

Phone: 920.615.0019 • Website: www.evergreenwis.com

Endeavor Business Park

-Lots 3, 4, 5, 6, 13, 16, 22, 24, & Outlot 1

Professionally Assured Wetland Delineation Report

Project Number: WSH20-013-01

Property Address: Lots 3, 4, 5, 6, 13, 16, 22, 24, & Outlot 1 of the Endeavor Business Park,

Village of Richfield, Washington County, Wisconsin

Parcel ID's: 0008003, 0008004, 0008005, 0008006, 0008013, 0008016, 0008031,

0008027, & 0008017

October 29, 2020



Report Request by



100 Camelot Drive Fond du Lac, Wisconsin 54935



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Field Work Certification:

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Executive Summary

Evergreen Consultants LLC (Evergreen) was retained by Excel Engineering, to perform a professionally assured wetland delineation. The delineation/project area is all of Washington County Tax Parcels 0008003, 0008004, 0008005, 0008006, 0008013, 0008016, 0008031, 0008027, & 0008017, located in part of the Northwest ¼ of Section 01 of Township 09 North, Range 19 East, located within the Endeavor Business Park- Lots 3, 4, 5, 6, 13, 16, 22, 24, and Outlot 1, Village of Richfield, Washington County, Wisconsin.

The project area is shown on the Wetland Delineation Map as the Site Boundary, hereafter described as the "Site". The Wetland Delineation Map is in Appendix A. Evergreen was directed to delineate the project area for future planning purposes. The property had once been mostly cleared cropland. The area was developed as a business park between 2002 and 2007. Much of the Site remains as vacant lots that are active cropland.

The wetland delineation was certified complete on October 29, 2020 by Benjamin J La Count, PLS, Wisconsin DNR Professionally Assured Wetland Delineator, with assistance from Chad M Fradette, EP, Chemist, WDNR Professionally Assured Wetland Delineator, and Shyann P Banker, Environmental Specialist. Mr. La Count was the Lead Wetland Delineator for the project.

Nine wetland areas were identified during fieldwork:

- Wetland 1 is a degraded wet meadow infested with hybrid cattail and reed canary grass located within an excavated roadside ditch and is 732 square feet within the Site Boundary.
- Wetlands 2 and 3 are degraded wet meadows infested with reed canary grass and hybrid cattail located within an excavated roadside ditch that is separated by a farm drive, connected via a culvert underneath the driveway. Wetland 2 is 2,020 square feet and Wetland 3 is 791 square feet within the Site Boundary.
- Wetland 4 is a wet meadow colonized by weedy hydrophytic species, located within a depression in a field and is 3,641 square feet.
- Wetland 5 consists of a mix of wetland habitat types, wet meadow, and hardwood swamp. The
 wet meadow is in the western one-third of the wetland. It is infested with reed canary grass.
 The eastern two-thirds are hardwood swamp with muck soils that is dominated by willow and
 box elder and is infested by buckthorn and reed canary grass. The entire wetlands are in a
 depression and are 18,177 square feet within the Site Boundary.
- Wetland 6 is a degraded wet meadow infested with hybrid cattail located within an excavated roadside ditch and is 449 square feet within the Site Boundary.
- Wetland 7 is a complex in a large, deep depression, and on a shrubby slope down-gradient of a groundwater seep. It consists of a mix of wetland habitat types, sedge meadow, wet meadow, scrub-shrub, and shallow marsh. The sedge meadow and shallow marsh are concentrated mostly in the center of the wetland. A mix of cattail marsh, sedge meadow, wet meadow, and scrub-shrub are in the outer edges of the wetlands. Scrub-shrub habitat is on the eastern slope to a groundwater seep. Much of the wetlands are infested with reed canary grass and hybrid cattail. Wetland 7 is 75,337 square feet within the Site Boundary.
- Wetland 8 is degraded shallow marsh infested with hybrid cattail located within an excavated roadside ditch and is 3,579 square feet within the Site Boundary.

Wetland 9 is a degraded mixture of wet meadow and shallow marsh infested with hybrid cattail
and reed canary grass located within an excavated roadside ditch and is 193 square feet within
the Site Boundary.

It is our opinion that Wetlands 1, 2, 3, 6, 8, and 9 may meet the definition of artificial wetlands as defined in WI Statute 281.36 (4n)(a)1. These wetlands are located within excavated roadside ditches constructed during the development of the Endeavor Business Park between 2005 and 2007.

It is also our opinion that Wetlands 1, 2, 3, 4, 6, 8, and 9 are not "Water of the United States" (WOUS) as defined in the Code of Federal Regulations 40 CFR 328.3. Wetlands 1, 2, 3, 6, 8, and 9 would be considered (b)(10) stormwater control features and Wetland 4 would be considered an (b)(1) non-adjacent waters.

Wetland 1, 2, 3, 4, 6, 8, and 9 may meet the definition of an exempt non-federal wetlands as defined in Wisconsin Statute 281.36(4n)5(b). If a discharge into the Wetlands is necessary for a project a notification must be given to the Wisconsin DNR Wetland ID Program and the local DNR Water Management Specialist and an Approved Jurisdictional Determination must be received from the US Army Corps of Engineers (USACE) prior to commencement of the project or a wetland general permit application could be submitted.

Benjamin J LaCount is a WDNR Professionally Assured Wetland Delineator and WDNR concurrence is granted for five years and some wetlands on-site may have concurrence for 15 years if the conditions of WI Statute 23.321 (5)(b) 1 apply. For wetlands to be confirmed as exempt from state regulatory authority an exemption determination application must be submitted to the DNR Wetland ID Program whose staff makes the final decision.

Benjamin J LaCount, PLS

WI Professionally Assured Wetland Delineator

Lead Wetland Delineator

Shyanh P Banker

Environmental Specialist

1.0 Introduction

1.1 Purpose

Evergreen was retained by Excel Engineering to perform a professionally assured wetland delineation in preparation for site development.

Nine wetland areas were identified during fieldwork:

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 and reed canary grass located within an excavated roadside ditch and is 193 square feet within
 the Site Boundary.

1.2 Personnel

The wetland delineation was certified complete on October 29, 2020 by Benjamin J La Count, PLS, Wisconsin DNR Professionally Assured Wetland Delineator, with assistance from Shyann P Banker, Environmental Specialist. Mr. La Count was the Lead Wetland Delineator for the project.

Mr. LaCount is a Professional Land Surveyor and WDNR Professionally Assured Wetland Delineator and has over eleven years of experience conducting wetland delineations. Mr. LaCount has completed the Basic and Advanced Wetland Delineation Training, Basic Plant Identification for Wetlands and Grasses/Sedges/Rushes courses sponsored by UW-La Crosse Continuing Education/Extension. Mr. LaCount has also completed the Advanced Hydric Soils and Problematic Wetland Delineation courses conducted by the Wetland Training Institute and the Advanced Wetland Plant ID: Grasses/Sedges/Rushes and Aerial Photo Review courses conducted by the USACE and the University of Minnesota Wetland Delineator Certification Program.

Mrs. Shyann Banker, Environmental Specialist has four years of experience conducting wetland delineations. Mrs. Banker has completed the Basic and Advanced Wetland Delineation Training and Basic Plant Identification for Wetlands courses sponsored by UW-La Crosse Continuing Education/Extension.

2.0 METHODOLOGY

Wetland boundaries were determined based on the comprehensive wetland delineation method as defined in the *Corps of Engineers Wetlands Delineation Manual* (USACE, Waterways Experiment Station, Wetlands Research Program Technical Report Y-87-1) and the *Regional Supplement to the 1987 Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Regions* (NC/NE Regional Supplement) (USACE ERDC, 2012).

Soil data, aerial photographs and topography information available on Washington County's GIS website were reviewed prior to the site visit to determine areas for investigation and included: areas shown as having hydric inclusionary soils as shown on the NRCS National Cooperative Soil Survey and the WDNR Surface Water Data Viewer. Vegetation, soils and hydrology were investigated during the Site visits to determine the location of wetland boundaries.

2.1 Resources

The following resources were used:

Site topography: USGS Quadrangle Maps

Washington County Light Detection and Ranging (LiDAR) Topography

Soils: Washington County Soil Survey

Natural Resource Conservation Service (NRCS) Web Soil Survey (NRCS 2020).

Land Use: Historic and recent aerial photographs

Wetlands: Wisconsin Wetland Inventory (viewed via the Surface Water Data Viewer)

National Wetland Inventory (NWI)

2.2 Equipment Used

The following equipment was used:

Six-foot stick tape

Soil auger, trenching shovel Munsell soil color charts Leica Zeno GG04 GPS

2.3. Vegetation

Vegetation was documented on the NC/NE Regional Supplement data forms. Percent cover of each species for the herbaceous stratum (5-foot radius plot), shrub/sapling stratum (15-foot radius plot) and tree and woody vine stratum (30-foot radius plot) were estimated. Rectangular sample plots were used when plant communities would overlap using circular sample plots or when a community was narrower than the radius. Wetland indicator status was taken from the Lichvar, R.W. 2016, *The National Wetland Plant List, State of Wisconsin 2016 Wetland Plant List.* Dominant species were determined by applying the 50/20 rule. The Dominance Test Worksheet and Prevalence Index Worksheet were completed. Hydrophytic Vegetation Indicators were applied and a decision was made regarding the dominance of hydrophytic vegetation.

2.4. Soils

Soil test pits were excavated with a trenching shovel and a soil probe to a depth of at least 24" at each sampling point. The presence and percentage of mottling, matrix color, and texture was documented on

the NC/NE Regional Supplement data forms for each layer. The Munsell Soil Color Charts were used to determine the hue, value and chroma of observed moist soils. After the profile was documented it was determined if a hydric soil indicator was met at that sample point.

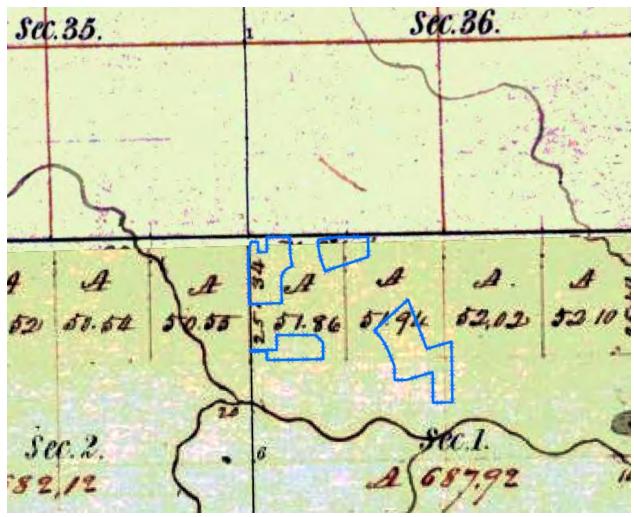
2.5. Hydrology

Before an on-site investigation, FSA aerial slides and aerial photographs were reviewed for the presence of surface water or saturated soil conditions. Each sample point was investigated for saturated soil conditions, water table and surface water and if present they were measured and recorded on the NC/NE Regional Supplement data form. The area was also investigated for Primary and Secondary Hydrologic Indicators as listed on the NC/NE Regional Supplement data form.

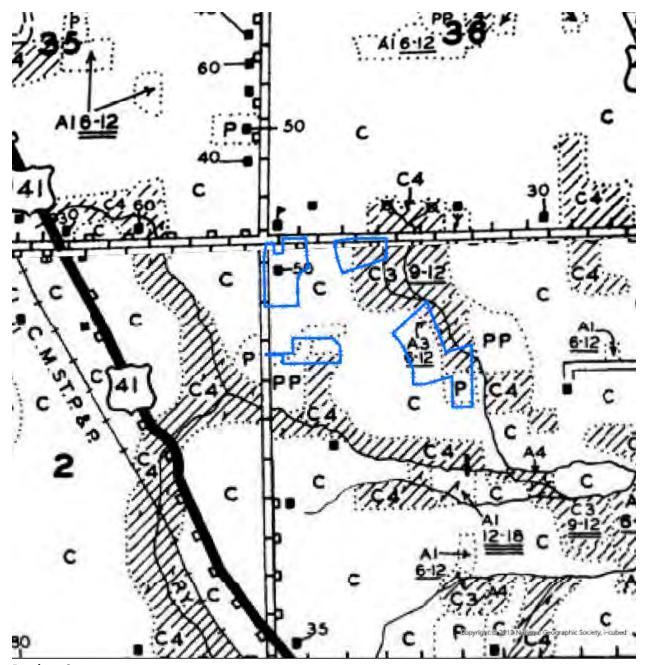
3.0 SITE CHARACTERISTICS

3.1 Land Use

The Original Survey shows the Site in the northwest corner of Section 1. The Original Survey Notes describe the vegetation in this area as basswood, beech, sugar maple, and ironwood.



Original Survey



Bordner Survey

The Bordner Survey shows the Site as cleared cropland, permanent pasture, swamp hardwoods, grass marsh, and tamarack. The Original Survey, Survey Notes and Bordner Survey are in Appendix C.

Aerial photographs from 1937, 1941, 1950, 1963, 1970, 1979-2002, 2005, 2010, 2013, 2015, and 2017 were reviewed.



1941- The Site is cropland with the southwest Site Boundary being a swamp with a residence in the northwest Site Boundary.



2000- The Site is cropland with the southwest Site Boundary is a swamp. The northwest Site Boundary has a building within the northeast corner.



2005- Between 2002 and 2005 the area was developed into a business park. Roads were constructed throughout the area adjacent to the Site Boundaries. The north half of the southeast Site Boundary was filled/graded.



2017- The northwest and southeast Site boundaries are cropland with the northeast Site boundary being partially cropped and woodland, and the southwest Site boundary being wooded and swamp.

3.2 Topography

The topography at the Site ranges from an elevation of 972 feet down to 879 feet. The topography of the Site slopes down towards the southeast corner of the Site. The Topography Map is located in Appendix A.



Topographic Map

3.3 Precipitation

Precipitation information was reviewed from the Hartford 2.9 ENE, Washington County, WI Station. A 90 Day Antecedent Precipitation Rolling Total from the end of July through mid-October 2020 is shown below. Precipitation from the end of July until the beginning of August was normal precipitation and then dropped to below normal precipitation until the end of August. Precipitation was in the normal range from the end of August until the beginning of September and then rose to above normal precipitation until the beginning of October. Precipitation dropped into the normal range from the beginning of October until the Site visit at the end of October. Raw precipitation data is in Appendix F. The antecedent precipitation for approximately 90 days prior to the Site visit in October was normal.

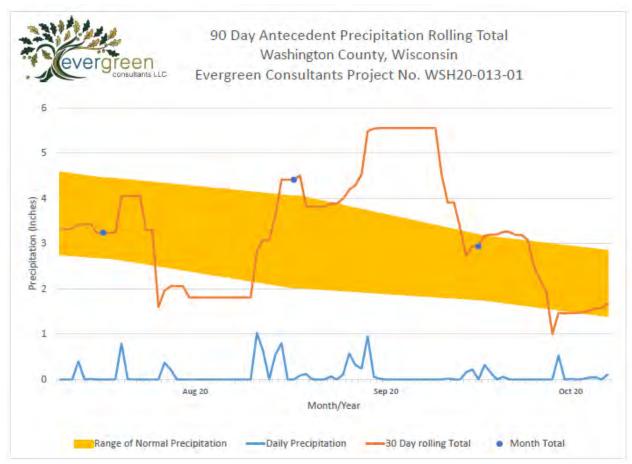


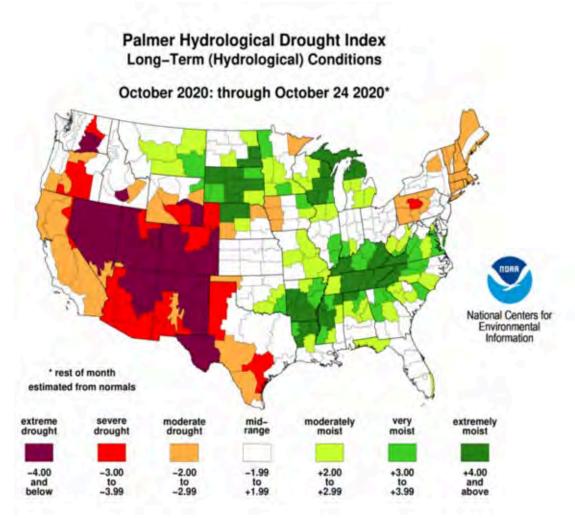
Chart 1. 90 Day Antecedent precipitation Rolling Total Summary between July-October 2020 in Washington County, Wisconsin

Date	Contract that are the second			Landowner/Project State		WSH20-013-01			
Weather Station						Wisconsin			
County	· W	Washington County			Growing Season		yes		
Photo/obs Date				Soil Name		Ashkum silty clay loam			
shaded cells are locked or calculated	Long-term r (from WETS Climatology	table or S	CALL STREET						
	Month	30% chance	30% chance >	Precip	Condition Dry, Wet, Normal	Condition Value	Month Weight Value	Product of Previous 2 Columns	
1st Prior Month*	September	2.03		3.32		2	3	(
2nd Prior Month*	August	2.69	4.44	3.78	The same of the sa	2	2	4	
3rd Prior Month*	July	3.00		4.29	N	2	1	2	
	*compared to	-	servation o	late	T		Sum	12	
	Note: If sum 6 - 9		od has bee	n drier		Condition value: Dry =1			
	10 - 14	prior peri	od has bee	n normal		Normal =2 Wet =3			
	15 - 18	prior perio	od has bee	n wetter					

Table 1. Precipitation Summary between July and September 2020 in Washington County, Wisconsin

Precipitation values are measured in inches.

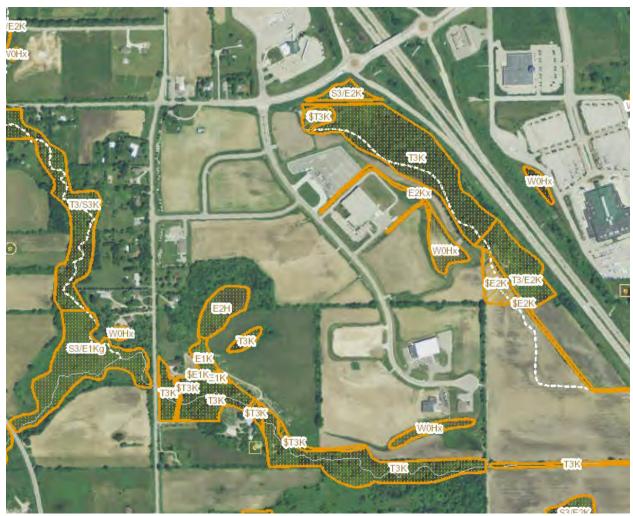
Sources: National Oceanic & Atmospheric Administration, Midwest Regional Climate Center



Sources: National Oceanic & Atmospheric Administration, Palmer Hydrological Drought Index The index shows the area as very moist.

3.4 Wetland Mapping

The Wisconsin Wetland Inventory (WWI), viewed via the Surface Water Data Viewer, and the National Wetland Inventory (NWI) were reviewed. The Surface Water Data Viewer shows the Site having hydric soil indicators in portions of the Site with mapped wetlands in the northeast, southeast, and southwest Site Boundaries.



Surface Water Data Viewer



National Wetland Inventory Map

The National Wetland Inventory Map shows a freshwater forested/shrub wetland in the northeast Site Boundary and a freshwater emergent wetland in the southwest corner of the Site Boundary. The surface Water Data Viewer and National Wetland Inventory Maps are in Appendix A.

3.5 Mapped Soils

The NRCS Web Soil Survey and the Soil Survey of Washington County, Wisconsin, indicate the presence of the following soil types:



Report—Hydric Soil List - All Components

				laconain	The second second
Map symbol and map unit name	Component/Local Phase	comp.	Landform	Hydric status	Hydric criteria met (code)
Am: Alluvial land	Alluvial land	90	Alluvial flats	No	-
	Wet alluylal land	10	Flood plains	Yes	2,3,4
AtA: Ashkum sity clay loam, 0 to 2 percent slopes	Ashkum-Drained	85-100	End moralnes,ground moralnes	Yes	2
	Peotone-Drained	0-9	Depressions on ground moralnes	Yes	2
1	Orthents, clayey	0-3	Lake plains, ground moraines	No	7
Contract of the Contract of	Urban land	0-3	Ground moralnes	No	-
FsB: Fox slit loam, 2 to 6 percent slopes	Fox	80-90	Outwash plains	No	7
	Casco	5-10	Outwash plains	No	+
	St. Charles-Gravelly substratum	5-10	Outwash plains	No	7
HmB: Hochhelm loam, 2 to 6 percent slopes	Hochhelm	85-92	Drumlins	No	-
	Theresa	5-8	Drumlins	No	-
	Lamartine	3-7	Drumiins	No	-
HmB2: Hochheim loam, 2 to 6 percent slopes, eroded	Hochhelm-Eroded	80-91	Drumlins	No	7
	Theresa-Eroded	6-12	Till plains	No	-
	Lamartine	3-8	Drumiins	No	1
HmC2: Hochheim loam, 6 to 12 percent slopes, eroded	Hochhelm-Eroded	85-92	Drumlins	No	7
	Hochheim	4-7	Drumlins	No	-
	Theresa	4-8	Drumlins	No	-
HoC3: Hochhelm solls, 6 to 12 percent slopes, severely eroded	Hochhelm	60	TIII plains	No	
	Hochheim	40	Till plains	No	-
JuA: Juneau silt loam, 1 to 3 percent slopes	Juneau	100	Drumlins	No	7
LmA: Lamartine slit loam, 0 to 3 percent slopes	Lamartine	80-91	Interdrumlins	No	7
	Pella	6-11	Drainageways	Yes	2,3
	Osslan	3-9	Depressions	Yes	2,3
MoB: Mayville silt loam, 2 to 6 percent slopes	Mayville	80-95	Drumlins	No	7
	Dodge	5-17	Drumlins	No	-
	Lamartine	0-3	Drumlins	No	-

MtA: Mequon slit loam, 1 to 3 percent slopes	Mequon	90	Drainageways	No	H2
	Ashkum	10	Depressions	Yes	2,3
OuB: Ozaukee silt loam, high carbonate substratum, 2 to 6 percent slopes	Ozaukee-High carbonate substratum	92-100	End moralnes,ground moralnes	No	17
	Ashkum-Drained	0-5	Ground moralnes, end moralnes	Yes	2
	Orthents, clayey	0-3	Ground moralnes	No	·
	Orban land	0-3	Ground moralnes	No -	0
OuB2: Ozaukee sit loam, high carbonate substratum, 2 to 6 percent slopes, eroded	Ozaukee-High carbonate substratum, eroded	92-100	Ground moraines,end moraines	No	
	Ashkum-Drained	0-5	Ground moraines,end moraines	Yes	2
	Urban land	0-3	Ground moralnes	No	12
	Orthents, clayey	0-3	Ground moralnes	No	+
OuC2: Ozaukee slit loam, high carbonate substratum, 6 to 12 percent slopes, eroded	Ozaukee-High carbonate substratum, eroded	88-100	End moraines,ground moraines	No	7
	Ozaukee-Severely eroded	0-5	End moraines, ground moraines	No	+
	Urban land	0-5	Ground moralnes	No	T-
	Mequon	0-5	Ground moraines	No	-
OuD2: Ozaukee slit loam, high carbonate substratum, 12 to 20- percent slopes, eroded	Ozaukee-High carbonate substratum, eroded	88-100	Ground moraines, end moraines	No	7
	Ozaukee-Severely eroded	0-5	Ground moralnes,end moralnes	No	-
	Mequon	0-5	Ground moralnes	No	-
and the second	Urban land	0-5	Ground moralnes	No	-
Pc: Paims mucky peat, 0 to 2 percent slopes	Palms-Mucky peat	80-95	Interdrumlins	Yes	1,2,3
	Houghton-Mucky peat	3-15	Depressions	Yes	1,2,3
	Adrian	2-5	Interdrumlins	Yes	1,3
Ph: Pella silt loam, 0 to 2 percent slopes	Pella	80-91	Drainageways	Yes	2,3
	Kendall	5-9	Drainageways	No	-
	Lamartine	4-8	Drainageways	No	-
	Palms-Muck	1-3	Depressions	Yes	1,3
RaA: Radford silt loam, 0 to 3 percent slopes	Radford	80-95	Flood plains,drainageways	No	
	Otter	2-8	Flood plains, drainageways	Yes	2,3

	Sable	2-5	Depressions	Yes	2,3
	Sebewa	1-4	Depressions	Yes	2,3
	Drummer	0-3	Depressions	Yes	2,3
ShB: Saylesville slit loam, 2 to 6 percent slopes	Saylesville	100	Lakebeds (relict)	No	
Sm: Sebewa silt loam, 0 to 2 percent slopes	Sebewa	80-95	Depressions	Yes	2,3
	Adrian	3-12	Lakebeds (relict)	Yes	1,3
	Ionia	1-5	Rises	No	-
	Fox.	0-3	Rises	No	1
SvB2: Sisson-Casco-Hochheim complex, 2 to 6 percent slopes, eroded	Sisson	31	Terminal moraines	No	
	Casco	29	Terminal moralnes	No	-
	Hochheim	20	Terminal moralnes	No	1-
SvC2: Sisson-Casco-Hochheim complex, 6 to 12 percent slopes, eroded	Sisson	31	Terminal moraines	No	
	Casco	29	Terminal moraines	No	-
	Hochheim	20	Terminal moralnes	No	-
ThB2: Theresa slit loam, 2 to 6 percent slopes, eroded	Theresa-Eroded	80-90	Drumlins	No	1
	Hochheim-Eroded	9-15	Drumlins	No	1
	Lamartine	1-5	Drumlins	No	+
Ww: Wet alluvial land	Wet alluvial land	100	Depressions on alluvial flats,drainageways on alluvial flats,flood plains on alluvial flats	Yes	2,3,4
ZuC2: Zurich sit loam, 6 to 12 percent slopes, eroded	Zurich-Eroded	85-95	Lakebeds (relict)	No	
	Dresden	3-6	Stream terraces	No	-
	Wauconda	2-5	Lakebeds (relict)	No	-
	Orthents-Loamy	0-4	Lake plains, outwash plains, lakebeds (relict), ground moralnes	No	-

Note: NRCS County Soil Survey Report is located in Appendix E.

4.0 FIELD INVESTIGATIONS

Nine wetland areas were identified during fieldwork:

- Wetland 1 is a degraded wet meadow infested with hybrid cattail and reed canary grass located within an excavated roadside ditch and is 732 square feet within the Site Boundary.
- Wetlands 2 and 3 are degraded wet meadows infested with reed canary grass and hybrid cattail located within an excavated roadside ditch that is separated by a farm drive, connected via a culvert underneath the driveway. Wetland 2 is 2,020 square feet and Wetland 3 is 791 square feet within the Site Boundary.
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Determination Forms are in Appendix G.

<u>Wetland 1:</u> A degraded wet meadow infested with hybrid cattail and reed canary grass located within an excavated roadside ditch and is 732 square feet within the Site Boundary.



Wetland 1 would be considered **E2Kx** (emergent/wet meadow, narrow-leaved persistent with wet soil, palustrine, excavated). The wetland boundary for Wetland 1 is located along a topography break within a roadside ditch. The wet meadow is within an excavated roadside ditch that was constructed in 2005 during a business park development. The minimal slope of the ditch, dense vegetation and micro topography create poor drainage and hold water within the ditch for prolonged periods of time. The wetland meets wetland criteria for hydrophytic vegetation, hydric soil, and wetland hydrology.

No primary hydrology indicators were observed in Wetland 1. The secondary hydrology indicators observed in Wetland 1 include microtopographic relief (D4), and a positive FAC-neutral test (D5). The ditch has microphotographic relief where water persist. The ditch is not maintained very well so the ups and downs in the ditch and dense vegetation cause water to pond and backup in portions of the ditch.



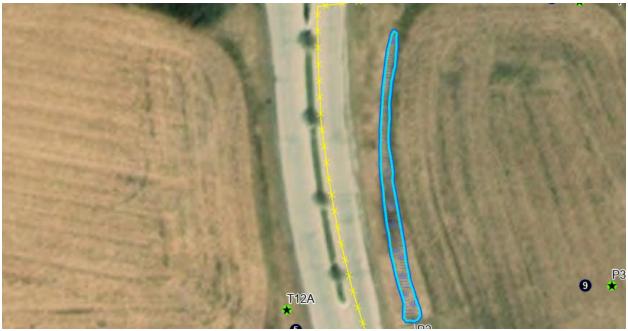
Excavated roadside ditch infested with cattail and reed canary grass.

The dominant hydrophytic vegetation observed:

- Phalaris arundinacea (reed canary grass, FACW)
- Typha x glauca (hybrid cattail, OBL)

The soil in Wetland 1 meets hydric soil indicator redox dark surface (F6). The soils observed presented redox dark surface (F6), with a dark surface with prominent or distinct redoximorphic features within a layer at least four inches thick.

<u>Wetlands 2 & 3:</u> Degraded wet meadows infested with reed canary grass and hybrid cattail located within an excavated roadside ditch that is separated by a farm drive, connected via a culvert underneath the driveway. Wetland 2 is 2,020 square feet and Wetland 3 is 791 square feet within the Site Boundary. They are both located within an excavated roadside ditch that extends beyond the Site boundary to the south. The ditches have minimal slope, dense vegetation and micro topography that create poor drainage and hold water within the ditches for prolonged periods of time.



Wetland 2



Wetland 3

Wetlands 2 & 3 would be considered **E2Kx** (emergent/wet meadow, narrow-leaved persistent with wet soil, palustrine, excavated). The wetland boundary for Wetlands 2 & 3 is located along a topography break within a roadside ditch. The wet meadow is within an excavated roadside ditch that was constructed in 2005 during a business park development and is nearly level. The wetland meets wetland criteria for hydrophytic vegetation, hydric soil, and wetland hydrology.

No primary hydrology indicators were observed in Wetlands 2 & 3. The secondary hydrology indicators observed in Wetlands 2 & 3 include geomorphic position (D2), microtopographic relief (D4), and a positive FAC-neutral test (D5). This is a nearly level roadside ditch where water persists for prolonged periods of time.



Standing on the farm drive between the wetlands facing north towards Wetland 2.

The dominant hydrophytic vegetation observed:

- Phalaris arundinacea (reed canary grass, FACW)
- Cyperus esculentus (yellow nutsedge, FACW)

The dominant non-hydrophytic vegetation observed:

Poa pratensis (Kentucky bluegrass, FACU)

The soil in Wetlands 2 & 3 meets hydric soil indicator redox dark surface (F6). The soils observed presented redox dark surface (F6), with a dark surface with prominent or distinct redoximorphic features within a layer at least four inches thick.



Standing near T5A within the roadside ditch of Wetland 3.

<u>Wetland 4:</u> A wet meadow colonized by weedy hydrophytic species, located within a depression in a field and is 3,641 square feet.



Wetland 4 would be considered **E2Kx** (emergent/wet meadow, narrow-leaved persistent with wet soil, palustrine, excavated). The wetland boundary for Wetland 4 is located along a topography break within a depression. The wetland meets wetland criteria for hydrophytic vegetation, hydric soil, and wetland hydrology.

No primary hydrology indicators were observed in Wetland 4. The secondary hydrology indicators observed in Wetland 4 include stunted or stressed plants (D1), geomorphic position (D2), and a positive FAC-neutral test (D5). This area has spots of drowned out crops and crop stress. Tractor ruts have standing water, but it is not connected to a water table, most likely from recent rainfall ponding on compacted soil.



Low spot within a cropped field, tractor tire ruts within the depression.

The dominant hydrophytic vegetation observed:

- Phalaris arundinacea (reed canary grass, FACW)
- Echinochloa crus-galli (barnyard grass, FAC)

The soil in Wetland 4 meets hydric soil indicator redox dark surface (F6). The soils observed presented redox dark surface (F6), with a dark surface with prominent or distinct redoximorphic features within a layer at least four inches thick.

<u>Wetland 5:</u> Consists of a mix of wetland habitat types, wet meadow, and hardwood swamp. The wet meadow is in the western one-third of the wetland. It is infested with reed canary grass. The eastern two-thirds are hardwood swamp with muck soils that is dominated by willow and box elder and is infested by buckthorn and reed canary grass. The entire wetlands are in a depression and are 18,177 square feet within the Site Boundary.



Wetland 5 would be considered **T3/S3/E2Kx** (Forested, broad-leaved deciduous, Scrub-shrub, broad-leaved deciduous/ Emergent-wet meadow, narrow-leaved persistent with wet soil, palustrine, partially excavated). The wetland boundary for Wetland 5 is located along a topography break within a depression. The wet meadow is within a ditch which drains into a hardwood swamp within a large depression. The land east of the ditch was disturbed/filled in 1995 through 2005 and the land west of the ditch was disturbed/filled in 2005 based on aerial photograph review. The wetland meets wetland criteria for hydrophytic vegetation, hydric soil, and wetland hydrology.

The primary hydrology indicators that were observed in Wetland 5 includes high water table (A2) and saturation (A3). The secondary hydrology indicator observed in Wetland 5 include a positive FAC-neutral test (D5). The ditch receives water from the north and there is also a spring or seep located southeast of T5E that adds water to the wetland. The area near T6B is soft and saturated to the surface.



Standing within the ditch of Wetland 5 near sample point T5E facing south.



Standing west of T6A facing north at a waterway created from a seep or spring within Wetland 5.

The dominant hydrophytic vegetation observed:

- Phalaris arundinacea (reed canary grass, FACW)
- Salix nigra (black willow, OBL)
- Acer negundo (boxelder maple, FAC)
- Rhamnus cathartica (common buckthorn, FAC)
- Cornus alba (red-osier dogwood, FACW)

The soil in Wetland 5 meets hydric soil indicators histosol (A1) and thick dark surface (A12). Hydric soil indicator histosol (A1) was observed by the soil having sixteen inches or more of the upper thirty-two inches from the soil surface being organic soil material. The soils presented thick dark surface (A12) by having a black layer 12 inches or thicker being directly above a depleted or gleyed matrix.

<u>Wetland 6:</u> A degraded wet meadow infested with hybrid cattail located within an excavated roadside ditch and is 449 square feet within the Site Boundary.



Wetland 6 would be considered **E2Kx** (emergent/wet meadow, narrow-leaved persistent with wet soil, palustrine, excavated). The wetland boundary for Wetland 6 is located along a topography break within a roadside ditch. The wet meadow is within an excavated roadside ditch that is located between a road and a cropped field, it may have been rock lined in the past but soil was placed over the rocks. The wetland formed on fill soils that were placed between 1970 and 1980. The wetland meets wetland criteria for hydrophytic vegetation and wetland hydrology.

The primary hydrology indicator that was observed in Wetland 6 includes surface water (A1). The secondary hydrology indicators observed in Wetland 6 include geomorphic position (D2) and a positive FAC-neutral test (D5). The ditch is nearly level, when water is high enough it drains east and some water drains to the south.



Standing within the excavated ditch infested with cattail.

The dominant hydrophytic vegetation observed:

- Salix nigra (black willow, OBL)
- Typha x glauca (hybrid cattail, OBL)

The soil in Wetland 6 meets hydric soil indicator redox dark surface (F6). The soils observed presented redox dark surface (F6), with a dark surface with prominent or distinct redoximorphic features within a layer at least four inches thick. The area was filled between 1970 and 1980, and a refusal was met on large rocks at fifteen inches from the soil surface.

<u>Wetland 7:</u> A wetland complex in a large, deep depression, and on a shrubby slope down-gradient of a groundwater seep. It consists of a mix of wetland habitat types, sedge meadow, wet meadow, scrubshrub, and shallow marsh. The sedge meadow and shallow marsh are concentrated mostly in the center of the wetland. A mix of cattail marsh, sedge meadow, wet meadow, and scrub-shrub are in the outer edges of the wetlands. Scrub-shrub habitat is on the eastern slope to a groundwater seep. Much of the wetlands are infested with reed canary grass and hybrid cattail. Wetland 7 is 75,337 square feet within the Site Boundary.



Wetland 7 would be considered **S3/E2K** (Scrub-shrub, broad-leaved deciduous/ Emergent-wet meadow, narrow-leaved persistent with wet soil, palustrine). The wetland boundary for Wetland 7 is located along a topography break within a depression. The wet meadow is within a hardwood forest in a large depression. The wetland meets wetland criteria for hydrophytic vegetation, hydric soil, and wetland hydrology.

The primary hydrology indicators that were observed in Wetland 7 includes surface water (A1), high water table (A2), and saturation (A3). The secondary hydrology indicator observed in Wetland 7 includes saturation visible on aerial imagery (C9), geomorphic position (D2), shallow aquitard (D3), and a positive FAC-neutral test (D5). Water ponds within the depression and persists for prolonged periods of time.



Photo taken standing within Wetland 7 facing the upland.

The dominant hydrophytic vegetation observed:

- Phalaris arundinacea (reed canary grass, FACW)
- Salix petiolaris (meadow willow, FACW)
- Vitis riparia (riverbank grape, FAC)
- Impatiens capensis (orange jewelweed, FACW)
- Carex lacustris (lake sedge, OBL)
- Cornus alba (red-osier dogwood, FACW)

The soil in Wetland 7 meets hydric soil indicators histosol (A1), black histic (A3), depleted below dark surface (A11), thick dark surface (A12), depleted matrix (F3) and redox dark surface (F6). Hydric soil indicator histosol (A1) was observed by the soil having sixteen inches or more of the upper thirty-two inches from the soil surface being organic soil material. Black histic (A3) was observed by the soil having a layer of muck eight inches or more thick that starts at a depth of six inches from the soil surface being black in color. Depleted below dark surface (A11) was observed by the soils having a depleted layer, starting at least twelve inches from the dark soil surface and being at least six inches thick. The soils presented thick dark surface (A12) by having a black layer 12 inches or thicker being directly above a depleted or gleyed matrix. The soils observed presented a depleted matrix (F3) by having a with sixty percent or more of a depleted matrix color that is six inches thick starting within ten inches of the soil surface; having prominent or distinct redoximorphic features. The soils observed presented redox dark surface (F6), with a dark surface with prominent or distinct redoximorphic features within a layer at least four inches thick.

<u>Wetland 8:</u> A degraded shallow marsh infested with hybrid cattail located within an excavated roadside ditch and is 3,579 square feet within the Site Boundary.



Wetland 8 would be considered **E2Kx** (emergent/wet meadow, narrow-leaved persistent with wet soil, palustrine, excavated). The wetland boundary for Wetland 8 is located along a topography break within a roadside ditch. The wet meadow is within an excavated roadside ditch that was constructed in 2005 during a business park development. The wetland meets wetland criteria for hydrophytic vegetation, hydric soil, and wetland hydrology.

The primary hydrology indicator that was observed in Wetland 8 includes surface water (A1). The secondary hydrology indicators observed in Wetland 8 include geomorphic position (D2) and a positive FAC-neutral test (D5). The roadside ditch is flat, water is perched on a silty clay loam soil and persists for prolonged periods of time.



Excavated roadside ditch infested with cattail.

The dominant hydrophytic vegetation observed:

- Solanum dulcamara (climbing nightshade, FAC)
- Typha x glauca (hybrid cattail, OBL)
- Salix nigra (black willow, OBL)

The soil in Wetland 8 meets hydric soil indicator redox dark surface (F6). The soils observed presented redox dark surface (F6), with a dark surface with prominent or distinct redoximorphic features within a layer at least four inches thick.

<u>Wetland 9</u>: A degraded mixture of wet meadow and shallow marsh infested with hybrid cattail and reed canary grass located within an excavated roadside ditch and is 193 square feet within the Site Boundary.



Wetland 9 would be considered **E2Kx** (emergent/wet meadow, narrow-leaved persistent with wet soil, palustrine, excavated). The wetland boundary for Wetland 9 is located along a topography break within a ditch. The wet meadow is within an excavated ditch that was constructed in 2005 during a business park development. The wetland is a flat area within the ditch and water would persist here for prolonged periods of time. The wetland meets wetland criteria for hydrophytic vegetation, hydric soil, and wetland hydrology.

No primary hydrology indicators were observed in Wetland 9. The secondary hydrology indicators observed in Wetland 9 include geomorphic position (D2) and a positive FAC-neutral test (D5). The roadside ditch is flat, and water persists here for prolonged periods of time.



Standing within the excavated ditch infested with cattail and reed canary grass.



Standing south of the ditch/Wetland 9 at the edge, facing west.

The dominant hydrophytic vegetation observed:

- Phalaris arundinacea (reed canary grass, FACW)
- Typha x glauca (hybrid cattail, OBL)

The soil in Wetland 9 meets hydric soil indicator redox dark surface (F6). The soils observed presented redox dark surface (F6), with a dark surface with prominent or distinct redoximorphic features within a layer at least four inches thick.

<u>Upland</u>: Upland within the Site is cropland, grassed swales, grassed buffers, and a forest. The crop fields have been planted to corn and hay. The swales are grassed and well-drained, convey stormwater from roadside ditches to a stormwater pond. The grass buffer is located between a crop field and a stormwater basin. Some of the Site was filled/graded during development of the Endeavor Business Park.



Upland planted to corn.



Upland grass meadow



Upland hay field.



Upland forest.



grassed buffer between cropped field and stormwater basin.

4.1 Hydrology Assessments with Aerial Photographs

Aerial photographs from 1937, 1941, 1950, 1963, 1970, 1979-2002, 2005, 2010, 2013, 2015, and 2017 were reviewed. Most of the Site had been cultivated prior to 1937 and until between 2002 and 2005 when the area was developed into a business park. After the construction of the business park some of the Site is still vacant cropland.

A hydrology assessment was completed as the Site had been mostly cropland since prior to 1937. Between 2002 and 2005 the Site had utilities installed and roads constructed throughout it. Based on the review, one area was required to be reviewed.



Review Areas

2002	FSA	N	NV	NV	NV	NV	NV	NV	NV	
			Utilities, road	s, and ditches	were constru	cted throughout	the site.			
2005	Washington Co.	N	NSS	SS	NSS	DISTURBED	NSS	NV	NV	
2006	Google Earth	N	NSS	CS	NV/NSS	DISTURBED	CS	NV	NV	
2007	Google Earth	N	NV	AP	NV	NV	NV	NV	CS	
2008	Google Earth	W	NV	CS	CS	CS	SS	CS	CS	
2010	Google Earth	N	NV	NV	NV	NV	NSS	NSS	NSS	
2011	Google Earth	W	NSS	CS	NSS/NV	NV	CS	NV	NV	
2013	Google Earth	W	NSS	SS	SS	NV	NSS	NSS	NSS	
2015	Washington Co.	W	NV	CS	CS	NV	NV	NV	NV	No.
2017	Google Earth	W	CS	CS	CS	NV	CS	CS	NV	
2018	Google Earth	W	NV	SS	CS	NV	CS	NV	NV	
ummary Table		Α	В	C	D	E	F	G	н	
Normal Yrs. 2			21	21	21	19	21	21	21	
Normal Yrs. With wet signature 1			1	8	3	2	4	2	4	
Normal Yrs. With wet signature			5%	38%	14%	11%	19%	10%	19%	

Assessment Results

Area	Hydric Soils Present	Identified on NWI or other wetland map	Percent with wet signatures from Exhibit 1	Other hydrology indicators present (*1)	Wetland?	
Α	NO	NO	5%	NO	NO	
В	YES	NO	38%	YES	YES	
С	YES	NO	14%	NO	NO	
D	YES	NO	11%	NO	NO	
E	YES	NO	19%	NO	NO	
F	YES	NO	10%	NO	NO	
G	YES	NO	19%	NO	NO	

^{*1} Answer "N/A" if field verification is not required.

Assessment Analysis

4.2 Rare Species and Natural Communities

No species or communities of concern were observed during site activities.

4.3 Mapping

The wetland boundaries were flagged with pink flags. Benjamin La Count, a Professional Land Surveyor, surveyed the wetland boundary. The surveyed wetland boundaries are shown on the Wetland Delineation Map located in Appendix A, Site Maps.

5.0 CONCLUSIONS

Investigation of the area determined that wetlands exist as shown on the attached figures and Wetland Delineation Map. The wetlands identified for this report may be subject to federal regulation under the jurisdiction of the U.S. Army Corps of Engineers, state regulation under the jurisdiction of Wisconsin DNR, and local jurisdiction under Washington County, and the Village of Richfield.

Nine wetland areas were identified during fieldwork:

- Wetland 1 is a degraded wet meadow infested with hybrid cattail and reed canary grass located within an excavated roadside ditch and is 732 square feet within the Site Boundary.
- Wetlands 2 and 3 are degraded wet meadows infested with reed canary grass and hybrid cattail
 located within an excavated roadside ditch that is separated by a farm drive, connected via a
 culvert underneath the driveway. Wetland 2 is 2,020 square feet and Wetland 3 is 791 square feet
 within the Site Boundary.
- Wetland 4 is a wet meadow colonized by weedy hydrophytic species, located within a depression in a field and is 3,641 square feet.
- Wetland 5 consists of a mix of wetland habitat types, wet meadow, and hardwood swamp. The wet meadow is in the western one-third of the wetland. It is infested with reed canary grass. The eastern two-thirds are hardwood swamp with muck soils that is dominated by willow and box elder and is infested by buckthorn and reed canary grass. The entire wetlands are in a depression and are 18,177 square feet within the Site Boundary.
- Wetland 6 is a degraded wet meadow infested with hybrid cattail located within an excavated roadside ditch and is 449 square feet within the Site Boundary.
- Wetland 7 is a complex in a large, deep depression, and on a shrubby slope down-gradient of a
 groundwater seep. It consists of a mix of wetland habitat types, sedge meadow, wet meadow,
 scrub-shrub, and shallow marsh. The sedge meadow and shallow marsh are concentrated mostly
 in the center of the wetland. A mix of cattail marsh, sedge meadow, wet meadow, and scrubshrub are in the outer edges of the wetlands. Scrub-shrub habitat is on the eastern slope to a

- groundwater seep. Much of the wetlands are infested with reed canary grass and hybrid cattail. Wetland 7 is 75,337 square feet within the Site Boundary.
- Wetland 8 is degraded shallow marsh infested with hybrid cattail located within an excavated roadside ditch and is 3,579 square feet within the Site Boundary.
- Wetland 9 is a degraded mixture of wet meadow and shallow marsh infested with hybrid cattail
 and reed canary grass located within an excavated roadside ditch and is 193 square feet within
 the Site Boundary.

It is our opinion that Wetlands 1, 2, 3, 6, 8, and 9 may meet the definition of artificial wetlands as defined in WI Statute 281.36 (4n)(a)1. These wetlands are located within excavated roadside ditches constructed during the development of the Endeavor Business Park between 2005 and 2007.

It is also our opinion that Wetlands 1, 2, 3, 4, 6, 8, and 9 are not "Water of the United States" (WOUS) as defined in the Code of Federal Regulations 40 CFR 328.3. Wetlands 1, 2, 3, 6, 8, and 9 would be considered (b)(10) stormwater control features and Wetland 4 would be considered an (b)(1) non-adjacent waters.

Wetland 1, 2, 3, 4, 6, 8, and 9 may meet the definition of an exempt non-federal wetlands as defined in Wisconsin Statute 281.36(4n)5(b). If a discharge into the Wetlands is necessary for a project a notification must be given to the Wisconsin DNR Wetland ID Program and the local DNR Water Management Specialist and an Approved Jurisdictional Determination must be received from the US Army Corps of Engineers (USACE) prior to commencement of the project or a wetland general permit application could be submitted.

6.0 DISCLAIMER

If wetlands are proposed to be impacted a Section 404 Letter of Permission Authorization will need to be obtained from USACE and according to Section 281.36, Wisconsin Statutes and NR 299 and NR 103, Wisconsin Administrative Code a permit from the WDNR would be necessary.

Benjamin J LaCount is a WDNR Professionally Assured Wetland Delineator and WDNR concurrence is granted for five years and some wetlands on-site may have concurrence for 15 years if the conditions of WI Statute 23.321 (5)(b) 1 apply. For wetlands to be confirmed as exempt from state regulatory authority an exemption determination application must be submitted to the DNR Wetland ID Program whose staff makes the final decision.

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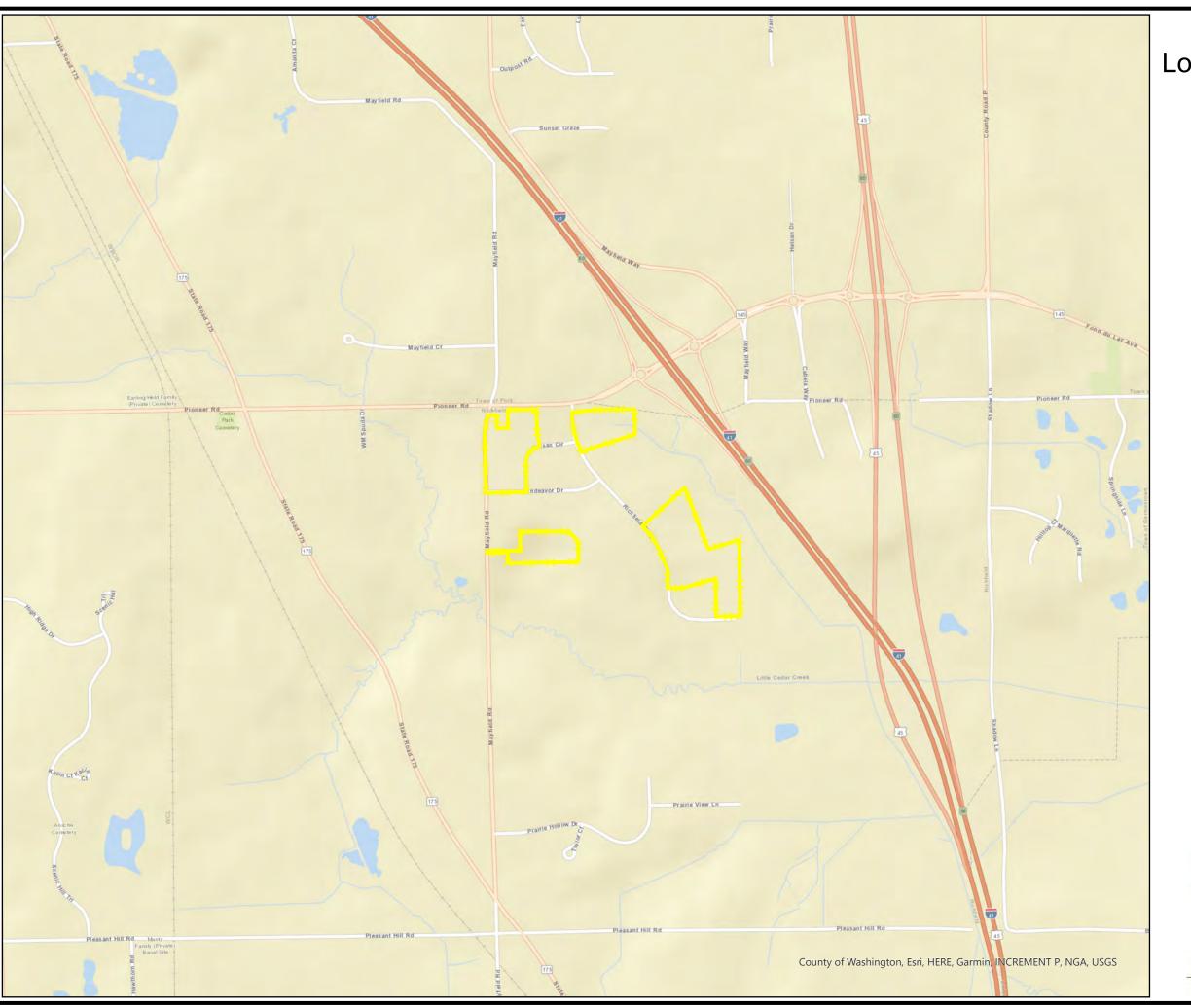
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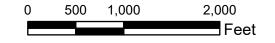
Appendix A:

Site Maps



Endeavor Business Park
Lots 3, 4, 5, 6, 13, 16, 22, 24 &
Outlot 1
Topographic Map
Village of Richfield
Washington County, WI

Project: WSH20-013-01





Legend

Site Boundary



2918 Van Hoof Road • Green Bay, WI 54313



Endeavor Business Park
Lots 3, 4, 5, 6, 13, 16, 22, 24 &
Outlot 1
Wetland Delineation Map
Village of Richfield
Washington County, WI
- OVERALL -

Project: WSH20-013-01





Legend

Site Boundary

Wetland Line

Wetland

Parcels

Catch Basin

Culvert

Wetland Delineation was conducted by Benjamin LaCount, PLS, Wetland Scientist, WDNR Professionally Assured Wetland Delineator with assistance from Shyann Banker, Environmental Specialist

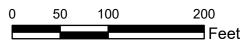


2918 Van Hoof Road • Green Bay, WI 54313



Endeavor Business Park
Lots 3, 4, 5, 6, 13, 16, 22, 24 &
Outlot 1
Wetland Delineation Map
Village of Richfield
Washington County, WI
- SHEET 1 -

Project: WSH20-013-01





Site Boundary

★ Sample Point

Wetland Line

Wetland

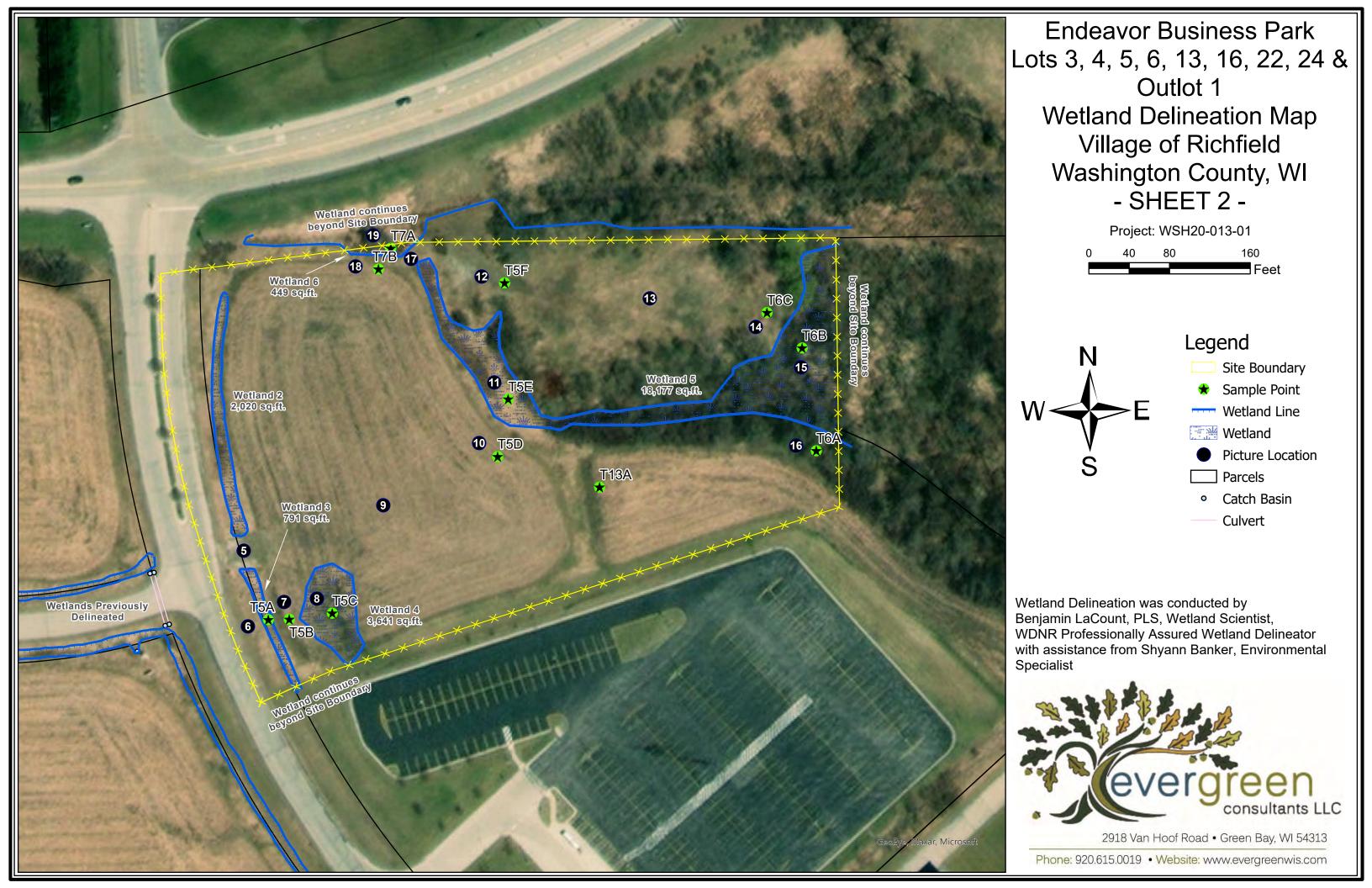
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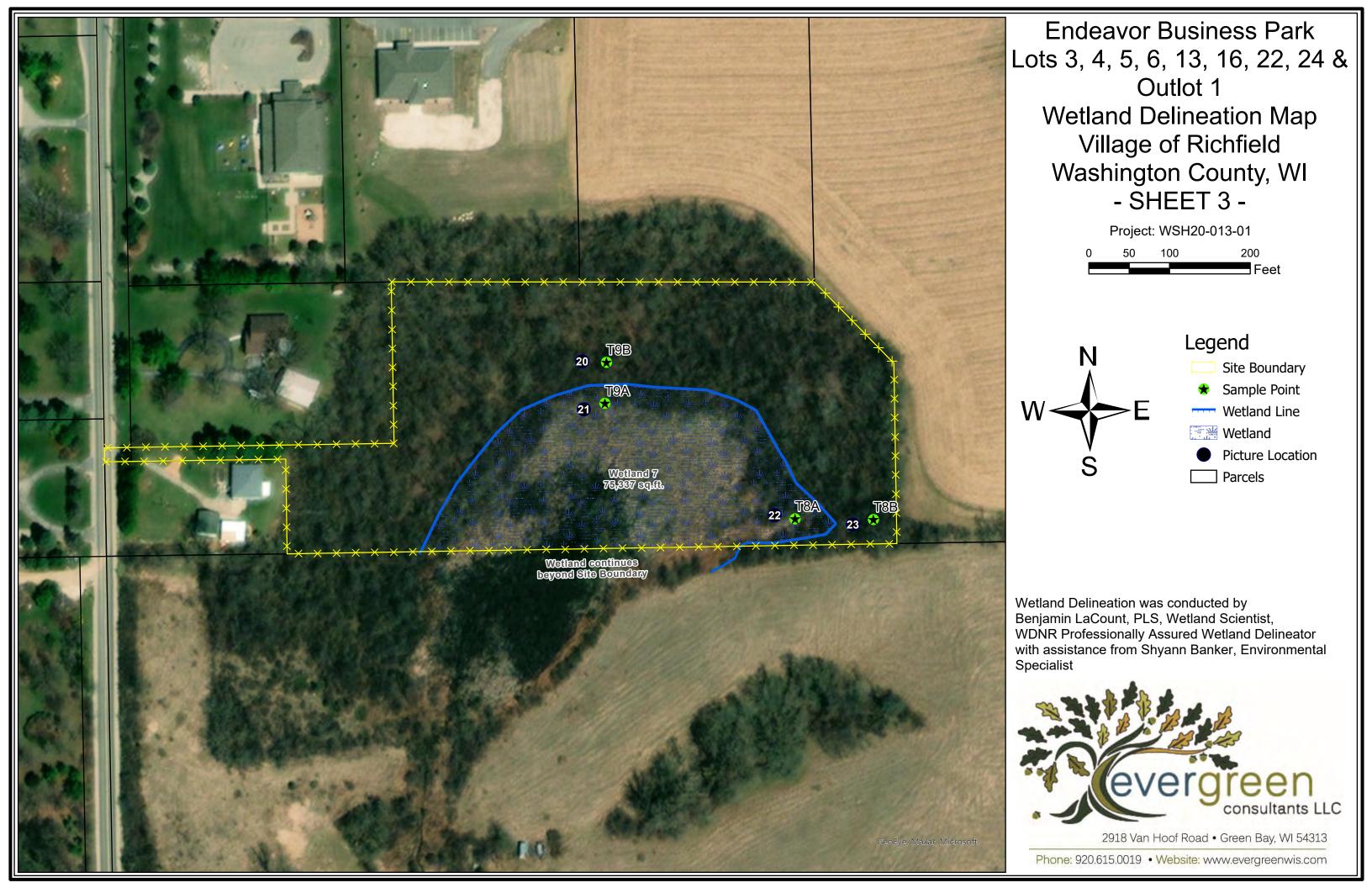
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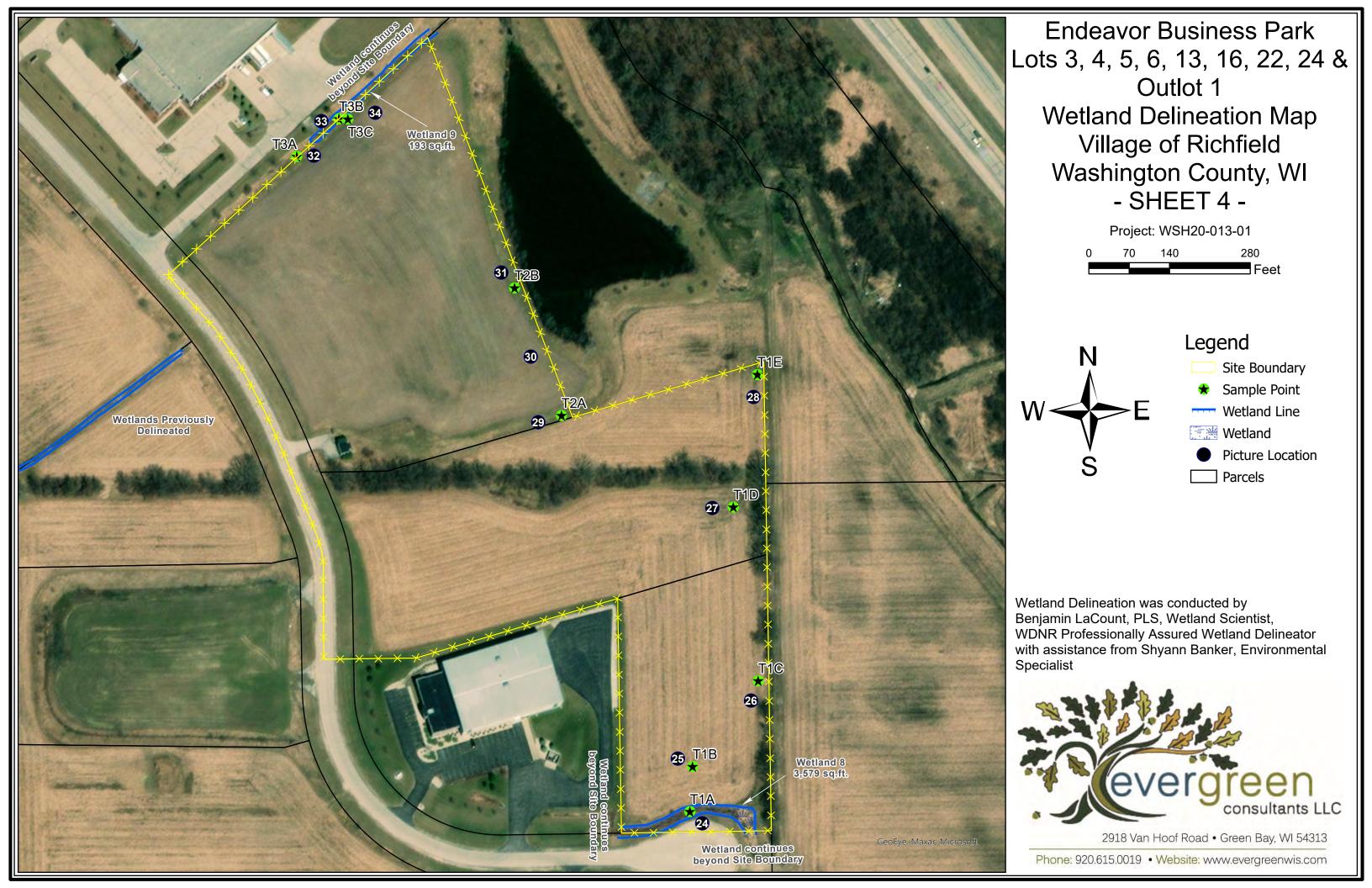
Wetland Delineation was conducted by Benjamin LaCount, PLS, Wetland Scientist, WDNR Professionally Assured Wetland Delineator with assistance from Shyann Banker, Environmental Specialist

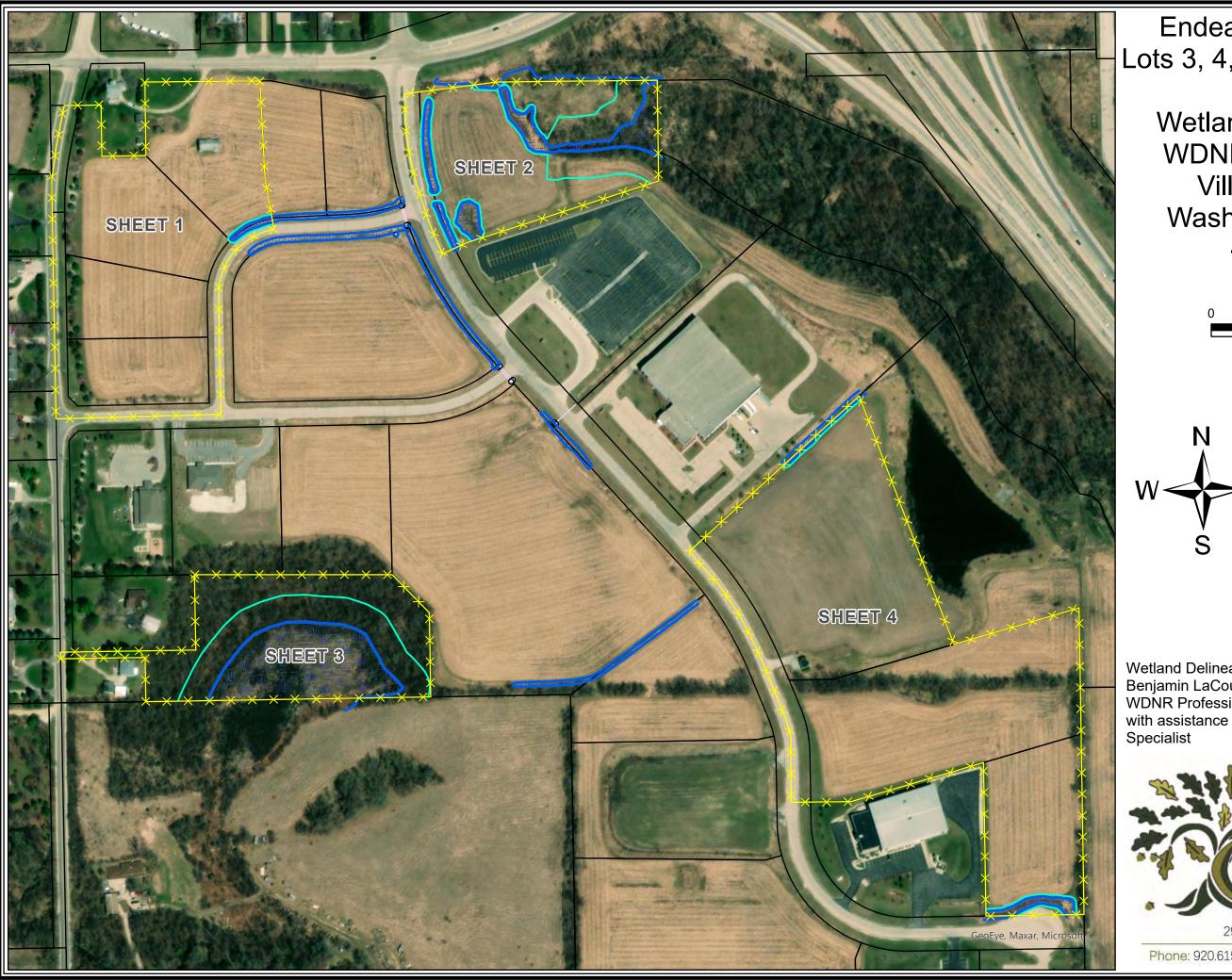


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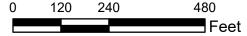


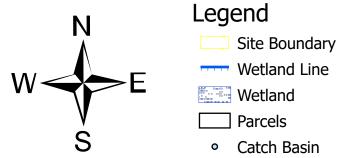




Endeavor Business Park
Lots 3, 4, 5, 6, 13, 16, 22, 24 &
Outlot 1
Wetland Delineation Map
WDNR Protective Areas
Village of Richfield
Washington County, WI
- OVERALL -

Project: WSH20-013-01



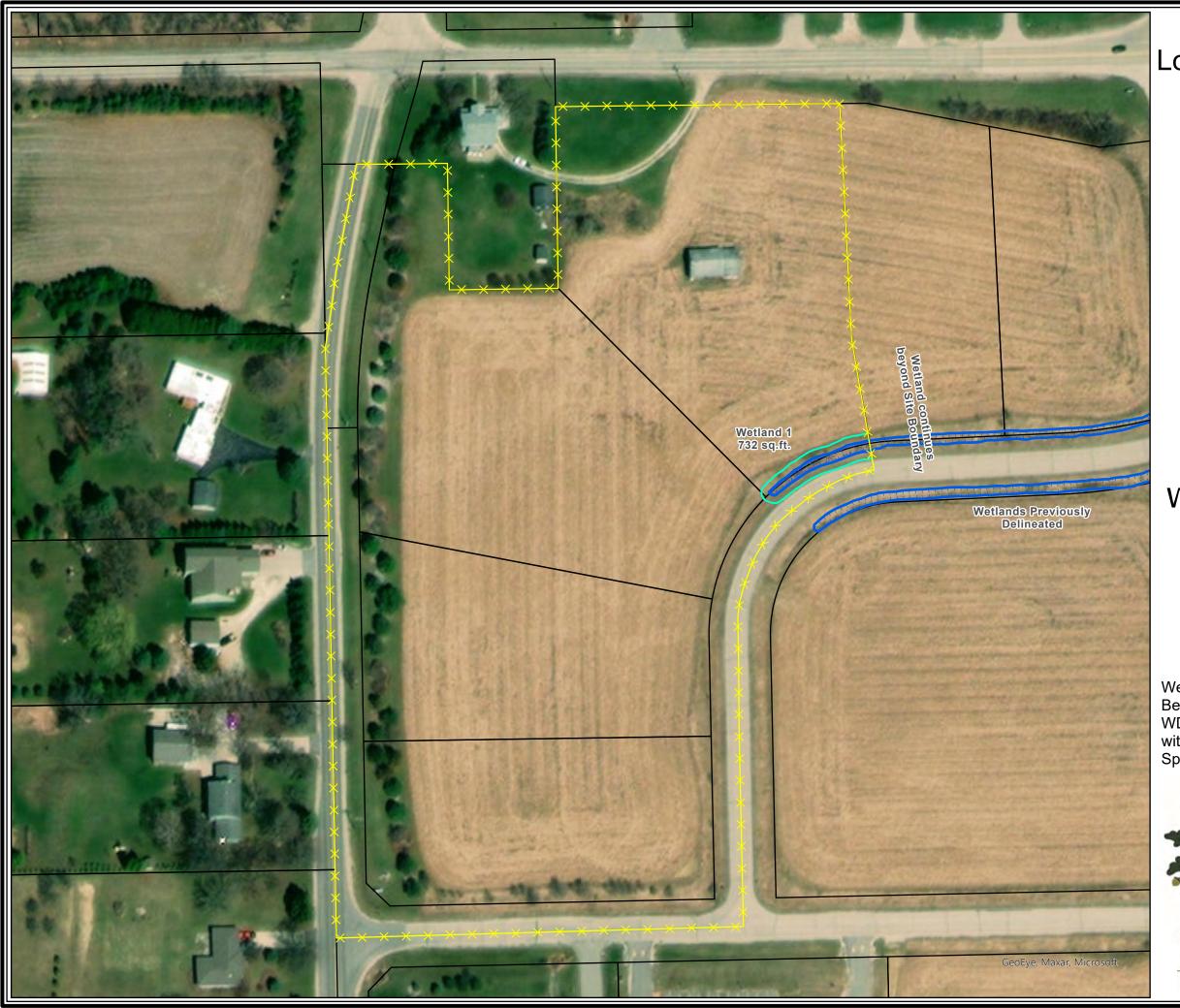


Wetland Delineation was conducted by Benjamin LaCount, PLS, Wetland Scientist, WDNR Professionally Assured Wetland Delineator with assistance from Shyann Banker, Environmental Specialist



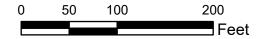
2918 Van Hoof Road • Green Bay, WI 54313

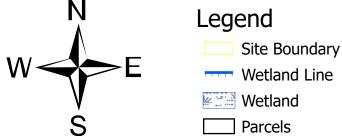
Culvert



Endeavor Business Park
Lots 3, 4, 5, 6, 13, 16, 22, 24 &
Outlot 1
Wetland Delineation Map
WDNR Protective Areas
Village of Richfield
Washington County, WI
- SHEET 1 -

Project: WSH20-013-01

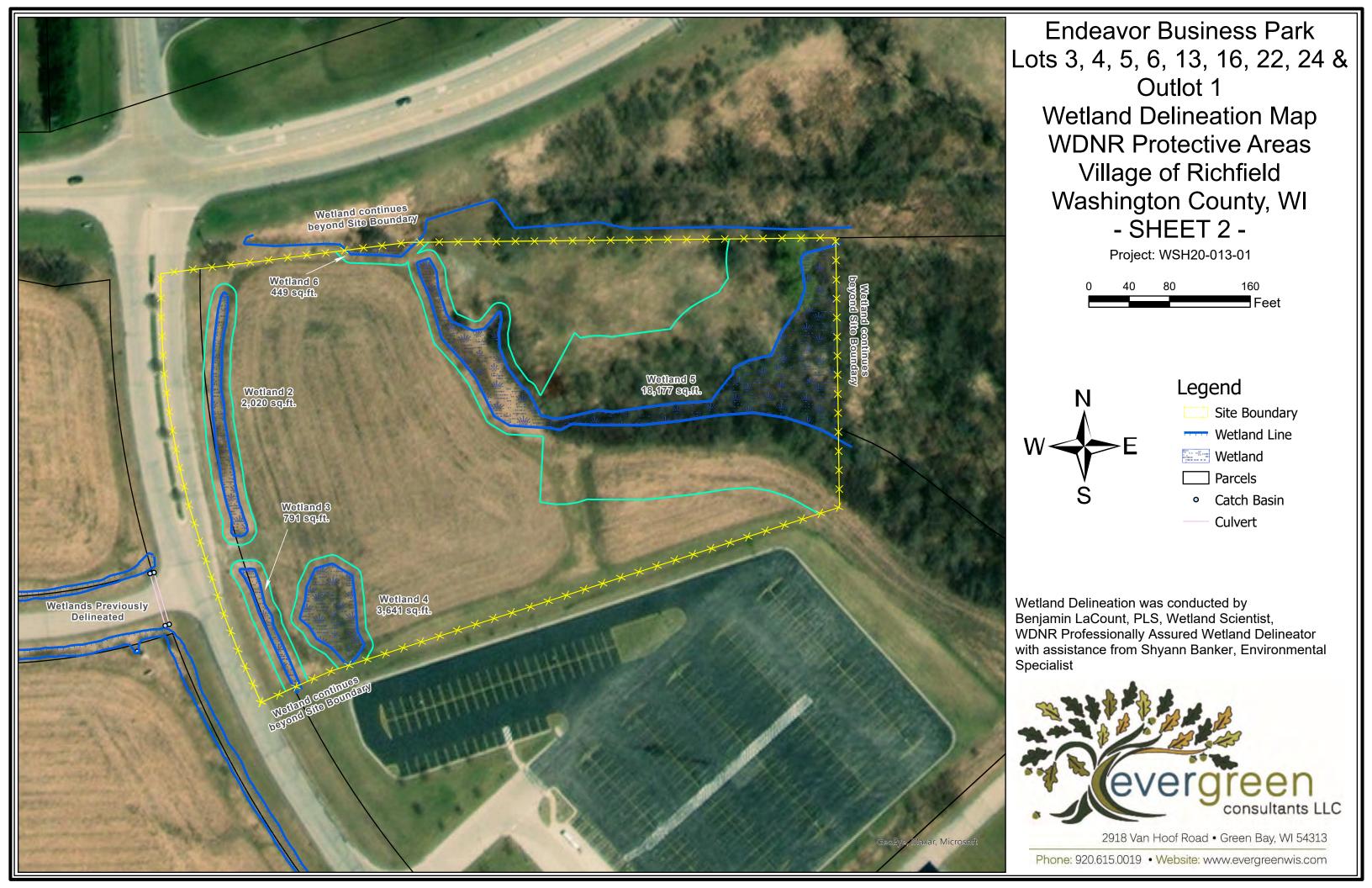


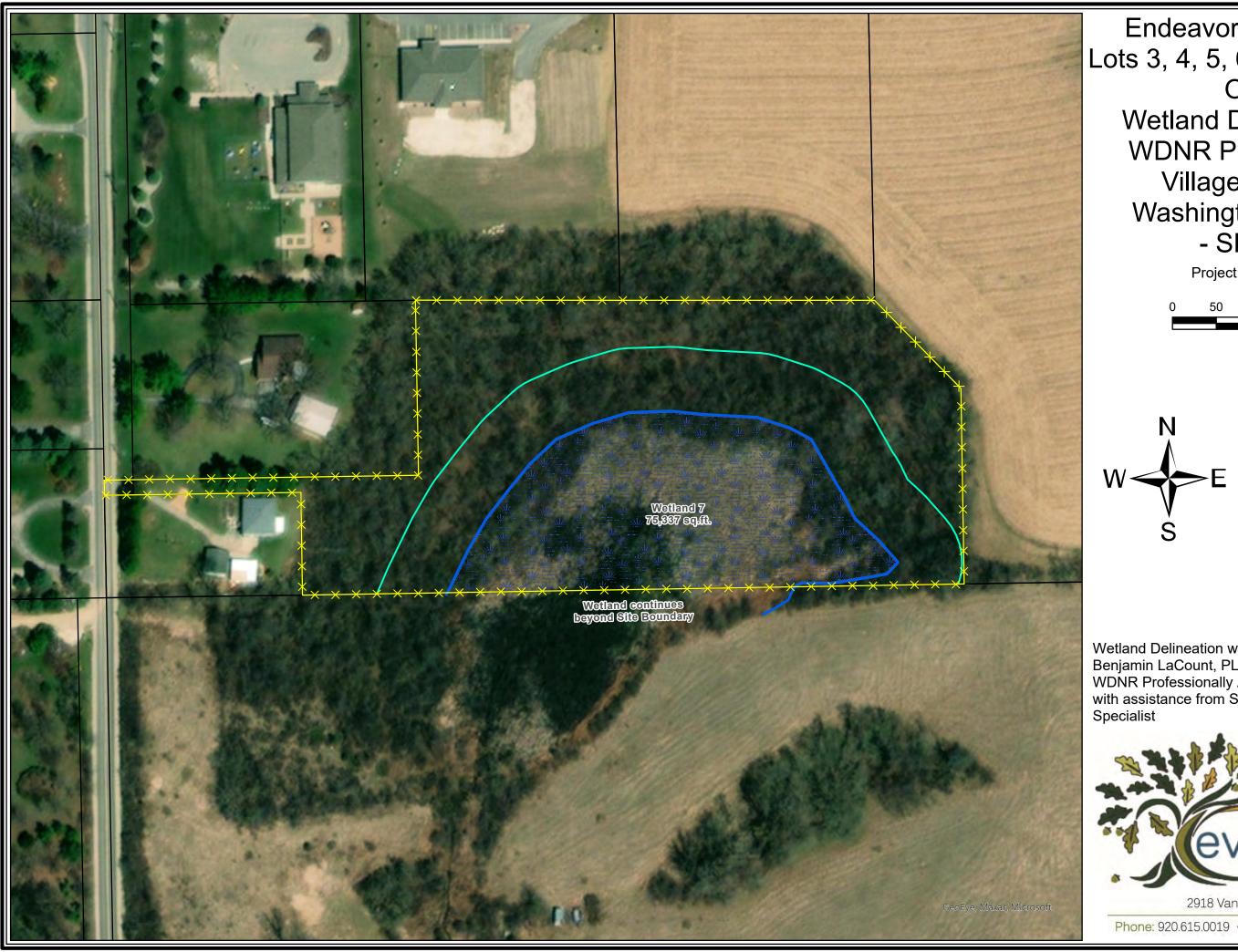


Wetland Delineation was conducted by Benjamin LaCount, PLS, Wetland Scientist, WDNR Professionally Assured Wetland Delineator with assistance from Shyann Banker, Environmental Specialist



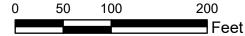
2918 Van Hoof Road • Green Bay, WI 54313

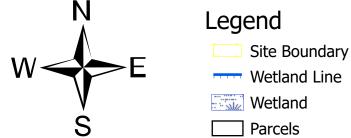




Endeavor Business Park
Lots 3, 4, 5, 6, 13, 16, 22, 24 &
Outlot 1
Wetland Delineation Map
WDNR Protective Areas
Village of Richfield
Washington County, WI
- SHEET 3 -

Project: WSH20-013-01





Wetland Delineation was conducted by Benjamin LaCount, PLS, Wetland Scientist, WDNR Professionally Assured Wetland Delineator with assistance from Shyann Banker, Environmental Specialist

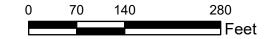


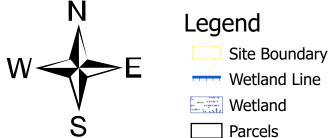
2918 Van Hoof Road • Green Bay, WI 54313



Endeavor Business Park
Lots 3, 4, 5, 6, 13, 16, 22, 24 &
Outlot 1
Wetland Delineation Map
WDNR Protective Areas
Village of Richfield
Washington County, WI
- SHEET 4 -

Project: WSH20-013-01





Wetland Delineation was conducted by Benjamin LaCount, PLS, Wetland Scientist, WDNR Professionally Assured Wetland Delineator with assistance from Shyann Banker, Environmental Specialist



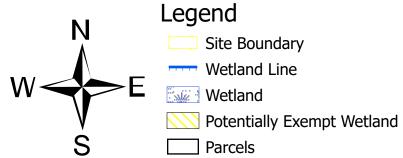
2918 Van Hoof Road • Green Bay, WI 54313



Endeavor Business Park
Lots 3, 4, 5, 6, 13, 16, 22, 24 &
Outlot 1
Wetland Delineation Map
Potentially Exempt Wetlands
Village of Richfield
Washington County, WI
- OVERALL -

Project: WSH20-013-01



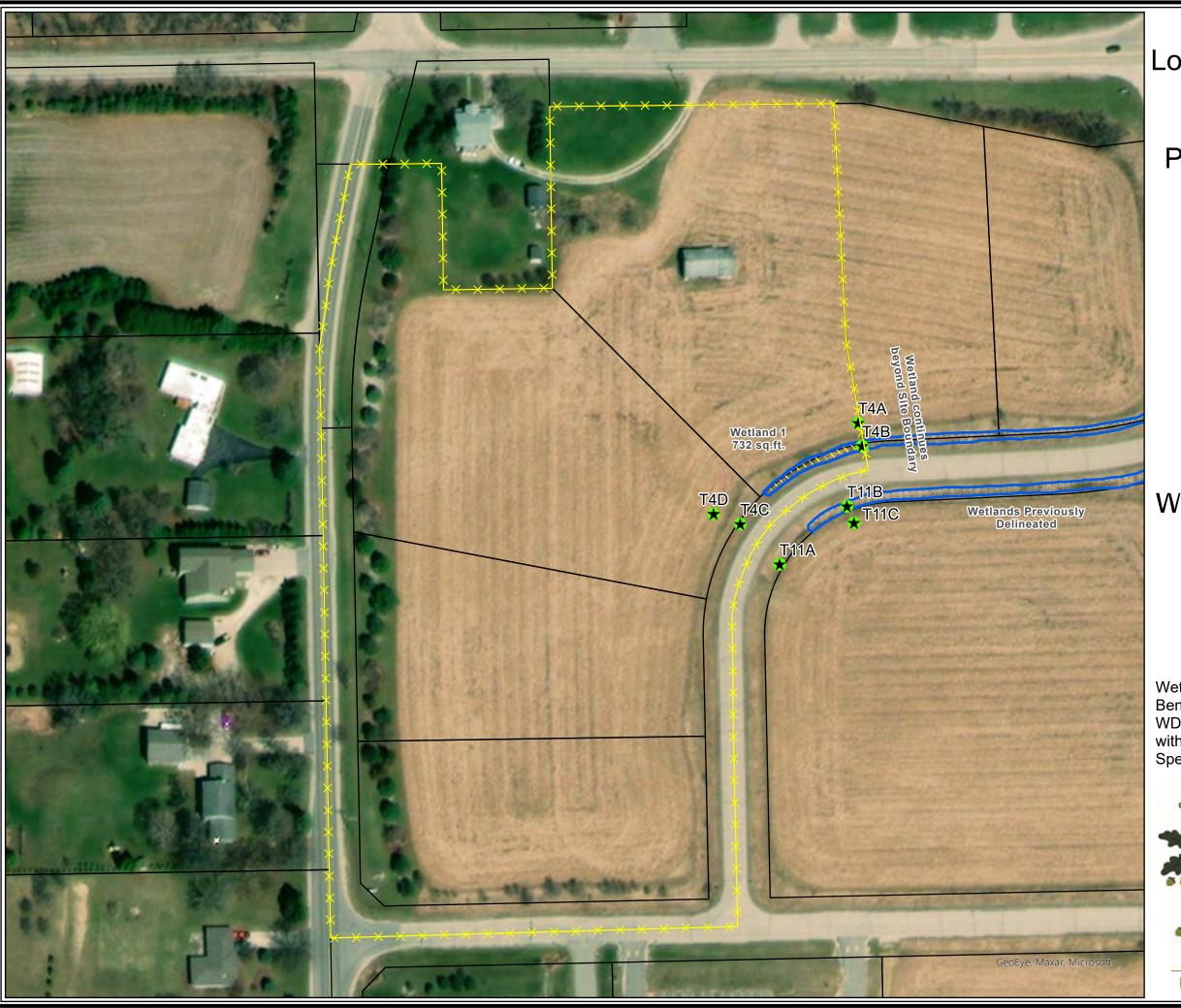


Catch BasinCulvert

Wetland Delineation was conducted by Benjamin LaCount, PLS, Wetland Scientist, WDNR Professionally Assured Wetland Delineator with assistance from Shyann Banker, Environmental Specialist



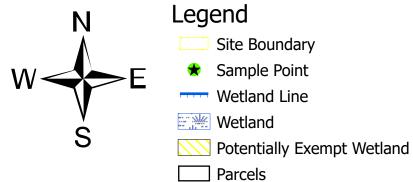
2918 Van Hoof Road • Green Bay, WI 54313



Endeavor Business Park
Lots 3, 4, 5, 6, 13, 16, 22, 24 &
Outlot 1
Wetland Delineation Map
Potentially Exempt Wetlands
Village of Richfield
Washington County, WI
- SHEET 1 -

Project: WSH20-013-01

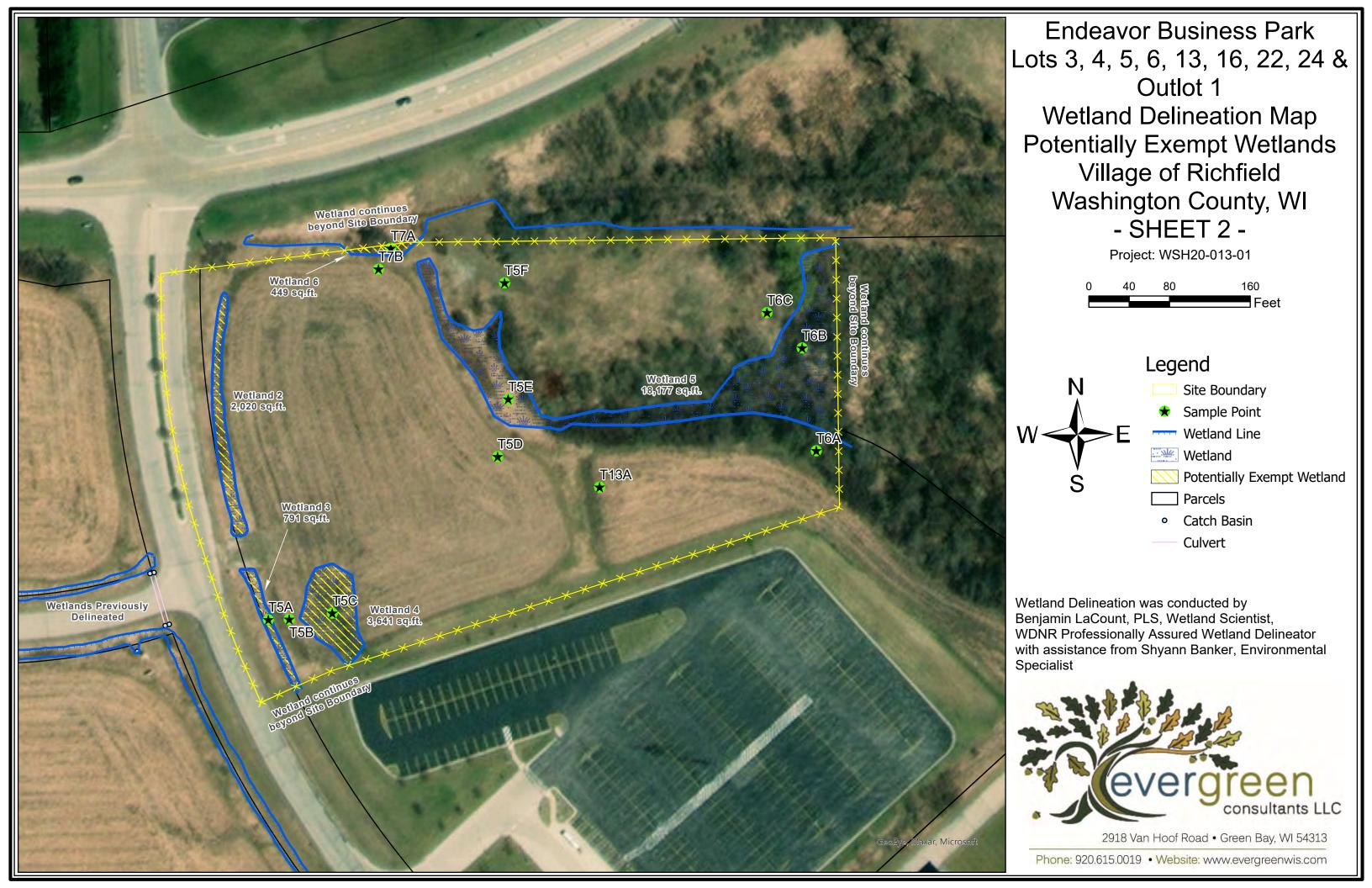


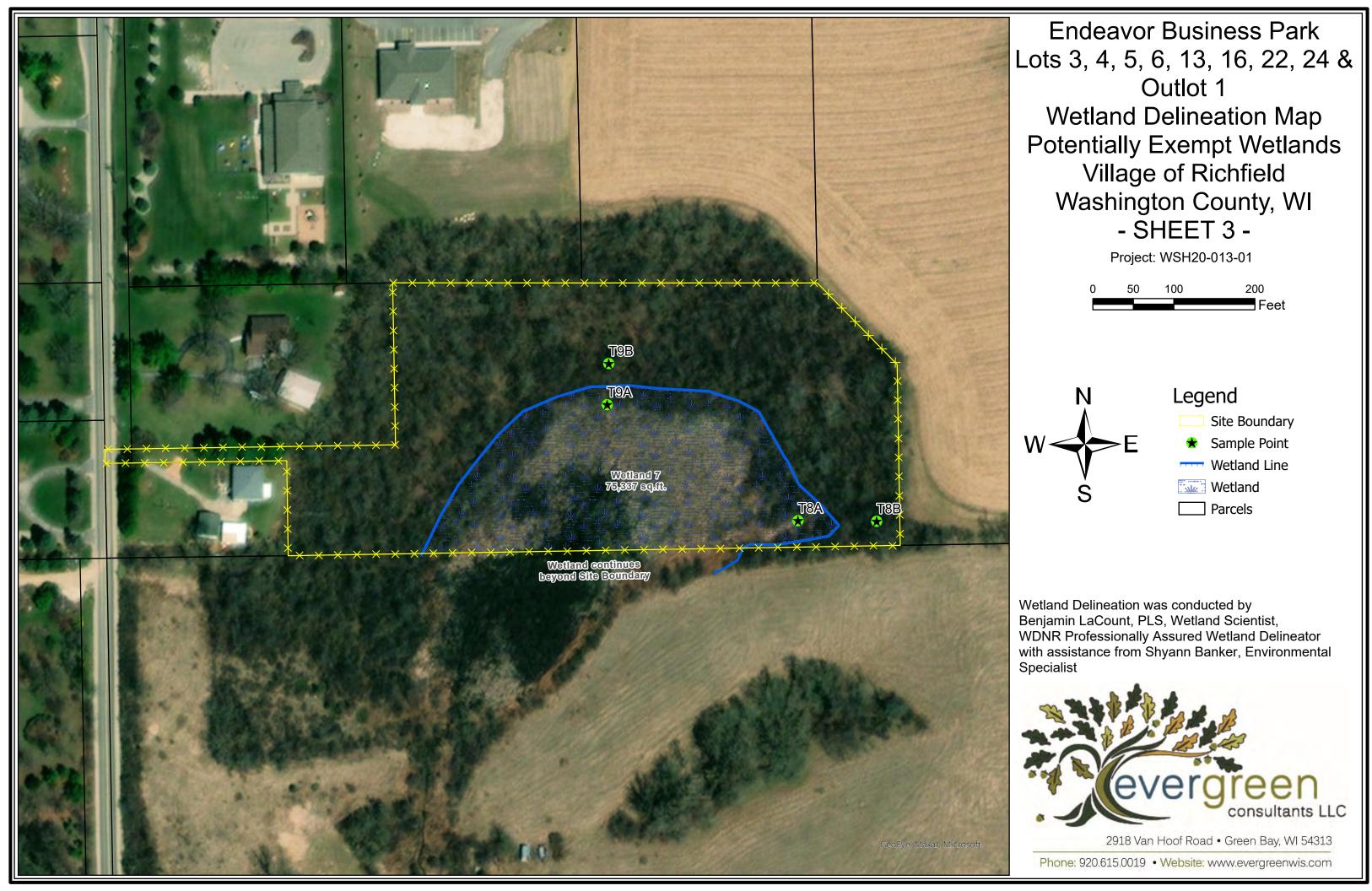


Wetland Delineation was conducted by Benjamin LaCount, PLS, Wetland Scientist, WDNR Professionally Assured Wetland Delineator with assistance from Shyann Banker, Environmental Specialist



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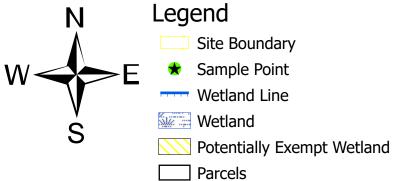




Endeavor Business Park
Lots 3, 4, 5, 6, 13, 16, 22, 24 &
Outlot 1
Wetland Delineation Map
Potentially Exempt Wetlands
Village of Richfield
Washington County, WI
- SHEET 4 -

Project: WSH20-013-01





Wetland Delineation was conducted by Benjamin LaCount, PLS, Wetland Scientist, WDNR Professionally Assured Wetland Delineator with assistance from Shyann Banker, Environmental Specialist

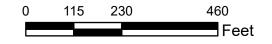


2918 Van Hoof Road • Green Bay, WI 54313



Endeavor Business Park
Lots 3, 4, 5, 6, 13, 16, 22, 24 &
Outlot 1
Topographic Map
Village of Richfield
Washington County, WI

Project: WSH20-013-01





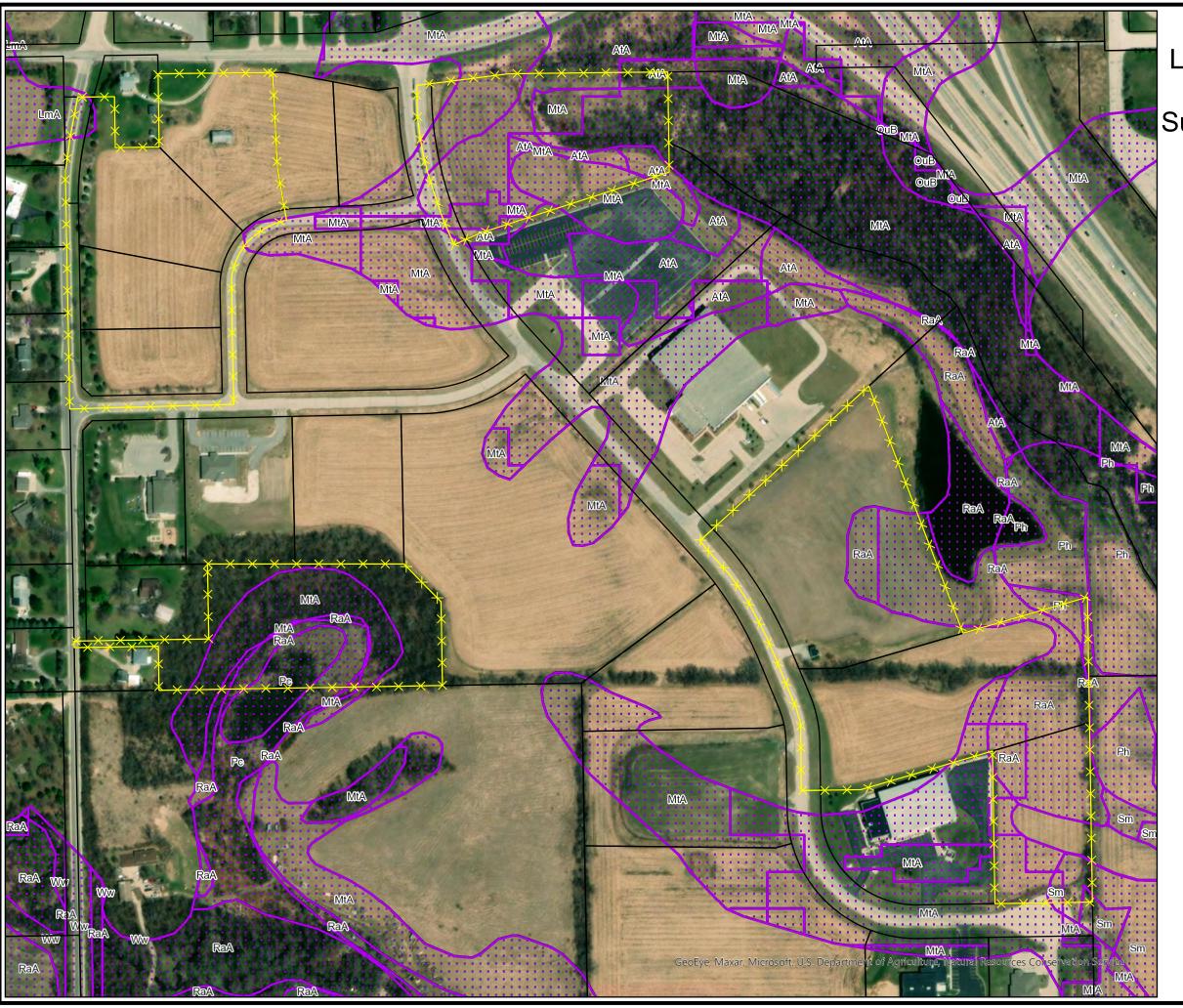
Legend

Site Boundary

Parcels

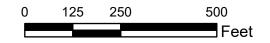


2918 Van Hoof Road • Green Bay, WI 54313



Endeavor Business Park
Lots 3, 4, 5, 6, 13, 16, 22, 24 &
Outlot 1
Surface Water Data Viewer Map
Village of Richfield
Washington County, WI

Project: WSH20-013-01





Legend

Site Boundary

Parcels

Wetland Indicators

USDA Wetspots

Maximum Extent Wetland Indicators



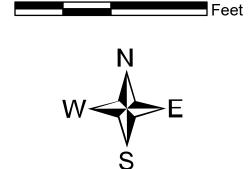
2918 Van Hoof Road • Green Bay, WI 54313



Endeavor Business Park
Lots 3, 4, 5, 6, 13, 16, 22, 24 &
Outlot 1
National Wetland Inventory Map
Village of Richfield
Washington County, WI

Project: WSH20-013-01

500



Legend

Site Boundary

Parcels

Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

Freshwater Pond

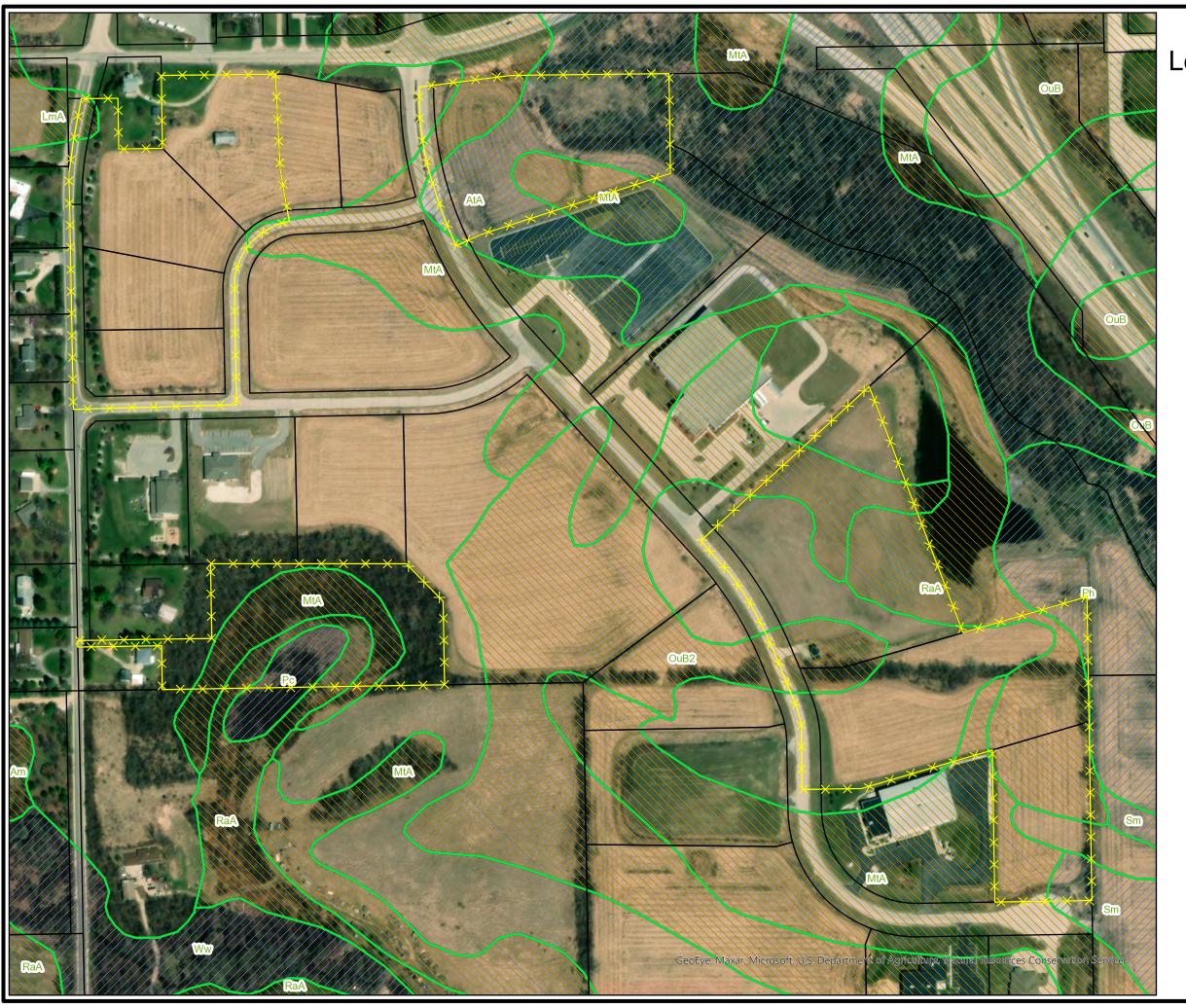
Lake

Other

Riverine



2918 Van Hoof Road • Green Bay, WI 54313



Endeavor Business Park
Lots 3, 4, 5, 6, 13, 16, 22, 24 &
Outlot 1
NRCS Hydric Rating Map
Village of Richfield
Washington County, WI

Project: WSH20-013-01



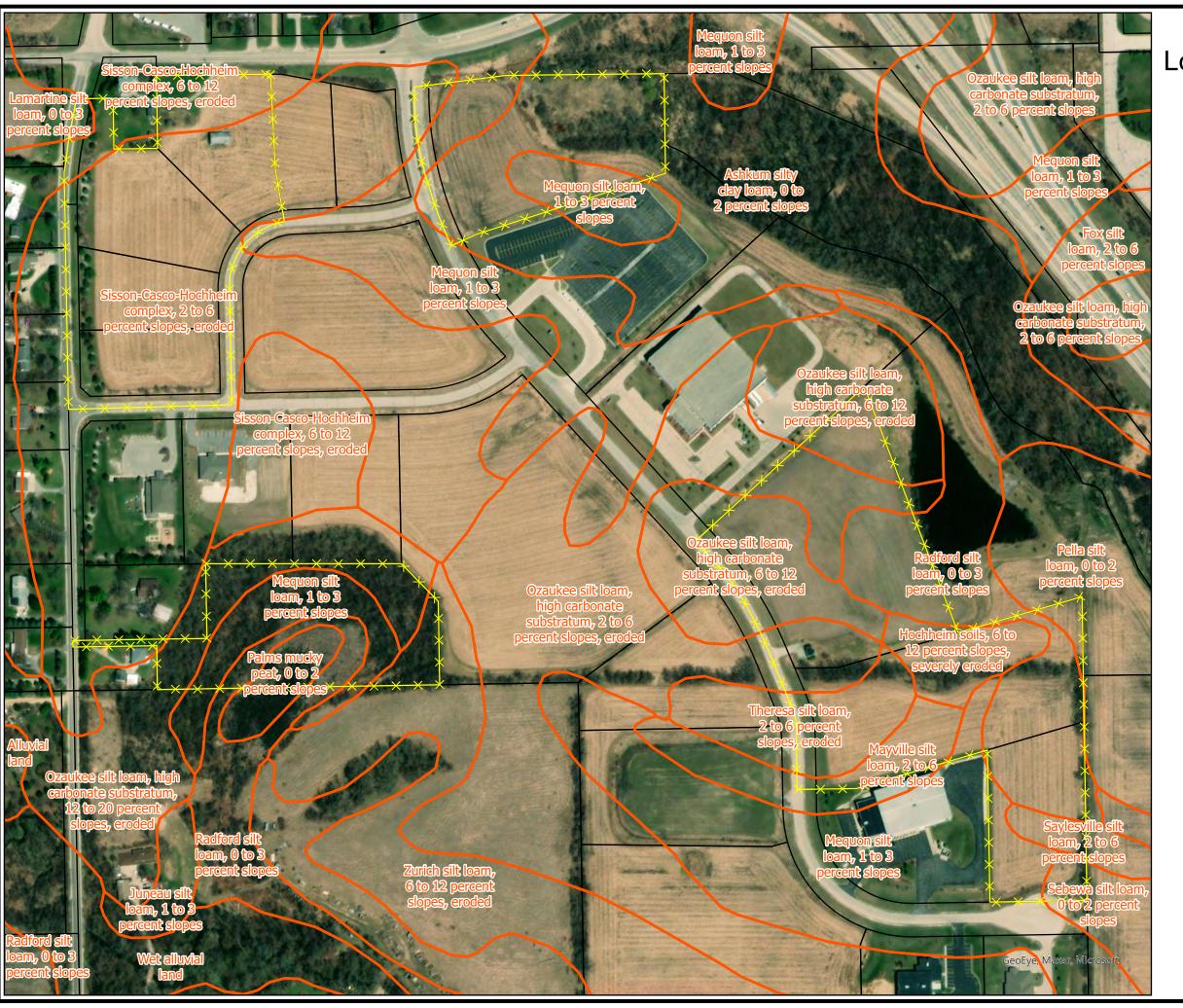


Legend

- Site Boundary
- Parcels
- Hydric
- Predominantly Hydric
- Partially Hydric
- Predominantly Non-Hydric



2918 Van Hoof Road • Green Bay, WI 54313



Endeavor Business Park
Lots 3, 4, 5, 6, 13, 16, 22, 24 &
Outlot 1
NRCS Soils Map Units
Village of Richfield
Washington County, WI

Project: WSH20-013-01





Legend

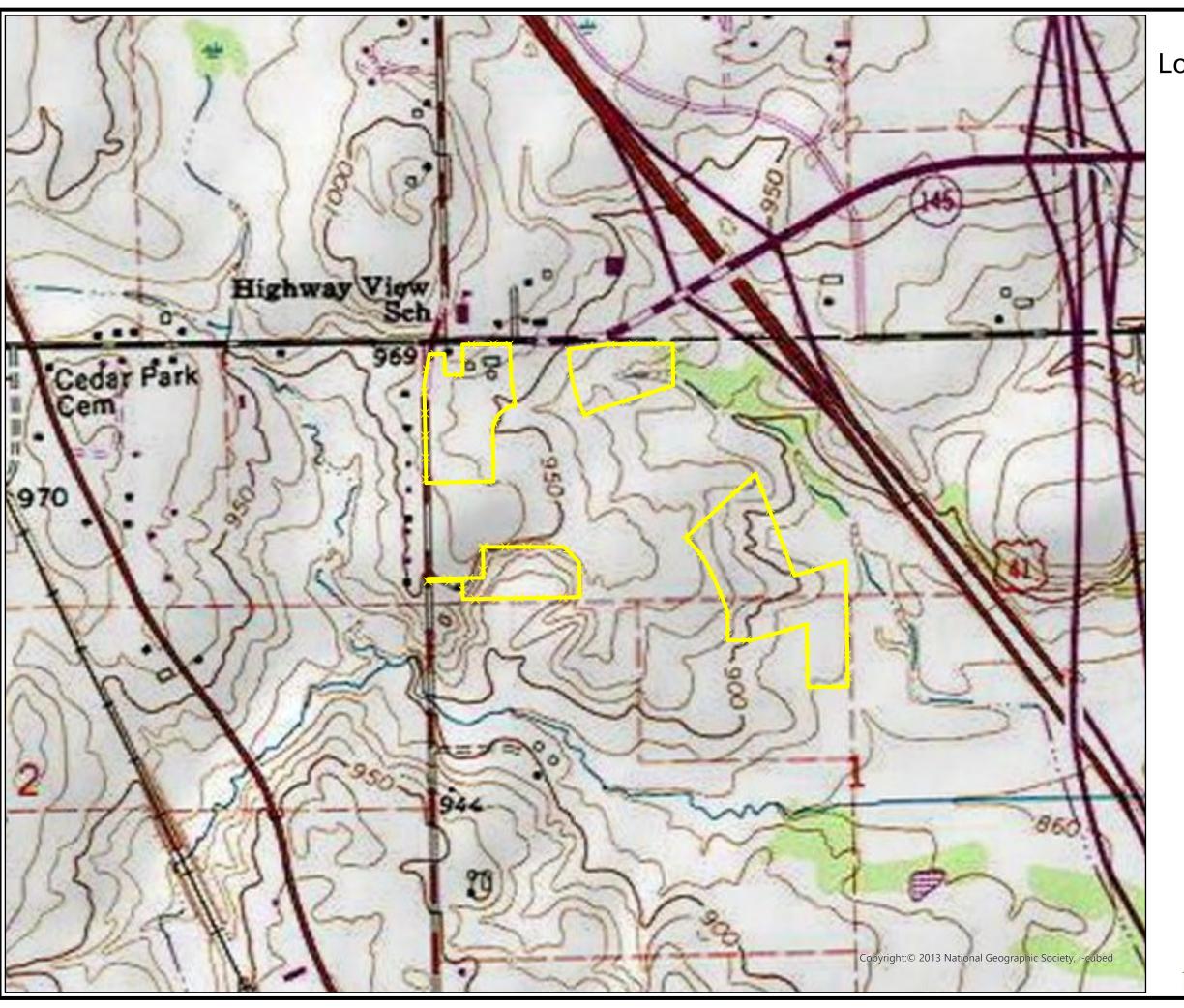
Site Boundary

Parcels

USA Soils Map Units



2918 Van Hoof Road • Green Bay, WI 54313



Endeavor Business Park
Lots 3, 4, 5, 6, 13, 16, 22, 24 &
Outlot 1
Quadrangle Map
Village of Richfield
Washington County, WI

Project: WSH20-013-01





Legend

Site Boundary



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Appendix B:

Site Pictures



1- Standing near T4A.



2- Standing near T4B.



3- Standing near T4C.



4- Standing near T4D.



5- Standing at the entrance north of T5A.



6- Standing near T5A.



7- Standing near T5B.



8- Standing near T5C.



9- Standing near the middle of the field.



10- Standing near T5D.



11- Standing near T5E.



12- Standing near T5F.



13- Standing between T5F and T6C.



14- Standing near T6C.



15- Standing near T6B.



16- Standing near T6A.



17- Standing at the crossing south of T7A.



18- Standing near T7B.



19- Standing near T7A.



20- Standing near T9B.



21- Standing near T9A.



22- Standing near T8A.



23- Standing near T8B.



24- Standing near T1A.



25- Standing near T1B.



26- Standing near T1C.



27- Standing near T1D.



28- Standing near T1E.



29- Standing near T2A.



30- Standing between T2A and T2B.



31- Standing near T2B.



32- Standing near T3A.



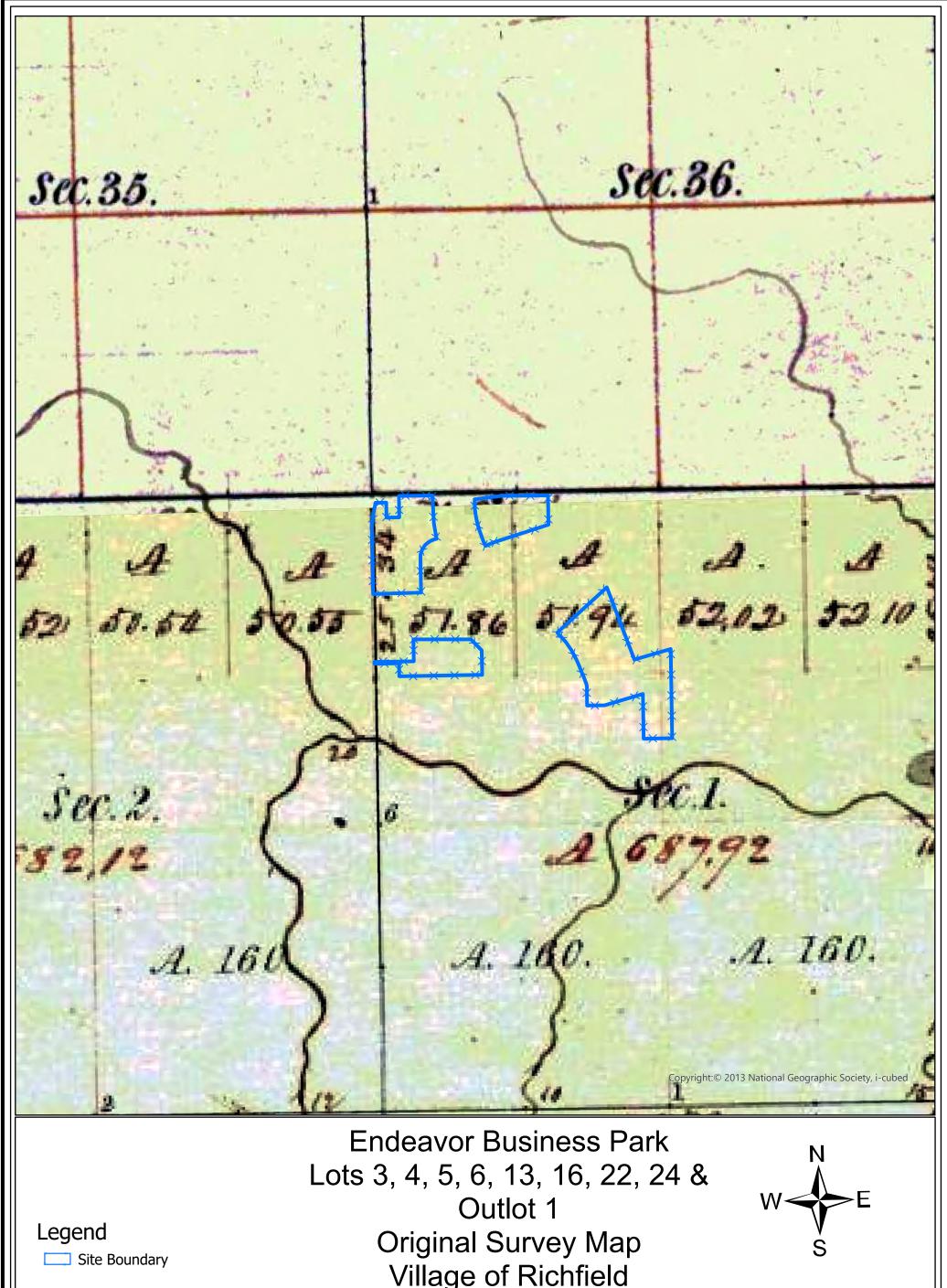
33- Standing near T3B.



34- Standing near T3C.

Appendix C:

Original Survey, Notes, and Bordner Map



Village of Richfield Washington County, WI

Project: WSH20-013-01

400 800 1,600 Feet

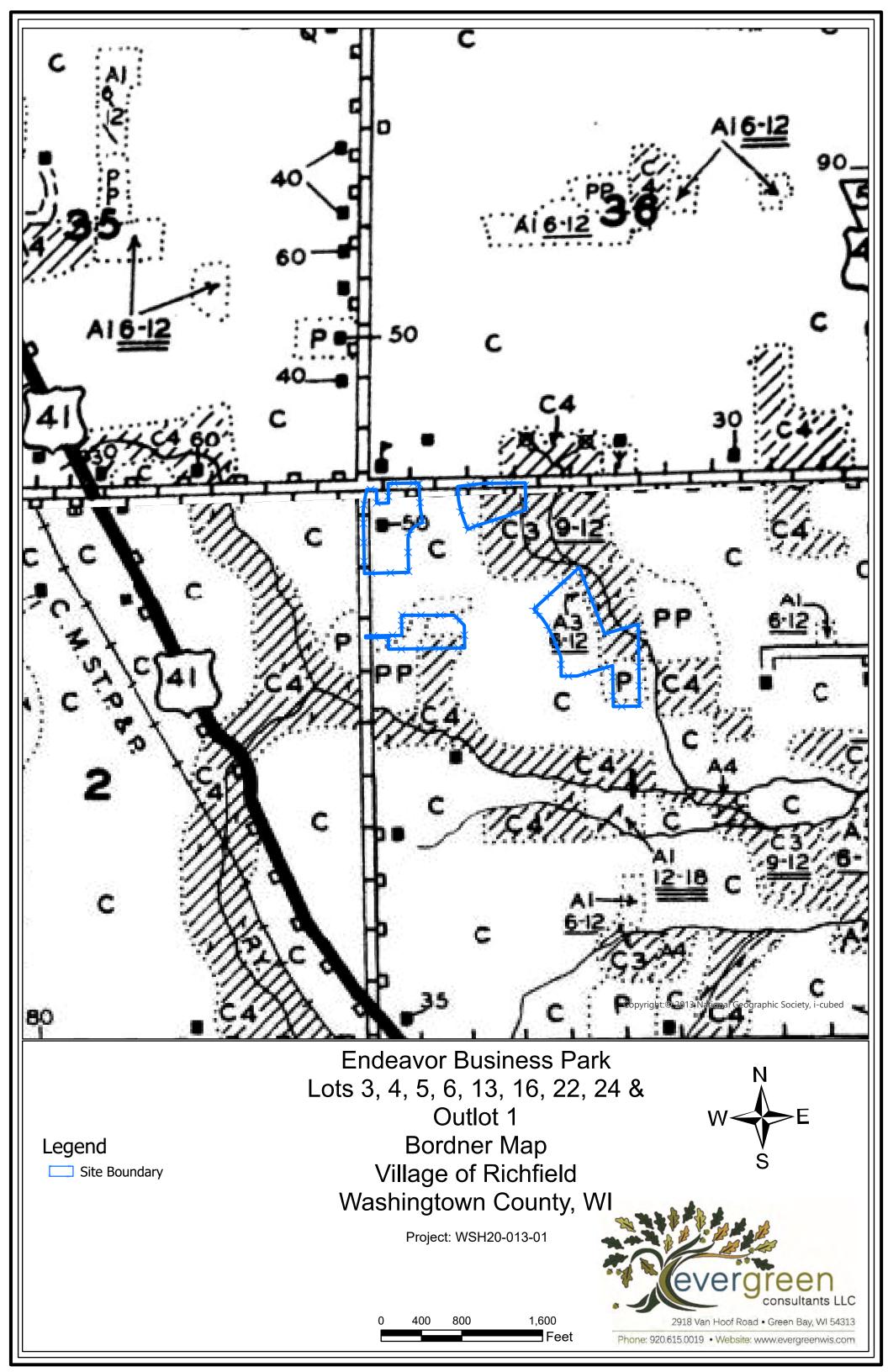


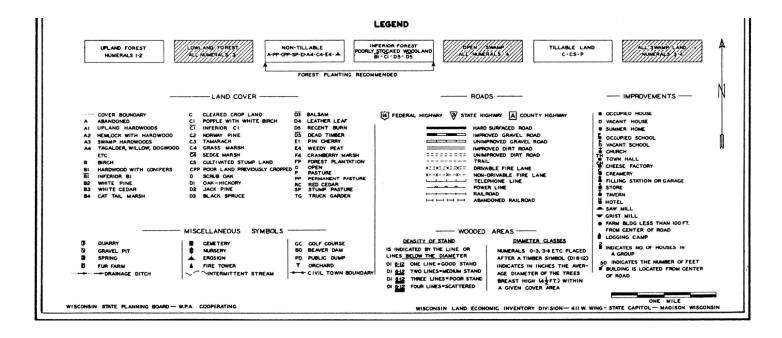
2918 Van Hoof Road . Green Bay, WI 54313

Phone: 920.615.0019 • Website: www.evergreenwis.com

41 South Boundary of Township No. 10 North. Var 6° 40' West On South Side Section 36 10.00 Brook 7 CS. E 12.61 Lynn 8 35.87 Buch 18 40.00 Set quarter Section fort Buch 12 h 34 1133 Do 22 n26 844 76.27 Sugar 8 80.00 Let port cor Secti 35736 Buch 8 N44 # 27 DO 10 N42 8 64 Sand gently rolling first Lynn Somwood ye

Original Survey Notes





Δι	nı	n	ام	n	di	iv	D	•
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Historic Aerial Photographs and Hydrology Assessment



Site Boundary

Hydrology As	Hydrology Assessment with Aerial Imagery - Recording Form									
Project Name: WSH20-013-01		Date: 10/04/2020 County: Washington								
Investigator: Ben LaCount		Legal Descrip	tion (Sec, T, R)	: Section 1, T	9N-R19E					
Year Image Source	Climate Condition (wet, dry,	Interpretation (List hydrology indicators observed, e.g. crop stress, drowned out, standing water, etc.)								
		normal)	Α	В	С	D	Е	F	G	Н
1941	Washington Co.	NO DATA	NV	SS	SS	NV	NSS	NSS	NSS	
1950	Washington Co.	N	NV	SS	NSS	NV	NV	NV	NV	
1963	Washington Co.	N	NV	SS	SS	SS	SS	NV	NV	
1970	Washington Co.	N	NSS	SS	NSS	NSS	NSS	NSS	NSS	
1979	FSA	N	NV	NV	NV	NV	NV	NV	CS	
1980	FSA	N	SS	SS	SS	NSS	NSS	NSS	SS	
1981	FSA	N	NV	NV	NV	NV	NSS	NV	NV	
1982	FSA	N	NSS/NV	NS	NV	NSS	NSS	AP	NV	
1983	FSA	N	NV	NV/NSS	AP	NV	NV	NSS	SS	
1984	FSA	W	NV	NV/NSS	NV	NV	CS	CS	CS	
1985	Washington Co.	D	NV	NV/NSS	NV	NSS	SS	SS	NSS	
1986	FSA	N	NV/NSS	NSS/NV	NSS	NSS	NV	SS	NSS	
1987	FSA	D	NSS/NV	NV	NV	NV	NV	NV	NV	
1988	FSA	D	CS	CS	CS	NV	SS	CS	NV	
1989	FSA	N	NSS/NV	NSS/NV	NSS	NSS	NSS	NSS	NSS	
1990	Washington Co.	N	NV	NV	NV	NV	NV	NV	NV	
1991	FSA	N	NV	NV	NV	NV	CS	NV	NV	
1992	FSA	D	NV	NV	NV	NV	CS	NV	NV	
1993	FSA	W	CS	NV	NV	NV	NV	NV	NV	
1994	FSA	N	NV	NV/NSS	NV	AP	AP	NV	NV	
1995	FSA	D	NV	NV	NV	NV	NV	NV	NV	
1996	FSA	W	NSS/NV	NSS	NSS	NV	AP	NV	NV	
1997	FSA	N	NSS/NV	NV/NSS	NV	NV	NV	NV	NV	
1998	FSA	N	NSS/NV	NV/NSS	NV	NSS	NV	NV	NV	
1999	FSA	W	AP	AP	CS	CS	CS	NV	NV	
2000	Washington Co.	W	NSS/NV	NV/NSS	CS	NSS	NSS	NSS	NSS	
2001	FSA	N	NV	CS	NV	NV	NV	NV	NV	
2002	FSA	N	NV	NV	NV	NV	NV	NV	NV	
						ted throughou		1	1	
2005	Washington Co.	N	NSS	SS	NSS	DISTURBED	NSS	NV	NV	
2006	Google Earth	N	NSS	CS	NV/NSS	DISTURBED	CS	NV	NV	
2007	Google Earth	N	NV	AP	NV	NV	NV	NV	CS	
2008	Google Earth	W	NV	CS	CS	CS	SS	CS	CS	
2010	Google Earth	N	NV	NV	NV	NV	NSS	NSS	NSS	
2011	Google Earth	W	NSS	CS	NSS/NV	NV	CS	NV	NV	
2013	Google Earth	W	NSS	SS	SS	NV	NSS	NSS	NSS	
2015	Washington Co.	W	NV	CS	CS	NV	NV	NV	NV	
2017	Google Earth	W	CS	CS	CS	NV	CS	CS	NV	
2018	Google Earth	W	NV	SS	CS	NV	CS	NV	NV	
Summary Tal			A	В	C	D	E	F	G	Н
# Normal Yrs		21	21	21	19	21	21	21		
	# Normal Yrs. With wet signature			8	3	2	4	2	4	
% Normal Yrs. With wet signature		5%	38%	14%	11%	19%	10%	19%		

^{*}Use key below to label photo interpretations. It is imperative that the reviewer read and understand the guidace associated with the used of these labels if alternamte labels are used, indicate in box below

Key	
WS- Wetland Signatures	AP - altered pattern
CS - Vegetation Stress	NV - normal vegetative cover
DO - drowned out	SW - standing water
NC - not cropped	SS/NSS - Soil Signature/No Soil Signature

Field data sheet reference (if applicable):	

Wetland Determination from Aerial Imagery - Recording Form

Project Name:	WSH20-013-01
Investigator:	Ben LaCount
County:	Washington

Date:	10/4/2020
Legal Description (S, T, R):	Section 1, T9N-R19E

Use the Decision Matrix below to complete Table 1.

Hydric Soils Present (*1)	Identified on NWI or other wetland map (*2)	Percent with wet signatures from Exhibit 1	Field verification required (*3)	Wetland?
Yes	Yes	>50%	No	Yes
Yes	Yes	30-50%	No	Yes
Yes	Yes	<30%	Yes	Yes, if other hydrology indicators present
Yes	No	>50%	No	Yes
Yes	No	30-50%	Yes	Yes, if other hydrology indicators present
Yes	No	<30%	No	No
No	Yes	>50%	No	Yes
No	Yes	30-50%	No	Yes
No	Yes	<30%	No	No
No	No	>50%	Yes	Yes, if other hydrology indicators present
No	No	30-50%	Yes	Yes, if other hydrology indicators present
No	No	<30%	No	No

^{*1} The presence of hydric soils can be determined from the "Hydric Rating by Map Unit Feature" under "Land Classifications" from the Web Soil Survey. "Not Hydric" is the only category considered to not have hydric soils. Field sampling for the presence/absence of hydric soil indicators can be used in lieu of the hydric rating if appropriately documented by providing completed field data sheets.

Table 1

Area	Hydric Soils Present	Identified on NWI or other wetland map	Percent with wet signatures from Exhibit 1	Other hydrology indicators present (*1)	Wetland?
Α	NO	NO	5%	NO	NO
В	YES	NO	38%	YES	YES
С	YES	NO	14%	NO	NO
D	YES	NO	11%	NO	NO
Е	YES	NO	19%	NO	NO
F	YES	NO	10%	NO	NO
G	YES	NO	19%	NO	NO

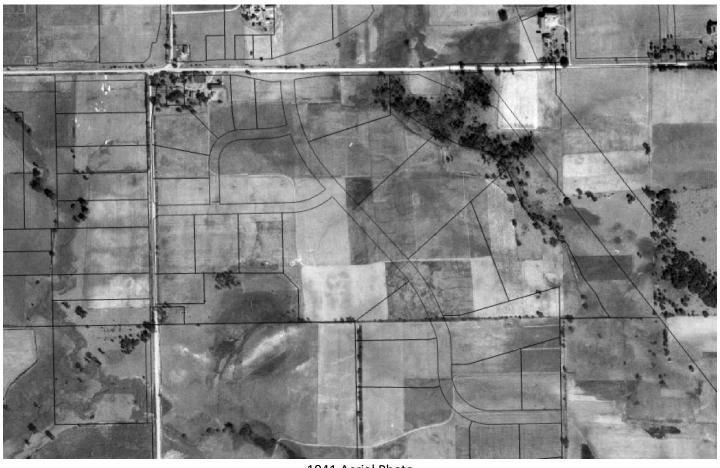
^{*1} Answer "N/A" if field verification is not required.

^{*2} At minimum, the most updated NWI data available for the area must be reviewed for this step. Any and all other local or regional wetland maps that are publically available should be reviewed.

^{*3} Area should be reviewed in the field for the presence/absence of wetland hydrology indicators per the applicable 87 Manual Regional Supplement, including the D2 indicator (geomorphic position).



1937 Aerial Photo



1941 Aerial Photo



1950 Aerial Photo



1963 Aerial Photo



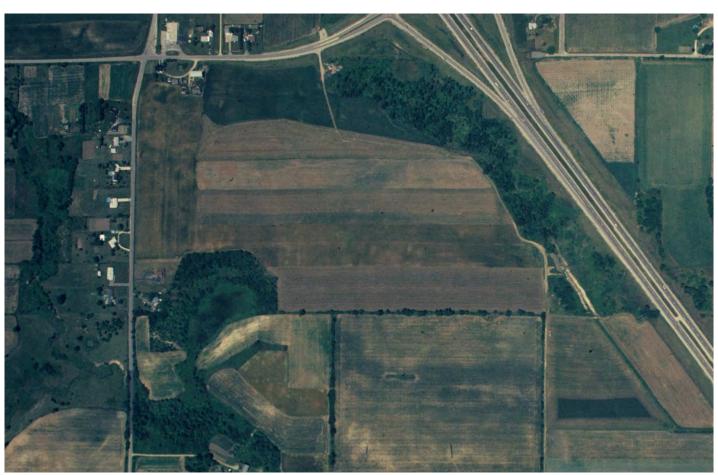
1970 Aerial Photo



1979 Aerial Photo



1980 Aerial Photo



1981 Aerial Photo



1982 Aerial Photo



1983 Aerial Photo



1984 Aerial Photo



1985 Aerial Photo



1986 Aerial Photo



1987 Aerial Photo



1988 Aerial Photo



1989 Aerial Photo



1990 Aerial Photo



1991 Aerial Photo



1992 Aerial Photo



1993 Aerial Photo



1994 Aerial Photo



1995 Aerial Photo



1996 Aerial Photo



1997 Aerial Photo



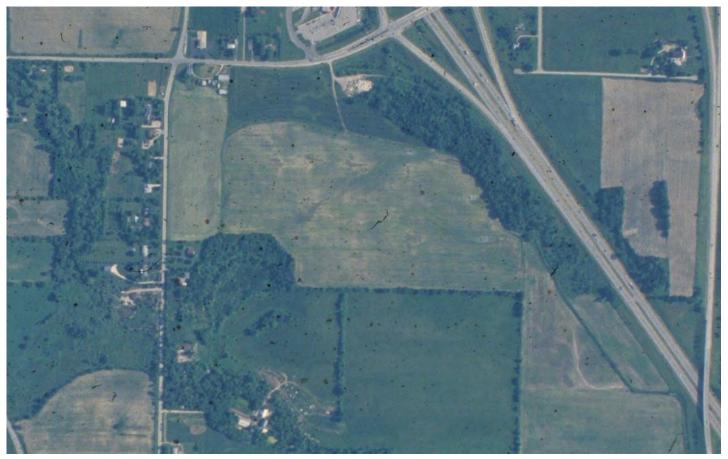
1998 Aerial Photo



1999 Aerial Photo



2000 Aerial Photo



2001 Aerial Photo



2002 Aerial Photo



2005 Aerial Photo



2006 Aerial Photo



2007 Aerial Photo



2008 Aerial Photo



2010 Aerial Photo



2011 Aerial Photo



2013 Aerial Photo



2015 Aerial Photo



2017 Aerial Photo



Appendix E:

NRCS County Soil Survey Report



NRCS

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 Washington County, Wisconsin





MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Unit Polygons

Soil Map Unit Lines

Soil Map Unit Points

Special Point Features

(o)

Blowout

Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Sodic Spot

Slide or Slip

Spoil Area



Stony Spot



Very Stony Spot



Wet Spot Other



Special Line Features

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes



Major Roads



Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15.800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Washington County, Wisconsin Survey Area Data: Version 20, Jun 8, 2020

Soil map units are labeled (as space allows) for map scales 1:50.000 or larger.

Date(s) aerial images were photographed: Apr 29, 2011—Sep 6, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Am	Alluvial land	0.0	0.0%
AtA	Ashkum silty clay loam, 0 to 2 percent slopes	27.8	14.6%
FsB	Fox silt loam, 2 to 6 percent slopes	1.7	0.9%
HmB	Hochheim loam, 2 to 6 percent slopes	3.9	2.0%
HmB2	Hochheim loam, 2 to 6 percent slopes, eroded	0.6	0.3%
HmC2	Hochheim loam, 6 to 12 percent slopes, eroded	1.0	0.5%
HoC3	Hochheim soils, 6 to 12 percent slopes, severely eroded	1.5	0.8%
JuA	Juneau silt loam, 1 to 3 percent slopes	1.0	0.5%
LmA	Lamartine silt loam, 0 to 3 percent slopes	0.7	0.4%
МоВ	Mayville silt loam, 2 to 6 percent slopes	2.4	1.3%
MtA	Mequon silt loam, 1 to 3 percent slopes	39.1	20.5%
OuB	Ozaukee silt loam, high carbonate substratum, 2 to 6 percent slopes	5.9	3.1%
OuB2	Ozaukee silt loam, high carbonate substratum, 2 to 6 percent slopes, eroded	18.4	9.6%
OuC2	Ozaukee silt loam, high carbonate substratum, 6 to 12 percent slopes, eroded	8.4	4.4%
OuD2	Ozaukee silt loam, high carbonate substratum, 12 to 20 percent slopes, eroded	7.5	3.9%
Pc	Palms mucky peat, 0 to 2 percent slopes	1.1	0.6%
Ph	Pella silt loam, 0 to 2 percent slopes	4.4	2.3%
RaA	Radford silt loam, 0 to 3 percent slopes	10.4	5.5%
ShB	Saylesville silt loam, 2 to 6 percent slopes	0.7	0.4%
Sm	Sebewa silt loam, 0 to 2 percent slopes	1.1	0.6%
	i		

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI	
SvB2	Sisson-Casco-Hochheim complex, 2 to 6 percent slopes, eroded	28.0	14.7%	
SvC2	Sisson-Casco-Hochheim complex, 6 to 12 percent slopes, eroded	10.6	5.6%	
ThB2	Theresa silt loam, 2 to 6 percent slopes, eroded	2.9	1.5%	
Ww	Wet alluvial land	3.6	1.9%	
ZuC2	Zurich silt loam, 6 to 12 percent slopes, eroded	8.2	4.3%	
Totals for Area of Interest		191.1	100.0%	

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 class rarely, if ever, can be mapped without including areas of other 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.

Washington County, Wisconsin

Am—Alluvial land

Map Unit Setting

National map unit symbol: g8z1 Elevation: 790 to 1,280 feet

Mean annual precipitation: 32 to 35 inches Mean annual air temperature: 37 to 55 degrees F

Frost-free period: 145 to 165 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Alluvial land: 90 percent Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Alluvial Land

Setting

Landform: Alluvial flats

Landform position (two-dimensional): Summit Landform position (three-dimensional): Rise

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Sandy and silty alluvium

Typical profile

A - 0 to 5 inches: loam

C - 5 to 60 inches: stratified sand to silt

Properties and qualities

Slope: 0 to 2 percent

Drainage class: Moderately well drained

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 inches

Frequency of flooding: RareOccasionalFrequentVery rare

Frequency of ponding: Occasional

Calcium carbonate, maximum content: 20 percent Available water capacity: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3w

Forage suitability group: Mod AWC, adequately drained (G095BY005WI)

Other vegetative classification: Mod AWC, adequately drained (G095BY005WI)

Hydric soil rating: No

Minor Components

Wet alluvial land

Percent of map unit: 10 percent

Landform: Flood plains

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Dip

Down-slope shape: Concave Across-slope shape: Concave

Hydric soil rating: Yes

AtA—Ashkum silty clay loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2ssrw

Elevation: 520 to 930 feet

Mean annual precipitation: 33 to 41 inches
Mean annual air temperature: 46 to 54 degrees F

Frost-free period: 160 to 190 days

Farmland classification: Prime farmland if drained

Map Unit Composition

Ashkum, drained, and similar soils: 92 percent

Minor components: 8 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ashkum, Drained

Setting

Landform: End moraines, ground moraines Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Concave

Parent material: Clayey colluvium over till

Typical profile

Ap - 0 to 12 inches: silty clay loam
Bg1 - 12 to 29 inches: silty clay
2Bg2 - 29 to 54 inches: silty clay loam
2Cg - 54 to 60 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20

to 0.60 in/hr)

Depth to water table: About 0 to 12 inches

Frequency of flooding: None Frequency of ponding: Frequent

Calcium carbonate, maximum content: 25 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water capacity: Moderate (about 8.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hvdrologic Soil Group: C/D

Ecological site: R110XY024IL - Ponded Depressional Sedge Meadow

Hydric soil rating: Yes

Minor Components

Peotone, drained

Percent of map unit: 5 percent

Landform: Depressions on ground moraines Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Dip

Down-slope shape: Concave Across-slope shape: Concave

Ecological site: R110XY024IL - Ponded Depressional Sedge Meadow

Hydric soil rating: Yes

Orthents, clayey

Percent of map unit: 2 percent

Landform: Lake plains, ground moraines Landform position (two-dimensional): Summit Landform position (three-dimensional): Interfluve

Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: No

Urban land

Percent of map unit: 1 percent Landform: Ground moraines

Landform position (two-dimensional): Summit Landform position (three-dimensional): Interfluve

Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: No

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

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 content: 45 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water capacity: Low (about 5.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: B

Forage suitability group: Mod AWC, adequately drained (G095BY005WI)

Other vegetative classification: Mod AWC, adequately drained (G095BY005WI)

Hydric soil rating: No

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

HmB—Hochheim loam, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: 2t03x Elevation: 820 to 1,330 feet

Mean annual precipitation: 29 to 31 inches Mean annual air temperature: 43 to 46 degrees F

Frost-free period: 135 to 155 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Hochheim and similar soils: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hochheim

Setting

Landform: Drumlins

Landform position (two-dimensional): Summit, shoulder Landform position (three-dimensional): Crest, side slope

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Loamy till and/or calcareous, dense loamy till

Typical profile

Ap - 0 to 9 inches: loam

Bt - 9 to 17 inches: clay loam

C - 17 to 33 inches: gravelly loam

Cd - 33 to 79 inches: gravelly loam

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: 20 to 40 inches to densic material

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 60 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water capacity: Low (about 5.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: D

Forage suitability group: Mod AWC, adequately drained (G095BY005WI)

Other vegetative classification: Mod AWC, adequately drained (G095BY005WI)

Hydric soil rating: No

Minor Components

Theresa

Percent of map unit: 7 percent

Landform: Drumlins

Landform position (two-dimensional): Summit, backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Concave Across-slope shape: Linear Hydric soil rating: No

Lamartine

Percent of map unit: 3 percent

Landform: Drumlins

Landform position (two-dimensional): Footslope Landform position (three-dimensional): Base slope

Down-slope shape: Concave Across-slope shape: Linear Hydric soil rating: No

HmB2—Hochheim loam, 2 to 6 percent slopes, eroded

Map Unit Setting

National map unit symbol: 2t03w Elevation: 820 to 1,330 feet

Mean annual precipitation: 29 to 36 inches
Mean annual air temperature: 43 to 46 degrees F

Frost-free period: 135 to 175 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Hochheim, eroded, and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hochheim, Eroded

Setting

Landform: Drumlins

Landform position (two-dimensional): Summit, shoulder Landform position (three-dimensional): Crest, side slope

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Loamy till and/or calcareous, dense loamy till

Typical profile

Ap - 0 to 7 inches: loam Bt - 7 to 16 inches: loam

C - 16 to 33 inches: gravelly sandy loam

Cd - 33 to 79 inches: gravelly sandy loam

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: 20 to 40 inches to densic material

Drainage class: Well drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 60 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water capacity: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: D

Forage suitability group: Mod AWC, adequately drained (G095BY005WI)

Other vegetative classification: Mod AWC, adequately drained (G095BY005WI)

Hydric soil rating: No

Minor Components

Theresa, eroded

Percent of map unit: 10 percent

Landform: Till plains

Landform position (two-dimensional): Summit, backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Convex Across-slope shape: Convex Hydric soil rating: No

Lamartine

Percent of map unit: 5 percent

Landform: Drumlins

Landform position (two-dimensional): Footslope Landform position (three-dimensional): Base slope

Down-slope shape: Concave Across-slope shape: Linear Hydric soil rating: No

HmC2—Hochheim loam, 6 to 12 percent slopes, eroded

Map Unit Setting

National map unit symbol: 2t03r Elevation: 900 to 1.340 feet

Mean annual precipitation: 31 to 33 inches
Mean annual air temperature: 43 to 46 degrees F

Frost-free period: 135 to 175 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Hochheim, eroded, and similar soils: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hochheim, Eroded

Setting

Landform: Drumlins

Landform position (two-dimensional): Shoulder, summit Landform position (three-dimensional): Crest, side slope

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Loamy till and/or calcareous, dense loamy till

Typical profile

Ap - 0 to 7 inches: loam
Bt - 7 to 16 inches: clay loam

C - 16 to 33 inches: gravelly sandy loam Cd - 33 to 79 inches: gravelly sandy loam

Properties and qualities

Slope: 6 to 12 percent

Depth to restrictive feature: 20 to 40 inches to densic material

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 60 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water capacity: Low (about 4.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: D

Forage suitability group: Mod AWC, adequately drained (G095BY005WI)

Other vegetative classification: Mod AWC, adequately drained (G095BY005WI)

Hydric soil rating: No

Minor Components

Hochheim

Percent of map unit: 5 percent

Landform: Drumlins

Landform position (two-dimensional): Backslope, shoulder Landform position (three-dimensional): Side slope, head slope

Down-slope shape: Convex Across-slope shape: Linear Hydric soil rating: No

Theresa

Percent of map unit: 5 percent

Landform: Drumlins

Landform position (two-dimensional): Summit Landform position (three-dimensional): Crest

Down-slope shape: Convex Across-slope shape: Convex

Hydric soil rating: No

HoC3—Hochheim soils, 6 to 12 percent slopes, severely eroded

Map Unit Setting

National map unit symbol: g90c Elevation: 790 to 1,310 feet

Mean annual precipitation: 32 to 35 inches Mean annual air temperature: 37 to 55 degrees F

Frost-free period: 145 to 165 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Hochheim and similar soils: 60 percent Hochheim and similar soils: 40 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hochheim

Setting

Landform: Till plains

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Fine-loamy pedisediment over coarse-loamy till

Typical profile

Ap - 0 to 7 inches: clay loam Bt - 7 to 16 inches: clay loam C - 16 to 60 inches: loam

Properties and qualities

Slope: 6 to 12 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

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 60 to 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 60 percent Available water capacity: Moderate (about 7.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: B

Forage suitability group: Mod AWC, adequately drained (G095BY005WI)

Other vegetative classification: Mod AWC, adequately drained (G095BY005WI)

Hydric soil rating: No

Description of Hochheim

Setting

Landform: Till plains

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Loamy glaciofluvial deposits over coarse-loamy till

Typical profile

Ap - 0 to 7 inches: loam

Bt - 7 to 16 inches: clay loam

C - 16 to 60 inches: loam

Properties and qualities

Slope: 6 to 12 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

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 60 to 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 60 percent Available water capacity: Moderate (about 8.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: B

Forage suitability group: Mod AWC, adequately drained (G095BY005WI)

Other vegetative classification: Mod AWC, adequately drained (G095BY005WI)

Hydric soil rating: No

JuA—Juneau silt loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: g90l Elevation: 790 to 1,310 feet

Mean annual precipitation: 32 to 35 inches Mean annual air temperature: 37 to 55 degrees F

Frost-free period: 145 to 165 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Juneau and similar soils: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Juneau

Setting

Landform: Drumlins

Landform position (two-dimensional): Summit Landform position (three-dimensional): Base slope

Down-slope shape: Concave Across-slope shape: Linear

Parent material: Silty colluvium over fine-silty loess

Typical profile

Ap - 0 to 11 inches: silt loam C - 11 to 33 inches: silt loam Ab, Btb - 33 to 47 inches: silt loam 2Btb - 47 to 60 inches: clay loam

Properties and qualities

Slope: 1 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

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 inches

Frequency of flooding: NoneVery rareOccasionalRare

Frequency of ponding: Rare

Calcium carbonate, maximum content: 20 percent Available water capacity: High (about 11.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: B/D

Forage suitability group: High AWC, adequately drained (G095BY008WI)

Other vegetative classification: High AWC, adequately drained (G095BY008WI)

Hydric soil rating: No

LmA—Lamartine silt loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2t043 Elevation: 590 to 1,140 feet

Mean annual precipitation: 29 to 35 inches Mean annual air temperature: 37 to 46 degrees F

Frost-free period: 135 to 170 days

Farmland classification: Prime farmland if drained

Map Unit Composition

Lamartine and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lamartine

Setting

Landform: Interdrumlins

Landform position (two-dimensional): Footslope Landform position (three-dimensional): Base slope

Down-slope shape: Concave Across-slope shape: Linear

Parent material: Loess over loamy till

Typical profile

Ap - 0 to 8 inches: silt loam

Bt1 - 8 to 20 inches: silty clay loam 2Bt2 - 20 to 28 inches: clay loam

2C - 28 to 79 inches: gravelly sandy loam

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches Drainage class: Somewhat poorly drained

Runoff class: Negligible

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 12 to 24 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 30 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water capacity: Moderate (about 8.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: B/D

Forage suitability group: High AWC, high water table (G095BY007WI) Other vegetative classification: High AWC, high water table (G095BY007WI)

Hydric soil rating: No

Minor Components

Pella

Percent of map unit: 8 percent

Landform: Drainageways

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Base slope

Down-slope shape: Concave Across-slope shape: Concave

Hydric soil rating: Yes

Ossian

Percent of map unit: 7 percent

Landform: Depressions

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Base slope

Down-slope shape: Concave Across-slope shape: Concave

Hydric soil rating: Yes

MoB—Mayville silt loam, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: 2szfv Elevation: 830 to 1.120 feet

Mean annual precipitation: 31 to 35 inches Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 130 to 180 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Mayville and similar soils: 90 percent Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Mayville

Setting

Landform: Drumlins

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope

Down-slope shape: Convex Across-slope shape: Convex

Parent material: Loess over loamy till

Typical profile

Ap - 0 to 6 inches: silt loam BE - 6 to 12 inches: silt loam

Bt1 - 12 to 28 inches: silty clay loam 2Bt2 - 28 to 32 inches: clay loam

2C - 32 to 79 inches: gravelly sandy loam

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20

to 0.57 in/hr)

Depth to water table: About 12 to 40 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 40 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water capacity: High (about 9.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C Hydric soil rating: No

Minor Components

Dodge

Percent of map unit: 8 percent

Landform: Drumlins

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope

Down-slope shape: Convex Across-slope shape: Convex Hydric soil rating: No

Lamartine

Percent of map unit: 2 percent

Landform: Drumlins

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope

Down-slope shape: Concave Across-slope shape: Linear Hydric soil rating: No

MtA—Mequon silt loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: g90z Elevation: 790 to 1,250 feet

Mean annual precipitation: 32 to 35 inches
Mean annual air temperature: 37 to 55 degrees F

Frost-free period: 145 to 165 days

Farmland classification: Prime farmland if drained

Map Unit Composition

Mequon and similar soils: 90 percent Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Mequon

Setting

Landform: Drainageways

Landform position (three-dimensional): Talf

Down-slope shape: Concave Across-slope shape: Linear

Parent material: Loess over silty and clayey till

Typical profile

Ap - 0 to 7 inches: silt loam

Btg - 7 to 11 inches: silt loam

2Bt - 11 to 26 inches: silty clay loam

2C - 26 to 60 inches: silty clay loam

Properties and qualities

Slope: 1 to 3 percent

Depth to restrictive feature: More than 80 inches Drainage class: Somewhat poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.14 to 0.57 in/hr)

Depth to water table: About 0 to 24 inches

Frequency of flooding: None Frequency of ponding: Occasional

Calcium carbonate, maximum content: 40 percent Available water capacity: High (about 10.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: C/D

Forage suitability group: High AWC, high water table (G095BY007WI)

Other vegetative classification: High AWC, high water table (G095BY007WI)

Hydric soil rating: No

Minor Components

Ashkum

Percent of map unit: 10 percent

Landform: Depressions

Landform position (three-dimensional): Dip

Down-slope shape: Concave Across-slope shape: Concave

Hydric soil rating: Yes

OuB—Ozaukee silt loam, high carbonate substratum, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: 2sn09 Elevation: 650 to 1,010 feet

Mean annual precipitation: 31 to 39 inches Mean annual air temperature: 44 to 49 degrees F

Frost-free period: 125 to 185 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Ozaukee, high carbonate substratum, and similar soils: 96 percent

Minor components: 4 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ozaukee, High Carbonate Substratum

Setting

Landform: End moraines, ground moraines

Landform position (two-dimensional): Shoulder, summit Landform position (three-dimensional): Interfluve

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Thin mantle of loess over silty and clayey till

Typical profile

Ap - 0 to 8 inches: silt loam E - 8 to 10 inches: silt loam

Bt1 - 10 to 13 inches: silty clay loam 2Bt2 - 13 to 23 inches: silty clay 2Bt3 - 23 to 29 inches: silty clay loam 2Cd - 29 to 60 inches: silty clay loam

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: 23 to 40 inches to densic material

Drainage class: Moderately well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 24 to 42 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 60 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water capacity: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C

Ecological site: F110XY012IL - Moist Glacial Drift Upland Forest

Hydric soil rating: No

Minor Components

Ashkum, drained

Percent of map unit: 2 percent

Landform: Ground moraines, end moraines Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Base slope

Down-slope shape: Linear Across-slope shape: Concave

Ecological site: R110XY024IL - Ponded Depressional Sedge Meadow

Hydric soil rating: Yes

Orthents, clayey

Percent of map unit: 1 percent Landform: Ground moraines

Landform position (two-dimensional): Summit, backslope

Landform position (three-dimensional): Interfluve

Down-slope shape: Convex Across-slope shape: Convex

Hydric soil rating: No

Urban land

Percent of map unit: 1 percent Landform: Ground moraines

Landform position (two-dimensional): Summit Landform position (three-dimensional): Interfluve

Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: No

OuB2—Ozaukee silt loam, high carbonate substratum, 2 to 6 percent slopes, eroded

Map Unit Setting

National map unit symbol: 2sn0c Elevation: 650 to 1,010 feet

Mean annual precipitation: 31 to 39 inches Mean annual air temperature: 44 to 49 degrees F

Frost-free period: 125 to 185 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Ozaukee, high carbonate substratum, eroded, and similar soils: 96 percent

Minor components: 4 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ozaukee, High Carbonate Substratum, Eroded

Settina

Landform: Ground moraines, end moraines

Landform position (two-dimensional): Shoulder, summit Landform position (three-dimensional): Interfluve

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Thin mantle of loess over silty and clayey till

Typical profile

Ap - 0 to 7 inches: silt loam
Bt1 - 7 to 11 inches: silty clay loam
2Bt2 - 11 to 22 inches: silty clay

2Bt3 - 22 to 27 inches: silty clay loam 2Cd - 27 to 60 inches: silty clay loam

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: 22 to 40 inches to densic material

Drainage class: Moderately well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 24 to 42 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 60 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water capacity: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C

Ecological site: F110XY012IL - Moist Glacial Drift Upland Forest

Hydric soil rating: No

Minor Components

Ashkum, drained

Percent of map unit: 2 percent

Landform: Ground moraines, end moraines Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Base slope

Down-slope shape: Linear Across-slope shape: Concave

Ecological site: R110XY024IL - Ponded Depressional Sedge Meadow

Hydric soil rating: Yes

Urban land

Percent of map unit: 1 percent Landform: Ground moraines

Landform position (two-dimensional): Summit Landform position (three-dimensional): Interfluve

Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: No

Orthents, clayey

Percent of map unit: 1 percent Landform: Ground moraines

Landform position (two-dimensional): Summit, backslope

Landform position (three-dimensional): Interfluve

Down-slope shape: Convex Across-slope shape: Convex

Hydric soil rating: No

OuC2—Ozaukee silt loam, high carbonate substratum, 6 to 12 percent slopes, eroded

Map Unit Setting

National map unit symbol: 2sn0h Elevation: 670 to 1.020 feet

Mean annual precipitation: 31 to 39 inches Mean annual air temperature: 44 to 49 degrees F

Frost-free period: 125 to 185 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Ozaukee, high carbonate substratum, eroded, and similar soils: 94 percent

Minor components: 6 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ozaukee, High Carbonate Substratum, Eroded

Setting

Landform: End moraines, ground moraines

Landform position (two-dimensional): Backslope, shoulder

Landform position (three-dimensional): Side slope

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Thin mantle of loess over silty and clayey till

Typical profile

Ap - 0 to 7 inches: silt loam

Bt1 - 7 to 11 inches: silty clay loam 2Bt2 - 11 to 22 inches: silty clay 2Bt3 - 22 to 27 inches: silty clay loam 2Cd - 27 to 60 inches: silty clay loam

Properties and qualities

Slope: 6 to 12 percent

Depth to restrictive feature: 22 to 39 inches to densic material

Drainage class: Moderately well drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 24 to 42 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 60 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water capacity: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: C

Ecological site: F110XY012IL - Moist Glacial Drift Upland Forest

Hydric soil rating: No

Minor Components

Ozaukee, severely eroded

Percent of map unit: 2 percent

Landform: End moraines, ground moraines

Landform position (two-dimensional): Backslope, shoulder

Landform position (three-dimensional): Side slope

Down-slope shape: Convex Across-slope shape: Linear

Ecological site: F110XY012IL - Moist Glacial Drift Upland Forest

Hydric soil rating: No

Urban land

Percent of map unit: 2 percent Landform: Ground moraines

Landform position (two-dimensional): Summit Landform position (three-dimensional): Interfluve

Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: No

Meauon

Percent of map unit: 2 percent Landform: Ground moraines

Landform position (two-dimensional): Footslope Landform position (three-dimensional): Interfluve

Down-slope shape: Linear Across-slope shape: Concave

Hydric soil rating: No

OuD2—Ozaukee silt loam, high carbonate substratum, 12 to 20 percent slopes, eroded

Map Unit Setting

National map unit symbol: 2sn0m Elevation: 660 to 1,020 feet

Mean annual precipitation: 31 to 39 inches Mean annual air temperature: 44 to 49 degrees F

Frost-free period: 125 to 185 days

Farmland classification: Not prime farmland

Map Unit Composition

Ozaukee, high carbonate substratum, eroded, and similar soils: 94 percent

Minor components: 6 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ozaukee, High Carbonate Substratum, Eroded

Setting

Landform: Ground moraines, end moraines Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Thin mantle of loess over silty and clayey till

Typical profile

Ap - 0 to 7 inches: silt loam

Bt1 - 7 to 11 inches: silty clay loam

2Bt2 - 11 to 22 inches: silty clay

2Bt3 - 22 to 27 inches: silty clay loam

2Cd - 27 to 60 inches: silty clay loam

Properties and qualities

Slope: 12 to 20 percent

Depth to restrictive feature: 22 to 37 inches to densic material

Drainage class: Moderately well drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 24 to 42 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 60 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water capacity: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: C

Ecological site: F110XY012IL - Moist Glacial Drift Upland Forest

Hydric soil rating: No

Minor Components

Ozaukee, severely eroded

Percent of map unit: 2 percent

Landform: Ground moraines, end moraines

Landform position (two-dimensional): Shoulder, backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Convex Across-slope shape: Linear

Ecological site: F110XY012IL - Moist Glacial Drift Upland Forest

Hydric soil rating: No

Mequon

Percent of map unit: 2 percent Landform: Ground moraines

Landform position (two-dimensional): Footslope Landform position (three-dimensional): Interfluve

Down-slope shape: Linear

Across-slope shape: Concave

Hydric soil rating: No

Urban land

Percent of map unit: 2 percent Landform: Ground moraines

Landform position (two-dimensional): Summit Landform position (three-dimensional): Interfluve

Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: No

Pc—Palms mucky peat, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2szdg Elevation: 780 to 1,240 feet

Mean annual precipitation: 31 to 33 inches Mean annual air temperature: 44 to 47 degrees F

Frost-free period: 127 to 178 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Palms, mucky peat, and similar soils: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Palms, Mucky Peat

Setting

Landform: Interdrumlins

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Base slope

Down-slope shape: Concave Across-slope shape: Concave

Parent material: Herbaceous organic material over loamy drift

Typical profile

Oep - 0 to 11 inches: mucky peat Oe - 11 to 28 inches: mucky peat 2C - 28 to 79 inches: silt loam

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Very poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high

(0.14 to 1.98 in/hr)

Depth to water table: About 0 inches

Frequency of flooding: None Frequency of ponding: Frequent

Calcium carbonate, maximum content: 20 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water capacity: Very high (about 17.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: B/D Hydric soil rating: Yes

Minor Components

Houghton, mucky peat

Percent of map unit: 7 percent

Landform: Depressions

Landform position (three-dimensional): Dip

Down-slope shape: Concave Across-slope shape: Concave

Hydric soil rating: Yes

Adrian

Percent of map unit: 3 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

Ph—Pella silt loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2t044 Elevation: 590 to 1,100 feet

Mean annual precipitation: 29 to 37 inches Mean annual air temperature: 43 to 55 degrees F

Frost-free period: 124 to 178 days

Farmland classification: Prime farmland if drained

Map Unit Composition

Pella and similar soils: 85 percent Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pella

Setting

Landform: Drainageways

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Base slope

Down-slope shape: Concave

Across-slope shape: Concave

Parent material: Silty glaciofluvial deposits over calcareous lacustrine deposits

and/or calcareous loamy till

Typical profile

Ap - 0 to 11 inches: silt loam
Bg - 11 to 38 inches: silty clay loam

2Cg - 38 to 79 inches: stratified loamy sand to silty clay loam

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.60 to 2.00 in/hr)

Depth to water table: About 0 inches

Frequency of flooding: None Frequency of ponding: Frequent

Calcium carbonate, maximum content: 40 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water capacity: Very high (about 12.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: B/D

Forage suitability group: High AWC, high water table (G095BY007WI)

Other vegetative classification: High AWC, high water table (G095BY007WI)

Hydric soil rating: Yes

Minor Components

Kendall

Percent of map unit: 7 percent Landform: Drainageways

Landform position (two-dimensional): Footslope Landform position (three-dimensional): Base slope

Down-slope shape: Concave Across-slope shape: Linear Hydric soil rating: No

Lamartine

Percent of map unit: 6 percent

Landform: Drainageways

Landform position (two-dimensional): Footslope Landform position (three-dimensional): Base slope

Down-slope shape: Concave Across-slope shape: Linear Hydric soil rating: No

Palms, muck

Percent of map unit: 2 percent

Landform: Depressions

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Base slope

Down-slope shape: Concave Across-slope shape: Concave

Hydric soil rating: Yes

RaA—Radford silt loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2wpxr Elevation: 500 to 1,100 feet

Mean annual precipitation: 33 to 37 inches Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 140 to 190 days

Farmland classification: Prime farmland if drained and either protected from flooding

or not frequently flooded during the growing season

Map Unit Composition

Radford and similar soils: 90 percent Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Radford

Setting

Landform: Flood plains, drainageways

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Base slope

Down-slope shape: Linear Across-slope shape: Linear Parent material: Silty alluvium

Typical profile

Ap - 0 to 9 inches: silt loam C - 9 to 23 inches: silt loam Ab - 23 to 36 inches: silt loam Bgb - 36 to 56 inches: silt loam Cgb - 56 to 79 inches: silt loam

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches Drainage class: Somewhat poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.43 to 1.98 in/hr)

Depth to water table: About 15 to 30 inches Frequency of flooding: NoneFrequent

Frequency of ponding: None

Calcium carbonate, maximum content: 10 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water capacity: Very high (about 12.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: B/D

Forage suitability group: High AWC, high water table (G095BY007WI)

Other vegetative classification: High AWC, high water table (G095BY007WI)

Hydric soil rating: No

Minor Components

Otter

Percent of map unit: 4 percent

Landform: Flood plains, drainageways

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Talf, dip

Down-slope shape: Concave

Across-slope shape: Linear, concave

Hydric soil rating: Yes

Sable

Percent of map unit: 3 percent

Landform: Depressions

Landform position (three-dimensional): Dip

Down-slope shape: Concave Across-slope shape: Concave

Hydric soil rating: Yes

Sebewa

Percent of map unit: 2 percent

Landform: Depressions

Landform position (three-dimensional): Dip

Down-slope shape: Concave Across-slope shape: Concave

Hydric soil rating: Yes

Drummer

Percent of map unit: 1 percent

Landform: Depressions

Landform position (three-dimensional): Dip

Down-slope shape: Concave Across-slope shape: Concave

Hydric soil rating: Yes

ShB—Saylesville silt loam, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: g91p Elevation: 790 to 1,250 feet

Mean annual precipitation: 32 to 35 inches Mean annual air temperature: 37 to 55 degrees F

Frost-free period: 145 to 165 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Saylesville and similar soils: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Saylesville

Setting

Landform: Lakebeds (relict)

Landform position (two-dimensional): Shoulder Landform position (three-dimensional): Rise

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Fine-silty lacustrine deposits over clayey lacustrine deposits over

silty and clayey lacustrine deposits

Typical profile

Ap, E - 0 to 12 inches: silt loam Bt - 12 to 26 inches: clay

C - 26 to 60 inches: silty clay loam

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.14 to 0.57 in/hr)

Depth to water table: About 60 to 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 60 percent Available water capacity: High (about 11.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C

Forage suitability group: High AWC, adequately drained (G095BY008WI)

Other vegetative classification: High AWC, adequately drained (G095BY008WI)

Hydric soil rating: No

Sm—Sebewa silt loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2szfk Elevation: 780 to 1,140 feet

Mean annual precipitation: 29 to 35 inches Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 124 to 180 days

Farmland classification: Prime farmland if drained

Map Unit Composition

Sebewa and similar soils: 90 percent *Minor components*: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sebewa

Setting

Landform: Depressions

Landform position (three-dimensional): Dip

Down-slope shape: Concave Across-slope shape: Concave

Parent material: Loamy outwash over sandy and gravelly outwash

Typical profile

Ap - 0 to 11 inches: silt loam

Btg - 11 to 27 inches: clay loam

2Cg - 27 to 79 inches: coarse sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: 24 to 30 inches to strongly contrasting textural

stratification

Drainage class: Poorly drained Runoff class: Negligible

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 12 inches Frequency of flooding: NoneFrequent Frequency of ponding: Frequent

Calcium carbonate, maximum content: 25 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water capacity: Low (about 5.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: B/D Hydric soil rating: Yes

Minor Components

Adrian

Percent of map unit: 6 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

Ionia

Percent of map unit: 3 percent

Landform: Rises

Landform position (two-dimensional): Footslope Landform position (three-dimensional): Talf

Down-slope shape: Concave Across-slope shape: Linear Hydric soil rating: No

Fox

Percent of map unit: 1 percent

Landform: Rises

Landform position (two-dimensional): Shoulder Landform position (three-dimensional): Crest

Down-slope shape: Convex Across-slope shape: Linear

Ecological site: F110XY011IL - Dry Glacial Drift Upland Forest

Hydric soil rating: No

SvB2—Sisson-Casco-Hochheim complex, 2 to 6 percent slopes, eroded

Map Unit Setting

National map unit symbol: g91w Elevation: 790 to 1,310 feet

Mean annual precipitation: 32 to 35 inches Mean annual air temperature: 37 to 55 degrees F

Frost-free period: 145 to 165 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Sisson and similar soils: 31 percent Casco and similar soils: 29 percent Hochheim and similar soils: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sisson

Setting

Landform: Terminal moraines

Landform position (two-dimensional): Shoulder Landform position (three-dimensional): Nose slope

Parent material: Coarse-loamy lacustrine deposits over fine-loamy lacustrine deposits over coarse-loamy lacustrine deposits

Typical profile

Ap, BE - 0 to 14 inches: silt loam

Bt - 14 to 24 inches: very fine sandy loam

BC, C - 24 to 60 inches: stratified fine sand to silt loam

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

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 60 to 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 35 percent Available water capacity: High (about 10.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: B

Forage suitability group: High AWC, adequately drained (G095BY008WI)

Other vegetative classification: High AWC, adequately drained (G095BY008WI)

Hydric soil rating: No

Description of Casco

Settina

Landform: Terminal moraines

Landform position (two-dimensional): Shoulder Landform position (three-dimensional): Nose slope

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Fine-loamy glaciofluvial deposits over sandy and gravelly outwash

Typical profile

Ap - 0 to 7 inches: loam
Bt - 7 to 17 inches: clay loam
2C - 17 to 60 inches: Error

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

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 60 to 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 25 percent Available water capacity: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: B

Forage suitability group: Low AWC, adequately drained (G095BY002WI) Other vegetative classification: Low AWC, adequately drained (G095BY002WI)

Hydric soil rating: No

Description of Hochheim

Setting

Landform: Terminal moraines

Landform position (two-dimensional): Shoulder Landform position (three-dimensional): Nose slope

Parent material: Fine-loamy pedisediment over coarse-loamy till

Typical profile

Ap - 0 to 7 inches: silt loam

Bt, 2Bt - 7 to 18 inches: clay loam 2C - 18 to 60 inches: loam

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

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 60 to 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 60 percent Available water capacity: Moderate (about 8.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: B

Forage suitability group: Mod AWC, adequately drained (G095BY005WI)

Other vegetative classification: Mod AWC, adequately drained (G095BY005WI)

Hydric soil rating: No

SvC2—Sisson-Casco-Hochheim complex, 6 to 12 percent slopes, eroded

Map Unit Setting

National map unit symbol: g91x Elevation: 790 to 1,310 feet

Mean annual precipitation: 32 to 35 inches Mean annual air temperature: 37 to 55 degrees F

Frost-free period: 145 to 165 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Sisson and similar soils: 31 percent Casco and similar soils: 29 percent Hochheim and similar soils: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sisson

Setting

Landform: Terminal moraines

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope

Parent material: Coarse-loamy lacustrine deposits over fine-loamy lacustrine

deposits over coarse-loamy lacustrine deposits

Typical profile

Ap - 0 to 14 inches: loam

Bt - 14 to 24 inches: very fine sandy loam

BC, C - 24 to 60 inches: stratified fine sand to silt loam

Properties and qualities

Slope: 6 to 12 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

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 60 to 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 35 percent Available water capacity: High (about 10.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: B

Forage suitability group: High AWC, adequately drained (G095BY008WI)

Other vegetative classification: High AWC, adequately drained (G095BY008WI)

Hydric soil rating: No

Description of Casco

Setting

Landform: Terminal moraines

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Fine-loamy glaciofluvial deposits over sandy and gravelly outwash

Typical profile

Ap - 0 to 7 inches: loam
Bt - 7 to 17 inches: clay loam
2c - 17 to 60 inches: Error

Properties and qualities

Slope: 6 to 12 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

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 60 to 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 25 percent Available water capacity: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: B

Forage suitability group: Low AWC, adequately drained (G095BY002WI)

Other vegetative classification: Low AWC, adequately drained (G095BY002WI)

Hydric soil rating: No

Description of Hochheim

Setting

Landform: Terminal moraines

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope

Parent material: Fine-loamy pedisediment over coarse-loamy till

Typical profile

Ap - 0 to 7 inches: loam

Bt, 2Bt - 7 to 18 inches: clay loam

2C - 18 to 60 inches: loam

Properties and qualities

Slope: 6 to 12 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

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 60 to 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 60 percent Available water capacity: Moderate (about 8.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: B

Forage suitability group: Mod AWC, adequately drained (G095BY005WI)

Other vegetative classification: Mod AWC, adequately drained (G095BY005WI)

Hydric soil rating: No

ThB2—Theresa silt loam, 2 to 6 percent slopes, eroded

Map Unit Setting

National map unit symbol: 2szd7 Elevation: 660 to 1.290 feet

Mean annual precipitation: 31 to 35 inches Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 150 to 195 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Theresa, eroded, and similar soils: 83 percent

Minor components: 17 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Theresa, Eroded

Setting

Landform: Drumlins

Landform position (two-dimensional): Summit, backslope Landform position (three-dimensional): Side slope

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Loess over loamy till and/or calcareous, dense loamy till

Typical profile

Ap - 0 to 8 inches: silt loam
BE - 8 to 11 inches: silt loam
Bt1 - 11 to 16 inches: silty clay loam
2Bt2 - 16 to 35 inches: gravelly clay loam
2Cd - 35 to 79 inches: gravelly sandy loam

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: 24 to 40 inches to densic material

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/hr) Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 60 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water capacity: Low (about 5.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C Hydric soil rating: No

Minor Components

Hochheim, eroded

Percent of map unit: 14 percent

Landform: Drumlins

Landform position (two-dimensional): Shoulder, summit Landform position (three-dimensional): Crest, side slope

Down-slope shape: Convex Across-slope shape: Linear Hydric soil rating: No

Lamartine

Percent of map unit: 3 percent

Landform: Drumlins

Landform position (two-dimensional): Footslope Landform position (three-dimensional): Base slope

Down-slope shape: Concave Across-slope shape: Linear Hydric soil rating: No

Ww—Wet alluvial land

Map Unit Setting

National map unit symbol: g928 Elevation: 760 to 1,310 feet

Mean annual precipitation: 32 to 35 inches
Mean annual air temperature: 37 to 55 degrees F

Frost-free period: 145 to 165 days

Farmland classification: Prime farmland if drained and either protected from flooding

or not frequently flooded during the growing season

Map Unit Composition

Wet alluvial land: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wet Alluvial Land

Setting

Landform: Depressions on alluvial flats, drainageways on alluvial flats, flood plains

on alluvial flats

Landform position (two-dimensional): Toeslope

Down-slope shape: Concave, linear Across-slope shape: Concave, linear Parent material: Sandy and silty alluvium

Typical profile

Ap, A - 0 to 15 inches: loam BA, BCg - 15 to 35 inches: loam

Cg - 35 to 60 inches: stratified sandy loam to silty clay loam

Properties and qualities

Slope: 0 to 2 percent

Drainage class: Poorly drained

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 8 inches Frequency of flooding: OccasionalFrequent

Frequency of ponding: Occasional

Calcium carbonate, maximum content: 30 percent Available water capacity: High (about 11.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6w

Forage suitability group: Frequently flooded, organics (G095BY010WI)

Other vegetative classification: Frequently flooded, organics (G095BY010WI)

Hydric soil rating: Yes

ZuC2—Zurich silt loam, 6 to 12 percent slopes, eroded

Map Unit Setting

National map unit symbol: 2wsrv Elevation: 610 to 1,070 feet

Mean annual precipitation: 33 to 38 inches Mean annual air temperature: 45 to 52 degrees F

Frost-free period: 124 to 192 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Zurich, eroded, and similar soils: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Zurich, Eroded

Setting

Landform: Lakebeds (relict)

Landform position (two-dimensional): Shoulder Landform position (three-dimensional): Interfluve

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Loess over sandy and silty lacustrine deposits

Typical profile

Ap - 0 to 5 inches: silt loam
BE - 5 to 9 inches: silt loam
Bt - 9 to 23 inches: silty clay loam

2C - 23 to 79 inches: stratified very fine sand to silt loam

Properties and qualities

Slope: 6 to 12 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.60 to 2.00 in/hr)

Depth to water table: About 24 to 42 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 30 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water capacity: High (about 11.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: C

Forage suitability group: High AWC, adequately drained (G095BY008WI)

Other vegetative classification: High AWC, adequately drained (G095BY008WI)

Hydric soil rating: No

Minor Components

Dresden

Percent of map unit: 5 percent Landform: Stream terraces

Landform position (three-dimensional): Riser

Down-slope shape: Convex Across-slope shape: Linear Hydric soil rating: No

Wauconda

Percent of map unit: 3 percent Landform: Lakebeds (relict)

Landform position (two-dimensional): Footslope Landform position (three-dimensional): Base slope

Down-slope shape: Concave Across-slope shape: Linear Hydric soil rating: No

Orthents, loamy

Percent of map unit: 2 percent

Landform: Lake plains, outwash plains, lakebeds (relict), ground moraines

Landform position (two-dimensional): Backslope, shoulder Landform position (three-dimensional): Side slope, interfluve

Down-slope shape: Linear, convex

Across-slope shape: Linear Hydric soil rating: No

Soil Information for All Uses

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 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, 2010), and the "Soil Survey Manual" (Soil Survey Division 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.
- 2. 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.

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

- Federal Register. February, 28, 2012. Hydric soils of the United States.
- Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.
- Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.
- Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.
- Vasilas, L.M., G.W. Hurt, and C.V. Noble, editors. Version 7.0, 2010. Field indicators of hydric soils in the United States.

Report—Hydric Rating by Map Unit (WI)

	Hydric Rating by Map	1		
Map Unit Symbol	Map Unit Name	Hydric Percent of Map Unit	Hydric Category	Landform Hydric Minor Components
Am	Alluvial land	10	WI Predominantly Nonhydric	Flood plains
AtA	Ashkum silty clay loam, 0 to 2 percent slopes	97	WI Predominantly Hydric	Ground moraines
FsB	Fox silt loam, 2 to 6 percent slopes	0	WI Nonhydric	_
HmB	Hochheim loam, 2 to 6 percent slopes	0	WI Nonhydric	_
HmB2	Hochheim loam, 2 to 6 percent slopes, eroded	0	WI Nonhydric	_
HmC2	Hochheim loam, 6 to 12 percent slopes, eroded	0	WI Nonhydric	_
HoC3	Hochheim soils, 6 to 12 percent slopes, severely eroded	0	WI Nonhydric	_
JuA	Juneau silt loam, 1 to 3 percent slopes	0	WI Nonhydric	_
LmA	Lamartine silt loam, 0 to 3 percent slopes	15	WI Predominantly Nonhydric	Drainageways
МоВ	Mayville silt loam, 2 to 6 percent slopes	0	WI Nonhydric	_
MtA	Mequon silt loam, 1 to 3 percent slopes	10	WI Predominantly Nonhydric	Depressions
OuB	Ozaukee silt loam, high carbonate substratum, 2 to 6 percent slopes	2	WI Predominantly Nonhydric	Ground moraines
OuB2	Ozaukee silt loam, high carbonate substratum, 2 to 6 percent slopes, eroded	2	WI Predominantly Nonhydric	Ground moraines
OuC2	Ozaukee silt loam, high carbonate substratum, 6 to 12 percent slopes, eroded	0	WI Nonhydric	-
OuD2	Ozaukee silt loam, high carbonate substratum, 12 to 20 percent slopes, eroded	0	WI Nonhydric	-
Pc	Palms mucky peat, 0 to 2 percent slopes	100	WI Hydric	Interdrumlins
Ph	Pella silt loam, 0 to 2 percent slopes	87	WI Predominantly Hydric	Depressions

	Hydric Rating by Map Unit (WI)–Washington County, Wisconsin						
Map Unit Symbol	Map Unit Name	Hydric Percent of Map Unit	Hydric Category	Landform Hydric Minor Components			
RaA	Radford silt loam, 0 to 3 percent slopes	10	WI Predominantly Nonhydric	Depressions			
ShB	Saylesville silt loam, 2 to 6 percent slopes	0	WI Nonhydric	_			
Sm	Sebewa silt loam, 0 to 2 percent slopes	96	WI Predominantly Hydric	Lakebeds (relict)			
SvB2	Sisson-Casco-Hochheim complex, 2 to 6 percent slopes, eroded	0	WI Nonhydric	_			
SvC2	Sisson-Casco-Hochheim complex, 6 to 12 percent slopes, eroded	0	WI Nonhydric	_			
ThB2	Theresa silt loam, 2 to 6 percent slopes, eroded	0	WI Nonhydric	_			
Ww	Wet alluvial land	100	WI Hydric	_			
ZuC2	Zurich silt loam, 6 to 12 percent slopes, eroded	0	WI Nonhydric	_			

Hydric Soil List - All Components

This table lists the map unit components and their hydric status 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 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.
- 2. 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;
- 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.

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States. Federal Register. Doc. 2012-4733 Filed 2-28-12. February, 28, 2012. Hydric soils of the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

- Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.
- Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.
- Vasilas, L.M., G.W. Hurt, and C.V. Noble, editors. Version 7.0, 2010. Field indicators of hydric soils in the United States.

Report—Hydric Soil List - All Components

Hydric Soil List - All Components–WI131-Washington County, Wisconsin						
Map symbol and map unit name	Component/Local Phase	Comp.	Landform	Hydric status	Hydric criteria met (code)	
Am: Alluvial land	Alluvial land	90	Alluvial flats	No	_	
	Wet alluvial land	10	Flood plains	Yes	2,3,4	
AtA: Ashkum silty clay loam, 0 to 2 percent slopes	Ashkum-Drained	85-100	End moraines,ground moraines	Yes	2	
	Peotone-Drained	0-9	Depressions on ground moraines	Yes	2	
	Orthents, clayey	0-3	Lake plains,ground moraines	No	_	
	Urban land	0-3	Ground moraines	No	_	
FsB: Fox silt loam, 2 to 6 percent slopes	Fox	80-90	Outwash plains	No	_	
	Casco	5-10	Outwash plains	No	_	
	St. Charles-Gravelly substratum	5-10	Outwash plains	No	_	
HmB: Hochheim loam, 2 to 6 percent slopes	Hochheim	85-92	Drumlins	No	_	
	Theresa	5-8	Drumlins	No	_	
	Lamartine	3-7	Drumlins	No	_	
HmB2: Hochheim loam, 2 to 6 percent slopes, eroded	Hochheim-Eroded	80-91	Drumlins	No	_	
	Theresa-Eroded	6-12	Till plains	No	_	
	Lamartine	3-8	Drumlins	No	_	
HmC2: Hochheim loam, 6 to 12 percent slopes, eroded	Hochheim-Eroded	85-92	Drumlins	No	_	
	Hochheim	4-7	Drumlins	No	_	
	Theresa	4-8	Drumlins	No	_	
HoC3: Hochheim soils, 6 to 12 percent slopes, severely eroded	Hochheim	60	Till plains	No	_	
	Hochheim	40	Till plains	No	_	
JuA: Juneau silt loam, 1 to 3 percent slopes	Juneau	100	Drumlins	No	_	
LmA: Lamartine silt loam, 0 to 3 percent slopes	Lamartine	80-91	Interdrumlins	No		
	Pella	6-11	Drainageways	Yes	2,3	
	Ossian	3-9	Depressions	Yes	2,3	
MoB: Mayville silt loam, 2 to 6 percent slopes	Mayville	80-95	Drumlins	No		
	Dodge	5-17	Drumlins	No		
	Lamartine	0-3	Drumlins	No	_	

Hydric Soil List - All Components–WI131-Washington County, Wisconsin						
Map symbol and map unit name	Component/Local Phase	Comp. pct.	Landform	Hydric status	Hydric criteria met (code)	
MtA: Mequon silt loam, 1 to 3 percent slopes	Mequon	90	Drainageways	No	_	
	Ashkum	10	Depressions	Yes	2,3	
OuB: Ozaukee silt loam, high carbonate substratum, 2 to 6 percent slopes	Ozaukee-High carbonate substratum	92-100	End moraines,ground moraines	No	_	
	Ashkum-Drained	0-5	Ground moraines,end moraines	Yes	2	
	Orthents, clayey	0-3	Ground moraines	No	_	
	Urban land	0-3	Ground moraines	No	_	
OuB2: Ozaukee silt loam, high carbonate substratum, 2 to 6 percent slopes, eroded	Ozaukee-High carbonate substratum, eroded	92-100	Ground moraines,end moraines	No	_	
	Ashkum-Drained	0-5	Ground moraines,end moraines	Yes	2	
	Urban land	0-3	Ground moraines	No	_	
	Orthents, clayey	0-3	Ground moraines	No	_	
OuC2: Ozaukee silt loam, high carbonate substratum, 6 to 12 percent slopes, eroded	Ozaukee-High carbonate substratum, eroded	88-100	End moraines,ground moraines	No		
	Ozaukee-Severely eroded	0-5	End moraines,ground moraines	No	_	
	Urban land	0-5	Ground moraines	No	_	
	Mequon	0-5	Ground moraines	No	_	
OuD2: Ozaukee silt loam, high carbonate substratum, 12 to 20 percent slopes, eroded	Ozaukee-High carbonate substratum, eroded	88-100	Ground moraines,end moraines	No	_	
	Ozaukee-Severely eroded	0-5	Ground moraines,end moraines	No	_	
	Mequon	0-5	Ground moraines	No	_	
	Urban land	0-5	Ground moraines	No	_	
Pc: Palms mucky peat, 0 to 2 percent slopes	Palms-Mucky peat	80-95	Interdrumlins	Yes	1,2,3	
	Houghton-Mucky peat	3-15	Depressions	Yes	1,2,3	
	Adrian	2-5	Interdrumlins	Yes	1,3	
Ph: Pella silt loam, 0 to 2 percent slopes	Pella	80-91	Drainageways	Yes	2,3	
	Kendall	5-9	Drainageways	No	_	
	Lamartine	4-8	Drainageways	No	_	
	Palms-Muck	1-3	Depressions	Yes	1,3	
RaA: Radford silt loam, 0 to 3 percent slopes	Radford	80-95	Flood plains,drainageways	No	_	
	Otter	2-8	Flood plains,drainageways	Yes	2,3	

Hydric Soil List - All Components–WI131-Washington County, Wisconsin						
Map symbol and map unit name	Component/Local Phase	Comp. pct.	Landform	Hydric status	Hydric criteria met (code)	
	Sable	2-5	Depressions	Yes	2,3	
	Sebewa	1-4	Depressions	Yes	2,3	
	Drummer	0-3	Depressions	Yes	2,3	
ShB: Saylesville silt loam, 2 to 6 percent slopes	Saylesville	100	Lakebeds (relict)	No	_	
Sm: Sebewa silt loam, 0 to 2 percent slopes	Sebewa	80-95	Depressions	Yes	2,3	
	Adrian	3-12	Lakebeds (relict)	Yes	1,3	
	Ionia	1-5	Rises	No	_	
	Fox	0-3	Rises	No	_	
SvB2: Sisson-Casco-Hochheim complex, 2 to 6 percent slopes, eroded	Sisson	31	Terminal moraines	No	_	
	Casco	29	Terminal moraines	No	_	
	Hochheim	20	Terminal moraines	No	_	
SvC2: Sisson-Casco-Hochheim complex, 6 to 12 percent slopes, eroded	Sisson	31	Terminal moraines	No	_	
	Casco	29	Terminal moraines	No	_	
	Hochheim	20	Terminal moraines	No	_	
ThB2: Theresa silt loam, 2 to 6 percent slopes, eroded	Theresa-Eroded	80-90	Drumlins	No	_	
	Hochheim-Eroded	9-15	Drumlins	No	_	
	Lamartine	1-5	Drumlins	No	_	
Ww: Wet alluvial land	Wet alluvial land	100	Depressions on alluvial flats,drainageways on alluvial flats,flood plains on alluvial flats	Yes	2,3,4	
ZuC2: Zurich silt loam, 6 to 12 percent slopes, eroded	Zurich-Eroded	85-95	Lakebeds (relict)	No		
	Dresden	3-6	Stream terraces	No	_	
	Wauconda	2-5	Lakebeds (relict)	No	_	
	Orthents-Loamy	0-4	Lake plains,outwash plains,lakebeds (relict),ground moraines	No	_	

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 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.
- 2. 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–Washington County, Wisconsin						
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria		
Am—Alluvial land						
	Wet alluvial land	10	Flood plains	2, 3, 4		
AtA—Ashkum silty clay loam, 0 to 2 percent slopes						
	Ashkum, drained	92	End moraines, ground moraines	2		
	Peotone, drained	5	Depressions on ground moraines	2		

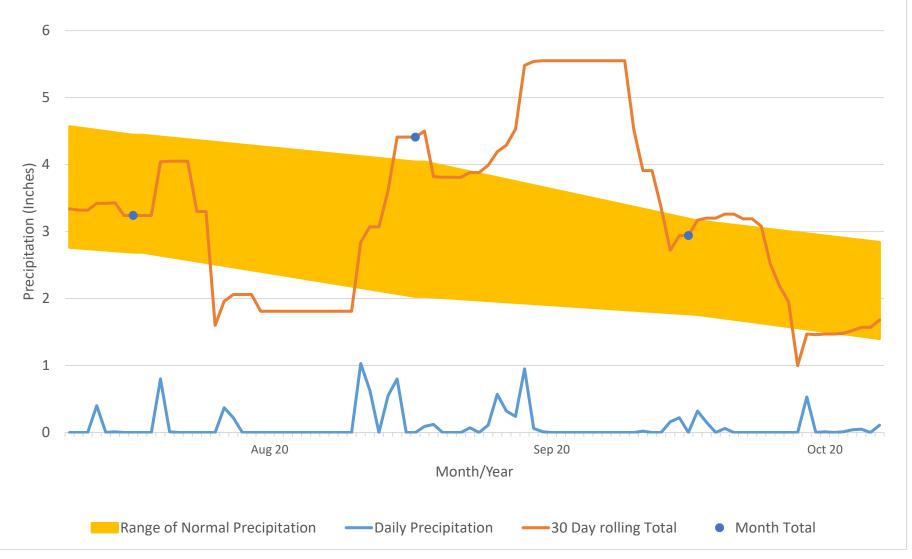
Hydric Soils–Washington County, Wisconsin						
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria		
LmA—Lamartine silt loam, 0 to 3 percent slopes						
	Pella	8	Drainageways	2, 3		
	Ossian	7	Depressions	2, 3		
MtA—Mequon silt loam, 1 to 3 percent slopes						
	Ashkum	10	Depressions	2, 3		
OuB—Ozaukee silt loam, high carbonate substratum, 2 to 6 percent slopes						
	Ashkum, drained	2	Ground moraines, end moraines	2		
OuB2—Ozaukee silt loam, high carbonate substratum, 2 to 6 percent slopes, eroded						
	Ashkum, drained	2	Ground moraines, end moraines	2		
Pc—Palms mucky peat, 0 to 2 percent slopes						
	Palms, mucky peat	90	Interdrumlins	1, 2, 3		
	Houghton, mucky peat	7	Depressions	1, 2, 3		
	Adrian	3	Interdrumlins	1, 3		
Ph—Pella silt loam, 0 to 2 percent slopes						
	Pella	85	Drainageways	2, 3		
	Palms, muck	2	Depressions	1, 3		
RaA—Radford silt loam, 0 to 3 percent slopes						
	Otter	4	Flood plains, drainageways	2, 3		
	Sable	3	Depressions	2, 3		
	Sebewa	2	Depressions	2, 3		
	Drummer	1	Depressions	2, 3		
Sm—Sebewa silt loam, 0 to 2 percent slopes						
	Sebewa	90	Depressions	2, 3		
	Adrian	6	Lakebeds (relict)	1, 3		
Ww—Wet alluvial land						
	Wet alluvial land	100	Depressions on alluvial flats, drainageways on alluvial flats, flood plains on alluvial flats	2, 3, 4		

Appendix F:

Precipitation Information



90 Day Antecedent Precipitation Rolling Total Washington County, Wisconsin Evergreen Consultants Project No. WSH20-013-01



NRCS method - Rainfall Documentation Worksheet Hydrology Tools for Wetland Determination NRCS Engineering Field Handbook Chapter 19

Date	11/17/2020	Landowner/Project	WSH20-013-01
Weather Station	Hartford 2 W, WI	State	Wisconsin
County	Washington County	Growing Season	yes
Photo/obs Date	10/29/2020	Soil Name	Ashkum silty clay loam

shaded cells are locked or calculated

Long-term rainfall statistics (from WETS table or State Climatology Office)

1st Prior Month*
2nd Prior Month*
3rd Prior Month*

30%	30%		Condition		Month	Product of
chance	chance		Dry, Wet,	Condition	Weight	Previous 2
<	>	Precip	Normal	Value	Value	Columns
2.03	4.04	3.32	N	2	3	6
2.69	4.44	3.78	N	2	2	4
3.00	4.99	4.29	N	2	1	2
	chance < 2.03 2.69	chance chance <	chance chance Precip 2.03 4.04 3.32 2.69 4.44 3.78	chance chance Precip Dry, Wet, Normal 2.03 4.04 3.32 N 2.69 4.44 3.78 N	chance chance Precip Dry, Wet, Normal Condition Value 2.03 4.04 3.32 N 2 2.69 4.44 3.78 N 2	chance chance Precip Dry, Wet, Normal Condition Value Weight Value 2.03 4.04 3.32 N 2 3 2.69 4.44 3.78 N 2 2

*compared to photo/observation date

Sum 12

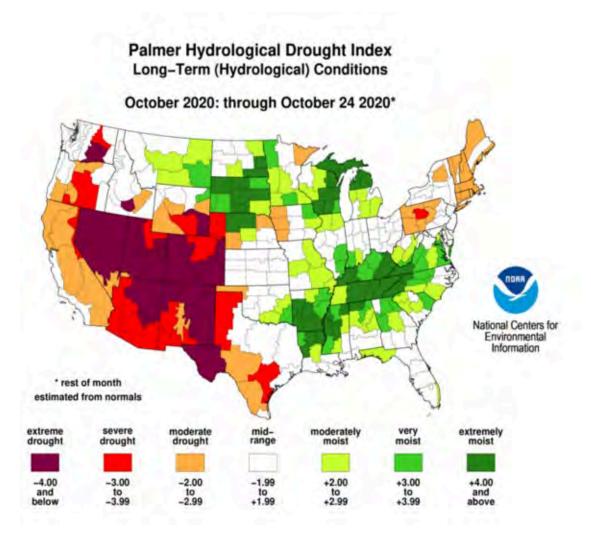
Note: If sum is					
6-9	prior period has been drier				
	than normal				
10 - 14	prior period has been normal				
15 - 18	prior period has been wetter				
	than normal				

Condition value:		
D ry =1		
Normal =2		
W et =3		

Conclusions:

prior period has been normal

WETS Station: HARTFORD 2 W, WI			
Requested years: 1981 - 2010			
Month	Avg Precip	30% chance precip less than	30% chance precip more than
Jan	1.42	0.77	1.72
Feb	1.18	0.53	1.43
Mar	1.69	0.97	2.03
Apr	3.06	2.08	3.62
May	3.36	2.4	4.09
Jun	4.1	2.48	4.96
Jul	4.29	3	4.99
Aug	3.78	2.69	4.44
Sep	3.32	2.03	4.04
Oct	2.83	1.76	3.16
Nov	2.27	1.22	2.68
Dec	1.59	1	1.98



Sources: National Oceanic & Atmospheric Administration, Palmer Hydrological Drought Index

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US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/1/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/2/2020 0.8 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/3/2020 0.8 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/4/2020 0.01 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/5/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/6/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/6/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/7/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/8/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/9/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/10/2020 0.37 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/11/2020 0.22 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/11/2020 0.22 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/13/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/14/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/15/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/16/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/19/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/19/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/20/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/21/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/21/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/22/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/24/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.65	US1WIWS0030	HARTFORD 2.9 ENE, WI US	7/30/2020	0
US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/2/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/3/2020 0.8 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/4/2020 0.01 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/5/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/6/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/7/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/9/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/9/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/10/2020 0.37 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/11/2020 0.22 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/12/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/14/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/15/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/17/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/19/2020 0	US1WIWS0030	HARTFORD 2.9 ENE, WI US	7/31/2020	0
US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/4/2020 0.01 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/5/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/6/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/6/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/7/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/8/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/9/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/9/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/10/2020 0.37 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/11/2020 0.22 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/11/2020 0.22 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/13/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/13/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/14/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/15/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/20/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/21/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/22/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/22/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/24/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/25/2020 1.03 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/25/2020 1.03 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/28/2020 0.55	US1WIWS0030	HARTFORD 2.9 ENE, WI US	8/1/2020	0
US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/5/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/6/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/7/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/7/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/8/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/9/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/9/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/10/2020 0.37 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/11/2020 0.22 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/12/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/12/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/13/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/14/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/16/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/16/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/16/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/19/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/19/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/20/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/20/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/21/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/22/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/24/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/25/2020 1.03 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/25/2020 1.03 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.65	US1WIWS0030	HARTFORD 2.9 ENE, WI US	8/2/2020	0
US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/5/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/7/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/7/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/8/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/9/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/9/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/10/2020 0.37 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/11/2020 0.22 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/12/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/13/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/13/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/14/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/16/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/16/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/17/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/18/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/19/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/20/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/21/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/21/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/21/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/22/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/22/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/22/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/25/2020 1.03 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/25/2020 1.03 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.65 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/28/2020 0.55	US1WIWS0030	HARTFORD 2.9 ENE, WI US	8/3/2020	0.8
US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/6/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/7/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/9/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/9/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/10/2020 0.37 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/11/2020 0.22 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/11/2020 0.22 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/12/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/13/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/14/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/15/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/16/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/16/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/18/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/19/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/20/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/21/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/22/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/22/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/22/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 1.03 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63	US1WIWS0030	HARTFORD 2.9 ENE, WI US	8/4/2020	0.01
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US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/8/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/10/2020 0.37 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/11/2020 0.22 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/11/2020 0.22 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/12/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/13/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/14/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/15/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/15/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/16/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/16/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/18/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/18/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/19/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/21/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/22/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/22/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/24/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/25/2020 1.03 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/28/2020 0.55	US1WIWS0030	HARTFORD 2.9 ENE, WI US	8/6/2020	0
US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/9/2020 0.37 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/11/2020 0.22 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/11/2020 0.22 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/12/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/13/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/14/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/15/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/15/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/16/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/17/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/18/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/19/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/20/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/21/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/22/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/25/2020 1.03 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/25/2020 1.03 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/25/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0.55	US1WIWS0030	HARTFORD 2.9 ENE, WI US	8/7/2020	0
US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/10/2020 0.22 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/11/2020 0.22 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/12/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/13/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/14/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/15/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/15/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/16/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/17/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/18/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/19/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/20/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/21/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/22/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/24/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/25/2020 1.03 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/25/2020 1.03 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0	US1WIWS0030	HARTFORD 2.9 ENE, WI US	8/8/2020	0
US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/11/2020 0.22 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/12/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/13/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/14/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/15/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/16/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/16/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/17/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/18/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/19/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/20/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/21/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/22/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/24/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/25/2020 1.03 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/28/2020 0.55	US1WIWS0030	HARTFORD 2.9 ENE, WI US	8/9/2020	0
US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/12/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/13/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/14/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/15/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/16/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/17/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/18/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/18/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/19/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/20/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/21/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/22/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/24/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/25/2020 1.03 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0.63	US1WIWS0030	HARTFORD 2.9 ENE, WI US	8/10/2020	0.37
US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/13/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/15/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/15/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/16/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/17/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/18/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/19/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/20/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/21/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/21/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/22/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/24/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/25/2020 1.03 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0	US1WIWS0030	HARTFORD 2.9 ENE, WI US	8/11/2020	0.22
US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/14/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/15/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/16/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/17/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/18/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/19/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/20/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/20/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/21/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/22/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/24/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/25/2020 1.03 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0	US1WIWS0030	HARTFORD 2.9 ENE, WI US	8/12/2020	0
US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/15/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/16/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/17/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/18/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/19/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/20/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/21/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/21/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/22/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/24/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/25/2020 1.03 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0	US1WIWS0030	HARTFORD 2.9 ENE, WI US	8/13/2020	0
US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/16/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/17/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/18/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/19/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/20/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/21/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/22/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/24/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/25/2020 1.03 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0.63	US1WIWS0030	HARTFORD 2.9 ENE, WI US	8/14/2020	0
US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/17/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/18/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/19/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/20/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/21/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/22/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/24/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/25/2020 1.03 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0	US1WIWS0030	HARTFORD 2.9 ENE, WI US	8/15/2020	0
US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/18/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/19/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/20/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/21/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/22/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/24/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/25/2020 1.03 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/25/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0	US1WIWS0030	HARTFORD 2.9 ENE, WI US	8/16/2020	0
US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/19/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/20/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/21/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/22/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/24/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/25/2020 1.03 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0	US1WIWS0030	HARTFORD 2.9 ENE, WI US	8/17/2020	0
US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/20/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/21/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/22/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/24/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/25/2020 1.03 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0	US1WIWS0030	HARTFORD 2.9 ENE, WI US	8/18/2020	0
US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/21/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/22/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/24/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/25/2020 1.03 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/28/2020 0.55	US1WIWS0030	HARTFORD 2.9 ENE, WI US	8/19/2020	0
US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/22/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/24/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/25/2020 1.03 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/28/2020 0.55	US1WIWS0030	HARTFORD 2.9 ENE, WI US	8/20/2020	0
US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/23/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/24/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/25/2020 1.03 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/28/2020 0.55	US1WIWS0030	HARTFORD 2.9 ENE, WI US	8/21/2020	0
US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/24/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/25/2020 1.03 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/28/2020 0.55	US1WIWS0030	HARTFORD 2.9 ENE, WI US	8/22/2020	0
US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/25/2020 1.03 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/28/2020 0.55	US1WIWS0030	HARTFORD 2.9 ENE, WI US	8/23/2020	0
US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/26/2020 0.63 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/28/2020 0.55	US1WIWS0030	HARTFORD 2.9 ENE, WI US	8/24/2020	0
US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/27/2020 0 US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/28/2020 0.55	US1WIWS0030	HARTFORD 2.9 ENE, WI US	8/25/2020	1.03
US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/28/2020 0.55	US1WIWS0030	HARTFORD 2.9 ENE, WI US	8/26/2020	0.63
	US1WIWS0030	HARTFORD 2.9 ENE, WI US	8/27/2020	0
US1WIWS0030 HARTFORD 2.9 ENE, WI US 8/29/2020 0.8	US1WIWS0030	HARTFORD 2.9 ENE, WI US	8/28/2020	0.55
	US1WIWS0030	HARTFORD 2.9 ENE, WI US	8/29/2020	0.8

US1WIWS0030	HARTFORD 2.9 ENE, WI US	8/30/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	8/31/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	9/1/2020	0.09
US1WIWS0030	HARTFORD 2.9 ENE, WI US	9/2/2020	0.12
US1WIWS0030	HARTFORD 2.9 ENE, WI US	9/3/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	9/4/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	9/5/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	9/6/2020	0.07
US1WIWS0030	HARTFORD 2.9 ENE, WI US	9/7/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	9/8/2020	0.11
US1WIWS0030	HARTFORD 2.9 ENE, WI US	9/9/2020	0.57
US1WIWS0030	HARTFORD 2.9 ENE, WI US	9/10/2020	0.32
US1WIWS0030	HARTFORD 2.9 ENE, WI US	9/11/2020	0.24
US1WIWS0030	HARTFORD 2.9 ENE, WI US	9/12/2020	0.95
US1WIWS0030	HARTFORD 2.9 ENE, WI US	9/13/2020	0.06
US1WIWS0030	HARTFORD 2.9 ENE, WI US	9/14/2020	0.01
US1WIWS0030	HARTFORD 2.9 ENE, WI US	9/15/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	9/16/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	9/17/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	9/18/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	9/19/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	9/20/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	9/21/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	9/22/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	9/23/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	9/24/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	9/25/2020	0.02
US1WIWS0030	HARTFORD 2.9 ENE, WI US	9/26/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	9/27/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	9/28/2020	0.16
US1WIWS0030	HARTFORD 2.9 ENE, WI US	9/29/2020	0.22
US1WIWS0030	HARTFORD 2.9 ENE, WI US	9/30/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	10/1/2020	0.32
US1WIWS0030	HARTFORD 2.9 ENE, WI US	10/2/2020	0.15
US1WIWS0030	HARTFORD 2.9 ENE, WI US	10/3/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	10/4/2020	0.06

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US1WIWS0030	HARTFORD 2.9 ENE, WI US	10/5/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	10/6/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	10/7/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	10/8/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	10/9/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	10/10/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	10/11/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	10/12/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	10/13/2020	0.53
US1WIWS0030	HARTFORD 2.9 ENE, WI US	10/14/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	10/15/2020	0.01
US1WIWS0030	HARTFORD 2.9 ENE, WI US	10/16/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	10/17/2020	0.01
US1WIWS0030	HARTFORD 2.9 ENE, WI US	10/18/2020	0.04
US1WIWS0030	HARTFORD 2.9 ENE, WI US	10/19/2020	0.05
US1WIWS0030	HARTFORD 2.9 ENE, WI US	10/20/2020	0
US1WIWS0030	HARTFORD 2.9 ENE, WI US	10/21/2020	0.11

Appendix G:

Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: WSH20-013-01	City/Co	unty: Richfield/ Washingt	Sampling Date: 21-Oct-20
Applicant/Owner: Alligator Enterprises LLC		State: WI	Sampling Point: T1A
Investigator(s): Benjamin L LaCount	Sect	ion, Township, Range:	s. 01 T. 09N R. 19E
Landform (hillslope, terrace, etc.): ditch	Local re	lief (concave, convex, no	one): concave Slope: 0-1 % /
Subregion (LRR or MLRA): LRR K	Lat .: 44.2746	35 Long	.: -88.192378 Datum :
Soil Map Unit Name: Sm- Sebewa silt loam, 0 to 2	percent slopes		NWI classification: none
Are climatic/hydrologic conditions on the site typica	al for this time of year?	Yes ● No ○	(If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology			Circumstances" present? Yes No
Are Vegetation , Soil , or Hydrology			explain any answers in Remarks.)
Summary of Findings - Attach site m		,	
Hydrophytic Vegetation Present? Yes • No) O		·
Hydric Soil Present? Yes No	\circ	Is the Sampled Area within a Wetland?	Yes ● No ○
Wetland Hydrology Present? Yes No.	\circ	within a wetland:	
Hydrology			
Wetland Hydrology Indicators:			Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; che	_		Surface Soil Cracks (B6)
✓ Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9)		Drainage Patterns (B10)
Saturation (A3)	Aquatic Fauna (B13) Marl Deposits (B15)		Moss Trim Lines (B16) Dry Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres along	a Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift deposits (B3)	Presence of Reduced Iron (0		Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Til	•	✓ Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)		Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)		Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)			FAC-neutral Test (D5)
Field Observations:			
Surface Water Present? Yes • No	Depth (inches): 2		
Water Table Present? Yes No •	Depth (inches):	Wotland Hydro	ology Present? Yes No
Saturation Present? (includes capillary fringe) Yes No No	Depth (inches):		
Describe Recorded Data (stream gauge, monitorin	g well, aerial photos, previo	ous inspections), if availa	able:
Remarks:			
	ater is perched on the silty	clay loam soil. The dom	ninance by cattail demonstrated the water persists a

vegeration - ose scientific flames of pr		Sampling Point: T1A			
(2)	Absolute	Dominant	maicator	Dominance Test worksheet:	
_Tree Stratum (Plot size: _Linear 15'x100'_)	% Cover	Species?	Status	Number of Dominant Species	
1. Salix nigra	5	✓	OBL	That are OBL, FACW, or FAC:3 (A)	
2	0			Total Number of Descinant	
3	0			Total Number of Dominant Species Across All Strata:3 (B)	
4	0				
5				Percent of dominant Species That Are OBL_FACW_or_FAC: 100.0% (A/B)	
6				That Are OBL, FACW, or FAC: 100.0% (A/B)	
7				Prevalence Index worksheet:	
(Plat size Linear 15 v100)	5 =	Total Cove	r	Total % Cover of: Multiply by:	
Sapling/Shrub Stratum (Plot size: Linear 15'x100')				0BL species <u>105</u> x 1 = <u>105</u>	
1				FACW species 0 x 2 = 0	
2				FAC species 10 x 3 = 30	
3	0			FACU species $0 \times 4 = 0$	
4	0			UPL species $0 \times 5 = 0$	
5	0				
6	=			Column Totals: <u>115</u> (A) <u>135</u> (B)	
7	0			Prevalence Index = B/A = <u>1.174</u>	
Herb Stratum (Plot size: 5 ft radius)	0 =	Total Cove	r	Hydrophytic Vegetation Indicators:	
				Rapid Test for Hydrophytic Vegetation	
1 Typha x glauca		~	OBL	✓ Dominance Test is > 50%	
2				✓ Prevalence Index is ≤3.0 ¹	
3				Morphological Adaptations ¹ (Provide supporting	
4	0			data in Remarks or on a separate sheet)	
5	0			Problematic Hydrophytic Vegetation ¹ (Explain)	
6	0				
7	0			Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
8	0				
9	0			Definitions of Vegetation Strata:	
10	0			Tree - Woody plants, 3 in. (7.6 cm) or more in diameter	
11	0			at breast height (DBH), regardless of height.	
12	0			Sapling/shrub - Woody plants less than 3 in. DBH and	
Woody Vine Stratum (Plot size: Linear 15'x100')	100 =	= Total Cove	r	greater than 3.28 ft (1m) tall	
1. Solanum dulcamara	10	✓	FAC	Herb - All herbaceous (non-woody) plants, regardless of	
2	0			size, and woody plants less than 3.28 ft tall.	
3	0			Woody vine - All woody vines greater than 3.28 ft in	
4	0			height.	
	10 =	Total Cove	r		
				Hydrophytic	
				Vegetation Present? Yes No	
Danielle (Include the territories have a second to the sec	h 4 \			I	
Remarks: (Include photo numbers here or on a separate s	neet.)				

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: T1A

Profile Descr	iption: (Des	scribe to	the depth	needed to d	locument	t the indi	cator or co	onfirm the	absence of indicators.)				
Depth									_				
(inches)	Color (moist)	%	Color (moist)	%_	Type 1	Loc2	Texture	Remarks			
0-20	10YR	2/2	85	7.5YR	4/6	5	C	M	Silty Clay Loam	_			
	10YR	5/4	10						Silty Clay	mixed in			
20-24		5/4	93	10YR	4/6	- <u> </u>		M	Silty Clay				
		-		10YR			D			-			
		-	-		4/2					-			
		-			-								
		-			-	-					—		
1 Type: C=Cond	entration. D	=Depletio	n. RM=Red	uced Matrix. (CS=Cover	ed or Coat	ed Sand Gr	ains ² Loca	ation: PL=Pore Lining. M=	Matrix			
¹ Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils: ³													
Histosol (Polya	alue Relo	w Surface	(S8) (LRR	₹.		lematic Hydric Soils: 3			
	pedon (A2)				4 149B)	Janace	(SO) (LIKIK	~1		(LRR K, L, MLRA 149B)			
Black Hist				Thin	Dark Surf	ace (S9) ((LRR R, ML	RA 149B)		lox (A16) (LRR K, L, R)			
	Sulfide (A4)			Loam	ny Mucky	Mineral (F	1) LRR K, L)		or Peat (S3) (LRR K, L, R)			
	Layers (A5)			Loam	ny Gleyed	Matrix (F2	2)		Dark Surface (S7) (LRR K, L, M)				
	Below Dark S	Surface (A	11)	Deple	eted Matri	x (F3)			Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L)				
	k Surface (A´		,	✓ Redo	x Dark Su	ırface (F6)							
	ck Mineral (S			Deple	eted Dark	Surface (F	7)			Masses (F12) (LRR K, L, R)			
	yed Matrix (Redo	x Depress	sions (F8)				lain Soils (F19) (MLRA 149B)			
Sandy Red		01)							✓ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)✓ Red Parent Material (F21)				
	Matrix (S6)												
	ace (S7) (LRI	R R. MI RA	149B)						✓ Very Shallow Dark Surface (TF12)✓ Other (Explain in Remarks)				
										Remarks)			
³ Indicators of	hydrophytic	vegetatio	n and wetla	and hydrology	must be p	oresent, ur	nless distur	bed or proble	ematic.				
Restrictive La	ayer (if obs	erved):											
Type:													
Depth (incl	nes):								Hydric Soil Present?	Yes ● No ○			
Remarks:													
	coil was r	ocently f	ormed in	the roadside	ditch								
l lie liyane	. 3011 Wa3 11	cccritiy i	orrica iii	tric rodusiut	uiteii								
1													

Project/Site: WSH20-013-01	City/County: R	chfield/ Washington Sampling Date: 21	-Oct-20
Applicant/Owner: Alligator Enterprises LLC	_	State: WI Sampling Point:	T1B
Investigator(s): Benjamin L LaCount	Section, Tow	nship, Range: S. 01 T. 09N	R . 19E
Landform (hillslope, terrace, etc.): Hillslope	Local relief (con	ave, convex, none): convex Slope:	2.0 % / 1.1 °
Subregion (LRR or MLRA): LRR K	Lat.: 44.274849		um: NAD83
Soil Map Unit Name: Sm- Sebewa silt loam, 0 to 2 percent sl		NWI classification: none	
Are climatic/hydrologic conditions on the site typical for this	time of year? Yes	No (If no, explain in Remarks.)	
Are Vegetation ✓ , Soil □ , or Hydrology □ si	gnificantly disturbed?	Are "Normal Circumstances" present? Yes	No 💿
Are Vegetation, Soil, or Hydrology na	aturally problematic?	(If needed, explain any answers in Remarks.)	
Summary of Findings - Attach site map sho			atures, etc.
Hydrophytic Vegetation Present? Yes No No	3 . 3.		•
Hydric Soil Present? Yes No •		Impled Area Wetland? Yes ○ No ●	
Wetland Hydrology Present? Yes ○ No ●	within a	Wetland? Yes Viole	
Remarks: (Explain alternative procedures here or in a separ			
Hydrology			
Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 reg	uired)
Primary Indicators (minimum of one required; check all that	t apply)	Surface Soil Cracks (B6)	
Surface Water (A1) Water-St	tained Leaves (B9)	Drainage Patterns (B10)	
_ `	Fauna (B13)	Moss Trim Lines (B16)	
	oosits (B15)	Dry Season Water Table (C2)	
	n Sulfide Odor (C1)	Crayfish Burrows (C8)	(00)
	Rhizospheres along Living Ro e of Reduced Iron (C4)	ots (C3) Saturation Visible on Aerial Imagery Stunted or Stressed Plants (D1)	(09)
	ron Reduction in Tilled Soils (
	ck Surface (C7)	Shallow Aquitard (D3)	
Inundation Visible on Aerial Imagery (B7) Other (E	xplain in Remarks)	Microtopographic Relief (D4)	
Sparsely Vegetated Concave Surface (B8)		FAC-neutral Test (D5)	
Field Observations:			
	(inches):		
Water Table Present? Yes No Depth	(inches):	Wetland Hydrology Present? Yes No •)
(includes capillary minge)	(inches):		,
Describe Recorded Data (stream gauge, monitoring well, aer	rial photos, previous inspe	ctions), if available:	
No water was encountered to 24 inches.			
Remarks:			
This is Area G on the hydrology assessment. The area crop stress. D1 and C9 were not confirmed in the field and hydric s			tures and

vegeration - use scientific names of pla	nts			Sampling Point: T1B			
(O)	Absolute		Indicator	Dominance Test worksheet:			
<u>Tree Stratum</u> (Plot size: <u>30 ft radius</u>)	% Cove	r Species?	Status	Number of Dominant Species			
1				That are OBL, FACW, or FAC: (A)			
2				Total Number of Dominant			
3				Species Across All Strata: (B)			
4				Percent of dominant Species			
5				That Are OBL, FACW, or FAC: 0.0% (A/B)			
6				Prevalence Index worksheet:			
	0	= Total Cover		Total % Cover of: Multiply by:			
Sapling/Shrub Stratum (Plot size: 15 ft radius)		- Total Cover		0BL species 0 x 1 = 0			
1	0			FACW species 0 x 2 = 0			
2				FAC species x 3 =0			
3				FACU speciles			
4	-			UPL species $0 \times 5 = 0$			
5	=			Column Totals:5_ (A)20_ (B)			
6							
7		= Total Cover		Prevalence Index = B/A = 4.000			
Herb Stratum (Plot size: 5 ft radius)	0	- rotal cover		Hydrophytic Vegetation Indicators:			
1Taraxacum officinale	5	✓	FACU	Rapid Test for Hydrophytic Vegetation			
2	0			Dominance Test is > 50%			
3				Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Provide supporting			
4	0			data in Remarks or on a separate sheet)			
5	0			☐ Problematic Hydrophytic Vegetation ¹ (Explain)			
6				1			
7				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
8				Definitions of Vegetation Strata:			
9				_			
10				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.			
11 12				at breast neight (DBH), regardless of height.			
12	- 	= Total Cover		Sapling/shrub - Woody plants less than 3 in. DBH and			
Woody Vine Stratum (Plot size: 30 ft radius)		- Total Gover		greater than 3.28 ft (1m) tall			
1	0			Herb - All herbaceous (non-woody) plants, regardless of			
2	0			size, and woody plants less than 3.28 ft fall.			
3				Woody vine - All woody vines greater than 3.28 ft in			
4				height.			
	0	= Total Cover					
				Hydrophytic			
				Vegetation Present? Yes ○ No ●			
				Tresent.			
Remarks: (Include photo numbers here or on a separate she	eet)						
Planted corn field, corn is healthy. No adjacent vegetation i		ndscape positi	on to revi	ew. would not expect to find hydrophytic vegetation at			
this location under normal circumstances as there is no wet							

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: T1B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)													
Depth		Matrix				dox Featu			_				
(inches)	Color (%	Color (moist)	%_	Type ¹	Loc2	Texture	Remarks			
0-16	10YR	3/3	100						Silty Clay Loam				
16-24	10YR	5/4	97	10YR	5/6	3	С	М	Silty Clay Loam				
					-				-				
		-	-		-				-				
		-											
		-											
		-	-	-		-							
¹ Type: C=Cond	centration. D	=Depletio	n. RM=Red	uced Matrix, (CS=Covere	ed or Coate	ed Sand Gr	ains ² Loca	ation: PL=Pore Lining. M=N	<i>M</i> atrix			
Hydric Soil I	ndicators:								Indicators for Probl	ematic Hydric Soils : 3			
Histosol (A						w Surface ((S8) (LRR I	R,		(LRR K, L, MLRA 149B)			
Histic Epip	edon (A2)			_	A 149B)) (LRR K, L, IVILRA 1496) (DX (A16) (LRR K, L, R)			
Black Histi	ic (A3)					ace (S9) (I				or Peat (S3) (LRR K, L, R)			
Hydrogen	Sulfide (A4)					Mineral (F1)	Dark Surface (S7)				
Stratified I	Layers (A5)					Matrix (F2))			Surface (S8) (LRR K, L)			
Depleted B	Below Dark S	Surface (A	11)		eted Matri				Thin Dark Surface				
☐ Thick Dark	k Surface (A	12)				rface (F6)				Masses (F12) (LRR K, L, R)			
Sandy Mud	ck Mineral (S	S1)				Surface (F	7)		Piedmont Floodplain Soils (F19) (MLRA 149B)				
Sandy Gle	yed Matrix (S4)		☐ Redo	x Depress	sions (F8)				6) (MLRA 144A, 145, 149B)			
Sandy Red	dox (S5)								Red Parent Material (F21)				
Stripped M	Natrix (S6)								Very Shallow Dark Surface (TF12)				
☐ Dark Surfa	ace (S7) (LR	R R, MLRA	149B)						Other (Explain in				
³ Indicators of	hydrophytic	vegetatio	n and wetla	ind hydrology	must be p	oresent, un	less distur	bed or probl					
Restrictive La					•			•					
Type:	ayer (II obs	erveu).											
Depth (inch	noc):								Hydric Soil Present?	Yes ○ No •			
•	163)												
Remarks:													
İ													

Project/Site: WSH20-013-01		City/County:	Richfield/ Washing	on Sampli	ng Date: 21-Oct-20
Applicant/Owner: Alligator Enterprises LLC			State: WI	Sampling Point:	T1C
Investigator(s): Benjamin L LaCount		Section, To	wnship, Range:	т. 09N	R . 19E
Landform (hillslope, terrace, etc.): Hillslope		Local relief (co	oncave, convex, n	one): convex	Slope: 2.0 % / 1.1 °
Subregion (LRR or MLRA): LRR K	Lat.: 1	44.03282	Long	: -88.191915	Datum: NAD83
Soil Map Unit Name: RaA- Radford silt loam, 0	to 3 percent slopes			NWI classification:	none
Are climatic/hydrologic conditions on the site ty	ypical for this time of ye	ear? Yes	s • No O	— (If no, explain in Remark	(s.)
Are Vegetation , Soil , or Hydrol		ly disturbed?		Circumstances" present?	V (A) N- (
Are Vegetation , Soil , or Hydrol		roblematic?		xplain any answers in Re	
Summary of Findings - Attach site			•		•
Hydrophytic Vegetation Present? Yes	No •	-			
Hydric Soil Present? Yes	No •		Sampled Area a Wetland?	Yes ○ No •	
Wetland Hydrology Present?	No •	· ·	I d Welland.		
Hydrology					
Wetland Hydrology Indicators:				Secondary Indicators (minir	
Primary Indicators (minimum of one required;				Surface Soil Cracks (B6	
Surface Water (A1) High Water Table (A2)	Water-Stained Leav			Drainage Patterns (B10))
Saturation (A3)	Aquatic Fauna (B13) Marl Deposits (B15)			Moss Trim Lines (B16)Dry Season Water Tabl	a (C2)
Water Marks (B1)	Hydrogen Sulfide O			Crayfish Burrows (C8)	6 (02)
Sediment Deposits (B2)	Oxidized Rhizosphe		Roots (C3)	Saturation Visible on A	erial Imagery (C9)
Drift deposits (B3)	Presence of Reduce	0 0	•	✓ Stunted or Stressed Pla	ants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduct	tion in Tilled Soils	s (C6)	Geomorphic Position (E	02)
☐ Iron Deposits (B5)	Thin Muck Surface	(C7)		Shallow Aquitard (D3)	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Re	emarks)		Microtopographic Relie	f (D4)
Sparsely Vegetated Concave Surface (B8)				FAC-neutral Test (D5)	
Field Observations:					
Surface Water Present? Yes No •	Depth (inches):				
Water Table Present? Yes No •	Depth (inches):		Wetland Hydro	Noay Present? Yes	○ No ●
Saturation Present? (includes capillary fringe) Yes No No	Depth (inches):				
Describe Recorded Data (stream gauge, monit	oring well, aerial photos	s, previous insp	pections), if availa	able:	
No water was encountered to 24 inches.					
Remarks:					
There is a drainage ditch on the adjacent prop	erty to the east that hel	ps drain this f	ield.		

401 4001	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: Linear 10'x100')	% Cover	Species?	Status	Number of Dominant Species
1	0			That are OBL, FACW, or FAC:1 (A)
2	0			
3				Total Number of Dominant
				Species Across All Strata:3(B)
4				Percent of dominant Species
5				That Are OBL, FACW, or FAC: 33.3% (A/B)
6				
7	0			Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: Linear 10'x40')	=	Total Cover	•	Total % Cover of: Multiply by:
	0			0BL species0 x 1 =0
1				FACW species <u>50</u> x 2 = <u>100</u>
2				FAC species x 3 =60
3	0			FACU speciles 25 x 4 = 100
4	0			'
5	0			l '
6	0			Column Totals: <u>110</u> (A) <u>335</u> (B)
7	0			Prevalence Index = B/A =3.045_
	0 =	Total Cover		
Herb Stratum (Plot size: 5 ft radius)				Hydrophytic Vegetation Indicators:
1. Phalaris arundinacea	50	✓	FACW	☐ Rapid Test for Hydrophytic Vegetation
2. Setaria pumila	10		FAC	☐ Dominance Test is > 50%
3. Panicum virgatum			FAC	Prevalence Index is ≤3.0 ¹
		✓	FACU	Morphological Adaptations ¹ (Provide supporting
"		✓	UPL	data in Remarks or on a separate sheet)
5. Pastinaca sativa				☐ Problematic Hydrophytic Vegetation ¹ (Explain)
6. Taraxacum officinale	5		FACU	1
7. Cirsium vulgare			FACU	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8				
9	0			Definitions of Vegetation Strata:
10	0			Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
11				at breast height (DBH), regardless of height.
12				Configuration by Washingtonia Issae the Co. DRII and
		Total Cover		Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size: Linear 10'x100')				groater than 6.20 ft (1111) talli
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3	0			Woody vine - All woody vines greater than 3.28 ft in
Δ.	0			height.
Ти	0 =	Total Cover		3 1
		Total Gover		
				Hydrophytic
				Hydrophytic Vegetation
				Present? Yes No •
Remarks: (Include photo numbers here or on a separate she	et.)			
Adjacent corn is healthy, vegetation taken from edge of the				
ragacent com is nearthy, vegetation taken from eage of the	com neia.			

Sampling Point: T1C

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: T1C

(inches)		Matrix				dox Feat			. <u> </u>	_			
	Color (r		%	Color	moist)	%_	Type ¹	Loc ²	Texture	Remark	S		
0-12	10YR	3/3	100						Silty Clay Loam				
12-13	10YR	3/3	98	5YR	3/4		C		Silty Clay Loam				
13-20	10YR	3/3	100						Silty Clay Loam				
20-24	10YR	2/2	100						Silty Clay Loam				
				-									
				-									
				-				-					
		=Depletio	n. RM=Redu	uced Matrix,	CS=Cover	ed or Coat	ted Sand Gr	ains ² Loca	tion: PL=Pore Lining. M=M				
Hydric Soil II				□ p	ualua Del	C.,,-f	(CO) /LDD 5		Indicators for Proble	ematic Hydric So	oils: 3		
_ Histosol (A _ Histic Epip	•			∟ Poly MLR	value Belo A 149B)	w surrace	(S8) (LRR F	λ,	2 cm Muck (A10)				
Black Histi				Thir	Dark Surf	ace (S9)	(LRR R, MLF	2A 149B)	Coast Prairie Redo				
	Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) LRR K, L)							5 cm Mucky Peat or Peat (S3) (LRR K, L, R)					
	Stratified Layers (A5) Loamy Gleyed Matrix (F2)								☐ Dark Surface (S7) (LRR K, L, M) ☐ Polyvalue Below Surface (S8) (LRR K, L)				
Depleted F	Depleted Below Dark Surface (A11) Depleted Matrix (F3)								Thin Dark Surface		., L)		
☐ Thick Dark Surface (A12) ☐ Redox Dark Surface (F6) ☐ Depleted Dark Surface (F7)							☐ Iron-Manganese M		K, L, R)				
_	ck Mineral (S						- /)		Piedmont Floodplain Soils (F19) (MLRA 149B)				
_	Sandy Gleyed Matrix (S4) Redox Depressions (F8)						Mesic Spodic (TA6) (MLRA 144A, 145, 149B)						
_	Sandy Redox (S5)						Red Parent Material (F21)						
Stripped M	natrix (S6) ace (S7) (LRR	D MIDA	\ 1/OR\										
									Other (Explain in F	Remarks)			
		vegetatio	n and wetla	nd hydrology	must be p	present, ui	nless disturt	ed or probl	ematic.				
³ Indicators of													
³ Indicators of Restrictive La									Hydric Soil Present?		, •		
³ Indicators of Restrictive La Type:	ayer (if obse									Vac () Nr			
³ Indicators of Restrictive La Type: Depth (inch	ayer (if obse								nyulic soil Present?	Yes ○ No)		
³ Indicators of estrictive La Type: Depth (inch	ayer (if obse								nyunc son Present?	Yes ○ No	, <u> </u>		
³ Indicators of estrictive La Type: Depth (inch	ayer (if obse								nyunc sun Present?	Yes ○ No	<u> </u>		
³ Indicators of estrictive La Type: Depth (inch	ayer (if obse								nyunc son Present?	Yes ○ No			
³ Indicators of estrictive La Type: Depth (inch	ayer (if obse								nyulic Suil Plesent?	Yes ○ No			
Indicators of estrictive La Type: Depth (inch	ayer (if obse								nyulit Sull Plesent?	Yes ○ No	<u> </u>		
Indicators of estrictive La Type: Depth (inch	ayer (if obse								nyunc son Present?	Yes ○ No			
Indicators of estrictive La Type: Depth (inch	ayer (if obse								nyulit Sull Plesent?	Yes ○ No	<u> </u>		
Indicators of estrictive La Type: Depth (inch	ayer (if obse								nyulic Sull Present?	Yes ○ No			
³ Indicators of estrictive La Type: Depth (inch	ayer (if obse								nyulit Sull Plesent?	Yes ○ No			
³ Indicators of estrictive La Type: Depth (inch	ayer (if obse								nyulic Sull Plesent?	Yes ○ No	<u>.</u>		
³ Indicators of estrictive La Type: Depth (inch	ayer (if obse								nyulic Sull Plesent?	Yes ○ No			
³ Indicators of Restrictive La Type:	ayer (if obse								nyulit Sull Plesent?	Yes ○ No			
³ Indicators of Restrictive La Type: Depth (inch	ayer (if obse								nyulit Sull Plesent?	Yes ○ No			
³ Indicators of Restrictive La Type: Depth (inch	ayer (if obse								nyulic Sull Plesent?	Yes ○ No	<u>.</u>		
³ Indicators of Restrictive La Type: Depth (inch	ayer (if obse								nyulic Sull Present?	Yes O No	9.⊌		
³ Indicators of estrictive La Type: Depth (inch	ayer (if obse								nyulic Sull Plesent?	Yes O No	. • • • • • • • • • • • • • • • • • • •		

Project/Site: WSH20-013-01	City/County:	Richfield/ Washingt	on Sam _l	oling Date: 21-Oct-20
Applicant/Owner: Alligator Enterprises LLC		State: WI	Sampling Point	: T1D
Investigator(s): Benjamin L LaCount	Section, To	wnship, Range: S	. 01 т . 09N	R . 19E
Landform (hillslope, terrace, etc.): Hillslope	_ Local relief (co	oncave, convex, no	ne): convex	Slope: 3.0 % / 1.7°
	44.276079		: -88.192052	Datum: NAD83
	44.270079		NWI classification	
Soil Map Unit Name: RaA- Radford silt loam, 0 to 3 percent slopes				none
Are climatic/hydrologic conditions on the site typical for this time of y	ear? Ye	s • No O	(If no, explain in Rema	-
Are Vegetation . , Soil . , or Hydrology . significant	ly disturbed?	Are "Normal (Circumstances" presen	t? Yes ● No ○
Are Vegetation $\ \square$, Soil $\ \square$, or Hydrology $\ \square$ naturally $\ p$	problematic?	(If needed, ex	cplain any answers in	Remarks.)
Summary of Findings - Attach site map showing s	sampling p	oint locations	s, transects, imp	ortant features, etc.
Hydrophytic Vegetation Present? Yes No •				
Hydric Soil Present? Yes ○ No •		Sampled Area a Wetland?	Yes \bigcirc No $ullet$	
Wetland Hydrology Present? Yes ○ No ●				
This is a planted hay field recently cut, used adjacent vegetation in is in a similar landscape position.			J. T.	
Hydrology				
Wetland Hydrology Indicators:			Secondary Indicators (mi	
Primary Indicators (minimum of one required; check all that apply)			Surface Soil Cracks (·
Surface Water (A1) Water-Stained Lea High Water Table (A2) Aquatic Fauna (B1			Drainage Patterns (B	·
High Water Table (A2) Saturation (A3) Aquatic Fauna (B1			✓ Moss Trim Lines (B1)✓ Dry Season Water Ta	•
Water Marks (B1) Hydrogen Sulfide (Crayfish Burrows (C8	
Sediment Deposits (B2) Oxidized Rhizosph		Roots (C3)	Saturation Visible on	
☐ Drift deposits (B3) ☐ Presence of Reduc		(,	Stunted or Stressed	0 3 . ,
Algal Mat or Crust (B4)		s (C6)	Geomorphic Position	(D2)
Iron Deposits (B5) Thin Muck Surface	e (C7)		Shallow Aquitard (D3	3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in F	Remarks)		Microtopographic Re	
Sparsely Vegetated Concave Surface (B8)			FAC-neutral Test (D5	5)
Field Observations: Surface Water Present? Yes No Depth (inches):				
Water Table Present? Yes O No Depth (inches):				
Saturation Present? (includes capillary fringe) Yes No Depth (inches):		Wetland Hydro	logy Present? Ye:	s ○ No ●
Describe Recorded Data (stream gauge, monitoring well, aerial photo	os, previous ins	pections), if availa	ble:	
No water was encountered to 24 inches.				
Remarks:				
Field is well-drained.				
This is Area F on the hydrology assessment. The area displayed we crop stress. D1 and C9 were not confirmed in the field and hydric soil indicators			ars and consisted of s	oil signatures and

Tree Stratum (Plot size: Linear 20'x100')	Absolute	Dominant Species?	Indicator	Dominance Test worksheet:
,	% Cover		Status	Number of Dominant Species
1. Acer negundo		✓	FAC	That are OBL, FACW, or FAC:1(A)
2. Tilla americana	-	✓	FACU	Total Number of Dominant
3	0			Species Across All Strata:5(B)
4	0			
5	0			Percent of dominant Species That Are OBL_FACW_or_FAC: 20.0% (A/B)
6	0			That Are OBL, FACW, or FAC:20.0% (A/B)
7	_			Prevalence Index worksheet:
(District A. Linner 201-251 -)	35 =	Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: Linear 20'x35')				0BL species 0 x 1 = 0
1 _ Lonicera x bella	30	✓	FACU	FACW species 10 x 2 = 20
2. Rhamnus cathartica	5		FAC	FAC speciles 25 x 3 = 75
3	0			
4	0			·
5	0			UPL species $\frac{35}{}$ x 5 = $\frac{175}{}$
6				Column Totals: <u>150</u> (A) <u>590</u> (B)
7				Prevalence Index = B/A =3.933_
		Total Cover		
Herb Stratum (Plot size: 5 ft radius)				Hydrophytic Vegetation Indicators:
1. Phalaris arundinacea	10		FACW	Rapid Test for Hydrophytic Vegetation
2. Bromus inermis	25	<u></u>	UPL	☐ Dominance Test is > 50%
3. Taraxacum officinale	- 10		FACU	Prevalence Index is ≤3.0 ¹
A Talfallum range			FACU	Morphological Adaptations ¹ (Provide supporting
- 0 11 11 1		✓	FACU	data in Remarks or on a separate sheet)
0 8	- 10		UPL	☐ Problematic Hydrophytic Vegetation ¹ (Explain)
6. Daucus carota			UPL	1 Indicators of hydric soil and wetland hydrology must
7				be present, unless disturbed or problematic.
8				Definitions of Vegetation Strata:
9				Definitions of Vegetation Strata.
10				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
11				at breast height (DBH), regardless of height.
12	0			Sapling/shrub - Woody plants less than 3 in. DBH and
(Plot size, Linear 20'v100')	80 =	Total Cover		greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size: Linear 20'x100')	_			
1				Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
2	0			size, and woody plants less than 3.20 it tall.
3				Woody vine - All woody vines greater than 3.28 ft in
4	0			height.
	0 =	Total Cover		
				Hydrophytic
				Vegetation Present? Yes ○ No ●
Remarks: (Include photo numbers here or on a separate she				
Used vegetation from tree line to the north at approximate				
The center of the tree line was not used as it is in a higher	topograpnic	position tha	n the Heid.	

Sampling Point: T1D

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: T1D

	iption: (De		the depth	needed to				onfirm the	absence of indicators.)				
Depth (inches)	Color (Matrix	——————————————————————————————————————	Calar		dox Featu ∞		l oc?	- Toyturo	Domorto			
0-6	Color (moist) 3/2	100	Color (moist)	%	Type ¹	Loc2	Texture Silty Clay Loam	Remarks			
6-14	10YR	3/2	97	5YR	3/4	3	C		Silty Clay Loam				
14-20	10YR	3/2	100	-					Silty Clay Loam				
20-24	10YR	4/4	98	10YR	4/6	2	C	M	Silty Clay Loam				
i													
		-		-	-								
		-		-									
				-									
¹ Type: C=Cond	centration. D	=Depletio	n. RM=Red	uced Matrix,	CS=Covere	ed or Coate	ed Sand Gr	ains ² Loca	ation: PL=Pore Lining. M=M	atrix			
Hydric Soil I									Indicators for Proble	ematic Hydric Soils: 3			
Histosol (A	•				/alue Belov A 149B)	v Surface	(S8) (LRR I	₹,		(LRR K, L, MLRA 149B)			
	pedon (A2)					nce (S9) (LRR R, MLI	RA 149B)	Coast Prairie Redo	x (A16) (LRR K, L, R)			
Black Histi) LRR K, L		5 cm Mucky Peat	or Peat (S3) (LRR K, L, R)			
	Sulfide (A4) Layers (A5)				ny Gleyed			,	Dark Surface (S7)				
	Below Dark S	Surface (A	11)		eted Matrix				Polyvalue Below Surface (S8) (LRR K, L)				
	Surface (A		,		x Dark Su				Thin Dark Surface (S9) (LRR K, L)				
	ck Mineral (S			Depl	eted Dark	Surface (F	7)		☐ Iron-Manganese Masses (F12) (LRR K, L, R) ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)				
_	yed Matrix (Redo	x Depress	ions (F8)							
Sandy Rec									✓ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)✓ Red Parent Material (F21)				
Stripped N	Matrix (S6)								Very Shallow Dark Surface (TF12)				
☐ Dark Surfa	ace (S7) (LRI	R R, MLRA	149B)						Other (Explain in F				
³ Indicators of	hydrophytic	vegetatio	n and wetla	nd hydrology	must be p	resent, un	less distur	bed or proble		,			
Restrictive La				, ,,	•			•					
Type:	iyer (ii obs	ci veu).											
Depth (inch	nes):								Hydric Soil Present?	Yes O No 💿			
Remarks:													
Kemarks.													
ı													
ı													
i													

Project/Site: WSH20-013-01		City/County:	Richfield/ Washingt	on Sam	pling Date: 21-Oct-20
Applicant/Owner: Alligator Enterprises LLC			State: WI	Sampling Point	
Investigator(s): Benjamin L LaCount		Section, To	ownship, Range: \$	т. 09N	R . 19E
Landform (hillslope, terrace, etc.): Hillslope		_	oncave, convex, no		Slope: 3.0 % / 1.7°
Subregion (LRR or MLRA): LRR K	Lat.:	44.276708	Long.	: -88191876	Datum: NAD83
Soil Map Unit Name: Ph- Pella silt loam, 0 to 2	percent slopes			NWI classificatio	n: none
Are climatic/hydrologic conditions on the site to	voical for this time of v	ear? Ye	s • No O	— (If no, explain in Rema	nrks.)
Are Vegetation ✓ , Soil □ , or Hydro		ly disturbed?		Circumstances" preser	
		•		•	
Are Vegetation ☐ , Soil ☐ , or Hydro Summary of Findings - Attach site	· ·	oroblematic? Sampling p		oplain any answers in Setransectse imp	
Hydrophytic Vegetation Present? Yes	No •	<u> </u>		,	
Hydric Soil Present? Yes •	No O		Sampled Area	Yes ○ No ●	
Y (No •	withii	n a Wetland?	163 © 140 ©	
Wetland Hydrology Present? Remarks: (Explain alternative procedures her					
Hydrology					
Wetland Hydrology Indicators:				Secondary Indicators (m	nimum of 2 required)
Primary Indicators (minimum of one required				Surface Soil Cracks (
Surface Water (A1)	Water-Stained Lea			Drainage Patterns (E	
High Water Table (A2) Saturation (A3)	Aquatic Fauna (B1 Marl Deposits (B19)			✓ Moss Trim Lines (B1✓ Dry Season Water Table	
Water Marks (B1)	Hydrogen Sulfide			Crayfish Burrows (C8	
Sediment Deposits (B2)	Oxidized Rhizosph		Roots (C3)	Saturation Visible on	•
Drift deposits (B3)	Presence of Reduc		110013 (00)	Stunted or Stressed	0 3
☐ Algal Mat or Crust (B4)	Recent Iron Reduc		s (C6)	Geomorphic Position	(D2)
Iron Deposits (B5)	☐ Thin Muck Surface	e (C7)		Shallow Aquitard (D3	3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in F	Remarks)		Microtopographic Re	lief (D4)
Sparsely Vegetated Concave Surface (B8)				FAC-neutral Test (D	5)
Field Observations:					
Surface Water Present? Yes No •	Depth (inches):				
Water Table Present? Yes No •	Depth (inches):		\A/-+	D	s ○ No ●
Saturation Present? (includes capillary fringe) Yes No	Depth (inches):		Wetland Hydro		S UNU (S)
Describe Recorded Data (stream gauge, monit	oring well, aerial photo	os, previous ins	pections), if availa	ble:	
No water was encountered to 24 inches.					
Remarks:					
This area is drained by an agricultural ditch to plowing and are not recent formations.	the east of the proper	ty. Relict hydro	logy was observe	d , redox features fron	n 6-16 inches are broken from
This is Area E on the hydrology assessment. crop stress. The area displayed wet signature D1 and C9 were not confirmed in the field.			19% of normal ye	ars and consisted of s	soil signatures and

vegeration - use scientific names of pla	1115			Sampling Point: T1E
(0)	Absolute		ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: Linear 3'x20')	% Cover	Species? s	tatus	Number of Dominant Species
1				That are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3	0			Species Across All Strata:3(B)
4	0			
5	0			Percent of dominant Species That Are OBL, FACW, or FAC:0.0% (A/B)
6	0			That Are OBE, FACW, of FAC.
7	0			Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: _Linear 3'x20')	0	= Total Cover		Total % Cover of: Multiply by:
	0			0BL speci es <u>0</u> x 1 = <u>0</u>
1				FACW species <u>0</u> x 2 = <u>0</u>
2				FAC speciles0 x 3 =0
3				FACU speci es <u>60</u> x 4 = <u>240</u>
4	-			UPL species 30 x 5 = 150
5	-			Column Totals:90 (A)390 (B)
6				
7				Prevalence Index = B/A = 4.333
Herb Stratum (Plot size: _Linear 3'x20')	0	= Total Cover		Hydrophytic Vegetation Indicators:
·	30	✓	UPL	Rapid Test for Hydrophytic Vegetation
			FACU	☐ Dominance Test is > 50%
			FACU	Prevalence Index is ≤3.0 ¹
A Tarayaayım affialaala	10		FACU	☐ Morphological Adaptations ¹ (Provide supporting
• •		<u> </u>	TACO	data in Remarks or on a separate sheet)
5				☐ Problematic Hydrophytic Vegetation ¹ (Explain)
6				¹ Indicators of hydric soil and wetland hydrology must
7				be present, unless disturbed or problematic.
8				Definitions of Vegetation Strata:
9				_
10				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
11				at breast height (DBH), regardless of height.
12				Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size: Linear 3'x20')	90	= Total Cover		greater than 3.28 ft (1m) tall
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3	0			Manakarian Allamankarian manakarikan 0.00 fi in
1	0			Woody vine - All woody vines greater than 3.28 ft in height.
т.		= Total Cover		
		_ rotal cover		
				Hydrophytic
				Vegetation Present? Yes ○ No •
				rieseitt:
Remarks: (Include photo numbers here or on a separate she				
Used small strip of adjacent vegetation in same landscape p Cyperus esculentus and Panicum vulgare. Crop is healthy in				
Opported Cooulonias and Familian valgate. Crop is healthy if	i una arta d	ina arowrieu U	at on più	percy to the north.

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: T1E

Profile Descri	ption: (Des	cribe to	the depth	needed to d	ocument	the indic	ator or co	onfirm the	absence of indicators.)				
Depth		Matrix				dox Featu			_				
(inches)	Color (ı		%	Color (ı	moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks			
0-6	10YR	3/2	100						Silt Loam				
6-16	10YR	3/2	95	5YR	3/4	5	C	M	Silt Loam				
16-18	10YR	4/3	97	10YR	4/2	3	D	M	Silty Clay Loam				
18-24	10YR	5/4	95	10YR	5/2	5	D	М	Very Fine Sandy Loam	mixed with rocks			
		-				-							
		-			-								
		-	-		-								
			-										
1 Type: C_Cope	contration D	-Doplotio	n DM_Doc	Lucod Matrix (od or Coate	nd Sand Gr	ains 21 occ	ation: PL=Pore Lining. M=N	Antrix			
**		=Depletio	II. KIVI=Ket	luceu iviati ix, c	3=Covere	eu or Coale	eu Sanu Gi	all is ~LUC					
Hydric Soil I				□ p-1	roluc D-I	v Surface ((00) /1 00 1	2	Indicators for Prob	lematic Hydric Soils: 3			
Histosol (A	,				aiue Beiov V 149B)	v Surface ((38) (LKK I	τ,		(LRR K, L, MLRA 149B)			
Black Histi				Thin	Dark Surfa	ace (S9) (I	LRR R, MLI	RA 149B)		ox (A16) (LRR K, L, R)			
_	Sulfide (A4)			Loam	ny Mucky I	Mineral (F1) LRR K, L)		or Peat (S3) (LRR K, L, R)			
_	Layers (A5)			Loam	y Gleyed	Matrix (F2))		Dark Surface (S7) (LRR K, L, M)				
_	Below Dark S	Surface (A	11)	Deple	eted Matri	k (F3)			Polyvalue Below Surface (S8) (LRR K, L)				
	Surface (A1		,	✓ Redo	x Dark Su	rface (F6)			☐ Thin Dark Surface (S9) (LRR K, L)				
	ck Mineral (S	•		Deple	eted Dark	Surface (F	7)		Iron-Manganese Masses (F12) (LRR K, L, R)				
	yed Matrix (S			Redo	x Depress	ions (F8)			Piedmont Floodplain Soils (F19) (MLRA 149B)				
Sandy Rec		.,							Mesic Spodic (TA6) (MLRA 144A, 145, 149B)				
Stripped M									Red Parent Material (F21)				
	ace (S7) (LRF	R R, MLRA	149B)										
³ Indicators of	hydrophytic	vegetatio	n and wetla	and hydrology	must be r	resent. un	less disturl	bed or probl	Uther (Explain in Remarks)				
Restrictive La													
Type:	iyer (ii obs	erveu).											
Depth (inch	nes).								Hydric Soil Present?	Yes ● No ○			
•	1037.												
Remarks:													
formations.	nyaric nya	irology a	rained by	an ag ditch	to the ea	ist. Redo	x reatures	s from 6-10	b inches are broken fron	n plowing and not recent			
rormations.													

Project/Site: WSH20-013-01	Ci	ity/County:	Richfield/ Washing	Sampling Date: 21-Oct-20
Applicant/Owner: Alligator Enterprises LLC			State: WI	Sampling Point: T2A
Investigator(s): Benjamin L LaCount		Section, To	wnship, Range:	s. 01 T. 09N R. 19E
Landform (hillslope, terrace, etc.): Swale	Lo	ocal relief (co	ncave, convex, n	one): concave/convex Slope: 10.0 % / 5.7
Subregion (LRR or MLRA): LRR K	Lat.: 4/	4.276533	Long	.: -88.193158 Datum : NAD83
Soil Map Unit Name: RaA- Radford silt loam, 0	to 3 percent slopes			NWI classification: none
Are climatic/hydrologic conditions on the site t	ypical for this time of yea	r? Yes	s ● No ○	(If no, explain in Remarks.)
Are Vegetation , Soil , or Hydro	ology significantly	disturbed?	Are "Normal	Circumstances" present? Yes No
Are Vegetation , Soil , or Hydro	ology aturally pro	blematic?	(If needed, e	xplain any answers in Remarks.)
				s, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	No •			
Hydric Soil Present? Yes	No •		Sampled Area a Wetland?	Yes ○ No •
Wetland Hydrology Present? Yes	No •		i d vrotidi	
This is a vegetated swale that conveys storm The swale is concave across and convex dow This swale was created in 2005.		ditches to a s	stormwater ponu.	
Hydrology				
Wetland Hydrology Indicators:			,	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required				Surface Soil Cracks (B6)
Surface Water (A1) High Water Table (A2)	Water-Stained Leaves			Drainage Patterns (B10)
Saturation (A3)	Aquatic Fauna (B13) Marl Deposits (B15)			Moss Trim Lines (B16) Dry Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odd	or (C1)		Crayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizosphere	. ,	Poots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift deposits (B3)	Presence of Reduced		10013 (00)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reductio		s (C6)	Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C		, (==,	Shallow Aquitard (D3)
☐ Inundation Visible on Aerial Imagery (B7)	Other (Explain in Ren	•		Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	_ , ,	.,		FAC-neutral Test (D5)
Field Observations:				
Surface Water Present? Yes No •	Depth (inches):			
Water Table Present? Yes O No •	Depth (inches):			· · · · ·
Saturation Present? (includes capillary fringe) Yes O No •	Depth (inches):		Wetland Hydro	ology Present? Yes O No 🖲
Describe Recorded Data (stream gauge, moni	toring well, aerial photos,	previous ins	pections), if availa	able:
No water was encountered to 12 inches.				
Remarks:				
Water is conveyed through this swale from roa	adside ditches to a stormy	water pond. V	Nater will not per	sist on this steep slope.

(5)	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: Linear 10'x100')	% Cover	Species?	Status	Number of Dominant Species
1	0			That are OBL, FACW, or FAC:0(A)
2	0			
3				Total Number of Dominant
				Species Across All Strata:
4				Percent of dominant Species
5				That Are OBL, FACW, or FAC: 0.0% (A/B)
6				
7	0			Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: Linear 10'x70')	0 =	Total Cover	•	Total % Cover of: Multiply by:
	2		FACIL	0BL speci es 0 x 1 = 0
1. Lonicera x bella			FACU	FACW species0 x 2 =0
2				FAC species0 x 3 =0
3				FACU speciles 115 x 4 = 460
4				' /-
5	0	Ц		l '
6	0			Column Totals: <u>128</u> (A) <u>525</u> (B)
7	0			Prevalence Index = B/A =4.102_
	2 =	Total Cover		
Herb Stratum (Plot size: 5 ft radius)				Hydrophytic Vegetation Indicators:
1Poa pratensis	80	✓	FACU	Rapid Test for Hydrophytic Vegetation
2. Bromus Inermis	10		UPL	☐ Dominance Test is > 50%
3. Daucus carota			UPL	Prevalence Index is ≤3.0 ¹
4 C			FACU	Morphological Adaptations ¹ (Provide supporting
		✓		data in Remarks or on a separate sheet)
5. Schedonorus arundinaceus		Ä	FACU	☐ Problematic Hydrophytic Vegetation ¹ (Explain)
6				1
7				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8				
9	0			Definitions of Vegetation Strata:
10	0			Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
11				at breast height (DBH), regardless of height.
12		$\bar{\Box}$		
		Total Cover		Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size: Linear 10'x100')				greater than 5.20 it (1111) tall
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3	0			Woody vine All woody vines greater than 2.29 ft in
1	0			Woody vine - All woody vines greater than 3.28 ft in height.
T.,	0 =	Total Cover		ino.g
		Total Cover		
				Hydrophytic
				Vegetation
				Present? Yes No •
Remarks: (Include photo numbers here or on a separate she	et.)			
This swale has not been cut this year.	···,			
This swale has not been out this year.				

Sampling Point: T2A

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: T2A

Depth		Matrix	acptii	needed to document the indicator or confirm the Redox Features		
(inches)	Color ((moist)	%	Color (moist) % Type 1 Loc²	Texture	Remarks
0-8	10YR	3/3	100		Silt Loam	
8-12	7.5YR	4/4	100		Loamy Sand	
12-		-	-		rock	Refusal on large rocks
	-	-				
	-					
	-					
	-					
)=Depletio	n. RM=Red	uced Matrix, CS=Covered or Coated Sand Grains ² Loca		
Hydric Soil					Indicators for Proble	ematic Hydric Soils: 3
Histosol				Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	2 cm Muck (A10)	(LRR K, L, MLRA 149B)
	ipedon (A2)			Thin Dark Surface (S9) (LRR R, MLRA 149B)	Coast Prairie Redo	x (A16) (LRR K, L, R)
☐ Black His				Loamy Mucky Mineral (F1) LRR K, L)	5 cm Mucky Peat	or Peat (S3) (LRR K, L, R)
	n Sulfide (A4) Layers (A5)			Loamy Gleyed Matrix (F2)	Dark Surface (S7)	(LRR K, L, M)
	Below Dark	Curfoco (A	11)	Depleted Matrix (F3)		urface (S8) (LRR K, L)
	rk Surface (A		.11)	Redox Dark Surface (F6)	Thin Dark Surface	
	uck Mineral (S			Depleted Dark Surface (F7)		lasses (F12) (LRR K, L, R)
	eyed Matrix (Redox Depressions (F8)		in Soils (F19) (MLRA 149B)
	edox (S5)	,54)) (MLRA 144A, 145, 149B)
	Matrix (S6)				Red Parent Materia	
	face (S7) (LR	R R. MLRA	(149B)		Very Shallow Dark	
					Other (Explain in F	Remarks)
			n and wetta	and hydrology must be present, unless disturbed or probl	lematic.	
Restrictive L	ayer (if obs	served):				
Type:					Hydric Soil Present?	Yes ○ No •
Depth (inc	ches):				nyunc son Present?	res Uno S
Remarks:						
This is a con	structed sto	rmwater	conveyan	ce ditch with a rock bottom.		
İ						
1						
ı						

Project/Site: WSH20-013-01	City/County:	Richfield/ Washington	Sampling Date: 29-Oct-20
Applicant/Owner: Alligator Enterprises LLC		State: WI	Sampling Point: T2B
Investigator(s): Benjamin L LaCount	Section, To	wnship, Range: S. 01	T. 09N R. 19E
Landform (hillslope, terrace, etc.): Hillslope		ncave, convex, none):	
Subregion (LRR or MLRA): LRR K	Lat. : 44.277145	Long.: -8	88.193446 Datum : NAD83
Soil Map Unit Name: RaA- Radford silt loam, 0 to 3 percent slo	ppes		NWI classification: none
Are climatic/hydrologic conditions on the site typical for this tir	ne of year? Yes	No O (If no	o, explain in Remarks.)
	nificantly disturbed?	•	mstances" present? Yes No
Are Vegetation , Soil , or Hydrology natu	urally problematic?	(If needed, explai	n any answers in Remarks.)
Summary of Findings - Attach site map show		•	•
Hydrophytic Vegetation Present? Yes No •			
Hydric Soil Present? Yes No •		Sampled Area Yes	s O No 💿
Wetland Hydrology Present? Yes ○ No ●		a welland.	
Remarks: (Explain alternative procedures here or in a separat	te report.)		
Hydrology			
Wetland Hydrology Indicators:		Seco	ndary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that a			Surface Soil Cracks (B6)
	ned Leaves (B9)		Drainage Patterns (B10)
☐ High Water Table (A2) ☐ Aquatic Fall ☐ Saturation (A3) ☐ Marl Depose			Moss Trim Lines (B16) Dry Season Water Table (C2)
	Sulfide Odor (C1)		Crayfish Burrows (C8)
Thursday, and the state of the	hizospheres along Living		Saturation Visible on Aerial Imagery (C9)
	of Reduced Iron (C4)		Stunted or Stressed Plants (D1)
	n Reduction in Tilled Soils		Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Thin Muck	Surface (C7)		Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Exp	lain in Remarks)	_ !	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)			FAC-neutral Test (D5)
Field Observations:			
Surface Water Present? Yes No Depth (in	iches):		
Water Table Present? Yes O No O Depth (in	iches):		Present? Yes No •
Saturation Present? Yes No Depth (ir (includes capillary fringe)	iches):	Wetland Hydrology	Present? Yes V NO V
Describe Recorded Data (stream gauge, monitoring well, aeria	I photos, previous ins	pections), if available:	
No water was encountered to 24 inches.			
Remarks:			
This area is a steep slope that drains to a stormwater pond.			

20 (1 - 1)	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30 ft radius</u>)	% Cover	Species?	Status	Number of Dominant Species
1	0			That are OBL, FACW, or FAC: 0 (A)
2	0			T I I I I I I I I I I I I I I I I I I I
3				Total Number of Dominant Species Across All Strata: 2 (B)
4				cposiso noroso niii ottata.
5				Percent of dominant Species
6				That Are OBL, FACW, or FAC: 0.0% (A/B)
7				Prevalence Index worksheet:
·				
Sapling/Shrub Stratum (Plot size: 15 ft radius)	=	Total Cover		
1	0			
2		П		FACW species x 2 =0
3				FAC species <u>5</u> x 3 = <u>15</u>
4				FACU speci es
-				UPL species $0 \times 5 = 0$
5				Column Totals: <u>120</u> (A) <u>475</u> (B)
6				
7	0			Prevalence Index = B/A = 3.958
Herb Stratum (Plot size: 5 ft radius)	=	Total Cover	•	Hydrophytic Vegetation Indicators:
	22		E40	Rapid Test for Hydrophytic Vegetation
1. Poa pratensis	80	V	FACU	☐ Dominance Test is > 50%
2. Schedonorus arundinaceus		✓	FACU	Prevalence Index is ≤3.0 ¹
3. Taraxacum officinale	5		FACU	Morphological Adaptations ¹ (Provide supporting
4. Trifolium repens	5		FACU	data in Remarks or on a separate sheet)
5 _. Setaria pumila	5		FAC	☐ Problematic Hydrophytic Vegetation ¹ (Explain)
6	0			
7				¹ Indicators of hydric soil and wetland hydrology must
8				be present, unless disturbed or problematic.
9				Definitions of Vegetation Strata:
10		$\overline{\Box}$		Tree Meady plants 2 in (7.6 cm) or mare in diameter
11				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
12				
12		Total Cover		Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size: 30 ft radius)	=	Total Cover		greater than 3.28 ft (1m) tall
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0	\Box		size, and woody plants less than 3.28 ft tall.
_	0	\Box		
3	0	\Box		Woody vine - All woody vines greater than 3.28 ft in height.
4		T 1 1 0		neight.
	=	Total Cover		
				Hydrophytic Vegetation
				Present? Yes No •
Remarks: (Include photo numbers here or on a separate she	et.)			
	,			
This area is cut a few times a year.				

Sampling Point: T2B

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: T2B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth <u>Matrix</u>	Redox Features	_						
(inches) Color (moist) %	Color (moist) % Type 1 Loc2	Texture Remarks						
0-24 10YR 3/3 100		Fine Sandy Loam						
		-						
								
¹ Type: C=Concentration, D=Depletion, RM=Rec	luced Matrix, CS=Covered or Coated Sand Grains ² Loc	cation: PL=Pore Lining. M=Matrix						
Hydric Soil Indicators:	Lum, 12 11.5.50 5. SSSSS Sand Grains	<u>*</u>						
Histosol (A1)	Polyvalue Below Surface (S8) (LRR R,	Indicators for Problematic Hydric Soils: 3						
Histic Epipedon (A2)	MLRA 149B)	2 cm Muck (A10) (LRR K, L, MLRA 149B)						
Black Histic (A3)	☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)	Coast Prairie Redox (A16) (LRR K, L, R)						
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1) LRR K, L)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)						
Stratified Layers (A5)	Loamy Gleyed Matrix (F2)	Dark Surface (S7) (LRR K, L, M)						
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	Polyvalue Below Surface (S8) (LRR K, L)						
Thick Dark Surface (A12)	Redox Dark Surface (F6)	☐ Thin Dark Surface (S9) (LRR K, L)						
Sandy Muck Mineral (S1)	Depleted Dark Surface (F7)	☐ Iron-Manganese Masses (F12) (LRR K, L, R)						
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	☐ Piedmont Floodplain Soils (F19) (MLRA 149B)						
Sandy Redox (S5)		Mesic Spodic (TA6) (MLRA 144A, 145, 149B)						
Stripped Matrix (S6)		Red Parent Material (F21)						
Dark Surface (S7) (LRR R, MLRA 149B)		☐ Very Shallow Dark Surface (TF12)						
		Other (Explain in Remarks)						
Indicators of hydrophytic vegetation and wetle	and hydrology must be present, unless disturbed or prol	olematic.						
Restrictive Layer (if observed):								
Туре:								
Depth (inches):		Hydric Soil Present? Yes ○ No •						
Remarks:								

Project/Site: WSH20-013-01	City/County:	Richfield/ Washingto	on Sar	mpling Date: 21-Oct-20
Applicant/Owner: Alligator Enterprises LLC		State: WI	Sampling Poir	nt: T3A
Investigator(s): Benjamin L LaCount	Section, To	wnship, Range: S	 . 01 т. 09N	R . 19E
Landform (hillslope, terrace, etc.): Ditch	Local relief (co	oncave, convex, no	ne): concave/conv	ex Slope: 4.0 % / 2.3
Subregion (LRR or MLRA): LRR K Lat.:	44.277793	Long.	-88.194846	Datum: NAD83
Soil Map Unit Name: OuB2- Ozaukee silt loam, high carbonate subs	tratum, 2 to 6%	slopes, eroded	NWI classificati	on: none
Are climatic/hydrologic conditions on the site typical for this time of	year? Ye	s 💿 No 🔾 (If no, explain in Ren	narks.)
Are Vegetation . , Soil . , or Hydrology . significan	ntly disturbed?	Are "Normal (circumstances" prese	ent? Yes No
Are Vegetation . , Soil . , or Hydrology . naturally	problematic?		ιplain any answers i	
Summary of Findings - Attach site map showing				
Hydrophytic Vegetation Present? Yes ○ No ●				
Hydric Soil Present? Yes ○ No •		Sampled Area a Wetland?	Yes O No 💿	
Wetland Hydrology Present? Yes ○ No ●				
This is a constructed ditch on a hill slope that is between pavemen The ditch was constructed in 2005.	т ини и споррей	ilicia.		
Hydrology				
Wetland Hydrology Indicators:		_	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)	<u> </u>		Surface Soil Cracks	
Surface Water (A1) Water-Stained Le			Drainage Patterns	
High Water Table (A2) Saturation (A3) Aquatic Fauna (E			Moss Trim Lines (E	·
			Dry Season Water Crayfish Burrows (
	heres along Living	Poots (C2)	_	on Aerial Imagery (C9)
☐ Drift deposits (B3) ☐ Presence of Redi		Roots (C3)	Stunted or Stresse	* *
	uction in Tilled Soil	s (C6)	Geomorphic Position	, ,
☐ Iron Deposits (B5) ☐ Thin Muck Surfac		- ()	Shallow Aquitard (I	
Inundation Visible on Aerial Imagery (B7) Other (Explain in	. ,		Microtopographic F	Relief (D4)
Sparsely Vegetated Concave Surface (B8)	,		FAC-neutral Test (D5)
Field Observations: Surface Water Present? Yes No Depth (inches)	:			
Water Table Present? Yes No Depth (inches)	:			
Saturation Present? (includes capillary fringe) Yes No Depth (inches)		Wetland Hydro	logy Present? Y	'es ○ No •
Describe Recorded Data (stream gauge, monitoring well, aerial pho	tos, previous ins	pections), if availa	ble:	
No water was encountered to 24 inches.				
Remarks:				
This is a stormwater conveyance ditch on a hillslope. This area of the	ne ditch is well-c	rained.		

vegeration - ose scientific flames of pia	aiits			Sampling Point: T3A			
(2)	Absolute	Dominant	maicator	Dominance Test worksheet:			
(Plot size:)	% Cover	Species?	Status	Number of Dominant Species			
1				That are OBL, FACW, or FAC: (A)			
2				Total Number of Dominant			
3				Species Across All Strata:1(B)			
4				Parcent of dominant Species			
5				Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)			
6							
7				Prevalence Index worksheet:			
Sapling/Shrub Stratum (Plot size: Linear 10'x70')	=	Total Cove	r	Total % Cover of: Multiply by: OBL speciles 0 x 1 = 0			
1. Lonicera x bella	0		FACU				
2				FACW species <u>5</u> x 2 = <u>10</u>			
3				FAC species $0 \times 3 = 0$ FACU species $107 \times 4 = 428$			
4							
5	0			UPL species $\frac{20}{}$ x 5 = $\frac{100}{}$			
6	0			Column Totals: 132 (A) 538 (B)			
7	0			Prevalence Index = B/A = 4.076			
Herb Stratum (Plot size: 5 ft radius)	=	Total Cove	r	Hydrophytic Vegetation Indicators:			
				Rapid Test for Hydrophytic Vegetation			
1 Poa pratensis		✓	FACU	☐ Dominance Test is > 50%			
2. Schedonorus arundinaceus			FACU	☐ Prevalence Index is ≤3.0 ¹			
3. Symphyotrichum ericoides	-		FACU	☐ Morphological Adaptations ¹ (Provide supporting			
4. Symphyotrichum novae-angliae		H	FACW	data in Remarks or on a separate sheet)			
5. Coronilla varia	-		UPL UPL	☐ Problematic Hydrophytic Vegetation ¹ (Explain)			
6. Daucus carota 7. Taraxacum officinale			FACU	¹ Indicators of hydric soil and wetland hydrology must			
0. Assessment of Colorado			FACU	be present, unless disturbed or problematic.			
			1700	Definitions of Vegetation Strata:			
9 10				_			
11				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.			
12							
Woody Vine Stratum (Plot size: Linear 10'x100')	·-	= Total Cove		Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall			
1	0			Herb - All herbaceous (non-woody) plants, regardless of			
2	0			size, and woody plants less than 3.28 ft tall.			
3	0			Woody vine - All woody vines greater than 3.28 ft in			
4	0			height.			
	0 =	Total Cove	r				
				Hydrophytic Vegetation			
				Present? Yes No •			
Remarks: (Include photo numbers here or on a separate sh	neet.)						

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: T3A

	iption: (Des		the depth	needed to d				onfirm the	absence of indicators.)				
Depth (inches)	Color (Matrix	%	Color (dox Featu ∞	ures Type ¹	Loc ²	_ Texture	Do	arke		
0-16	10YR	3/3	100	Color (HUIST)	%_	iype_'	LOC2	Silt Loam	Rem	ai KS		
			-	7.51/0									
16-22	10YR	3/3	97	7.5YR	4/6	3	C		Silt Loam				
22-24	10YR	5/4	95	10YR	4/6	5	C	M	Silty Clay Loam				
		-			-			-					
								-					
		=Depletio	n. RM=Rec	luced Matrix, (CS=Covere	ed or Coate	ed Sand Gr	ains ² Loca	ation: PL=Pore Lining. M=M				
Hydric Soil I									Indicators for Proble	ematic Hydric	Soils: 3		
Histosol (•			∐ Poly\ MLR/	ralue Belov A 149B)	v Surface	(S8) (LRR I	₹,	2 cm Muck (A10)	(LRR K, L, MLR	A 149B)		
Black Histic	pedon (A2)					ace (S9) (LRR R, MLI	RA 149B)	Coast Prairie Redo	x (A16) (LRR K	, L, R)		
	Sulfide (A4)) LRR K, L		5 cm Mucky Peat of		RR K, L, R)		
	Layers (A5)				ny Gleyed I				Dark Surface (S7)				
	Below Dark S	Surface (A	11)	☐ Deple	eted Matrix	k (F3)			Polyvalue Below Surface (S8) (LRR K, L)				
	k Surface (A1		,	Redo	x Dark Sui	rface (F6)			Thin Dark Surface (S9) (LRR K, L)				
	ck Mineral (S			_	eted Dark		7)		☐ Iron-Manganese Masses (F12) (LRR K, L, R) ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)				
Sandy Gle	yed Matrix (S4)		Redo	x Depress	ions (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)				
Sandy Red	dox (S5)								Red Parent Material (F21)				
Stripped N	Natrix (S6)								Very Shallow Dark)		
☐ Dark Surfa	ace (S7) (LRI	R R, MLRA	\ 149B)						Other (Explain in F				
³ Indicators of	hydrophytic	vegetatio	n and wetla	and hydrology	must be p	resent, ur	nless disturl	oed or probl	ematic.				
Restrictive La	ayer (if obs	erved):											
Type:													
Depth (inch	nes):								Hydric Soil Present?	Yes 🔾	No •		
Remarks:													

Project/Site: WSH20-013-01	City/County: Richfield/ Washington	Sampling Date: 21-Oct-20
Applicant/Owner: Alligator Enterprises LLC	State: WI	Sampling Point: T3B
Investigator(s): Benjamin L LaCount	Section, Township, Range: S.	01 T. 09N R. 19E
Landform (hillslope, terrace, etc.): ditch	Local relief (concave, convex, non	e): concave Slope: 1-2 % /°
Subregion (LRR or MLRA): LRR K Lat.:	44.277967 Long .:	-88.194566 Datum : NAD83
Soil Map Unit Name: OuC2- Ozaukee silt loam, high carbonate subs		NWI classification: none
Are climatic/hydrologic conditions on the site typical for this time of		f no, explain in Remarks.)
	(rcumstances" present? Yes • No
	•	lain any answers in Remarks.)
Summary of Findings - Attach site map showing	sampling point locations,	transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	Is the Sampled Area	
Hydric Soil Present? Yes No	within a Wetland?	Yes ● No ○
Wetland Hydrology Present? Yes No		
Hydrology		
Hydrology		
Wetland Hydrology Indicators:	_ <u>S</u>	econdary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply Surface Water (A1) Water-Stained L	avec (PO)	Surface Soil Cracks (B6) Drainage Patterns (B10)
☐ Surface Water (A1)		Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B	· ·	Dry Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide	Odor (C1)	Crayfish Burrows (C8)
l <u>—</u>	heres along Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift deposits (B3) Presence of Red		Stunted or Stressed Plants (D1)
Laur Danseitz (DE)	iction in Tilled Soils (C6)	Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Thin Muck Surfa☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Evplain in	` ′	☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4)
Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in		FAC-neutral Test (D5)
Field Observations: Surface Water Present? Yes No Depth (inches)		
, , , , , , , , , , , , , , , , , , ,		
	Wetland Hydrolo	ogy Present? Yes No
(includes capillary fringe) Yes Vo Depth (inches)		
Describe Recorded Data (stream gauge, monitoring well, aerial pho	os, previous inspections), if availab	le:
No water was encountered to 24 inches.		
Remarks:		
Low area within a ditch where water persists.		
This is Area D on the hydrology assessment. The area displayed v D1 and C9 were not confirmed in the field.	et signature in 11% of normal year	rs and consisted of crop stress.

VEGETATION - Use scientific names of pia	ints			Sampling Point: T3B
(Dist. size. Linear 15 v100)	Absolute		Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>Linear 15'x100'</u>)	% Cover	_ species?	Status	Number of Dominant Species
1				That are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3				Species Across All Strata:
4				Percent of dominant Species
5				That Are OBL, FACW, or FAC: 100.0% (A/B)
6 7				Prevalence Index worksheet:
		= Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: Linear 15'x45')		- rotal cover		0BL species 50 x 1 = 50
1				FACW species65 x 2 =130
2				FAC species x 3 =
3				FACU species $0 \times 4 = 0$
4				UPL species $0 \times 5 = 0$
5				Column Totals: 115 (A) 180 (B)
6				
7		L		Prevalence Index = B/A =1.565
Herb Stratum (Plot size: 5 ft radius)	0	= Total Cover		Hydrophytic Vegetation Indicators:
1. Typha x glauca	50	✓	OBL	✓ Rapid Test for Hydrophytic Vegetation
2. Phalaris arundinacea		V	FACW	✓ Dominance Test is > 50%
3. Symphyotrichum lanceolatum			FACW	✓ Prevalence Index is ≤3.0 ¹
4				Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5				Problematic Hydrophytic Vegetation ¹ (Explain)
6				
7	0			Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8	0			
9	0			Definitions of Vegetation Strata:
10				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
11				at breast height (DBH), regardless of height.
12				Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size: Linear 15'x100')	115	= Total Cover		greater than 3.28 ft (1m) tall
1				Herb - All herbaceous (non-woody) plants, regardless of
2				size, and woody plants less than 3.28 ft tall.
3				Woody vine - All woody vines greater than 3.28 ft in
4				height.
	0	= Total Cover		
				Hydrophytic
				Vegetation Present? Yes No
Remarks: (Include photo numbers here or on a separate sh	eet.)			
remains. (morado prioto nambors noro er en a separate si				

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: T3B

	iption: (Des		the depth	needed to d				onfirm the	absence of indicators.)			
Depth (inches)	Color (i	Matrix moist)	%	Color (i		dox Feat %	ures Type_ ¹	Loc2	_ Texture	Rem	narks	
0-12	10YR	3/2	95	5YR	3/4	5	C	M	Silt Loam	Iton	Idiko	
12-15	10YR	5/3	97	10YR	4/6	3	C	M	Sandy Clay Loam			
									-			
15-24	10YR	5/3	95	10YR	4/6	- 5	C		Silt Loam			
			-	-				-				
		-										
				-	-							
1 Type: C=Con	centration. D	=Depletio	n. RM=Red	uced Matrix, (S=Cover	ed or Coa	ted Sand Gr	ains ² Loca	ation: PL=Pore Lining. M=Ma	ntrix		
Hydric Soil I		•		<u> </u>					Indicators for Proble		c Soils · 3	
Histosol (w Surface	(S8) (LRR I	₹,				
	pedon (A2)				149B)				2 cm Muck (A10) (Coast Prairie Redox			
Black Hist	tic (A3)						(LRR R, MLI					
Hydroger	Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) LRR K, L))	☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)☐ Dark Surface (S7) (LRR K, L, M)				
Stratified Layers (A5) Loamy Gleyed Matrix (F2)							Polyvalue Below Surface (S8) (LRR K, L)					
Depleted Below Dark Surface (A11) Depleted Matrix (F3)							☐ Thin Dark Surface (S9) (LRR K, L)					
Thick Dar	Thick Dark Surface (A12) Redox Dark Surface (F6) Depleted Dark Surface (F7)						Iron-Manganese M					
	ıck Mineral (S						- /)		Piedmont Floodplai			
	eyed Matrix (S	S4)		Redo	x Depress	SIONS (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)			
Sandy Re									Red Parent Material (F21)			
	Matrix (S6)								Very Shallow Dark Surface (TF12)			
☐ Dark Surf	ace (S7) (LRF	R R, MLRA	، 149B)						Other (Explain in R	emarks)		
³ Indicators o	f hydrophytic	vegetatio	n and wetla	and hydrology	must be p	oresent, u	nless distur	oed or proble	ematic.			
Restrictive L	ayer (if obs	erved):										
Туре:												
Depth (inc	hes):								Hydric Soil Present?	Yes 💿	No O	
Remarks:												
The redox	features fo	ormed af	fter the co	nstruction o	f the dit	ch in 20	05.					

Project/Site: WSH20-013-01	City/County: Richfield/ Washington Sampling Date: 21-Oct-20	_
Applicant/Owner: Alligator Enterprises LLC	State: WI Sampling Point: T3C	
Investigator(s): Benjamin L LaCount	Section, Township, Range: S. 01 T. 09N R. 19E	
Landform (hillslope, terrace, etc.): hillslope	Local relief (concave, convex, none): CONVEX Slope: 3.0 % / 1	1 <u>.7</u> °
Subregion (LRR or MLRA): LRR K	Lat.: 43.277965 Long.: -88.194508 Datum: NAD83	
Soil Map Unit Name: OuC2- Ozaukee silt loam, high carbon		
Are climatic/hydrologic conditions on the site typical for this		_
	ignificantly disturbed? Are "Normal Circumstances" present? Yes No	
• • •	naturally problematic? (If needed, explain any answers in Remarks.)	_
	owing sampling point locations, transects, important features, etc	: .
Hydrophytic Vegetation Present? Yes No •	Is the Sampled Area	
Hydric Soil Present? Yes No •	within a Wetland? Yes No •	
Wetland Hydrology Present? Yes No Remarks: (Explain alternative procedures here or in a sep-		
Undralagy		
Hydrology		
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all the	Secondary Indicators (minimum of 2 required) Surface Soil Creeks (P4)	
	at apply) Surface Soil Cracks (B6) Drainage Patterns (B10)	
	Fauna (B13) Moss Trim Lines (B16)	
	eposits (B15) Dry Season Water Table (C2)	
	en Sulfide Odor (C1) Crayfish Burrows (C8)	
	d Rhizospheres along Living Roots (C3) Saturation Visible on Aerial Imagery (C9)	
	ce of Reduced Iron (C4) Stunted or Stressed Plants (D1)	
Lucy Densetts (DE)	Iron Reduction in Tilled Soils (C6)	
[]	uck Surface (C7) Shallow Aquitard (D3) Microtopographic Police (D4)	
Sparsely Vegetated Concave Surface (B8)	Explain in Remarks) Microtopographic Relief (D4) FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes No Dept		
	(inches):	
·	ı (inches): Wetland Hydrology Present? Yes ○ No ●	
(includes capillary fringe)	(inches):	
Describe Recorded Data (stream gauge, monitoring well, a	erial photos, previous inspections), if available:	
No water was encountered to 24 inches.		
Remarks:		
This area drains to the ditch.		

(Plat size Lippor 10\v100\)	Absolute		Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: Linear 10'x100')	% Cover	Species?	Status	Number of Dominant Species
1				That are OBL, FACW, or FAC: (A)
2	0			Total Number of Dominant
3	0			Species Across All Strata:
4	0			
5	0			Percent of dominant Species That Are OBL_FACW_or_FAC: 0.0% (A/B)
6				That Are OBL, FACW, or FAC: 0.0% (A/B)
7				Prevalence Index worksheet:
(5)	0 =	Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: Linear 10'x70')				0BL species 0 x 1 = 0
1	0			FACW species 0 x 2 = 0
2	0			FAC species x 3 =0
3	0			l
4	0			FACU speci es x 4 =
5	0			UPL species $30 \times 5 = 150$
6				Column Totals: <u>113</u> (A) <u>482</u> (B)
7				Prevalence Index = B/A = 4.265
		Total Cover		
Herb Stratum (Plot size: 5 ft radius)		- rotal corel		Hydrophytic Vegetation Indicators:
1 . Poa pratensis	35	✓	FACU	Rapid Test for Hydrophytic Vegetation
2. Schedonorus arundinaceus		<u> </u>	FACU	Dominance Test is > 50%
0. Danish areata	10		UPL	Prevalence Index is ≤3.0 ¹
A Tanana officiale		Ä	FACU	Morphological Adaptations ¹ (Provide supporting
E. Conchus amundo		Ä	FACU	data in Remarks or on a separate sheet)
0 0		Ä		☐ Problematic Hydrophytic Vegetation ¹ (Explain)
6. Coronilla varia			UPL	¹ Indicators of hydric soil and wetland hydrology must
7. Cirsium vulgare			FACU	be present, unless disturbed or problematic.
8				Definitions of Vegetation Strata:
9				Definitions of Vegetation Strata.
10				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
11	0			at breast height (DBH), regardless of height.
12	0			Sapling/shrub - Woody plants less than 3 in. DBH and
(2)	113 =	Total Cover		greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size: Linear 10'x100')				
1				Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
2				size, and woody plants less than 3.26 it tall.
3				Woody vine - All woody vines greater than 3.28 ft in
4	0			height.
	0 =	Total Cover		
				Hydrophytic
				Vegetation
				Troscin.
Remarks: (Include photo numbers here or on a separate sh				
This area is cut a few times per year but is not maintained	l on a regular	basis.		

Sampling Point: T3C

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: T3C

Profile Descri	ption: (Des	cribe to	the depth	needed to documen	t the indica	ator or co	nfirm the	absence of indicators.)				
Depth		Matrix		Re	dox Featu			_				
(inches)	Color (ı	moist)	%	Color (moist)	%	Type 1	Loc2	Texture	Remarks			
0-8	10YR	3/3	100					Silt Loam				
8-12	7.5YR	4/4	100					Sandy Loam				
12-24	5YR	4/4	100					Silty Clay				
					-		-					
			-	-								
			-									
		-	-									
			-									
1 Typo: C-Copo	ontration D	_Doplotio	n DM_Doo	Jucod Matrix CS_Cover	od or Coato	d Sand Cra	nine 21 oca	ation: PL=Pore Lining. M=Ma	triv			
		-Depletio	II. KWI–Ket	duced Matrix, C3=Cover	eu or coate	u Sanu Gra	allis -Luca	-				
Hydric Soil II				Polyvalue Belo	w Surface (ם ממו) (00			matic Hydric Soils : 3			
Histosof (A	•			MLRA 149B)	w Surrace (58) (LKK K			LRR K, L, MLRA 149B)			
Black Histi				Thin Dark Surf	ace (S9) (L	.RR R, MLR	A 149B)		(A16) (LRR K, L, R)			
	Sulfide (A4)			Loamy Mucky	Mineral (F1)	LRR K, L)			r Peat (S3) (LRR K, L, R)			
	_ayers (A5)			Loamy Gleyed	Matrix (F2)			Dark Surface (S7) (
	Below Dark S	Surface (A	11)	Depleted Matri	x (F3)			Polyvalue Below Surface (S8) (LRR K, L)				
	Surface (A1		,	Redox Dark Su	ırface (F6)				Thin Dark Surface (S9) (LRR K, L)			
	ck Mineral (S			Depleted Dark	Surface (F7	')		☐ Iron-Manganese Masses (F12) (LRR K, L, R)				
	yed Matrix (S			Redox Depress	sions (F8)			Piedmont Floodplain Soils (F19) (MLRA 149B)				
Sandy Red		,						Mesic Spodic (TA6) (MLRA 144A, 145, 149B)				
Stripped M								☐ Red Parent Material (F21) ☐ Very Shallow Dark Surface (TF12)				
☐ Dark Surfa	ice (S7) (LRF	R R, MLRA	149B)					Other (Explain in Re				
³ Indicators of	hydrophytic	vegetatio	n and wetl	and hydrology must be	present, unl	ess disturb	ed or probl		omarks)			
Restrictive La							-					
Type:												
Depth (inch	nes):							Hydric Soil Present?	Yes ○ No •			
Remarks:												

Project/Site: WSH20-013-01	City/County: Richfield/ Was	shington Sa	ampling Date: 21-Oct-20
Applicant/Owner: Alligator Enterprises LLC	State:	WI Sampling Po	int: T4A
Investigator(s): Benjamin L LaCount	Section, Township, Rang	ge: S . 01 T. 09N	R. 19E
Landform (hillslope, terrace, etc.): Hillslope	Local relief (concave, conve		Slope: 3.0 % / 1.7 °
Subregion (LRR or MLRA): LRR K Lat.:	43.279789 L	Long.: -88.199806	Datum: NAD83
Soil Map Unit Name: SvB2- Sisson-Casco-Hochheim complex, 2 to 6	percent slopes, eroded	NWI classification	tion: none
Are climatic/hydrologic conditions on the site typical for this time of	ear? Yes • No •	(If no, explain in Re	emarks.)
		mal Circumstances" pres	sent? Yes O No •
Are Vegetation , Soil , or Hydrology naturally	problematic? (If neede	ed, explain any answers	in Remarks.)
Summary of Findings - Attach site map showing	•	•	•
Hydrophytic Vegetation Present? Yes O No •			
Hydric Soil Present? Yes ○ No •	Is the Sampled Are within a Wetland?	ea Yes ○ No •	
Wetland Hydrology Present? Yes ○ No ●			
Remarks: (Explain alternative procedures here or in a separate rep	rt.)		
This is a cropped corn field.	,		
Tills is a Gropped contribute.			
Hydrology			
Wetland Hydrology Indicators:		Secondary Indicators	(minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)		Surface Soil Crack	ks (B6)
Surface Water (A1) Water-Stained Le	ves (B9)	Drainage Patterns	s (B10)
High Water Table (A2) Aquatic Fauna (B	3)	Moss Trim Lines ((B16)
Saturation (A3) Marl Deposits (B	5)	Dry Season Water	r Table (C2)
Water Marks (B1) Hydrogen Sulfide	Odor (C1)	Crayfish Burrows	(C8)
Sediment Deposits (B2) Oxidized Rhizosp	eres along Living Roots (C3)	Saturation Visible	on Aerial Imagery (C9)
☐ Drift deposits (B3) ☐ Presence of Redu		Stunted or Stress	ed Plants (D1)
	tion in Tilled Soils (C6)	Geomorphic Posit	tion (D2)
☐ Iron Deposits (B5) ☐ Thin Muck Surfac	(C7)	Shallow Aquitard	(D3)
☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in	• •	Microtopographic	Relief (D4)
Sparsely Vegetated Concave Surface (B8)	,	FAC-neutral Test	(D5)
Field Observations: Surface Water Present? Yes No Depth (inches):			
W. T. 1. 2 . 12			
	Wetland I	Hydrology Present?	Yes ○ No •
(includes capillary fringe) Yes No Depth (inches):			
Describe Recorded Data (stream gauge, monitoring well, aerial photos	s, previous inspections), if a	available:	
No water was encountered to 24 inches.			
Remarks:			
This area drains south to a roadside ditch.			
This is Area A on the hydrology assessment. The area displayed w	t signature in 5% of norma	I vears and consisted of	eoil cianatures and
crop stress.	t Signature in 576 or norma	I years and consisted or	Soli signatures and
D1 and C9 were not confirmed in the field and hydric soil indicator	were not present.		

vegeration - use scientific flames of pla	11172	Sampling Point: T4A
(2)	Absolute Dominant Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30 ft radius</u>)	% Cover Species? Status	Number of Dominant Species
1		That are OBL, FACW, or FAC: (A)
2		Total Number of Dominant
3		Species Across All Strata:1(B)
4		Percent of deminant Species
5		Percent of dominant Species That Are OBL, FACW, or FAC:
6		
7		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft radius)	0 = Total Cover	Total % Cover of: Multiply by:
1		OBL species 0 x 1 = 0
2		FACW species 0 x 2 = 0
3	_	FAC species x 3 =
4		FACU speciles $0 \times 4 = 0$
5		UPL species $0 \times 5 = 0$
6	0	Column Totals: 0 (A) 0 (B)
7		Prevalence Index = B/A = 0.000
Herb Stratum (Plot size: 5 ft radius)	0 = Total Cover	Hydrophytic Vegetation Indicators:
		Rapid Test for Hydrophytic Vegetation
1		☐ Dominance Test is > 50%
2		Prevalence Index is ≤3.0 ¹
3		☐ Morphological Adaptations ¹ (Provide supporting
4		data in Remarks or on a separate sheet)
5		☐ Problematic Hydrophytic Vegetation ¹ (Explain)
6		¹ Indicators of hydric soil and wetland hydrology must
7		be present, unless disturbed or problematic.
8		Definitions of Vegetation Strata:
9		_
10		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
11 12		at breast neight (DBH), regardless of height.
12	0 = Total Cover	Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size: 30 ft radius)		greater than 3.28 ft (1m) tall
1		Herb - All herbaceous (non-woody) plants, regardless of
2		size, and woody plants less than 3.28 ft tall.
3		Woody vine - All woody vines greater than 3.28 ft in
4		height.
	0 = Total Cover	
		Hydrophytic Vegetation
		Present? Yes No •
Remarks: (Include photo numbers here or on a separate she	eet.)	
corn is healthy in this field. There is no adjacent vegetation		hydrology indicators and no hydric soil observed so
upland vegetation would dominate this area if it was not cr	ropped.	

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: T4A

	iption: (Des		the depth	needed to d				onfirm the	absence of indicators.)				
Depth (inches)	Color (Matrix	%	Color (dox Featı ∞	ures Type ¹	Loc ²	- Toyturo	Dom	arke		
0-16	10YR	3/3	100	Color (iiiUiSt)	%_	_ i ype '	LUC	Texture Silt Loam	Rema	ai v2		
			-	10//5	A 17								
16-20	10YR	5/4	- 98	10YR	4/6		C		Silty Clay Loam				
20-24	10YR	5/4	95	10YR	4/6	5	C		Silt Loam				
-		-											
							_						
		-	-	•			-	-					
		-		-	-								
		-											
										-			
11- 0.0													
		=Depletio	n. KM=Rec	uced Matrix, (S=Covere	ed or Coate	ed Sand Gr	ains ² Loca	ation: PL=Pore Lining. M=N		2		
Hydric Soil I				□ _{D-1}	roluc D-I-	a, Cimfe	(CO) (LDD 1	2	Indicators for Proble	ematic Hydric	Soils: 3		
Histosol (A	edon (A2)			∟ Poly\ MLR/	raiue Beiov A 149B)	v Surrace	(S8) (LRR I	τ,	2 cm Muck (A10)				
Black Histi				Thin	Dark Surfa	ace (S9) (LRR R, MLI	RA 149B)	Coast Prairie Redo				
	Sulfide (A4)			Loam	ny Mucky N	Mineral (F1) LRR K, L)	5 cm Mucky Peat		RR K, L, R)		
	Layers (A5)				ny Gleyed I)		Dark Surface (S7)		DK I)		
Depleted I	Below Dark S	Surface (A	11)		eted Matrix				☐ Polyvalue Below Surface (S8) (LRR K, L) ☐ Thin Dark Surface (S9) (LRR K, L)				
Thick Darl	k Surface (A1	12)			x Dark Su		>		☐ Iron-Manganese N				
_	ck Mineral (S			_	eted Dark x Depress		/)		Piedmont Floodplain Soils (F19) (MLRA 149B)				
_	yed Matrix (S4)		RedC	x Depress	10115 (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)				
Sandy Red									Red Parent Material (F21)				
	Matrix (S6)	D D MIDA	1 40D)						Very Shallow Dark Surface (TF12)				
	ace (S7) (LRI								Other (Explain in I	Remarks)			
³ Indicators of	hydrophytic	vegetatio	n and wetla	and hydrology	must be p	resent, ur	ıless disturl	oed or probl	ematic.				
Restrictive La	ayer (if obs	erved):											
Type:									Hydric Soil Present?	Yes 〇	No •		
Depth (inch	nes):								Hydric Soil Present?	Yes ∪	NO S		
Remarks:													

Project/Site: WSH20-013-01		City/County:	Richfield/ Washingt	on g	Sampling Date: 21-Oct-20
Applicant/Owner: Alligator Enterprises LLC			State: WI	Sampling F	Point: T4B
Investigator(s): Benjamin L LaCount		Section, To	wnship, Range:	т. 09	PN R. 19E
Landform (hillslope, terrace, etc.): Ditch		Local relief (co	oncave, convex, no	one): concave	Slope: 1.0 % / 0.6°
Subregion (LRR or MLRA): LRR K	Lat.:	43.279721	Long	: -88.199792	Datum: NAD83
Soil Map Unit Name: SvB2- Sisson-Casco-Hochl				NWI classific	
	•	•	<u> </u>	_	
Are climatic/hydrologic conditions on the site ty				(If no, explain in F	V (A) N- (
Are Vegetation . , Soil . , or Hydrol	ogy Significant	ly disturbed?	Are "Normal	Circumstances" pr	esent? Tes S NO S
Are Vegetation, Soil, or Hydrol	ogy 🗌 naturally p	roblematic?	(If needed, e	kplain any answer	rs in Remarks.)
Summary of Findings - Attach site		ampling po	oint location	s, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes	No O	le the	Sampled Area		
Hydric Soil Present? Yes	No O		Sampled Area a Wetland?	Yes ● No ○	
Wetland Hydrology Present? Yes	No O				
Hydrology					
Wetland Hydrology Indicators:					s (minimum of 2 required)
Primary Indicators (minimum of one required;				Surface Soil Cra	
Surface Water (A1) High Water Table (A2)	Water-Stained Lea Aquatic Fauna (B1:			☑ Drainage Patter☑ Moss Trim Lines	
Saturation (A3)	Marl Deposits (B15			Dry Season Wa	
Water Marks (B1)	Hydrogen Sulfide (Crayfish Burrow	
Sediment Deposits (B2)	Oxidized Rhizosph		Roots (C3)		le on Aerial Imagery (C9)
☐ Drift deposits (B3)	Presence of Reduc		,		ssed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduc		s (C6)	Geomorphic Pos	sition (D2)
Iron Deposits (B5)	☐ Thin Muck Surface	(C7)		Shallow Aquitar	• •
Inundation Visible on Aerial Imagery (B7)	Other (Explain in F	Remarks)		Microtopograph	
Sparsely Vegetated Concave Surface (B8)				✓ FAC-neutral Tes	st (D5)
Field Observations:					
Surface Water Present? Yes No	Depth (inches):				
Water Table Present? Yes No •	Depth (inches):				Yes ● No ○
Saturation Present? Yes No •	Depth (inches):		Wetland Hydro		Tes © NO C
Describe Recorded Data (stream gauge, monitor	oring well, aerial photo	os, previous ins	pections), if availa	ıble:	
No water was encountered to 24 inches.					
Remarks:					
The ditch has some microtopographic relief and ditch cause water to pond and persist.	1 thick vegetation that	is not cut or n	naintained. The up	s and downs and	thick vegetation in the

VEGETATION - Use scientific names of pia	mis			Sampling Point: T4B
(Dist. size. Linear 10\v200)	Absolute	Dominant Species 2	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>Linear 10'x200'</u>)	% Cover	Species?	Status	Number of Dominant Species
1				That are OBL, FACW, or FAC: (A)
2			-	Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of dominant Species
5				That Are OBL, FACW, or FAC: 100.0% (A/B)
6 7				Prevalence Index worksheet:
		= Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: Linear 10'x70')		- Total Cover		OBL species 40 x 1 = 40
1				FACW species 60 x 2 = 120
2	0			FAC species x 2 =
3	0			FACU species $0 \times 4 = 0$
4				UPL species $0 \times 5 = 0$
5				N C =
6				Column Totals: 100 (A) 160 (B)
7				Prevalence Index = B/A = 1.600
Herb Stratum (Plot size: 5 ft radius)		= Total Cover	-	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation
1. Phalaris arundinacea	60	✓	FACW	✓ Dominance Test is > 50%
2. Typha x glauca		✓	OBL	✓ Prevalence Index is ≤3.0 ¹
3				☐ Morphological Adaptations ¹ (Provide supporting
4				data in Remarks or on a separate sheet)
5				Problematic Hydrophytic Vegetation ¹ (Explain)
6				1 Indicators of hydric sail and wathout hydrology much
7				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8				Definitions of Vegetation Strata:
9				_
10				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
11 12				at breast fieight (DBH), regardless of fieight.
		= Total Cover	-	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size: Linear 10'x200')				
1				Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
2				
3	0			Woody vine - All woody vines greater than 3.28 ft in height.
4		= Total Cover		noight.
		- 10141 00101		
				Hydrophytic
				Vegetation Present? Yes No
Remarks: (Include photo numbers here or on a separate sh	eet.)			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: T4B

Profile Descr	iption: (Des	cribe to	the depth	needed to	documen	t the indic	cator or co	onfirm the	e absence of indicators.)
Depth		Matrix				dox Featu			_
(inches)	Color (r	moist)	%	Color	(moist)	%	Type ¹	Loc2	Texture Remarks
0-22	10YR	3/2	95	7.5YR	4/6	5	C	M	Silt Loam Fill soils
22-24	10YR	6/4	90	10YR	6/6	10	С	M	Silt Loam
		-							-
								-	
		-							
									_
-									
		=Depletio	n. RM=Re	duced Matrix,	CS=Cover	ed or Coate	ed Sand Gr	ains ² Loc	cation: PL=Pore Lining. M=Matrix
Hydric Soil I									Indicators for Problematic Hydric Soils: 3
Histosol (value Belo (A 149B)	w Surface	(S8) (LRR F	₹,	2 cm Muck (A10) (LRR K, L, MLRA 149B)
	pedon (A2)			_	,	ace (\$9) (LRR R, MLF	RA 149R)	Coast Prairie Redox (A16) (LRR K, L, R)
Black Hist) LRR K, L)		5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
	Sulfide (A4)					Matrix (F2)		,	Dark Surface (S7) (LRR K, L, M)
	Layers (A5) Below Dark S	iurfaco (A	11\		leted Matri		,		Polyvalue Below Surface (S8) (LRR K, L)
	k Surface (A1		11)		ox Dark Su				☐ Thin Dark Surface (S9) (LRR K, L)
	ick Mineral (S			☐ Dep	leted Dark	Surface (F	7)		☐ Iron-Manganese Masses (F12) (LRR K, L, R)
	eyed Matrix (S			Red	ox Depress	sions (F8)			Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Re		.,							Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
	Matrix (S6)								Red Parent Material (F21) Very Shallow Dark Surface (TF12)
	ace (S7) (LRF	R R, MLRA	149B)						Very Stration Dark Surface (1F12) Other (Explain in Remarks)
³ Indicators of				and hydrolog	, must be i	orocont un	doce dictur	and or prob	
			ii and weti	and riyurology	y must be j	present, un	iless disturi	bed of prob	biernatic.
Restrictive L	ayer (if obse	erved):							
Type:									Hydric Soil Present? Yes No
Depth (inc	hes):								injunio con reconstruction (injunio con reconstruction)
Remarks:									
The red	ox features	formed	after the	constructio	n of the	ditch in 2	005.		

Project/Site: WSH20-013-01	City/Ce	ounty: Richfield/ Washing	ton Sampling Date: 21-Oct-20
Applicant/Owner: Alligator Enterprises LLC		State: WI	Sampling Point: T4C
Investigator(s): Benjamin L LaCount	Sec	ction, Township, Range:	s. 01 T. 09N R. 19E
Landform (hillslope, terrace, etc.): Ditch	Local r	elief (concave, convex, n	one): concave/convex Slope: 3.0 % / 1.7
Subregion (LRR or MLRA): LRR K	Lat.: 43.279	499 Long	.: -88.200290 Datum : NAD83
Soil Map Unit Name: SvB2- Sisson-Casco-Hochl	neim complex, 2 to 6 percent	slopes, eroded	NWI classification: none
Are climatic/hydrologic conditions on the site ty	pical for this time of year?	Yes ● No ○	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrol		rbed? Are "Normal	Circumstances" present? Yes No
Are Vegetation , Soil , or Hydrol			·
•		•	explain any answers in Remarks.) S, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	No •		-,,p
Hydric Soil Present? Yes	No •	Is the Sampled Area	Yes ○ No •
,	No •	within a Wetland?	ies O NO O
Wetland Hydrology Present? Remarks: (Explain alternative procedures here			
Hydrology			
Wetland Hydrology Indicators:			Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required;	check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9)		Drainage Patterns (B10)
Saturation (A3)	Aquatic Fauna (B13) Marl Deposits (B15)		Moss Trim Lines (B16) Dry Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres alor		Saturation Visible on Aerial Imagery (C9)
☐ Drift deposits (B3)	Presence of Reduced Iron	-	Stunted or Stressed Plants (D1)
☐ Algal Mat or Crust (B4)	Recent Iron Reduction in T		Geomorphic Position (D2)
Iron Deposits (B5)	☐ Thin Muck Surface (C7)		Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks))	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)			FAC-neutral Test (D5)
Field Observations:			
Surface Water Present? Yes No No	Depth (inches):		
Water Table Present? Yes No •	Depth (inches):	Watland Hydr	ology Present? Yes O No •
Saturation Present? (includes capillary fringe) Yes No No	Depth (inches):	wetiand Hydr	ology Present? Tes C No C
Describe Recorded Data (stream gauge, monito	oring well, aerial photos, prev	ious inspections), if avail	able:
No water was encountered to 24 inches.			
Remarks:			
Well-drained portion of a roadside ditch.			

VEGETATION - Use scientific names of pia	ints			Sampling Point: T4C					
(District Linear 6'v100'	Absolute		Indicator	Dominance Test worksheet:					
<u>Tree Stratum</u> (Plot size: <u>Linear 6'x100'</u>)	% Cover	Species?	Status	Number of Dominant Species					
1				That are OBL, FACW, or FAC: (A)					
2				Total Number of Dominant					
3				Species Across All Strata: (B)					
4				Percent of dominant Species					
5				That Are OBL, FACW, or FAC: 0.0% (A/B)					
6				Prevalence Index worksheet:					
7		= Total Cover		Total % Cover of: Multiply by:					
Sapling/Shrub Stratum (Plot size: Linear 6'x100')	0	= Total Cover		0BL species 0 x 1 = 0					
1	0			FACW species 0 x 2 = 0					
2	0			FAC species 0 x 3 = 0					
3	0			· ·					
4	0			l .					
5	0			or E specifics					
6				Column Totals: <u>105</u> (A) <u>420</u> (B)					
7				Prevalence Index = B/A =4.000_					
Herb Stratum (Plot size: Linear 6'x13')	0	= Total Cover		Hydrophytic Vegetation Indicators:					
·	40	. 0	EACH	Rapid Test for Hydrophytic Vegetation					
1. Poa pratensis 2. Sonchus arvensis		✓	FACU FACU	☐ Dominance Test is > 50%					
0.04.4	00		FACU	Prevalence Index is ≤3.0 ¹					
A. Ehrmus ranons			FACU	☐ Morphological Adaptations ¹ (Provide supporting					
5. Solidago altissima			FACU	data in Remarks or on a separate sheet)					
6			TACO	☐ Problematic Hydrophytic Vegetation ¹ (Explain)					
7				¹ Indicators of hydric soil and wetland hydrology must					
8				be present, unless disturbed or problematic.					
9				Definitions of Vegetation Strata:					
10				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter					
11				at breast height (DBH), regardless of height.					
12									
Woody Vine Stratum (Plot size: Linear 6'x100')		= Total Cover		Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall					
1	0			Herb - All herbaceous (non-woody) plants, regardless of					
2	0			size, and woody plants less than 3.28 ft tall.					
3				Woody vine - All woody vines greater than 3.28 ft in					
4				height.					
	0	= Total Cover							
				Hydrophytic Vegetation					
				Present? Yes No •					
Remarks: (Include photo numbers here or on a separate sh	eet.)								

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: T4C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)													
Depth		Matrix				dox Featu			_				
(inches)	Color (r		%	Color (moist)	%	Type ¹	Loc2	<u>Texture</u>	Remarks			
0-6	10YR	3/3	100						Silt Loam				
6-14	10YR	3/3	98	7.5YR	4/6	2	C	M	Silt Loam				
14-24	10YR	5/4	98	7.5YR	4/6	2	С	M	Sandy Loam	mixed with gravel			
			-			-		-	-				
					-				-	-			
		-	-			-	-	-					
	 -		-		-								
	 .	-											
¹ Type: C=Conc	entration. D	=Depletio	n. RM=Rec	duced Matrix, (CS=Covere	ed or Coate	ed Sand Gr	ains ² Loca	ation: PL=Pore Lining. M=				
Hydric Soil II		•											
Histosol (A				Poly	alue Belov	v Surface ((S8) (LRR I	₹,		elematic Hydric Soils: 3			
Histic Epip	•			MLRA	\ 149B)) (LRR K, L, MLRA 149B) dox (A16) (LRR K, L, R)			
Black Histi	c (A3)						LRR R, MLI			t or Peat (S3) (LRR K, L, R)			
Hydrogen	Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) LRR K, L))						
Stratified L	ayers (A5)					Matrix (F2))		☐ Dark Surface (S7) (LRR K, L, M) ☐ Polyvalue Below Surface (S8) (LRR K, L)				
	Depleted Below Dark Surface (A11) Depleted Matrix (F3) Redox Dark Surface (F6)								e (S9) (LRR K, L)				
	Surface (A1					rrace (F6) Surface (F	7)			Masses (F12) (LRR K, L, R)			
	ck Mineral (S				x Depress		/)		Piedmont Floodplain Soils (F19) (MLRA 149B)				
	yed Matrix (S	64)		Keuc	x Depress	10113 (1 0)			Mesic Spodic (TA	A6) (MLRA 144A, 145, 149B)			
Sandy Red									Red Parent Material (F21)				
Stripped M	iatrix (S6) ice (S7) (LRR	D MIDA	140P)						☐ Very Shallow Dark Surface (TF12)				
									Other (Explain in Remarks)				
³ Indicators of	hydrophytic	vegetatio	n and wetla	and hydrology	must be p	resent, un	less disturl	oed or probl	ematic.				
Restrictive La	yer (if obse	erved):											
Type:									Under Cail Decomt	Yes ○ No •			
Depth (inch	nes):								Hydric Soil Present?	Yes ○ No ●			
Remarks:													

Project/Site: WSH20-013-01	City/County: Rich	hfield/ Washington	Sampling	Date: 21-Oct-20		
Applicant/Owner: Alligator Enterprises LLC		State: WI	Sampling Point:	T4D		
Investigator(s): Benjamin L LaCount	Section, Towns	ship, Range: S. 01	т. 09N	R . 19E		
Landform (hillslope, terrace, etc.): Hillslope	Local relief (concar	ave, convex, none):	convex	Slope: 3.0 % / 1.7 °		
Subregion (LRR or MLRA): LRR K	Lat.: 43.279530	Long .: -88	8.200397	Datum: NAD83		
Soil Map Unit Name: SvB2- Sisson-Casco-Hochheim	n complex, 2 to 6 percent slopes, eroc	ded	NWI classification: _n	one		
Are climatic/hydrologic conditions on the site typica	al for this time of year? Yes	No O (If no	– , explain in Remarks.)	<u> </u>		
Are Vegetation ✓ , Soil ☐ , or Hydrology			mstances" present?	Yes ○ No •		
Are Vegetation , Soil , or Hydrology	naturally problematic?	(If needed, explair	n any answers in Rema	arks.)		
Summary of Findings - Attach site ma	· · ·	•	-			
	o •					
,	within a W	mpled Area Netland? Yes	, ○ No ●			
Wetland Hydrology Present? Yes O No	o •					
Hydrology						
Wetland Hydrology Indicators:			ndary Indicators (minimur	m of 2 required)		
Primary Indicators (minimum of one required; chee	\neg		Surface Soil Cracks (B6)			
High Water Table (A2)	Water-Stained Leaves (B9) Aquatic Fauna (B13)		Orainage Patterns (B10) Moss Trim Lines (B16)			
Saturation (A3)	Marl Deposits (B15)		Dry Season Water Table (C2)			
Water Marks (B1)	Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C8)			
Sediment Deposits (B2)	Oxidized Rhizospheres along Living Root		Saturation Visible on Aerial Imagery (C9)			
Drift deposits (B3)	Presence of Reduced Iron (C4)		Stunted or Stressed Plants (D1)			
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	5) <u> </u>	Geomorphic Position (D2)			
Iron Deposits (B5)	Thin Muck Surface (C7)		Shallow Aquitard (D3)			
Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remarks)		Alcrotopographic Relief (D	04)		
Sparsely vegetated correave surface (bo)		L F.	AC-neutral Test (D5)			
Field Observations:						
Surface Water Present? Yes No •	Depth (inches):					
Water Table Present? Yes No •	Depth (inches):	Wetland Hydrology	Dracent? Yes	No •		
Saturation Present? (includes capillary fringe) Yes No No	Depth (inches):		riescht.			
Describe Recorded Data (stream gauge, monitoring	g well, aerial photos, previous inspect	tions), if available:				
No water was encountered to 24 inches.						
Remarks:						
This area would drain to the roadside ditch.						

vegeration - use scientific names or pia	ints	Sampling Point: T4D					
(D) 1 20 ft redive	Absolute Dominant Indicator	Dominance Test worksheet:					
Tree Stratum (Plot size: 30 ft radius)	% Cover Species? Status	Number of Dominant Species					
1		That are OBL, FACW, or FAC: (A)					
2		Total Number of Dominant					
3		Species Across All Strata: (B)					
4		Percent of dominant Species					
5		That Are OBL, FACW, or FAC: 0.0% (A/B)					
6							
7		Prevalence Index worksheet:					
Sapling/Shrub Stratum (Plot size: 15 ft radius)	0 = Total Cover	Total % Cover of:					
1	0 🗆	OBL species 0 x 1 = 0 FACW species 0 x 2 = 0					
2							
3		FAC species x 3 =					
4		FACU species $0 \times 4 = 0$					
5		UPL species x 5 =					
6		Column Totals: 0 (A) 0 (B)					
7		Prevalence Index = B/A = 0.000					
Herb Stratum (Plot size: 5 ft radius)	0 = Total Cover	Hydrophytic Vegetation Indicators:					
		Rapid Test for Hydrophytic Vegetation					
1		☐ Dominance Test is > 50%					
2		☐ Prevalence Index is ≤3.0 ¹					
3		☐ Morphological Adaptations ¹ (Provide supporting					
4		data in Remarks or on a separate sheet)					
5		☐ Problematic Hydrophytic Vegetation ¹ (Explain)					
6		¹ Indicators of hydric soil and wetland hydrology must					
7		be present, unless disturbed or problematic.					
8		Definitions of Vegetation Strata:					
9 10		_					
11		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.					
12							
	0 = Total Cover	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall					
Woody Vine Stratum (Plot size: 30 ft radius)		greater than 3.28 it (1111) tall					
1		Herb - All herbaceous (non-woody) plants, regardless of					
2		size, and woody plants less than 3.28 ft tall.					
3		Woody vine - All woody vines greater than 3.28 ft in					
4		height.					
	0 = Total Cover						
		Hydrophytic					
		Hydrophytic Vegetation					
		Present? Yes No •					
Remarks: (Include photo numbers here or on a separate sh	eet.)						
There is no vegetation at similar landscape position to revi		re is no hydrology indicators and no hydric soil indicators it					
is expected non-hydrophytic vegetation would dominate th	is area if it was not cropped.						

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: T4D

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)														
Depth		Matrix			Rec	lox Featu			_					
(inches)	Color (r	moist)	%	Color (mo	ist)	%	Type 1	Loc2	Texture	Remarks				
0-14	10YR	3/3	100						Silt Loam					
14-18	10YR	5/4	95	10YR	4/6	5	C	М	Silt Loam					
18-24	10YR	4/4	100						Sandy Clay Loam					
-						-								
		-												
						-		-						
-						-								
									-					
¹ Type: C=Con	centration. D	=Depletio	n. RM=Re	duced Matrix, CS=	-Covere	d or Coate	ed Sand Gr	ains ² Loca	ation: PL=Pore Lining. M=Ma	atrix				
Hydric Soil I	ndicators:								Indicators for Proble	matic Hydric Soils : 3				
Histosol (A1)					/ Surface ((S8) (LRR F	R ,		LRR K, L, MLRA 149B)				
Histic Epi	pedon (A2)			MLRA 1		(a-) ((A16) (LRR K, L, R)				
Black Hist	tic (A3)						RR R, MLF			r Peat (S3) (LRR K, L, R)				
	Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) LRR K, L)							Dark Surface (S7)						
	Stratified Layers (A5) Loamy Gleyed Matrix (F2)								Polyvalue Below Surface (S8) (LRR K, L)					
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Depleted Matrix (F3)							Thin Dark Surface							
Thick Dark Surface (A12) Redox Dark Surface (F6) Redox Dark Surface (F7)							asses (F12) (LRR K, L, R)							
	Sandy Muck Mineral (S1) Depleted Dark Surface (F7) Depleted Dark Surface (F7)						Piedmont Floodplai	n Soils (F19) (MLRA 149B)						
	Sandy Gleyed Matrix (S4) Redox Depressions (F8)					☐ Mesic Spodic (TA6)	(MLRA 144A, 145, 149B)							
Sandy Re									Red Parent Materia	l (F21)				
	Matrix (S6)								Very Shallow Dark	Surface (TF12)				
☐ Dark Surf	ace (S7) (LRF	R R, MLRA	(149B)						Other (Explain in Remarks)					
³ Indicators of	f hydrophytic	vegetatio	n and wetl	and hydrology mu	ıst be p	resent, un	less disturb	ed or proble	ematic.					
Restrictive L	ayer (if obse	erved):												
Type:	•	•												
Depth (inc	hes):								Hydric Soil Present?	Yes O No 🗨				
Remarks:														
Kernarks.														

Project/Site: WSH20-013-01		City/County:	Richfield/ Washing	on Sa	impling Date: 21-Oct-20
Applicant/Owner: Alligator Enterprises LLC			State: WI	Sampling Poi	int: T5A
Investigator(s): Benjamin L LaCount		Section, To	ownship, Range:	 s . 01 т . 09N	R. 19E
Landform (hillslope, terrace, etc.): Ditch		Local relief (co	oncave, convex, n	one): concave	Slope: 0-1 % /°
Subregion (LRR or MLRA): LRR K	Lat.:	43.279669	Long	·· -88.198062	Datum: NAD83
Soil Map Unit Name: AtA- Ashkum silty clay loa				NWI classificat	tion: none
			s • No O	_	
Are climatic/hydrologic conditions on the site ty		, 54. 1		(If no, explain in Re	V (A) N- (
Are Vegetation . , Soil . , or Hydrol	ogy	tly disturbed?	Are "Normal	Circumstances" pres	sent? Yes 😇 Nu 🔾
Are Vegetation $\ \ \ \ \ \ \ \ \ \ \ \ \ $	ogy 🗌 naturally p	problematic?	(If needed, e	xplain any answers	in Remarks.)
Summary of Findings - Attach site		sampling po	oint location	s, transects, in	nportant features, etc.
Hydrophytic Vegetation Present? Yes	No O	la tha	Commission Area		
Hydric Soil Present? Yes	No O		Sampled Area n a Wetland?	Yes 💿 No 🔾	
Wetland Hydrology Present? Yes	No O				
Hydrology					
Wetland Hydrology Indicators:					(minimum of 2 required)
Primary Indicators (minimum of one required;				Surface Soil Crack	
Surface Water (A1) High Water Table (A2)	Water-Stained Lea			Drainage Patterns	
Saturation (A3)	Aquatic Fauna (B1 Marl Deposits (B1)			✓ Moss Trim Lines (✓ Dry Season Water	
Water Marks (B1)	Hydrogen Sulfide			Crayfish Burrows	
Sediment Deposits (B2)	Oxidized Rhizosph		Roots (C3)		on Aerial Imagery (C9)
☐ Drift deposits (B3)	Presence of Reduc			Stunted or Stresse	* *
Algal Mat or Crust (B4)	Recent Iron Reduc	ction in Tilled Soil	s (C6)	✓ Geomorphic Posit	ion (D2)
Iron Deposits (B5)	Thin Muck Surface	e (C7)		Shallow Aquitard	• •
Inundation Visible on Aerial Imagery (B7)	Other (Explain in I	Remarks)		✓ Microtopographic	
Sparsely Vegetated Concave Surface (B8)				✓ FAC-neutral Test	(D5)
Field Observations:					
Surface Water Present? Yes No •	Depth (inches):				
Water Table Present? Yes No •	Depth (inches):		\A/-41	ology Present?	Yes No
Saturation Present? (includes capillary fringe) Yes No No	Depth (inches):				TES S NO S
Describe Recorded Data (stream gauge, monitor	oring well, aerial photo	os, previous ins	pections), if avail	able:	
No water was encountered to 24 inches.					
Remarks:					
This is a nearly level roadside ditch where water	er persists for prolong	ed periods of ti	me.		

VEGETATION - Use scientific fiames of pr	ants			Sampling Point: T5A					
(District Linear Elv100)	Absolute	Dominant Species?	maicator	Dominance Test worksheet:					
Tree Stratum (Plot size: Linear 5'x100')	% Cover	Species?	Status	Number of Dominant Species					
1				That are OBL, FACW, or FAC: (A)					
2				Total Number of Dominant					
3	0			Species Across All Strata:3(B)					
4									
5				Percent of dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)					
6				That file OBE, Thow, of the					
7	0			Prevalence Index worksheet:					
Sapling/Shrub Stratum (Plot size: Linear 5'x100')	=	Total Cove	r						
1				FACW species 70 x 2 = 140					
2	0			FAC species5 x 3 =15					
3	0			· · · · · · · · · · · · · · · · · · ·					
4	0			· ·					
5	0			UPL species $0 \times 5 = 0$					
6	0			Column Totals: 95 (A) 235 (B)					
7				Prevalence Index = B/A =					
(District of Effective	0 =	Total Cove	r	Hydrophytic Vegetation Indicators:					
Herb Stratum (Plot size: 5 ft radius)				Rapid Test for Hydrophytic Vegetation					
1 Phalaris arundinacea	50	✓	FACW	✓ Dominance Test is > 50%					
2. Cyperus esculentus	20	✓	FACW	✓ Prevalence Index is ≤3.0 ¹					
3. Poa pratensis	20	✓	FACU	Morphological Adaptations ¹ (Provide supporting					
4. Rumex crispus	5		FAC	data in Remarks or on a separate sheet)					
5	0			Problematic Hydrophytic Vegetation ¹ (Explain)					
6	0								
7				¹ Indicators of hydric soil and wetland hydrology must					
8				be present, unless disturbed or problematic.					
9				Definitions of Vegetation Strata:					
10				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter					
11				at breast height (DBH), regardless of height.					
12				Carling/about Mandy plants land then 2 in DDI and					
Woody Vine Stratum (Plot size: Linear 5'x100')	95=	= Total Cove	r	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall					
1	0			Herb - All herbaceous (non-woody) plants, regardless of					
2	0			size, and woody plants less than 3.28 ft tall.					
3	0			Woody vine - All woody vines greater than 3.28 ft in					
4	0			height.					
	0 =	Total Cove	r						
				Hydrophytic					
				Vegetation Present? Yes • No •					
Remarks: (Include photo numbers here or on a separate s	hoot \			1					
Remarks. (Include prioto numbers here or on a separate s	meet.)								

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: T5A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)													
Depth									_				
(inches)	Color (moist)	%	Color (moist)	%		Loc2	Texture	Rema	rks		
0-4	10YR	2/2	100						Silty Clay Loam				
4-12	10YR	2/2	95	7.5YR	4/6	5	С	M	Silty Clay Loam				
12-24	10YR	5/3	88	10YR	4/6	7	С	M	Sandy Clay Loam	mixed with grav	/el		
		-		10YR	4/2	 5	D	M		-			
-		-	_			_		-					
		-			-								
¹ Type: C=Con	centration. D	=Depletio	n. RM=Red	duced Matrix,	CS=Cover	ed or Coat	ed Sand Gr	ains ² Loca	ntion: PL=Pore Lining. M=N	Matrix			
Hydric Soil I	Indicators:								Indicators for Probl	ematic Hvdric	Soils: 3		
Histosol ((A1)					w Surface	(S8) (LRR I	₹,	2 cm Muck (A10)				
Histic Epi	pedon (A2)				A 149B)				Coast Prairie Red				
☐ Black Hist	Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B)								5 cm Mucky Peat		•		
Hydrogen	Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) LRR K, L))	Dark Surface (S7)				
Stratified	Layers (A5)					Matrix (F2)		Polyvalue Below Surface (S8) (LRR K, L)				
	Depleted Below Dark Surface (A11) Depleted Matrix (F3)								Thin Dark Surface		. ,		
Thick Dar	☐ Thick Dark Surface (A12)								☐ Iron-Manganese I		R K, L, R)		
	Sandy Muck Mineral (S1) Depleted Dark Surface (F7)						Piedmont Floodpl						
	Sandy Gleyed Matrix (S4) Redox Depressions (F8)							Mesic Spodic (TA	6) (MLRA 144A, 1	45, 149B)			
Sandy Re									Red Parent Mater	ial (F21)			
	Matrix (S6)								Very Shallow Darl	k Surface (TF12)			
☐ Dark Surf	ace (S7) (LRF	R R, MLRA	A 149B)						Other (Explain in Remarks)				
³ Indicators of	f hydrophytic	vegetatio	n and wetl	and hydrology	must be	present, ur	nless disturl	ed or proble	ematic.				
Restrictive L													
Type:	, (,.											
Depth (inc	hes):								Hydric Soil Present?	Yes 💿 I	No O		
Remarks:													
			*6		ا مامنانات م	:- 200F							
Redox lea	atures rorm	eu arter	the const	ruction of th	ie dittii	111 2005.							

Project/Site: WSH20-013-01	City	y/County:	Richfield/ Washing	on Sa	ampling Date: 21-Oct-20	
Applicant/Owner: Alligator Enterprises LLC			State: WI	Sampling Po	int: T5B	
Investigator(s): Benjamin L LaCount		Section, To	wnship, Range:	s . 01 t . 09N	R. 19E	
Landform (hillslope, terrace, etc.): Hillslope	Loc	al relief (co	ncave, convex, n	one): convex	Slope: 2.0 % / 1.1 °	
Subregion (LRR or MLRA): LRR K	Lat.: 43.2	279669	Long	·· -88.197984	Datum: NAD83	
Soil Map Unit Name: AtA- Ashkum silty clay loa	m, 0 to 2 percent slopes			NWI classifica	tion: none	
Are climatic/hydrologic conditions on the site ty	pical for this time of year?	Yes	. ● No ○	— (If no, explain in Re	emarks.)	
Are Vegetation ✓ , Soil ☐ , or Hydrole				Circumstances" pres	V O N- O	
Are Vegetation , Soil , or Hydrole				xplain any answers		
Summary of Findings - Attach site						
Hydrophytic Vegetation Present? Yes	No •					
Hydric Soil Present? Yes	No •		Sampled Area a Wetland?	Yes ○ No ●		
Wetland Hydrology Present? Yes	No •		a Welland.	•		
Cropped hay field that was recently cut, adjac						
Hydrology						
Wetland Hydrology Indicators:				Secondary Indicators	(minimum of 2 required)	
Primary Indicators (minimum of one required;				Surface Soil Crack		
Surface Water (A1) High Water Table (A2)	Water-Stained Leaves ((B9)		Drainage Patterns		
Saturation (A3)	Aquatic Fauna (B13) Marl Deposits (B15)			✓ Moss Trim Lines (✓ Dry Season Wate		
Water Marks (B1)	Hydrogen Sulfide Odor	(C1)		Crayfish Burrows		
Sediment Deposits (B2)	Oxidized Rhizospheres		Roots (C3)		on Aerial Imagery (C9)	
Drift deposits (B3)	Presence of Reduced Ir		10013 (03)	Stunted or Stressed Plants (D1)		
Algal Mat or Crust (B4)	Recent Iron Reduction i		(C6)	Geomorphic Posit		
☐ Iron Deposits (B5)	☐ Thin Muck Surface (C7)		(=-,	Shallow Aquitard		
☐ Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remai	•		Microtopographic	Relief (D4)	
Sparsely Vegetated Concave Surface (B8)		,		FAC-neutral Test	(D5)	
Field Observations:						
Surface Water Present? Yes No •	Depth (inches):					
Water Table Present? Yes No •	Depth (inches):				Yes ○ No •	
Saturation Present? (includes capillary fringe) Yes O No •	Depth (inches):		Wetland Hydr	ology Present?	Yes ∪ No ♥ 	
Describe Recorded Data (stream gauge, monito	oring well, aerial photos, p	revious insp	pections), if availa	able:		
No water was encountered to 24 inches.						
Remarks:						
Healthy crop. This area drains to the east and t	hen into a ditch south of t	the property	<i>j</i> .			

vegeration - use scientific names of plai	11.3			Sampling Point: T5B
Tree Stratum (Plot size: Linear 8'x100')	Absolute		ndicator	Dominance Test worksheet:
Tree stratum	% Cover		Status	Number of Dominant Species
1				That are OBL, FACW, or FAC:(A)
2				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of dominant Species
5				That Are OBL, FACW, or FAC: 0.0% (A/B)
6 7				Prevalence Index worksheet:
		= Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: Linear 8'x100')		_ 10tal 00vci		0BL species 0 x 1 = 0
1. Lonicera x bella	5	✓	FACU	FACW species x 2 =10
2	0			FAC speciles5 x 3 =15
3	0			FACU species $\frac{95}{}$ x 4 = $\frac{380}{}$
4		<u></u> .		UPL species $\frac{13}{2}$ x 5 = $\frac{65}{2}$
5	-			Column Totals: 118 (A) 470 (B)
6				
7				Prevalence Index = B/A = 3.983
Herb Stratum (Plot size: Linear 8'x10')	5	= Total Cover		Hydrophytic Vegetation Indicators:
1. Poa pratensis	75	✓	FACU	Rapid Test for Hydrophytic Vegetation
2. Daucus carota			UPL	☐ Dominance Test is > 50%
3. Cirsium vulgare			FACU	Prevalence Index is ≤3.0 ¹
4. Taraxacum officinale	10		FACU	 Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Phalaris arundinacea	-		FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Setaria pumila	-		FAC	
7. Medicago sativa	2		UPL	1 Indicators of hydric soil and wetland hydrology must
8	0			be present, unless disturbed or problematic.
9	0			Definitions of Vegetation Strata:
10	0			Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
11				at breast height (DBH), regardless of height.
12				Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size: Linear 8'x100')	113	= Total Cover		greater than 3.28 ft (1m) tall
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0	Ц.		size, and woody plants less than 3.28 ft tall.
3	0	片 .		Woody vine - All woody vines greater than 3.28 ft in
4		Ш.		height.
	0	= Total Cover		
				Hydrophytic
				Vegetation
				Present? Yes Vo Vo
Remarks: (Include photo numbers here or on a separate she		non hydronbyd	la vagata	tion would grow in this area due to look of hydric cail and
Used adjacent vegetation in similar landscape position, wou wetland hydrology indicators. The hay field has been recent		non-nyaropny	uc vegeta	mon would grow in this area due to lack of hydric soil and
,	,			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: T5B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)													
Depth		Matrix Redox Features							_				
(inches)	Color (moist)	%	Color (moist)	%_	Type ¹	Loc2	Texture	Remarks			
0-10	10YR	2/2	100						Silty Clay Loam	Fill soils			
10-15	10YR	2/2	98	5YR	3/4	2	С	M	Silty Clay Loam				
15-20	10YR	2/2	95	5YR	3/4	5	С	M	Silty Clay Loam				
20-24	10YR	2/2	90	5YR	3/4	10	С	M	Silty Clay Loam	refusal at 24 inches			
		-			-				-				
-		-	-	-	-	-							
			-		-	-							
					-								
			-										
1 Type: C=Cond	entration. D	=Depletio	n. RM=Re	duced Matrix, (CS=Covere	ed or Coate	ed Sand Gr	ains ² Loca	ation: PL=Pore Lining. M=	Matrix			
Hydric Soil I		•							_	olematic Hydric Soils : 3			
Histosol (A				Poly	alue Belov	w Surface	(S8) (LRR I	₹,					
Histic Epip	•				A 149B)		. , .) (LRR K, L, MLRA 149B)			
Black Histi							LRR R, MLI			dox (A16) (LRR K, L, R) t or Peat (S3) (LRR K, L, R)			
Hydrogen	Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) LRR K, L))					
Stratified Layers (A5)								☐ Dark Surface (S7) (LRR K, L, M) ☐ Polyvalue Below Surface (S8) (LRR K, L)					
☐ Depleted Below Dark Surface (A11) ☐ Depleted Matrix (F3) ☐ Redox Dark Surface (A12) ☐ Redox Dark Surface (F6)									ce (S9) (LRR K, L)				
	k Surface (A						7)			Masses (F12) (LRR K, L, R)			
	ck Mineral (S				eted Dark ox Depress	Surface (F	/)			olain Soils (F19) (MLRA 149B)			
	yed Matrix (S4)		□ Keuc	ix Depiess	10115 (1 0)			Mesic Spodic (TA	A6) (MLRA 144A, 145, 149B)			
Sandy Rec									Red Parent Mate	erial (F21)			
Stripped M		D D MI DA	1.40D)						☐ Very Shallow Dark Surface (TF12)				
	ace (S7) (LR								Other (Explain in Remarks)				
³ Indicators of	hydrophytic	vegetatio	n and wetl	and hydrology	must be p	resent, un	less distur	bed or probl	ematic.				
Restrictive La	ayer (if obs	erved):											
Type:													
Depth (inch	nes):								Hydric Soil Present?	Yes ○ No •			
Remarks:													
This area has	been histo	rically fill	led. Refus	sal on large r	ocks at 2	4 inches	. Tried se	veral spots	with similar results.				

Project/Site: WSH20-013-01	City/County:	Richfield/ Washing	on	Sampling	Date : 29-Oct-20
Applicant/Owner: Alligator Enterprises LLC		State: WI	Sampl	ing Point:	T5C
Investigator(s): Benjamin L LaCount	Section, To	wnship, Range:	s. 01	т. 09N	R . 19E
Landform (hillslope, terrace, etc.): Depression		oncave, convex, n			Slope: 0-1 % /°
	43.279683		·· -88.19782		Datum: NAD83
Soil Map Unit Name: AtA- Ashkum silty clay loam, 0 to 2 percent slo	-			ssification: 1	
Are climatic/hydrologic conditions on the site typical for this time of		s • No O	— (If no, explair	_	
	ntly disturbed?		•		Yes O No 💿
	•		Circumstance	•	
•	problematic?	·	xplain any an		·
Summary of Findings - Attach site map showing Hydrophytic Vegetation Present? Yes No O	sampling p	oint location	s, transec	ts, impor	tant features, etc.
	Is the	Sampled Area		\bigcirc	
1.94.10 00.11.000.11.		n a Wetland?	Yes No	O	
Wetland Hydrology Present? Yes No					
Hydrology					
Wetland Hydrology Indicators:			Secondary Indi	icators (minimu	ım of 2 required)
Primary Indicators (minimum of one required; check all that apply)				oil Cracks (B6)	
Surface Water (A1) Water-Stained Le				Patterns (B10)	
High Water Table (A2) Saturation (A3) Aquatic Fauna (B				Lines (B16) n Water Table	(C2)
Water Marks (B1) Hydrogen Sulfide	•			urrows (C8)	(02)
I	heres along Living	Roots (C3)		, ,	al Imagery (C9)
☐ Drift deposits (B3) ☐ Presence of Redu		110013 (03)		Stressed Plant	0 3
	uction in Tilled Soil	s (C6)		ic Position (D2)	• ,
☐ Iron Deposits (B5) ☐ Thin Muck Surface	ce (C7)		Shallow Ad	quitard (D3)	
Inundation Visible on Aerial Imagery (B7) Other (Explain in	Remarks)		Microtopo	graphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)			✓ FAC-neutra	al Test (D5)	
Field Observations:					
Surface Water Present? Yes No Depth (inches):					
Water Table Present? Yes No Depth (inches):		Wetland Hydro	ology Procont	yes 🖲	No O
Saturation Present? (includes capillary fringe) Yes No Depth (inches):		wettand Hydro	Diogy Present	· 163 ©	140 🔾
Describe Recorded Data (stream gauge, monitoring well, aerial pho	tos, previous ins	pections), if availa	able:		
No water was encountered to 24 inches.					
Remarks:					
This area has spots of drowned out crops and crop stress. Tractor r rainfall ponding on compacted soil.	uts have standir	ig water but it is r	ot connected	to a water ta	able, most likely from
This is Area B on the hydrology assessment. The area displayed w crop stress. The area displayed wet signatures in mostly wet year D1 and C9 were confirmed in the field.		38% of normal ye	ears and cons	isted of soil s	signatures and

(St. 1. S. C. Malland)	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>Entire Wetland</u>)	% Cover	Species?	Status	Number of Dominant Species
1	0			That are OBL, FACW, or FAC: (A)
2	0			Tatal Number of Deminerat
3	0			Total Number of Dominant Species Across All Strata: 2 (B)
4				
5				Percent of dominant Species
6		\Box		That Are OBL, FACW, or FAC:100.0% (A/B)
7				Prevalence Index worksheet:
		Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: Entire Wetland)	=	Total Cover		OBL species5_ x 1 =5_
1	0			
2		$\overline{\Box}$		FACW species 10 x 2 = 20
3				FAC species $\underline{25}$ x 3 = $\underline{75}$
4				FACU speci es x 4 =0
5	-			UPL speci es x 5 =0
				Column Totals: <u>40</u> (A) <u>100</u> (B)
6				
7	0			Prevalence Index = B/A = 2.500
Herb Stratum (Plot size: 5 ft radius)	=	Total Cover	·	Hydrophytic Vegetation Indicators:
	40		E A O) A /	Rapid Test for Hydrophytic Vegetation
1. Persicaria pensylvanica		V	FACW	✓ Dominance Test is > 50%
2. Echinochioa crus-galli		✓	FAC	✓ Prevalence Index is ≤3.0 ¹
3. Typha x glauca			OBL	Morphological Adaptations ¹ (Provide supporting
4	0			data in Remarks or on a separate sheet)
5	0			Problematic Hydrophytic Vegetation ¹ (Explain)
6	0			
7	0			1 Indicators of hydric soil and wetland hydrology must
8				be present, unless disturbed or problematic.
9				Definitions of Vegetation Strata:
10				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
11				at breast height (DBH), regardless of height.
12				,,
12.,		Total Cover		Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size: Entire Wetland)		Total Cover		greater than 3.28 ft (1m) tall
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3	0			Manada da Allamanda da ananata da da anganata da Allamanda
1	0			Woody vine - All woody vines greater than 3.28 ft in height.
4		Total Cover		noight.
		Total Cover		
				Hydrophytic
				Vogotation
				Present? Yes No
Remarks: (Include photo numbers here or on a separate she	et.)			
Drowned out crop in this area, no adjacent vegetation in a s		cape position	۱.	

Sampling Point: T5C

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: T5C

(inches)		Matrix				dox Feat			_		
	Color (ı		%	Color (moist)	%	Type ¹	Loc2	Texture	Remark	(S
0-6	10YR	2/2	100						Silty Clay Loam		
6-16	10YR	2/2	95	5YR	3/4	5	C	M	Silty Clay Loam		
16-24	2.5Y	5/3	85	10YR	4/6	5	С	М	Silty Clay		
				2.5Y	5/2	10	D	М			
		-									
		-		-	-	_					
Type: C=Conc	centration D	=Depletio	n RM=Red	uced Matrix	CS=Cover	ed or Coat	ed Sand Gr	ains 2Loca	ation: PL=Pore Lining. M=Mat	rix	
Hydric Soil I		-Bepiette		acca matrix,			- Cu Suriu Cir				3
Histosol (A				Poly	/alue Relo	w Surface	(S8) (LRR F	₹.	Indicators for Problem		
Histic Epip				MLR.	A 149B)	W Surrace	(00) (ERRY)	`1	2 cm Muck (A10) (L		
Black Histi				Thin	Dark Surf	ace (S9) (LRR R, MLF	RA 149B)	Coast Prairie Redox		
_	Sulfide (A4)			Loan	ny Mucky	Mineral (F1) LRR K, L)		☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)☐ Dark Surface (S7) (LRR K, L, M)		
Stratified L	Layers (A5)					Matrix (F2)		☐ Dark Surface (57) (LRR K, L, M) ☐ Polyvalue Below Surface (S8) (LRR K, L)		
Depleted F	Below Dark S	Surface (A	.11)		eted Matri				☐ Thin Dark Surface (S9) (LRR K, L)		
Thick Dark	k Surface (A1	12)				ırface (F6)	_,		☐ Iron-Manganese Ma		K. L. R)
Sandy Mud	ck Mineral (S	51)				Surface (F	7)		Piedmont Floodplain		
_	yed Matrix (S	S4)		☐ Redo	x Depress	sions (F8)			Mesic Spodic (TA6)		
Sandy Red									Red Parent Material		
Stripped M									☐ Very Shallow Dark S	urface (TF12)	
Dark Surfa	ace (S7) (LRF	R R, MLRA	(149B)						Other (Explain in Re	marks)	
Dark Suric		vegetatio	n and wetla	nd hydrology	must be	oresent, ur	nless disturb	ed or probl	ematic.		
	hydrophytic										
³ Indicators of											
³ Indicators of									11 1 2 0 1 0	- V (A) N	o 🔾
³ Indicators of estrictive La	ayer (if obs								Hydric Soil Present?	Yes N	=
Indicators of estrictive La Type: Depth (inch	ayer (if obs								Hydric Soil Present?	Yes S N	
³ Indicators of estrictive La Type: Depth (inch	ayer (if obs								Hydric Soil Present?	Yes 🥯 N	
Indicators of estrictive La Type: Depth (inch	ayer (if obs								Hydric Soil Present?	Yes 🙂 N	
³ Indicators of estrictive La Type: Depth (inch	ayer (if obs								Hydric Soil Present?	Yes ⊕ N	
Indicators of estrictive La Type: Depth (inch	ayer (if obs								Hydric Soil Present?	Yes ♥ No	<u>-</u>
Indicators of estrictive La Type: Depth (inch	ayer (if obs								Hydric Soil Present?	Yes © N	<u>-</u>
³ Indicators of estrictive La Type: Depth (inch	ayer (if obs								Hydric Soil Present?	Yes ♥ N	<u>-</u>
Indicators of estrictive La Type: Depth (inch	ayer (if obs								Hydric Soil Present?	Yes ♥ N	<u>-</u>
Indicators of estrictive La Type: Depth (inch	ayer (if obs								Hydric Soil Present?	Yes ♥ N	<u>-</u>
Indicators of estrictive La Type: Depth (inch	ayer (if obs								Hydric Soil Present?	Yes ♥ N	<u>-</u>
Indicators of estrictive La Type: Depth (inch	ayer (if obs								Hydric Soil Present?	Yes No	<u>-</u>
³ Indicators of estrictive La Type: Depth (inch	ayer (if obs								Hydric Soil Present?	Yes ♥ N	<u>-</u>
³ Indicators of Restrictive La Type: Depth (inch	ayer (if obs								Hydric Soli Present?	Yes No	<u>-</u>
³ Indicators of Restrictive La Type:	ayer (if obs								Hydric Soli Present?	Yes No	
³ Indicators of Restrictive La Type: Depth (inch	ayer (if obs								Hydric Soli Present?	Yes No	
³ Indicators of estrictive La Type: Depth (inch	ayer (if obs								Hydric Soli Present?	Yes No	
³ Indicators of estrictive La Type: Depth (inch	ayer (if obs								Hydric Soli Present?	Yes No	
³ Indicators of estrictive La Type: Depth (inch	ayer (if obs								Hydric Soli Present?	Yes No	

Project/Site: WSH20-013-01	City/C	county: Richfield/ Washing	ton Sampling Date: 29-Oct-20
Applicant/Owner: Alligator Enterprises LLC		State: WI	Sampling Point: T5D
Investigator(s): Benjamin L LaCount	Ser	ction, Township, Range:	s. 01 T. 09N R. 19E
Landform (hillslope, terrace, etc.): Hillslope	Local r	relief (concave, convex, n	one): convex Slope: 2.0 % / 1.1
Subregion (LRR or MLRA): LRR K	Lat.: 43.280)099 Lon g	ı.: -88.197196 Datum : NAD83
Soil Map Unit Name: MtA- Mequon silt loam, 1 to	3 percent		NWI classification: none
Are climatic/hydrologic conditions on the site typi	ical for this time of year?	Yes ● No ○	(If no, explain in Remarks.)
Are Vegetation ✓ , Soil ☐ , or Hydrolog	gy significantly distu	ırbed? Are "Normal	Circumstances" present? Yes ○ No ●
Are Vegetation , Soil , or Hydrolog	gy aturally problem	natic? (If needed, o	explain any answers in Remarks.)
		,	s, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	No •		
Hydric Soil Present? Yes	No 💿	Is the Sampled Area within a Wetland?	Yes ○ No •
Wetland Hydrology Present?	No 💿	Within a wota	
Hydrology			
Wetland Hydrology Indicators:			Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; cl			Surface Soil Cracks (B6)
Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) Aquatic Fauna (B13)	1	Drainage Patterns (B10) Moss Trim Lines (B16)
Saturation (A3)	Marl Deposits (B15)		Dry Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1	1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres alor		Saturation Visible on Aerial Imagery (C9)
☐ Drift deposits (B3)	Presence of Reduced Iron		Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in T	filled Soils (C6)	Geomorphic Position (D2)
Iron Deposits (B5)	☐ Thin Muck Surface (C7)		Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks))	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)			FAC-neutral Test (D5)
Field Observations:			
Surface Water Present? Yes No •	Depth (inches):		
Water Table Present? Yes No •	Depth (inches):	Wetland Hydr	ology Present? Yes O No •
Saturation Present? (includes capillary fringe) Yes No No	Depth (inches):		
Describe Recorded Data (stream gauge, monitori	ing well, aerial photos, prev	ious inspections), if avail	able:
No water was encountered to 10 inches.			
Remarks:		_	
Crop is healthy. This area drains to the east.			

(OL 1 : 20 ft and inc	Absolute Dominant Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30 ft radius</u>)	% Cover Species? Status	Number of Dominant Species
1		That are OBL, FACW, or FAC:
2	0	Total Number of Demisses
3	0	Total Number of Dominant Species Across All Strata: 1 (B)
4		
5		Percent of dominant Species
6		That Are OBL, FACW, or FAC: 0.0% (A/B)
7		Prevalence Index worksheet:
1		
Sapling/Shrub Stratum (Plot size: 15 ft radius)	= Total Cover	Total % Cover of: Multiply by:
1	_0	0BL speci es x 1 =0
2		FACW species 0 x 2 = 0
3		FAC speci es x 3 =
	_ = _	FACU speci es x 4 =0
4		UPL species $0 \times 5 = 0$
5		Column Totals:0_ (A)0_ (B)
6		
7		Prevalence Index = B/A =
Herb Stratum (Plot size: 5 ft radius)	0 = Total Cover	Hydrophytic Vegetation Indicators:
		Rapid Test for Hydrophytic Vegetation
1		Dominance Test is > 50%
2	0 🔲	Prevalence Index is ≤3.0 ¹
3		
4	<u> </u>	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5		Problematic Hydrophytic Vegetation ¹ (Explain)
6		
7		1 Indicators of hydric soil and wetland hydrology must
		be present, unless disturbed or problematic.
8		Definitions of Vegetation Strata:
9		_
10		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
11		at breast height (DBH), regardless of height.
12	0	Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size: 30 ft radius)	0 = Total Cover	greater than 3.28 ft (1m) tall
1		Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
2		size, and woody plants less than 5.20 it tall.
3		Woody vine - All woody vines greater than 3.28 ft in
4	0	height.
	0 = Total Cover	
		Hydrophytic
		Vegetation
		11000111
		I .
Remarks: (Include photo numbers here or on a separate she		
No adjacent vegetation in similar landscape position to revie	ew, would not expect to find hydro	phytic vegetation at this location as there is no wetland
hydrology and no hydric soil indicators.		

Sampling Point: T5D

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: T5D

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)											
Depth		Matrix			dox Featu						
(inches)		(moist)	%	Color (moist)	%	Type ¹	Loc2	Texture	Rema	rks	
0-6	10YR	2/2	100					Silty Clay Loam			
6-10	10YR	4/4	100					Loamy Sand	mixed with grav	/el	
10-								rock	refusal		
		-			-						
		-	-								
		-	-		-						
¹ Type: C=Cond	entration. I	D=Depletio	n. RM=Red	uced Matrix, CS=Covere	ed or Coate	d Sand Gra	ins ² Loca	tion: PL=Pore Lining. M	=Matrix		
Hydric Soil II										3	
Histosol (A				Polyvalue Belov	v Surface (S8) (I RP P		Indicators for Pro			
Histic Epip	•			MLRA 149B)	v Surface (SO) (LIKIT IK	•)) (LRR K, L, MLRA		
Black Histi				Thin Dark Surfa	ace (S9) (L	RR R, MLR	A 149B)		dox (A16) (LRR K,	•	
	Sulfide (A4)		Loamy Mucky M	Mineral (F1)	LRR K, L)			at or Peat (S3) (LRF	R K, L, R)	
	Layers (A5)	,		Loamy Gleyed	Matrix (F2)				7) (LRR K, L, M)		
	Below Dark	Surface (A	11)	Depleted Matrix	κ (F3)			Polyvalue Below Surface (S8) (LRR K, L)			
	k Surface (A		,	Redox Dark Su	rface (F6)			☐ Thin Dark Surface (S9) (LRR K, L)			
	ck Mineral (Depleted Dark	Surface (F7)		☐ Iron-Manganese Masses (F12) (LRR K, L, R)			
	yed Matrix			Redox Depress	ions (F8)			Piedmont Floodplain Soils (F19) (MLRA 149B)			
Sandy Red		(34)							A6) (MLRA 144A, 1	45, 149B)	
Stripped M								Red Parent Mat			
	ace (S7) (LF	DD MIDA	1/0R)						ark Surface (TF12)		
								Other (Explain i	n Remarks)		
³ Indicators of	hydrophyti	c vegetatio	n and wetla	and hydrology must be p	resent, unl	ess disturb	ed or proble	ematic.			
Restrictive La	ayer (if ob	served):									
Type:											
Depth (inch	nes):							Hydric Soil Present	Yes ○ I	No 💿	
Remarks:								1			
	inches on	largo roc	ka Araa h	as been filled. Air ph	atas shau	, the area	dicturbod	Lin 2005			
Refusal at 10	inches on	large roc	ks. Area r	ias been illied. All pri	Otos snow	ine area	disturbed	I III 2005.			
1											
1											

Project/Site: WSH20-013-01			City/County	y: Richfield/ Washing	ton Sampling	Date: 29-Oct-20
Applicant/Owner: Alligator Enterprises I	LLC			State: WI	Sampling Point:	T5E
Investigator(s): Benjamin L LaCount			Section	Township, Range:	s. 01 T. 09N	R . 19E
Landform (hillslope, terrace, etc.):	Swale		Local relief	(concave, convex, n	one): concave	Slope: 0-1 % /°
Subregion (LRR or MLRA): LRR K		Lat.:	43.280255	Long	.: -88.197152	Datum: NAD83
Soil Map Unit Name: AtA- Ashkum si	Ity clay loar	n, 0 to 2 percent slop	oes		NWI classification:	
Are climatic/hydrologic conditions on	the site tvr	pical for this time of v	ear?	Yes No	(If no, explain in Remarks.))
	, or Hydrolo		tly disturbed	? Are "Normal	Circumstances" present?	Yes ● No ○
	, or Hydrolo		problematic?		•	
Summary of Findings - Att		· ·		,	explain any answers in Rem s transects import	
Hydrophytic Vegetation Present?		No O	<u> </u>			
Hydric Soil Present?		No O		the Sampled Area	Yes ● No ○	
*		No O	wit	hin a Wetland?	res © NO C	
Wetland Hydrology Present? Remarks: (Explain alternative proce						
Hydrology						
Wetland Hydrology Indicators:					Secondary Indicators (minimu	m of 2 required)
Primary Indicators (minimum of one	<u>erequired;</u>				Surface Soil Cracks (B6)	
☐ Surface Water (A1) ✓ High Water Table (A2)		Water-Stained Lea Aquatic Fauna (B1			Drainage Patterns (B10) Moss Trim Lines (B16)	
Saturation (A3)		Marl Deposits (B1			Dry Season Water Table ((C2)
Water Marks (B1)		Hydrogen Sulfide			Crayfish Burrows (C8)	(02)
Sediment Deposits (B2)		Oxidized Rhizosph		ing Roots (C3)	Saturation Visible on Aeria	al Imagery (C9)
Drift deposits (B3)		Presence of Reduc	ced Iron (C4)		Stunted or Stressed Plant	s (D1)
Algal Mat or Crust (B4)		Recent Iron Redu	ction in Tilled S	Soils (C6)	Geomorphic Position (D2)	
☐ Iron Deposits (B5)	(0.7)	Thin Muck Surface	` ,		Shallow Aquitard (D3)	
☐ Inundation Visible on Aerial Imagery☐ Sparsely Vegetated Concave Surface		Other (Explain in I	Remarks)		✓ Microtopographic Relief (I✓ FAC-neutral Test (D5)	D4)
Sparsery vegetated concave surface	(00)				FAC-fleutial Test (D5)	
Field Observations: Surface Water Present? Yes	No •	5 4 6 4)				
		Depth (inches):		_		
Water Table Present? Yes Output Out		Depth (inches):	10	Wetland Hydr	ology Present? Yes	No O
Saturation Present? (includes capillary fringe) Yes		Depth (inches):				
Describe Recorded Data (stream gau	uge, monito	ring well, aerial photo	os, previous	inspections), if avail	able:	
Domorko						
Remarks:	orth and the	oro cooms to bo a cor	ina or coon i	n this area that add	s water as the ditch goes to	o the east
This area receives water from the no	Jith and the	ere seems to be a spi	ing or seep i	n this area that add	s water as the ditch goes to	o the east.

vegeration - use scientific names of pla	mis			Sampling Point: T5E
(District Linear 40's 100')	Absolute		Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>Linear 40'x100'</u>)	% Cover	Species?	Status	Number of Dominant Species
1				That are OBL, FACW, or FAC:1(A)
2				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of dominant Species
5				That Are OBL, FACW, or FAC: 100.0% (A/B)
6				Dravalance Index werksheet
7		= Total Cover		Prevalence Index worksheet: Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15 ft radius)	0	= Total Cover		0BL species 10 x 1 = 10
1	0			FACW species 103 x 2 = 206
2	0			FAC species 0 x 3 = 0
3	0			FACU species $0 \times 4 = 0$
4	0			l ' -
5	0			
6				Column Totals: <u>113</u> (A) <u>216</u> (B)
7	0			Prevalence Index = B/A = 1.912
Herb Stratum (Plot size: 5 ft radius)	0	= Total Cover		Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation
1. Phalaris arundinacea	100	✓	FACW	✓ Dominance Test is > 50%
2. Typha x glauca	10		OBL	✓ Prevalence Index is ≤3.0 ¹
3. Solidago gigantea	3		FACW	■ Morphological Adaptations ¹ (Provide supporting
4	0			data in Remarks or on a separate sheet)
5	0			Problematic Hydrophytic Vegetation ¹ (Explain)
6				1
7				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8				Definitions of Vegetation Strata:
9				Definitions of vegetation strata.
10				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
11				at breast height (DBH), regardless of height.
12				Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size: Linear 40'x100')		= Total Cover		greater than 3.28 ft (1m) tall
1				Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
2				oles, and woody plante loss than oles it tall.
3	0			Woody vine - All woody vines greater than 3.28 ft in
4				height.
		= Total Cover		
				Hydrophytic Vegetation Present? Yes No
Remarks: (Include photo numbers here or on a separate she	eet.)			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: T5E

Depth (inches) Matrix Redox Features Color (moist) % Type 1 Loc² Loc² Texture Remarks 0-10 10YR 2/1 100 Silt Loam Silt Loam 10-32 10YR 2/1 97 10YR 5/1 3 D M Silty Clay Loam 32-38 5/10 Y 85 10YR 4/6 15 C M Clay
0-10 10YR 2/1 100 Silt Loam 10-32 10YR 2/1 97 10YR 5/1 3 D M Silty Clay Loam
10-32 10YR 2/1 97 10YR 5/1 3 D M Silty Clay Loam
32-38 5/10 Y 85 10YR 4/6 15 C M Clay
¹ Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix
Hydric Soil Indicators: Indicators for Problematic Hydric Soils: 3
☐ Histosol (A1) ☐ Polyvalue Below Surface (S8) (LRR R, ☐ 3 cm Muck (A10) (LDR K L MLDA 140P)
Histic Epipedon (A2)
Black Histic (A3)
Hydrogen Sulfide (A4)
Stratified Layers (A5)
Depleted Below Dark Surface (A11) Thin Dark Surface (S9) (LRR K. L)
Thick Dark Surface (A12)
Sandy Muck Mineral (S1)
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5) Red Parent Material (F21)
Stripped Matrix (S6) Very Shallow Dark Surface (TF12)
☐ Dark Surface (S7) (LRR R, MLRA 149B) ☐ Other (Explain in Remarks)
³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Restrictive Layer (if observed):
Type:
Depth (inches): Hydric Soil Present? Yes • No
Septi (indica).
Remarks:

Project/Site: WSH20-013-01		City/County:	Richfield/ Washingto	Sampling Date: 29-Oct-20
Applicant/Owner: Alligator Enterprises LL	_C		State: WI	Sampling Point: T5F
Investigator(s): Benjamin L LaCount		Section, To	wnship, Range: S.	01 T. 09N R. 19E
Landform (hillslope, terrace, etc.): Hi	illslope	Local relief (co	ncave, convex, noi	ne): convex Slope: 1.0 % / 0.6
Subregion (LRR or MLRA): LRR K	'	— ∴ 43.280571	Long :	-88.197156 Datum : NAD83
· · <u></u>		-		
Soil Map Unit Name: AtA- Ashkum silt	y clay loam, 0 to 2 percent s			NWI classification: none
Are climatic/hydrologic conditions on t	the site typical for this time of	of year? Yes	s	If no, explain in Remarks.)
Are Vegetation , Soil ,	or Hydrology signification	antly disturbed?	Are "Normal C	ircumstances" present? Yes No
Are Vegetation, Soil,	or Hydrology natural	ly problematic?	(If needed, ex	plain any answers in Remarks.)
Summary of Findings - Atta	ch site map showing	g sampling po	oint locations	, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes ○ No •			
Hydric Soil Present?	Yes O No 💿		Sampled Area a Wetland?	Yes ○ No •
Wetland Hydrology Present?	Yes O No 💿			
Hydrology				
Wetland Hydrology Indicators:				Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one	required; check all that appl	y)		Surface Soil Cracks (B6)
Surface Water (A1)	Water-Stained	, ,		Drainage Patterns (B10)
High Water Table (A2)	Aquatic Fauna		Ĺ	Moss Trim Lines (B16)
Saturation (A3) Water Marks (B1)	☐ Marl Deposits (Ĺ	Dry Season Water Table (C2) Crayfish Burrows (C8)
Sediment Deposits (B2)	Hydrogen Sulfic		Doots (C2)	Saturation Visible on Aerial Imagery (C9)
Drift deposits (B3)		spheres along Living duced Iron (C4)	ROOIS (C3)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)		duction in Tilled Soil:	s (C6)	Geomorphic Position (D2)
Iron Deposits (B5)	☐ Thin Muck Surf		[Shallow Aquitard (D3)
☐ Inundation Visible on Aerial Imagery (` ,	[Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	·	[FAC-neutral Test (D5)
Field Observations:				
Surface Water Present? Yes	No Depth (inches	s):		
Water Table Present? Yes	No Depth (inches	z).		
Saturation Present? (includes capillary fringe) Yes	No Depth (inches		Wetland Hydrol	logy Present? Yes O No 🖲
Describe Recorded Data (stream gaug	ge, monitoring well, aerial ph	otos, previous ins	pections), if availal	ole:
No water was encountered to 4 in	iches			
	CITCS:			
Remarks:				
This area drains to the south.				

(Diet size, 20 ft radius	Absolute		Indicator	Dominance Test worksheet:			
<u>Tree Stratum</u> (Plot size: <u>30 ft radius</u>)	% Cover		Status	Number of Dominant Species			
1. Acer negundo		✓	FAC	That are OBL, FACW, or FAC:1(A)			
2	0						
3				Total Number of Dominant Species Across All Strata: 3 (B)			
4				oposios / is/oss / is/ ot/data.			
5				Percent of dominant Species			
6.				That Are OBL, FACW, or FAC: 33.3% (A/B)			
7				Prevalence Index worksheet:			
Sapling/Shrub Stratum (Plot size: 15 ft radius)	5 =	Total Cover		Total % Cover of: Multiply by:			
1. Lonicera x bella	15	✓	FACU	0BL species x 1 =0			
2.				FACW species 0 x 2 = 0			
3	-			FAC species <u>5</u> x 3 = <u>15</u>			
				FACU species 125 x 4 = 500			
4				UPL species $\frac{10}{10}$ x 5 = $\frac{50}{10}$			
5				Column Totals: <u>140</u> (A) <u>565</u> (B)			
6							
7	0			Prevalence Index = B/A = 4.036			
Herb Stratum (Plot size: 5 ft radius)	15=	Total Cover		Hydrophytic Vegetation Indicators:			
				Rapid Test for Hydrophytic Vegetation			
1. Poa pratensis	80	✓	FACU	Dominance Test is > 50%			
2. Taraxacum officinale	5		FACU	Prevalence Index is ≤3.0 ¹			
3. Potentilla reptans	10		UPL	Morphological Adaptations ¹ (Provide supporting			
4. Lotus corniculatus	20		FACU	data in Remarks or on a separate sheet)			
5. Solidago altissima	5		FACU	Problematic Hydrophytic Vegetation ¹ (Explain)			
6	0						
7				1 Indicators of hydric soil and wetland hydrology must			
8				be present, unless disturbed or problematic.			
9				Definitions of Vegetation Strata:			
10				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.			
11				at bleast height (DBH), regardless of height.			
12	-			Sapling/shrub - Woody plants less than 3 in. DBH and			
	120 =	Total Cover		greater than 3.28 ft (1m) tall			
	0			Herb - All herbaceous (non-woody) plants, regardless of			
1				size, and woody plants less than 3.28 ft tall.			
2							
3				Woody vine - All woody vines greater than 3.28 ft in			
4				height.			
	=	Total Cover					
				Hydrophytic Vegetation			
				Present? Yes No •			
Remarks: (Include photo numbers here or on a separate sh	eet)						
Remarks. (Herade prote nambers here of on a separate sin							

Sampling Point: T5F

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: T5F

Depth		Matrix	ucpili	needed to document the indicator or confirm the Redox Features		
(inches)	Color (moist)	%_	Color (moist) % Type 1 Loc²	Texture	Remarks
0-2	10YR	3/4	100		Loamy Sand	Fill soils
2-4	10YR	4/4	100		Loamy Sand	Fill soils
4-		-			-	rock and gravel fill
						
					_	
		-				
¹ Type: C=Cor	ncentration. D	=Depletio	n. RM=Red	uced Matrix, CS=Covered or Coated Sand Grains ² Loc	cation: PL=Pore Lining. M=	Matrix
Hydric Soil	Indicators:				Indicators for Prob	plematic Hydric Soils: 3
Histosol (Polyvalue Below Surface (S8) (LRR R,		
	pedon (A2)			MLRA 149B)) (LRR K, L, MLRA 149B) dox (A16) (LRR K, L, R)
Black His	tic (A3)			☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)		t or Peat (S3) (LRR K, L, R)
Hydroger	n Sulfide (A4)			Loamy Mucky Mineral (F1) LRR K, L)	Dark Surface (S	
Stratified	Layers (A5)			Loamy Gleyed Matrix (F2)		Surface (S8) (LRR K, L)
Depleted	Below Dark S	Surface (A	11)	Depleted Matrix (F3)		ce (S9) (LRR K, L)
Thick Da	rk Surface (A1	12)		Redox Dark Surface (F6)		Masses (F12) (LRR K, L, R)
Sandy Mu	uck Mineral (S	S1)		Depleted Dark Surface (F7)		olain Soils (F19) (MLRA 149B)
Sandy Gl	eyed Matrix (S4)		Redox Depressions (F8)		A6) (MLRA 144A, 145, 149B)
Sandy Re	edox (S5)				Red Parent Mate	
Stripped	Matrix (S6)					rk Surface (TF12)
☐ Dark Surf	face (S7) (LRF	R R, MLRA	A 149B)		Other (Explain in	
³ Indicators o	f hydrophytic	vegetatio	n and wetla	and hydrology must be present, unless disturbed or prob		,
Restrictive L				, , , , , , , , , , , , , , , , , , , ,		
Type:	ayer (ii obs	erveu):				
• • • • • • • • • • • • • • • • • • • •	shoc).				Hydric Soil Present?	Yes ○ No •
Depth (inc	nes):					
Remarks:						
Area has bee	en filled, refu	usal at fo	our inches	on large rock and gravel.		
ı						
ı						

Project/Site: WSH20-013-01	City/County:	Richfield/ Washingto	Samplin	g Date: 29-Oct-20
Applicant/Owner: Alligator Enterprises LLC		State: WI	Sampling Point:	T6A
Investigator(s): Benjamin L LaCount	Section, To	ownship, Range: S.		R . 19E
Landform (hillslope, terrace, etc.): Hillslope		oncave, convex, nor		Slope: 3.0 % / 1.7°
Subregion (LRR or MLRA): LRR K Lat	43.280097	Long.:	-88.196009	Datum: NAD83
Soil Map Unit Name: AtA- Ashkum silty clay loam, 0 to 2 percent s	lopes		NWI classification:	none
Are climatic/hydrologic conditions on the site typical for this time of	of year? Ye	s ● No ○ (I	f no, explain in Remarks	s.)
Are Vegetation . , Soil . , or Hydrology . signific.	antly disturbed?	Are "Normal Ci	rcumstances" present?	Yes No
Are Vegetation , Soil , or Hydrology natural	ly problematic?	(If needed ex	olain any answers in Ren	narks)
Summary of Findings - Attach site map showing	• •		•	•
Hydrophytic Vegetation Present? Yes No •				
Hydric Soil Present? Yes No •		Sampled Area n a Wetland?	Yes ○ No ●	
Wetland Hydrology Present? Yes ○ No ●	VVICINI	i a wetianu:		
Remarks: (Explain alternative procedures here or in a separate re	eport.)			
Hydrology				
Wetland Hydrology Indicators:			econdary Indicators (minim	um of 2 required)
Primary Indicators (minimum of one required; check all that appl	y)		Surface Soil Cracks (B6)	
Surface Water (A1) Water-Stained	, ,	L	Drainage Patterns (B10)	
☐ High Water Table (A2) ☐ Aquatic Fauna ☐ Saturation (A3) ☐ Marl Deposits (L	Moss Trim Lines (B16)	(02)
		L	Dry Season Water TableCrayfish Burrows (C8)	(02)
I 🗔	ge Odor (CT) spheres along Living	Poots (C3)	Saturation Visible on Aer	ial Imagery (C9)
	educed Iron (C4)	Koots (C3)	Stunted or Stressed Plan	• • •
	eduction in Tilled Soil	s (C6)	Geomorphic Position (D2	
☐ Iron Deposits (B5) ☐ Thin Muck Surf	face (C7)		Shallow Aquitard (D3)	
Inundation Visible on Aerial Imagery (B7) Other (Explain	in Remarks)		Microtopographic Relief	(D4)
Sparsely Vegetated Concave Surface (B8)			FAC-neutral Test (D5)	
Field Observations:				
Surface Water Present? Yes No Depth (inches	s):			
Water Table Present? Yes O No O Depth (inches	s):		,, (
Saturation Present? (includes capillary fringe) Yes No No Depth (inches	s):	Wetland Hydrol	ogy Present? Yes	○ No •
Describe Recorded Data (stream gauge, monitoring well, aerial ph	notos, previous ins	pections), if availab	le:	
No water was encountered to 34 inches.				
Remarks:				
Water from this area drains to the waterway to the north.				

VEGETATION - Use scientific flames of pie	arits			Sampling Point: T6A
Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	maicator	Dominance Test worksheet:
THE STREET STREET			Status	Number of Dominant Species
1 Acer negundo		✓	FAC	That are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3				Species Across All Strata:4(B)
4				Percent of dominant Species
5				That Are OBL, FACW, or FAC: 50.0% (A/B)
6				
7	0_			Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft radius)	=	Total Cove	r	Total % Cover of:
1. Lonicera x bella	15	✓	FACU	
2. Rhamnus cathartica	10	✓	FAC	
3	0			FAC speciles 63 x 3 = 189
4				FACU species 43 x 4 = 172
5				UPL species $\frac{5}{}$ x 5 = $\frac{25}{}$
6				Column Total s: <u>111</u> (A) <u>386</u> (B)
7				Prevalence Index = B/A = 3.477_
		Total Cove		
Herb Stratum (Plot size: 5 ft radius)				Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation
1 Solidago altissima	3		FACU	Dominance Test is > 50%
2. Alliaria petiolata	20	✓	FACU	
3. Lonicera x bella	5		FACU	Prevalence Index is ≤3.0 ¹
4. Rhamnus cathartica	3		FAC	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Fragaria vesca	5		UPL	Problematic Hydrophytic Vegetation ¹ (Explain)
6	0			
7				¹ Indicators of hydric soil and wetland hydrology must
8				be present, unless disturbed or problematic.
9				Definitions of Vegetation Strata:
10				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
11				at breast height (DBH), regardless of height.
12		$\overline{\Box}$		Configuration to Management to the City DDM and
Woody Vine Stratum (Plot size: 30 ft radius)	-	Total Cove	r	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall
1	0			Herb - All herbaceous (non-woody) plants, regardless of
			-	size, and woody plants less than 3.28 ft tall.
2				
J	0			Woody vine - All woody vines greater than 3.28 ft in height.
4		Total Cove		Thoight.
	=	= Total Cove	1	
				Hydrophytic
				Vegetation Present? Yes ○ No ●
				Present? 100 0 No 0
				<u>I</u>
Remarks: (Include photo numbers here or on a separate sh	neet.)			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: T6A

	iption: (De	scribe to	the depth	needed to	document	the indic	ator or co	onfirm the	absence of indicators.)					
Depth (inches)	0-1 (Matrix	04	0-1		dox Featu		12	- Tt	D				
	Color (100	Color	(moist)	%	Type ¹	Loc ²	Texture	Rem	narks			
0-30	10YR	2/1	100						Silt Loam					
30-34	10YR	4/3	95	10YR	4/6	5	C	M	Silty Clay					
		-				-								
		-												
		-	-			-	-	-						
						-								
1 Type: C=Cond	centration. D	=Depletio	n. RM=Rec	luced Matrix.	CS=Covere	ed or Coate	ed Sand Gr	rains ² Loca	ation: PL=Pore Lining. M=N					
Hydric Soil I		_ op.oo							-		3			
Histosol (Poly	value Belov	v Surface	(S8) (LRR	R.	Indicators for Probl					
	pedon (A2)				A 149B)		() (- 1010	•	2 cm Muck (A10)					
Black Hist				Thir	Dark Surfa	ace (S9) (LRR R, ML	RA 149B)	Coast Prairie Redo					
	Sulfide (A4)				my Mucky I)	5 cm Mucky Peat					
Stratified	Layers (A5)				my Gleyed)		☐ Dark Surface (S7) (LRR K, L, M) ☐ Polyvalue Below Surface (S8) (LRR K, L)					
Depleted	Below Dark S	Surface (A	11)		leted Matri				Thin Dark Surface					
☐ Thick Darl	k Surface (A	12)			ox Dark Su				☐ Iron-Manganese M					
Sandy Mu	ck Mineral (S	S1)		_	leted Dark		7)		Piedmont Floodpla					
Sandy Gle	yed Matrix (S4)		☐ Red	ox Depress	ions (F8)			☐ Mesic Spodic (TA6					
Sandy Red									Red Parent Materi		•			
	Matrix (S6)								Very Shallow Dark		2)			
☐ Dark Surfa	ace (S7) (LR	R R, MLRA	149B)						Other (Explain in I					
³ Indicators of	hydrophytic	vegetatio	n and wetla	and hydrolog	y must be p	resent, un	less distur	bed or probl	lematic.					
Restrictive La	aver (if obs	erved):												
Type:	, ,													
Depth (incl	hes):								Hydric Soil Present?	Yes 🔾	No 💿			
Remarks:														
Remarks.														

Project/Site: WSH20-013-01			City/County:	Richfield/ Washing	ton	Sampling	Date: 29-Oct-20
Applicant/Owner: Alligator Enterpr	ises LLC			State: WI	Sampling	Point:	Т6В
Investigator(s): Benjamin L LaCou	unt		Section, To	ownship, Range:	s. 01 T. (09N	R . 19E
Landform (hillslope, terrace, etc.)	: Flat		 Local relief (content 	oncave, convex, n	one): none		Slope: 0-1 % /°
Subregion (LRR or MLRA): LRR	-	l at ·	43.280377		-88.196054		Datum: NAD83
					NWI classif	ication. D	
Soil Map Unit Name: AtA- Ashku		<u> </u>			_	_	
Are climatic/hydrologic condition	s on the site ty	pical for this time of y	ear? Ye	s • No O	(If no, explain in	Remarks.)	
Are Vegetation, Soil	, or Hydrold	ogy 🗌 significant	ly disturbed?	Are "Normal	Circumstances" p	oresent?	Yes ● No ○
Are Vegetation, Soil	, or Hydrolo	ogy 🗌 naturally p	roblematic?	(If needed, e	explain any answ	ers in Rema	arks.)
Summary of Findings -	Attach site	map showing s	ampling p	oint location	s, transects	, import	ant features, etc.
Hydrophytic Vegetation Present?		No O					
Hydric Soil Present?	Yes 💿	No O		Sampled Area n a Wetland?	Yes ● No C)	
Wetland Hydrology Present?	Yes 💿	No O					
Remarks: (Explain alternative p	rocedures here	or in a separate repo	rt.)				
Hydrology							
Wetland Hydrology Indicators:					Secondary Indicate	ors (minimur	n of 2 required)
Primary Indicators (minimum of	one required;	check all that apply)			Surface Soil C		
Surface Water (A1)		Water-Stained Lea			Drainage Patt		
✓ High Water Table (A2) ✓ Saturation (A3)		Aquatic Fauna (B1			Moss Trim Lin		00)
Water Marks (B1)		Marl Deposits (B15			Dry Season W Crayfish Burro		52)
Sediment Deposits (B2)		☐ Hydrogen Sulfide (☐ Oxidized Rhizosph		Poots (C2)		• •	I Imagery (C9)
Drift deposits (B3)		Presence of Reduc		Roots (C3)	Stunted or Str		
Algal Mat or Crust (B4)		Recent Iron Reduc		s (C6)	✓ Geomorphic P		. ,
☐ Iron Deposits (B5)		Thin Muck Surface		. ,	Shallow Aquit		
Inundation Visible on Aerial Ima	gery (B7)	Other (Explain in F	Remarks)		Microtopograp	ohic Relief (D	14)
Sparsely Vegetated Concave Sui	face (B8)				✓ FAC-neutral T	est (D5)	
Field Observations:							
Surface Water Present? Yes	O No •	Depth (inches):					
Water Table Present? Yes	● No ○	Depth (inches):	1				
Saturation Present? (includes capillary fringe) Yes		Depth (inches):	0	Wetland Hydr	ology Present?	Yes 💿	No O
Describe Recorded Data (stream	gauge, monito	oring well, aerial photo	os, previous ins	pections), if avail	able:		
,	5 5 .	3 , 1	.,				
Remarks:							
This area is soft and saturated to	the surface, t	here is most likely a s	pring near or u	nder the historic	fill to the west bu	ıt no spring	y was observed.

vegeration - use scientific names of pla	1115			Sampling Point: T6B
(Not size, 20 ft radius	Absolute		Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30 ft radius</u>)	% Cover		Status	Number of Dominant Species
1. Salix nigra		~	OBL	That are OBL, FACW, or FAC:5(A)
2. Acer negundo	-	✓	FAC	Total Number of Dominant
3				Species Across All Strata:5(B)
4				Damant of daminant Charles
5				Percent of dominant Species That Are OBL, FACW, or FAC:100.0% (A/B)
6				
7	0			Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft radius)	20	= Total Cover	-	Total % Cover of: Multiply by:
1 . Rhamnus cathartica	20	✓	FAC	0BL speci es <u>25</u> x 1 = <u>25</u>
2. Cornus alba	10	V	FACW	FACW speciles <u>63</u> x 2 = <u>126</u>
3				FAC species $\underline{45}$ x 3 = $\underline{135}$
4		П		FACU speci es0 x 4 =0
5	-			UPL speci es $0 \times 5 = 0$
6				Column Totals: <u>133</u> (A) <u>286</u> (B)
7				Prevalence Index = B/A = 2.150
		= Total Cover		
Herb Stratum (Plot size: 5 ft radius)				Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation
1. Phalaris arundinacea	50	✓	FACW	✓ Dominance Test is > 50%
2. Arlsaema triphyllum	15		FAC	✓ Prevalence Index is ≤3.0 ¹
3. Eutrochlum maculatum	15		OBL	
4. Solidago gigantea	3		FACW	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5	0			Problematic Hydrophytic Vegetation ¹ (Explain)
6	0			
7	0			Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8	0			
9	0			Definitions of Vegetation Strata:
10	0			Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
11	0			at breast height (DBH), regardless of height.
12	0			Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size: 30 ft radius)	83	= Total Cover	-	greater than 3.28 ft (1m) tall
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3				Woody vine - All woody vines greater than 3.28 ft in
4				height.
	0	= Total Cover		
				Hydrophytic
				Present? Yes No No
Remarks: (Include photo numbers here or on a separate she	eet.)			<u> </u>
	-			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: T6B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix			dox Features		_		
(inches)	Color (moist)	%	Color (moist)	<u>%</u> Type	Loc ² _	Texture	Remarks	
0-40	10YR 2/1	100				Muck		
						-		
						-		
	-							
1 Tumo: C. Com	acentration D. Donlatio	n DM Dodu	and Matrix CC Cavara	d or Coated Cond Co		tion. D. Doro Lining M. Ma		
		iii. Rivi=Reuu	ced Matrix, C3=Covere	ed of Coated Saild G	I dil is ~Luca	tion: PL=Pore Lining. M=Ma		
Hydric Soil I			□ p :	0 (05) (15)	5	Indicators for Proble	matic Hydric Soils : 3	
Histosol (•		☐ Polyvalue Belov MLRA 149B)	v Surface (S8) (LRR	R,	2 cm Muck (A10) (I	LRR K, L, MLRA 149B)	
	pedon (A2)		,	ace (S9) (LRR R, ML	RA 149R)	Coast Prairie Redox	(A16) (LRR K, L, R)	
Black Hist				/lineral (F1) LRR K, L		5 cm Mucky Peat o	r Peat (S3) (LRR K, L, R)	
	Sulfide (A4)		Loamy Gleyed		.)	Dark Surface (S7)	(LRR K, L, M)	
	Layers (A5)		Depleted Matrix			Polyvalue Below Su	rface (S8) (LRR K, L)	
	Below Dark Surface (A	11)	Redox Dark Sui			Thin Dark Surface ((S9) (LRR K, L)	
	k Surface (A12)		Depleted Dark			☐ Iron-Manganese Ma	asses (F12) (LRR K, L, R)	
	ıck Mineral (S1)						n Soils (F19) (MLRA 149B)	
	eyed Matrix (S4)		Redox Depress	ions (F8)			(MLRA 144A, 145, 149B)	
Sandy Re	dox (S5)					Red Parent Materia		
Stripped N	Matrix (S6)					Very Shallow Dark		
☐ Dark Surf	ace (S7) (LRR R, MLRA	A 149B)				Other (Explain in Re		
³ Indicators of	f hydrophytic vegetatio	n and wetlar	d hydrology must be n	resent unless distur	hed or proble			
		iii ana wetiai	a nyarology mast be p	resent, uniess distai	bed of proble	cinatic.		
	ayer (if observed):							
Type:						Hydric Soil Present?	Yes ● No ○	
Depth (inc	hes):					riyuric 3011 Fresent:	res S NO C	
Remarks:								

Project/Site: WSH20-013-01	City	'County: Richfield/ Washing	ton Sampling Date:	: 29-Oct-20
Applicant/Owner: Alligator Enterprises LLC		State: WI	Sampling Point:	T6C
Investigator(s): Benjamin L LaCount	S	ection, Township, Range:	s. 01 T. 09N	R . 19E
Landform (hillslope, terrace, etc.): Hillslope	Loca	I relief (concave, convex, n	one): convex Slope	e:2.0 % /1.1 °
Subregion (LRR or MLRA): LRR K	Lat.: 43.28	30475 Lon g	.: -88.196182 [Datum: NAD83
Soil Map Unit Name: AtA- Ashkum silty clay loa	m, 0 to 2 percent slopes		NWI classification: none	
Are climatic/hydrologic conditions on the site ty	pical for this time of year?	Yes ● No ○	(If no, explain in Remarks.)	
Are Vegetation, Soil 🗹, or Hydrol	ogy significantly dis	turbed? Are "Normal	Circumstances" present? Yes	● No ○
Are Vegetation , Soil , or Hydrol	ogy naturally proble	matic? (If needed, e	explain any answers in Remarks.)	
Summary of Findings - Attach site		,		features, etc.
Hydrophytic Vegetation Present? Yes	No •			
Hydric Soil Present? Yes	No 💿	Is the Sampled Area within a Wetland?	Yes ○ No ●	
Wetland Hydrology Present? Yes	No 💿	Within a Wottana.		
Hydrology				
Wetland Hydrology Indicators:			Secondary Indicators (minimum of 2	required)
Primary Indicators (minimum of one required; Surface Water (A1)			Surface Soil Cracks (B6)	
High Water Table (A2)	✓ Water-Stained Leaves (E✓ Aquatic Fauna (B13)	(9)	☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16)	
Saturation (A3)	Marl Deposits (B15)		Dry Season Water Table (C2)	
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)	
Sediment Deposits (B2)	Oxidized Rhizospheres a		Saturation Visible on Aerial Imag	jery (C9)
Drift deposits (B3)	Presence of Reduced Iro	n (C4)	Stunted or Stressed Plants (D1)	
Algal Mat or Crust (B4)	Recent Iron Reduction in	Tilled Soils (C6)	Geomorphic Position (D2)	
☐ Iron Deposits (B5)	Thin Muck Surface (C7)		Shallow Aquitard (D3)	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remark	(s)	Microtopographic Relief (D4)	
Sparsely Vegetated Concave Surface (B8)			FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes No No	D 11 (1 1)			
	Depth (inches):			
Water Table Present? Yes No Saturation Present?	Depth (inches):	Wetland Hydr	ology Present? Yes O No	•
(includes capillary fringe) Yes \(\text{No}\)	Depth (inches):		-1-1-	
Describe Recorded Data (stream gauge, monit	oring weil, aeriai photos, pr	evious inspections), if avail	able:	
No water was encountered to 10 inches.				
Remarks:				
This area drains to the east.				

vegeration - use scientific names of pla	nts			Sampling Point: T6C
(5)	Absolute		Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft radius)	% Cover		Status	Number of Dominant Species
1. Acer negundo		✓	FAC	That are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3				Species Across All Strata: 6 (B)
4				Demand of developed Constant
5				Percent of dominant Species That Are OBL, FACW, or FAC:33.3% (A/B)
6				
7	0			Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft radius)	5	= Total Cover	-	Total % Cover of: Multiply by:
1 Acer negundo	10	✓	FAC	0BL species x 1 =0
2. Rhamnus cathartica			FAC	FACW species 0 x 2 = 0
3. Lonicera x bella	10	✓	FACU	FAC species $\underline{20}$ x 3 = $\underline{60}$
4. Elaeagnus umbellata		<u>•</u>	UPL	FACU speci es $\frac{110}{}$ x 4 = $\frac{440}{}$
5				UPL speci es $30 \times 5 = 150$
6			-	Column Totals: <u>160</u> (A) <u>650</u> (B)
7				Prevalence Index = B/A = 4.063
		= Total Cover		
Herb Stratum (Plot size: 5 ft radius)				Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation
1. Poa pratensis	70	✓	FACU	Dominance Test is > 50%
2. Solidago altissima	25	✓	FACU	Prevalence Index is ≤3.0 ¹
3. Pastinaca sativa	10		UPL	■ Morphological Adaptations ¹ (Provide supporting
4. Dipsacus fullonum	5		FACU	data in Remarks or on a separate sheet)
5	0			Problematic Hydrophytic Vegetation ¹ (Explain)
6	0			
7	0			Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8	0			
9				Definitions of Vegetation Strata:
10				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
11				at breast height (DBH), regardless of height.
12				Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size: 30 ft radius)	110	= Total Cover		greater than 3.28 ft (1m) tall
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0	\Box		size, and woody plants less than 3.28 ft tall.
3	0			Woody vine - All woody vines greater than 3.28 ft in
4	0			height.
	0	= Total Cover		
				Hydrophytic Vegetation
				Present? Yes No •
Remarks: (Include photo numbers here or on a separate sho	eet.)			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: T6C

Depth		Matrix		needed to document the indicator or confirm Redox Features		,		
(inches)	Color ((moist)	%	Color (moist) % Type 1 Lo	² Texture			narks
0-4	10YR	3/4	100		Loamy Sand		ravel mixed i	
4-10	10YR	4/4	100		Loamy Sand	gr	ravel mixed i	in
10-					rocks	re	fusal on larç	ge rocks
	-							
	-				-			
	-	-						
	-							
		D=Depletio	n. RM=Red	uced Matrix, CS=Covered or Coated Sand Grains		-		
Hydric Soil					Indicators f	for Problem	natic Hydrid	c Soils: 3
Histosol				Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	2 cm Mu	uck (A10) (LR	RR K, L, MLR	RA 149B)
	ipedon (A2)			Thin Dark Surface (S9) (LRR R, MLRA 1498	Coast Pr	airie Redox ((A16) (LRR k	<, L, R)
☐ Black His				Loamy Mucky Mineral (F1) LRR K, L)	5 cm Mu	ucky Peat or I	Peat (S3) (L	RR K, L, R)
	n Sulfide (A4))		Loamy Gleyed Matrix (F2)	Dark Su	rface (S7) (L	RR K, L, M)	
	Layers (A5)	Cf /A	11\	Depleted Matrix (F3)	Polyvalu	e Below Surf	ace (S8) (LF	RR K, L)
	Below Dark		11)	Redox Dark Surface (F6)		rk Surface (S		
	rk Surface (A			Depleted Dark Surface (F7)	Iron-Mai	nganese Mas	ses (F12) (L	RR K, L, R)
	uck Mineral (S			Redox Depressions (F8)				(MLRA 149B)
Sandy Re	eyed Matrix ((34)		, , , ,		oodic (TA6) (, 145, 149B)
	Matrix (S6)					ent Material (
	face (S7) (LR	DD MIDA	1/0R)			allow Dark Su		2)
						Explain in Rer	marks)	
Indicators o	of hydrophytic	vegetatio	n and wetla	and hydrology must be present, unless disturbed or p	oroblematic.			
Restrictive L	ayer (if obs	served):						
Type:							, 0	. (2)
Depth (inc	ches):				Hydric Soil Pi	resent?	Yes O	No •
Remarks:								
Refusal on la	irge rocks a	it ten incl	nes. Aerial	photographs shows disturbances/fill in 1995	through 2005.			
	J				Ü			

Project/Site: WSH20-013-01	City/Coun	nty: Richfield/ Washingtor	Sampling Date: 29-Oct-20
Applicant/Owner: Alligator Enterprises LLC		State: WI	Sampling Point: T7A
Investigator(s): Benjamin L LaCount	Sectio	n, Township, Range: S.	01 T. 09N R. 19E
Landform (hillslope, terrace, etc.): Ditch	Local relie	ef (concave, convex, non	e): concave Slope:0-1 % /
Subregion (LRR or MLRA): LRR K	Lat.: 43.280672	2 Long.:	-88.197577 Datum: NAD83
Soil Map Unit Name: MtA- Mequon silt loam, 1 to	3 percent		NWI classification: none
Are climatic/hydrologic conditions on the site typi	ical for this time of year?	Yes No (I	f no, explain in Remarks.)
Are Vegetation , Soil , or Hydrolog		•	rcumstances" present? Yes No
Are Vegetation , Soil , or Hydrolog			plain any answers in Remarks.)
Summary of Findings - Attach site			•
Hydrophytic Vegetation Present? Yes	No O	<u> </u>	·
Hydric Soil Present? Yes		s the Sampled Area vithin a Wetland?	Yes ● No ○
Wetland Hydrology Present? Yes Yes	No O	itimi a wettanu:	
Remarks: (Explain alternative procedures here	or in a senarate report)		
Hydrology			
Wetland Hydrology Indicators:		Se	econdary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; c			Surface Soil Cracks (B6)
✓ Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) Aquatic Fauna (B13)	L	☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16)
Saturation (A3)	Marl Deposits (B15)		Dry Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres along L	iving Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift deposits (B3)	Presence of Reduced Iron (C4)		Stunted or Stressed Plants (D1)
☐ Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled	· _	Geomorphic Position (D2)
Iron Deposits (B5)	☐ Thin Muck Surface (C7)		Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)		Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		<u> </u>	FAC-neutral Test (D5)
Field Observations:			
Surface Water Present? Yes • No •	Depth (inches): 2+		
Water Table Present? Yes No •	Depth (inches):		pay Present? Yes No
Saturation Present? (includes capillary fringe) Yes No	Depth (inches):	Wetland Hydrolo	ogy Present? Yes Sono C
Describe Recorded Data (stream gauge, monitor	ing well, aerial photos, previou	s inspections), if availab	le:
Damanila			
Remarks:	drains aget through a narrow s	litch and some water pla	a drains to the south. Water is pershed an elever
soils and is only saturated to 4 inches. Soil from		litch and some water als	o drains to the south. Water is perched on clayey
,			

vegeration - ose scientific flames of pla	a1165			Sampling Point: T7A
(2)	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft radius)	% Cover	Species?	Status	Number of Dominant Species
1. Salix nigra	5	✓	OBL	That are OBL, FACW, or FAC: (A)
2	0			
3				Total Number of Dominant Species Across All Strata:
4				
5				Percent of dominant Species
6				That Are OBL, FACW, or FAC:100.0% (A/B)
7				Prevalence Index worksheet:
7				
Sapling/Shrub Stratum (Plot size: 15 ft radius)	=	= Total Cove	r	Total % Cover of: Multiply by:
1	0			0BL species
2				FACW species 15 x 2 = 30
3	· ·			FAC speciles x 3 =
				FACU species x 4 =0
4				UPL species $0 \times 5 = 0$
5				Column Totals: 90 (A) 105 (B)
6			-	
7				Prevalence Index = B/A = 1.167
Herb Stratum (Plot size: 5 ft radius)	=	Total Cove	r	Hydrophytic Vegetation Indicators:
	40		EAC)A/	✓ Rapid Test for Hydrophytic Vegetation
1 Phalaris arundinacea			FACW	✓ Dominance Test is > 50%
2. Typha x glauca		✓	OBL	Prevalence Index is ≤3.0 ¹
3. Symphyotrichum lanceolatum			FACW	☐ Morphological Adaptations ¹ (Provide supporting
4				data in Remarks or on a separate sheet)
5	0			Problematic Hydrophytic Vegetation ¹ (Explain)
6	0			
7	0			Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8				
9				Definitions of Vegetation Strata:
10				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
11				at breast height (DBH), regardless of height.
12				
	-	 = Total Cove		Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size: 30 ft radius)		- Total Gove	•	greater than 3.28 ft (1m) tall
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3	0			Woody vine - All woody vines greater than 3.28 ft in
Λ	0			height.
To	0 =	Total Cove		3 4
		- Total Gove	•	
				Hydrophytic
				Vegetation
				Present? Yes No
Remarks: (Include photo numbers here or on a separate sh	neet.)			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: T7A

Profile Descri	iption: (Descril	oe to the depth	needed to document	the indic	ator or co	onfirm the	absence of indicators.)			
Depth										
(inches)	Color (moi		Color (moist)	%	Type ¹		Texture	Remarks		
0-15	10YR	3/2 93	5YR 3/4	7	C		Silty Clay Loam	Fill Soils		
15-							rocks	Refusal		
							-			
							-			
				-	-					
-										
					_					
		-								
-										
¹ Type: C=Cond	centration. D=De	pletion. RM=Red	uced Matrix, CS=Covere	ed or Coate	ed Sand Gr	ains ² Loca	ation: PL=Pore Lining. M=I	Matrix		
Hydric Soil I	ndicators:						Indicators for Prob	lematic Hydric Soils : 3		
Histosol (A	A1)		Polyvalue Belov	w Surface	(S8) (LRR I	₹,		(LRR K, L, MLRA 149B)		
Histic Epip	pedon (A2)		MLRA 149B)					ox (A16) (LRR K, L, R)		
☐ Black Hist	ic (A3)		☐ Thin Dark Surfa					or Peat (S3) (LRR K, L, R)		
Hydrogen	Sulfide (A4)		Loamy Mucky I)				
Stratified	Layers (A5)		Loamy Gleyed)		☐ Dark Surface (S7) (LRR K, L, M) ☐ Polyvalue Below Surface (S8) (LRR K, L)			
Depleted I	Below Dark Surfa	nce (A11)	Depleted Matri					e (S9) (LRR K, L)		
☐ Thick Dark	k Surface (A12)		Redox Dark Su					Masses (F12) (LRR K, L, R)		
Sandy Mu	ck Mineral (S1)		Depleted Dark		7)			ain Soils (F19) (MLRA 149B)		
Sandy Gle	eyed Matrix (S4)		Redox Depress	ions (F8)				6) (MLRA 144A, 145, 149B)		
Sandy Red	dox (S5)						Red Parent Mater			
Stripped N	Matrix (S6)						Very Shallow Dar			
☐ Dark Surfa	ace (S7) (LRR R,	MLRA 149B)					Other (Explain in			
³ Indicators of	hvdrophytic vea	etation and wetla	and hydrology must be p	oresent. un	ıless disturl	bed or probl		,		
			тутто ду того то р							
	ayer (if observe	ea):								
Type:	haa).						Hydric Soil Present?	Yes ● No ○		
Depth (inch	nes):									
Remarks:										
Refusal at 15	inches on larg	e rocks. The ar	ea was filled betwee	n 1970 a	nd 1980.					

Project/Site: WSH20-013-01	City/County:	Richfield/ Washingto	on Sai	mpling Date: 29-Oct-20
Applicant/Owner: Alligator Enterprises LLC		State: WI	Sampling Poi	nt: T7B
Investigator(s): Benjamin L LaCount	Section, To	 ownship, Range: S	 . 01 т . 09N	R. 19E
Landform (hillslope, terrace, etc.): Hillslope		oncave, convex, no		Slope: 2.0 % / 1.1 °
Subregion (LRR or MLRA): LRR K Lat.:	43.280616	Long.	-88.197624	Datum: NAD83
Soil Map Unit Name: AtA- Ashkum silty clay loam, 0 to 2 percent slo	ppes		NWI classificati	ion: none
Are climatic/hydrologic conditions on the site typical for this time of	year? Ye	s • No O	– If no, explain in Rer	marks.)
	ntly disturbed?	Are "Normal C	ircumstances" prese	ent? Yes No •
Are Vegetation , Soil , or Hydrology naturally	problematic?		xplain any answers i	
Summary of Findings - Attach site map showing				•
Hydrophytic Vegetation Present? Yes No •				
Hydric Soil Present? Yes ○ No •		Sampled Area n a Wetland?	Yes ○ No ●	
Wetland Hydrology Present? Yes ○ No ●		ru Wettung.		
Remarks: (Explain alternative procedures here or in a separate rep	oort.)			
This is a cropped hay field.	.01 2.,			
This is a cropped hay field.				
Hydrology				
Wetland Hydrology Indicators:			Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)			Surface Soil Cracks	
Surface Water (A1) Water-Stained Le			Drainage Patterns	
High Water Table (A2) Aquatic Fauna (B			Moss Trim Lines (E	
Saturation (A3) Marl Deposits (B			Dry Season Water	•
☐ Water Marks (B1) ☐ Hydrogen Sulfide			Crayfish Burrows (
Thydrogen same	heres along Living	Roots (C3)		on Aerial Imagery (C9)
☐ Drift deposits (B3) ☐ Presence of Redu		10013 (03)	Stunted or Stresse	
	uced from (C4) uction in Tilled Soil	c (CA)	Geomorphic Position	, ,
☐ Iron Deposits (B5) ☐ Thin Muck Surface		3 (00)	Shallow Aquitard (
Thirt wack surface	. ,		Microtopographic F	
Inundation visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in	Remarks)		FAC-neutral Test (
Sparsory regulated soliteate surface (20)			TAC-neutral Test (D3)
Field Observations:				
Surface Water Present? Yes No Depth (inches)	:			
Water Table Present? Yes No Depth (inches)	:			/ O N- O
Saturation Present? (includes capillary fringe) Yes No Depth (inches)	:	Wetland Hydro	logy Present? Y	'es ○ No •
Describe Recorded Data (stream gauge, monitoring well, aerial pho	tos, previous ins	pections), if availa	ble:	
No water was encountered to 24 inches.				
Remarks:				
This area drains to the ditch to the north.				

vegeration - use scientific names of pla	ints	Sampling Point: T7B
Troc Stratum (Plot size: 30' rad.)	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (* let size)	% Cover Species? Status	Number of Dominant Species
1	_	That are OBL, FACW, or FAC: (A)
2		Total Number of Dominant
3		Species Across All Strata: (B)
4		Percent of dominant Species
5		That Are OBL, FACW, or FAC: 0.0% (A/B)
6 7		Prevalence Index worksheet:
	0 = Total Cover	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15' rad.)		0BL species 0 x 1 = 0
1		FACW species 0 x 2 = 0
2		FAC species x 3 =0
3		FACU speciles 0 x 4 = 0
4		UPL species $\frac{0}{\sqrt{x}} \times 5 = \frac{0}{\sqrt{x}}$
5		Column Totals:0_ (A)0_ (B)
6		
7		Prevalence Index = B/A =
Herb Stratum (Plot size: 5' rad.)	0 = Total Cover	Hydrophytic Vegetation Indicators:
1	0	Rapid Test for Hydrophytic Vegetation
2	_	☐ Dominance Test is > 50%
3		Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Provide supporting
4		Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5		Problematic Hydrophytic Vegetation ¹ (Explain)
6		4
7		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8		Definitions of Vegetation Strata:
9		Definitions of Vegetation Strata.
10		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
11		at breast neight (DBH), regardless of height.
12	0 = Total Cover	Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size: 30' rad.)		greater than 3.28 ft (1m) tall
1		Herb - All herbaceous (non-woody) plants, regardless of
2		size, and woody plants less than 3.28 ft tall.
3		Woody vine - All woody vines greater than 3.28 ft in
4		height.
	0 = Total Cover	
		Hydrophytic
		Vegetation Present? Yes ○ No ●
		Present:
Domarke: (Include phote numbers here as an accessity of	oot)	
Remarks: (Include photo numbers here or on a separate sho No adjacent vegetation in similar landscape position to revi	•	inhytic vegetation at this location as there is no wetland
hydrology and hydric soil indicators. The field edge drops of		priyuc vegetation at this location as there is no wetland
· ·	·	

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: T7B

	iption: (Des	scribe to	the depth	needed to d	locument	the indic	ator or co	onfirm the	absence of indicators.)		
Depth (inches)	Color (Matrix	0/	Color (dox Featu		1.002	- Toytura	D	marka
0-16	Color (moist) 3/2	<u>%</u> 100	Color (muist)	%_	Type ¹	Loc ²	Texture Silty Clay Loam	Ren	narks
				7 FVD	4//				-	-	
16-17	10YR	4/1	98	7.5YR	4/6		C		Silty Clay	Mixed with re	noke.
17-24	10YR	4/4	100						Sandy Clay Loam	Mixed with ro	DCKS
		-									
		-	-		-	-	-	-			
			-		-	-					
		=Depletio	n. RM=Rec	luced Matrix,	CS=Covere	ed or Coate	ed Sand Gr	ains ² Loca	ation: PL=Pore Lining. M=1		
Hydric Soil I									Indicators for Prob	lematic Hydri	ic Soils: 3
Histosol (•			☐ Polyv MI R	ralue Belov A 149B)	w Surface	(S8) (LRR I	R,	2 cm Muck (A10)	(LRR K, L, MLI	RA 149B)
☐ Histic Epip☐ Black Hist	pedon (A2)				•	ace (S9) (LRR R, MLI	RA 149B)	Coast Prairie Red	ox (A16) (LRR	K, L, R)
	Sulfide (A4)) LRR K, L		5 cm Mucky Peat		
	Layers (A5)			Loan	ny Gleyed	Matrix (F2))		Dark Surface (S7		
	Below Dark S	Surface (A	11)	☐ Depl	eted Matrix	x (F3)			Polyvalue Below		
	k Surface (A1		,	Redo	x Dark Su	rface (F6)			☐ Thin Dark Surface (S9) (LRR K, L) ☐ Iron-Manganese Masses (F12) (LRR K, L, R)		
	ck Mineral (S					Surface (F	7)		Piedmont Floodpl		
Sandy Gle	yed Matrix (S4)		☐ Redo	x Depress	ions (F8)			Mesic Spodic (TA		
Sandy Red	dox (S5)								Red Parent Mater		1, 143, 1470)
Stripped N	Natrix (S6)								Very Shallow Dar		2)
☐ Dark Surfa	ace (S7) (LRI	R R, MLRA	149B)						Other (Explain in		
³ Indicators of	hydrophytic	vegetatio	n and wetla	and hydrology	must be p	resent, un	less distur	bed or probl	ematic.		
Restrictive La	ayer (if obs	erved):									
Type:										_	_
Depth (incl	nes):								Hydric Soil Present?	Yes 🔾	No 💿
Remarks:											
Area was fille	d in 2005 a	and was	also distu	rbed prior to	2005						
ruod ruo imo	u 2000 u			. 200 p							
ı											
ı											
ı											

Project/Site: WSH20-013-01	City/County:	Richfield/ Washingtor	Sampling Date: 29-Oct-20
Applicant/Owner: Alligator Enterprises LLC		State: WI	Sampling Point: T8A
Investigator(s): Benjamin L LaCount	Section, To	ownship, Range: S.	01 T. 09N R. 19E
Landform (hillslope, terrace, etc.): Hillslope	Local relief (co	oncave, convex, non	e): convex/concave Slope: 10.0 % / 5.7°
Subregion (LRR or MLRA): LRR K Lat.:	43.276314	Long.:	-88.197870 Datum: NAD83
Soil Map Unit Name: ZuC2- Zurich silt loam, 6 to 12 percent slopes,	eroded		NWI classification: none
Are climatic/hydrologic conditions on the site typical for this time of	year? Ye:	s • No O (I	f no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significar	ntly disturbed?	Are "Normal Ci	rcumstances" present? Yes No
Are Vegetation , Soil , or Hydrology naturally	problematic?	(If needed exr	lain any answers in Remarks.)
Summary of Findings - Attach site map showing			•
Hydrophytic Vegetation Present? Yes • No •			
Hydric Soil Present? Yes No		Sampled Area n a Wetland?	Yes No
Wetland Hydrology Present? Yes ● No ○	Witim	ra wettand:	
Remarks: (Explain alternative procedures here or in a separate rep	ort.)		
This area is a hillslope with a seep coming out of the side of the hil			
This area is a missippe with a seep coming out of the side of the mis	и.		
Hydrology			
Hydrology			
Wetland Hydrology Indicators:		<u>_S</u>	econdary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)			Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Le	, ,	L	Drainage Patterns (B10)
✓ High Water Table (A2) ☐ Aquatic Fauna (B		L	Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B:		L	Dry Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide			Crayfish Burrows (C8)
	heres along Living	Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift deposits (B3) Presence of Redu			Stunted or Stressed Plants (D1)
	uction in Tilled Soil:	s (C6)	Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Thin Muck Surface		L	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in	Remarks)	L	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)			FAC-neutral Test (D5)
Field Observations:			
Surface Water Present? Yes No Depth (inches):	:		
Water Table Present? Yes No Depth (inches):	:10		
Saturation Present? (includes capillary fringe) Yes No Depth (inches):	:0	Wetland Hydrolo	ogy Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial pho	tos, previous ins	pections), if availab	le:
I Describe Recorded Data (Stream daude, Informormo well, derial brio	,	1,	
Describe Recorded Data (stream gauge, monitoring well, aerial pho			
Remarks:			
	ng this area.		
Remarks:	ng this area.		
Remarks:	ng this area.		
Remarks:	ng this area.		
Remarks:	ing this area.		

vegeration - ose scientific flames of pla	aiits			Sampling Point: T8A
(2) (1) (2) (1) (1) (1)	Absolute	Dominant	maicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30 ft radius</u>)	% Cover	Species?	Status	Number of Dominant Species
1				That are OBL, FACW, or FAC:
2				Total Number of Dominant
3				Species Across All Strata: 5 (B)
4				Percent of deminant Species
5				Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
6				
7				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft radius)	=	= Total Cove	r	Total % Cover of: Multiply by:
1 Cornus alba	10	✓	FACW	0BL speci es 0 x 1 = 0
2. Salix petiolaris	10	✓	FACW	FACW species 135 x 2 = 270
3	=			FAC species x 3 =30
4				FACU speci es $0 \times 4 = 0$
5				UPL speci es $0 \times 5 = 0$
6				Column Total s: <u>145</u> (A) <u>300</u> (B)
7	=			Prevalence Index = B/A = 2.069
		= Total Cove		
Herb Stratum (Plot size: 5 ft radius)				Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation
1. Phalaris arundinacea	50	✓	FACW	✓ Dominance Test is > 50%
2. Impatiens capensis	40	✓	FACW	✓ Prevalence Index is ≤3.0 ¹
3. Solidago gigantea	20		FACW	
4. Ribes americanum	5		FACW	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5	0			Problematic Hydrophytic Vegetation ¹ (Explain)
6	0			
7	0			Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8	0			
9	0			Definitions of Vegetation Strata:
10	0			Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
11	0			at breast height (DBH), regardless of height.
12	0			Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size: _30 ft radius)	115=	= Total Cove	r	greater than 3.28 ft (1m) tall
	10		FAC	Liant All hanks are use (see a superty) plants are marrial as a f
1 . Vitis riparia			FAC	Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
2				
3				Woody vine - All woody vines greater than 3.28 ft in
4		Total Caus		height.
	10 =	= Total Cove	r	
				Hydrophytic
				Vegetation
				Present? Yes No
				I
Remarks: (Include photo numbers here or on a separate sh	neet.)			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: T8A

	iption: (De		the depth	needed to d				onfirm the	absence of indicators.)				
Depth (inches)	Color (Matrix	%	Color (dox Featu	res Type ¹	Loc ²	Toyturo	Dore	arks		
0-20	10YR	moist) 2/1	100	color (muist)	%	_ rype_ '	LOC2	Muck	Rem	di KS		
20-26	10YR	5/1	- 98	7.5YR	4/6	2	C		Silt				
		-	-					-					
		-	_					-					
			-	-									
		-											
1 Type: C=Cond	centration D	=Depletio	n RM=Red	uced Matrix	CS=Covere	ed or Coate	ed Sand Gr	ains 2l oca	ation: PL=Pore Lining. M=M	atrix			
Hydric Soil I		_ op.oo				soutt					3		
Histosol (A				Poly	alue Belov	v Surface ((S8) (LRR I	₹.	Indicators for Proble				
	pedon (A2)				4 149B)	(() (=1111)		2 cm Muck (A10)				
✓ Black Hist				Thin	Dark Surfa	nce (S9) (I	LRR R, MLI	RA 149B)	Coast Prairie Redo				
	Sulfide (A4)) LRR K, L)	5 cm Mucky Peat of		RR K, L, R)		
Stratified	Layers (A5)				ny Gleyed I)		Dark Surface (S7)		ו א ספ		
Depleted I	Below Dark S	Surface (A	11)		eted Matrix				Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L)				
✓ Thick Dark	k Surface (A	12)			x Dark Su				Iron-Manganese Masses (F12) (LRR K, L, R)				
Sandy Mu	ck Mineral (S	S1)		_	eted Dark		7)		Piedmont Floodplain Soils (F19) (MLRA 149B)				
Sandy Gle	yed Matrix (S4)		☐ Redo	x Depress	ions (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)				
Sandy Red									Red Parent Materi		,		
	Matrix (S6)								Very Shallow Dark)		
☐ Dark Surfa	ace (S7) (LR	R R, MLRA	149B)						Other (Explain in F				
³ Indicators of	hydrophytic	vegetatio	n and wetla	ınd hydrology	must be p	resent, un	less distur	bed or probl	lematic.				
Restrictive La	aver (if obs	erved):											
Type:	, ,												
Depth (inch	hes):								Hydric Soil Present?	Yes 💿	No O		
Remarks:													
Kemarks.													

Project/Site: WSH20-013-01		City/County:	Richfield/ Washingt	on Sampling D	ate: 29-Oct-20
Applicant/Owner: Alligator Enterprises Li	TC		State: WI	Sampling Point:	T8B
Investigator(s): Benjamin L LaCount		Section, To	wnship, Range: S	т. 09N	R . 19E
Landform (hillslope, terrace, etc.):	Hillslope	Local relief (co	ncave, convex, no	one): convex S	ope: _10.0 % / _ 5.7 °
Subregion (LRR or MLRA): LRR K	Lat.:	43.276306	Long.	: -88.198415	Datum: NAD83
Soil Map Unit Name: ZuC2- Zurich silt	t loam, 6 to 12 percent slopes, 6	eroded		NWI classification: nor	ie
Are climatic/hydrologic conditions on			• No O	— ——(If no, explain in Remarks.)	
		ly disturbed?			Yes No
		-		mounistances present.	
•		problematic?		cplain any answers in Remark	
Summary of Findings - Atta		sampling po	oint locations	s, transects, importa	nt features, etc.
3	Yes No •	Is the	Sampled Area		
	Yes No •		a Wetland?	Yes ○ No •	
Wetland Hydrology Present?	Yes ○ No ●				
Hydrology					
Wetland Hydrology Indicators:				Secondary Indicators (minimum	of 2 required)
Primary Indicators (minimum of one				Surface Soil Cracks (B6)	
Surface Water (A1) High Water Table (A2)	Water-Stained Lea			Drainage Patterns (B10)	
Saturation (A3)	☐ Aquatic Fauna (B1☐ Marl Deposits (B15☐)			Moss Trim Lines (B16)Dry Season Water Table (C2	1
Water Marks (B1)	Hydrogen Sulfide (Crayfish Burrows (C8))
Sediment Deposits (B2)	Oxidized Rhizosph		Roots (C3)	Saturation Visible on Aerial I	magery (C9)
☐ Drift deposits (B3)	Presence of Reduc		(,	Stunted or Stressed Plants (I	
☐ Algal Mat or Crust (B4)	Recent Iron Reduc		s (C6)	Geomorphic Position (D2)	
Iron Deposits (B5)	☐ Thin Muck Surface	e (C7)		Shallow Aquitard (D3)	
Inundation Visible on Aerial Imagery (Utilici (Expidiii iii i	Remarks)		Microtopographic Relief (D4)	
Sparsely Vegetated Concave Surface	(B8)			FAC-neutral Test (D5)	
Field Observations:					
Surface Water Present? Yes	No Depth (inches):				
Water Table Present? Yes	No Depth (inches):		Wetland Hydro	ology Present? Yes	No (•)
Saturation Present? (includes capillary fringe) Yes	No Depth (inches):				
Describe Recorded Data (stream gauge		os, previous ins	pections), if availa	ble:	
No water was encountered to 24	inches.				
Remarks:					
This area drains to the west.					

vegeration - use scientific names of pia	mis			Sampling Point: T8B
(District 20 ft radius	Absolute	Dominant Species 2	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft radius)	% Cover	_	Status	Number of Dominant Species
1. Prunus serotina		✓	FACU	That are OBL, FACW, or FAC: (A)
2. Malus ioensis	-	✓	UPL	Total Number of Dominant
3	0			Species Across All Strata:4(B)
4	0			
5	0			Percent of dominant Species That Are OBL, FACW, or FAC:50.0% (A/B)
6	0			That Are OBE, FACW, OF FAC.
7	0			Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15 ft radius)	65	= Total Cove	r	Total % Cover of: Multiply by:
1 . Rhamnus cathartica	70	✓	FAC	0BL speci es x 1 =0
2. Lonicera x bella			FACU	FACW species
3	· -			FAC speciles
4				FACU species $\underline{55}$ x 4 = $\underline{220}$
5				UPL species $\frac{15}{}$ x 5 = $\frac{75}{}$
6		\Box		Column Totals: 145 (A) 520 (B)
7				Prevalence Index = B/A = 3.586_
Herb Stratum (Plot size: 5 ft radius)		= Total Cove	-	Hydrophytic Vegetation Indicators:
	-			Rapid Test for Hydrophytic Vegetation
1. Viola sororia		✓	FAC	Dominance Test is > 50%
2	0			Prevalence Index is ≤3.0 ¹
3	0			☐ Morphological Adaptations ¹ (Provide supporting
4	0			data in Remarks or on a separate sheet)
5	0			☐ Problematic Hydrophytic Vegetation ¹ (Explain)
6	0			
7	0			Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8	0			
9	0			Definitions of Vegetation Strata:
10	0			Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
11	0			at breast height (DBH), regardless of height.
12	0			Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size: 30 ft radius)		= Total Cove	r	greater than 3.28 ft (1m) tall
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3	0			Woody vine - All woody vines greater than 3.28 ft in
4	0			height.
	0	= Total Cove	-	
				Hydrophytic Vegetation Present? Yes No No
Remarks: (Include photo numbers here or on a separate sh	eet.)			
•				

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: T8B

Profile Desci Depth	ription: (Des	scribe to Matrix	the depth	needed to document the indicator or confirm the Redox Features	absence of indicators.)	
(inches)	Color (%	Color (moist) % Type ¹ Loc ²	- Texture	Remarks
0-8	10YR	3/3	100		Silt Loam	
8-24	10YR	3/4	100		Silty Clay Loam	
					only only boarn	
			-			
		-	-			
		-	_			
¹ Type: C=Cor	centration. D	=Depletio	n. RM=Red	luced Matrix, CS=Covered or Coated Sand Grains 2Local	ation: PL=Pore Lining. M=Ma	ntrix
Hydric Soil	Indicators:				Indicators for Proble	matic Hydric Soils : 3
Histosol ((A1)			Polyvalue Below Surface (S8) (LRR R,		LRR K, L, MLRA 149B)
	pedon (A2)			MLRA 149B)		(A16) (LRR K, L, R)
Black His				☐ Thin Dark Surface (S9) (LRR R, MLRA 149B) ☐ Loamy Mucky Mineral (F1) LRR K, L)		r Peat (S3) (LRR K, L, R)
	Sulfide (A4)			Loamy Mucky Mineral (F1) LRR K, L) Loamy Gleyed Matrix (F2)	Dark Surface (S7)	
	Layers (A5)			Depleted Matrix (F2)	Polyvalue Below Su	ırface (S8) (LRR K, L)
	Below Dark S		11)	Redox Dark Surface (F6)	Thin Dark Surface	(S9) (LRR K, L)
	k Surface (A1			Depleted Dark Surface (F7)	Iron-Manganese M	asses (F12) (LRR K, L, R)
	uck Mineral (S			Redox Depressions (F8)	Piedmont Floodplai	n Soils (F19) (MLRA 149B)
	eyed Matrix (S4)			Mesic Spodic (TA6)	(MLRA 144A, 145, 149B)
Sandy Re					Red Parent Materia	
	Matrix (S6) face (S7) (LRI	D D MIDA	140D)		Very Shallow Dark	
					Other (Explain in R	emarks)
³ Indicators o	f hydrophytic	vegetatio	n and wetla	and hydrology must be present, unless disturbed or problem	ematic.	
Restrictive L	ayer (if obs	erved):				
Type:						
Depth (inc	:hes):				Hydric Soil Present?	Yes O No 💿
Remarks:						

Project/Site: WSH20-013-01	City/County: Richfield/ Washi	sington Sampling Date: 29-Oct-20
Applicant/Owner: Alligator Enterprises LLC	State: \	WI Sampling Point: T9A
Investigator(s): Benjamin L LaCount	Section, Township, Range	e: S. 01 T. 09N R. 19E
Landform (hillslope, terrace, etc.): Depression	Local relief (concave, convex	c, none): concave Slope: 0-1 % /°
Subregion (LRR or MLRA): LRR K		ong.: -88.199652
Soil Map Unit Name: Pc- Palms mucky peat, 0 to 2 percent slope		NWI classification: PEM1F
		(If no, explain in Remarks.)
Are Vegetation . Soil . or Hydrology signif	7	V (A) N- (
- recorded and rec	•	iai on danistances present.
3 — 7 — 7 33 —	•	d, explain any answers in Remarks.)
Summary of Findings - Attach site map showing	ng sampling point location	ons, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	Is the Sampled Area	
Hydric Soil Present? Yes No	within a Wetland?	Yes ● No ○
Wetland Hydrology Present? Yes No		
Hydrology		
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that ap	anlul	Secondary Indicators (minimum of 2 required) Surface Soil Cracks (B6)
	ed Leaves (B9)	Drainage Patterns (B10)
✓ High Water Table (A2) ☐ Aquatic Faur	, ,	Moss Trim Lines (B16)
Saturation (A3)	s (B15)	Dry Season Water Table (C2)
	ulfide Odor (C1)	Crayfish Burrows (C8)
	zospheres along Living Roots (C3)	✓ Saturation Visible on Aerial Imagery (C9)
	Reduced Iron (C4) Reduction in Tilled Soils (C6)	
Iron Deposits (B5)	` '	Shallow Aquitard (D3)
(07)	nin in Remarks)	☐ Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	•	✓ FAC-neutral Test (D5)
Field Observations:		
	hes):	
Water Table Present? Yes • No O Depth (incl	hes):	
Saturation Present?	Wetland Hy	ydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial		/ailable:
Remarks:		
Water ponds and persists here for prolonged periods of time.		

(Diet size, 20 ft radius	Absolute		Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30 ft radius</u>)	% Cover	species?	Status	Number of Dominant Species
1				That are OBL, FACW, or FAC:4 (A)
2	0			Total Number of Dominant
3	0			Species Across All Strata:4 (B)
4	0			
5	0			Percent of dominant Species
6				That Are OBL, FACW, or FAC: 100.0% (A/B)
7				Prevalence Index worksheet:
(5)	0 =	Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15 ft radius)				0BL speci es 25 x 1 = 25
1Cornus alba	30	✓	FACW	FACW species x 2 =
2	0			I
3	0			FAC species x 3 =
4				FACU species $0 \times 4 = 0$
5	-			UPL speci es $0 \times 5 = 0$
6				Column Totals: 100 (A) 175 (B)
7	-			Prevalence Index = B/A = 1.750
		: Total Cover		
Herb Stratum (Plot size: 5 ft radius)	=	· Total Cover		Hydrophytic Vegetation Indicators:
1 Carex lacustris	25	✓	OBL	Rapid Test for Hydrophytic Vegetation
O Immetiana comencia	20	✓	FACW	✓ Dominance Test is > 50%
- But the state of	45	✓	FACW	✓ Prevalence Index is ≤3.0 ¹
0			TACV	☐ Morphological Adaptations ¹ (Provide supporting
4				data in Remarks or on a separate sheet)
5				☐ Problematic Hydrophytic Vegetation ¹ (Explain)
6				1 Indicators of hydric sail and watland hydrology myst
7				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8				
9	0			Definitions of Vegetation Strata:
10	0			Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
11	0			at breast height (DBH), regardless of height.
12				Sapling/shrub - Woody plants less than 3 in. DBH and
20.5	70 =	Total Cover		greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size: 30 ft radius)		_		
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3	0			Woody vine - All woody vines greater than 3.28 ft in
4	0			height.
	0 =	Total Cover		
				Hydrophytic
				Vegetation Present? Yes No
				Present? Yes No U
Remarks: (Include photo numbers here or on a separate sh	eet.)			

Sampling Point: T9A

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: T9A

Depth (inches)		Matrix	•		Redox Feat	ures						
	Color (n		%	Color (mois		Type 1	Loc2	Texture	Remar	ks		
0-10	10YR	2/2	93	5YR 3	/4 7	С	M	Silt Loam				
10-24	10YR	4/2	90	7.5YR 4	/6 10	С	М	Silty Clay				
	-						-					
				-		_						
						_						
							-					
Type: C=Cond	centration D=	=Depletion	n RM=Red	uced Matrix CS=C	overed or Coat	ed Sand Gr	ains 21 oca	ition: PL=Pore Lining. M=M	atrix			
		-Depiction	1. RWI-Read	uccu Matrix, 05-0	Overed or cour	cu sana oi	dii 13	-		2		
Hydric Soil I				Dalvaralus	Below Surface	(CO) (LDD I	2	Indicators for Proble	ematic Hydric S	oils: 3		
☐ Histosol (A				MLRA 149		(38) (LKK I	₹,	2 cm Muck (A10)	(LRR K, L, MLRA 1	149B)		
Black Histi	pedon (A2)			Thin Dark	Surface (S9) (LRR R, MLI	RA 149B)	Coast Prairie Redo	x (A16) (LRR K, L	., R)		
	Sulfide (A4)				icky Mineral (F1			5 cm Mucky Peat		K, L, R)		
	Layers (A5)				eyed Matrix (F2			Dark Surface (S7)				
	Below Dark Si	urface (A	11)	✓ Depleted		•		Polyvalue Below Surface (S8) (LRR K, L)				
	k Surface (A1:		11)		k Surface (F6)			Thin Dark Surface				
	ck Mineral (S				Dark Surface (F	7)		Iron-Manganese Masses (F12) (LRR K, L, R)				
_	eyed Matrix (S				pressions (F8)			Piedmont Floodplain Soils (F19) (MLRA 149B)				
Sandy Red		14)						Mesic Spodic (TA6		I5, 149B)		
Stripped N								Red Parent Materi				
	ace (S7) (LRR	D MIDA	1/0R)									
								Other (Explain in F	Remarks)			
³ Indicators of	f hydrophytic y	vegetatio	n and wetla	nd hydrology mus	be present, ur	nless disturi	oed or proble	ematic.				
Restrictive La	ayer (if obse	erved):										
Type: Sil	lty clay											
Depth (inch	hes): 10							Hydric Soil Present?	Yes 💿 N	o O		
								1				
Remarks:												
Remarks:												
Remarks:												
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Project/Site: WSH20-013-01	City/County:	Richfield/ Washington	Sampling Date: 29-Oct-20
Applicant/Owner: Alligator Enterprises LLC		State: WI	Sampling Point: T9B
Investigator(s): Benjamin L LaCount	Section, To	wnship, Range: S. (T. 09N R. 19E
Landform (hillslope, terrace, etc.): Hillslope		ncave, convex, none	
Subregion (LRR or MLRA): LRR K	Lat.: 43.276860	Long.:	-88.199641 Datum : NAD83
Soil Map Unit Name: MtA- Mequon silt loam, 1 to 3 pe	ercent		NWI classification: none
Are climatic/hydrologic conditions on the site typical fo	or this time of year? Yes	. ● No ○ (If	no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology	significantly disturbed?	Are "Normal Circ	cumstances" present? Yes No
Are Vegetation , Soil , or Hydrology	naturally problematic?		ain any answers in Remarks.)
Summary of Findings - Attach site map		· · ·	
Hydrophytic Vegetation Present? Yes No			•
Hydric Soil Present? Yes No	Is the	Sampled Area	es O No 🖲
Wetland Hydrology Present?	WILDIN	a Wetland?	es
Remarks: (Explain alternative procedures here or in			
Ludrology			
Hydrology Wetland Hydrology Indicators:			
Wetland Hydrology Indicators:	all that amply)	Sec	condary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check Surface Water (A1)			Surface Soil Cracks (B6) Drainage Patterns (B10)
	Water-Stained Leaves (B9) Aquatic Fauna (B13)		Moss Trim Lines (B16)
	Marl Deposits (B15)		Dry Season Water Table (C2)
	Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C8)
	Oxidized Rhizospheres along Living	Roots (C3)	Saturation Visible on Aerial Imagery (C9)
	Presence of Reduced Iron (C4)		Stunted or Stressed Plants (D1)
	Recent Iron Reduction in Tilled Soils	(C6)	Geomorphic Position (D2)
	Thin Muck Surface (C7)		Shallow Aquitard (D3)
	Other (Explain in Remarks)	<u> </u>	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)			FAC-neutral Test (D5)
Field Observations: Surface Water Present? Yes No No			
	Depth (inches):		
Water Table Present? Yes No •	Depth (inches):	Wetland Hydrolog	ay Present? Yes ○ No ●
Saturation Present? (includes capillary fringe) Yes No No	Depth (inches):		
Describe Recorded Data (stream gauge, monitoring w	vell, aerial photos, previous insp	pections), if available):
No water was encountered to 24 inches.			
Remarks:			
This area drains to the south.			

Tree Stratum (Plot size: 30 ft radius)	Absolute	Dominant Species?	Indicator	Dominance Test worksheet:
	% Cover	· 	Status	Number of Dominant Species
1. Prunus serotina	30	~	FACU	That are OBL, FACW, or FAC:4 (A)
2. Ulmus americana	-	✓	FACW	Total Number of Dominant
3				Species Across All Strata:6(B)
4	0			
5	0			Percent of dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)
6	0			That Are OBL, FACW, OF FAC.
7	0			Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: _15 ft radius)	45 =	= Total Cover		Total % Cover of: Multiply by:
		_		0BL species0 x 1 =0
1. Rhamnus cathartica		✓	FAC	FACW species <u>25</u> x 2 = <u>50</u>
2. Ulmus americana			FACW	FAC species95 x 3 =285
3. Prunus serotina			FACU	FACU speciles 80 x 4 = 320
4. Lonicera x bella			FACU	UPL species $0 \times 5 = 0$
5				
6	0			Column Totals: 200 (A) 655 (B)
7	0			Prevalence Index = B/A = 3.275
Herb Stratum (Plot size: 5 ft radius)	85 =	= Total Cover		Hydrophytic Vegetation Indicators:
Herb Stratum (Flot Size. 3 teradius)				Rapid Test for Hydrophytic Vegetation
1 _. Fragaria virginiana	25	✓	FACU	✓ Dominance Test is > 50%
2. Rhamnus cathartica		✓	FAC	Prevalence Index is ≤3.0 ¹
3. Viola sororia	25	✓	FAC	Morphological Adaptations ¹ (Provide supporting
4	0			data in Remarks or on a separate sheet)
5	0			Problematic Hydrophytic Vegetation ¹ (Explain)
6	0			
7	0			¹ Indicators of hydric soil and wetland hydrology must
8				be present, unless disturbed or problematic.
9				Definitions of Vegetation Strata:
10				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
11				at breast height (DBH), regardless of height.
12		П		
	-	= Total Cover		Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size: 30 ft radius)				greater than 3.20 it (1111) tall
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3	0			Woody vine - All woody vines greater than 3.28 ft in
4	0			height.
	0 =	= Total Cover		
				Hydrophytic
				Vegetation Present? Yes No
				Tresent.
				I
Remarks: (Include photo numbers here or on a separate she	eet.)			

Sampling Point: T9B

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: T9B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix Redox Features			_				
(inches)	Color (moist)	%_	Color (moist)	<u>%</u> Type ¹	Loc2	Texture Remarks	
0-8	10YR	3/2	100				Silt Loam	
8-18	10YR	3/3	100				Silt Loam	
18-22	10YR	5/1	100				Silty Clay Loam	
22-24	10YR	6/3	100				Silt Loam	
¹ Type: C=Con	centration. D	=Depletio	n. RM=Re	duced Matrix, CS=Covere	d or Coated Sand Gra	ins ² Loca	ation: PL=Pore Lining. M=Matrix	
Hydric Soil I		<u> </u>					Indicators for Problematic Hydric Soils: 3	
Histosol (Polyvalue Below	Surface (S8) (LRR R			
	pedon (A2)			MLRA 149B)			☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B) ☐ Coast Prairie Redox (A16) (LRR K, L, R)	
☐ Black Hist	ic (A3)				ce (S9) (LRR R, MLR	A 149B)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	
Hydrogen	Sulfide (A4)				lineral (F1) LRR K, L)		Dark Surface (S7) (LRR K, L, M)	
☐ Stratified	Layers (A5)			Loamy Gleyed N			Polyvalue Below Surface (S8) (LRR K, L)	
Depleted	Below Dark S	Surface (A	11)	Depleted Matrix			☐ Thin Dark Surface (S9) (LRR K, L)	
☐ Thick Dar	k Surface (A1	12)		Redox Dark Sur			☐ Iron-Manganese Masses (F12) (LRR K, L, R)	
Sandy Mu	ıck Mineral (S	51)		Depleted Dark S			Piedmont Floodplain Soils (F19) (MLRA 149B)	
Sandy Gle	eyed Matrix (S	S4)		Redox Depressi	ons (F8)		Mesic Spodic (TA6) (MLRA 144A, 145, 149B)	
Sandy Re	dox (S5)						Red Parent Material (F21)	
Stripped I	Matrix (S6)						☐ Very Shallow Dark Surface (TF12)	
☐ Dark Surf	ace (S7) (LRF	r R, MLRA	149B)				Other (Explain in Remarks)	
³ Indicators of	f hydrophytic	vegetatio	n and wet	land hydrology must be p	resent, unless disturb	ed or probl		
Restrictive L								
Type:								
Depth (inc	hes):						Hydric Soil Present? Yes No •	
Remarks:								

Project/Site: WSH20-013-01	City/County:	Richfield/ Washington	Sampling Date: 29-Oct-20
Applicant/Owner: Alligator Enterprises LLC		State: WI	Sampling Point: T13A
Investigator(s): Benjamin L LaCount	Section, To	wnship, Range: S. 0	1 T. 09N R. 19E
Landform (hillslope, terrace, etc.): Hillslope		ncave, convex, none)	
Subregion (LRR or MLRA): LRR K	Lat.: 43.280010	Long.: -	
Soil Map Unit Name: AtA- Ashkum silty clay loam, 0 to 2 percentage	nt slopes		NWI classification: none
Are climatic/hydrologic conditions on the site typical for this tir	ne of year? Yes	; ● No ○ (Ifr	o, explain in Remarks.)
Are Vegetation . , Soil . , or Hydrology . sigr	nificantly disturbed?	Are "Normal Circ	umstances" present? Yes ● No ○
Are Vegetation, Soil, or Hydrology nati	urally problematic?	(If needed, expla	in any answers in Remarks.)
Summary of Findings - Attach site map show		•	•
Hydrophytic Vegetation Present? Yes No •			
Hydric Soil Present? Yes ○ No •		Sampled Area a Wetland? Ye	es O No 💿
Wetland Hydrology Present? Yes ○ No •		a mananan	
Remarks: (Explain alternative procedures here or in a separat	te report.)		
Hydrology			
Wetland Hydrology Indicators:		Sec	ondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that a			Surface Soil Cracks (B6)
	ned Leaves (B9)		Drainage Patterns (B10)
☐ High Water Table (A2) ☐ Aquatic Fa ☐ Saturation (A3) ☐ Marl Depos			Moss Trim Lines (B16) Dry Season Water Table (C2)
	Sulfide Odor (C1)		Crayfish Burrows (C8)
	hizospheres along Living	Roots (C3)	Saturation Visible on Aerial Imagery (C9)
	of Reduced Iron (C4)	(C3)	Stunted or Stressed Plants (D1)
	n Reduction in Tilled Soils	(C6)	Geomorphic Position (D2)
	Surface (C7)		Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Exp	lain in Remarks)		Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)			FAC-neutral Test (D5)
Field Observations:			
Surface Water Present? Yes No Depth (in	iches):		
Water Table Present? Yes O No O Depth (in	iches):		v Present? Yes ○ No ●
Saturation Present? Yes No Depth (ir (includes capillary fringe)	,	Wetland Hydrolog	,
Describe Recorded Data (stream gauge, monitoring well, aeria	l photos, previous ins	pections), if available	
No water was encountered to 24 inches.			
Remarks:			
There is a slight swale that drains to the south.			
This is Area C on the hydrology assessment. The area displa crop stress. The area displayed wet signatures in mostly wet D1 and C9 were not confirmed in the field.		14% of normal years	and consisted of soil signatures and

(Plot size, Linear 5'v60'	Absolute		Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: Linear 5'x60')	% Cover	species?	Status	Number of Dominant Species
1				That are OBL, FACW, or FAC:(A)
2	0			Total Number of Dominant
3	0			Species Across All Strata:
4	0			
5	0			Percent of dominant Species That Are OBL_FACW_or_FAC: 0.0% (A/B)
6				That Are OBL, FACW, or FAC: 0.0% (A/B)
7				Prevalence Index worksheet:
(5)	0 =	Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: Linear 5'x60')				0BL species
1	0			FACW species 0 x 2 = 0
2	0			1
3	0			FAC species $0 \times 3 = 0$
4				FACU speci es $\frac{100}{100}$ x 4 = $\frac{400}{100}$
5	0		-	UPL species $\frac{10}{}$ x 5 = $\frac{50}{}$
6				Column Totals: <u>110</u> (A) <u>450</u> (B)
7	-			Prevalence Index = B/A = 4.091
		Total Cover		
Herb Stratum (Plot size: Linear 5'x10')		- TOTAL COVEL		Hydrophytic Vegetation Indicators:
1 . Poa pratensis	50	✓	FACU	Rapid Test for Hydrophytic Vegetation
C. Cabadanana amindhaaaaa	- 10	✓	FACU	☐ Dominance Test is > 50%
	- 10		UPL	Prevalence Index is ≤3.0 ¹
A Clashina aminana			FACU	
4. Cirsium arvense				data in Remarks or on a separate sheet)
5. Taraxacum officinale			FACU	☐ Problematic Hydrophytic Vegetation ¹ (Explain)
6				1
7				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8				
9	0			Definitions of Vegetation Strata:
10	0			Tree - Woody plants, 3 in. (7.6 cm) or more in diameter
11	0			at breast height (DBH), regardless of height.
12				Sapling/shrub - Woody plants less than 3 in. DBH and
	110 =	Total Cover		greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size: Linear 5'x60')		_		
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3	0			Woody vine - All woody vines greater than 3.28 ft in
4	0			height.
	0 =	Total Cover		
				Hydrophytic
				Vegetation
				Flescht: 100 - 110 -
Remarks: (Include photo numbers here or on a separate sh	eet.)			

Sampling Point: T13A

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: T13A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)												
Depth								-				
(inches)	Color	(moist)	%	Color (moist)	%	Type ¹	Loc2	Texture	Remarks		
0-18	10YR	3/2	100						Silt Loam			
18-24	10YR	3/2	95	5YR	3/4	5	С	М	Silt Loam			
	-											
		-			-	-			-			
		-			-	-						
	B				-							
			-									
							_					
1 Type: C-Cope	ontration [D-Doplotio	n PM-Pod	ucod Matrix (^S_Cover	od or Coat	od Sand Gr	rains 21 occ	ation: PL=Pore Lining. M=M	atriv		
			II. KIVI–KEU	uceu manix,	53-C0Vei	eu oi coate	eu Sanu Gi	all is -Luca	_			
Hydric Soil In					ralus P. I		(00) (100)	D	Indicators for Proble	ematic Hydric Soils : 3		
Histosol (A	•				/alue Belo A 149B)	w Surface	(38) (LKK	Κ,	2 cm Muck (A10)	(LRR K, L, MLRA 149B)		
Histic Epip						ace (S9) (LRR R, ML	RA 149B)	Coast Prairie Redox (A16) (LRR K, L, R)			
Black Histi		`				Mineral (F1			5 cm Mucky Peat of	or Peat (S3) (LRR K, L, R)		
	Sulfide (A4)					Matrix (F2)		,	Dark Surface (S7) (LRR K, L, M)			
	Layers (A5)		11)		eted Matri		,		Polyvalue Below Surface (S8) (LRR K, L)			
	Below Dark		11)			ırface (F6)			Thin Dark Surface (S9) (LRR K, L)			
	Surface (A					Surface (F	7)		Iron-Manganese Masses (F12) (LRR K, L, R)			
	ck Mineral (x Depress		- /		Piedmont Floodplain Soils (F19) (MLRA 149B)			
	yed Matrix	(S4)				()			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)			
Sandy Red									Red Parent Material (F21)			
Stripped M			4.400)						Very Shallow Dark	Surface (TF12)		
☐ Dark Surfa	ace (S7) (LR	RR R, MLRA	(149B)						Other (Explain in F	Remarks)		
³ Indicators of	hydrophyti	c vegetatio	n and wetla	ind hydrology	must be j	present, un	ıless distur	bed or probl	ematic.			
Restrictive La	yer (if ob	served):										
Type:	, , , , ,											
Depth (inch	nes):								Hydric Soil Present?	Yes ○ No •		
•												
Remarks:								_				
Hit large rocks	s at 24 inc	ches. This	area was	filled in the	past in a	approxima	ately 200	0.				
1												
1												