/1	100		_			LS	
8-16	10YR 2/1	100					GRS	Rock at 16"
								IP
				S				
-		_						
								-
							Z	
Type: C=C	Concentration D	=Denlet	ion RM=Reduce	ed Matr	ix CS=C	Covered	or Coated Sand Grain	ns
	PL=Pore Lining,			cu mau	ix, 00-0	Jovereu	or coated band orall	13
	I Indicators:						Indicators for P	roblematic Hydric Soils:
yano oo	i maioatoro.						indicators for th	oblematic Hydric Cons.
His	tisol (A1)		Poly	value E	Below Su	urface	2 cm Muck (A	A10) (LRR K, L, MLRA 149B
His	tic Epipedon (A2)	(S8) (LRR	R, MLR	A	Coast Prairie	Redox (A16) (LRR K, L, R)
	ck Histic (A3)		Thir	Dark S	Surface ((S9)	5 cm Mucky I	Peat or Peat (S3) (LRR K, L,
								cal 01 r cal (00) (LNN N, L, 1)
Hyd	drogen Sulfide (A	(4)			LRA 149		Dark Surface	(S7) (LRR K, L
Stra	atified Layers (As	5)	Loa	my Muo	cky Mine		Dark Surface	(S7) (LRR K, L low Surface (S8) (LRR K, L)
Stra Dep	atified Layers (As pleted Below Dar	5) 'k Sufac	Loa (A11)(F1)	my Muo) (LRR	cky Mine K, L)	eral	Dark Surface Polyvalue Be Thin Dark Su	(S7) (LRR K, L low Surface (S8) (LRR K, L) rface (S9) (LRR K, L)
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Stra Dep Thi Sar Sar	atified Layers (As bleted Below Dar ck Dark Surface ndy Mucky Miner ndy Gleyed Matri	5) k Sufac (A12) al (S1)	Ce (A11)(F1) Loa Dep Red	my Muc) (LRR my Gle bleted M lox Dar	cky Mine K, L) yed Matr 1atrix (F3 k Surfac	eral rix (F2) 3) e (F6)	Dark Surface Polyvalue Be Thin Dark Su Iron-Mangane Piedmont Flo	e (S7) (LRR K, L low Surface (S8) (LRR K, L) rface (S9) (LRR K, L) ese Masses (F12) (LRR K, L, odplain Soils (F19) (MLRA 14 c (TA6) (MLRA 144A, 145, 14 5
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Stra Dep Thi Sar Sar Sar Sar Dar 149 ndicators estrictive ype: epth (inch	atified Layers (As bleted Below Dar ck Dark Surface ndy Mucky Miner ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6) k Surface (S7) (I B) of hydrophytic ve Layer (if observe	5) k Sufac (A12) al (S1) x (S4) LRR R,	Loa ce (A11)(F1) Loa Dep Rec Rec MLRA	my Muc) (LRR my Gle bleted M lox Dar bleted D lox Dep	cky Mine K, L) yed Matri latrix (F3 k Surfactor vark Surf pressions	eral rix (F2) 3) e (F6) ace (F7) s (F8)	Dark Surface Polyvalue Be Thin Dark Su Iron-Mangana Piedmont Flo Mesic Spodic Red Parent M Very Shallow Other (Explai	e (S7) (LRR K, L low Surface (S8) (LRR K, L) rface (S9) (LRR K, L) ese Masses (F12) (LRR K, L, odplain Soils (F19) (MLRA 1 c (TA6) (MLRA 144A, 145, 14 Material (F21) Dark Surface (TF12) n in Remarks) or problematic
Stra Dep Thi Sar Sar Sar Sar Dar 149 ndicators estrictive /pe: epth (inch	atified Layers (As bleted Below Dar ck Dark Surface ndy Mucky Miner ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6) k Surface (S7) (I B) of hydrophytic ve Layer (if observe	5) k Sufac (A12) al (S1) x (S4) LRR R,	Loa ce (A11)(F1) Loa Dep Rec Rec MLRA	my Muc) (LRR my Gle bleted M lox Dar bleted D lox Dep	cky Mine K, L) yed Matri latrix (F3 k Surfactor vark Surf pressions	eral rix (F2) 3) e (F6) ace (F7) s (F8)	Dark Surface Polyvalue Be Thin Dark Su Iron-Mangana Piedmont Flo Mesic Spodic Red Parent M Very Shallow Other (Explai	e (S7) (LRR K, L low Surface (S8) (LRR K, L) rface (S9) (LRR K, L) ese Masses (F12) (LRR K, L , odplain Soils (F19) (MLRA 1 4 c (TA6) (MLRA 144A, 145, 14 Material (F21) Dark Surface (TF12) n in Remarks) or problematic
Stra Dep Thi Sar Sar Sar Sar Dar 149 ndicators estrictive ype: epth (inch	atified Layers (As bleted Below Dar ck Dark Surface ndy Mucky Miner ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6) k Surface (S7) (I B) of hydrophytic ve Layer (if observe	5) k Sufac (A12) al (S1) x (S4) LRR R,	Loa ce (A11)(F1) Loa Dep Rec Rec MLRA	my Muc) (LRR my Gle bleted M lox Dar bleted D lox Dep	cky Mine K, L) yed Matri latrix (F3 k Surfactor vark Surf pressions	eral rix (F2) 3) e (F6) ace (F7) s (F8)	Dark Surface Polyvalue Be Thin Dark Su Iron-Mangana Piedmont Flo Mesic Spodic Red Parent M Very Shallow Other (Explai	e (S7) (LRR K, L low Surface (S8) (LRR K, L) rface (S9) (LRR K, L) ese Masses (F12) (LRR K, L , odplain Soils (F19) (MLRA 1 4 c (TA6) (MLRA 144A, 145, 14 4 daterial (F21) Dark Surface (TF12) n in Remarks) or problematic
Stra Dep Thi Sar Sar Sar Sar Dar 149 ndicators estrictive ype: epth (inch	atified Layers (As bleted Below Dar ck Dark Surface ndy Mucky Miner ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6) k Surface (S7) (I B) of hydrophytic ve Layer (if observe	5) k Sufac (A12) al (S1) x (S4) LRR R,	Loa ce (A11)(F1) Loa Dep Rec Rec MLRA	my Muc) (LRR my Gle bleted M lox Dar bleted D lox Dep	cky Mine K, L) yed Matri latrix (F3 k Surfactor vark Surf pressions	eral rix (F2) 3) e (F6) ace (F7) s (F8)	Dark Surface Polyvalue Be Thin Dark Su Iron-Mangana Piedmont Flo Mesic Spodic Red Parent M Very Shallow Other (Explai	e (S7) (LRR K, L low Surface (S8) (LRR K, L) rface (S9) (LRR K, L) ese Masses (F12) (LRR K, L , odplain Soils (F19) (MLRA 14 c (TA6) (MLRA 144A, 145, 14 Material (F21) Dark Surface (TF12) n in Remarks) or problematic
Stra Dep Thi Sar Sar Sar Sar Dar 149 ndicators estrictive ype: epth (inch	atified Layers (As bleted Below Dar ck Dark Surface ndy Mucky Miner ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6) k Surface (S7) (I B) of hydrophytic ve Layer (if observe	5) k Sufac (A12) al (S1) x (S4) LRR R,	Loa ce (A11)(F1) Loa Dep Rec Rec MLRA	my Muc) (LRR my Gle bleted M lox Dar bleted D lox Dep	cky Mine K, L) yed Matri latrix (F3 k Surfactor vark Surf pressions	eral rix (F2) 3) e (F6) ace (F7) s (F8)	Dark Surface Polyvalue Be Thin Dark Su Iron-Mangana Piedmont Flo Mesic Spodic Red Parent M Very Shallow Other (Explai	e (S7) (LRR K, L low Surface (S8) (LRR K, L) rface (S9) (LRR K, L) ese Masses (F12) (LRR K, L , odplain Soils (F19) (MLRA 14 c (TA6) (MLRA 144A, 145, 14 Material (F21) Dark Surface (TF12) n in Remarks) or problematic
Stra Dep Thi Sar Sar Sar Sar Dar 149 ndicators estrictive ype: epth (inch	atified Layers (As bleted Below Dar ck Dark Surface ndy Mucky Miner ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6) k Surface (S7) (I B) of hydrophytic ve Layer (if observe	5) k Sufac (A12) al (S1) x (S4) LRR R,	Loa ce (A11)(F1) Loa Dep Rec Rec MLRA	my Muc) (LRR my Gle bleted M lox Dar bleted D lox Dep	cky Mine K, L) yed Matri latrix (F3 k Surfactor vark Surf pressions	eral rix (F2) 3) e (F6) ace (F7) s (F8)	Dark Surface Polyvalue Be Thin Dark Su Iron-Mangana Piedmont Flo Mesic Spodic Red Parent M Very Shallow Other (Explai	e (S7) (LRR K, L low Surface (S8) (LRR K, L) rface (S9) (LRR K, L) ese Masses (F12) (LRR K, L , odplain Soils (F19) (MLRA 1 4 c (TA6) (MLRA 144A, 145, 14 4 daterial (F21) Dark Surface (TF12) n in Remarks) or problematic
Stra Dep Thi Sar Sar Sar Sar Dar 149 ndicators estrictive ype: epth (inch	atified Layers (As bleted Below Dar ck Dark Surface ndy Mucky Miner ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6) k Surface (S7) (I B) of hydrophytic ve Layer (if observe	5) k Sufac (A12) al (S1) x (S4) LRR R,	Loa ce (A11)(F1) Loa Dep Rec Rec MLRA	my Muc) (LRR my Gle bleted M lox Dar bleted D lox Dep	cky Mine K, L) yed Matri latrix (F3 k Surfactor vark Surf pressions	eral rix (F2) 3) e (F6) ace (F7) s (F8)	Dark Surface Polyvalue Be Thin Dark Su Iron-Mangana Piedmont Flo Mesic Spodic Red Parent M Very Shallow Other (Explai	e (S7) (LRR K, L low Surface (S8) (LRR K, L) rface (S9) (LRR K, L) ese Masses (F12) (LRR K, L , odplain Soils (F19) (MLRA 1 4 c (TA6) (MLRA 144A, 145, 14 Material (F21) Dark Surface (TF12) n in Remarks) or problematic
Stra Dep Thi Sar Sar Sar Sar Dar 149 ndicators estrictive /pe: epth (inch	atified Layers (As bleted Below Dar ck Dark Surface ndy Mucky Miner ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6) k Surface (S7) (I B) of hydrophytic ve Layer (if observe	5) k Sufac (A12) al (S1) x (S4) LRR R,	Loa ce (A11)(F1) Loa Dep Rec Rec MLRA	my Muc) (LRR my Gle bleted M lox Dar bleted D lox Dep	cky Mine K, L) yed Matri latrix (F3 k Surfactor vark Surf pressions	eral rix (F2) 3) e (F6) ace (F7) s (F8)	Dark Surface Polyvalue Be Thin Dark Su Iron-Mangana Piedmont Flo Mesic Spodic Red Parent M Very Shallow Other (Explai	e (S7) (LRR K, L low Surface (S8) (LRR K, L) rface (S9) (LRR K, L) ese Masses (F12) (LRR K, L, odplain Soils (F19) (MLRA 14 c (TA6) (MLRA 144A, 145, 14 Material (F21) Dark Surface (TF12) n in Remarks) or problematic

				Sampling Point: T2P1 50/20 Thresholds
Tree Stratum Plot Size(30) 1 <i>Quercus macrocarpa</i> 2 3 4	Absolute % Cover 50	Dominant Species Y	Indicator Status FACU	20%50%Tree Stratum1025Sapling/Shrub Stratum00Herb Stratum2358Woody Vine Stratum00
		Total Cover		Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across 2 (B) Percent of Dominant
Sapling/Shrub Plot Size(15)) Stratum	Absolute % Cover	Dominant Species	Indicator Status	Species that are OBL, FACW, or FAC: 50.00% (A/E
				Prevalence Index WorksheetTotal % Cover of:OBL species 0 $x 1 =$ 0 FACW species 35 $x 2 =$ 70 FAC species 60 $x 3 =$ 180 FACU species 70 $x 4 =$ 280 UPL species 0 $x 5 =$ 0 Column totals 165 (A) 530 Prevalence Index = B/A = 3.21
Herb Stratum Plot Size (5) Rhamnus cathartica Phalaris arundinacea Poa pratensis Agrostis gigantea Fraxinus pennsylvanica	0 = Absolute % Cover 60 20 20 10 5	Total Cover Dominant Species Y N N N N N N N N	Indicator Status FAC FACW FACU FACW FACW	Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is ≤3.0* Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet) Problematic hydrophytic vegetation* (explain)
	=		_	*Indicators of hydric soil and wetland hydrology must present, unless disturbed or problematic
				Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diamet at breast height (DBH), regardless of height.
		Total Cauar		Sapling/shrub - Woody plants less than 3 in. DBH a greater than 3.28 ft (1 m) tall.
Woody Vine Plot Size(30) Stratum	Absolute % Cover	Total Cover Dominant Species	Indicator Status	Herb - All herbaceous (non-woody) plants, regardles size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft i height.
		Total Cover		Hydrophytic vegetation present? N

Project/Site:	Dave Hahn Proper	ty	City/County:	Rush Lake/W	/innebago Sampling Date: 10/28/20)16
Applicant/Own	er: Dave Hahn			State: WI	Sampling Point	T2P2
Investigator(s):	Stacey Henk, Gare	k Holley		Section, To	ownship, Range: Sec 27, T17N, R	R14E
Landform (hills	lope, terrace, etc.):	Footslope-downgradie	ent S of T2P1 Lo	ocal relief (co	ncave, convex, none): concave	
Slope (%): 2	Lat.:	Long.	:	Datum	:	
Soil Map Unit N	Nam(FsB				NWI Classification:	
Are climatic/hy	drologic conditions	of the site typical for th	is time of the yea	r? Yes	(If no, explain in remarks)	
Are vegetation	, soil	, or hydrology	significantly	disturbed?	Are "normal	
Are vegetation	, soil	, or hydrology	naturally pr	oblematic?	circumstances" present?	? Yes
(If needed, exp	lain any answers in	remarks)				

SUMMARY OF FINDINGS

Primary Indicators (minimu	im of one	is require	d. check a	Il that apply)		equired)
Surface Water (A1)		15 require		ained Leaves (B9)		Surface Soil Cracks (B6)
High Water Table (A2)				auna (B13)		Drainage Patterns (B10)
X Saturation (A3)				osits (B15)	-	Moss Trim Lines (B16)
Water Marks (B1)				Sulfide Odor (C1)	-	X Dry-Season Water Table (C2)
Sediment Deposits (B2))			Rhizospheres on Livi		Crayfish Burrows (C8)
Drift Deposits (B3)	/		Roots (C:			Saturation Visible on Aerial Imagery
Algal Mat or Crust (B4)		-		of Reduced Iron (C4		(C9)
Iron Deposits (B5)				on Reduction in Tilled		Stunted or Stressed Plants (D1)
Inundation Visible on A	orial		Soils (C6		the second se	X Geomorphic Position (D2)
Imagery (B7)	onal	-) k Surface (C7)		Shallow Aquitard (D3)
Sparsely Vegetated Cor	0001/0			plain in Remarks)		X FAC-Neutral Test (D5)
Surface (B8)	Icave		Other (Ex	plain in Remarks)		Microtopographic Relief (D4)
ield Observations:						1.1.
Surface water present?	Yes		No X			Indicators of
Vater table present?	Yes		No	Depth (inches):	14	wetland
saturation present?	Yes	X	No	Depth (inches):	8	hydrology
ncludes capillary fringe)						present? Y
An antika mananalari alata (at			antin a scentil	and above and		an) if evellables
escribe recorded data (st	tream gau	ge, monit	oring well,	aeriai priotos, previo	bus inspectio	ns), il avallable.
Remarks:						
Approximately 2 ft do	wnoradi	ent of T	2P1			
	swing aa	Unit Of T	211			

(Inches)	Matrix			ox Fea	tures		or or confirm the absence Texture	Remarks
1	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-14	10YR 2/1	100			·		LS	
14-20	2.5Y 6/1	90	. · · · · · · · · · · · · · · · · · · ·				S	
	10YR 3/1	10			1			
	1							
		-						
·								
		-		1				
			-	_				
	-		-	-	-	_		
				-			-	
Tupo: C=C	Concentration 5		tion DM-Doduc	od Mat	riv CO-C	Covered	or Coated Sand Grains	
	PL=Pore Lining			eu mau	nx, CS-C	Jovered	or Coaled Sand Grains	
		J, IVI-IVIO					Indicators for Brohl	ematic Hydric Soils:
iyaric Sol	Indicators:						indicators for From	ematic riyune Sons.
His	tisol (A1)		Poly	value	Below Si	urface	2 cm Muck (A10)	(LRR K, L, MLRA 149B
	tic Epipedon (A	2)	(S8) (LRR	R, MLR	A	Coast Prairie Rec	dox (A16) (LRR K, L, R)
Bla	ck Histic (A3)		Thir	Dark	Surface	(S9)		or Peat (S3) (LRR K, L, F
Hyd	drogen Sulfide (A4)			ILRA 14		Dark Surface (S7	
	atified Layers (A				cky Mine	eral		Surface (S8) (LRR K, L)
	pleted Below Da) (LRR				e (S9) (LRR K, L)
	ck Dark Surface				eyed Mat			Masses (F12) (LRR K, L, I
	ndy Mucky Mine				Aatrix (F:			lain Soils (F19) (MLRA 149
	ndy Gleyed Mat ndy Redox (S5)				k Surfac Dark Surf			(MLRA 144A, 145, 149
	pped Matrix (S6				pressions		Very Shallow Da	k Surface (TF12)
	k Surface (S7)					. ()	Other (Explain in	
149								
Indicators	of hydrophytic v	vegetatio	on and weltand h	ydrolog	gy must l	be prese	nt, unless disturbed or pr	oblematic
					_			
	Lever /if choose	(boy						
	Layer (if observ	/eu):					Hydric soil present	2 Y
					-		riyune son present	
ype:	les).					(
	les):				-			

Northcentral and Northeast Region

GETATION - Use scientific names of pla	lls			Sampling Point: T2P2 50/20 Thresholds
Tree Stratum Plot Size(30) Fraxinus pennsylvanica Populus deltoides	Absolute % Cover 10 5	Dominant Species Y Y	Indicator Status FACW FAC	20% 50%Tree Stratum3Sapling/Shrub Stratum82022Herb Stratum222255Woody Vine Stratum0
				Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 5 Total Number of Dominant Species Across 5 (B)
Sapling/Shrub Plot Size(15)) Stratum	15 = Absolute % Cover	Total Cover Dominant Species	Indicator Status	Percent of Dominant Species that are OBL, FACW, or FAC:100.00% (A/R
Rhamnus cathartica		Y		Prevalence Index WorksheetTotal % Cover of:OBL species 0 X 1 = 0 FACW species 70 X 2 = 140 FAC species 95 X 3 = 285 FACU species 0 VPL species 0 X 5 = 0 Column totals 165 A 425 Prevalence Index = B/A = 2.58
Herb Stratum Plot Size(5) Phalaris arundinacea Rhamnus cathartica	40 = Absolute % Cover 60 50 	Total Cover Dominant Species Y Y Y	Indicator Status FACW FAC	Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation X Dominance test is >50% X Prevalence index is ≤3.0* Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet) Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must present, unless disturbed or problematic
	<u> </u>	<u> </u>		Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diamet at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH a greater than 3.28 ft (1 m) tall.
Woody Vine Plot Size(30) Stratum	110 = Absolute % Cover	Total Cover Dominant Species	Indicator Status	Herb - All herbaceous (non-woody) plants, regardles size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height.
		Total Cover	_	Hydrophytic vegetation present? Y

Project/Site: Dave Hahn Property	City/County:	Rush Lake/Winnel	bago Sampling Date: 10/28/	2016
Applicant/Owner: Dave Hahn		State: WI	Sampling Point	T3P1
Investigator(s): Stacey Henk, Garek Holley		Section, Towns	ship, Range: Sec 27, T17N,	R14E
Landform (hillslope, terrace, etc.): Toeslope	Loc	al relief (concav	ve, convex, none): concav	/e
Slope (%): 0-1 Lat.:	Long.:	Datum:		
Soil Map Unit Nam(FsB			/I Classification:	
Are climatic/hydrologic conditions of the site typ	pical for this time of the year?	Yes (If r	no, explain in remarks)	
Are vegetation, soil, or hydr	rology significantly of	disturbed?	Are "normal	
Are vegetation, soil, or hydrogenetics, or hydrogen	rology naturally prot		circumstances" preser	nt? Yes
(If needed, explain any answers in remarks)				

SUMMARY OF FINDINGS

If you patienal wateria site ID.
If yes, optional wetland site ID:
arate report.)

Drimony Indicators (minimum of ano is re	any inerty sheet, all that south)	Secondary Indicators (minimum of two
Primary Indicators (minimum of one is re X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	equired; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks)	required) Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) X Geomorphic Position (D2) Shallow Aquitard (D3) X FAC-Neutral Test (D5) Microtopographic Relief (D4)
	No Depth (inches): 0.5 No Depth (inches): 0 No Depth (inches): 0 No depth (inches): 0	ections), if available:
Remarks:		

Depth	Matrix		Red	ox Fea	turee		or or confirm the absence	
(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
(1101100)		70		70		LUC		
		-						
	Concentration, D= PL=Pore Lining,			ed Matr	rix, CS=C	Covered o	r Coated Sand Grains	
ydric Soi	I Indicators:						Indicators for Proble	ematic Hydric Soils:
Thi Sar Sar Sar Sar Sar Stri Dar 149		(A12) al (S1) < (S4) .RR R,	Loan Dep Red Red Red	leted M ox Dar leted D ox Dep	yed Matr Matrix (F3 k Surface Dark Surfa Dark Surfa	e) e (F6) ace (F7) (F8)	Iron-Manganese Piedmont Floodpl	k Surface (TF12) Remarks)
estrictive /pe:	Layer (if observe	d):					Hydric soil present	? Y
epth (inch	es):							
emarks:								
emarks: Rapid T	est							
	est							
	est							
	est							
	est							

	Use scientific						Sampling Point: T3P1 50/20 Thresholds
Tree Stratum	Plot Size (30)	Absolute % Cover	Dominant Species	Indicator Status	20% 50% Tree Stratum 0 0 Sapling/Shrub Stratum 0 0 Herb Stratum 22 55 Woody Vine Stratum 0 0
							Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across 1 (B)
Sapling/Shrub Stratum	Plot Size (15)	0 Absolute % Cover	 Total Cover Dominant Species 	Indicator Status	Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B
					Total Cover		Prevalence Index WorksheetTotal % Cover of: OBL species $10 \times 1 = 10$ FACW species $10 \times 2 = 200$ FAC species $0 \times 3 = 0$ FACU species $0 \times 4 = 0$ UPL species $0 \times 5 = 0$ Column totals 110 (A)Prevalence Index = B/A = 1.91
Herb Stratum Phalaris arur Typha angus Carex lacust	stifolia	5)	Absolute % Cover 100 5 5	Dominant Species Y N N	Indicator Status FACW OBL OBL	Hydrophytic Vegetation Indicators: X Rapid test for hydrophytic vegetation X Dominance test is >50% X Prevalence index is ≤3.0* Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet) Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must hydrosentic the support of the problematic
			_				Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diamete at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH an greater than 3.28 ft (1 m) tall.
Woody Vine Stratum	Plot Size (30)	110 = Absolute % Cover	Total Cover Dominant Species	Indicator Status	Herb - All herbaceous (non-woody) plants, regardless size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height.
			_		Total Cover		Hydrophytic vegetation present? Y

Project/Site:	Dave Hahn Proper	ty	_City/County:	Rush Lake	Winnebago Sampling Da	te: 10/28/2	2016
Applicant/Own	er: Dave Hahn			State: V	VI Sampling	Point	T3P2
	: Stacey Henk, Gare			Section,	Township, Range: Sec	27, T17N,	R14E
Landform (hills	slope, terrace, etc.):	Backslope-upgradient	t N of T3P1 Lo		concave, convex, none)		
Slope (%): 3	Lat.:	Long.	:	Datu	m:	-	
Soil Map Unit I	NameFsB				NWI Classification:		
Are climatic/hy	drologic conditions of	of the site typical for th	is time of the yea	r? Yes	(If no, explain in rem	arks)	
Are vegetation	, soil	, or hydrology	significantly	y disturbed	? Are "normal		
Are vegetation	, soil	, or hydrology	naturally pr	oblematic?	circumstance	es" preser	nt? Yes
(If needed, exp	plain any answers in	remarks)					

SUMMARY OF FINDINGS

Hydrophytic vegetation present? Hydric soil present?	<u>N</u>	Is the sampled area within a wetland? N
indicators of wetland hydrology present?	N	If yes, optional wetland site ID:

Primary Indicators (minimum of one is	required: check all that apply)	required)
Surface Water (A1)	Water-Stained Leaves (B9)	1 /
High Water Table (A2)		Surface Soil Cracks (B6)
	Aquatic Fauna (B13)	Drainage Patterns (B10)
Saturation (A3)	Marl Deposits (B15)	Moss Trim Lines (B16)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living	Crayfish Burrows (C8)
Drift Deposits (B3)	Roots (C3)	Saturation Visible on Aerial Imagery
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4)	(C9)
Iron Deposits (B5)	Recent Iron Reduction in Tilled	Stunted or Stressed Plants (D1)
Inundation Visible on Aerial	Soils (C6)	Geomorphic Position (D2)
Imagery (B7)	Thin Muck Surface (C7)	Shallow Aguitard (D3)
Sparsely Vegetated Concave	Other (Explain in Remarks)	FAC-Neutral Test (D5)
Surface (B8)		Microtopographic Relief (D4)
ield Observations:		In direct one of
urface water present? Yes	No X Depth (inches):	Indicators of
Vater table present? Yes	No X Depth (inches):	wetland
aturation present? Yes	No X Depth (inches):	hydrology
ncludes capillary fringe)		present? N
escribe recorded data (stream gauge,	monitoring well, aerial photos, previous insp	ections), if available:
Remarks:		

Depth (Inches) Matrix Color (moist) Redox Features Color (moist) Texture Remain Remains 0-10 10YR 2/1 100 LS Image: Second Se	arks
10-19 10YR 2/1 100 GRLS Rock at 19" Image: Construction of the second sec	
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	RR K, L) L) LRR K, L, (MLRA 14 A, 145, 149
Restrictive Layer (if observed): ype:	
Remarks:	
ending.	

GETATION - Use scientific names of pla	11.5			Sampling Point: T3P2
Tree Stratum Plot Size(30) Quercus alba	Absolute % Cover 50	Dominant Species Y	Indicator Status FACU	50/20 Thresholds 20% 50% Tree Stratum 16 40 Sapling/Shrub Stratum 8 20
Quercus rubra	20	Y	FACU	Herb Stratum 16 40
Carya ovata	10	N	FACU	Woody Vine Stratum 0 0
		1		Dominance Test Worksheet
				Number of Dominant
				Species that are OBL,
		-		FACW, or FAC:(A)
		-		
	80	= Total Cover		
				Percent of Dominant
apling/Shrub	Absolute	Dominant	Indicator	Species that are OBL,
Stratum Plot Size (15)	% Cover		Status	FACW, or FAC:
		Species		
Rhamnus cathartica	40	Y	FAC	Prevalence Index Worksheet
				Total % Cover of:
				OBL species $0 \times 1 = 0$
				FACW species $10 \times 2 = 20$
· · · · · · · · · · · · · · · · · · ·				FAC species $110 \times 3 = 330$ FACU species $80 \times 4 = 320$
			-	FACU species $80 \times 4 = 320$ UPL species $0 \times 5 = 0$
· · · · · · · · · · · · · · · · · · ·				Column totals 200 (A) 670 (B)
				Prevalence Index = $B/A = 3.35$
	-			
	40	= Total Cover		
				Hydrophytic Vegetation Indicators:
Herb Stratum Plot Size (5)	Absolute	Dominant	Indicator	Rapid test for hydrophytic vegetation
1	% Cover	Species	Status	Dominance test is >50%
Rhamnus cathartica	70	Y	FAC	Prevalence index is ≤3.0*
Phalaris arundinacea	10	N	FACW	Morphogical adaptations* (provide
				supporting data in Remarks or on a separate sheet)
				Problematic hydrophytic vegetation*
				(explain)
				*Indicators of hydric soil and wetland hydrology must present, unless disturbed or problematic
		-		Definitions of Vegetation Strata:
				Tree - Woody plants 3 in. (7.6 cm) or more in diameter
				at breast height (DBH), regardless of height.
				Carling (shock - Weads also to be the O in DDU
				Sapling/shrub - Woody plants less than 3 in. DBH ar greater than 3.28 ft (1 m) tall.
		Tetel O		grouter and one of the my tell.
	80 =	= Total Cover		Herb - All herbaceous (non-woody) plants, regardless
Voody Vine	Absolute	Dominant	Indicator	size, and woody plants less than 3.28 ft tall.
Stratum Plot Size (30)	% Cover	Species	Status	Woody vines - All woody vines greater than 3.28 ft in
onatan	10 00 001	opecies	Otatus	height.
		· · · · ·		
				Hydrophytic
		-		vegetation
		Total Cover		procent? N
		Total Cover		present? <u>N</u>
narks: (Include photo numbers here or on a sen		Total Cover		present? <u>N</u>
narks: (Include photo numbers here or on a sep		Total Cover		present? <u>N</u>
narks: (Include photo numbers here or on a sep		Total Cover		present? <u>N</u>

Project/Site:	Dave Hahn Proper	rty	City/County:	Rush Lake/	Winnebago Sampling Date: 10/28/	2016
Applicant/Owne	er: Dave Hahn			State: W	I Sampling Point	T4P1
	Stacey Henk, Gare			Section, T	ownship, Range: Sec 27, T17N,	R14E
Landform (hills)	ope, terrace, etc.):	Backslope	Lo		oncave, convex, none): none	
Slope (%): 4	Lat.:	Long.:		Datun	n:	
Soil Map Unit N	amiOs		-		NWI Classification:	
Are climatic/hyd	Irologic conditions	of the site typical for thi	s time of the yea	r? Yes	(If no, explain in remarks)	
Are vegetation	, soil	, or hydrology	significantl	y disturbed?	Are "normal	
Are vegetation	, soil	, or hydrology	naturally p	oblematic?	circumstances" preser	nt? Yes
(If needed, expla	ain any answers in	remarks)				

SUMMARY OF FINDINGS

HYDROLOGY

I

Drimony Indiantous (minimum of any in	encode de stante de la Contracta A	Secondary Indicators (minimum of two
Primary Indicators (minimum of one is	1 1 27	required)
Surface Water (A1)	Water-Stained Leaves (B9)	Surface Soil Cracks (B6)
High Water Table (A2)	Aquatic Fauna (B13)	Drainage Patterns (B10)
Saturation (A3)	Marl Deposits (B15)	Moss Trim Lines (B16)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living	Crayfish Burrows (C8)
Drift Deposits (B3)	Roots (C3)	Saturation Visible on Aerial Imagery
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4)	(C9)
Iron Deposits (B5)	Recent Iron Reduction in Tilled	Stunted or Stressed Plants (D1)
Inundation Visible on Aerial	Soils (C6)	Geomorphic Position (D2)
Imagery (B7)	Thin Muck Surface (C7)	Shallow Aquitard (D3)
Sparsely Vegetated Concave	Other (Explain in Remarks)	FAC-Neutral Test (D5)
Surface (B8)		Microtopographic Relief (D4)
Field Observations:		
Surface water present? Yes	No X Depth (inches):	Indicators of
Water table present? Yes	No X Depth (inches):	wetland
Saturation present? Yes	No X Depth (inches):	hydrology
(includes capillary fringe)		present? N
Describe recorded data (stream gauge,	monitoring well, aerial photos, previous insp	pections), if available:
D		
Remarks:		

Depth	Matrix			ox Fea			tor or confirm the abse Texture	
(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-14	10YR 2/1	100		1.00			SIL	
14-24	2.5Y 6/2	90	7.5YR 5/6	10	С	М	SCL	
								1
				-				
-								
						-		
	-							
	Concentration, D PL=Pore Lining			ed Matr	ix, CS=0	Covered	or Coated Sand Grain	S
	I Indicators:	, wi -ivia					Indicators for Pro	oblematic Hydric Soils:
	ck Dark Surface ndy Mucky Miner	ral (S1)	Dep	leted N	yed Matr Matrix (F3			se Masses (F12) (LRR K, L,
Sar Sar Stri Dar 149) LRR R,	MLRA Dep	leted E lox Dep	k Surface Dark Surf Dressions Dy must b	e (F6) ace (F7) (F8)	Mesic Spodic Red Parent M	(TA6) (MLRA 144A, 145, 149 aterial (F21) Dark Surface (TF12) i in Remarks)
Sar Sar Stri Dar 149 ndicators estrictive l	ndy Redox (S5) pped Matrix (S6 k Surface (S7) (B)) LRR R, egetatio	MLRA Dep	leted E lox Dep	ark Surf pressions	e (F6) ace (F7) (F8)	Mesic Spodic Red Parent M. Very Shallow I Other (Explain	(TA6) (MLRA 144A, 145, 149 aterial (F21) Dark Surface (TF12) in Remarks)
Sar Sar Stri Dar 149	ndy Redox (S5) pped Matrix (S6 k Surface (S7) (B) of hydrophytic vo Layer (if observe) LRR R, egetatio	MLRA Dep	leted E lox Dep	ark Surf pressions	e (F6) ace (F7) (F8)	Mesic Spodic Red Parent M Very Shallow Other (Explain	Dark Surface (TF12) n in Remarks) r problematic

EGETATION - Use scientific names of pla	nts			Sampling Point: T4P1
Tree Stratum Plot Size(30) 1 Rhamnus cathartica	Absolute % Cover 25	Dominant Species Y	Indicator Status FAC	50/20 Thresholds 20% 50% Tree Stratum 10 25 Sapling/Shrub Stratum 6 15
2 Quercus alba	15	Y	FACU	Herb Stratum 12 30
3 Fraxinus pennsylvanica	10	Y	FACW	Woody Vine Stratum 0 0
4				
5				Dominance Test Worksheet
3				Number of Dominant
7				Species that are OBL,
3				FACW, or FAC: 4 (A)
			-	Total Number of
)	50	= Total Cover		Dominant Species Across 5 (B)
		- Total Gover		Percent of Dominant
Sonling/Shruh	Abacluta	Dominant	Indiactor	Species that are OBL,
Sapling/Shrub Plot Size (15)	Absolute % Cover	Dominant	Indicator	FACW, or FAC:80.00% (A/E
		Species	Status	
Rhamnus cathartica		Y	FAC	Prevalence Index Worksheet
2	-			Total % Cover of:
3				OBL species $0 \times 1 = 0$
4				FACW species $10 \times 2 = 20$
5				FAC species $115 \times 3 = 345$ FACU species $15 \times 4 = 60$
7				FACU species $15 \times 4 = 60$ UPL species $0 \times 5 = 0$
3				Column totals 140 (A) 425 (B)
9				Prevalence Index = $B/A = 3.04$
)				
	30	= Total Cover	-	
				Hydrophytic Vegetation Indicators:
Herb Stratum Plot Size (5)	Absolute	Dominant	Indicator	Rapid test for hydrophytic vegetation
	% Cover	Species	Status	X Dominance test is >50%
1 Rhamnus cathartica	60	<u> </u>	FAC	Prevalence index is ≤3.0*
2				Morphogical adaptations* (provide
3	-			supporting data in Remarks or on a
5				separate sheet) Problematic hydrophytic vegetation*
3				(explain)
7				
3				*Indicators of hydric soil and wetland hydrology must present, unless disturbed or problematic
)				Definitions of Vegetation Strata:
		- C		Tree - Woody plants 3 in. (7.6 cm) or more in diameter
2				at breast height (DBH), regardless of height.
3				
				Sapling/shrub - Woody plants less than 3 in. DBH ar greater than 3.28 ft (1 m) tall.
5		Tabel C		grouter than 0.20 re (1 m/ tall.
	60 =	= Total Cover		Herb - All herbaceous (non-woody) plants, regardless
Woody Vine Dist City (20	Absolute	Dominant	Indicator	size, and woody plants less than 3.28 ft tall.
Stratum Plot Size (30)	% Cover	Species	Status	Woody vines All woody vines greater than 2.29 ft in
olidian	10 00101	openeo	Oluluo	Woody vines - All woody vines greater than 3.28 ft in height.
		-		
3		-		
				Hydrophytic
				vegetation
-	0 =	Total Cover		present? Y
		rotal Oover		
marks: (Include photo numbers here or on a sep	oarate sheet)			

Project/Site: _	ave Hahn Property	/	City/County:	Rush Lake/V	Vinnebago Sampling Date: 10/28/2016	
Applicant/Owner	Dave Hahn			State: W	I Sampling Point T4F	2
Investigator(s): S	stacey Henk, Garel	Holley		Section, T	ownship, Range: Sec 27, T17N, R14E	
Landform (hillslo	pe, terrace, etc.):	Toeslope	Lo	cal relief (co	oncave, convex, none): concave	
Slope (%): 1	Lat.:	Long.:		Datum	1	
Soil Map Unit Na				_	NWI Classification:	
Are climatic/hydr	ologic conditions o	f the site typical for this	time of the year	r? Yes	(If no, explain in remarks)	
Are vegetation	, soil	, or hydrology	significantly	disturbed?	Are "normal	
Are vegetation	, soil	, or hydrology	naturally pr	oblematic?	circumstances" present?	Yes
(If needed, expla	in any answers in r	emarks)				

SUMMARY OF FINDINGS

Hydric soil present? Y	_
Indicators of wetland hydrology present? Y If yes, optional wetland site ID:	

Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)		uired; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Bacta (C2)	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Moss Trim Lines (B16) Crayfish Burrows (C8) Crayfish Burrows (C8)		
Drift Deposits (B3) Algal Mat or Crust (B4)		Roots (C3) Presence of Reduced Iron (C4)	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) X Geomorphic Position (D2)		
Iron Deposits (B5)		Recent Iron Reduction in Tilled			
Inundation Visible on Ae	erial	Soils (C6)			
Imagery (B7)		Thin Muck Surface (C7)	Shallow Aquitard (D3)		
Sparsely Vegetated Con Surface (B8)	icave	Other (Explain in Remarks)	X FAC-Neutral Test (D5) Microtopographic Relief (D4)		
ield Observations:			Indiastory of		
ourface water present?	Yes	_ No X Depth (inches):	Indicators of wetland		
Vater table present? aturation present?	Yes X	No Depth (inches): 20 No Depth (inches): 11	hydrology		
includes capillary fringe)	Yes X	_ No Depth (inches):1	present? Y		
Describe recorded data (str	ream gauge, m	onitoring well, aerial photos, previous ins	pections), if available:		

	Matrix			ox Fea			tor or confirm the a	
Depth (Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-9	10YR 2/1	100					LS	OM
9-25	2.5Y 6/2	65	7.5YR 6/6	35	С	M	LS	
	-							
	1.			-				
	1							
	1	1						
		1000	1	-				
							1	
			-					
	-				1			
Type: C=0	Concentration. D	=Deplet	tion, RM=Reduce	ed Matr	ix, CS=0	Covered	or Coated Sand Gr	rains
	PL=Pore Lining							
	I Indicators:						Indicators for	Problematic Hydric Soils:
Hyd Stra	ck Histic (A3) drogen Sulfide (A atified Layers (A	5)	Loa	my Mu	LRA 149 cky Mine		Dark Surfa	ace (S7) (LRR K, L Below Surface (S8) (LRR K, L)
Hyd Str. De Thi Sau Sau Sau Sau Sau Sau Sau Sau Da	drogen Sulfide (<i>A</i> atified Layers (A pleted Below Da ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5) ipped Matrix (S6 rk Surface (S7) (DB)	5) rk Sufac (A12) ral (S1) ix (S4) (LRR R		my Mu) (LRR my Gle bleted M lox Dar bleted D lox Dep	cky Mine K, L) yed Matrix (F3 k Surfac ark Surf oressions	eral rix (F2) 3) e (F6) face (F7) s (F8)	Dark Surfa Polyvalue Thin Dark Iron-Manga Piedmont I Mesic Spo Red Paren	Below Surface (S8) (LRR K, L) Surface (S9) (LRR K, L) anese Masses (F12) (LRR K, L, Floodplain Soils (F19) (MLRA 14 dic (TA6) (MLRA 144A, 145, 149 It Material (F21) ow Dark Surface (TF12) plain in Remarks)
Hyd Str. De Thi Sau Sau Sau Sau Sau Jau Dau Indicators	drogen Sulfide (<i>A</i> atified Layers (A pleted Below Da ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5) ipped Matrix (S6 rk Surface (S7) (DB) of hydrophytic v	5) rk Sufac (A12) ral (S1) ix (S4) (LRR R,		my Mu) (LRR my Gle bleted M lox Dar bleted D lox Dep	cky Mine K, L) yed Matrix (F3 k Surfac ark Surf oressions	eral rix (F2) 3) e (F6) face (F7) s (F8)	Dark Surfa Polyvalue Thin Dark Iron-Manga Piedmont I Mesic Spo Red Paren Very Shalle Other (Exp	ice (S7) (LRR K, L Below Surface (S8) (LRR K, L) Surface (S9) (LRR K, L) anese Masses (F12) (LRR K, L, Floodplain Soils (F19) (MLRA 14 dic (TA6) (MLRA 144A, 145, 145 th Material (F21) ow Dark Surface (TF12) plain in Remarks)
Hyd Str. De Sau Sau Sau Sau Sau Sau Sau Dau Dau Dau Dau Restrictive	drogen Sulfide (<i>A</i> atified Layers (A pleted Below Da ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5) ipped Matrix (S6 rk Surface (S7) (DB)	5) rk Sufac (A12) ral (S1) ix (S4) (LRR R,		my Mu) (LRR my Gle bleted M lox Dar bleted D lox Dep	cky Mine K, L) yed Matrix (F3 k Surfac ark Surf oressions	eral rix (F2) 3) e (F6) face (F7) s (F8)	Dark Surfa Polyvalue Thin Dark Iron-Manga Piedmont I Mesic Spo Red Paren Very Shalld Other (Exp	ice (S7) (LRR K, L Below Surface (S8) (LRR K, L) Surface (S9) (LRR K, L) anese Masses (F12) (LRR K, L, Floodplain Soils (F19) (MLRA 14 dic (TA6) (MLRA 144A, 145, 149 it Material (F21) ow Dark Surface (TF12) plain in Remarks) d or problematic
Hyd Str. De Thi Sau Sau Sau Sau Sau Jau Dau Indicators	drogen Sulfide (<i>A</i> atified Layers (A pleted Below Da ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5) ipped Matrix (S6 rk Surface (S7) (DB) of hydrophytic v Layer (if observe	5) rk Sufac (A12) ral (S1) ix (S4) (LRR R,		my Mu) (LRR my Gle bleted M lox Dar bleted D lox Dep	cky Mine K, L) yed Matrix (F3 k Surfac ark Surf pressions	eral rix (F2) 3) e (F6) face (F7) s (F8)	Dark Surfa Polyvalue Thin Dark Iron-Manga Piedmont I Mesic Spo Red Paren Very Shalld Other (Exp	ice (S7) (LRR K, L Below Surface (S8) (LRR K, L) Surface (S9) (LRR K, L) anese Masses (F12) (LRR K, L, Floodplain Soils (F19) (MLRA 14 dic (TA6) (MLRA 144A, 145, 145 th Material (F21) ow Dark Surface (TF12) plain in Remarks)
Hyd Str. Dej Thi Sau Sau Sau Stri Dau 149 Indicators	drogen Sulfide (<i>A</i> atified Layers (A pleted Below Da ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5) ipped Matrix (S6 rk Surface (S7) (DB) of hydrophytic v Layer (if observe	5) rk Sufac (A12) ral (S1) ix (S4) (LRR R,		my Mu) (LRR my Gle bleted M lox Dar bleted D lox Dep	cky Mine K, L) yed Matrix (F3 k Surfac ark Surf pressions	eral rix (F2) 3) e (F6) face (F7) s (F8)	Dark Surfa Polyvalue Thin Dark Iron-Manga Piedmont I Mesic Spo Red Paren Very Shalld Other (Exp	ice (S7) (LRR K, L Below Surface (S8) (LRR K, L) Surface (S9) (LRR K, L) anese Masses (F12) (LRR K, L, Floodplain Soils (F19) (MLRA 14 dic (TA6) (MLRA 144A, 145, 14 dic (TA6) (MLRA 144A, 145, 14 th Material (F21) ow Dark Surface (TF12) plain in Remarks) d or problematic
Hyd Str. De Thi Sau Sau Sau Stri Dau 149 ndicators	drogen Sulfide (<i>A</i> atified Layers (A pleted Below Da ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5) ipped Matrix (S6 rk Surface (S7) (DB) of hydrophytic v Layer (if observe	5) rk Sufac (A12) ral (S1) ix (S4) (LRR R,		my Mu) (LRR my Gle bleted M lox Dar bleted D lox Dep	cky Mine K, L) yed Matrix (F3 k Surfac ark Surf pressions	eral rix (F2) 3) e (F6) face (F7) s (F8)	Dark Surfa Polyvalue Thin Dark Iron-Manga Piedmont I Mesic Spo Red Paren Very Shalld Other (Exp	ice (S7) (LRR K, L Below Surface (S8) (LRR K, L) Surface (S9) (LRR K, L) anese Masses (F12) (LRR K, L, Floodplain Soils (F19) (MLRA 14 dic (TA6) (MLRA 144A, 145, 14 dit (TA6) (MLRA 144A, 145, 14 th Material (F21) ow Dark Surface (TF12) plain in Remarks) d or problematic
Hyd Str. De Thi Sau Sau Sau Stri Dau 149 ndicators	drogen Sulfide (<i>A</i> atified Layers (A pleted Below Da ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5) ipped Matrix (S6 rk Surface (S7) (DB) of hydrophytic v Layer (if observe	5) rk Sufac (A12) ral (S1) ix (S4) (LRR R,		my Mu) (LRR my Gle bleted M lox Dar bleted D lox Dep	cky Mine K, L) yed Matrix (F3 k Surfac ark Surf pressions	eral rix (F2) 3) e (F6) face (F7) s (F8)	Dark Surfa Polyvalue Thin Dark Iron-Manga Piedmont I Mesic Spo Red Paren Very Shalld Other (Exp	ice (S7) (LRR K, L Below Surface (S8) (LRR K, L) Surface (S9) (LRR K, L) anese Masses (F12) (LRR K, L, Floodplain Soils (F19) (MLRA 14 dic (TA6) (MLRA 144A, 145, 14 dic (TA6) (MLRA 14 dic (TA6) (MLRA 144A, 145, 14 dic (TA6) (MLRA 14 dic
Hyd Str. De Thi Sau Sau Sau Sau Stri Dau 149 ndicators estrictive ype: epth (inch	drogen Sulfide (<i>A</i> atified Layers (A pleted Below Da ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5) ipped Matrix (S6 rk Surface (S7) (DB) of hydrophytic v Layer (if observe	5) rk Sufac (A12) ral (S1) ix (S4) (LRR R,		my Mu) (LRR my Gle bleted M lox Dar bleted D lox Dep	cky Mine K, L) yed Matrix (F3 k Surfac ark Surf pressions	eral rix (F2) 3) e (F6) face (F7) s (F8)	Dark Surfa Polyvalue Thin Dark Iron-Manga Piedmont I Mesic Spo Red Paren Very Shalld Other (Exp	ice (S7) (LRR K, L Below Surface (S8) (LRR K, L) Surface (S9) (LRR K, L) anese Masses (F12) (LRR K, L, Floodplain Soils (F19) (MLRA 14 dic (TA6) (MLRA 144A, 145, 14 dic (TA6) (MLRA 14 dic (TA6) (MLRA 144A, 145, 14 dic (TA6) (MLRA 14 dic
Hyd Str. De Thi Sau Sau Sau Stri Dau 149 ndicators	drogen Sulfide (<i>A</i> atified Layers (A pleted Below Da ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5) ipped Matrix (S6 rk Surface (S7) (DB) of hydrophytic v Layer (if observe	5) rk Sufac (A12) ral (S1) ix (S4) (LRR R,		my Mu) (LRR my Gle bleted M lox Dar bleted D lox Dep	cky Mine K, L) yed Matrix (F3 k Surfac ark Surf pressions	eral rix (F2) 3) e (F6) face (F7) s (F8)	Dark Surfa Polyvalue Thin Dark Iron-Manga Piedmont I Mesic Spo Red Paren Very Shalld Other (Exp	ice (S7) (LRR K, L Below Surface (S8) (LRR K, L) Surface (S9) (LRR K, L) anese Masses (F12) (LRR K, L, Floodplain Soils (F19) (MLRA 14 dic (TA6) (MLRA 144A, 145, 149 dic (TA6) (MLRA 144A, 149 dic (TA6) (MLR
Hyd Str. De Thi Sau Sau Sau Stri Dau 149 Indicators	drogen Sulfide (<i>A</i> atified Layers (A pleted Below Da ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5) ipped Matrix (S6 rk Surface (S7) (DB) of hydrophytic v Layer (if observe	5) rk Sufac (A12) ral (S1) ix (S4) (LRR R,		my Mu) (LRR my Gle bleted M lox Dar bleted D lox Dep	cky Mine K, L) yed Matrix (F3 k Surfac ark Surf pressions	eral rix (F2) 3) e (F6) face (F7) s (F8)	Dark Surfa Polyvalue Thin Dark Iron-Manga Piedmont I Mesic Spo Red Paren Very Shalld Other (Exp	ice (S7) (LRR K, L Below Surface (S8) (LRR K, L) Surface (S9) (LRR K, L) anese Masses (F12) (LRR K, L, Floodplain Soils (F19) (MLRA 14 dic (TA6) (MLRA 144A, 145, 149 dit Material (F21) ow Dark Surface (TF12) plain in Remarks) d or problematic
Hyd Str. Dej Thi Sau Sau Sau Stri Dau 149 Indicators	drogen Sulfide (<i>A</i> atified Layers (A pleted Below Da ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5) ipped Matrix (S6 rk Surface (S7) (DB) of hydrophytic v Layer (if observe	5) rk Sufac (A12) ral (S1) ix (S4) (LRR R,		my Mu) (LRR my Gle bleted M lox Dar bleted D lox Dep	cky Mine K, L) yed Matrix (F3 k Surfac ark Surf pressions	eral rix (F2) 3) e (F6) face (F7) s (F8)	Dark Surfa Polyvalue Thin Dark Iron-Manga Piedmont I Mesic Spo Red Paren Very Shalld Other (Exp	ice (S7) (LRR K, L Below Surface (S8) (LRR K, L) Surface (S9) (LRR K, L) anese Masses (F12) (LRR K, L, Floodplain Soils (F19) (MLRA 14 dic (TA6) (MLRA 144A, 145, 149 dit Material (F21) ow Dark Surface (TF12) plain in Remarks) d or problematic
Hyd Str. De Thi Sau Sau Sau Stri Dau 149 Indicators	drogen Sulfide (<i>A</i> atified Layers (A pleted Below Da ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5) ipped Matrix (S6 rk Surface (S7) (DB) of hydrophytic v Layer (if observe	5) rk Sufac (A12) ral (S1) ix (S4) (LRR R,		my Mu) (LRR my Gle bleted M lox Dar bleted D lox Dep	cky Mine K, L) yed Matrix (F3 k Surfac ark Surf pressions	eral rix (F2) 3) e (F6) face (F7) s (F8)	Dark Surfa Polyvalue Thin Dark Iron-Manga Piedmont I Mesic Spo Red Paren Very Shalld Other (Exp	ice (S7) (LRR K, L Below Surface (S8) (LRR K, L) Surface (S9) (LRR K, L) anese Masses (F12) (LRR K, L, Floodplain Soils (F19) (MLRA 14 dic (TA6) (MLRA 144A, 145, 149 it Material (F21) ow Dark Surface (TF12) plain in Remarks) d or problematic
Hyd Str. Dej Thi Sau Sau Sau Stri Dau 149 Indicators Restrictive Type: Depth (inch	drogen Sulfide (<i>A</i> atified Layers (A pleted Below Da ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5) ipped Matrix (S6 rk Surface (S7) (DB) of hydrophytic v Layer (if observe	5) rk Sufac (A12) ral (S1) ix (S4) (LRR R,		my Mu) (LRR my Gle bleted M lox Dar bleted D lox Dep	cky Mine K, L) yed Matrix (F3 k Surfac ark Surf pressions	eral rix (F2) 3) e (F6) face (F7) s (F8)	Dark Surfa Polyvalue Thin Dark Iron-Manga Piedmont I Mesic Spo Red Paren Very Shalld Other (Exp	ice (S7) (LRR K, L Below Surface (S8) (LRR K, L) Surface (S9) (LRR K, L) anese Masses (F12) (LRR K, L, Floodplain Soils (F19) (MLRA 14 dic (TA6) (MLRA 144A, 145, 149 dic (TA6) (MLRA 144A, 149 dic (TA6) (MLR
Hyd Str. De Thi Sau Sau Sau Stri Dau 149 Indicators	drogen Sulfide (<i>A</i> atified Layers (A pleted Below Da ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5) ipped Matrix (S6 rk Surface (S7) (DB) of hydrophytic v Layer (if observe	5) rk Sufac (A12) ral (S1) ix (S4) (LRR R,		my Mu) (LRR my Gle bleted M lox Dar bleted D lox Dep	cky Mine K, L) yed Matrix (F3 k Surfac ark Surf pressions	eral rix (F2) 3) e (F6) face (F7) s (F8)	Dark Surfa Polyvalue Thin Dark Iron-Manga Piedmont I Mesic Spo Red Paren Very Shalld Other (Exp	ice (S7) (LRR K, L Below Surface (S8) (LRR K, L) Surface (S9) (LRR K, L) anese Masses (F12) (LRR K, L, Floodplain Soils (F19) (MLRA 14 dic (TA6) (MLRA 144A, 145, 14 dic (TA6) (MLRA 14 dic (TA6) (MLRA 144A, 145, 14 dic (TA6) (MLRA 14 dic

	nts			Sampling Point: T4P2 50/20 Thresholds
	Absolute	Dominant	Indicator	20% 50%
Tree Stratum Plot Size (30)	% Cover	Species	Status	Tree Stratum 5 13
Fravinus pannautuanias				
1 Fraxinus pennsylvanica 2 Rhamnus cathartica	15	<u>Y</u>	FACW	Sapling/Shrub Stratum 8 20
	10	Y	FAC	Herb Stratum 14 35
3				Woody Vine Stratum 0 0
1				
5				Dominance Test Worksheet Number of Dominant
7				
3	-			Species that are OBL, FACW, or FAC: 5 (A)
	-			FACW, or FAC: <u>5</u> (A) Total Number of
)				
	25	= Total Cover		Dominant Species Across 5 (B)
				Percent of Dominant
				Species that are OBL,
Sapling/Shrub Plot Size (15)	Absolute	Dominant	Indicator	FACW, or FAC: 100.00% (A/E
Stratum	% Cover	Species	Status	and the second sec
Rhamnus cathartica	40	Y	FAC	Prevalence Index Worksheet
2				Total % Cover of:
3			<u> </u>	OBL species $0 \times 1 = 0$
1				FACW species $60 \times 2 = 120$
	-			FAC species $75 \times 3 = 225$
				FACU species $0 \times 4 = 0$
				UPL species $0 \times 5 = 0$
3				Column totals 135 (A) 345 (B)
				Prevalence Index = $B/A = 2.56$
)				
	40 :	= Total Cover		
				Hydrophytic Vegetation Indicators:
User Charters Dist Circ (5)	Absolute	Dominant	Indicator	Rapid test for hydrophytic vegetation
Herb Stratum Plot Size (5)	% Cover	Species	Status	X Dominance test is >50%
Pilea pumila	30	Y	FACW	X Prevalence index is ≤3.0*
Rhamnus cathartica	25	Y	FAC	Morphogical adaptations* (provide
3 Phalaris arundinacea	10	N	FACW	supporting data in Remarks or on a
Solidago gigantea	5	N	FACW	separate sheet)
jobildago gigaritoa				Problematic hydrophytic vegetation*
				(explain)
		÷		*Indicators of hydric soil and wetland hydrology must b present, unless disturbed or problematic
				present, unless disturbed of problematic
				Definitions of Vegetation Strata:
				Tree - Woody plants 3 in. (7.6 cm) or more in diameter
				at breast height (DBH), regardless of height.
				Sapling/shrub - Woody plants less than 3 in. DBH and
				greater than 3.28 ft (1 m) tall.
	70 =	Total Cover		Hat Allhadara a state a
				Herb - All herbaceous (non-woody) plants, regardless
			Indicator	size, and woody plants less than 3.28 ft tall.
Woody Vine	Absolute	Dominant	indicator	
Woody Vine Plot Size (30)				Woody vines - All woody vines greater than 3 28 ft in
Woody Vine	Absolute % Cover	Dominant Species	Status	Woody vines - All woody vines greater than 3.28 ft in height.
Woody Vine Plot Size(30))				Woody vines - All woody vines greater than 3.28 ft in height.
Woody Vine Plot Size(30)) Stratum				
Woody Vine Plot Size(30)				height.
Woody Vine Plot Size(30)				height. Hydrophytic
Woody Vine Plot Size(30)	% Cover	Species		height. Hydrophytic vegetation
Woody Vine Plot Size(30)	% Cover			height. Hydrophytic
Woody Vine Plot Size(30)	% Cover	Species		height. Hydrophytic vegetation
Woody Vine Plot Size(30)	% Cover	Species		height. Hydrophytic vegetation
Woody Vine Plot Size(30)	% Cover	Species		height. Hydrophytic vegetation
Woody Vine Plot Size(30)	% Cover	Species		height. Hydrophytic vegetation
Woody Vine Plot Size(30)	% Cover	Species		height. Hydrophytic vegetation

Project/Site:	Dave Hahn Proper	ty	City/County:	Rush Lake	e/Winnebago	Sampling Date: 10/28/	2016
Applicant/Own	er: Dave Hahn			State:	WI	Sampling Point	T4P3
	Stacey Henk, Gare			Section,	Township,	Range: Sec 27, T17N,	, R14E
Landform (hills	lope, terrace, etc.):	Shoulder-upgradient E	E of T4P2 Lo	ocal relief (concave, co	onvex, none): conve	x
Slope (%): 4	Lat.:	Long.:		Datu	ım:		
Soil Map Unit N	Vam(FsB				NWI Cla	assification:	
Are climatic/hy	drologic conditions	of the site typical for thi	is time of the yea	r? Yes	(If no, e	xplain in remarks)	
Are vegetation	, soll	, or hydrology	significantl	y disturbed	1?	Are "normal	
Are vegetation	, soil	, or hydrology	naturally pr	oblematic	?	circumstances" preser	nt? Yes
(If needed, exp	lain any answers in	remarks)					

SUMMARY OF FINDINGS

lydrophytic vegetation present? lydric soil present?	<u>-Y</u> N	Is the sampled area within a wetland?	<u> </u>
ndicators of wetland hydrology present?	Ν	If yes, optional wetland site ID:	
emarks: (Explain alternative procedures	here or in a	senarate report)	

HYDROLOGY

1

Primary Indicators (minimum of one is red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave	quired; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks)	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)	
Surface (B8)		Microtopographic Relief (D4)	
Field Observations: Surface water present? Yes Water table present? Yes Saturation present? Yes (includes capillary fringe)	No X Depth (inches): No X Depth (inches): No X Depth (inches):	Indicators of wetland hydrology present?	
Describe recorded data (stream gauge, n	nonitoring well, aerial photos, previous insp	ections), il avaliable.	
Remarks:			

US Army Corps of Engineers

Northcentral and Northeast Region

	Matrix			ox Fea					ence of indicators.)
(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Text	ure	Remarks
0-9	10YR 2/1	100					LS		Rock at 9"
							_		
				-					
							· · · · · ·		
_									
			ion, RM=Reduce	ed Mat	rix, CS=0	Covered	or Coated S	and Grain	ns
	PL=Pore Lining I Indicators:	, M=Ma	trix				Indicato	ors for Pr	oblematic Hydric Soils:
	atified Layers (A				cky Mine				
Thi Sai Sai Sai Sai Sai Sai Dai Dai 149		(A12) ral (S1) ix (S4)) LRR R,	Loa Dep Red Dep Red	leted M lox Dar leted E lox Dep	eyed Matrix Matrix (F3 K Surfac Dark Surf Dark Surf Dressions	3) e (F6) face (F7) s (F8)	Thin Iron- Pied Mes Red Very Othe	Dark Sur Mangane Imont Floo ic Spodic Parent M Shallow er (Explair	odplain Soils (F19) (MLRA 14 (TA6) (MLRA 144A, 145, 149 laterial (F21) Dark Surface (TF12) n in Remarks)
Thi Sau Sau Sau Sau Stri Dau 149	ck Dark Surface ndy Mucky Miner ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6 ck Surface (S7) (B) of hydrophytic vo Layer (if observe	(A12) ral (S1) ix (S4)) LRR R, egetatic	Loa Dep Red MLRA	my Gle leted M lox Dar leted D lox Dep	eyed Matrix Matrix (F3 K Surfac Dark Surf Dark Surf Dressions	3) e (F6) face (F7) s (F8)	Thin Iron- Pied Mes Red Very Othe	Dark Sur Mangane Imont Floo ic Spodic Parent M Shallow er (Explair sturbed of	face (S9) (LRR K, L) ese Masses (F12) (LRR K, L, F odplain Soils (F19) (MLRA 145 (TA6) (MLRA 144A, 145, 149 laterial (F21) Dark Surface (TF12) n in Remarks)
Thi Sai Sai Sai Stri Dai 149 (Indicators Restrictive	ck Dark Surface ndy Mucky Miner ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6 ck Surface (S7) (B) of hydrophytic vo Layer (if observe	(A12) ral (S1) ix (S4)) LRR R, egetatic	Loa Dep Red MLRA	my Gle leted M lox Dar leted D lox Dep	eyed Matrix Matrix (F3 K Surfac Dark Surf Dark Surf Dressions	3) e (F6) face (F7) s (F8)	Thin Iron- Pied Mes Red Very Othe	Dark Sur Mangane Imont Floo ic Spodic Parent M Shallow er (Explair sturbed of	face (S9) (LRR K, L) ese Masses (F12) (LRR K, L, I odplain Soils (F19) (MLRA 149 (TA6) (MLRA 144A, 145, 149 laterial (F21) Dark Surface (TF12) n in Remarks) r problematic
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fplants			Sampling Point: T4P3 50/20 Thresholds
) Absolute % Cover 20 10	Dominant Species Y Y	Indicator Status FACU FACU	20% 50% Tree Stratum 9 23 Sapling/Shrub Stratum 6 15 Herb Stratum 10 25 Woody Vine Stratum 0 0
	-		
			Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)
_			Total Number of
45	= Total Cover		Dominant Species Across <u>5</u> (B) Percent of Dominant Species that are OBL,
) Absolute % Cover	Dominant Species	Indicator Status	FACW, or FAC:60.00% (A/B
	Y		Prevalence Index WorksheetTotal % Cover of:OBL species $0 \times 1 = 0$ FACW species $0 \times 2 = 0$ FAC species $90 \times 3 = 270$ FACU species $35 \times 4 = 140$ UPL species $0 \times 5 = 0$ Column totals 125 (A)Prevalence Index = B/A = 3.28
30	= Total Cover		
) Absolute % Cover 50	Dominant Species Y	Indicator Status FAC	Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation X Dominance test is >50% Prevalence index is ≤3.0* Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet) Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must b present, unless disturbed or problematic
			Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diamete at breast height (DBH), regardless of height.
			Sapling/shrub - Woody plants less than 3 in. DBH an greater than 3.28 ft (1 m) tall.
50	= Total Cover		Herb - All herbaceous (non-woody) plants, regardless
) Absolute % Cover	Dominant Species	Indicator Status	size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height.
			Hydrophytic vegetation
) % Cover 20 10 10 5 	% Cover Species 20 Y 10 Y 10 Y 5 N 5 N 45 = Total Cover Absolute Dominant % Cover Species 30 Y 30 Y 30 = Total Cover 30 = Total Cover % Cover Species 30 = Total Cover % Cover Species 30 = Total Cover % Cover Species 50 Y	% Cover Species Status 20 Y FACU 10 Y FACU 10 Y FAC 5 N FACU 10 Y FAC 10 Y FAC 10 Y FAC 10 Species Status 10 Y FAC 10 Species Status 30 Y FAC 10 Species Status 10 Species Status 10 Species Status 10 Species Y 10 Species Status 10 Species Y 10 Species Status 10 Species

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Project/Site: Dave Hahn Property	City/County:	Rush Lak	e/Winnebago S	ampling Date: 10/28/2	2016
Applicant/Owner: Dave Hahn		State:	WI	Sampling Point	T4P4
Investigator(s): Stacey Henk, Garek Holley		Section	Township, R	ange: Sec 27, T17N,	R14E
Landform (hillslope, terrace, etc.): Backslope-S of wetla	nd 1 Loc	al relief	(concave, con	nvex, none): none	
Slope (%): 3 Lat.: Long.	1	Date	um:		
Soil Map Unit Name FsB			NWI Clas	sification:	
Are climatic/hydrologic conditions of the site typical for the	is time of the year	? Yes	(If no, ex	olain in remarks)	
Are vegetation, soil, or hydrology	significantly	disturbe	d? A	re "normal	
Are vegetation , soil , or hydrology	naturally pro	blematic	? с	ircumstances" preser	nt? Yes
(If needed, explain any answers in remarks)					

SUMMARY OF FINDINGS

Is the sampled area within a wetland?	
If yes, optional wetland site ID:	

HYDROLOGY

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Primary Indicators (minimum of on	e 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)	Marl Deposits (B15)	Moss Trim Lines (B16)		
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)		
Sediment Deposits (B2)	Oxidized Rhizospheres on Living	Crayfish Burrows (C8)		
Drift Deposits (B3)	Roots (C3)	Saturation Visible on Aerial Imagery		
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4)	(C9)		
Iron Deposits (B5)	Recent Iron Reduction in Tilled	Stunted or Stressed Plants (D1)		
Inundation Visible on Aerial	Soils (C6)	Geomorphic Position (D2)		
Imagery (B7)	Thin Muck Surface (C7)	Shallow Aquitard (D3)		
Sparsely Vegetated Concave	Other (Explain in Remarks)	FAC-Neutral Test (D5)		
Surface (B8)		Microtopographic Relief (D4)		
Field Observations:				
Surface water present? Yes	No X Depth (inches):	Indicators of		
Water table present? Yes	No X Depth (inches):	wetland		
Saturation present? Yes	No X Depth (inches):	hydrology		
(includes capillary fringe)		present? <u>N</u>		
Describe recorded data (stream ga	uge, monitoring well, aerial photos, previous insp	pections), if available:		
Remarks:				

Depth Matrix Redox Features Texture Remarks (Inches) Color (moist) % Type* Loc** Texture Remarks 15-24 2.5Y 6/2 80 Image: Stress of the stres	(Inches) 0-15	Matrix			ox Fea			r or confirm the absence	of indicators.)
0-15 7.5YR 3/1 100	0-15						Loc**	Texture	Remarks
15-24 2.5Y 6/2 80		1	1		10	T			
7.5YR 3/1 20	15-24				-				
Image: Solution of the second state	10 21	1			-		-		
***Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils Histisol (A1) Polyvalue Below Surface 2 cm Muck (A10) (LRR K, L, MLRA Black Histic (A3) Thin Dark Surface (S9) 5 cm Mucky Peat or Peat (S3) (LRR K, L) Hydrogen Sulfide (A4) (LRR R, MLRA 149B Dark Surface (S7) (LRR K, L) Stratified Layers (A5) Loamy Mucky Mineral Polyvalue Below Surface (S9) (LRR K, L) Thick Dark Surface (A12) Loamy Gleyed Matrix (F2) Thin Dark Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1) Depleted Matrix (F3) Piedmont Floodplain Soils (F19) (ML Sandy Redox (S5) Depleted Dark Surface (F7) Red Parent Material (F21) Stripped Matrix (S6) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA Other (Explain in Remarks) Other (Explain in Remarks) 149B) *Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic Restrictive Layer (if observed):: Type: N		7.011(0/1	20		-				
***Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils Histisol (A1) Polyvalue Below Surface 2 cm Muck (A10) (LRR K, L, MLRA Histic Epipedon (A2) (S8) (LRR R, MLRA Coast Prairie Redox (A16) (LRR K, L Black Histic (A3) Thin Dark Surface (S9) 5 cm Mucky Peat or Peat (S3) (LRR K, L Hydrogen Sulfide (A4) (LRR R, MLRA 149B Dark Surface (S7) (LRR K, L Depleted Below Dark Suface (A11) (F1) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Thick Dark Surface (A12) Loamy Mucky Mineral Polyvalue Below Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1) Depleted Matrix (F2) Iron-Manganese Masses (F12) (LRR Sandy Redox (S5) Depleted Dark Surface (F7) Red Parent Material (F21) Stripped Matrix (S6) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA Other (Explain in Remarks) Other (Explain in Remarks)					-				
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Histic Epipedon (A2) (S8) (LRR R, MLRA Coast Prairie Redox (A16) (LRR K, L Black Histic (A3) Thin Dark Surface (S9) 5 cm Mucky Peat or Peat (S3) (LRR K, L Hydrogen Sulfide (A4) (LRR R, MLRA 149B Dark Surface (S7) (LRR K, L Stratified Layers (A5) Loamy Mucky Mineral Dark Surface (S7) (LRR K, L) Thick Dark Surface (A12) Loamy Gleyed Matrix (F2) Thin Dark Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Piedmont Floodplain Soils (F19) (ML Sandy Redox (S5) Depleted Dark Surface (F7) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA Thin Dark Surface (TF12) Other (Explain in Remarks) Other (Explain in Remarks) 149B) Thin Cater (if observed): Type: Depth (inches): N	iyunc oo	in maleators.						indicators for Froste	inatio Hydrio Cono.
Type:	Str De Thi Sa Sa	atified Layers (A pleted Below Da ck Dark Surface ndy Mucky Mine ndy Gleyed Mati ndy Redox (S5)	5) ark Sufa e (A12) aral (S1) rix (S4)	Ce (A11)(F1) Loa Dep Rec Dep Rec	my Mu) (LRR my Gle bleted M lox Dar bleted [icky Mine K, L) eyed Mat Matrix (F3 rk Surfac Dark Surf	eral rix (F2) 3) e (F6) face (F7) 5 (F8)	Polyvalue Below S Thin Dark Surface Iron-Manganese M Piedmont Floodpla Mesic Spodic (TA Red Parent Mater Very Shallow Dark Other (Explain in F	Surface (S8) (LRR K, L) e (S9) (LRR K, L) Masses (F12) (LRR K, L, ain Soils (F19) (MLRA 14 6) (MLRA 144A, 145, 149 ial (F21) < Surface (TF12)
Depth (inches):	Str Da	rk Surface (S7) 9B)			ydrolog	gy must l	be presen		blematic
	Str Da 149 Indicators	rk Surface (S7) 9B) of hydrophytic v	vegetatio		ydrolog	gy must l	be presen		blematic
Remarks:	Str Da 149 Indicators Restrictive	rk Surface (S7) 9B) of hydrophytic v Layer (if observ	vegetatio		ydrolog	gy must l	be presen		
	Str Da 149 Indicators Restrictive Type:	rk Surface (S7) 9B) of hydrophytic v Layer (if observ	vegetatio		ydrolog	gy must l	be presen		
	Str Da 149 Indicators Restrictive Type: Depth (inch	rk Surface (S7) 9B) of hydrophytic v Layer (if observ	vegetatio		ydrolog	gy must l	be presen		
	Str Da 149 Indicators Restrictive Type: Depth (inch	rk Surface (S7) 9B) of hydrophytic v Layer (if observ	vegetatio		ydrolog	gy must l	be presen		
	Str Da 149 Indicators Restrictive Type: Depth (inch	rk Surface (S7) 9B) of hydrophytic v Layer (if observ	vegetatio		ydrolog	gy must I	be presen		
	Str Da 149 Indicators Restrictive Type: Depth (inch	rk Surface (S7) 9B) of hydrophytic v Layer (if observ	vegetatio		ydrolog	gy must I	be presen		
	Str Da 149 Restrictive Type: Depth (inch	rk Surface (S7) 9B) of hydrophytic v Layer (if observ	vegetatio		ydrolog	gy must I	be presen		
	Str Da 149 Restrictive Type: Depth (inch	rk Surface (S7) 9B) of hydrophytic v Layer (if observ	vegetatio		ydrolog	gy must I	be presen		
	Str Da 149 Restrictive Type: Depth (inch	rk Surface (S7) 9B) of hydrophytic v Layer (if observ	vegetatio		ydrolog	gy must I	be presen		
	Str Da 149 Restrictive Type: Depth (inch	rk Surface (S7) 9B) of hydrophytic v Layer (if observ	vegetatio		ydrolog	gy must I	be presen		
	Str Da 149 Indicators Restrictive Type: Depth (inch	rk Surface (S7) 9B) of hydrophytic v Layer (if observ	vegetatio		ydrolog	gy must t	be presen		

GETATION - Use scientific names of pl		Sampling Point: T4P4 50/20 Thresholds
Tree Stratum Plot Size(30) Prunus serotina Quercus alba	% Cover Species 20 Y 10 Y	ndicator20%50%StatusTree Stratum1025FACUSapling/Shrub Stratum00FACUHerb Stratum2358
Rhamnus cathartica	10 Y	FAC Woody Vine Stratum 0 0
Carya ovata	5 N	FACU
Quercus macrocarpa	<u>5</u>	FACU Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 2 (A) Total Number of 2
Num		Dominant Species Across 4 (B)
	50 = Total Cover	Percent of Dominant
		Species that are OBL.
Sapling/Shrub Plot Size(15)) Stratum		ndicator FACW, or FAC: 50.00% (A/E Status
		Prevalence Index WorksheetTotal % Cover of: OBL species10 $x 1 =$ 10FACW species15 $x 2 =$ 30FAC species90 $x 3 =$ 270FACU species40 $x 4 =$ 160UPL species10 $x 5 =$ 50Column totals165(A)520Prevalence Index = B/A =3.15
	0 = Total Cover	
Herb Stratum Plot Size(5)) Rhamnus cathartica Phalaris arundinacea Asclepias syriaca Carex vulpinoidea	% Cover Species 80 Y	Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation Status Prevalence index is >50% FAC Prevalence index is >3.0* Morphogical adaptations* (provide supporting data in Remarks or on a OBL Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must present, unless disturbed or problematic
	===	Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
		Sapling/shrub - Woody plants less than 3 in. DBH an greater than 3.28 ft (1 m) tall.
	115 = Total Cover	Herb - All herbaceous (non-woody) plants, regardless
Woody Vine	Absolute Dominant Ir	size, and woody plants less than 3.28 ft tall.
Stratum Plot Size (30)		Status Woody vines - All woody vines greater than 3.28 ft in height.
		Hydrophytic
		vegetation
	0 = Total Cover	present? N

Applicant/ Whor Llave Hohn				Sampling Date: 10/28/	
Applicant/Owner: Dave Hahn		State:		Sampling Point	T4P5
Investigator(s): Stacey Henk, Garek H	olley	Sectio	on, Township	Range: Sec 27, T17N	, R14E
Landform (hillslope, terrace, etc.): To				convex, none): conca	ve
Slope (%): 0-1 Lat.:	Long.:	Da	atum:		
Soil Map Unit Nam(FsB				lassification:	
Are climatic/hydrologic conditions of th				explain in remarks)	
Are vegetation, soil	, or hydrologys	ignificantly disturb	ed?	Are "normal	
Are vegetation , soil (If needed, explain any answers in rem		aturally problemat	tic?	circumstances" preser	nt? Ye
SUMMARY OF FINDINGS					
Hydrophytic vegetation present?	Y Is the	e sampled area wi	thin a wetlar	d? Y	
Hydric soil present?	Y				
Indicators of wetland hydrology presen	nt? Y If yes	, optional wetland	site ID:		
Terrarios. (Explain alternative procedu	res here or in a separate i	eport.)			
	res here or in a separate i	eport.)			
	res here of in a separate i	eport.)	Second	ary Indicators (minimu	m of two
HYDROLOGY				dary Indicators (minimu	m of two
HYDROLOGY	required; check all that ap	oply)	require	d)	m of two
HYDROLOGY Primary Indicators (minimum of one is	required; check all that ap Water-Stained Le	oply) aves (B9)	require Su	d) face Soil Cracks (B6)	m of two
HYDROLOGY Primary Indicators (minimum of one is Surface Water (A1)	required; check all that ap	oply) aves (B9) 13)	require Sui Dra	d) face Soil Cracks (B6) inage Patterns (B10)	m of two
HYDROLOGY Primary Indicators (minimum of one is Surface Water (A1) High Water Table (A2)	required; check all that ap Water-Stained Le Aquatic Fauna (B Marl Deposits (B1	oply) aves (B9) 13) 5)	require Su Dra Mo	d) face Soil Cracks (B6) inage Patterns (B10) ss Trim Lines (B16)	
HYDROLOGY Primary Indicators (minimum of one is Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	required; check all that ap Water-Stained Le Aquatic Fauna (B	oply) aves (B9) 13) 5) Odor (C1)	require Sui Dra Mo Dry	d) face Soil Cracks (B6) inage Patterns (B10)	
HYDROLOGY Primary Indicators (minimum of one is Surface Water (A1) High Water Table (A2) Saturation (A3)	required; check all that ap Water-Stained Le Aquatic Fauna (B Marl Deposits (B1	oply) aves (B9) 13) 5) Odor (C1)	require Sui Dra Mo Dry Cra	d) face Soil Cracks (B6) inage Patterns (B10) ss Trim Lines (B16) -Season Water Table (C	2)
HYDROLOGY Primary Indicators (minimum of one is Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	required; check all that ap Water-Stained Le Aquatic Fauna (B Marl Deposits (B1 Hydrogen Sulfide Oxidized Rhizospl	oply) aves (B9) 13) 5) Odor (C1) heres on Living	require Sui Dra Mo Dry Cra	d) face Soil Cracks (B6) inage Patterns (B10) ss Trim Lines (B16) -Season Water Table (C yfish Burrows (C8) uration Visible on Aerial	2)
HYDROLOGY Primary Indicators (minimum of one is Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	required; check all that ap Water-Stained Le Aquatic Fauna (B Marl Deposits (B1 Hydrogen Sulfide Oxidized Rhizospl Roots (C3)	oply) aves (B9) 13) 5) Odor (C1) heres on Living ced Iron (C4)	require Sun Dra Mo Dry Cra Sat	d) face Soil Cracks (B6) inage Patterns (B10) ss Trim Lines (B16) -Season Water Table (C yfish Burrows (C8) uration Visible on Aerial)	2) Imagery
Primary Indicators (minimum of one is Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	required; check all that ap Water-Stained Le Aquatic Fauna (B Marl Deposits (B1 Hydrogen Sulfide Oxidized Rhizospl Roots (C3) Presence of Redu	oply) aves (B9) 13) 5) Odor (C1) heres on Living ced Iron (C4)	require Sui Dra Mo Dry Cra Sat Sat Sat	d) face Soil Cracks (B6) inage Patterns (B10) ss Trim Lines (B16) -Season Water Table (C yfish Burrows (C8) uration Visible on Aerial	2) Imagery
HYDROLOGY Primary Indicators (minimum of one is Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	required; check all that ap Water-Stained Le Aquatic Fauna (B Marl Deposits (B1 Hydrogen Sulfide Oxidized Rhizospl Roots (C3) Presence of Redu Recent Iron Redu	oply) aves (B9) 13) 5) Odor (C1) heres on Living ced Iron (C4) ction in Tilled	require Sui Dra Mo Dry Cra Sat (CS Stu X Geo	d) face Soil Cracks (B6) inage Patterns (B10) ss Trim Lines (B16) -Season Water Table (C yfish Burrows (C8) uration Visible on Aerial) nted or Stressed Plants	2) Imagery

(includes capillary fringe) present? Y Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Field Observations: Surface water present? Water table present? Saturation present?	Yes Yes Yes	No No X No	X Depth (inches): X Depth (inches): Depth (inches):	18	Indicators of wetland hydrology
		tream gauge	e, monitoring	well, aerial photos, previou	us inspections	

Depth	Matrix			ox Feat			or or confirm the absenc	
(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-10	10YR 2/1	100					SIL	
10-14	2.5Y 6/2	85	7.5YR 6/6	15	С	М	SCL	
14-24	5Y 7/2	60	7.5YR 5/6	40	С	М	LS	
							Sec. 1997	
	1							
		1						
		1						
		-						
							1	
		1						
Tura O-C	Concentration 5	Derel 1	tion DM-D	od 14-1			as Control Cond Cond	
	PL=Pore Lining			ed Matr	ix, $CS=0$	Covered	or Coated Sand Grains	
		, w-wa	uix				la diastana fan Ducht	lemette Undete Oetles
Tyaric Sol	I Indicators:						indicators for Probl	lematic Hydric Soils:
His	tisol (A1)		Poly	value E	Below Si	urface	2 cm Muck (A10)) (LRR K, L, MLRA 149B
	tic Epipedon (A	2)	(S8) (LRR	R, MLR	A		dox (A16) (LRR K, L, R)
	ck Histic (A3)	,			Surface			t or Peat (S3) (LRR K, L, I
Hyd	drogen Sulfide (A4)	(LR	RR, M	LRA 149	B	Dark Surface (S7	
	atified Layers (A			my Muc	ky Mine	eral	Polyvalue Below	
V Day	pleted Below Da	rl Cufa	(1144) /54					Surface (S8) (LRR K, L)
_X_De	piered perow pa	ark Sula	ce (ATT)(FT)) (LRR	K, L)		Thin Dark Surfac	e (S9) (LRR K, L)
	ck Dark Surface		Loa	my Gle	yed Mat		Thin Dark Surfac	e (S9) (LRR K, L) Masses (F12) (LRR K, L ,
Thi Sar	ck Dark Surface ndy Mucky Mine	e (A12) eral (S1)	Loa X Dep	my Gle bleted M	yed Mat latrix (F3	3)	Thin Dark Surface Iron-Manganese Piedmont Floodp	e (S9) (LRR K, L) Masses (F12) (LRR K, L , Iain Soils (F19) (MLRA 14)
Thi Sar Sar	ck Dark Surface ndy Mucky Mine ndy Gleyed Matr	e (A12) eral (S1) rix (S4)	Loa Dep Red	my Gle bleted M lox Darl	yed Mat latrix (F3 < Surfac	3) e (F6)	Thin Dark Surface Iron-Manganese Piedmont Floodp Mesic Spodic (TA	e (S9) (LRR K, L) Masses (F12) (LRR K, L, blain Soils (F19) (MLRA 14 A6) (MLRA 144A, 145, 149
Thi Sar Sar Sar	ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5)	e (A12) eral (S1) rix (S4)	X Dep Red Dep	my Gle bleted M lox Darl bleted D	yed Mat latrix (F3 k Surfac ark Surf	3) e (F6) ace (F7)	Thin Dark Surfac	e (S9) (LRR K, L) Masses (F12) (LRR K, L, blain Soils (F19) (MLRA 14 A6) (MLRA 144A, 145, 149 erial (F21)
Thi Sar Sar Sar Sar	ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5) pped Matrix (S6	e (A12) eral (S1) rix (S4) S)	Loa X Dep Red Dep Red	my Gle bleted M lox Darl bleted D	yed Mat latrix (F3 < Surfac	3) e (F6) ace (F7)	Thin Dark Surface Iron-Manganese Piedmont Floodp Mesic Spodic (T/ Red Parent Mate	ee (S9) (LRR K, L) Masses (F12) (LRR K, L, blain Soils (F19) (MLRA 14 A6) (MLRA 144A, 145, 149 erial (F21) rk Surface (TF12)
Thi Sar Sar Sar Sar Sar Dar	ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5) pped Matrix (S6 rk Surface (S7)	e (A12) eral (S1) rix (S4) S)	Loa X Dep Red Dep Red	my Gle bleted M lox Darl bleted D	yed Mat latrix (F3 k Surfac ark Surf	3) e (F6) ace (F7)	Thin Dark Surfac	ee (S9) (LRR K, L) Masses (F12) (LRR K, L, blain Soils (F19) (MLRA 14 A6) (MLRA 144A, 145, 149 erial (F21) rk Surface (TF12)
Thi Sar Sar Sar Sar Stri Dar 149	ck Dark Surface ndy Mucky Mine ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6 rk Surface (S7) (B)	e (A12) eral (S1) rix (S4) 6) (LRR R,	Loa X Dep Rec Dep MLRA	my Gle bleted M lox Darl bleted D lox Dep	yed Mat latrix (F3 < Surfac ark Surf ressions	3) e (F6) face (F7) s (F8)	Thin Dark Surface Iron-Manganese Piedmont Floodp Mesic Spodic (T/ Red Parent Mate	ee (S9) (LRR K, L) Masses (F12) (LRR K, L , I blain Soils (F19) (MLRA 14 A6) (MLRA 144A, 145, 149 erial (F21) rk Surface (TF12) Remarks)
Thi Sar Sar Sar Sar Stri Dar 149	ck Dark Surface ndy Mucky Mine ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6 rk Surface (S7) (B)	e (A12) eral (S1) rix (S4) 6) (LRR R,	Loa X Dep Rec Dep MLRA	my Gle bleted M lox Darl bleted D lox Dep	yed Mat latrix (F3 < Surfac ark Surf ressions	3) e (F6) face (F7) s (F8)	Thin Dark Surface Iron-Manganese Piedmont Floodp Mesic Spodic (TA Red Parent Mate Very Shallow Da Other (Explain in	ee (S9) (LRR K, L) Masses (F12) (LRR K, L , I blain Soils (F19) (MLRA 14 A6) (MLRA 144A, 145, 149 erial (F21) rk Surface (TF12) Remarks)
Thi Sar Sar Sar Stri Dar 149	ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5) pped Matrix (S6 rk Surface (S7) B) of hydrophytic v	e (A12) eral (S1) rix (S4) 6) (LRR R, vegetatic	Loa X Dep Rec Dep MLRA	my Gle bleted M lox Darl bleted D lox Dep	yed Mat latrix (F3 < Surfac ark Surf ressions	3) e (F6) face (F7) s (F8)	Thin Dark Surface Iron-Manganese Piedmont Floodp Mesic Spodic (TA Red Parent Mate Very Shallow Da Other (Explain in	ee (S9) (LRR K, L) Masses (F12) (LRR K, L , I blain Soils (F19) (MLRA 14 A6) (MLRA 144A, 145, 149 erial (F21) rk Surface (TF12) Remarks)
Thi Sar Sar Sar Stri Dar 149 Indicators	ck Dark Surface ndy Mucky Mine ndy Gleyed Matri ndy Redox (S5) pped Matrix (S6 rk Surface (S7) (B)	e (A12) eral (S1) rix (S4) 6) (LRR R, vegetatic	Loa X Dep Rec Dep MLRA	my Gle bleted M lox Darl bleted D lox Dep	yed Mat latrix (F3 < Surfac ark Surf ressions	3) e (F6) face (F7) s (F8)	Thin Dark Surface Iron-Manganese Piedmont Floodp Mesic Spodic (T/ Red Parent Mate Very Shallow Da Other (Explain in nt, unless disturbed or pr	ee (S9) (LRR K, L) Masses (F12) (LRR K, L, blain Soils (F19) (MLRA 14 A6) (MLRA 144A, 145, 149 erial (F21) rk Surface (TF12) Remarks) roblematic
Thi Sar Sar Stri Dar 149 Indicators Restrictive	ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5) pped Matrix (S6 rk Surface (S7) B) of hydrophytic v Layer (if observ	e (A12) eral (S1) rix (S4) 6) (LRR R, vegetatic	Loa X Dep Rec Dep MLRA	my Gle bleted M lox Darl bleted D lox Dep	yed Mat latrix (F3 < Surfac ark Surf ressions	3) e (F6) face (F7) s (F8)	Thin Dark Surface Iron-Manganese Piedmont Floodp Mesic Spodic (TA Red Parent Mate Very Shallow Da Other (Explain in	ee (S9) (LRR K, L) Masses (F12) (LRR K, L , blain Soils (F19) (MLRA 14 A6) (MLRA 144A, 145, 149 erial (F21) rk Surface (TF12) Remarks) roblematic
Thi Sar Sar Sar Stri Dar 149	ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5) pped Matrix (S6 rk Surface (S7) B) of hydrophytic v Layer (if observ	e (A12) eral (S1) rix (S4) 6) (LRR R, vegetatic	Loa X Dep Rec Dep MLRA	my Gle bleted M lox Darl bleted D lox Dep	yed Mat latrix (F3 < Surfac ark Surf ressions	3) e (F6) face (F7) s (F8)	Thin Dark Surface Iron-Manganese Piedmont Floodp Mesic Spodic (T/ Red Parent Mate Very Shallow Da Other (Explain in nt, unless disturbed or pr	ee (S9) (LRR K, L) Masses (F12) (LRR K, L, blain Soils (F19) (MLRA 14 A6) (MLRA 144A, 145, 149 erial (F21) rk Surface (TF12) Remarks) roblematic
Thi Sar Sar Sar Dar 149 Indicators Restrictive Fype: Depth (inch	ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5) pped Matrix (S6 rk Surface (S7) B) of hydrophytic v Layer (if observ	e (A12) eral (S1) rix (S4) 6) (LRR R, vegetatic	Loa X Dep Rec Dep MLRA	my Gle bleted M lox Darl bleted D lox Dep	yed Mat latrix (F3 < Surfac ark Surf ressions	3) e (F6) face (F7) s (F8)	Thin Dark Surface Iron-Manganese Piedmont Floodp Mesic Spodic (T/ Red Parent Mate Very Shallow Da Other (Explain in nt, unless disturbed or pr	ee (S9) (LRR K, L) Masses (F12) (LRR K, L , blain Soils (F19) (MLRA 1 4 A6) (MLRA 144A, 145, 14 erial (F21) rk Surface (TF12) Remarks) poblematic
Thi Sar Sar Sar Dar 149 Indicators Restrictive Type: Depth (inch	ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5) pped Matrix (S6 rk Surface (S7) B) of hydrophytic v Layer (if observ	e (A12) eral (S1) rix (S4) 6) (LRR R, vegetatic	Loa X Dep Rec Dep MLRA	my Gle bleted M lox Darl bleted D lox Dep	yed Mat latrix (F3 < Surfac ark Surf ressions	3) e (F6) face (F7) s (F8)	Thin Dark Surface Iron-Manganese Piedmont Floodp Mesic Spodic (T/ Red Parent Mate Very Shallow Da Other (Explain in nt, unless disturbed or pr	e (S9) (LRR K, L) Masses (F12) (LRR K, L, blain Soils (F19) (MLRA 14 A6) (MLRA 144A, 145, 14 erial (F21) rk Surface (TF12) Remarks) poblematic
Thi Sar Sar Sar Dar 149 Indicators Restrictive Fype: Depth (inch	ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5) pped Matrix (S6 rk Surface (S7) B) of hydrophytic v Layer (if observ	e (A12) eral (S1) rix (S4) 6) (LRR R, vegetatic	Loa X Dep Rec Dep MLRA	my Gle bleted M lox Darl bleted D lox Dep	yed Mat latrix (F3 < Surfac ark Surf ressions	3) e (F6) face (F7) s (F8)	Thin Dark Surface Iron-Manganese Piedmont Floodp Mesic Spodic (T/ Red Parent Mate Very Shallow Da Other (Explain in nt, unless disturbed or pr	e (S9) (LRR K, L) Masses (F12) (LRR K, L , blain Soils (F19) (MLRA 14 A6) (MLRA 144A, 145, 14 erial (F21) rk Surface (TF12) Remarks) roblematic
Thi Sar Sar Sar Dar 149 Indicators Restrictive Fype: Depth (inch	ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5) pped Matrix (S6 rk Surface (S7) B) of hydrophytic v Layer (if observ	e (A12) eral (S1) rix (S4) 6) (LRR R, vegetatic	Loa X Dep Rec Dep MLRA	my Gle bleted M lox Darl bleted D lox Dep	yed Mat latrix (F3 < Surfac ark Surf ressions	3) e (F6) face (F7) s (F8)	Thin Dark Surface Iron-Manganese Piedmont Floodp Mesic Spodic (T/ Red Parent Mate Very Shallow Da Other (Explain in nt, unless disturbed or pr	e (S9) (LRR K, L) Masses (F12) (LRR K, L , blain Soils (F19) (MLRA 14 A6) (MLRA 144A, 145, 14 erial (F21) rk Surface (TF12) Remarks) poblematic
Thi Sar Sar Stri Dar 149 Indicators Restrictive	ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5) pped Matrix (S6 rk Surface (S7) B) of hydrophytic v Layer (if observ	e (A12) eral (S1) rix (S4) 6) (LRR R, vegetatic	Loa X Dep Rec Dep MLRA	my Gle bleted M lox Darl bleted D lox Dep	yed Mat latrix (F3 < Surfac ark Surf ressions	3) e (F6) face (F7) s (F8)	Thin Dark Surface Iron-Manganese Piedmont Floodp Mesic Spodic (T/ Red Parent Mate Very Shallow Da Other (Explain in nt, unless disturbed or pr	ee (S9) (LRR K, L) Masses (F12) (LRR K, L , blain Soils (F19) (MLRA 14 A6) (MLRA 144A, 145, 149 erial (F21) rk Surface (TF12) Remarks) roblematic
Thi Sar Sar Sar Dar 149 Indicators Restrictive Fype: Depth (inch	ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5) pped Matrix (S6 rk Surface (S7) B) of hydrophytic v Layer (if observ	e (A12) eral (S1) rix (S4) 6) (LRR R, vegetatic	Loa X Dep Rec Dep MLRA	my Gle bleted M lox Darl bleted D lox Dep	yed Mat latrix (F3 < Surfac ark Surf ressions	3) e (F6) face (F7) s (F8)	Thin Dark Surface Iron-Manganese Piedmont Floodp Mesic Spodic (T/ Red Parent Mate Very Shallow Da Other (Explain in nt, unless disturbed or pr	ee (S9) (LRR K, L) Masses (F12) (LRR K, L, blain Soils (F19) (MLRA 14 A6) (MLRA 144A, 145, 149 erial (F21) rk Surface (TF12) Remarks) roblematic
Thi Sar Sar Sar Dar 149 Indicators Restrictive Fype: Depth (inch	ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5) pped Matrix (S6 rk Surface (S7) B) of hydrophytic v Layer (if observ	e (A12) eral (S1) rix (S4) 6) (LRR R, vegetatic	Loa X Dep Rec Dep MLRA	my Gle bleted M lox Darl bleted D lox Dep	yed Mat latrix (F3 < Surfac ark Surf ressions	3) e (F6) face (F7) s (F8)	Thin Dark Surface Iron-Manganese Piedmont Floodp Mesic Spodic (T/ Red Parent Mate Very Shallow Da Other (Explain in nt, unless disturbed or pr	ee (S9) (LRR K, L) Masses (F12) (LRR K, L , blain Soils (F19) (MLRA 14 A6) (MLRA 144A, 145, 149 erial (F21) rk Surface (TF12) Remarks) roblematic
Thi Sar Sar Sar Dar 149 Indicators Restrictive Fype: Depth (inch	ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5) pped Matrix (S6 rk Surface (S7) B) of hydrophytic v Layer (if observ	e (A12) eral (S1) rix (S4) 6) (LRR R, vegetatic	Loa X Dep Rec Dep MLRA	my Gle bleted M lox Darl bleted D lox Dep	yed Mat latrix (F3 < Surfac ark Surf ressions	3) e (F6) face (F7) s (F8)	Thin Dark Surface Iron-Manganese Piedmont Floodp Mesic Spodic (T/ Red Parent Mate Very Shallow Da Other (Explain in nt, unless disturbed or pr	e (S9) (LRR K, L) Masses (F12) (LRR K, L , blain Soils (F19) (MLRA 14 A6) (MLRA 144A, 145, 14 erial (F21) rk Surface (TF12) Remarks) poblematic
Thi Sar Sar Sar Dar 149 Indicators Restrictive Fype: Depth (inch	ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5) pped Matrix (S6 rk Surface (S7) B) of hydrophytic v Layer (if observ	e (A12) eral (S1) rix (S4) 6) (LRR R, vegetatic	Loa X Dep Rec Dep MLRA	my Gle bleted M lox Darl bleted D lox Dep	yed Mat latrix (F3 < Surfac ark Surf ressions	3) e (F6) face (F7) s (F8)	Thin Dark Surface Iron-Manganese Piedmont Floodp Mesic Spodic (T/ Red Parent Mate Very Shallow Da Other (Explain in nt, unless disturbed or pr	e (S9) (LRR K, L) Masses (F12) (LRR K, L , blain Soils (F19) (MLRA 14 A6) (MLRA 144A, 145, 14 erial (F21) rk Surface (TF12) Remarks) poblematic
Thi Sar Sar Sar Dar 149 Indicators Restrictive Type: Depth (inch	ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5) pped Matrix (S6 rk Surface (S7) B) of hydrophytic v Layer (if observ	e (A12) eral (S1) rix (S4) 6) (LRR R, vegetatic	Loa X Dep Rec Dep MLRA	my Gle bleted M lox Darl bleted D lox Dep	yed Mat latrix (F3 < Surfac ark Surf ressions	3) e (F6) face (F7) s (F8)	Thin Dark Surface Iron-Manganese Piedmont Floodp Mesic Spodic (T/ Red Parent Mate Very Shallow Da Other (Explain in nt, unless disturbed or pr	e (S9) (LRR K, L) Masses (F12) (LRR K, L, blain Soils (F19) (MLRA 14 A6) (MLRA 144A, 145, 149 erial (F21) rk Surface (TF12) Remarks) poblematic
Thi Sar Sar Sar Stri Dar 149 Indicators	ck Dark Surface ndy Mucky Mine ndy Gleyed Matr ndy Redox (S5) pped Matrix (S6 rk Surface (S7) B) of hydrophytic v Layer (if observ	e (A12) eral (S1) rix (S4) 6) (LRR R, vegetatic	Loa X Dep Rec Dep MLRA	my Gle bleted M lox Darl bleted D lox Dep	yed Mat latrix (F3 < Surfac ark Surf ressions	3) e (F6) face (F7) s (F8)	Thin Dark Surface Iron-Manganese Piedmont Floodp Mesic Spodic (T/ Red Parent Mate Very Shallow Da Other (Explain in nt, unless disturbed or pr	e (S9) (LRR K, L) Masses (F12) (LRR K, L, blain Soils (F19) (MLRA 14 A6) (MLRA 144A, 145, 14 erial (F21) rk Surface (TF12) Remarks) poblematic

ee Stratum Plot Size (30)	41 - 1 4			50/20 Thresholds
,	Absolute % Cover	Dominant Species	Indicator Status	20% 50% Tree Stratum 5 13
Rhamnus cathartica	15	<u>Y</u>	FAC	Sapling/Shrub Stratum 6 15
Fraxinus pennsylvanica	10	Y	FACW	Herb Stratum 4 10 Woody Vine Stratum 0 0
				Dominance Test Worksheet Number of Dominant
				Species that are OBL,
				FACW, or FAC: 4 (A)
				Total Number of
		= Total Cover		Dominant Species Across 4 (B)
	25	= Total Cover		Percent of Dominant
pling/Shrub	Absolute	Dominant	Indicator	Species that are OBL, FACW, or FAC:100.00% (A/I
Stratum Plot Size (15)	% Cover	Species	Status	
Rhamnus cathartica	30	Y	FAC	Prevalence Index Worksheet
				Total % Cover of:
				OBL species $0 \times 1 = 0$
				FACW species $10 \times 2 = 20$ FAC species $65 \times 3 = 195$
				FACU species $03 \times 3 = 193$ FACU species $0 \times 4 = 0$
				UPL species 0 x 5 = 0
				Column totals 75 (A) 215 (B)
				Prevalence Index = $B/A = 2.87$
	30 :	Total Cover		
				Hydrophytic Vegetation Indicators:
rb Stratum Plot Size (5)	Absolute % Cover	Dominant Species	Indicator Status	Rapid test for hydrophytic vegetation X Dominance test is >50%
Rhamnus cathartica	20	Y	FAC	X Prevalence index is $\leq 3.0^*$
				Morphogical adaptations* (provide
				supporting data in Remarks or on a
				separate sheet) Problematic hydrophytic vegetation*
	•			(explain)
				*Indicators of hydric soil and wetland hydrology must
				present, unless disturbed or problematic
				Definitions of Vegetation Strata:
				Tree - Woody plants 3 in. (7.6 cm) or more in diamet
		-		at breast height (DBH), regardless of height.
				Sapling/shrub - Woody plants less than 3 in. DBH ar
	·		-	greater than 3.28 ft (1 m) tall.
	20 =	Total Cover		Herb - All herbaceous (non-woody) plants, regardless
oody Vine	Absolute	Dominant	Indicator	size, and woody plants less than 3.28 ft tall.
oody Vine Plot Size (30) Stratum	% Cover	Species	Status	Woody vines - All woody vines greater than 3.28 ft in
				height.
				11 1 - 1 - e
	•			Hydrophytic vegetation
	0 =	Total Cover		present? Y

Project/Site:	Dave Hahn Proper	ty	City/County:	Rush Lake/	Vinnebago Sampling Date:	: 10/28/2	:016
Applicant/Own	er: Dave Hahn			State: W	I Sampling P	Point	T4P6
Investigator(s)	: Stacey Henk, Gare	k Holley		Section, T	ownship, Range: Sec 27,	, T17N, I	R14E
Landform (hills	slope, terrace, etc.):	Backslope-upgradient	SW of T4P5	_ocal relief (co	oncave, convex, none):	none	
Slope (%): 5	Lat.:	Long.:		Datum			
Soil Map Unit	Nam(FsB				NWI Classification:		
Are climatic/hy	drologic conditions	of the site typical for this	s time of the ye	ar? Yes	(If no, explain in remark	ks)	
Are vegetation	, soil	, or hydrology	significan	tly disturbed?	Are "normal		
Are vegetation	, soil	, or hydrology	naturally	problematic?	circumstances"	' present	t? Yes
(If needed, exp	plain any answers in	remarks)	_				

SUMMARY OF FINDINGS

ydric soil present?	N	Is the sampled area within a wetland?	<u>N</u>
dicators of wetland hydrology present?	N	If yes, optional wetland site ID:	
emarks: (Explain alternative procedures he	ere or in a	senarate report)	

HYDROLOGY

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)	Marl Deposits (B15)	Moss Trim Lines (B16)	
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)	
Sediment Deposits (B2)	Oxidized Rhizospheres on Living	Crayfish Burrows (C8)	
Drift Deposits (B3)	Roots (C3)	Saturation Visible on Aerial Imagery	
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4)	(C9)	
Iron Deposits (B5)	Stunted or Stressed Plants (D1)		
Inundation Visible on Aerial	Soils (C6)	Geomorphic Position (D2)	
Imagery (B7)	Thin Muck Surface (C7)	Shallow Aquitard (D3)	
Sparsely Vegetated Concave	Other (Explain in Remarks)	FAC-Neutral Test (D5)	
Surface (B8)		Microtopographic Relief (D4)	
Field Observations:			
Surface water present? Yes	No X Depth (inches):	Indicators of	
Water table present? Yes	No X Depth (inches):	wetland	
Saturation present? Yes	No X Depth (inches):	hydrology	
(includes capillary fringe)		present? <u>N</u>	
Describe recorded data (stream gau	ge, monitoring well, aerial photos, previous insp	Dections), if available:	
Remarks:			

						e indicat	or or confirm the absence	e of indicators.)
Depth (Inchore)	Matrix Color (moist)	%	Color (moist)	ox Feat %		Loc**	Texture	Remarks
(Inches)	1	1	Color (moist)	70	Type*	LOC	SL	
0-8	10YR 2/1 10YR 4/2	100				-	SCL	
8-15				05				
15-22	5Y 7/1	75	7.5YR 5/6	25	С	М	LS	
*Location:	Concentration, D PL=Pore Lining I Indicators:			ed Matr	ix, CS=0	Covered	or Coated Sand Grains	ematic Hydric Soils:
Bla Hyo Stra Dep Thi- Sar Sar Sar Dar 149	1	A4) (5) ark Sufat (A12) aral (S1) rix (S4) (LRR R	Ce (A11) (F1 Loa Ce (A11) (F1 Loa Dep Rec Rec MLRA	n Dark S R R, M Imy Muo) (LRR my Gle bleted M dox Darl bleted D dox Dep	yed Mati latrix (F3 k Surfac ark Surf ressions	(S9) 9B eral 7) e (F2) 6) e (F6) face (F7) 6 (F8)	5 cm Mucky Peat Dark Surface (S7 Polyvalue Below Thin Dark Surface Iron-Manganese I Piedmont Floodpl	Surface (S8) (LRR K, L) e (S9) (LRR K, L) Masses (F12) (LRR K, L, I ain Soils (F19) (MLRA 149 6) (MLRA 144A, 145, 149 rial (F21) k Surface (TF12) Remarks)
Restrictive ype: Depth (inch	Layer (if observ es):	ed):					Hydric soil present	? <u>N</u>
Remarks:								

EGETATION - Use scientific names of pla	nts	Sampling Point: T4P6
Tree Stratum Plot Size(30) Carya ovata Rhamnus cathartica Prunus serotina Quercus macrocarpa	AbsoluteDominantIndicato% CoverSpeciesStatus30YFACU15YFAC10NFACU10NFACU	Tree Stratum1333Sapling/Shrub Stratum00Herb Stratum1640Woody Vine Stratum00
		Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across 3 (B) Percent of Dominant
Sapling/Shrub Plot Size(15)) Stratum	Absolute Dominant Indicato % Cover Species Status	Species that are OBL,
		Prevalence Index WorksheetTotal % Cover of:OBL species 0 X 1 = 0 FACW species 0 X 2 = 0 FAC species 95 X 3 = 285 FACU species 50 X 4 = 200 UPL species 0 X 5 = 0 Column totals 145 Prevalence Index = $B/A =$ 3.34
Herb Stratum Plot Size(5) <i>Rhamnus cathartica</i>	0 = Total Cover Absolute Dominant Indicator % Cover Species Status 80 Y FAC	Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation X Dominance test is >50% Prevalence index is ≤3.0* Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet) Problematic hydrophytic vegetation* (explain)
		*Indicators of hydric soil and wetland hydrology must present, unless disturbed or problematic
	\equiv \equiv \equiv	Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diamete at breast height (DBH), regardless of height.
	80 = Total Cover	Sapling/shrub - Woody plants less than 3 in. DBH ar greater than 3.28 ft (1 m) tall.
Woody Vine Plot Size(30)) Stratum	Absolute Dominant Indicator % Cover Species Status	Herb - All herbaceous (non-woody) plants, regardless size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height.
	= Total Cover	Hydrophytic vegetation present? Y

		_City/County:		/innebago_Sampling Date: 10/28/2016
Applicant/Owner: Dave Hahn				Sampling Point T5P1
nvestigator(s): Stacey Henk, Garek Hol				ownship, Range: Sec 27, T17N, R14E
andform (hillslope, terrace, etc.): Back	Lo	ocal relief (co	ncave, convex, none): none	
Slope (%): 15 Lat.:	Long.:		Datum	
ioil Map Unit Nam(Os				NWI Classification:
are climatic/hydrologic conditions of the	site typical for thi	s time of the yea	ar? Yes	(If no, explain in remarks)
re vegetation, soil,	or hydrology	significantly	y disturbed?	Are "normal
		orgranioaria		
Are vegetation, soil,	or hydrology	naturally p	roblematic?	circumstances" present? Ye
Are vegetation, soil, If needed, explain any answers in rema	or hydrology	naturally p	roblematic?	circumstances" present? Ye
Are vegetation, soil, If needed, explain any answers in rema SUMMARY OF FINDINGS Hydrophytic vegetation present?	or hydrology	naturally p		
Are vegetation, soil, (If needed, explain any answers in rema	or hydrology	naturally p	roblematic?	circumstances" present?
Are vegetation, soil,	or hydrology	naturally p		

HYDROLOGY

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Driver and Indianters (minimum of one in a	required)			
Primary Indicators (minimum of one is r				
Surface Water (A1)	Water-Stained Leaves (B9)	Surface Soil Cracks (B6)		
High Water Table (A2)	Aquatic Fauna (B13)	Drainage Patterns (B10)		
Saturation (A3)	Marl Deposits (B15)	Moss Trim Lines (B16)		
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)		
Sediment Deposits (B2)	Oxidized Rhizospheres on Living	Crayfish Burrows (C8)		
Drift Deposits (B3)	Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)				
Iron Deposits (B5)	Recent Iron Reduction in Tilled	Stunted or Stressed Plants (D1)		
Inundation Visible on Aerial	Soils (C6)	Geomorphic Position (D2)		
Imagery (B7)	Thin Muck Surface (C7)	Shallow Aquitard (D3)		
Sparsely Vegetated Concave	Other (Explain in Remarks)	FAC-Neutral Test (D5)		
Surface (B8)		Microtopographic Relief (D4)		
Field Observations:		In direct second		
Surface water present? Yes	No X Depth (inches):	Indicators of		
Water table present? Yes	No X Depth (inches):	wetland		
Saturation present? Yes	No X Depth (inches):	hydrology		
includes capillary fringe)		present? <u>N</u>		
Describe recorded data (stream gauge,	monitoring well, aerial photos, previous insp	ections), ir avaliable:		
Remarks:				

US Army Corps of Engineers

c .

Depth (Inches)	Matrix			ox Fea			or or confirm the at	
	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-10	10YR 2/1	100					SL	Rock at 10"
						-		
				-				
						-		
						1		
						-		
	Concentration, D= PL=Pore Lining,			ed Matr	rix, CS=C	Covered	or Coated Sand Gra	ains
	I Indicators:	w-wa	u i A				Indicators for	Problematic Hydric Soils:
					_			
	tisol (A1) tic Epipedon (A2	1			Below Su			(A10) (LRR K, L, MLRA 149B
	ck Histic (A3)	.)			Surface (Coast Prair	ie Redox (A16) (LRR K, L, R) y Peat or Peat (S3) (LRR K, L, F
	Irogen Sulfide (A	(4)			LRA 149			ce (S7) (LRR K, L
	atified Layers (As				cky Mine			Below Surface (S8) (LRR K, L)
Dep	pleted Below Dar	k Sufac		(LRR			Thin Dark S	Surface (S9) (LRR K, L)
Thie	ck Dark Surface	(A12)	Loa	my Gle	yed Matr	ix (F2)	Iron-Manga	nese Masses (F12) (LRR K, L, I
	ndy Mucky Miner				Aatrix (F3			loodplain Soils (F19) (MLRA 149
	dy Gleyed Matri	x (S4)			k Surface			dic (TA6) (MLRA 144A, 145, 149
	dy Redox (S5)				Dark Surfa			Material (F21)
			Red	lox Dep	pressions	(F8)		w Dark Surface (TF12)
Stri	pped Matrix (S6)	RRR	MIRA				Othor (Evol	
Stri Dar	pped Matrix (S6) k Surface (S7) (I	LRR R,	MLRA				Other (Expl	ain in Remarks)
Stri Dar 149	pped Matrix (S6) k Surface (S7) (I B)	LRR R,		ydrolog	gy must b	e presei	Other (Expl	ain in Remarks)
Stri Dar 149	pped Matrix (S6) k Surface (S7) (I B)	LRR R,		ydrolog	gy must b	e preser		ain in Remarks)
Stri Dar 149 Indicators	pped Matrix (S6) k Surface (S7) (I B)	LRR R,		ydrolog	gy must b	e preser	nt, unless disturbed	ain in Remarks)
Stri Dar 149 Indicators Restrictive	pped Matrix (S6) k Surface (S7) (I B) of hydrophytic ve 	LRR R,		ydrolog	gy must b	e presei		ain in Remarks)
Stri Dar 149 Indicators Restrictive I ype: Depth (inch	pped Matrix (S6) k Surface (S7) (I B) of hydrophytic ve 	LRR R,		ydrolog	gy must b	e presei	nt, unless disturbed	ain in Remarks)
Stri Dar 149 Indicators Restrictive	pped Matrix (S6) k Surface (S7) (I B) of hydrophytic ve 	LRR R,		ydrolog	gy must b	e presei	nt, unless disturbed	ain in Remarks)
Stri Dar 149 Indicators Restrictive I ype: Depth (inch	pped Matrix (S6) k Surface (S7) (I B) of hydrophytic ve 	LRR R,		ydrolog	gy must b	e preser	nt, unless disturbed	ain in Remarks)
Stri Dar 149 ndicators estrictive l ype: epth (inch	pped Matrix (S6) k Surface (S7) (I B) of hydrophytic ve 	LRR R,		ydrolog	gy must b - -	e preser	nt, unless disturbed	ain in Remarks)
Stri Dar 149 Indicators estrictive l ype: pepth (inch	pped Matrix (S6) k Surface (S7) (I B) of hydrophytic ve 	LRR R,		ydrolog	gy must b	e preser	nt, unless disturbed	ain in Remarks)
Stri Dar 149 Indicators Restrictive I ype: Depth (inch	pped Matrix (S6) k Surface (S7) (I B) of hydrophytic ve 	LRR R,		ydrolog	gy must b	e preser	nt, unless disturbed	ain in Remarks)
Stri Dar 149 Indicators estrictive l ype: pepth (inch	pped Matrix (S6) k Surface (S7) (I B) of hydrophytic ve 	LRR R,		ydrolog	gy must b	e preser	nt, unless disturbed	ain in Remarks)
Stri Dar 149 Indicators estrictive l ype: pepth (inch	pped Matrix (S6) k Surface (S7) (I B) of hydrophytic ve 	LRR R,		ydrolog	gy must b - -	e presei	nt, unless disturbed	ain in Remarks)
Stri Dar 149 ndicators estrictive l ype: epth (inch	pped Matrix (S6) k Surface (S7) (I B) of hydrophytic ve 	LRR R,		ydrolog	gy must b	e preser	nt, unless disturbed	ain in Remarks)

GETATION - Use scientific names of plan	nts			Sampling Point: T5P1
Tree Stratum Plot Size(30) Rhamnus cathartica	Absolute % Cover 25	Dominant Species Y	Indicator Status FAC	50/20 Thresholds20%50%Tree Stratum513Sapling/Shrub Stratum25Herb Stratum410Woody Vine Stratum0
		Total Cover		Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 4 (A) Total Number of Dominant Species Across 4 (B) Percent of Dominant Species that are OPL
apling/Shrub Plot Size(15)) Stratum	Absolute % Cover	Dominant Species	Indicator Status	Species that are OBL, FACW, or FAC:100.00% (A/E
Rhamnus cathartica		Y		Prevalence Index WorksheetTotal % Cover of:OBL species $0 \times 1 = 0$ FACW species $0 \times 2 = 0$ FAC species $55 \times 3 = 165$ FACU species $0 \times 4 = 0$ UPL species $0 \times 5 = 0$ Column totals 55 (A)Prevalence Index = B/A =
Herb Stratum Plot Size(5) Rhamnus cathartica Hydrophyllum virginianum	10 Absolute % Cover 5	= Total Cover Dominant Species Y Y Y	Indicator Status FAC FAC	Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation X Dominance test is >50% X Prevalence index is ≤3.0* Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet) Problematic hydrophytic vegetation* (explain)
		_		*Indicators of hydric soil and wetland hydrology must present, unless disturbed or problematic
				Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diame at breast height (DBH), regardless of height.
		Tatal Cause		Sapling/shrub - Woody plants less than 3 in. DBH a greater than 3.28 ft (1 m) tall.
Woody Vine Plot Size(30) Stratum	20 Absolute % Cover	= Total Cover Dominant Species	Indicator Status	Herb - All herbaceous (non-woody) plants, regardless size, and woody plants less than 3.28 ft tail. Woody vines - All woody vines greater than 3.28 ft in height.
		= Total Cover	_	Hydrophytic vegetation present? Y

Project/Site:	Dave Hahn Prope	rty	City/County:	Rush Lak	e/Winnebago	Sampling Date: 10/28/	2016
Applicant/Own	er: Dave Hahn			State:	WI	Sampling Point	T5P2
	Stacey Henk, Gar			Section	Township	, Range: Sec 27, T17N	, R14E
Landform (hills	lope, terrace, etc.):	Footslope-downgradie	ent W of T5P1 Lo	cal relief	concave,	convex, none): conca	ve
Slope (%): 2	Lat.:	Long.:		Date			
Soil Map Unit I					NWI C	lassification:	
Are climatic/hy	drologic conditions	of the site typical for thi	is time of the year	? Yes	(If no,	explain in remarks)	
Are vegetation	, soil	, or hydrology	significantly	disturbed	1?	Are "normal	
Are vegetation	, soil	, or hydrology	naturally pro	blematic	?	circumstances" preser	nt? Yes
(If needed, exp	lain any answers in	n remarks)					

SUMMARY OF FINDINGS

Is the sampled area within a wetland? Y
If yes, optional wetland site ID:

HYDROLOGY

Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)	Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7)	X Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) X Geomorphic Position (D2) Shallow Aquitard (D3)	
Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remarks)	X FAC-Neutral Test (D5) Microtopographic Relief (D4)	
Water table present? Yes X	No X Depth (inches): No Depth (inches): 20 No Depth (Inches): 20	Indicators of wetland hydrology present? Y	
Describe recorded data (stream gauge, monit	oring well, aerial photos, previous inspec	tions), if available:	
Remarks:			

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Depth Matrix Color (moist) % Color (moist) % Type* Loc** Texture Rema 0-20 10YR 2/1 100 LS LS	
20-26 2.5Y 6/2 75 7.5YR 5/6 25 C M LS Image: Second Seco	
**Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains **Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains **Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: Histisol (A1) Histisol (A1) Histisol (A1) Histic Epipedon (A2) Histic Ippedon Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Gleyed Matrix (S6) Dapk Surface (S7) (LRR R, MLRA Stratiped Matrix (S6) Dapk Surface (S7) (LRR R, MLRA Mesic Spodic (TA6) (MLRA 1444 Stratiped Matrix (S6) Depleted Dark Surface (S7) (LRR R, MLRA Mesic Spodic (TA6) (MLRA 14444 Stratiped Matrix (S6) Depleted Dark Surface (F7) Redox Dark Surface (S7) (LRR R, MLRA	
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Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic Restrictive Layer (if observed): Type: Hydric soil present? Y	RR K, L, F RR K, L) L) LRR K, L, (MLRA 14 A, 145, 149
Fype: Hydric soil present? Y Depth (inches): Y Y	
Remarks:	

GETATION - Use scientific names of pla	110			Sampling Point: T5P2 50/20 Thresholds
	Absolute	Dominant	Indicator	20% 50%
ree Stratum Plot Size (30)				
	% Cover	Species	Status	Tree Stratum 8 20
Fraxinus pennsylvanica	20	Y	FACW	Sapling/Shrub Stratum 0 0
Tilia americana	10	Y	FACU	Herb Stratum 11 28
Rhamnus cathartica	10	Y	FAC	Woody Vine Stratum 0 0
	-			
				Dominance Test Worksheet
	-			Number of Dominant
	-			Species that are OBL,
	-		-	FACW, or FAC: 4 (A)
				Total Number of
				Dominant Species Across 5 (B)
	40	= Total Cover		
	40			Percent of Dominant
				Species that are OBL,
apling/Shrub Plot Size (15)	Absolute	Dominant	Indicator	FACW, or FAC: 80.00% (A
Stratum Plot Size (15)	% Cover	Species	Status	
				Drevelance Index Workshoot
				Prevalence Index Worksheet
				Total % Cover of:
				OBL species x 1 =
				FACW species 35 x 2 = 70
				FAC species $50 \times 3 = 150$
	-	-		FACU species $10 \times 4 = 40$
				UPL species $0 \times 5 = 0$
				Column totals 95 (A) 260 (B)
				Prevalence Index = $B/A = \frac{200}{2.74}$
				Frevalence index - D/A - 2.74
		THE		
	0 :	= Total Cover		
				Hydrophytic Vegetation Indicators:
erb Stratum Plot Size (5)	Absolute	Dominant	Indicator	Rapid test for hydrophytic vegetation
	% Cover	Species	Status	X Dominance test is >50%
Rhamnus cathartica	40	Y	FAC	X Prevalence index is ≤3.0*
Fraxinus pennsylvanica	15	Y	FACW	Morphogical adaptations* (provide
				supporting data in Remarks or on a
		-		separate sheet)
				Problematic hydrophytic vegetation*
				(explain)
				*Indicators of hydric soil and wetland hydrology mus
		· · · · · · · · · · · · · · · · · · ·		present, unless disturbed or problematic
				Definitions of Vegetation Strata:
				Tree - Woody plants 3 in. (7.6 cm) or more in diame
				at breast height (DBH), regardless of height.
				,
				Sapling/shrub - Woody plants less than 3 in. DBH a
				greater than 3.28 ft (1 m) tall.
		-		
	55	= Total Cover		Herb - All herbaceous (non-woody) plants, regardle
				size, and woody plants less than 3.28 ft tall.
Voody Vine Plot Size (20)	Absolute	Dominant	Indicator	
Stratum Plot Size (30)	% Cover	Species	Status	Woody vines - All woody vines greater than 3.28 ft
				height.
				Hydrophytic
				vegetation
		= Total Cover		present? Y
	0	Total Cover		present? Y
arks: (Include photo numbers here or on a ser		Total Cover		present? Y
narks: (Include photo numbers here or on a sep		= Total Cover		present? Y
narks: (Include photo numbers here or on a sep		Total Cover		present? Y

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Dave Hahn Property	City/County:	Rush Lake/Winne	bago Sampling Date: 10/28/2016
Applicant/Owner: Dave Hahn		State: WI	Sampling Point T5P3
Investigator(s): Stacey Henk, Garek Ho	olley	Section, Town	ship, Range: Sec 27, T17N, R14E
Landform (hillslope, terrace, etc.): Toe	slope-downgradient E of T5P1 L	ocal relief (conca	ve, convex, none): concave
Slope (%): 0-1 Lat.:	Long.:	Datum:	
Soil Map Unit NameHw			VI Classification:
Are climatic/hydrologic conditions of the	site typical for this time of the year	ar? Yes (If	no, explain in remarks)
Are vegetation, soil	, or hydrologysignificant	ly disturbed?	Are "normal
	, or hydrology naturally p	orobiematic?	circumstances" present? Yes
(If needed, explain any answers in rema	arks)		
SUMMARY OF FINDINGS			
Hydrophytic vegetation present?	Y Is the sample	d area within a w	etland? Y
Hydric soil present?	Y		
Indicators of wetland hydrology present	? Y If yes, optiona	I wetland site ID:	
,			
Remarks: (Explain alternative procedur	es here or in a separate report.)		
Rapid Test			
HYDROLOGY			
			econdary Indicators (minimum of two
Primary Indicators (minimum of one is a			quired)
X Surface Water (A1)	Water-Stained Leaves (B9)	· · · · · · · · · · · · · · · · · · ·	_Surface Soil Cracks (B6)
X High Water Table (A2)	Aquatic Fauna (B13)		Drainage Patterns (B10)
X Saturation (A3)	Marl Deposits (B15) Hydrogen Sulfide Odor (C1	·	Moss Trim Lines (B16) Dry-Season Water Table (C2)
Water Marks (B1)	Oxidized Rhizospheres on I		Crayfish Burrows (C8)
Sediment Deposits (B2) Drift Deposits (B3)	Roots (C3)	Living	Saturation Visible on Aerial Imagery
Algal Mat or Crust (B4)	Presence of Reduced Iron ((C4)	(C9)
Iron Deposits (B5)	Recent Iron Reduction in Ti	the second se	Stunted or Stressed Plants (D1)
Inundation Visible on Aerial	Soils (C6)		Geomorphic Position (D2)
Imagery (B7)	Thin Muck Surface (C7)		Shallow Aquitard (D3)
Sparsely Vegetated Concave	Other (Explain in Remarks)	X	FAC-Neutral Test (D5)
Surface (B8)			Microtopographic Relief (D4)
Field Observations			
Field Observations:	No Depth (inches): 1	Indicators of
Surface water present? Yes Water table present? Yes			wetland
Water table present? Yes Saturation present? Yes			hydrology
(includes capillary fringe))	present? Y
(includes capitally inlige)			
Describe recorded data (stream gauge,	monitoring well, aerial photos, pre	evious inspection	s), if available:
			<i></i>
_			
Remarks:			
Shore of Rush Lake			

Depth (Inches) Matrix Color (moist) Redox Features Color (moist) Texture Rema Image: Color (moist) % Type* Loc** Texture Rema Image: Color (moist) % Image: Color (moist) Rema Image: Color (moist) Rema Image: Color (moist) Image: Color (m	
Image: Solution of the structure of the str	Soils:
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*Location: PL=Pore Lining, M=Matrix Iydric Soil Indicators: Indicators for Problematic Hydric S Histisol (A1) Polyvalue Below Surface 2 cm Muck (A10) (LRR K, L, MLI Histic Epipedon (A2) (S8) (LRR R, MLRA Coast Prairie Redox (A16) (LRR Black Histic (A3) Thin Dark Surface (S9) 5 cm Mucky Peat or Peat (S3) (L Hydrogen Sulfide (A4) (LRR R, MLRA 149B Dark Surface (S7) (LRR K, L Stratified Layers (A5) Loamy Mucky Mineral Polyvalue Below Surface (S8) (LI Depleted Below Dark Suface (A11) (F1) (LRR K, L) Thin Dark Surface (S9) (LRR K, L)	Soils:
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*Location: PL=Pore Lining, M=Matrix Iydric Soil Indicators: Indicators for Problematic Hydric S Histisol (A1) Polyvalue Below Surface 2 cm Muck (A10) (LRR K, L, MLI Histic Epipedon (A2) (S8) (LRR R, MLRA Coast Prairie Redox (A16) (LRR Black Histic (A3) Thin Dark Surface (S9) 5 cm Mucky Peat or Peat (S3) (L Hydrogen Sulfide (A4) (LRR R, MLRA 149B Dark Surface (S7) (LRR K, L Stratified Layers (A5) Loamy Mucky Mineral Polyvalue Below Surface (S8) (LI Depleted Below Dark Suface (A11) (F1) (LRR K, L) Thin Dark Surface (S9) (LRR K, L)	Soils:
*Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric S Histisol (A1) Polyvalue Below Surface 2 cm Muck (A10) (LRR K, L, MLI Histic Epipedon (A2) (S8) (LRR R, MLRA Coast Prairie Redox (A16) (LRR Black Histic (A3) Thin Dark Surface (S9) 5 cm Mucky Peat or Peat (S3) (L Hydrogen Sulfide (A4) (LRR R, MLRA 149B Dark Surface (S7) (LRR K, L Stratified Layers (A5) Loamy Mucky Mineral Polyvalue Below Surface (S8) (LI Depleted Below Dark Suface (A11) (F1) (LRR K, L) Thin Dark Surface (S9) (LRR K, L)	Soils:
*Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric S Histisol (A1) Polyvalue Below Surface 2 cm Muck (A10) (LRR K, L, MLI Histic Epipedon (A2) (S8) (LRR R, MLRA Coast Prairie Redox (A16) (LRR Black Histic (A3) Thin Dark Surface (S9) 5 cm Mucky Peat or Peat (S3) (L Hydrogen Sulfide (A4) (LRR R, MLRA 149B Dark Surface (S7) (LRR K, L Stratified Layers (A5) Loamy Mucky Mineral Polyvalue Below Surface (S8) (LI Depleted Below Dark Suface (A11) (F1) (LRR K, L) Thin Dark Surface (S9) (LRR K, L)	Soils:
*Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric S Histisol (A1) Polyvalue Below Surface 2 cm Muck (A10) (LRR K, L, MLI Histic Epipedon (A2) (S8) (LRR R, MLRA Coast Prairie Redox (A16) (LRR Black Histic (A3) Thin Dark Surface (S9) 5 cm Mucky Peat or Peat (S3) (L Hydrogen Sulfide (A4) (LRR R, MLRA 149B Dark Surface (S7) (LRR K, L Stratified Layers (A5) Loamy Mucky Mineral Polyvalue Below Surface (S8) (LI Depleted Below Dark Suface (A11) (F1) (LRR K, L) Thin Dark Surface (S9) (LRR K, L)	Soils:
*Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric S Histisol (A1) Polyvalue Below Surface 2 cm Muck (A10) (LRR K, L, MLI Coast Prairie Redox (A16) (LRR Black Histic (A3) Hydrogen Sulfide (A4) (LRR R, MLRA 149B 5 cm Mucky Peat or Peat (S3) (L Dark Surface (S7) (LRR K, L Stratified Layers (A5) Loamy Mucky Mineral Polyvalue Below Surface (S9) (LRR K, L)	Soils:
*Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric S Histisol (A1) Polyvalue Below Surface 2 cm Muck (A10) (LRR K, L, MLI Coast Prairie Redox (A16) (LRR Black Histic (A3) Hydrogen Sulfide (A4) (LRR R, MLRA 149B 5 cm Mucky Peat or Peat (S3) (L Dark Surface (S7) (LRR K, L Stratified Layers (A5) Loamy Mucky Mineral Polyvalue Below Surface (S9) (LRR K, L)	Soils:
Histisol (A1) Polyvalue Below Surface 2 cm Muck (A10) (LRR K, L, MLI Histic Epipedon (A2) (S8) (LRR R, MLRA Coast Prairie Redox (A16) (LRR Black Histic (A3) Thin Dark Surface (S9) 5 cm Mucky Peat or Peat (S3) (L Hydrogen Sulfide (A4) (LRR R, MLRA 149B Dark Surface (S7) (LRR K, L Stratified Layers (A5) Loamy Mucky Mineral Polyvalue Below Surface (S8) (LI Depleted Below Dark Suface (A11) (F1) (LRR K, L) Thin Dark Surface (S9) (LRR K, L)	Soils:
Histisol (A1) Polyvalue Below Surface 2 cm Muck (A10) (LRR K, L, MLI Histic Epipedon (A2) (S8) (LRR R, MLRA Coast Prairie Redox (A16) (LRR Black Histic (A3) Thin Dark Surface (S9) 5 cm Mucky Peat or Peat (S3) (L Hydrogen Sulfide (A4) (LRR R, MLRA 149B Dark Surface (S7) (LRR K, L Stratified Layers (A5) Loamy Mucky Mineral Polyvalue Below Surface (S8) (LI Depleted Below Dark Suface (A11) (F1) (LRR K, L) Thin Dark Surface (S9) (LRR K, L)	
Histic Epipedon (A2) (S8) (LRR R, MLRA Coast Prairie Redox (A16) (LRR Black Histic (A3) Thin Dark Surface (S9) 5 cm Mucky Peat or Peat (S3) (L Hydrogen Sulfide (A4) (LRR R, MLRA 149B 5 cm Mucky Peat or Peat (S3) (L Stratified Layers (A5) Loamy Mucky Mineral Polyvalue Below Surface (S9) (LRR K, L) Depleted Below Dark Surface (A11) (F1) (LRR K, L) Thin Dark Surface (S9) (LRR K, L)	
Black Histic (A3) Thin Dark Surface (S9) 5 cm Mucky Peat or Peat (S3) (L Hydrogen Sulfide (A4) (LRR R, MLRA 149B Dark Surface (S7) (LRR K, L Stratified Layers (A5) Loamy Mucky Mineral Polyvalue Below Surface (S8) (LI Depleted Below Dark Suface (A11) (F1) (LRR K, L) Thin Dark Surface (S9) (LRR K, L)	
Hydrogen Sulfide (A4) (LRR R, MLRA 149B Dark Surface (S7) (LRR K, L Stratified Layers (A5) Loamy Mucky Mineral Polyvalue Below Surface (S8) (LI Depleted Below Dark Suface (A11) (F1) (LRR K, L) Thin Dark Surface (S9) (LRR K, L)	
Stratified Layers (A5) Loamy Mucky Mineral Polyvalue Below Surface (S8) (LI Depleted Below Dark Suface (A11) (F1) (LRR K, L) Thin Dark Surface (S9) (LRR K, L)	LRR K, L,
Depleted Below Dark Suface (A11) (F1) (LRR K, L) Thin Dark Surface (S9) (LRR K, L)	
Thick Dark Surface (A12) Loamy Gleyed Matrix (F2) Iron-Manganese Masses (F12) (I Sandy Mucky Mineral (S1) Depleted Matrix (F3) Piedmont Floodplain Soils (F19)	
Sandy Mucky Mineral (S1) Depleted Matrix (F3) Piedmont Floodplain Soils (F19) Sandy Gleyed Matrix (S4) Redox Dark Surface (F6) Mesic Spodic (TA6) (MLRA 144A	
Sandy Redox (S5) Depleted Dark Surface (F7) Red Parent Material (F21)	A, 143, 14
Stripped Matrix (S6) Redox Depressions (F8) Very Shallow Dark Surface (TF12	2)
Dark Surface (S7) (LRR R, MLRA X Other (Explain in Remarks)	
149B)	
Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic	
Restrictive Layer (if observed):	
Type: Hydric soil present? Y	
Depth (inches):	

ants	Sampling Point: T5P3 50/20 Thresholds
Absolute Dominant % Cover Species 15 Y	Indicator20%50%StatusTree Stratum38FACWSapling/Shrub Stratum00
	Herb Stratum 20 50 Woody Vine Stratum 0 0
==	Dominance Test Worksheet Number of Dominant
	Species that are OBL, FACW, or FAC: (A Total Number of
15 = Total Cover	Dominant Species Across 2 (B) Percent of Dominant
Absolute Dominant % Cover Species	Species that are OBL, Indicator FACW, or FAC: 100.00% (Av Status
	Prevalence Index WorksheetTotal % Cover of:OBL species $0 \times 1 = 0$ FACW species $115 \times 2 = 230$ FAC species $0 \times 3 = 0$ FACU species $0 \times 4 = 0$ UPL species $0 \times 5 = 0$ Column totals $115 (A) 230 (B)$ Prevalence Index = B/A = 2.00
	Hydrophytic Vegetation Indicators:
Absolute Dominant % Cover Species 100 Y	Indicator X Rapid test for hydrophytic vegetation Status X Dominance test is >50% FACW X Prevalence index is ≤3.0* Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet) Problematic hydrophytic vegetation*
:	present, unless disturbed or problematic Definitions of Vegetation Strata:
	Tree - Woody plants 3 in. (7.6 cm) or more in diame at breast height (DBH), regardless of height.
	Sapling/shrub - Woody plants less than 3 in. DBH a greater than 3.28 ft (1 m) tall.
100 = Total Cover	Herb - All herbaceous (non-woody) plants, regardles size, and woody plants less than 3.26 ft tall.
% Cover Species	Indicator Status Woody vines - All woody vines greater than 3.28 ft in height.
==:	Hydrophytic
0 = Total Cover	vegetation present? Y
	Absolute % Cover 15 Dominant Species Y 15 Total Cover Absolute % Cover Dominant Species Absolute % Cover Dominant Species 0 Total Cover Absolute % Cover Dominant Species 0 Total Cover 0 Total Cover 0 Total Cover 100 Total Cover

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Dave Hahn Property	City/County:	Rush Lake/Wi	nnebago Sampling Date: 10/28/2016
Applicant/Owner: Dave Hahn		State: WI	Sampling Point T5P4
Investigator(s): Stacey Henk, Garek Holley		Section, Tor	wnship, Range: Sec 27, T17N, R14E
Landform (hillslope, terrace, etc.): Footslope	Lo	cal relief (con	icave, convex, none): none
Slope (%): 3 Lat.: Lon	ig.:	Datum:	
Soil Map Unit Nam(Os			NWI Classification:
Are climatic/hydrologic conditions of the site typical for	this time of the year	? Yes	(If no, explain in remarks)
Are vegetation, soil, or hydrology	significantly	disturbed?	Are "normal
Are vegetation, soil, or hydrology	naturally pro	oblematic?	circumstances" present? Yes
(If needed, explain any answers in remarks)			

SUMMARY OF FINDINGS

Hydrophytic vegetation present? Hydric soil present?	$\frac{Y}{Y}$	Is the sampled area within a wetland?	<u> </u>
Indicators of wetland hydrology present?	N	If yes, optional wetland site ID:	
Remarks: (Explain alternative procedures	here or in a	separate report.)	

HYDROLOGY

Primary Indicators (minimum of one is rec Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	uired; check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks)	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Microtopographic Relief (D4)
Field Observations: Surface water present? Yes Water table present? Yes Saturation present? Yes (includes capillary fringe) Describe recorded data (stream gauge, m Remarks:	No X Depth (inches): No X Depth (inches): No Depth (inches): 20 onitoring well, aerial photos, previous inspective	Indicators of wetland hydrology present? <u>N</u> ections), if available:

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Depth	Matrix			ox Feat		e indicat	or or confirm the absence	of indicators.)
(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-11	10YR 2/1	100		70	l iype	200	LS	
11-16	2.5Y 6/2	80	7.5YR 5/6	20	С	М	LS	
16-24	5Y 7/1	85	7.5YR 6/6	15	C	M	S	
	oncentration D	=Denlet	ion BM-Reduce	ad Matri	× CS=(or Coated Sand Grains	
*Location:	PL=Pore Lining			ed Matri	x, CS=0	Covered	or Coated Sand Grains Indicators for Proble	matia Undeia Catles
Hyc Stra X Dep	ck Histic (A3) Irogen Sulfide (<i>I</i> atified Layers (A oleted Below Da ck Dark Surface Idy Mucky Miner	5) rk Sufac (A12)	(LR Loan Loan Dep	R R, MI my Muc (LRR I my Gley leted M	ed Mat	B ral fix (F2)	Dark Surface (S7) Polyvalue Below S Thin Dark Surface Iron-Manganese N	Surface (S8) (LRR K, L)
San San San San Strij Dar 149	dy Gleyed Matr dy Redox (S5) oped Matrix (S6 k Surface (S7) (B)	ix (S4)) LRR R,	MLRA Dep	leted D ox Depi	ark Surf ressions		Mesic Spodic (TA	ain Soils (F19) (MLRA 14 6) (MLRA 144A, 145, 14 § ial (F21) < Surface (TF12) Remarks)
Sar Sar Sar Sar Strij Dar 149	dy Gleyed Matri dy Redox (S5) oped Matrix (S6 k Surface (S7) (B) of hydrophytic v Layer (if observe	ix (S4)) LRR R, egetatio	MLRA Dep	leted D ox Depi	ark Surf ressions	ace (F7) (F8)	Mesic Spodic (TA Red Parent Materi Very Shallow Dark Other (Explain in F	ain Soils (F19) (MLRA 14 6) (MLRA 144A, 145, 145 ial (F21) < Surface (TF12) Remarks) blematic

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				Sampling Point: T5P4
Tree Stratum Plot Size (30) Rhamnus cathartica	Absolute % Cover 25	Dominant Species Y	Indicator Status FAC	20% 50% Tree Stratum 6 15 Sapling/Shrub Stratum 10 25
Prunus serotina	5	<u>N</u>	FACU	Herb Stratum1435Woody Vine Stratum00
	_	_		Dominance Test Worksheet Number of Dominant Species that are OBL,
	=	_		FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across <u>3</u> (B)
	30	Total Cover		Dominant Species Across 3 (B) Percent of Dominant Species that are OBL,
Sapling/Shrub Plot Size(15)) Stratum	Absolute % Cover	Dominant Species	Indicator Status	FACW, or FAC:(A/
Rhamnus cathartica		Y		Prevalence Index WorksheetTotal % Cover of:OBL species $0 \times 1 = 0$ FACW species $10 \times 2 = 20$ FAC species $125 \times 3 = 375$ FACU species $15 \times 4 = 60$ UPL species $0 \times 5 = 0$ Column totals 150 (A)Prevalence Index = B/A = 3.03
	50	= Total Cover		
Herb Stratum Plot Size(5) Rhamnus cathartica Prunus serotina Fraxinus pennsylvanica	Absolute % Cover 50 10 10	Dominant Species Y N N	Indicator Status FAC FACU FACW	Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation X Dominance test is >50% Prevalence index is ≤3.0* Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet) Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must present, unless disturbed or problematic
	=	=	_	Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diamet at breast height (DBH), regardless of height.
				Sapling/shrub - Woody plants less than 3 in. DBH a greater than 3.28 ft (1 m) tall.
		Total Cover		Herb - All herbaceous (non-woody) plants, regardles size, and woody plants less than 3.28 ft tall.
Woody Vine Plot Size(30) Stratum	Absolute % Cover	Dominant Species	Indicator Status	Woody vines - All woody vines greater than 3.28 ft in height.
	\equiv			Hydrophytic
				vegetation

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Dave Hahn Property	City/County: Rush	Lake/Winnebago Sampling Date: 10/28/2016
Applicant/Owner: Dave Hahn		e: WI Sampling Point T5P5
Investigator(s): Stacey Henk, Garek He	olley Sec	tion, Township, Range: Sec 27, T17N, R14E
Landform (hillslope, terrace, etc.): Bad	ckslope-upgradient S of T5P2 Local re	lief (concave, convex, none): concave
Slope (%): 3 Lat.:	Long.:	Datum:
Soil Map Unit NameOs		NWI Classification:
Are climatic/hydrologic conditions of th		Yes (If no, explain in remarks)
Are vegetation, soil	, or hydrology significantly distu	rbed? Are "normal
	, or hydrology naturally problem	atic? circumstances" present? Yes
(If needed, explain any answers in rem	arks)	
SUMMARY OF FINDINGS		
Hydrophytic vegetation present? Hydric soil present?	Y Is the sampled area v	within a wetland? N
Indicators of wetland hydrology present	t? N If yes, optional wetlar	nd site ID:
Pomorko: (Evoloin oltomotivo presedu		
Remarks: (Explain alternative procedur	es nere or in a separate report.)	
HYDROLOGY		
		Secondary Indicators (minimum of two
Primary Indicators (minimum of one is i	required; check all that apply)	required)
Surface Water (A1)	Water-Stained Leaves (B9)	Surface Soil Cracks (B6)
High Water Table (A2)	Aquatic Fauna (B13)	Drainage Patterns (B10)
Saturation (A3)	Marl Deposits (B15)	Moss Trim Lines (B16)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living	Crayfish Burrows (C8)
Drift Deposits (B3)	Roots (C3)	Saturation Visible on Aerial Imagery
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4)	(C9)
Iron Deposits (B5)	Recent Iron Reduction in Tilled	Stunted or Stressed Plants (D1)
Inundation Visible on Aerial	Soils (C6)	X Geomorphic Position (D2)
Imagery (B7)	Thin Muck Surface (C7)	Shallow Aquitard (D3)
Sparsely Vegetated Concave	Other (Explain in Remarks)	FAC-Neutral Test (D5)
Surface (D9)		
Surface (B8)		Microtopographic Relief (D4)
ield Observations:		
ield Observations: urface water present? Yes	NoXDepth (inches):	Microtopographic Relief (D4)
ield Observations: urface water present? Yes Vater table present? Yes	No X Depth (inches): No X Depth (inches):	Microtopographic Relief (D4) Indicators of wetland
ield Observations: urface water present? Yes /ater table present? Yes aturation present? Yes	NoXDepth (inches): NoXDepth (inches):	Microtopographic Relief (D4)
Field Observations: Surface water present? Yes Vater table present? Yes Saturation present? Yes ncludes capillary fringe)	No X Depth (inches): No X Depth (inches): No X Depth (inches):	Microtopographic Relief (D4) Indicators of wetland hydrology present? <u>N</u>
Field Observations: Surface water present? Yes Vater table present? Yes Saturation present? Yes ncludes capillary fringe)	No X Depth (inches): No X Depth (inches):	Microtopographic Relief (D4) Indicators of wetland hydrology present? <u>N</u>
Field Observations: Surface water present? Yes Vater table present? Yes Saturation present? Yes ncludes capillary fringe)	No X Depth (inches): No X Depth (inches): No X Depth (inches):	Microtopographic Relief (D4) Indicators of wetland hydrology present? <u>N</u>
Field Observations: Surface water present? Yes Vater table present? Yes Saturation present? Yes includes capillary fringe)	No X Depth (inches): No X Depth (inches): No X Depth (inches):	Microtopographic Relief (D4) Indicators of wetland hydrology present? <u>N</u>
Field Observations: Surface water present? Yes Vater table present? Yes Saturation present? Yes ncludes capillary fringe)	No X Depth (inches): No X Depth (inches): No X Depth (inches):	Microtopographic Relief (D4) Indicators of wetland hydrology present? <u>N</u>
ield Observations: furface water present? Yes Vater table present? Yes aturation present? Yes ncludes capillary fringe)	No X Depth (inches): No X Depth (inches): No X Depth (inches):	Microtopographic Relief (D4) Indicators of wetland hydrology present? <u>N</u>

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Northcentral and Northeast Region

Depth	Matrix		Red	ox Fea	tures	e indicat		
(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-14	10YR 2/1	100					LS	
14-24	2.5Y 6/2	90	7.5YR 5/6	10	С	М	S	
				1.00				
		1						
						1		1.
-		1				1		
								1
		1- C. 1	1:					
		l						
Type: C=C	Concentration, D	=Deplet	ion, RM=Reduce	ed Matr	ix, CS=C	Covered	or Coated Sand Grain	ns
*Location:	PL=Pore Lining,	, M=Ma	trix					
lydric Soi	I Indicators:						Indicators for Pr	roblematic Hydric Soils:
His								
	tisol (A1)				Below Su			A10) (LRR K, L, MLRA 149B
His	tic Epipedon (A2	2)	(S8)	(LRR	R, MLRA	A	Coast Prairie	Redox (A16) (LRR K, L, R)
His Bla	tic Epipedon (A2 ck Histic (A3)		(S8) Thir) (LRR) Dark \$	R, MLR Surface (A (S9)	Coast Prairie 5 cm Mucky I	Redox (A16) (LRR K, L, R) Peat or Peat (S3) (LRR K, L, F
His Bla Hyd	tic Epipedon (A2 ck Histic (A3) drogen Sulfide (A	A4)	(S8) Thir (LR) (LRR Dark S R R, M	R, MLRA Surface (LRA 149	A (S9) (B	Coast Prairie 5 cm Mucky I Dark Surface	Redox (A16) (LRR K, L, R) Peat or Peat (S3) (LRR K, L, F (S7) (LRR K, L
His Bla Hyo Stra	tic Epipedon (A2 ck Histic (A3) drogen Sulfide (A atified Layers (A8	A4) 5)	(S8) Thir (LR) (LRR Dark S R R, M my Muo	R, MLRA Surface (LRA 149 cky Mine	A (S9) (B	Coast Prairie 5 cm Mucky I Dark Surface Polyvalue Be	Redox (A16) (LRR K, L, R) Peat or Peat (S3) (LRR K, L, F (S7) (LRR K, L low Surface (S8) (LRR K, L)
His Bla Hyc Stra Dep	tic Epipedon (A2 ck Histic (A3) drogen Sulfide (A atified Layers (A bleted Below Dai	4) 5) rk Sufac	(S8) Thir (LR Loa ce (A11)(F1)	(LRR Dark S R R, M my Muo (LRR	R, MLRA Surface (LRA 149 cky Mine K, L)	A S9) B ral	Coast Prairie 5 cm Mucky I Dark Surface Polyvalue Be Thin Dark Su	Redox (A16) (LRR K, L, R) Peat or Peat (S3) (LRR K, L, F (S7) (LRR K, L) Now Surface (S8) (LRR K, L) Irface (S9) (LRR K, L)
His Bla Hyo Stra Dep X Thio	tic Epipedon (A2 ck Histic (A3) drogen Sulfide (A atified Layers (A bleted Below Dar ck Dark Surface	A4) 5) rk Sufac (A12)	(S8) Thir Loa ce (A11)(F1) Loa	(LRR Dark S R R, M my Muo (LRR my Gle	R, MLRA Surface (LRA 149 cky Mine K, L) yed Matr	A S9) B ral ix (F2)	Coast Prairie 5 cm Mucky I Dark Surface Polyvalue Be Thin Dark Su Iron-Mangane	Redox (A16) (LRR K, L, R) Peat or Peat (S3) (LRR K, L, F (S7) (LRR K, L) Now Surface (S8) (LRR K, L) Irface (S9) (LRR K, L) ese Masses (F12) (LRR K, L , 1)
His Bla Hyd Stra Dep X Thio Sar	tic Epipedon (A2 ck Histic (A3) drogen Sulfide (A atified Layers (A bleted Below Dai	A4) 5) rk Sufac (A12) ral (S1)	(S8) — (LR Loa ce (A11)(F1) Loa Dep	(LRR Dark S R R, M my Muc (LRR my Gle leted N	R, MLRA Surface (LRA 149 cky Mine K, L)	A (S9) (B ral (ix (F2) (F2)	Coast Prairie 5 cm Mucky I Dark Surface Polyvalue Be Thin Dark Su Iron-Mangane Piedmont Flo	Redox (A16) (LRR K, L, R) Peat or Peat (S3) (LRR K, L, F (S7) (LRR K, L) Now Surface (S8) (LRR K, L) Inface (S9) (LRR K, L) ese Masses (F12) (LRR K, L, Nodplain Soils (F19) (MLRA 14)
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US Army Corps of Engineers

	ants			Sampling Point: T5P5 50/20 Thresholds
Tree Stratum Plot Size (30) 1 Rhamnus cathartica 2 Quercus macrocarpa 3	Absolute % Cover <u>30</u> 10	Dominant Species Y Y	Indicator Status FAC FACU	20% 50%Tree Stratum820Sapling/Shrub Stratum820Herb Stratum1435Woody Vine Stratum00
Sapling/Shrub Plot Size(15) <i>Rhamnus cathartica</i>	Absolute % Cover	Total Cover Dominant Species	Indicator Status	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 3 (A) Total Number of Dominant Species Across 5 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 60.00% (A/I)
- Kitaminus cautantica 2 3 4 5 6 7 8 9 9 9 9	40 	Y		Prevalence Index WorksheetTotal % Cover of:OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 110 x 3 = 330 FACU species 40 x 4 = 160 UPL species 0 x 5 = 0 Column totals 150 (A) 490 Prevalence Index = B/A = 3.27
Herb Stratum Plot Size(5) <i>Rhamnus cathartica</i> <i>Anemone quinquefolia</i>	40 Absolute % Cover 40 30	Dominant Species Y Y	Indicator Status FAC FACU	Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation X Dominance test is >50% Prevalence index is ≤3.0* Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet) Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must present, unless disturbed or problematic
	\equiv	\equiv		Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diame at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH a greater than 3.28 ft (1 m) tall.
Woody Vine Plot Size(30)	70 = Absolute % Cover	Total Cover Dominant Species	Indicator Status	Herb - All herbaceous (non-woody) plants, regardles size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft i height.
		Total Cover	_	Hydrophytic vegetation present? Y

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APPENDIX B

WETLAND PHOTOGRAPHS



Photo 1: Viewing east at Wetland 4; the shore of Rush Lake



Photo 3: Viewing west at Wetland 2



Photo 2: Viewing northwest at the south side of Wetland 3



Photo 4: Viewing east at upland from the driveway on the west side of the property



Photo 5: Viewing south at Wetland 5; the shore of Rush Lake



Photo 6: Viewing north at the southern region of Wetland 1 near T4P5



Photo 7: Viewing southeast at Wetland 5 in a mowed lawn area near T1P3

APPENDIX C

WINNEBAGO COUNTY SOIL RESOURCE MAP & HYDRIC SOIL REPORT



United States Department of Agriculture

Natural

Resources Conservation Service A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants Custom Soil Resource Report for Winnebago County, Wisconsin



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (http:// offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/? cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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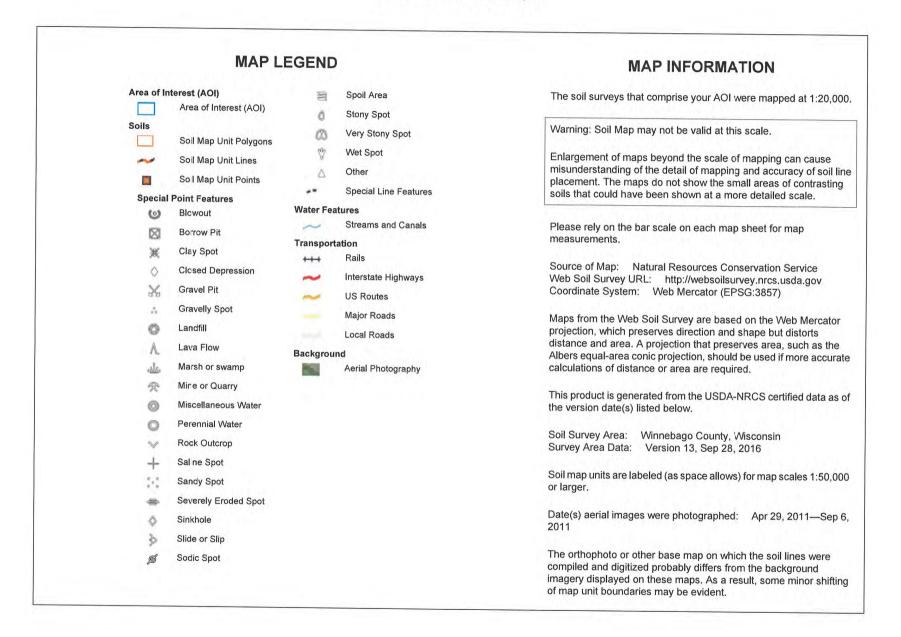
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Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



Custom Soil Resource Report



Winnebago County, Wisconsin (WI139)					
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI		
FsB	Fox silt loam, 2 to 6 percent slopes	3.3	68.2%		
Hw	Houghton muck, ponded, 0 to 2 percent slopes	1.0	21.5%		
Os	Ossian silt loam	0.5	10.3%		
Totals for Area of Interest		4.8	100.0%		

Map Unit Legend

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An association is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Winnebago County, Wisconsin

FsB—Fox silt loam, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: 2tjx0 Elevation: 570 to 1,150 feet Mean annual precipitation: 31 to 37 inches Mean annual air temperature: 45 to 48 degrees F Frost-free period: 124 to 176 days Farmland classification: All areas are prime farmland

Map Unit Composition

Fox and similar soils: 85 percent Minor components: 15 percent Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Fox

Setting

Landform: Outwash plains Landform position (two-dimensional): Shoulder Landform position (three-dimensional): Crest Down-slope shape: Convex Across-slope shape: Linear Parent material: Loess over loamy glaciofluvial deposits over sandy and gravelly outwash

Typical profile

Ap - 0 to 7 inches: silt loam Bt1 - 7 to 21 inches: silty clay loam 2Bt2 - 21 to 31 inches: sandy clay loam 3C - 31 to 79 inches: stratified sand to gravel

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: 30 to 40 inches to strongly contrasting textural stratification

Natural drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 45 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm) Available water storage in profile: Low (about 5.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 2e Hydrologic Soil Group: B Hydric soil rating: No

Custom Soil Resource Report

Minor Components

Casco

Percent of map unit: 8 percent Landform: Outwash plains Landform position (three-dimensional): Riser Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: No

St. charles, gravelly substratum Percent of map unit: 7 percent Landform: Outwash plains Hydric soil rating: No

Hw—Houghton muck, ponded, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2szfh Elevation: 660 to 1,020 feet Mean annual precipitation: 31 to 33 inches Mean annual air temperature: 43 to 46 degrees F Frost-free period: 140 to 192 days Farmland classification: Farmland of statewide importance

Map Unit Composition

Houghton, muck, ponded, and similar soils: 95 percent Minor components: 5 percent Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Houghton, Muck, Ponded

Setting

Landform: Depressions Landform position (three-dimensional): Dip Down-slope shape: Concave Across-slope shape: Concave Parent material: Herbaceous organic material

Typical profile

Oa - 0 to 79 inches: muck

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 5.95 in/hr)
Depth to water table: About 0 inches

Custom Soil Resource Report

Frequency of flooding: None *Frequency of ponding:* Frequent *Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm) *Available water storage in profile:* Very high (about 23.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 7w Hydrologic Soil Group: A/D Hydric soil rating: Yes

Minor Components

Houghton, muck

Percent of map unit: 3 percent Landform: Lakebeds (relict) Landform position (three-dimensional): Dip Down-slope shape: Concave Across-slope shape: Concave Hydric soil rating: Yes

Adrian

Percent of map unit: 1 percent Landform: Lakebeds (relict) Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Base slope Down-slope shape: Concave Across-slope shape: Concave Hydric soil rating: Yes

Palms, muck, ponded

Percent of map unit: 1 percent Landform: Interdrumlins Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Base slope Down-slope shape: Concave Across-slope shape: Concave Hydric soil rating: Yes

Os—Ossian silt loam

Map Unit Setting

National map unit symbol: g5z8

Elevation: 730 to 1,000 feet

Mean annual precipitation: 28 to 34 inches

Mean annual air temperature: 43 to 46 degrees F

Frost-free period: 135 to 155 days

Farmland classification: Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season

Map Unit Composition

Ossian and similar soils: 100 percent Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ossian

Setting

Landform: Depressions, drainageways Landform position (two-dimensional): Toeslope Down-slope shape: Linear Across-slope shape: Linear Parent material: Silty alluvium

Typical profile

Ap,A12 - 0 to 12 inches: silt loam *B2g,B3g,C - 12 to 60 inches:* silt loam

Properties and qualities

Slope: 0 to 2 percent Depth to restrictive feature: More than 80 inches Natural drainage class: Poorly drained Runoff class: Low Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr) Depth to water table: About 0 to 6 inches Frequency of flooding: Frequent Frequency of ponding: Frequent Calcium carbonate, maximum in profile: 15 percent Available water storage in profile: Very high (about 12.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 2w Hydrologic Soil Group: B/D Other vegetative classification: High AWC, high water table (G095BY007WI) Hydric soil rating: Yes

Soil Information for All Uses

Soil Properties and Qualities

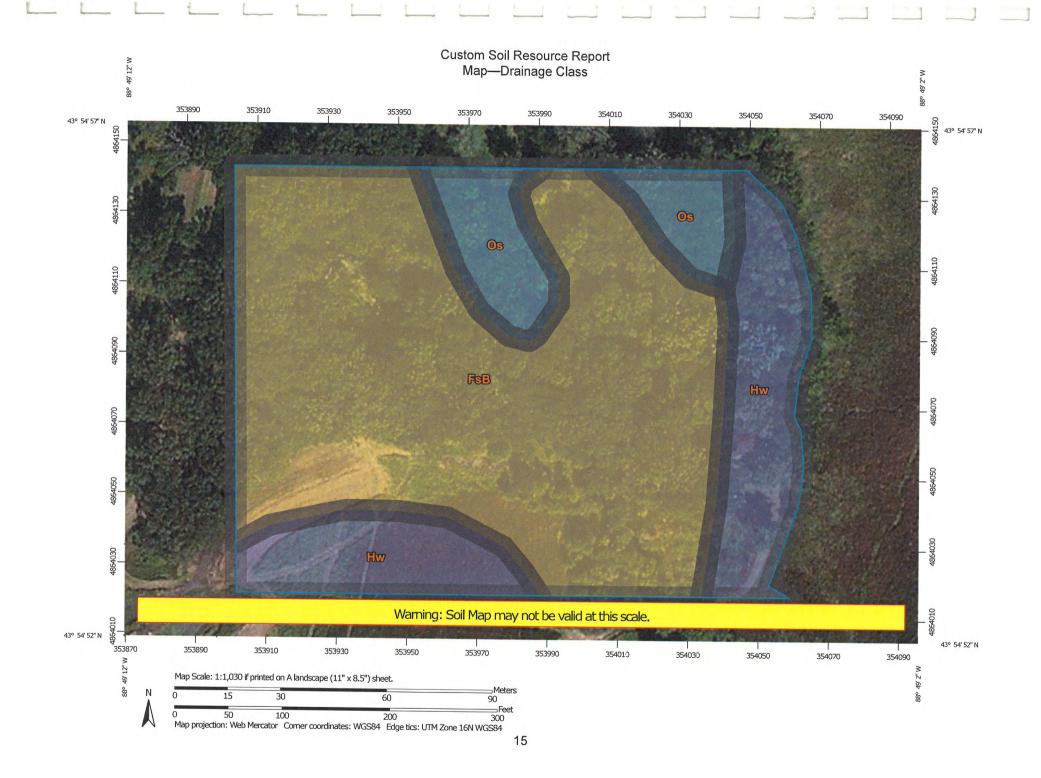
The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

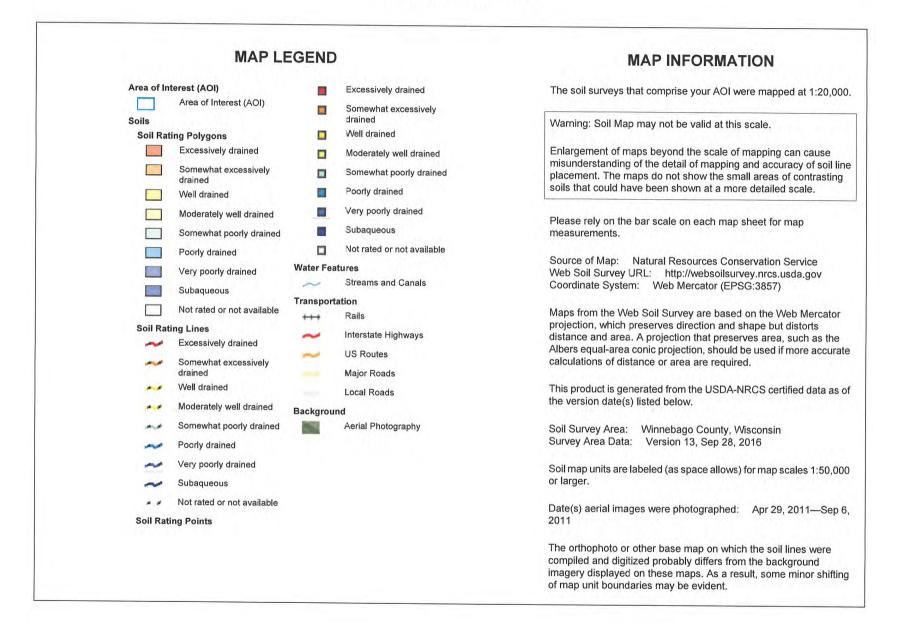
Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Drainage Class

"Drainage class (natural)" refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized-excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained, and very poorly drained. These classes are defined in the "Soil Survey Manual."



Custom Soil Resource Report



Table—Drainage Class

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
FsB	Fox silt loam, 2 to 6 percent slopes	Well drained	3.3	68.2%
Hw	Houghton muck, ponded, 0 to 2 percent slopes	Very poorly drained	1.0	21.5%
Os	Ossian silt loam	Poorly drained	0.5	10.3%
Totals for Area of Inter	est		4.8	100.0%

Rating Options—Drainage Class

Aggregation Method: Dominant Condition Component Percent Cutoff: None Specified Tie-break Rule: Higher

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

Land Classifications

This folder contains a collection of tabular reports that present a variety of soil groupings. The reports (tables) include all selected map units and components for each map unit. Land classifications are specified land use and management groupings that are assigned to soil areas because combinations of soil have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. Example classifications include ecological site classification, farmland classification, irrigated and nonirrigated land capability classification, and hydric rating.

Hydric Rating by Map Unit (WI)

This Hydric Soil Category rating indicates the components of map units that meet the criteria for hydric soils. Map units are composed of one or more major soil components or soil types that generally make up 20 percent or more of the map unit and are listed in the map unit name, and they may also have one or more minor contrasting soil components that generally make up less than 20 percent of the map unit. Each major and minor map unit component that meets the hydric criteria is rated **hydric**. The map unit class ratings based on the hydric components present are: WI Hydric, WI Predominantly Hydric, WI Partially Hydric, WI Predominantly Nonhydric, and WI Nonhydric. The report also shows the total representative percentage of each map unit that the hydric components comprise.

"WI Hydric" means that all major and minor components listed for a given map unit are rated as being hydric. "WI Predominantly Hydric" means that all major components listed for a given map unit are rated as hydric, and at least one contrasting minor component is not rated hydric. "WI Partially Hydric" means that at least one major component listed for a given map unit is rated as hydric, and at least one other major component is not rated hydric. "WI Predominantly Nonhydric" means that no major component listed for a given map unit is rated as hydric, and at least one contrasting minor component listed for a given map unit is rated as hydric, and at least one contrasting minor component is rated hydric. "WI Nonhydric" means no major or minor components for the map unit are rated hydric. The assumption is that the map unit is nonhydric even if none of the components within the map unit have been rated.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or

inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

If soils are wet enough for a long enough period of time to be considered hydric, they typically exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Vasilas, Hurt, and Noble, 2010).

The NTCHS has developed criteria to identify those soil properties unique to hydric soils (Federal Register, 2012). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria use selected soil properties that are described in "Field Indicators of Hydric Soils in the United States" (Vasilas, Hurt, and Noble, 2010), "Soil Taxonomy" (Soil Survey Staff, 1999), "Keys to Soil Taxonomy" (Soil Survey Staff, 1993).

The criteria for hydric soils are represented by codes, for example, 2 or 3. Definitions for the codes are as follows:

- 1. All Histels except for Folistels, and Histosols except for Folists.
- Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Pachic subgroups, or Cumulic subgroups that:
 - A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
 - B. Show evidence that the soil meets the definition of a hydric soil;
- 3. Soils that are frequently ponded for long or very long duration during the growing season.
 - A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
 - B. Show evidence that the soil meets the definition of a hydric soil;
- 4. Map unit components that are frequently flooded for long duration or very long duration during the growing season that:
 - A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
 - B. Show evidence that the soil meets the definition of a hydric soil;

Hydric Condition: Food Security Act information regarding the ability to grow a commodity crop without removing woody vegetation or manipulating hydrology.

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Report—Hydric Rating by Map Unit (WI)

	Hydric Rating by Map Unit (WI)-Winnebago County, W	lisconsin	
Map Unit Symbol	Map Unit Name	Hydric Percent of Map Unit	Hydric Category
FsB	Fox silt loam, 2 to 6 percent slopes	0	WI Nonhydric
Hw	Houghton muck, ponded, 0 to 2 percent slopes	100	WI Hydric
Os	Ossian silt loam	100	WI Hydric

Hydric Soils

This table lists the map unit components that are rated as hydric soils in the survey area. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site (National Research Council, 1995; Hurt and others, 2002).

The three essential characteristics of wetlands are hydrophytic vegetation, hydric soils, and wetland hydrology (Cowardin and others, 1979; U.S. Army Corps of Engineers, 1987; National Research Council, 1995; Tiner, 1985). Criteria for all of the characteristics must be met for areas to be identified as wetlands. Undrained hydric soils that have natural vegetation should support a dominant population of ecological wetland plant species. Hydric soils that have been converted to other uses should be capable of being restored to wetlands.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). These soils, under natural conditions, are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the

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completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

Map units that are dominantly made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units dominantly made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

The criteria for hydric soils are represented by codes in the table (for example, 2). Definitions for the codes are as follows:

- 1. All Histels except for Folistels, and Histosols except for Folists.
- Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Pachic subgroups, or Cumulic subgroups that:
 - A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
 - B. Show evidence that the soil meets the definition of a hydric soil;
- 3. Soils that are frequently ponded for long or very long duration during the growing season.
 - A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
 - B. Show evidence that the soil meets the definition of a hydric soil;
- 4. Map unit components that are frequently flooded for long duration or very long duration during the growing season that:
 - A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
 - B. Show evidence that the soil meets the definition of a hydric soil;

Hydric Condition: Food Security Act information regarding the ability to grow a commodity crop without removing woody vegetation or manipulating hydrology.

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Report—Hydric Soils

Hydric Soils–Winnebago County, Wisconsin						
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria		
Hw—Houghton muck, ponded, 0 to 2 percent slopes						
	Houghton, muck, ponded	95	Depressions	1, 3		
	Houghton, muck	3	Lakebeds (relict)	1, 3		
	Adrian	1	Lakebeds (relict)	1, 3		
	Palms, muck, ponded	1	Interdrumlins	1, 3		
Os—Ossian silt loam						
	Ossian	100	Depressions, drainageways	2, 3		

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