Wetland & Waterway Consulting, LLC
Dave Meyer
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10-8-18

Mr. Matt Mehring
Anderson Ashton, Inc.
2746 S. 166th Street
New Berlin, WI 53151

Dear Mr. Mehring:

Wetland & Waterway Consulting (WWC) has conducted a wetland delineation on property located in Sec. 1, T3N, R19E, Village of Waterford and Sec. 36, T4N, R19E Village of Waterford, Racine County. The delineation was conducted on 6-1-18 at your request. This site is under consideration for future development; therefore, location of the wetlands prior to construction is necessary. The purpose of the delineation was to identify and flag all wetlands within the boundaries identified on the attached maps.

Investigator

Dave Meyer, lead delineator, is an independent environmental consultant providing wetland delineations, environmental permitting services, site assessments, and planning advice. He obtained a master's degree in Natural Resources Management from Southern Illinois University-Carbondale in 1977. Mr. Meyer has held technical and administrative positions in wetland and water resources specialties with the Wisconsin Department of Natural Resources and the U.S. Army Corps of Engineers. He has satisfactorily completed the Reg IV Wetland Delineation training offered by the U.S. Army Corps of Engineers, the Advanced Wetland Delineation training conducted by the University of Wisconsin-LaCrosse in 2002 and 2007, the USACOE/WIDNR 1987 Wetland Delineation Manual Midwest Region Supplement Training in 2009, the USACOE/WIDNR 1987 Wetland Delineation Manual Northcentral/Northeast Region Supplement Training in 2010, the Basic Hydric Soil ID training conducted by the University of Wisconsin-LaCrosse in 2011, the Wetland Training Institute's Advanced Hydrology for Jurisdictional Determinations in 2016, and the SEWRPC Environmental Corridor Delineation Workshops in 2004 and 2015. Mr. Meyer is recognized by the Wisconsin Department of Natural Resources as an Assured Delineator.

Kristi Sherfinski has over 17 years of experience delineating wetlands in the Great Lakes Region. She received her initial basic wetland training at the Wetland Training Institute in Hastings, Michigan in 2002. Kristi worked as a project manager and wetland delineator at JFNew & Associates in Grand Haven, Michigan for six years, conducting wetland delineations in Michigan, Indiana, Illinois, and Wisconsin. Kristi then moved to Wisconsin to work for the Southeastern Wisconsin Regional Planning Commission (SEWRPC) under the supervision of Dr. Donald Reed. At SEWRPC, Kristi updated the Wisconsin Wetland Inventory (WWI) in 2005 and in 2010 for the seven county area of southeast Wisconsin. Kristi participated in the Critical Methods in Wetland Delineation (Assured Wetland Delineator) training in 2006. In 2009, she attended the Wetland Delineation USACE Regional Supplement training session, the Environmental Corridor Delineation Workshop, and the Farm Service Agency (FSA) Slide Review training session. After working at SEWRPC for seven years, Kristi worked as an environmental specialist at JSD Professional Services, Inc. for two years.

Methods

The site visit was conducted according to the guidelines identified in the U.S. Army Corps of Engineers' 1987 manual and the Northcentral/Northeast Regional Supplement. The plot size used was a 30 foot radius circle for trees, shrub/saplings, and woody vines, and a 5 foot radius circle for herbaceous vegetation. Resources utilized in the investigation included the NRCS county soil survey, Wisconsin Wetland Inventory mapping, topo mapping, aerial photos, county plat mapping, The Vegetation of Wisconsin, Wetland Plants and Plant Communities of Minnesota and Wisconsin – 3rd Edition, A Field Guide to Wildflowers of Northeastern and Northcentral North America, and Plants of the Chicago Region. Sampling points were located in the areas that exhibited wetland characteristics as well as upland characteristics. Data was collected on the vegetation, soils, and hydrology at each sampling point. The wetlands were identified using the technical approach described in the USACOE 1987 Manual. The wetland boundary was flagged using breaks in topography, transitions between hydric and upland vegetation, identification of wetland hydrology, and the presence of hydric soils. Roadside ditches were identified if they displayed hydric vegetation. Flags were placed in the middle of the ditches at their beginning and ending points for the surveyor to locate. If the ditch was very long or had unusual bends or turns in it, additional flags were placed within the central parts of the ditch to assist in its location. The flags were located in the field by a registered land surveyor and a wetland map was produced which identifies all flagged wetland complexes and ditches within the subject boundaries. Refer to the wetland map attached to the end of this report for locations. In addition, an FSA crop history slide review was undertaken prior to the delineation because the county soil survey shows somewhat poorly drained or poorly drained soils present in farmed areas on the parcel. In preparation for the slide review, the NRCS wetland map was used to locate mapped areas of Prior Converted "PC", Wetland "W", Farmed Wetland "FW", Non-Wetland "NW", etc. Ten years of imagery were examined and used in the calculation for the number of hits. The review was started by examining a wet year aerial photograph to show the maximum extent of possible wetlands. Using that potential maximum extent of wetlands as the starting point, the normal years, if present, were then used to determine the more likely location and extent of the wetlands. Wet year signatures, particularly if they showed up on multiple years, were utilized in the field to determine the location of data points to demonstrate potential adjacent upland conditions. All wet signatures, whether they showed up on wet, normal, or dry years, were used to calculate the number of hits. Eight categories of wet signatures have been identified as follows [USDA, NRCS 1998. Wisconsin Wetland Mapping Conventions—WI513.30 (c) Off-site wetland identification tools. (WI-180-V-NFSAM). (3rd ed.) (Amendment WI21)]: 1) Hydrophytic vegetation which is typically seen as a different shade of green, 2) Surface water which usually shows as black or white areas, 3) Drowned-out crops identified as bare soil or mud flats, 4) Color differences that are the result of different planting dates or specific areas of the field that were not farmed in a given year, 5) Inclusionary wet areas that are part of a set-aside program, 6) Areas of greener color that are present in dry years, 7) Crop stress seen as yellow colors or sparse canopy typically seen as light green, and 8) Saturated soil that is visible on infrared (IR) slides or photographs.

Results and Discussion

* This approximately 54 acre vacant site is situated on the northeast corner of the intersection of STH 36 and STH 20 in the Village of Waterford. The site consists of active crop fields, stands of upland hardwood trees and shrubs, and wetlands. The topography varies across the site and will be discussed separately under each wetland complex described below.

* This site has not been previously delineated.

* The soil types mapped within the project boundaries are Ashkum silty clay loam (AtA), Blount silt loam (BlA), Houghton muck (Ht), Ozaukee silt loam (OzaB, OzaB2, OzaC, OzaC2, OzaD), and Water (W).

* A total of 3 roadside ditches with hydric vegetation are present within the project boundaries. They are all identified on the attached wetland map. The total length, average width, and dominant vegetation in each ditch is as follows:

Ditch #1 is 1,932' in length and an average of 3' in width. It is dominated by narrowleaf cattail and reed canary grass. No water was present at the time of the delineation. The side slopes of the ditch are dominated by Kentucky bluegrass, Canada goldenrod, bird's foot trefoil, and Queen Anne's lace.

Ditch #2 is 206' in length and an average of 3' in width. It is dominated by reed canary grass. No water was present at the time of the delineation. The side slopes of the ditch are dominated by Kentucky bluegrass, Canada goldenrod, bird's foot trefoil, and Queen Anne's lace.

Ditch #3 is 226' in length and an average of 3' in width. It is dominated by narrowleaf cattail and reed canary grass. No water was present at the time of the delineation. The side slopes of the ditch are dominated by Kentucky bluegrass, Canada goldenrod, bird's foot trefoil, and Queen Anne's lace.

* Ten years of slides were analyzed for the FSA slide review. Seven areas throughout the property displayed 2 or more years of wetland signatures out of ten. Five of these areas were flagged as wetland and are discussed below.

* The Wisconsin Wetland Inventory map shows an E2H wetland in the same location as Wetland A. This complex was found and flagged in the general configuration as shown on the WWI map. The WWI shows an E2H in the same location as Wetland B. This complex was found and flagged in the general configuration as shown on the WWI map. The WWI also shows a T3K complex just offsite to the south in the extreme southeast corner of the site. A very small portion of this complex is actually on the subject property.

*** The following wetland complexes were flagged and are present on the parcel:**

Wetland A is a 507,284 square foot (11.64 acre) shallow depressional basin that includes wet meadow, shrub carr, and shallow water marsh. This complex extends offsite to the east for undetermined distances. Flags were placed around the topo break along the upper edge of the depressional basin which coordinated closely with discernable shifts in vegetation, hydrology, and soils from hydric to upland conditions.

DP #3 is located in Area 2 on the FSA slide review and had 7 hits out of 10 years. This area is identified as PC, but is not farmed regularly. A broken field tile is obvious and has contributed to this area developing hydric characteristics. It is dominated by giant goldenrod and hummock sedge in the herbaceous stratum. Soils meet the F6 indicator and hydrology indicators of Saturation, Geomorphic Position, and the FAC-Neutral Test are present. The adjacent upland data points (DP #'s 1 and 2) were taken in the adjacent cropped field. This area is situated on a 3 to 5% hill that slopes south toward Wetland A. DP #1 is located in Area 1 on the FSA slide review and had 2 hits out of 10 years. Although this area is mapped as PC, hydric soils are not present. This portion of the field had been planted just before the delineation, but no germination had taken place. The vegetation was dominated by volunteer dandelion. No hydrology indicators are present. DP #2 is mapped as PC, but hydric soils are not present. This portion of the field had been planted just before the delineation, but no germination had

taken place. The vegetation was dominated by volunteer dandelion and Queen Anne's lace. No hydrology indicators are present.

DP #5 is located in Area 3 on the FSA slide review and had 10 hits out of 10 years. This area is identified as PC but has not been farmed for at least 18 years and has completely reverted to wetland. It is dominated by sandbar willow in the sapling/shrub stratum and Kentucky bluegrass and reed canary grass in the herbaceous stratum. Soils meet the F3, F6, and A11 indicators and hydrology indicators of Saturation, Geomorphic Position, and the FAC-Neutral Test are present. The adjacent upland data point (DP #4) was taken in the adjacent cropped field. This area is mapped as PC. This portion of the field had been planted just before the delineation, but no germination had taken place. The vegetation was dominated by volunteer dandelion and Queen Anne's lace. No hydrology indicators are present. This portion of the field remains effectively drained.

DP #7 is located in the southern portion of Wetland A and is dominated by gray dogwood and nannyberry in the sapling/shrub stratum and reed canary grass in the herbaceous stratum. Soils meet the A1 indicator and hydrology indicators of High Water Table, Saturation, Geomorphic Position, and the FAC-Neutral Test are present. The adjacent upland data point (DP #6) was taken on the bordering wooded hillslope of an approximate 5% grade leading down to the wetland. It is dominated by black cherry in the tree stratum; common buckthorn, gray dogwood, and honeysuckle in the sapling/shrub stratum; and agrimony, common buckthorn, and green ash in the herbaceous stratum. Neither soil nor the required hydrology indicators are present.

DP #8 is located in the western portion of Wetland A and is dominated by narrowleaf cattail and reed canary grass in the herbaceous stratum. Soils meet the A3, A11, and F3 indicators and hydrology indicators of High Water Table, Saturation, Geomorphic Position, and the FAC-Neutral Test are present. The adjacent upland data point (DP #9) was taken on the bordering wooded hillslope of an approximate 5% grade leading down to the wetland. It is dominated by northern red oak in the tree stratum; common buckthorn and gray dogwood in the sapling/shrub stratum; and sticky willy in the herbaceous stratum. Neither soil nor the required hydrology indicators are present.

Wetland B is a 10,146 square foot (0.23 acre) E2H depressional basin dominated by sandbar willow and nannyberry in the sapling/shrub stratum and narrowleaf cattail and reed canary grass in the herbaceous stratum (DP #11). Soils meet the A11, F3, and F6 indicators and hydrology indicators present are High Water Table, Saturation, Geomorphic Position, and the FAC Neutral Test. Flags were placed at the topo breaks along the toe of the slope where the hillslope and wetland basin intersect. This coordinated closely with discernable shifts in vegetation, hydrology, and soils from hydric to upland conditions. The adjacent upland data point (DP #10) was taken on the adjoining wooded hillslope of an approximate 5% grade leading down to the wetland. It is dominated by white oak and shagbark hickory in the tree stratum; common buckthorn in the sapling/shrub stratum; and common buckthorn in the herbaceous stratum. Neither soil nor the required hydrology indicators are present. See Photo F.

Wetland C is a 3,010 square foot (0.07 acre) ephemeral pond (DP #13) located in a shallow depression surrounded by a second-growth upland hardwood forest. It is dominated by common buckthorn and green ash in the sapling/shrub stratum and green ash in the herbaceous stratum. Soils meet the F3 indicator and hydrology indicators of Water Stained Leaves, Saturation, Geomorphic Position, and the FAC-Neutral Test are present. Flags were placed around the topo break along the upper edge of the depressional basin. See Photo H. The adjacent upland area (DP #14) is dominated by black cherry and northern red oak in the tree stratum; common buckthorn in the sapling/shrub stratum; and arrowleaf aster, enchanter's nightshade, and common buckthorn in the herbaceous stratum. Neither soil nor the required hydrology indicators are present.

Wetland D is a 10,936 square foot (0.25 acre) shallow depression in the cropped field that had 3 hits out of 10 years (DP #15). It is Area 4 on the FSA slide review. There is only 2% absolute cover of corn in this area which displayed significant stunting when compared to the surrounding crop. Soils meet the F3 indicator and hydrology indicators of Saturation Visible on Aerial Imagery, Saturation, and Geomorphic Position are present. The adjacent upland (DP #16) is the cropped field displaying a healthy corn crop with no evidence of stress, yellowing, or drowned-out conditions. This area is in a mapped PC location, but neither soil nor hydrology indicators are present. See Photo G.

Wetland E is a 3,929 square foot (0.09 acre) shallow depression in the cropped field that had 4 hits out of 10 years (DP #17). It is Area 6 on the FSA slide review. There is only 2% absolute cover of corn in this area which displayed significant stunting when compared to the surrounding crop. Soils meet the F3 indicator and hydrology indicators of Saturation Visible on Aerial Imagery, Saturation, and Geomorphic Position are present. The adjacent upland (DP #18) is the cropped field displaying a healthy corn crop with no evidence of stress, yellowing, or drowned-out conditions. See Photo G.

Wetland F is a 10,858 square foot (0.25 acre) shallow depression in the cropped field that had 8 hits out of 10 years (DP #19). It is Area 5 on the FSA slide review. There is only 2% absolute cover of corn in this area which displayed significant stunting when compared to the surrounding crop. Carex blanda was also present at 2%. Soils meet the F3 indicator and hydrology indicators of Saturation Visible on Aerial Imagery, Saturation, and Geomorphic Position are present. The adjacent upland (DP #18) is the cropped field displaying a healthy corn crop with no evidence of stress, yellowing, or drowned-out conditions. A small portion of the wooded area bordering Wetland F to the south (DP #20) is a lowland hardwood forest. The WWI shows a T3K mapped on the property to the south of the subject property but a small portion of this complex is present within the subject property boundaries. It is dominated by silver maple in the tree stratum; silver maple and common buckthorn in the sapling/shrub stratum; and reed canary grass in the herbaceous stratum. Soils meet the F3, F6, and A11 indicators and hydrology indicators of Geomorphic Position and the FAC-Neutral Test are present. See Photo G.

Additional Data Points

DP #12 (Area 7 on the FSA slide review) was taken in a mapped upland area on the NRCS map but did display 3 hits out of 10 years. The field inspection revealed that a healthy corn crop was present with no evidence of stress, yellowing, or drowned-out conditions. Neither soil nor hydrology indicators are present.

Precipitation Data

Precipitation data from the websites of the USDA Natural Resource Conservation Service, the National Oceanic and Atmospheric Administration (NOAA), and Burlington WETS station WI1205 was examined. This antecedent data was reviewed and considered while making determinations concerning the presence and/or absence of wetlands during the field investigation.

Because the antecedent precipitation was normal, direct observation of saturated soils, and even the possibility of standing water, was potentially anticipated, although not expected. Other primary indicators as well as the secondary indicators were also searched for.

Note that when a site is delineated in the first half of the month, the previous 3 months are taken into consideration.

Condition Value Dry = 1 Normal = 2 Wet = 3

	Month	Normal	3 yrs. In 10 less than	3 yrs. In 10 more than	Observed precip.	Condition dry, wet, normal	Condition value	Month weight value	Product of previous two columns
1st prior month	May	3.14	2.06	3.76	5.47	wet	3	3	9
2nd prior month	April	3.69	2.55	4.40	3.13	normal	2	2	4
3rd prior month	March	2.30	1.34	2.80	0.85	dry	1	1	1
								sum	14

If sum is	
6 - 9	drier than normal
10 - 14	normal
15 - 18	wetter than normal

Conclusion

Antecedent precipitation was normal.

Conclusion

The wetland lines staked in the field and referred to in this report are the best estimate of the wetland boundaries based on the conditions present at the time of delineation. 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 your local county, town, city, or village. Because this delineation was conducted by Mr. Meyer, an Assured Delineator, obtaining a concurrence letter from the Wisconsin Department of Natural Resources is not necessary. Concurrence with these wetland lines by the U.S. Army Corps of Engineers, however, must be obtained before undertaking any alterations or modifications of this property. Activities affecting wetlands or surface waters may require permits from the U.S. Army Corps of Engineers, the Wisconsin Department of

Natural Resources, and local municipal authorities. The client must obtain authorization from all proper regulatory authorities before altering, modifying, or using the property. If the required authorizations are not obtained, Wetland & Waterway Consulting, LLC shall not be liable or responsible for any resulting damages.

Sincerely,

Dave Meyer

Attachments
1. Data points
2. Soil Survey maps
3. Wisconsin Wetland Inventory map
4. USGS topo map
5. Location map
6. Site photographs
7. FSA slide review
8. Literature cited
9. Delineation checklist
10. Wetland boundary map

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: STH 36 City/County: Waterford Sampling Date: 6-1-18
Applicant/Owner: State: WI Sampling Point: #1 UP
Investigator(s): Meyer, Sherfinski Section, Township, Range: Sec 1 T3N R19E Sec. 36 T4N R19E
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex
Slope (%): ≈5 Lat.: Long.: Datum:
Soil Map Unit Name: Ashkum silty clay loam, 1-4% NWI Classification: None
Are climatic/hydrologic conditions of the site typical for this time of the year? see report (If no, explain in remarks)
Are vegetation Y, soil N, or hydrology N significantly disturbed? Are "normal
Are vegetation N, soil N, or hydrology N naturally problematic? circumstances" present? N
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? N
Hydric soil present? N
Indicators of wetland hydrology present? N

Is the sampled area within a wetland? N

If yes, optional wetland site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
DP located in mapped PC area. Area 1 on FSA slide review. This area of cropped field is actually on a hillslope. Hydric soils are not present.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)
- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

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

Field Observations:
Surface water present? Yes ___ No / Depth (inches): ___
Water table present? Yes ___ No / Depth (inches): ___
Saturation present? Yes ___ No / Depth (inches): ___
(includes capillary fringe)

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 1

Tree Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		= Total Cover		

Sapling/Shrub Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		= Total Cover		

Herb Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1 Taraxacum officinale		5	✓	FACU
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		5 = Total Cover		

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		= Total Cover		

50/20 Thresholds

	20%	50%
Tree Stratum		
Sapling/Shrub Stratum		
Herb Stratum		1
Woody Vine Stratum		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index Worksheet

Total % Cover of:

OBL species	x 1 =		
FACW species	x 2 =		
FAC species	x 3 =		
FACU species	x 4 =		
UPL species	x 5 =		
Column totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- ___ Dominance test is >50%
- ___ Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? N

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

Field had corn stubble present from 2017 season. Just recently been planted at the time of delineation.

SOIL **Sampling Point:** 1

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-4	10YR 4/2	100					silt loam	
4-13	10YR 4/4	100					silt loam	
13-20	10YR 5/4	100					silt loam	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: STH 36 City/County: Waterford Sampling Date: 6-1-18
Applicant/Owner: State: WI Sampling Point: #2 UP
Investigator(s): Meyer Sherfinski Section, Township, Range: Sec 1 T3N R19E Sec. 36 T4N R19E
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Convex
Slope (%): ≈3 Lat.: Long.: Datum:
Soil Map Unit Name: Ashkum silty clay loam, 0 to 2 percent NWI Classification: None
Are climatic/hydrologic conditions of the site typical for this time of the year? see report (If no, explain in remarks)
Are vegetation Y, soil N, or hydrology N significantly disturbed? Are "normal
Are vegetation N, soil N, or hydrology N naturally problematic? circumstances" present? N
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	N	**Is the sampled area within a wetland?**	N
Hydric soil present?	N		
Indicators of wetland hydrology present?	N	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
DP located in mapped PC area. Field just recently had been planted prior to delineation

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)
- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

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

Field Observations:

Surface water present?	Yes ___	No ✓	Depth (inches):	
Water table present?	Yes ___	No ✓	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches):	

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 2

Tree Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		= Total Cover		

Sapling/Shrub Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		= Total Cover		

Herb Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1 Taraxacum officinale		5	✓	FACU
2				
3 Panicum capillare		2		UPL
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		7 = Total Cover		

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		= Total Cover		

50/20 Thresholds

	20%	50%
Tree Stratum		
Sapling/Shrub Stratum		
Herb Stratum	1	1
Woody Vine Stratum		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index Worksheet

Total % Cover of:

OBL species	x 1 =		
FACW species	x 2 =		
FAC species	x 3 =		
FACU species	x 4 =		
UPL species	x 5 =		
Column totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation
___ Dominance test is >50%
___ Prevalence index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? N

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

Corn stubble present from 2017 season.

SOIL **Sampling Point:** 2

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-6	10YR 3/2	100					silt loam	
6-15	10YR 3/2	80					silt loam	
	10YR 2/2	20					silt loam	
15-20	10YR 2/1	100	10YR 3/6	2	C	M	silt loam	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) **(LRR R, MLRA 149B)**
___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
___ Thin Dark Surface (S9) **(LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) **(LRR K, L)**
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) **(LRR K, L, R)**
___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
___ Dark Surface (S7) **(LRR K, L**
___ Polyvalue Below Surface (S8) **(LRR K, L)**
___ Thin Dark Surface (S9) **(LRR K, L)**
___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:
Double matrix from 6-15". Appears to be the result of erosion deposition from higher elevation to the north

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: STH 36 City/County: Waterford Sampling Date: 6-1-18
Applicant/Owner: State: WI Sampling Point: #3 wet
Investigator(s): Meyer Sherfinski Section, Township, Range: Sec 1 T3N R19E Sec. 36 T4N R19E
Landform (hillslope, terrace, etc.): depressional basin Local relief (concave, convex, none): concave
Slope (%): ~3 Lat.: Long.: Datum:
Soil Map Unit Name Ashkum silty clay loam A+A NWI Classification: E2A
Are climatic/hydrologic conditions of the site typical for this time of the year? see report (If no, explain in remarks)
Are vegetation N, soil N, or hydrology N significantly disturbed? Are "normal
Are vegetation N, soil N, or hydrology N naturally problematic? circumstances" present? N
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? Y
Hydric soil present? Y
Indicators of wetland hydrology present? Y

Is the sampled area within a wetland? Y

If yes, optional wetland site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
DP located in mapped PC area. Area 2 on FSA slide review this portion of the field is farmed in drier years. 7 out of 10 hits on the wetland A FSA slide review

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)
- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)
- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✓ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ✓ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes ___	No ✓	Depth (inches):	
Water table present?	Yes ___	No ✓	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes ✓	No ___	Depth (inches): 8	

Indicators of wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 3

Tree Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		= Total Cover		

Sapling/Shrub Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		= Total Cover		

Herb Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1	Erigeron annuus	2		FACU
2				
3	Solidago gigantea	20	✓	FACW
4				
5	Rumex crispus	5		FAC
6				
7	Carex stricta	30	✓	OBL
8				
9	Phalaris arundinacea	15		FACW
10				
11	Veronica peregrina	10		FAC
12				
13	Geum canadense	2		FAC
14				
15	Taraxacum officinale	10		FACU
		94 = Total Cover		

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		= Total Cover		

50/20 Thresholds

	20%	50%
Tree Stratum		
Sapling/Shrub Stratum		
Herb Stratum		2
Woody Vine Stratum		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

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

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

Prevalence Index Worksheet

Total % Cover of:

OBL species ____ x 1 = ____

FACW species ____ x 2 = ____

FAC species ____ x 3 = ____

FACU species ____ x 4 = ____

UPL species ____ x 5 = ____

Column totals ____ (A) ____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation

✓ Dominance test is >50%

___ Prevalence index is ≤3.0*

___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)

___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

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

Corn stubble present from at least 2 seasons ago. 2016 or 2015. Fallow in 2017

SOIL **Sampling Point:** 3

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-6	10YR3/1	95	7.5YR5/3	5	C	M	silt loam	
6-16	10YR2/1	95	10YR3/6	5	C	M	silt loam	
16-20	10YR4/1	95	10YR5/6	5	C	M	C/sy loam	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) **(LRR R, MLRA 149B)**
___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
___ Thin Dark Surface (S9) **(LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) **(LRR K, L)**
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
✓ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) **(LRR K, L, R)**
___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
___ Dark Surface (S7) **(LRR K, L**
___ Polyvalue Below Surface (S8) **(LRR K, L)**
___ Thin Dark Surface (S9) **(LRR K, L)**
___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: STH 36 City/County: Waterford Sampling Date: 6-1-18
Applicant/Owner: State: WI Sampling Point: #4 WP
Investigator(s): Meyer, Sherfinski Section, Township, Range: Sec1 T3N R19E Sec.36 T4N R19E
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Convex
Slope (%): ≈3 Lat.: Long.: Datum:
Soil Map Unit Name: Ashkum silty clay loam, A+A NWI Classification: None
Are climatic/hydrologic conditions of the site typical for this time of the year? Yes report (If no, explain in remarks)
Are vegetation Y, soil N, or hydrology N significantly disturbed? Are "normal
Are vegetation N, soil N, or hydrology N naturally problematic? circumstances" present? N
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? N
Hydric soil present? N
Indicators of wetland hydrology present? N

Is the sampled area within a wetland? N

If yes, optional wetland site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
DP located in mapped PC area. Field had just been recently planted prior to delineation

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)
- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

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

Field Observations:
Surface water present? Yes ___ No ✓ Depth (inches): ___
Water table present? Yes ___ No ✓ Depth (inches): ___
Saturation present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
This portion of the field remains effectively drained

VEGETATION - Use scientific names of plants

Sampling Point: 4

Tree Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		= Total Cover		

Sapling/Shrub Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		= Total Cover		

Herb Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1	Taraxacum officinale	2	✓	FACU
2				
3				
4	Daucus Carota	2	✓	UPL
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		4 = Total Cover		

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		= Total Cover		

50/20 Thresholds

	20%	50%
Tree Stratum		
Sapling/Shrub Stratum		
Herb Stratum		2
Woody Vine Stratum		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index Worksheet

Total % Cover of:

OBL species	x 1 =		
FACW species	x 2 =		
FAC species	x 3 =		
FACU species	x 4 =		
UPL species	x 5 =		
Column totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation
___ Dominance test is >50%
___ Prevalence index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? N

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

SOIL **Sampling Point:** 4

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-4	10YR 2/2	100					Silt loam	
4-11	10YR 2/2	95	10YR 5/3	5	C	M	Silt loam	
11-14	10YR 3/2	95	10YR 4/6	5	C	M	Silt loam	
14-20	10YR 5/1	90	10YR 4/6	10	C	M	Clay loam	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Suface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: STH 36 City/County: Waterford Sampling Date: 6-1-18
Applicant/Owner: State: WI Sampling Point: #5 wet
Investigator(s): Meyer, Sherfinski Section, Township, Range: Sec 1 T3N R19E Sec. 36 T4N R19E
Landform (hillslope, terrace, etc.): depressional basin Local relief (concave, convex, none): Concave
Slope (%): ≈3 Lat.: Long.: Datum:
Soil Map Unit Name: Ashkum silty clay loam, 0 to 2 percent slopes NWI Classification: PEMA
Are climatic/hydrologic conditions of the site typical for this time of the year? See report (If no, explain in remarks)
Are vegetation N, soil N, or hydrology N significantly disturbed? Are "normal
Are vegetation N, soil N, or hydrology N naturally problematic? circumstances" present? Y
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Indicators of wetland hydrology present?	Y	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
DP located in mapped PC area. This area, however, has not been farmed since at least 2000, and has reverted to wetland. Wetland A. Area 3 on FSA slide review.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)
- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)
- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ✓ Stunted or Stressed Plants (D1)
- ✓ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ✓ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes ___	No ✓	Depth (inches):	
Water table present?	Yes ✓	No ___	Depth (inches):	17
Saturation present? (includes capillary fringe)	Yes ✓	No ___	Depth (inches):	9

Indicators of wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 5

Tree Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		= Total Cover		

Sapling/Shrub Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1	Salix interior	10	✓	FACW
2				
3				
4				
5				
6				
7				
8				
9				
10				
		10 = Total Cover		

Herb Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1	Phalaris arundinacea	50	✓	FACW
2				
3	Fraxinus pennsylvanica	15		FACW
4				
5	Solidago gigantea	10		FACW
6				
7	Symphyotrichum lateriflorum	10		FAC
8				
9	Geum canadense	5		FAC
10				
11	Poa pratensis	30	✓	FACU
12				
13	Taraxacum officinale	10		FACU
14				
15	Erigeron philadelphicus	5		FAC
		135 = Total Cover		

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		= Total Cover		

50/20 Thresholds

	20%	50%
Tree Stratum		
Sapling/Shrub Stratum		1
Herb Stratum		2
Woody Vine Stratum		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 66 (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	x 1 =		
FACW species	x 2 =		
FAC species	x 3 =		
FACU species	x 4 =		
UPL species	x 5 =		
Column totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- ✓ Dominance test is >50%
- ___ Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

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

SOIL **Sampling Point:** 5

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-8	10YR 3/1	95	10YR 5/3	5	C	M	Silt loam	
8-20	2.5Y 5/1	80	10YR 4/6	20	C	M	Clay loam	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ✓ Depleted Below Dark Suface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: STH 36 City/County: Waterford Sampling Date: 6-1-18
Applicant/Owner: State: WI Sampling Point: #6 WP
Investigator(s): Meyer Sherfinski Section, Township, Range: Sec 1 T3N R19E Sec. 36 T4N R19E
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Convex
Slope (%): ~5 Lat.: Long.: Datum:
Soil Map Unit Name: Ozaukee silt loam OzaC2 NWI Classification: None
Are climatic/hydrologic conditions of the site typical for this time of the year? see report (If no, explain in remarks)
Are vegetation N, soil N, or hydrology N significantly disturbed? Are "normal
Are vegetation N, soil N, or hydrology N naturally problematic? circumstances" present? Y
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	N
Hydric soil present?	N		
Indicators of wetland hydrology present?	N	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface water present?	Yes ___	No ✓	Depth (inches): ___
Water table present?	Yes ___	No ✓	Depth (inches): ___
Saturation present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 6

Tree Stratum Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1 Prunus Serotina	15	✓	FACU
2			
3 Fraxinus pennsylvanica	5		FACW
4			
5 Carya ovata	5		FACU
6			
7 Acer negundo	5		FAC
8			
9			
10			
	30	= Total Cover	

Sapling/Shrub Stratum Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1 Rhamnus Cathartica	45	✓	FAC
2			
3 Cornus racemosa	15	✓	FAC
4			
5 Lonicera x bella	15	✓	FACU
6			
7			
8			
9			
10			
	75	= Total Cover	

Herb Stratum Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1 Taraxacum officinale	5		FACU
2			
3 Agrimonia gryposepala	10	✓	FACU
4			
5			
6 Fraxinus pennsylvanica	10	✓	FACW
7			
8			
9 Rhamnus Cathartica	25	✓	FAC
10			
11			
12			
13			
14			
15			
	50	= Total Cover	

Woody Vine Stratum Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1			
2			
3			
4			
5			
		= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum		1
Sapling/Shrub Stratum	2	1
Herb Stratum	2	1
Woody Vine Stratum		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across all Strata: 7 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 57 (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- ✓ Dominance test is >50%
- ___ Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

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

SOIL **Sampling Point:** 6

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-11	10YR 3/2	100					Silt loam	
11-20	10YR 5/3	100					silt loam	
20-24	10YR 5/3	60					clay loam	
	10YR 4/4	40						

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) **(LRR R, MLRA 149B)**
___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
___ Thin Dark Surface (S9) **(LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) **(LRR K, L)**
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) **(LRR K, L, R)**
___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
___ Dark Surface (S7) **(LRR K, L**
___ Polyvalue Below Surface (S8) **(LRR K, L)**
___ Thin Dark Surface (S9) **(LRR K, L)**
___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:
Double matrix from 20-24"

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: STH 36 City/County: Waterford Sampling Date: 6-1-18
Applicant/Owner: State: WI Sampling Point: # 7 wet
Investigator(s): Meyer, Sherfinski Section, Township, Range: Sec1 T3N R19E Sec.36 T4N R19E
Landform (hillslope, terrace, etc.): depressional basin Local relief (concave, convex, none): Concave
Slope (%): ~5 Lat.: Long.: Datum:
Soil Map Unit Name Houghton muck HF NWI Classification: E2H
Are climatic/hydrologic conditions of the site typical for this time of the year? see report (If no, explain in remarks)
Are vegetation N, soil N, or hydrology N significantly disturbed? Are "normal
Are vegetation N, soil N, or hydrology N naturally problematic? circumstances" present? Y
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Indicators of wetland hydrology present?	Y	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)
- ___ Surface Water (A1)
- ✓ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)
- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✓ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ✓ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	___	No	✓	Depth (inches): ___
Water table present?	Yes	✓	No	___	Depth (inches): 3
Saturation present? (includes capillary fringe)	Yes	✓	No	___	Depth (inches): Surface

Indicators of wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 7

Tree Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		= Total Cover		

Sapling/Shrub Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1	Cornus racemosa	15	✓	FAC
2				
3	Viburnum lentago	5	✓	FAC
4				
5				
6				
7				
8				
9				
10				
		20 = Total Cover		

Herb Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1	Phalaris arundinacea	100	✓	FACW
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		100 = Total Cover		

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		= Total Cover		

50/20 Thresholds

	20%	50%
Tree Stratum		
Sapling/Shrub Stratum	1	1
Herb Stratum		1
Woody Vine Stratum		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)

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

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

Prevalence Index Worksheet

Total % Cover of:

OBL species	x 1 =		
FACW species	x 2 =		
FAC species	x 3 =		
FACU species	x 4 =		
UPL species	x 5 =		
Column totals	(A)		(B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- ✓ Dominance test is >50%
- ___ Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

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

SOIL **Sampling Point:** 7

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-20	10YR 2/1	100					muck	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ✓ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Suface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: STH 36 City/County: Waterford Sampling Date: 6-1-18
Applicant/Owner: State: WI Sampling Point: # 8 wet
Investigator(s): Meyer, Sherfinski Section, Township, Range: Sec 1 T3N R19E Sec. 36 T4N R19E
Landform (hillslope, terrace, etc.): depressional basin Local relief (concave, convex, none): Concave
Slope (%): 2 Lat.: Long.: Datum:
Soil Map Unit Name: Ashkum Silty clay loam A+A NWI Classification: E2H
Are climatic/hydrologic conditions of the site typical for this time of the year? see report (If no, explain in remarks)
Are vegetation N, soil N, or hydrology N significantly disturbed? Are "normal
Are vegetation N, soil N, or hydrology N naturally problematic? circumstances" present? Y
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Indicators of wetland hydrology present?	Y	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

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

- ___ Surface Water (A1)
- ✓ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface water present?	Yes	___	No	✓	Depth (inches): ___
Water table present?	Yes	✓	No	___	Depth (inches): 2
Saturation present? (includes capillary fringe)	Yes	✓	No	___	Depth (inches): Surface

Indicators of wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 8

Tree Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		= Total Cover		

Sapling/Shrub Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		= Total Cover		

Herb Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1	Typha angustifolia	100	✓	OBL
2				
3				
4				
5	Phalaris arundinacea	70	✓	FACW
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		170 = Total Cover		

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		= Total Cover		

50/20 Thresholds

	20%	50%
Tree Stratum		
Sapling/Shrub Stratum		
Herb Stratum	1	1
Woody Vine Stratum		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

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

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

Prevalence Index Worksheet

Total % Cover of:

OBL species	x 1 =		
FACW species	x 2 =		
FAC species	x 3 =		
FACU species	x 4 =		
UPL species	x 5 =		
Column totals	(A)		(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- ✓ Dominance test is >50%
- ___ Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

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

SOIL **Sampling Point:** 8

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-8	10YR2/1	100					muck	
8-20	2.5Y 5/2	95	10YR 3/6	5	C	M	clay loam	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ✓ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ✓ Depleted Below Dark Suface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: STH 36 City/County: Waterford Sampling Date: 6-1-18
Applicant/Owner: State: WI Sampling Point: #9 UP
Investigator(s): Meyer, Sherfinski Section, Township, Range: Sec 1 T3N R19E Sec. 36 T4N R19E
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Convex
Slope (%): ~3 Lat.: Long.: Datum:
Soil Map Unit Name: Ozaukee silt loam, 0 to 2 % NWI Classification: None
Are climatic/hydrologic conditions of the site typical for this time of the year? see report (If no, explain in remarks)
Are vegetation N, soil N, or hydrology N significantly disturbed? Are "normal
Are vegetation N, soil N, or hydrology N naturally problematic? circumstances" present? Y
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	N	**Is the sampled area within a wetland?**	N
Hydric soil present?	N		
Indicators of wetland hydrology present?	N	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface water present?	Yes ___	No /	Depth (inches): ___
Water table present?	Yes ___	No /	Depth (inches): ___
Saturation present? (includes capillary fringe)	Yes /	No ___	Depth (inches): 16

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 9

Tree Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1	Quercus rubra	50	✓	FACU
2				
3				
4	Quercus alba	15		FACU
5				
6				
7	Prunus serotina	10		FACU
8				
9	Carya ovata	10		FACU
10				
		85	= Total Cover	

Sapling/Shrub Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1	Rhamnus cathartica	10	✓	FAC
2				
3				
4	Cornus racemosa	40	✓	FAC
5				
6				
7				
8				
9				
10				
		50	= Total Cover	

Herb Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1	Galium aparine	25	✓	FACU
2				
3				
4	Viburnum opulus	5		FACW
5				
6				
7	Parthenocissus quinquefolia	5		FACU
8				
9				
10				
11				
12				
13				
14				
15				
		35	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
			= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum		1
Sapling/Shrub Stratum	1	1
Herb Stratum		1
Woody Vine Stratum		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

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

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

Prevalence Index Worksheet

Total % Cover of:

OBL species		x 1 =	
FACW species	5	x 2 =	10
FAC species	50	x 3 =	150
FACU species	115	x 4 =	460
UPL species		x 5 =	
Column totals	170 (A)		620 (B)

Prevalence Index = B/A = 3.65

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation
___ Dominance test is >50%
___ Prevalence Index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? N

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

SOIL **Sampling Point:** 9

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-8	10YR 3/2	100					silt loam	
8-20	7.5YR 4/4	80					clay loam	
	10YR 3/2	20					silt loam	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Suface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N/

Remarks:
Double matrix from 8-20"

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: STH 36 City/County: Waterford Sampling Date: 6-1-18
Applicant/Owner: State: WI Sampling Point: #10 UP
Investigator(s): Meyer Sherfinski Section, Township, Range: Sec 1 T3N R19E Sec. 36 T4N R19E
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Convex
Slope (%): ~3 Lat.: Long.: Datum:
Soil Map Unit Name Ozaukee silt loam OzaC2 NWI Classification: None
Are climatic/hydrologic conditions of the site typical for this time of the year? See report (If no, explain in remarks)
Are vegetation N, soil N, or hydrology N significantly disturbed? Are "normal
Are vegetation N, soil N, or hydrology N naturally problematic? circumstances" present? N
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	N	**Is the sampled area within a wetland?**	N
Hydric soil present?	N		
Indicators of wetland hydrology present?	N	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface water present?	Yes ___	No ✓	Depth (inches):
Water table present?	Yes ___	No ✓	Depth (inches):
Saturation present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches):

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 10

Tree Stratum (Plot Size)	Absolute % Cover	Dominant Species	Indicator Status
1 Quercus alba	50	✓	FACU
2			
3 Carya ovata	25	✓	FACU
4			
5 Quercus rubra	10		FACU
6			
7			
8 Prunus serotina	5		FACU
9			
10			
	90	= Total Cover	

Sapling/Shrub Stratum (Plot Size)	Absolute % Cover	Dominant Species	Indicator Status
1 Rhamnus cathartica	50	✓	FAC
2			
3 Acer negundo	5		FAC
4			
5 Prunus virginiana	5		FACU
6			
7			
8			
9			
10			
	60	= Total Cover	

Herb Stratum (Plot Size)	Absolute % Cover	Dominant Species	Indicator Status
1 Rhamnus cathartica	10	✓	FAC
2			
3 Parthenocissus quinquefolia	2		FACU
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	12	= Total Cover	

Woody Vine Stratum (Plot Size)	Absolute % Cover	Dominant Species	Indicator Status
1			
2			
3			
4			
5			
		= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	1	1
Sapling/Shrub Stratum		1
Herb Stratum		1
Woody Vine Stratum		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

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

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

Prevalence Index Worksheet

Total % Cover of:

OBL species	x 1 =		
FACW species	x 2 =		
FAC species	65	x 3 =	195
FACU species	97	x 4 =	388
UPL species		x 5 =	
Column totals	162 (A)		583 (B)

Prevalence Index = B/A = 3.60

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- ___ Dominance test is >50%
- ___ Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? N

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

SOIL **Sampling Point:** 10

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-8	10YR 3/2	100					Silt loam	
8-20	10YR 3/2	20					Silt loam	
	10YR 4/4	80					Silt loam	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Suface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:

Double matrix from 8-20"

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: STH 36 City/County: Waterford Sampling Date: 6-1-18
Applicant/Owner: State: WI Sampling Point: # 11 wet
Investigator(s): Meyer Sherfinski Section, Township, Range: Sec 1 T3N R19E Sec. 36 T4N R19E
Landform (hillslope, terrace, etc.): depressional basin Local relief (concave, convex, none): Concave
Slope (%): ~5 Lat.: Long.: Datum:
Soil Map Unit Name: Ashkum silty clay loam ATA NWI Classification: E2H
Are climatic/hydrologic conditions of the site typical for this time of the year? see report (If no, explain in remarks)
Are vegetation N, soil N, or hydrology N significantly disturbed? Are "normal
Are vegetation N, soil N, or hydrology N naturally problematic? circumstances" present? Y
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? Y
Hydric soil present? Y
Indicators of wetland hydrology present? Y

Is the sampled area within a wetland? Y

If yes, optional wetland site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

Wetland B

HYDROLOGY

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

- ___ Surface Water (A1)
- ✓ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface water present?	Yes ___	No ✓	Depth (inches):	
Water table present?	Yes ✓	No ___	Depth (inches):	Surface
Saturation present? (includes capillary fringe)	Yes ✓	No ___	Depth (inches):	Surface

Indicators of wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 11

Tree Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		= Total Cover		

Sapling/Shrub Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1	Salix interior	20	✓	FACW
2				
3	Acer negundo	5		FAC
4				
5				
6	Viburnum lentago	10	✓	FAC
7				
8				
9				
10				
		35 = Total Cover		

Herb Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1	Typha angustifolia	40	✓	OBL
2				
3				
4	Phalaris arundinacea	80	✓	FACW
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		120 = Total Cover		

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		= Total Cover		

50/20 Thresholds

	20%	50%
Tree Stratum		
Sapling/Shrub Stratum	1	1
Herb Stratum	1	1
Woody Vine Stratum		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)

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

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

Prevalence Index Worksheet

Total % Cover of:

OBL species	x 1 =		
FACW species	x 2 =		
FAC species	x 3 =		
FACU species	x 4 =		
UPL species	x 5 =		
Column totals	(A)		(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- ✓ Dominance test is >50%
- ___ Prevalence Index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

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

SOIL **Sampling Point:** 11

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-8	10YR 2/1	95	10YR 3/6	5	C	M	Silt loam	
8-20	10YR 4/1	95	10YR 3/6	5	C	M	clay loam	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ✓ Depleted Below Dark Suface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ✓ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: STH 36 City/County: Waterford Sampling Date: 6-1-18
Applicant/Owner: State: WI Sampling Point: #124P
Investigator(s): Meyer Sherfinsky Section, Township, Range: Sec 1 T3N R19E Sec. 36 T4N R19E
Landform (hillslope, terrace, etc.): level Local relief (concave, convex, none): none
Slope (%): — Lat.: Long.: Datum:
Soil Map Unit Name Ozaukee silt loam OzaC2 NWI Classification: None
Are climatic/hydrologic conditions of the site typical for this time of the year? see report (If no, explain in remarks)
Are vegetation Y, soil N, or hydrology N significantly disturbed? Are "normal
Are vegetation N, soil N, or hydrology N naturally problematic? circumstances" present? N
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? N
Hydric soil present? N
Indicators of wetland hydrology present? N

Is the sampled area within a wetland? N

If yes, optional wetland site ID: _____

Remarks: (Explain alternative procedures here or in a separate report.)
DP located in cropped field

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)
___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Water-Stained Leaves (B9)
___ Aquatic Fauna (B13)
___ Marl Deposits (B15)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres on Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Thin Muck Surface (C7)
___ Other (Explain in Remarks)

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

Field Observations:
Surface water present? Yes ___ No / Depth (inches): ___
Water table present? Yes ___ No / Depth (inches): ___
Saturation present? Yes ___ No / Depth (inches): ___
(includes capillary fringe)

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 12

Tree Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		= Total Cover		

Sapling/Shrub Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		= Total Cover		

Herb Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1	Zea mays	20	✓	UPL
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		20 = Total Cover		

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		= Total Cover		

50/20 Thresholds

	20%	50%
Tree Stratum		
Sapling/Shrub Stratum		
Herb Stratum		1
Woody Vine Stratum		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index Worksheet

Total % Cover of:

OBL species	x 1 =		
FACW species	x 2 =		
FAC species	x 3 =		
FACU species	x 4 =		
UPL species	x 5 =		
Column totals	(A)		(B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation

___ Dominance test is >50%

___ Prevalence index is ≤3.0*

___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)

___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? N

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

No sign of stress, yellowing, or drowned out conditions

SOIL **Sampling Point:** 12

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-11	10YR 3/2	100					silt loam	
11-20	10YR 4/3	100					clay loam	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Suface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: STH 36 City/County: Waterford Sampling Date: 6-1-18
Applicant/Owner: State: WI Sampling Point: #13 wet
Investigator(s): Meyer, Sherfinski Section, Township, Range: Sec1 T3N R19E Sec.36 T4N R19E
Landform (hillslope, terrace, etc.): depressional basin Local relief (concave, convex, none): Concave
Slope (%): ~2 Lat.: Long.: Datum:
Soil Map Unit Name: Ozaukee silt loam OzaB NWI Classification: None
Are climatic/hydrologic conditions of the site typical for this time of the year? See report (If no, explain in remarks)
Are vegetation N, soil N, or hydrology N significantly disturbed? Are "normal
Are vegetation N, soil N, or hydrology N naturally problematic? circumstances" present? Y
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? Y
Hydric soil present? Y
Indicators of wetland hydrology present? Y

Is the sampled area within a wetland? Y

If yes, optional wetland site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
Wetland C This is an ephemeral pond

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)
- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✓ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)
- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✓ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ✓ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:
Surface water present? Yes ___ No ✓ Depth (inches):
Water table present? Yes ___ No ✓ Depth (inches):
Saturation present? Yes ✓ No ___ Depth (inches): 9
(includes capillary fringe)

Indicators of wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 13

Tree Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		= Total Cover		

Sapling/Shrub Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1	Acer saccharinum	10		FACW
2				
3	Rhamnus cathartica	20	/	FAC
4				
5	Fraxinus pennsylvanica	20	/	FACW
6				
7	Celtis occidentalis	5		FAC
8				
9	Viburnum lentago	5		FAC
10				
		60 = Total Cover		

Herb Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1	Fraxinus pennsylvanica	5	/	FACW
2				
3				
4	Ranunculus abortivus	2		FAC
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		7 = Total Cover		

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		= Total Cover		

50/20 Thresholds

	20%	50%
Tree Stratum		
Sapling/Shrub Stratum		2
Herb Stratum		1
Woody Vine Stratum		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)

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

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

Prevalence Index Worksheet

Total % Cover of:

OBL species	x 1 =		
FACW species	x 2 =		
FAC species	x 3 =		
FACU species	x 4 =		
UPL species	x 5 =		
Column totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- ___/ Dominance test is >50%
- ___ Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

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

SOIL **Sampling Point:** 13

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-6	10YR 4/1	95	10YR 3/6	5	C	M	silt loam	
6-20	10YR 5/2	85	10YR 5/4	15	C	M	clay loam	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) **(LRR R, MLRA 149B)**
___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
___ Thin Dark Surface (S9) **(LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) **(LRR K, L)**
___ Loamy Gleyed Matrix (F2)
✓ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) **(LRR K, L, R)**
___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
___ Dark Surface (S7) **(LRR K, L**
___ Polyvalue Below Surface (S8) **(LRR K, L)**
___ Thin Dark Surface (S9) **(LRR K, L)**
___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: STH 36 City/County: Waterford Sampling Date: 6-1-18
Applicant/Owner: State: WI Sampling Point: #14UP
Investigator(s): Meyer Sherfinski Section, Township, Range: Sec 1 T3N R19E Sec. 36 T4N R19E
Landform (hillslope, terrace, etc.): level Local relief (concave, convex, none): none
Slope (%): Lat.: Long.: Datum:
Soil Map Unit Name Dawkee silt loam 0268 NWI Classification: none
Are climatic/hydrologic conditions of the site typical for this time of the year? see report (If no, explain in remarks)
Are vegetation N, soil N, or hydrology N significantly disturbed? Are "normal
Are vegetation N, soil N, or hydrology N naturally problematic? circumstances" present? Y
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	N	**Is the sampled area within a wetland?**	N
Hydric soil present?	N		
Indicators of wetland hydrology present?	N	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface water present?	Yes ___	No ✓	Depth (inches):
Water table present?	Yes ___	No ✓	Depth (inches):
Saturation present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches):

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 14

Tree Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1	Prunus serotina	20	✓	FACU
2	Quercus rubra	20	✓	FACU
3	Acer saccharinum	5		FACW
4	Ulmus americana	5		FACW
5				
6				
7				
8				
9				
10		50	= Total Cover	

Sapling/Shrub Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1	Rhamnus cathartica	25	✓	FAC
2	Viburnum lentago	5		FAC
3				
4				
5				
6				
7				
8				
9				
10		30	= Total Cover	

Herb Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1	Symphyotrichum sagittifolium	5	✓	UPL
2				
3				
4	Circaea canadensis	5	✓	FACU
5				
6				
7	Rhamnus cathartica	5	✓	FAC
8				
9				
10	Carex blanda	2		FAC
11				
12				
13	Taraxacum officinale	2		FACU
14				
15				
		19	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
			= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum		2
Sapling/Shrub Stratum		1
Herb Stratum		3
Woody Vine Stratum		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 6 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	x 1 =		
FACW species	x 2 =		
FAC species	x 3 =		
FACU species	x 4 =		
UPL species	x 5 =		
Column totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation
___ Dominance test is >50%
___ Prevalence index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? N

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

SOIL **Sampling Point:** 14

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-11	10YR 3/2	100					Silt loam	
11-17	10YR 3/2	50					silt loam	
	10YR 4/3	50					silt loam	
17-20	7.5YR 4/4	100					Clay loam	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Suface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:

Double matrix from 11-17"

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: STH 36 City/County: Waterford Sampling Date: 6-1-18
Applicant/Owner: State: WI Sampling Point: # 15 wet
Investigator(s): Meyer Sherfinski Section, Township, Range: Sec 1 T3N R19E Sec. 36 T4N R19E
Landform (hillslope, terrace, etc.): depressional basin Local relief (concave, convex, none): concave
Slope (%): ~2 Long.: Datum:
Soil Map Unit Name: Blount silt loam B1A NWI Classification: None
Are climatic/hydrologic conditions of the site typical for this time of the year? see report (If no, explain in remarks)
Are vegetation N, soil N, or hydrology N significantly disturbed? Are "normal
Are vegetation N, soil N, or hydrology N naturally problematic? circumstances" present? N
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? N
Hydric soil present? Y
Indicators of wetland hydrology present? Y

Is the sampled area within a wetland? Y

If yes, optional wetland site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
Wetland D DP located in cropped field
Area 4 on FSA slide review

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)
- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)
- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ✓ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✓ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes ___	No ✓	Depth (inches):	
Water table present?	Yes ___	No ✓	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes ✓	No ___	Depth (inches): 8	

Indicators of wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 15

Tree Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		= Total Cover		

Sapling/Shrub Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		= Total Cover		

Herb Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1	Zea mays	2	✓	UPL
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		2 = Total Cover		

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		= Total Cover		

50/20 Thresholds

	20%	50%
Tree Stratum		
Sapling/Shrub Stratum		
Herb Stratum		1
Woody Vine Stratum		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index Worksheet

Total % Cover of:

OBL species	x 1 =		
FACW species	x 2 =		
FAC species	x 3 =		
FACU species	x 4 =		
UPL species	x 5 =		
Column totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation
___ Dominance test is >50%
___ Prevalence index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? N

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

Corn stunted compared to surrounding field. Area had 3 hits out of 10 years on slide review

SOIL **Sampling Point:** 15

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-15	10YR 4/2	98	10YR 4/6	2	C	M	silt loam	
15-20	10YR 5/2	95	10YR 4/6	5	C	M	clay loam	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Suface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: STH 36 City/County: Waterford Sampling Date: 6-1-18
Applicant/Owner: State: WI Sampling Point: #16UP
Investigator(s): Meyer, Sherfinski Section, Township, Range: Sec1 T3N R19E Sec.36 T4N R19E
Landform (hillslope, terrace, etc.): level Local relief (concave, convex, none): none
Slope (%): Lat: Long.: Datum:
Soil Map Unit Name: Houghton silt loam, 0 to 1 percent slopes NWI Classification: none
Are climatic/hydrologic conditions of the site typical for this time of the year? see report (If no, explain in remarks)
Are vegetation N, soil N, or hydrology N significantly disturbed? Are "normal
Are vegetation N, soil N, or hydrology N naturally problematic? circumstances" present? N
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	N	**Is the sampled area within a wetland?**	N
Hydric soil present?	N		
Indicators of wetland hydrology present?	N	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
DP located in cropped field, mapped PC area. Hydric soils, however, are not present.

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)
- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

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

Field Observations:

Surface water present?	Yes ___	No ✓	Depth (inches):
Water table present?	Yes ___	No ✓	Depth (inches):
Saturation present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches):

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 16

Tree Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		= Total Cover		

Sapling/Shrub Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		= Total Cover		

Herb Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1	Zea mays	25	✓	UPL
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		25 = Total Cover		

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		= Total Cover		

50/20 Thresholds

	20%	50%
Tree Stratum		
Sapling/Shrub Stratum		
Herb Stratum		1
Woody Vine Stratum		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index Worksheet

Total % Cover of:

OBL species	x 1 =		
FACW species	x 2 =		
FAC species	x 3 =		
FACU species	x 4 =		
UPL species	x 5 =		
Column totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation
___ Dominance test is >50%
___ Prevalence index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? No

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

Corn crop not stressed

SOIL **Sampling Point:** 16

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-13	10YR 3/2	100					Silt loam	
13-20	10YR 3/2	20					Silt loam	
	10YR 4/4	80					Clay loam	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) **(LRR R, MLRA 149B)**
___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
___ Thin Dark Surface (S9) **(LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) **(LRR K, L)**
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) **(LRR K, L, R)**
___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
___ Dark Surface (S7) **(LRR K, L**
___ Polyvalue Below Surface (S8) **(LRR K, L)**
___ Thin Dark Surface (S9) **(LRR K, L)**
___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? NL

Remarks:
Double matrix from 13-20"

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: STH 36 City/County: Waterford Sampling Date: 6-1-18
Applicant/Owner: State: WI Sampling Point: #17 wet
Investigator(s): Meyer, Sherfinski Section, Township, Range: Sec 1 T3N R19E Sec. 36 T4N R19E
Landform (hillslope, terrace, etc.): depression / basin Local relief (concave, convex, none): concave
Slope (%): ~2 Lat.: Long.: Datum:
Soil Map Unit Name: Ozaukee silt loam, Ozaukee NWI Classification: None
Are climatic/hydrologic conditions of the site typical for this time of the year? see report (If no, explain in remarks)
Are vegetation N, soil N, or hydrology N significantly disturbed? Are "normal
Are vegetation N, soil N, or hydrology N naturally problematic? circumstances" present? N
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? N
Hydric soil present? Y
Indicators of wetland hydrology present? Y

Is the sampled area within a wetland? Y

If yes, optional wetland site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
Wetland E Area 6 on FSA slide review.
DP located in cropped field

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)
- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)
- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✓ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:
Surface water present? Yes ___ No ✓ Depth (inches):
Water table present? Yes ___ No ✓ Depth (inches):
Saturation present? Yes ✓ No ___ Depth (inches): 9
(includes capillary fringe)

Indicators of wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 17

Tree Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		= Total Cover		

Sapling/Shrub Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		= Total Cover		

Herb Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1	Zea mays	2	✓	UPL
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		2 = Total Cover		

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		= Total Cover		

50/20 Thresholds

	20%	50%
Tree Stratum		
Sapling/Shrub Stratum		
Herb Stratum		1
Woody Vine Stratum		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index Worksheet

Total % Cover of:

OBL species	x 1 =		
FACW species	x 2 =		
FAC species	x 3 =		
FACU species	x 4 =		
UPL species	x 5 =		
Column totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation
___ Dominance test is >50%
___ Prevalence index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? N

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

Corn crop stunted and drowned out 6 hits out of 10 years on slide review

SOIL **Sampling Point:** 17

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-14	10YR 4/2	95	10YR 4/6	5	C	M	silt loam	
14-20	10YR 5/3	80	10YR 4/6	20	C	M	Clay loam	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Suface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ✓ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: STH 36 City/County: Waterford Sampling Date: 6-1-18
Applicant/Owner: State: WI Sampling Point: # 18UP
Investigator(s): Meyer Sherfinski Section, Township, Range: Sec 1 T3N R19E Sec 36 T4N R19E
Landform (hillslope, terrace, etc.): Level Local relief (concave, convex, none): none
Slope (%): — Lat.: Long.: Datum:
Soil Map Unit Name Ozaukee silt loam OzaB NWI Classification: None
Are climatic/hydrologic conditions of the site typical for this time of the year? see report (If no, explain in remarks)
Are vegetation N, soil N, or hydrology N significantly disturbed? Are "normal
Are vegetation N, soil N, or hydrology N naturally problematic? circumstances" present? N
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	N	**Is the sampled area within a wetland?**	N
Hydric soil present?	N		
Indicators of wetland hydrology present?	N	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)
DP located in cropped field,

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)
- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

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

Field Observations:

Surface water present?	Yes ___	No ✓	Depth (inches):
Water table present?	Yes ___	No ✓	Depth (inches):
Saturation present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches):

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 18

Tree Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		= Total Cover		

Sapling/Shrub Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		= Total Cover		

Herb Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1	Zea Mays	20	✓	UPL
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		20 = Total Cover		

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		= Total Cover		

50/20 Thresholds

	20%	50%
Tree Stratum		
Sapling/Shrub Stratum		
Herb Stratum		1
Woody Vine Stratum		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index Worksheet

Total % Cover of:

OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column totals	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation
___ Dominance test is >50%
___ Prevalence index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? N

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

Corn is healthy and not stunted or yellowed

SOIL **Sampling Point:** 18

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-11	10YR 3/2	100					silt loam	
11-18	10YR 4/4	100					clay loam	
18-20	10YR 4/4	98	10YR 5/8	2	C	M	clay loam	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) **(LRR R, MLRA 149B)**
___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
___ Thin Dark Surface (S9) **(LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) **(LRR K, L)**
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) **(LRR K, L, R)**
___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
___ Dark Surface (S7) **(LRR K, L**
___ Polyvalue Below Surface (S8) **(LRR K, L)**
___ Thin Dark Surface (S9) **(LRR K, L)**
___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: STH 36 City/County: Waterford Sampling Date: 6-1-18
Applicant/Owner: State: WI Sampling Point: #16 wet
Investigator(s): Meyer Sherfinski Section, Township, Range: Sec 1 T3N R19E Sec. 36 T4N R19E
Landform (hillslope, terrace, etc.): depressional basin Local relief (concave, convex, none): Concave
Slope (%): ~2 Lat.: Long.: Datum:
Soil Map Unit Name: Ozaukee silt loam OzaB NWI Classification: None
Are climatic/hydrologic conditions of the site typical for this time of the year? see report (If no, explain in remarks)
Are vegetation N, soil N, or hydrology N significantly disturbed? Are "normal
Are vegetation N, soil N, or hydrology N naturally problematic? circumstances" present? N
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? Y
Hydric soil present? Y
Indicators of wetland hydrology present? Y

Is the sampled area within a wetland? Y

If yes, optional wetland site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
DP located in cropped field. Wetland F Area 5 on FSA slide review

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)
- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)
- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✓ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:
Surface water present? Yes ___ No ✓ Depth (inches):
Water table present? Yes ___ No ___ Depth (inches):
Saturation present? Yes ✓ No ___ Depth (inches): 11
(includes capillary fringe)

Indicators of wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
8 hits out of 10 years on slide review

VEGETATION - Use scientific names of plants

Sampling Point: 19

Tree Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		= Total Cover		

Sapling/Shrub Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		= Total Cover		

Herb Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1	Zea mays	2	✓	UPL
2				
3				
4	Carex blanda	2	✓	FAC
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		4 = Total Cover		

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		= Total Cover		

50/20 Thresholds

	20%	50%
Tree Stratum		
Sapling/Shrub Stratum		
Herb Stratum		2
Woody Vine Stratum		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

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

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

Prevalence Index Worksheet

Total % Cover of:

OBL species		x 1 =	
FACW species		x 2 =	
FAC species	2	x 3 =	6
FACU species		x 4 =	
UPL species	2	x 5 =	10
Column totals	4 (A)		16 (B)

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation

___ Dominance test is >50%

___ Prevalence index is ≤3.0*

___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)

___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? NL

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

SOIL **Sampling Point:** 19

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-6	10YR 4/2	100						
6-11	10YR 4/2	95	10YR 4/6	5	C	M		
11-20	10YR 4/4	90	10YR 4/6	10	C	M		

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) **(LRR R, MLRA 149B)**
___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
___ Thin Dark Surface (S9) **(LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) **(LRR K, L)**
___ Loamy Gleyed Matrix (F2)
✓ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) **(LRR K, L, R)**
___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
___ Dark Surface (S7) **(LRR K, L**
___ Polyvalue Below Surface (S8) **(LRR K, L)**
___ Thin Dark Surface (S9) **(LRR K, L)**
___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: STH 36 City/County: Waterford Sampling Date: 6-1-18
Applicant/Owner: State: WI Sampling Point: #20 wet
Investigator(s): Meyer Sherfinski Section, Township, Range: Sec 1 T3N R19E Sec. 36 T4N R19E
Landform (hillslope, terrace, etc.): depression/basin Local relief (concave, convex, none): Concave
Slope (%): 3 Lat.: Long.: Datum:
Soil Map Unit Name: Houghton silt loam, 0 to 1 percent slopes NWI Classification: PSS
Are climatic/hydrologic conditions of the site typical for this time of the year? see report (If no, explain in remarks)
Are vegetation N, soil N, or hydrology N significantly disturbed? Are "normal
Are vegetation N, soil N, or hydrology N naturally problematic? circumstances" present? Y
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Indicators of wetland hydrology present?	Y	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface water present?	Yes ___	No ✓	Depth (inches):	
Water table present?	Yes ___	No ✓	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes ✓	No ___	Depth (inches):	15

Indicators of wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: 20

Tree Stratum Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1 Acer Saccharinum	20	✓	FACW
2			
3			
4			
5			
6			
7			
8			
9			
10			
	20 = Total Cover		

Sapling/Shrub Stratum Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1 Acer Saccharinum	60	✓	FACW
2			
3			
4 Rhamnus cathartica	20	✓	FAC
5			
6			
7 Carya ovata	5		FACU
8			
9			
10			
	85 = Total Cover		

Herb Stratum Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1 Phalaris arundinacea	40	✓	FACW
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	40 = Total Cover		

Woody Vine Stratum Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1			
2			
3			
4			
5			
	= Total Cover		

50/20 Thresholds

	20%	50%
Tree Stratum	4	1
Sapling/Shrub Stratum	1	1
Herb Stratum		1
Woody Vine Stratum		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)

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

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

Prevalence Index Worksheet

Total % Cover of:

OBL species	x 1 =		
FACW species	x 2 =		
FAC species	x 3 =		
FACU species	x 4 =		
UPL species	x 5 =		
Column totals	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- ✓ Dominance test is >50%
- ___ Prevalence Index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

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

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

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

SOIL **Sampling Point:** 20

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-4	10YR2/2	100					Silt loam	
4-9	10YR2/2	95	10YR4/4	5	C	M	Silt loam	
9-20	10YR4/2	90	10YR4/4	10	C	M	Clay loam	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ✓ Stratified Layers (A5)
- ___ Depleted Below Dark Suface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ✓ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

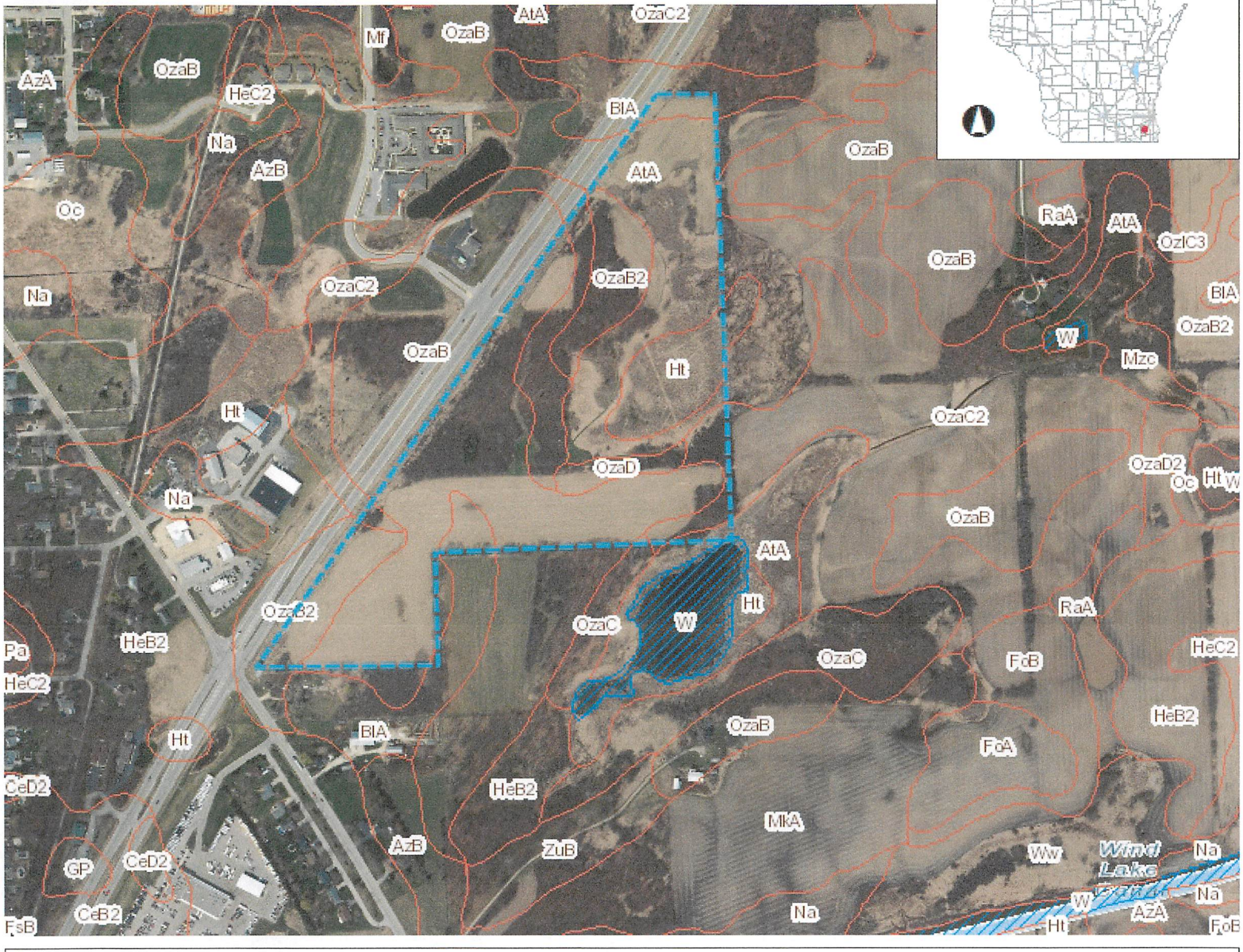
*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

Surface Water Data Viewer Map



Legend

- NRCS Wisconsin Soils
  - Soil Mapping Unit
  - Water
- Rivers and Streams
- Intermittent Streams
- Lakes and Open water
- Index to EN_Image_Basemap_Leaf_Off

Notes

0.3 0 0.13 0.3 Miles

NAD_1983_HARN_Wisconsin_TM

1: 7,920

Map Scale: 1:4,830 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AtA	Ashkum silty clay loam, 0 to 2 percent slopes	12.6	23.9%
BlA	Blount silt loam, 1 to 3 percent slopes	1.9	3.7%
Ht	Houghton muck, 0 to 2 percent slopes	4.1	7.7%
OzaB	Ozaukee silt loam, 2 to 6 percent slopes	20.4	38.6%
OzaB2	Ozaukee silt loam, 2 to 6 percent slopes, eroded	6.6	12.5%
OzaC	Ozaukee silt loam, 6 to 12 percent slopes	0.1	0.2%
OzaC2	Ozaukee silt loam, 6 to 12 percent slopes, eroded	5.6	10.6%
OzaD	Ozaukee silt loam, 12 to 20 percent slopes	1.5	2.8%
W	Water	0.0	0.0%
Totals for Area of Interest		**52.7**	**100.0%**

Report—Hydric Soil List - All Components

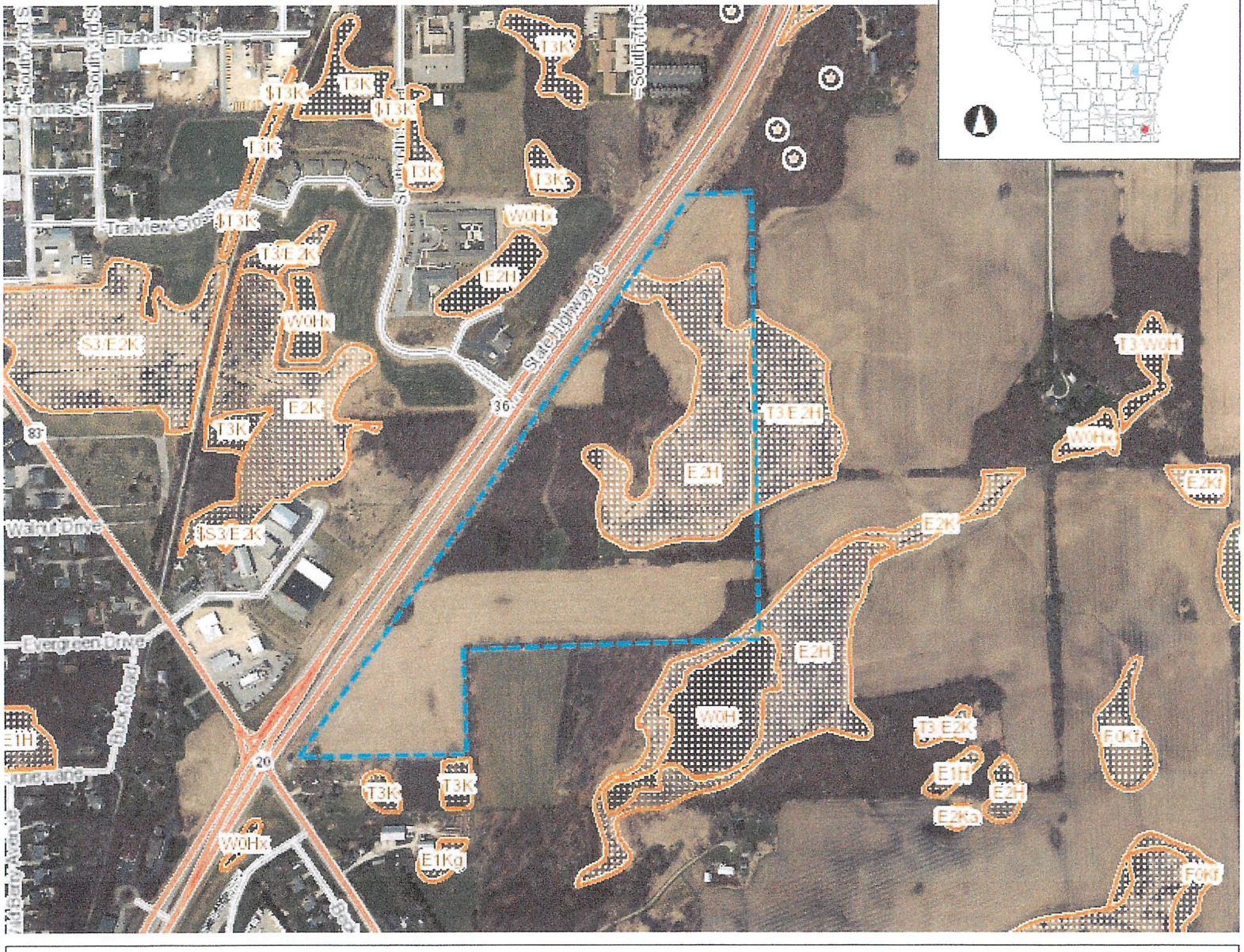
Hydric Soil List - All Components–WI601-Kenosha and Racine Counties, Wisconsin					
Map symbol and map unit name	**Component/Local Phase**	**Comp. pct.**	**Landform**	**Hydric status**	**Hydric criteria met (code)**
AtA: Ashkum silty clay loam, 0 to 2 percent slopes	Ashkum-Drained	85-100	End moraines,ground moraines	Yes	2
	Peotone-Drained	0-9	Depressions on ground moraines	Yes	2
	Orthents, clayey	0-3	Ground moraines,lake plains	No	—
	Urban land	0-3	Ground moraines	No	—
BlA: Blount silt loam, 1 to 3 percent slopes	Blount	95	Moraines	No	—
	Ashkum	5	Depressions	Yes	2,3
Ht: Houghton muck, 0 to 2 percent slopes	Houghton-Muck	84-95	Depressions	Yes	1,2,3
	Houghton-Ponded	2-5	Depressions	Yes	1,3
	Palms	1-3	Lakebeds (relict)	Yes	1,3
	Adrian	1-3	Lakebeds (relict)	Yes	1,3
	Edwards	1-2	Depressions	Yes	1,3
	Willette-Muck	0-3	Depressions	Yes	1,3
OzaB: Ozaukee silt loam, 2 to 6 percent slopes	Ozaukee	88-100	End moraines,ground moraines	No	—
	Pewamo-Drained	0-7	Depressions on ground moraines,drainage ways on ground moraines	Yes	2
	Ashkum-Drained	0-7	End moraines,ground moraines	Yes	2
	Urban land	0-5	Ground moraines	No	—
OzaB2: Ozaukee silt loam, 2 to 6 percent slopes, eroded	Ozaukee-Eroded	88-100	End moraines,ground moraines	No	—
	Ashkum-Drained	0-7	End moraines,ground moraines	Yes	2
	Pewamo-Drained	0-7	Depressions on ground moraines,drainage ways on ground moraines	Yes	2
	Urban land	0-5	Ground moraines	No	—
OzaC: Ozaukee silt loam, 6 to 12 percent slopes	Ozaukee	88-100	End moraines,ground moraines	No	—
	Blount-Lake mighican lobe	0-9	End moraines,ground moraines	No	—
	Urban land	0-5	Ground moraines	No	—

Hydric Soil List - All Components–WI601-Kenosha and Racine Counties, Wisconsin					
Map symbol and map unit name	**Component/Local Phase**	**Comp. pct.**	**Landform**	**Hydric status**	**Hydric criteria met (code)**
OzaC2: Ozaukee silt loam, 6 to 12 percent slopes, eroded	Ozaukee-Eroded	88-100	End moraines,ground moraines	No	—
	Blount-Lake mighican lobe	0-7	End moraines,ground moraines	No	—
	Urban land	0-5	Ground moraines	No	—
	Ozaukee-Severely eroded	0-5	End moraines,ground moraines	No	—
OzaD: Ozaukee silt loam, 12 to 20 percent slopes	Ozaukee	91-100	End moraines,ground moraines	No	—
	Blount-Lake mighican lobe	0-9	End moraines,ground moraines	No	—
W: Water	Water	100	—	Unranked	—

Data Source Information

Soil Survey Area: Kenosha and Racine Counties, Wisconsin
Survey Area Data: Version 14, Oct 6, 2017

Surface Water Data Viewer Map



Legend

- Wetland Class Points
  - Dammed pond
  - Excavated pond
  - Filled excavated pond
  - Filled/drained wetland
  - Wetland too small to delineate
- Filled Points
- Wetland Class Areas
  - Wetland
  - Upland
- Filled Areas
- Municipality
- State Boundaries
- County Boundaries
- Major Roads
  - Interstate Highway
  - State Highway
  - US Highway
- County and Local Roads
  - County HWY
  - Local Road
- Railroads
- Tribal Lands
- Rivers and Streams
- Intermittent Streams
- Lakes and Open water
- Index to EN_Image_Basemap_Leaf_Off

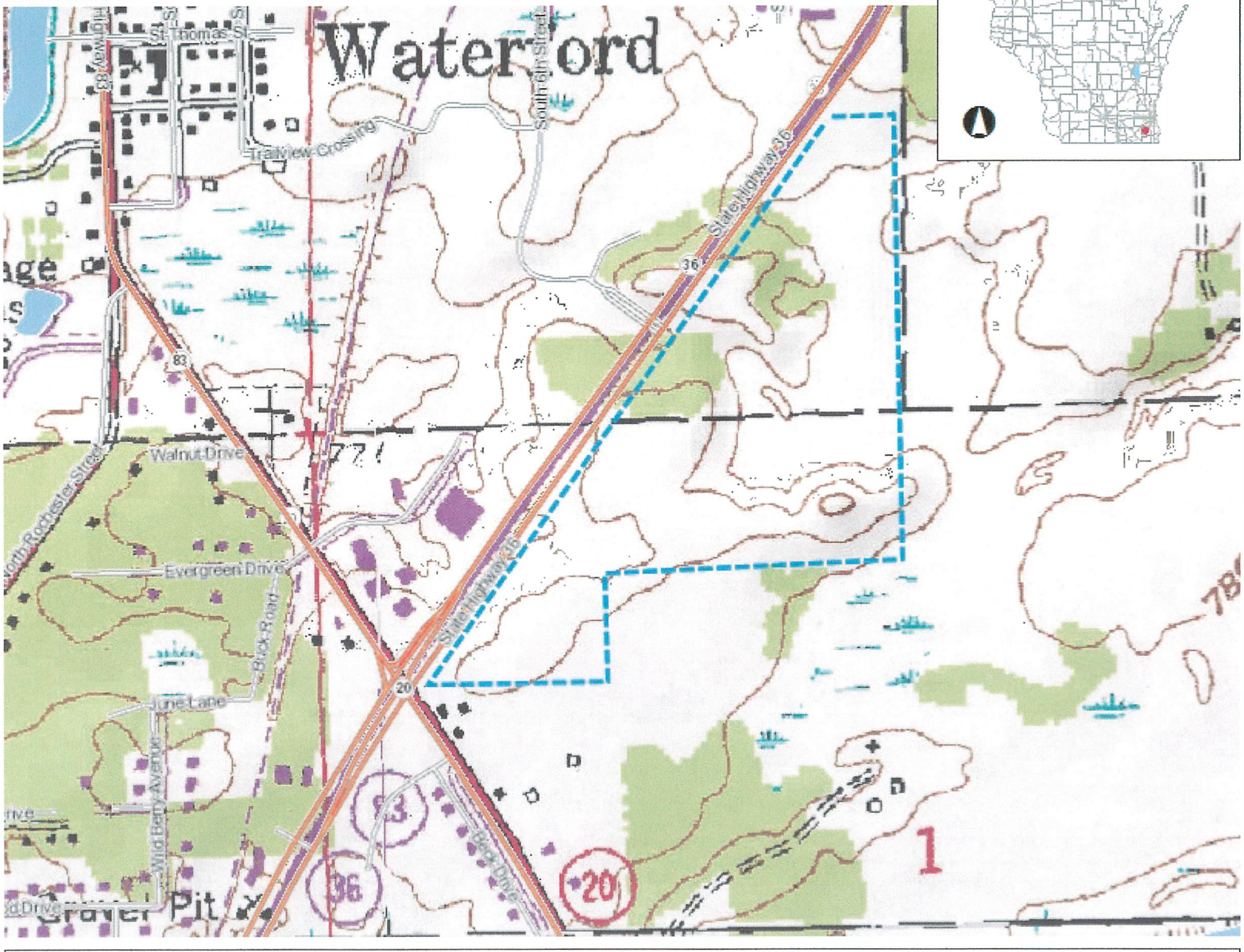
Notes

0.3 0 0.13 0.3 Miles

NAD_1983_HARN_Wisconsin_TM

1: 7,920

Surface Water Data Viewer Map



Legend

- Municipality
- State Boundaries
- County Boundaries
- Major Roads
  - Interstate Highway
  - State Highway
  - US Highway
- County and Local Roads
  - County HWY
  - Local Road
- Railroads
- Tribal Lands
- Rivers and Streams
- Intermittent Streams
- Lakes and Open water
- Index to EN_Image_Basemap_Leaf_Off

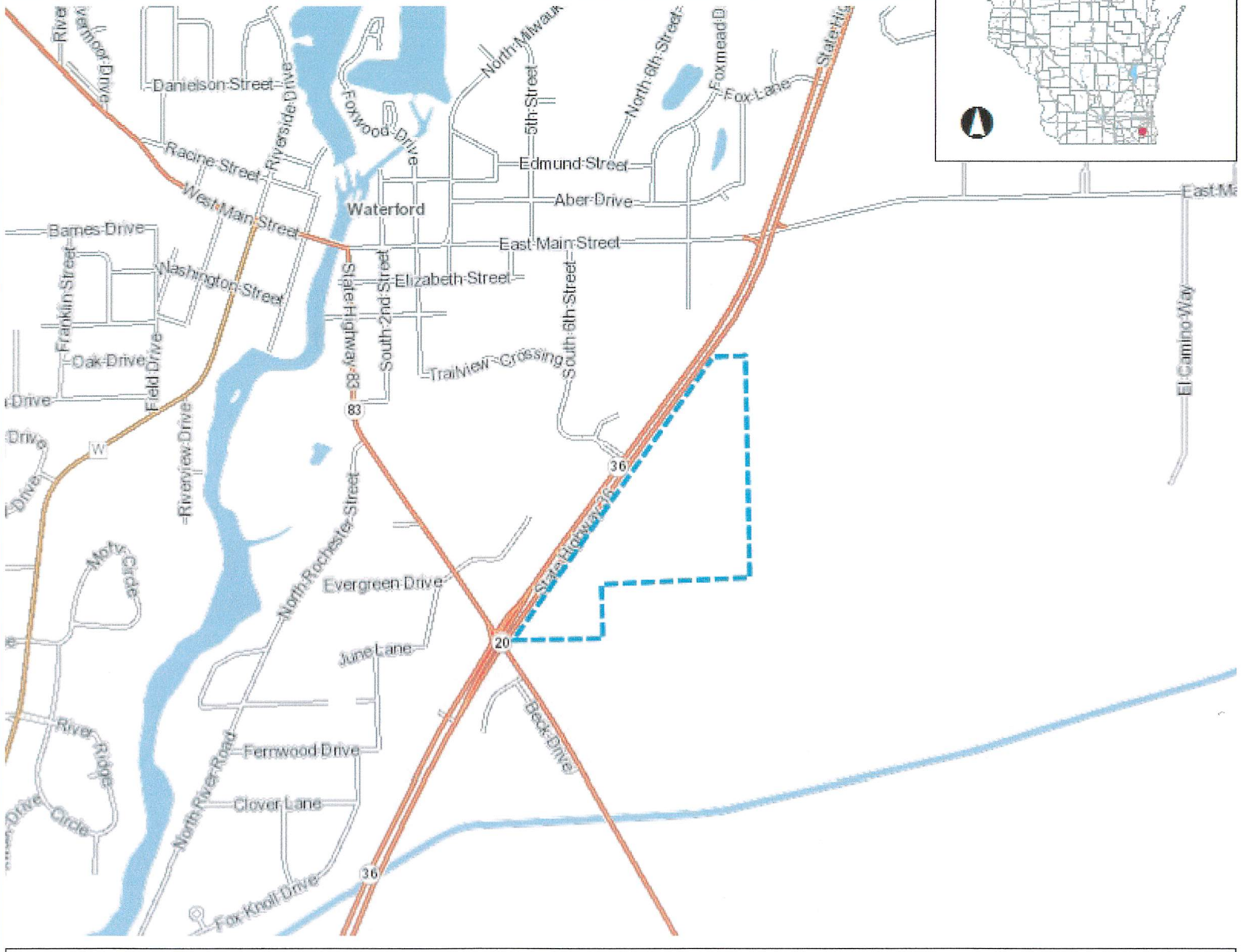
Notes

0.3 0 0.13 0.3 Miles

NAD_1983_HARN_Wisconsin_TM

1: 7,920

Surface Water Data Viewer Map



Legend

- Municipality
- State Boundaries
- County Boundaries
- Major Roads
  - Interstate Highway
  - State Highway
  - US Highway
- County and Local Roads
  - County HWY
  - Local Road
- Railroads
- Tribal Lands
- Rivers and Streams
- Intermittent Streams
- Lakes and Open water

Notes

0.5 0 0.25 0.5 Miles

NAD_1983_HARN_Wisconsin_TM

1: 15,840

PHOTOGRAPHS

Photo A.....Typical view of upland cropped fields in mapped PC areas throughout the site.

Photo B.....View of site conditions at DP #3, Wetland A.

Photo C.....View of site conditions at DP #5, Wetland A. This area is mapped as PC but has not been cropped regularly and has reverted to wetland.

Photo D.....Viewing north across DP #7, Wetland A.

Photo E.....Viewing southeast across DP #8, Wetland A.

Photo F.....Viewing southwest across Wetland B in vicinity of DP #11.

Photo G.....Typical view of drowned-out conditions at DP #'s 15, 17, and 19, Wetlands D, E, and F.

Photo H.....Typical view of Wetland C.

A

B

C

D

G

H

NRCS-CPA-32W
(6-9-06)

WETLAND DOCUMENTATION RECORD
Remotely Sensed Data Summary

Owner/Operator: Waterford County: Racine State: WI

Slide Reviewer: Meyer Date: 4-15-18

Site Identification No. Burlington WI 1205 (Tract No. + Site No.)

Farm Service Agency (or Other) Aerial Slide Data

Date (Mo./Yr)	Rainfall (in) +D/N/W (Apr-June ave. = 9.98")	Interpretation- (codes listed in box below) 1	2	3	4	5	6	7
4/2017	14.63 W	NCR	YCR 6d	YNC 6d	YCR 6d	YCR 6d	YCR 6d	NCR
6/2015	11.19 N	NCR	YCR 6d	YNC 6a	YCR 6d	YCR 6d	YCR 6d	NCR
4/2014	16.06 W	NCR	YCR 6d	YNC 6d	NCR	YCR 6d	NCR	NCR
7/2011	10.61 N	NCR	YCR 6d	YNC 6b	NCR	YCR 6b	NCR	NCR
5/2010	12.69 N	NCR	NCR	YNC 6a	NCR	YCR 6d	NCR	NCR
9/2008	12.97 N	NCR	YCR 6a	YNC 6a	NCR	NCR	NCR	NCR
10/2007	10.09 N	NCR	NCR	YNC 6d	NCR	YCR 6b	YCR 6b	NCR
9/2006	12.59 N	YCR 6b	NCR	YNC 6b	YCR 6d	YCR 6b	YCR 6d	YCR 6d
9/2005	5.42 D	NCR	YNC 6a	YNC 6a	NCR	NCR	NCR	YCR 6a
4/2000	18.16 W	YCR 6d	YCR 6d	YNC 6a	NCR	YCR 6d	NCR	YCR 6d

Air Photo

Y = Yes, signal indicates wetness (+ = strong, - = weak)
CR = cropped (row crop or tilled)
N = No wetness signature
NC = not cropped (hay, pasture, idle, etc.)

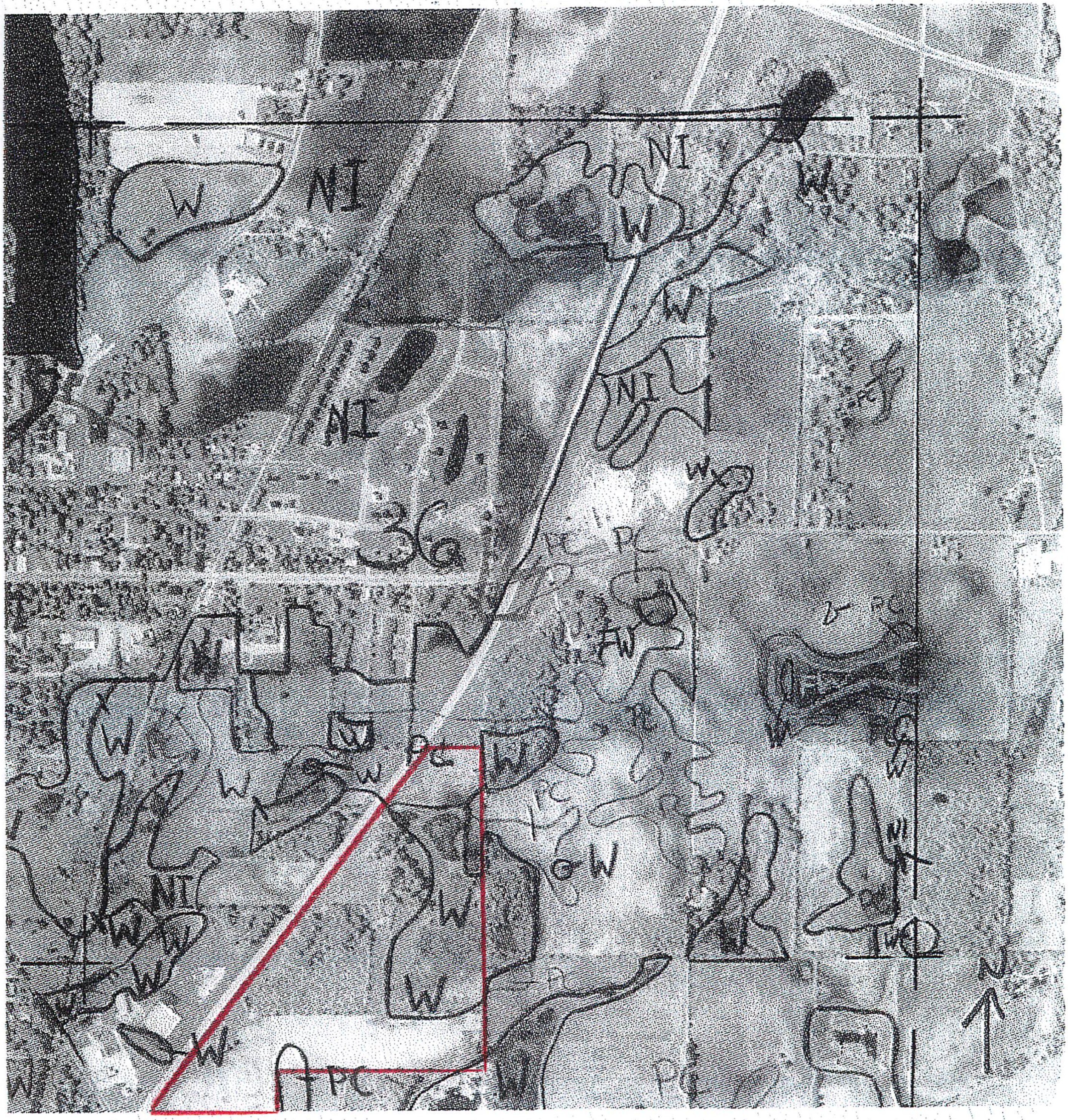
Feature	Color	Manipulation (year of installation)	Other
1 = water	6a = dark green	7a = ditched	write explanation
2 = mud flat	6b = light green	7b = tiled	
3 = bare spot	6c = yellow	7c = filled	
4 = drowned crop	6d = brown	7d = tree/brush removal	
5 = planted late	6e = black	8 = plowed/tilled	

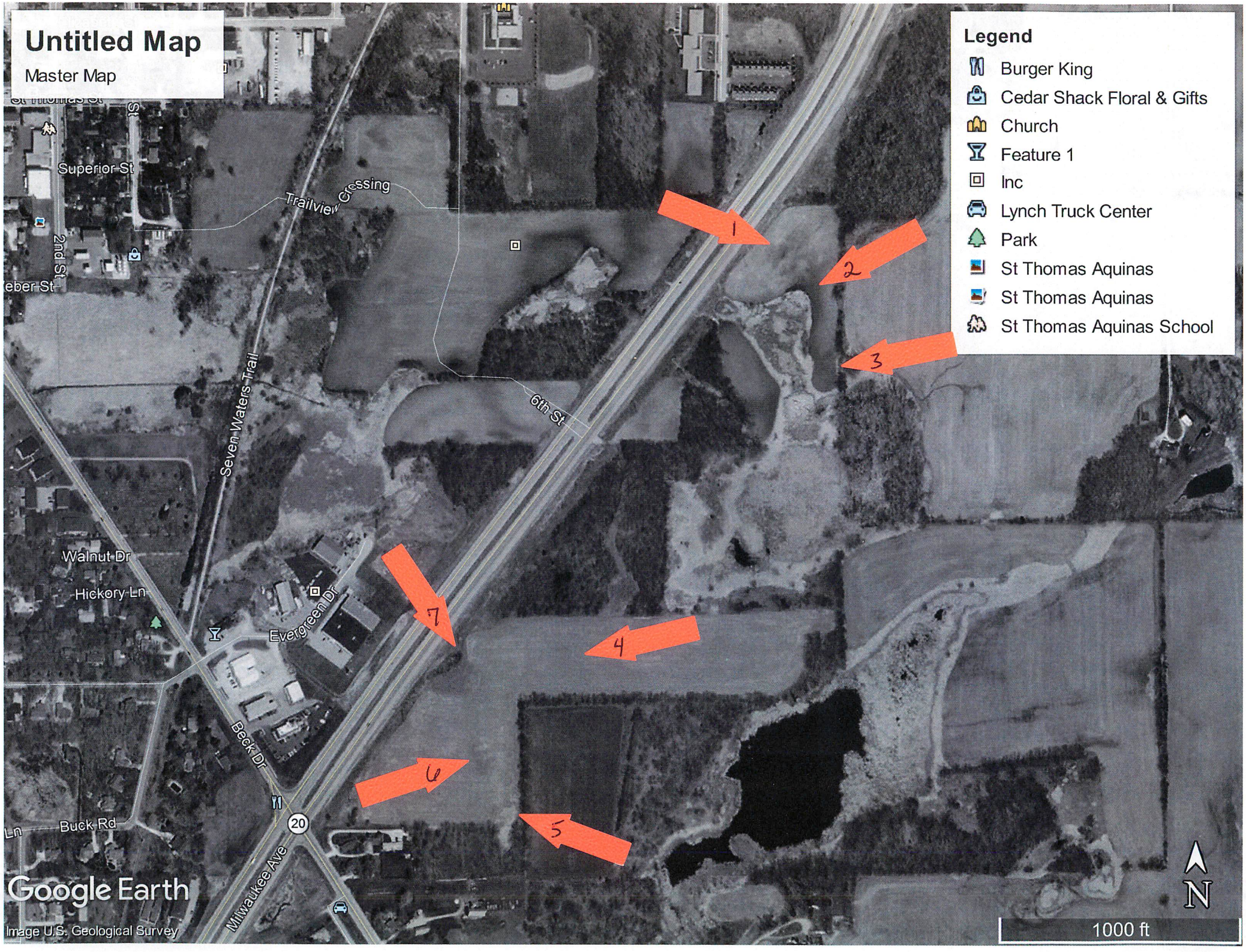
Does slide/air photo data indicate the site is a wetland? 0Yes 0No

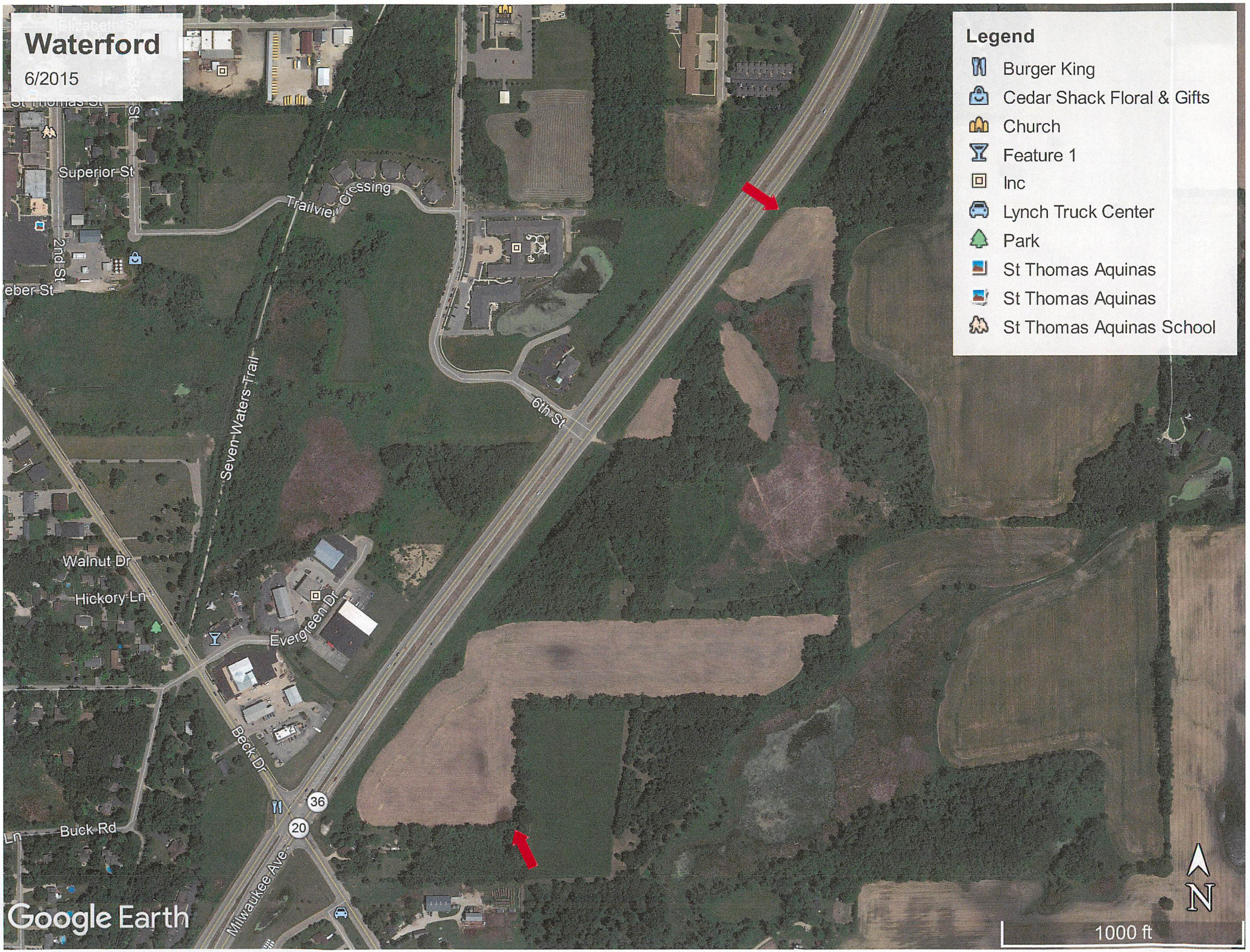
# years out of # years observed have wet (Y) signatures	
2 / 10	For Area 1
7 / 10	For Area 2
10 / 10	For Area 3
3 / 10	For Area 4
8 / 10	For Area 5
4 / 10	For Area 6
3 / 10	For Area 7

Waterford S. 36

DRAFT - Subject To Change
WETLAND DELINEATIONS ARE FOR
FOOD SECURITY ACT PURPOSES ONLY




Untitled Map
Master Map
Legend
Burger King
Cedar Shack Floral & Gifts
Church
Feature 1
Inc
Lynch Truck Center
Park
St Thomas Aquinas
St Thomas Aquinas
St Thomas Aquinas School
Superior St
Trailview Crossing
2nd St
Seven Waters Trail
6th St
Walnut Dr
Hickory Ln
Evergreen Dr
Beck Dr
Buck Rd
Milwaukee Ave
20
1
2
3
4
5
6
7
Google Earth
Image U.S. Geological Survey
N
1000 ft


Waterford
6/2015
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Cedar Shack Floral & Gifts
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Feature 1
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Lynch Truck Center
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St Thomas Aquinas
St Thomas Aquinas
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Seven Waters Trail
6th St
Walnut Dr
Hickory Ln
Evergreen Dr
Beck Dr
36
20
Buck Rd
Milwaukee Ave
Google Earth
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1000 ft


Waterford
4/2014
Legend
Burger King
Cedar Shack Floral & Gifts
Church
Feature 1
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Lynch Truck Center
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St Thomas Aquinas
St Thomas Aquinas School
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Evergreen Dr
Beck Dr
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Buck Rd
Milwaukee Ave
Google Earth
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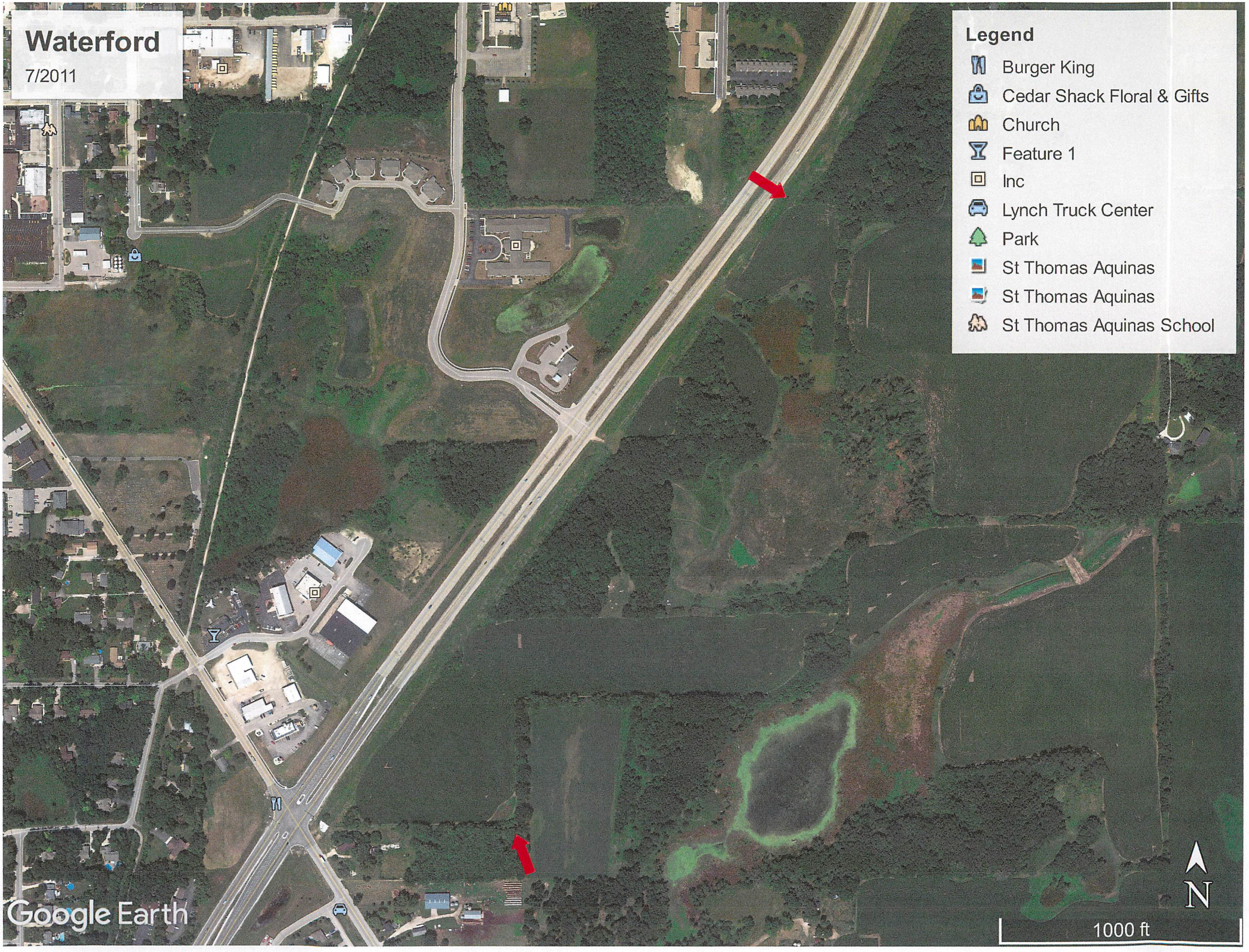
Waterford
7/2011
Legend
Burger King
Cedar Shack Floral & Gifts
Church
Feature 1
Inc
Lynch Truck Center
Park
St Thomas Aquinas
St Thomas Aquinas
St Thomas Aquinas School
Google Earth
N
1000 ft


Waterford
5/2010
Legend
Burger King
Cedar Shack Floral & Gifts
Church
Feature 1
Inc
Lynch Truck Center
Park
St Thomas Aquinas
St Thomas Aquinas
St Thomas Aquinas School
Elizabeth St
Superior St
Trailview Crossing
2nd St
Seven Waters Trail
6th St
Walnut Dr
Hickory Ln
Evergreen Dr
Beck Dr
Buck Rd
Milwaukee Ave
20
Google Earth
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Waterford
9/2008
Legend
Burger King
Cedar Shack Floral & Gifts
Church
Feature 1
Inc
Lynch Truck Center
Park
St Thomas Aquinas
St Thomas Aquinas
St Thomas Aquinas School
Elizabeth St
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6th St
Walnut Dr
Hickory Ln
Evergreen Dr
Beck Dr
Buck Rd
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Milwaukee Ave
Google Earth
Image USDA Farm Service Agency
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1000 ft


Waterford
10/2007
Legend
Burger King
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Feature 1
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Lynch Truck Center
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Waterford
9/2006
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Waterford
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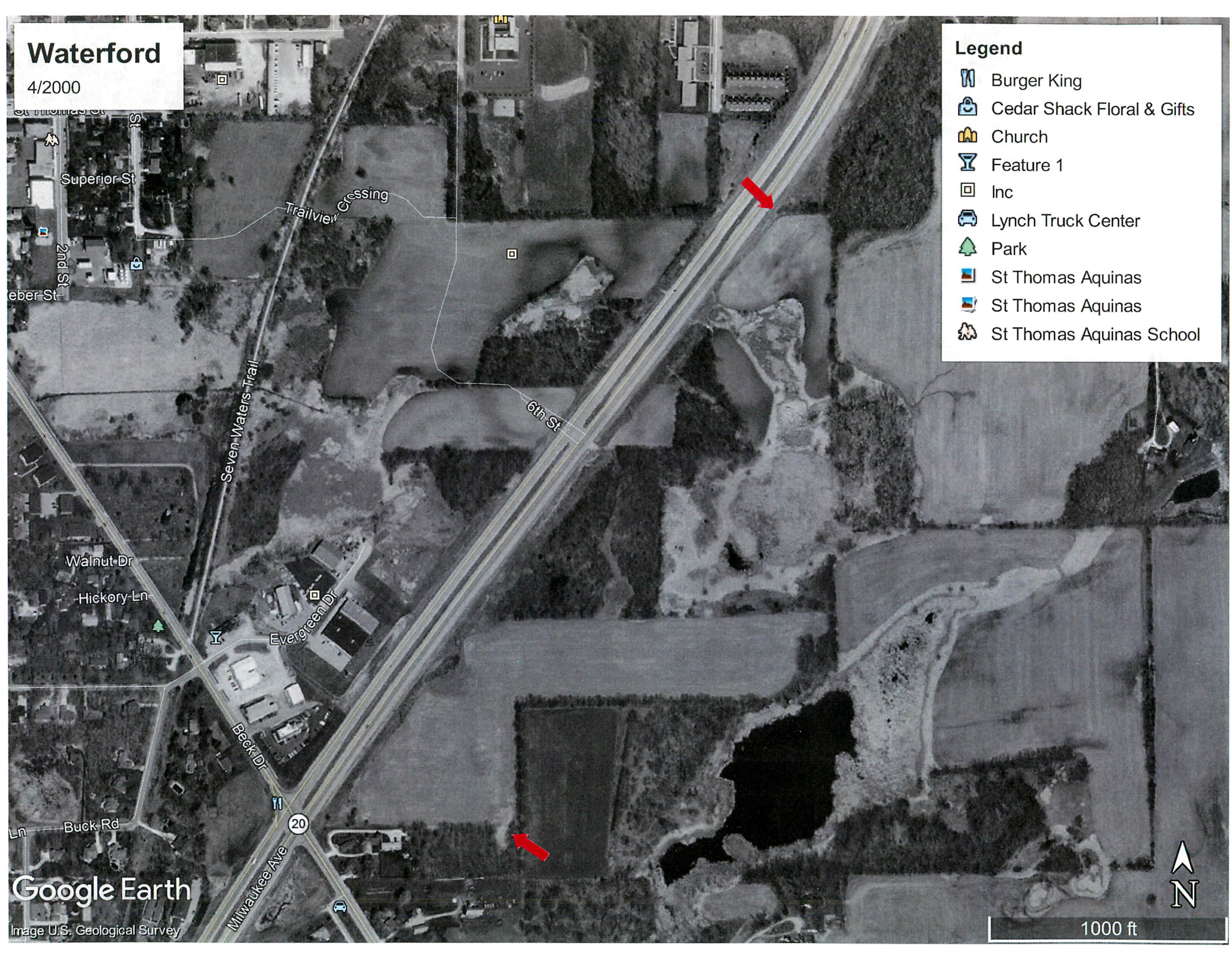
Waterford
4/2000
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Church
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Beck Dr
Buck Rd
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Milwaukee Ave
Google Earth
Image U.S. Geological Survey
N
1000 ft

LITERATURE CITED

Curtis, John. 1971. The Vegetation of Wisconsin. University of Wisconsin Press, Madison, Wisconsin. 173 pp.

Eggers, Steve and Donald Reed. 2011. Wetland Plants and Plant Communities of Minnesota and Wisconsin – 3rd Edition. St. Paul District, U.S. Army Corps of Engineers, St. Paul, MN 478 pp.

Peterson, Roger and Margaret McKenny. 1968. A Field Guide to Wildflowers of Northeastern and Northcentral North America. Houghton Mifflin Company, Boston, Mass. 420 pp.

Swink, Floyd and Gerould Wilhelm. 1994. Plants of the Chicago Region. The Morton Arboretum, Lisle, Illinois. 921 pp.

WETLAND DELINEATION CONFIRMATION REQUEST CHECKLIST

✓ Introductory Section

- Why the delineation was undertaken
- Date the field work was completed
- Who conducted the fieldwork
- Qualifications

✓ Methods used during the wetland delineation

- Description of methods
- Sources Reviewed (WWI mapping, Soil Survey, etc.)
- Description of any site specific agency guidance (site meetings, etc.)

✓ Results and Discussion

- Antecedent hydrologic condition analysis
- Previous wetland delineation mapping
- Existing environmental mapping (WWI mapping, Soil Survey, etc.)
- Amount and types of wetland located within the project area
- Discussion explaining how the wetland/upland boundary was differentiated
- Disturbed and problematic areas encountered during the delineation
- Other water resources located in the project area (navigable streams, etc.)

✓ Topographic mapping

✓ WWI mapping

✓ Soil survey mapping

✓ Wetland Delineation map

✓ Data Forms

✓ Site Photos

N/A Previous delineation information

✓ FSA Slide Review

✓ Literature Cited

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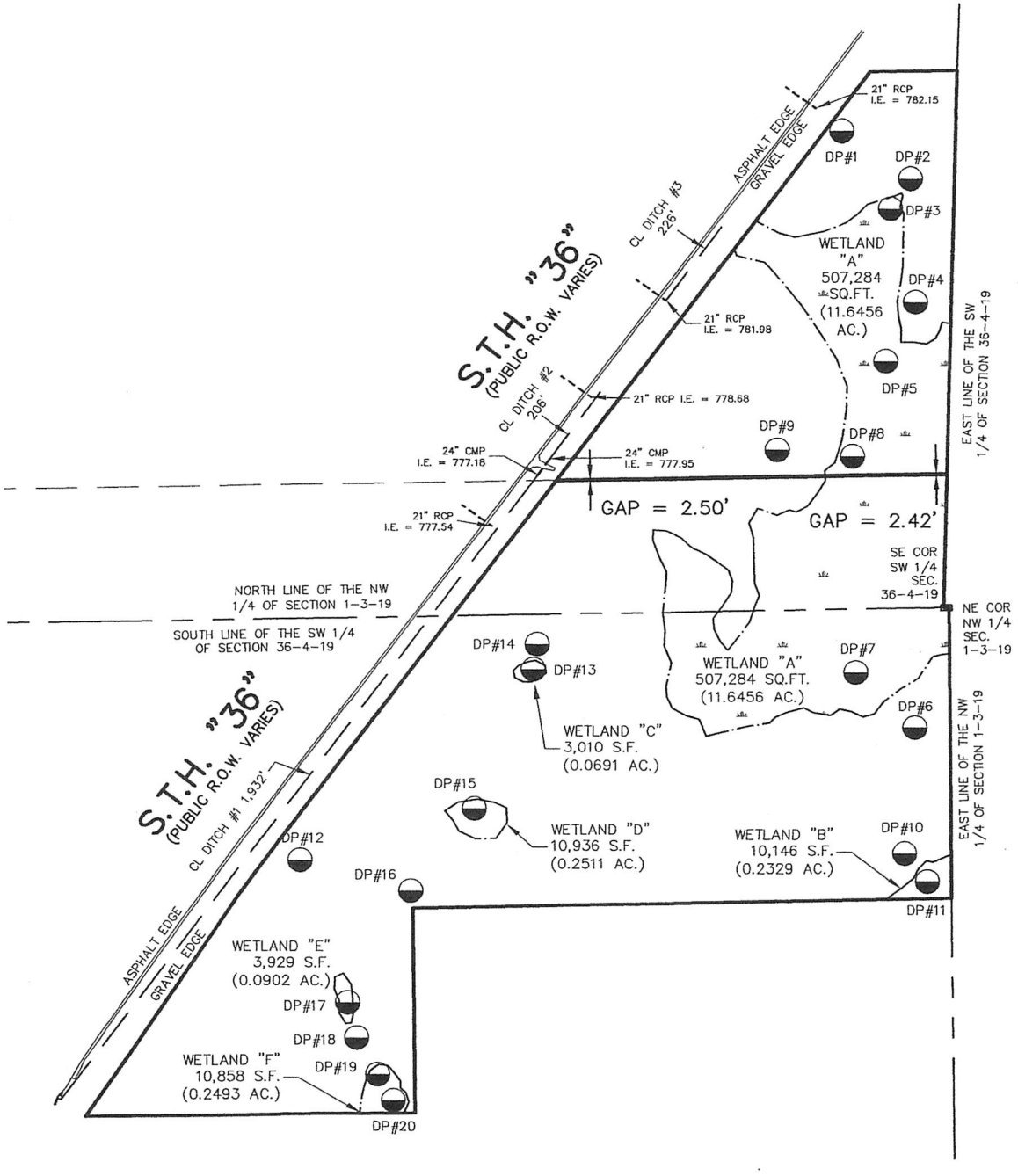

GRAPHIC SCALE

400 0 200 400

1 inch = 400ft.