



SOIL & WATER TESTING SERVICES, LLC.

**WETLAND DETERMINATION &
DELINEATION REPORT**

**TOWN OF GRAND CHUTE
PROPERTY**

**Township of Grand Chute
Outagamie County**

August 24, 2016



SOIL & WATER TESTING SERVICES, LLC.

August 24, 2016

Nick Domer, Sr. Project Manager
SE Section - St. Paul District
U.S. Army Corps of Engineers
211 North Broadway Street, Suite 211
Green Bay, WI 54303

RE: Wetland Determination & Delineation for the Town of Grand Chute Property
Township of Grand Chute, Outagamie County

Dear Nick,

On behalf of the Town of Grand Chute, please find enclosed a Wetland Determination & Delineation Report for the Town of Grand Chute Property. I am requesting on behalf of the Town of Grand Chute that the U.S. Army Corps of Engineers provide concurrence for the wetlands observed within the Area of Interest. If you have any questions or comments regarding this report or work performed, please call me at 920-779-0000 or 920-470-5313.

Respectfully submitted,

Bates Soil & Water Testing Services, LLC

Brian D. Bates, PSS, CST
WDNR Professionally Assured Wetland Delineator



cc: Tom Nedland, WDNR
Mikhel Patza, Town of Grand Chute

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QUALIFICATIONS

Bates Soil & Water Testing Services, LLC was founded in 1996 by Brian Bates. Mr. Bates consults on multiple disciplines associated with the soils and waters of Wisconsin. Mr. Bates has over 18 years of wetland experience in the Northeast/Northcentral and Midwest Regions. Wetland related services include wetland determinations and delineations, wetland hydrology monitoring, wetland restoration, wetland restoration monitoring and invasive plant control.

Mr. Bates holds a Bachelor of Science Degree in Soil Science and a Master of Science Degree in Natural Resources - Hydrogeology emphasis, from the University of Wisconsin-Stevens Point. Mr. Bates is a Licensed Professional Soil Scientist, Hydrogeologist, Certified Soil Tester and a WDNR Professionally Assured Wetland Delineator. In 1991, Mr. Bates was recognized as one of the "Top Ten" Soil Profile Evaluators in the nation, recognized at a collegiate level, National Soil Judging Competition in California. Mr. Bates is also a member of the Wisconsin Society of Professional Soil Scientists. Additional continuing education training completed by Mr. Bates relating to wetland science include:

- ✓ *Basic Wetland Delineation course offered by the Wisconsin Department of Administration, Coastal Management Program (1998)*
- ✓ *Training Workshop for Consultants: Understanding Wisconsin's Wetland Compensatory Mitigation Rules and Guidelines (2003)*
- ✓ *Advanced Wetland Delineation Training Workshop offered by the University of Wisconsin-La Crosse (2010)*
- ✓ *Critical Methods in Wetland Delineation seminar offered by the Wisconsin Department of Natural Resources (2010, 2013, 2014, 2015).*
- ✓ *Vegetation of Wisconsin Course offered by the University of Wisconsin-Milwaukee Field Station (2016)*

INTRODUCTION

On June 23 & 27, 2016 a Wetland Determination & Delineation was performed by Brian Bates and Tom Neitzel of Bates Soil & Water Testing Services, LLC. The Town of Grand Chute ordered the Wetland Determination & Delineation to determine the wetland status of the Area of Interest (AOI) for proposed development. Mr. Bates was the lead investigator for the field investigation and is the principal author of this report. The weather was sunny and warm, (+/- 80° Fahrenheit).

The AOI is 43.78 acres in size. The AOI consists of fallow field areas, mowed lawn areas, multiple structures and asphalt road, trail and parking lot areas. The AOI is located within the NE ¼ of the SE ¼ and the SW ¼ of the SE ¼, Section 9, T21N, R17E, Township of Grand Chute, Outagamie County. All detailed latitude, longitude and site datum coordinates for the investigation were obtained by McMahon, Neenah, Wisconsin. Detailed numerical coordinates are not provided on the Wetland Determination Data Forms but can be obtained from McMahon, if desired.

METHODOLOGY

Investigation Review

Prior to beginning the field evaluation of the AOI, the following on-site or off-site reference reviews were conducted:

- Preliminary Field Reconnaissance
- NRCS Hydric Soil List
- Wisconsin Department of Natural Resources Wetland Inventory Map
- U.S. Fish & Wildlife Service National Wetland Inventory Map
- County Soil Survey Manual
- NRCS Web Soil Survey

The reviewed resources provided information on whether wetlands have been previously identified within the AOI or have a higher probability of wetlands occurring. Wetland area or areas with wetland potential within the AOI were then field investigated to make on-site determinations and where necessary, complete delineations of the uppermost wetland boundary.

The approximate boundaries of the Northcentral and Northeast Region and Midwest Region were reviewed prior to completing off-site data reviews and the field investigation. Based on map examination and project location, the Wetland Determination was completed using the criteria and methods outlined in the documents below. These documents use a three-criterion investigation method which examine for indicators of hydrophytic vegetation, hydric soils and wetland hydrology.

- ✓ *Basic Guide to Wisconsin's Wetlands and Their Boundaries (1995)*
- ✓ *Corps of Engineers Wetland Delineation Manual (1987)*
- ✓ *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region Version 2.0 (2012)*

Vegetation

Indicator Status of vegetation identified was based on the State of Wisconsin 2016 Wetland Plant List: (http://rsgisias.crrel.usace.army.mil/nwpl_static/data/DOC/lists/2016/States/pdf/WI_2016v1.pdf). Vegetation was evaluated using the Quadrant Sampling Method, which consisted of a 5' radius for the Herbaceous Layer, a 15' radius for the Sapling/Shrub Layer and a 30' radius for the Tree and Vine Layer. Vegetation abundance was based on the measurement of Percent Areal (Absolute) Cover. Vegetation observed during the investigation was identified to the Species Level and documented on the Northcentral and Northeast Region Wetland Determination Data Forms. The Rapid Test, "50/20" rule and/or Prevalence Index was used for determining major vegetation dominance unless problematic vegetation was observed. At least 80% of the areal cover was identified and documented, if observed.

Hydrology

Hydrology is the most variable of all three criteria and is the source for all wetlands. It is highly influenced by short and long-term precipitation, soil properties and the drainage catena of the small watersheds typically evaluated. Hydrology follows three pathways from the time it drops onto the soil surface to the time it becomes groundwater or stream flow. The first pathway is overland flow, where water flows on the soil surface. The second pathway is through flow, which is lateral flow through the soilscape, generally parallel to the soil surface. The final flow path is groundwater flow, which is generally deep (except in most wetland areas), saturated, subsurface flow.

The Wisconsin Wetland Inventory Map (WWI), the U.S. Fish & Wildlife Service National Wetland Map (NWI), the United States Geological Survey (USGS) topographic map and FSA Slide reviews all provide information concerning wetland potential.

Unlike soils or vegetation, hydrology indicators are not always associated with a specific sample point or area. The time of year or year evaluated often determines if direct observations of inundation or saturation can be made. If a hydrology indicator is found near a sampling point, in an area that has similar landscape position, vegetation and soils, any evidence of hydrology will be noted on the Wetland Determination Data Forms.

Verification of Hydrology for this study was based on the 18 Primary or 11 Secondary hydrology indicators listed on the Northcentral and Northeast Region Wetland Determination Data Form, unless additional indicators from other regional supplements were determined to be applicable with appropriate documentation.

Soils

Soil morphology, the field observable attributes of the soil in various horizons or arrangements, based on vertical exposure at each sampling point to a minimum depth of 24" below grade (unless otherwise noted), were documented on the Northcentral and Northeast Region Wetland Determination Data Forms.

Soil profiles were evaluated through the construction of backhoe pits (unless otherwise noted on the data sheets). Backhoe pits are the preferred method of soil evaluation since they provide a clear picture of the soil profile over a large area, unlike small auger holes, push probes or hand dug holes. The use of a backhoe is the only option for deeply filled sites that contain large coarse fragments such as concrete, blacktop or bricks or sites that naturally contain large coarse fragments such as cobbles and boulders.

Each soil profile was compared to the Field Indicators of Hydric Soils in the United States - A guide for Identifying and Delineating Hydric Soils, Version 7, 2010 and the July 2011, March 2013 and March 2015 supplemental revisions. The Hue, Value and Chroma color patterns of the soil horizons, sub-horizons or redoximorphic features were evaluated and documented with the use of Munsell Soil Color Charts.

Many soils in northeastern Wisconsin are composed of red parent material soils. Red parent material soils are found in Wisconsin near Lake Superior and in the valley of the Fox River and surrounding areas near Lake Michigan. These soils were deposited by the Green Bay Lobe of glacial ice. The Green Bay Lobe dredged out the bay of Green Bay, formed Lake Winnebago, the Horicon Marsh and hills around Madison.

If Non-Problematic Hydric Soil Indicators are absent and indicators of hydrophytic vegetation and wetland hydrology are present (or are absent due to disturbance or other problem situations), the Problematic F21 Hydric Soil Indicator will be considered, as well as all other Problematic Hydric Soil Indicators within the Northcentral and Northeast Region. The F21 Hydric Soil Indicator is primarily used in the Northcentral and Northeast Region for problematic Red Parent Material Soils.

INVESTIGATION DISCUSSION

Wetland Determinations and Delineations should be conducted during the growing season. It is important to conduct the work during the growing season in order to positively identify vegetation and so that some primary hydrology indicators can be properly applied. The Regional Supplements provide a field observation-based approach for determining the growing season. This approach uses the biological growth of non-evergreen plants as an indicator to the beginning or end of the growing season. The growing season can also be determined by measuring soil temperature, if required. The start of the growing season can also be approximated by evaluating the first and last 28^o Fahrenheit day on County-Specific Wetness Evaluation (WETS) Tables (Appendix A). This determination was conducted during the growing season based on "green up" and the WETS Table Probability of 70% that it occurs between April 17 and October 26.

Since wetland hydrology is seasonal and affected by short and long-term changes in meteorological conditions, it may not always be possible to observe hydrology indicators such as surface water, saturation, high water table or a dry-season water table. For any wetland analysis, the lack of primary or secondary hydrology indicators of hydrology will not be considered evidence for a lack of hydrology, especially in disturbed agricultural lands. Wetland Hydrology will not be considered absent (under most conditions) if the AOI has hydric soils or hydrophytic vegetation or in some agricultural areas, only hydric soils. In some instances, hydric soils are the only feasible means of identifying wetlands.

United States Department of Agriculture (USDA) Farm Service Agency (FSA) slides should be reviewed for wetland signatures if the AOI has experienced agricultural activities within three years of the wetland evaluation. USDA-FSA slides are helpful for evaluating soil saturation signatures such as standing water, drowned out crops or evidence of stunted or stressed crops. USDA-FSA slides are also beneficial for evaluating the timing of historical disturbances that may have changed wetland hydrology.

WETLAND DELINEATION SPECIFICS

Hydrology

Field observations of hydrology and conclusions regarding hydrology must also consider antecedent precipitation. Generally speaking, an evaluation of antecedent precipitation is an evaluation of the amount of soil water or groundwater in storage, over time. To assess antecedent precipitation, the Natural Resources Conservation Service (NRCS) method of comparing local precipitation data to the local Wetness Evaluation Station was evaluated. For this study, precipitation data from the National Climatic Service in Green Bay, Wisconsin (nearest climatic center) was compared to the nearest Wetness Evaluation Station (WETS) in Appleton, Wisconsin (WI0265). Archived Climatic Data can be found at: <http://www.nws.noaa.gov/climate/index.php?wfo=mxk>.

	Palmer Drought Severity Index	WETS 3 years in 10 less than	Normal	WETS 3 years in 10 more than	*2016 Rainfall	Condition Dry, Wet, Normal	Condition Value	Month Weight Value	Product of Previous 2 Columns
MARCH	+3.00 to +3.99 Very Moist	1.12"	2.05"	2.49"	4.05"	Wet	3	3	9
APRIL	+2.00 to + 2.99 Mod. Moist	2.02"	2.84"	3.35"	1.29"	Dry	1	2	2
MAY	+2.00 to + 2.99 Mod. Moist	1.84"	3.10"	3.76"	3.36"	Normal	2	1	2
									Sum 13

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

Condition Value:
 Dry = 1
 Normal = 2
 Wet = 3

The NRCS Wetness Evaluation (WETS) Table provides the record of the 1971-2000 period of observation (Appendix A). This table is useful for comparing recent precipitation to relative normal precipitation. Precipitation levels were Wet for the month of March, Dry for April and Normal for the month of May. According to the Palmer Drought Severity Index, conditions were Very Moist for March and Moderately Moist for April and May. Based on the NRCS Antecedent Hydrologic Condition Evaluation Method, climatic conditions were normal during this investigation and primary indicators of hydrology were expected to be observed if wetland conditions were present.

Soils

Soil types in the AOI were preliminarily evaluated by researching the County Soil Survey, NRCS Web Soil Survey Hydric Soil List and the WDNR Wetland Inventory Map. The following soil types and associated classifications exist within the evaluated areas of the AOI:

Soil Name	Map Symbol	Family or Higher Taxonomic Class	Drainage Class	Hydric per County	Wetland Indicator Soil Per WDNR
Grays Silt Loam	GrB	Fine-silty, mixed, mesic Mollic Hapludalfs	Well Drained	No	No
Nichols Very Fine Sandy Loam	NfB	Coarse-silty, mixed, frigid Typic Eutrochrepts	Moderately Well Drained	No	No
Shawano Find Sand	SeC	Mixed, frigid Typic Udipsamments	Excessively Drained	No	No
Shiocton Silt Loam	ShA	Coarse-silty, mixed Aquic Haploforolls	Somewhat Poorly Drained	No, but may have inclusions	Yes

NRCS Web Soil Survey: (<http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>)

Wisconsin Wetland Inventory (<http://dnrm.wisconsin.gov/imf/imf.jsp?site=SurfaceWaterViewer.wetlands>)

WETLAND DETERMINATION DISCUSSION

The AOI is 43.78 acres in size and consists of fallow field areas, mowed lawn areas, multiple structures and asphalt road, trail and parking lot areas. Multiple areas within the AOI were filled in 2000 based on Outagamie County Aerial Imagery.

Wetlands were not identified within the AOI on the Wisconsin Wetland Inventory Map or the National Wetland Inventory Map. However, based on the Wisconsin Wetland Inventory Map, wetland indicator soils exist within most of the AOI. Based on the National Wetland Inventory Map, Fresh Water Emergent Wetlands may exist in the northwestern portion of the AOI, as illustrated by Fresh Water Emergent spot symbol mapping. The AOI has not been farmed within the last three years so an FSA Slide Review was not conducted.

The sampling point locations for the investigation were chosen based on the review of mapping resources or observed changes in topography and vegetation. Multiple sampling points were evaluated throughout the AOI. Eight wetland areas were identified within the AOI. The sampling point locations within the AOI are illustrated on Figure 1. Photographs of the AOI and sampling points are provided in Appendix A. The sampling points were marked with numbered, hard wood stakes. The United States Army Corps of Engineers (USACOE) Wetland Determination Data Form for the Northcentral and Northeast Region was completed for each sampling point (Appendix C).

Wetland A (15.1 acres): Hydrophytes dominating the wetland included *Phragmites australis*, *Salix interior*, *Phalaris arundinacea*, *Juncus tenuis*, *Equisetum arvense*, *Populus deltoides*, *Rhamnus cathartica*, *Typha angustifolia*, *Salix petiolaris*, *Solidago gigantea*, *Hordeum jubatum*, *Scirpus atrovirens*, *Acer negundo*, *Toxicodendron radicans*, *Cornus alba*, *Populus tremuloides*, *Apocynum cannabinum* and *Carex vulpinoidea*. Primary Indicators of Hydrology observed included Saturation, Surface Water, High Water Table and Water Stained Leaves. Secondary Indicators of Hydrology observed included Geomorphic Position and the FAC-N Test. The soils were determined to be hydric per the A11, A12, F3 and F6 Hydric Soil Indicators. The wetland can best be described as a combination of Fresh Water Emergent Wetland and Shallow Marsh Wetland.

Wetland B (0.08 acres): The wetland was dominated with *Phalaris arundinacea*. Only one Primary Indicator of Hydrology, Water Stained Leaves, was observed. Secondary Indicators of Hydrology observed included Geomorphic Position and the FAC-N Test. The soils were determined to be hydric per the F6 and F8 Hydric Soil Indicators. The wetland can best be described as a Fresh Water Emergent Wetland.

Wetland C (0.26 acres): The wetland was dominated with *Phalaris arundinacea*. Only one Primary Indicator of Hydrology, Water Stained Leaves, was observed. Secondary Indicators of Hydrology observed included Geomorphic Position and the FAC-N Test. The soils were determined to be hydric per the Problematic F21 Hydric Soil Indicator. The wetland can best be described as a Fresh Water Emergent Wetland.

Wetland D (0.33 acres): The wetland was dominated with *Phalaris arundinacea*. No Primary Indicators of Hydrology were observed. Secondary Indicators of Hydrology observed included Geomorphic Position and the FAC-N Test. The soils were determined to be hydric per the F6 Hydric Soil Indicator and the Problematic F21 Hydric Soil Indicator. The wetland can best be described as a Fresh Water Emergent Wetland.

Wetland E (0.05 acres): The wetland was not dominated with hydrophytes since the wetland is a managed plant community. Primary Indicators of Hydrology observed included Saturation and Oxidized Rhizospheres on Living Roots. Only one Secondary Indicator of Hydrology, Geomorphic Position, was observed. The soils were determined to be hydric per the F6 Hydric Soil Indicator. The wetland can best be described as a disturbed Fresh Water Emergent Wetland.

Wetland F (0.23 acres): The wetland was dominated with *Phalaris arundinacea*, *Juncus tenuis* and *Typha angustifolia*. Primary Indicators of Hydrology observed included Saturation and Water Stained Leaves. Secondary Indicators of Hydrology included Geomorphic Position and the FAC-N Test. The soils were determined to be hydric per the F6 Hydric Soil Indicator. The wetland can best be described as a combination of Fresh Water Emergent Wetland and Shallow Marsh Wetland.

Wetland G (1.41 acres): The wetland was dominated with *Phalaris arundinacea*, *Schoenoplectus tabernaemontani*, *Juncus canadensis* and *Phragmites australis*. Primary Indicators of Hydrology observed included Saturation and Water Stained Leaves. Secondary Indicators of Hydrology included Geomorphic Position and the FAC-N Test. The soils were determined to be hydric per the F6 Hydric Soil Indicator and the Problematic F21 Hydric Soil Indicator. The wetland can best be described as a Fresh Water Emergent Wetland.

Wetland H (0.24 acres): The wetland was dominated with *Cornus alba*, *Salix interior* and *Phragmites australis*. Primary Indicators of Hydrology were not observed. Secondary Indicators of Hydrology included Geomorphic Position and the FAC-N Test. The soils were determined to be hydric per the F6 and F8 Hydric Soil Indicators. The wetland can best be described as a Fresh Water Emergent Wetland.

CONCLUSIONS

On June 23 & 27, 2016 a Wetland Determination was performed for the AOI. The objective of the wetland investigation was to determine the wetland status of the AOI for proposed development. Eight wetlands were identified during this investigation. The purpose of this work is to provide the Town of Grand Chute, County, State and Federal Regulators crucial information for development planning and regulatory jurisdictional conclusions.

The sampling point locations illustrated on Figure 1 are accurate and precisely represent the work performed by Bates Soil & Water Testing Services, LLC. The sampling point stakes are "in place" and are available for review by the Wisconsin Department of Natural Resources (WDNR) and the U.S. Army Corps of Engineers (USACE), if desired.

Brian Bates, the lead delineator and author of this report, is a WDNR Professionally Assured Wetland Delineator (<http://dnr.wi.gov/topic/wetlands/assurance.html>) and concurrence from the WDNR is not necessary for waterway and wetland permits or shoreland/wetland zoning permits. However,

"Assurance does not change the need for or decisions about wetland fill permits. Assurance can't guarantee accuracy or relieve landowner responsibility in the event an error occurs and wetlands are filled. While it is unlikely for professional whose work is assured, inadvertent wetland fill that may result from errors must be remedied"
(<http://dnr.wi.gov/topic/wetlands/assurance.html>)

Still, the wetland conditions identified are an excellent assessment of current site conditions. Final wetland decisions always rest with the WDNR and USACE. Adjustments to wetland boundary lines are at times possible based on opinion differences, but highly unlikely. Bates Soil & Water Testing Services, LLC., will submit copies of the Wetland Determination Report to both agencies for review. If a jurisdictional determination is required from the USACE, a Request for Corps of Engineers Wetland Delineation Review form will need to be completed and submitted to the USACE. If permits are required for this project, construction authorization shall be obtained from all required regulatory agencies (Federal, State and County) prior to any regulatory concurrence expiring.

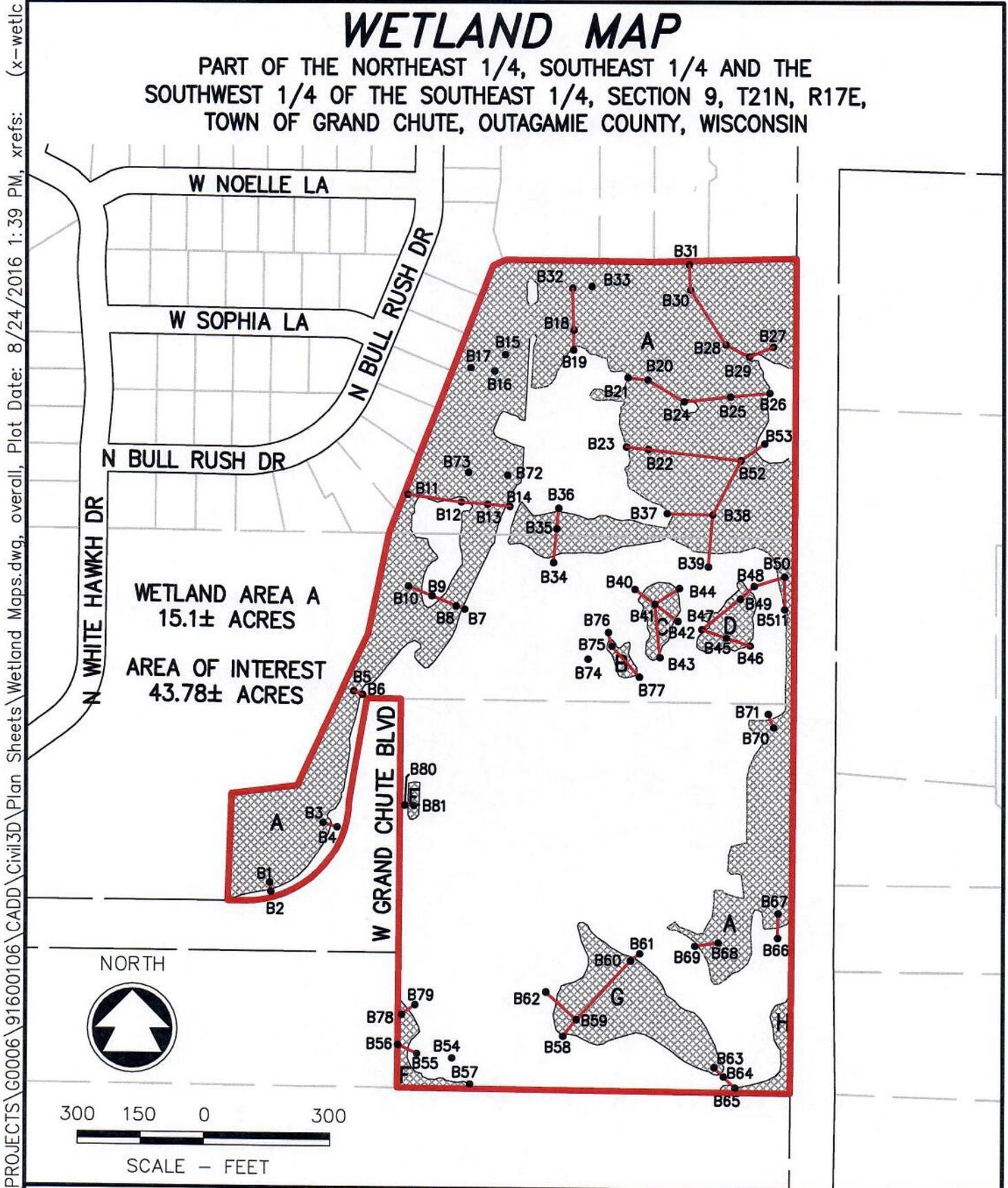
Property Owner & Contact Information:

Michael Patza, Town Planner
Town of Grand Chute
1900 West Grand Chute Boulevard
920-832-1599
Michael.Patza@grandchute.net

FIGURE 1 WETLAND & BORING LOCATION OVERVIEW MAP

WETLAND MAP

PART OF THE NORTHEAST 1/4, SOUTHEAST 1/4 AND THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4, SECTION 9, T21N, R17E, TOWN OF GRAND CHUTE, OUTAGAMIE COUNTY, WISCONSIN



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Tel: (920) 751-4200 Fax: (920) 751-4284

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FIGURE 2 WETLANDS AERIAL OVERVIEW MAP

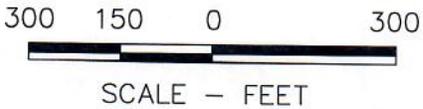


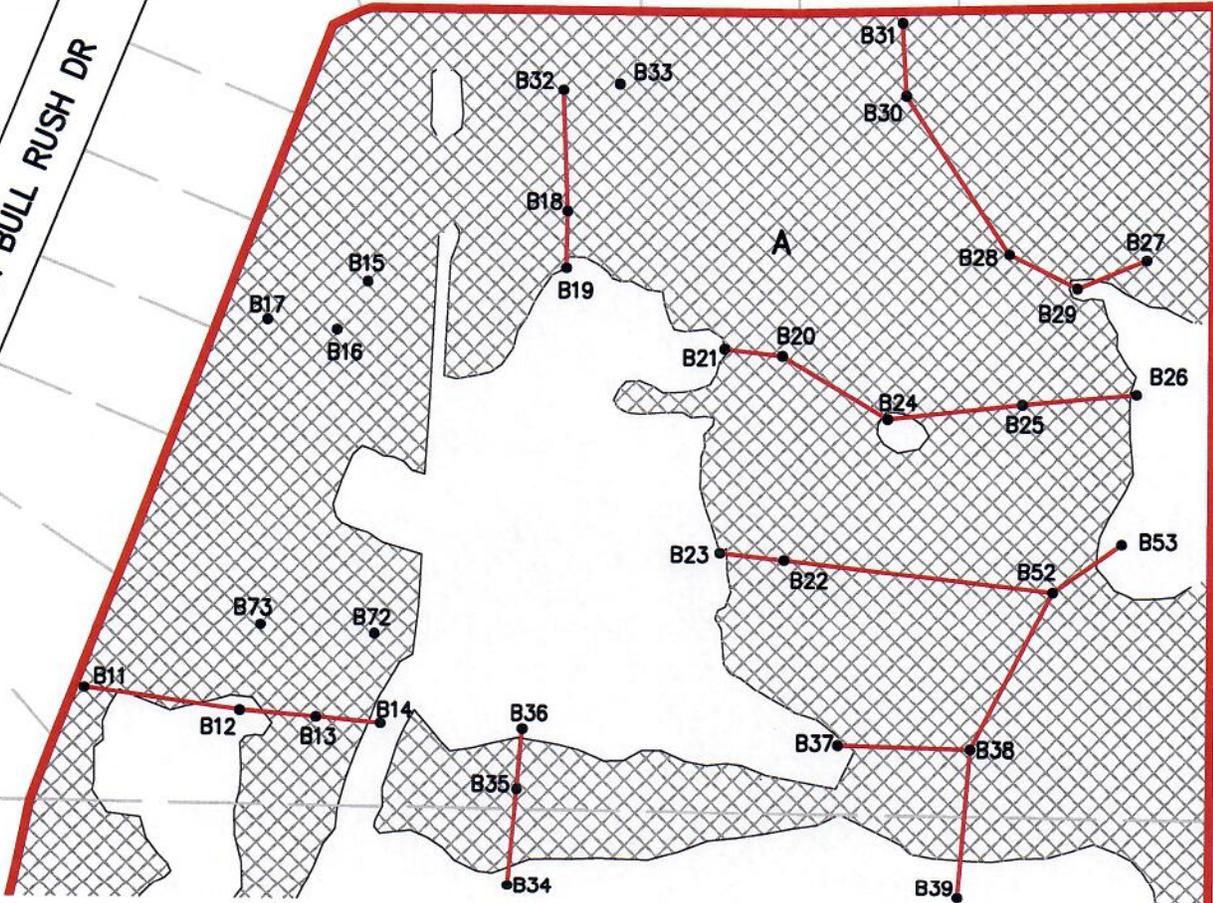
FIGURE 3 WETLAND MAP ENLARGED

WETLAND MAP

PART OF THE NORTHEAST 1/4, SOUTHEAST 1/4 AND THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4, SECTION 9, T21N, R17E, TOWN OF GRAND CHUTE, OUTAGAMIE COUNTY, WISCONSIN

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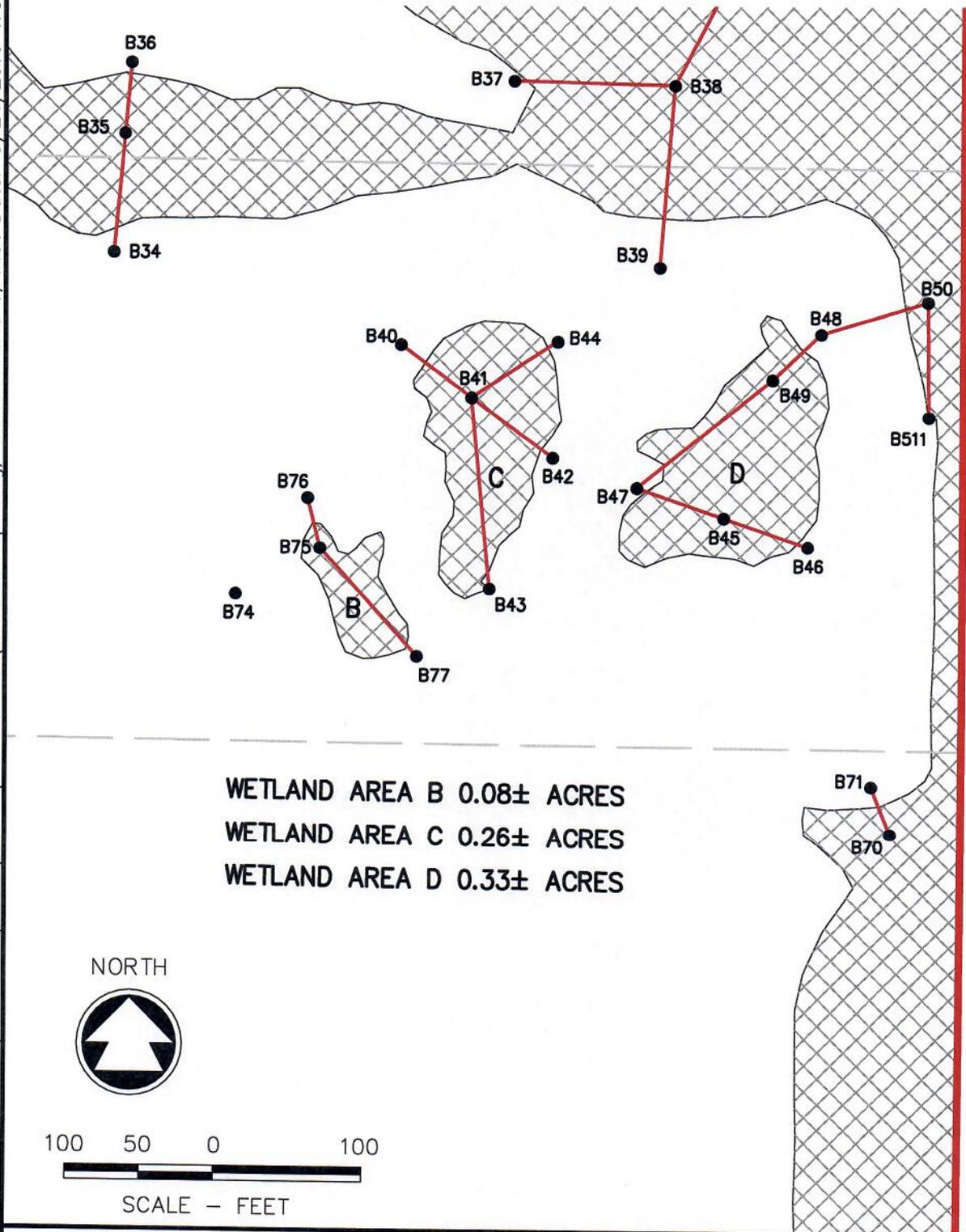
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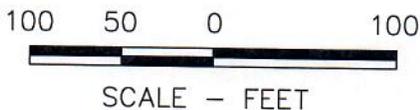
FIGURE 4 WETLAND MAP ENLARGED

WETLAND MAP

PART OF THE NORTHEAST 1/4, SOUTHEAST 1/4 AND THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4, SECTION 9, T21N, R17E, TOWN OF GRAND CHUTE, OUTAGAMIE COUNTY, WISCONSIN



WETLAND AREA B 0.08± ACRES
 WETLAND AREA C 0.26± ACRES
 WETLAND AREA D 0.33± ACRES



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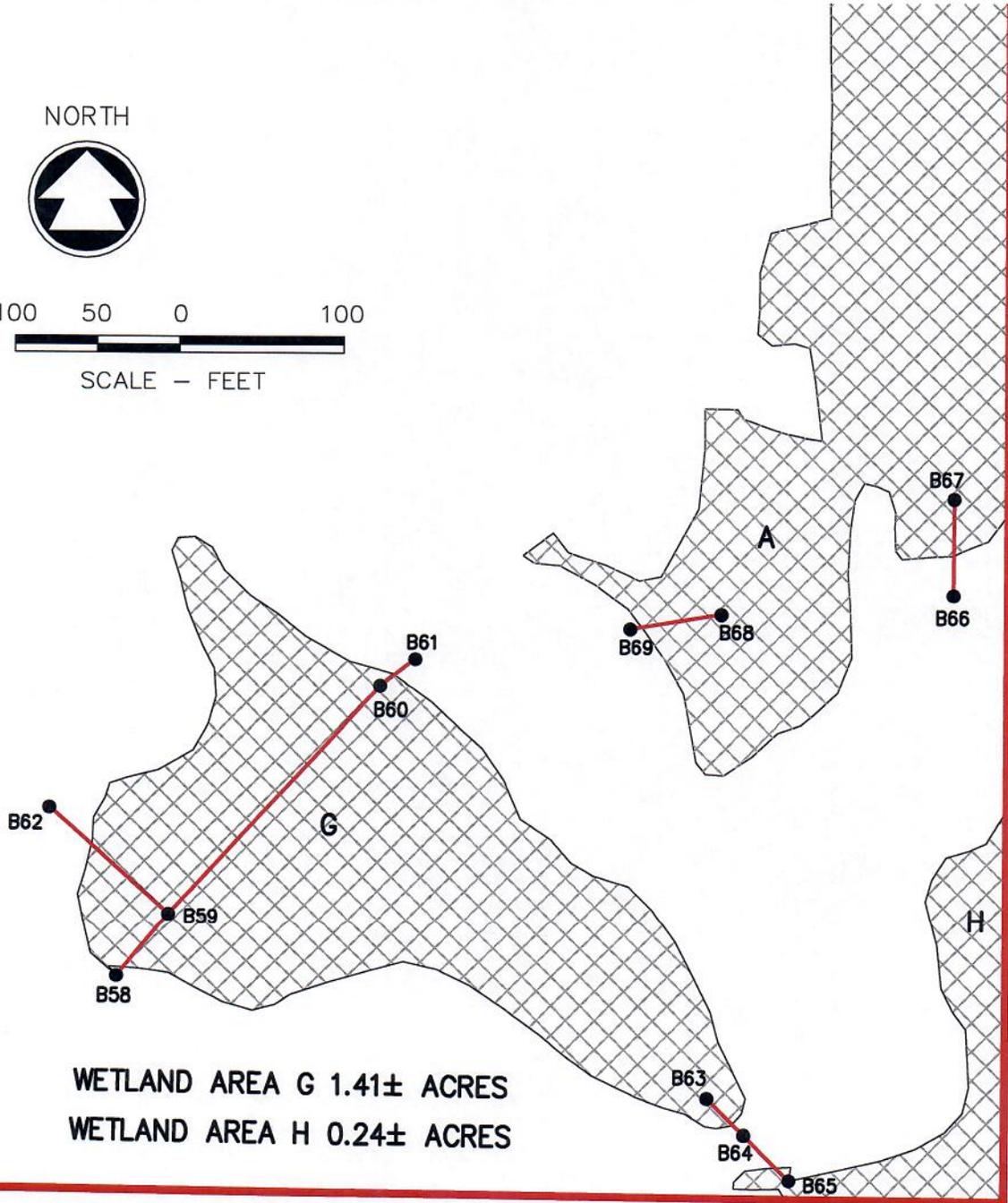
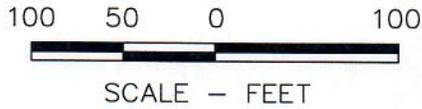
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FIGURE 5 WETLAND MAP ENLARGED

WETLAND MAP

PART OF THE NORTHEAST 1/4, SOUTHEAST 1/4 AND THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4, SECTION 9, T21N, R17E, TOWN OF GRAND CHUTE, OUTAGAMIE COUNTY, WISCONSIN



WETLAND AREA G 1.41± ACRES
WETLAND AREA H 0.24± ACRES

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File No.

FIGURE 6 WETLAND MAP ENLARGED

WETLAND MAP

PART OF THE NORTHEAST 1/4, SOUTHEAST 1/4 AND THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4, SECTION 9, T21N, R17E, TOWN OF GRAND CHUTE, OUTAGAMIE COUNTY, WISCONSIN

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W GRAND CHUTE BLVD



NORTH



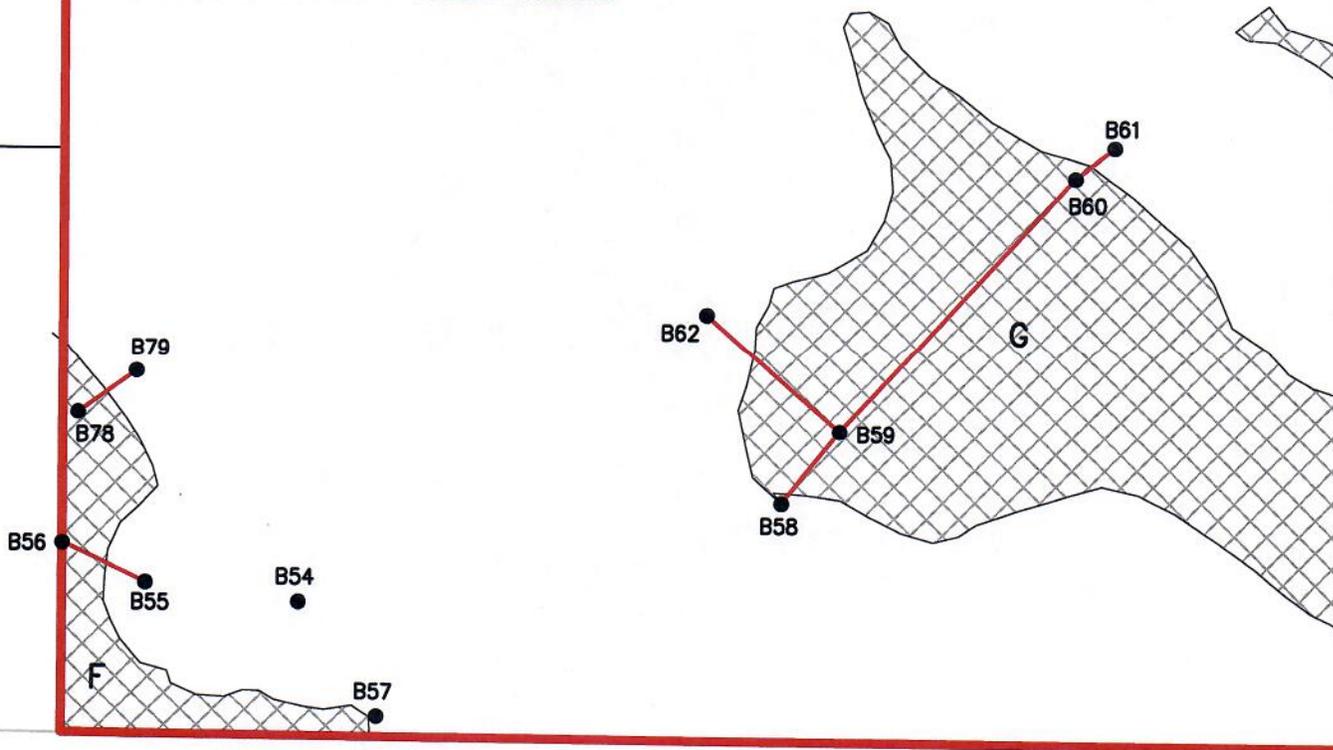
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SCALE - FEET

WETLAND AREA E 0.05± ACRES

WETLAND AREA F 0.23± ACRES



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Project No. G0006 9-16-00106 Date AUG., 2016 Scale 1"=300'

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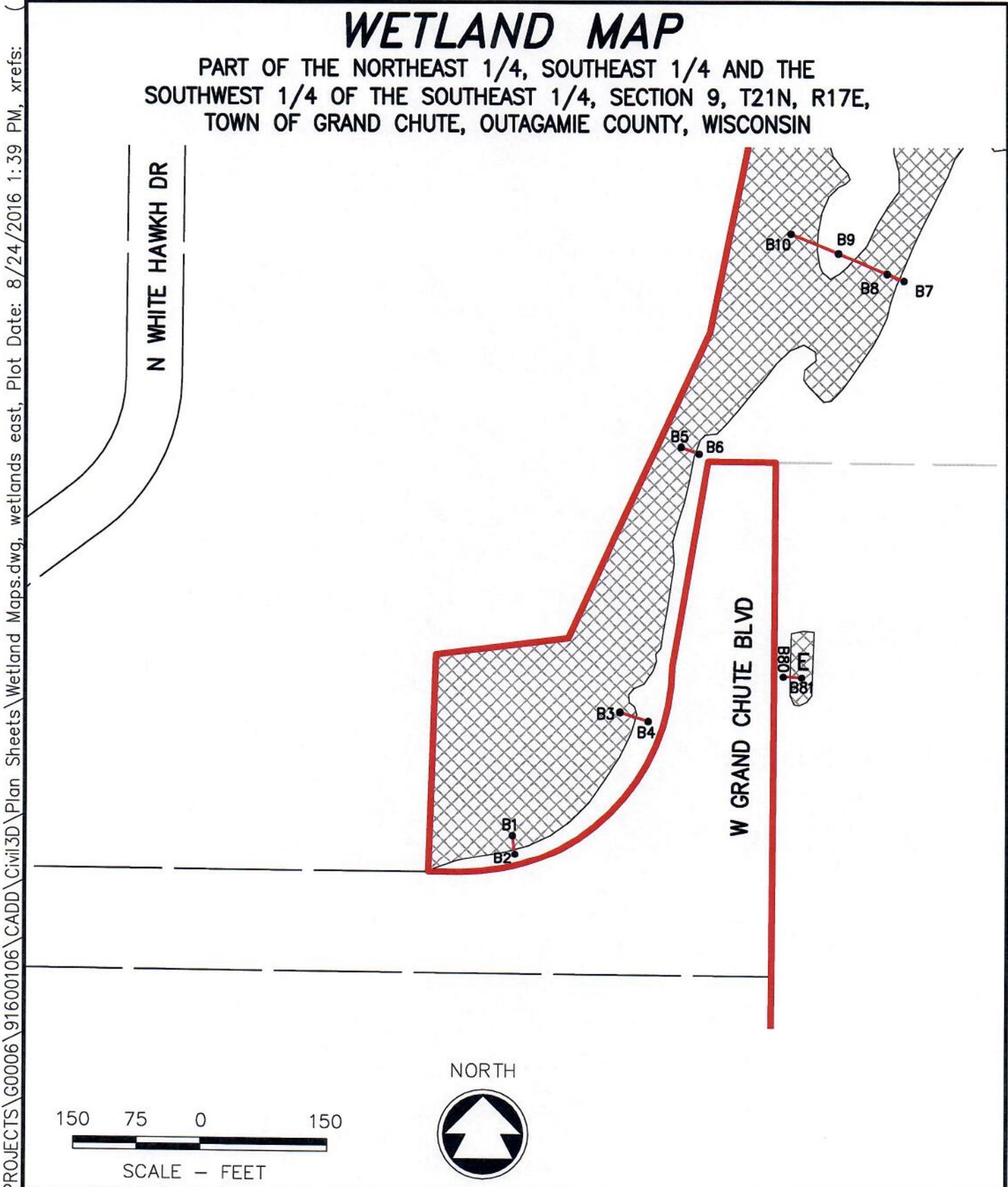
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FIGURE 7 WETLAND MAP ENLARGED

WETLAND MAP

PART OF THE NORTHEAST 1/4, SOUTHEAST 1/4 AND THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4, SECTION 9, T21N, R17E, TOWN OF GRAND CHUTE, OUTAGAMIE COUNTY, WISCONSIN



mabing, W:\PROJECTS\G0006\91600106\CADD\Civil3D\Plan Sheets\Wetland Maps.dwg, wetlands east, Plot Date: 8/24/2016 1:39 PM, xrefs:

McMAHON
ENGINEERS ARCHITECTS

Project No. G0006 9-16-00106 Date AUG., 2016 Scale 1"=300'
Drawn By MJA Field Book _____ Page _____
1445 McMAHON DRIVE NEENAH, WI 54956
Mailing: P.O. BOX 1025 NEENAH, WI 54957-1025
Tel: (920) 751-4200 Fax: (920) 751-4284

File No.

FIGURE 8 USGS TOPOGRAPHY MAP



U.S. DEPARTMENT OF THE INTERIOR
U. S. GEOLOGICAL SURVEY



SCALE 1:24 000

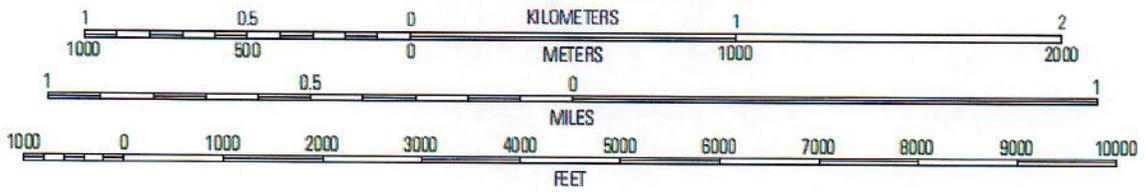


FIGURE 9 NATIONAL WETLANDS INVENTORY MAP

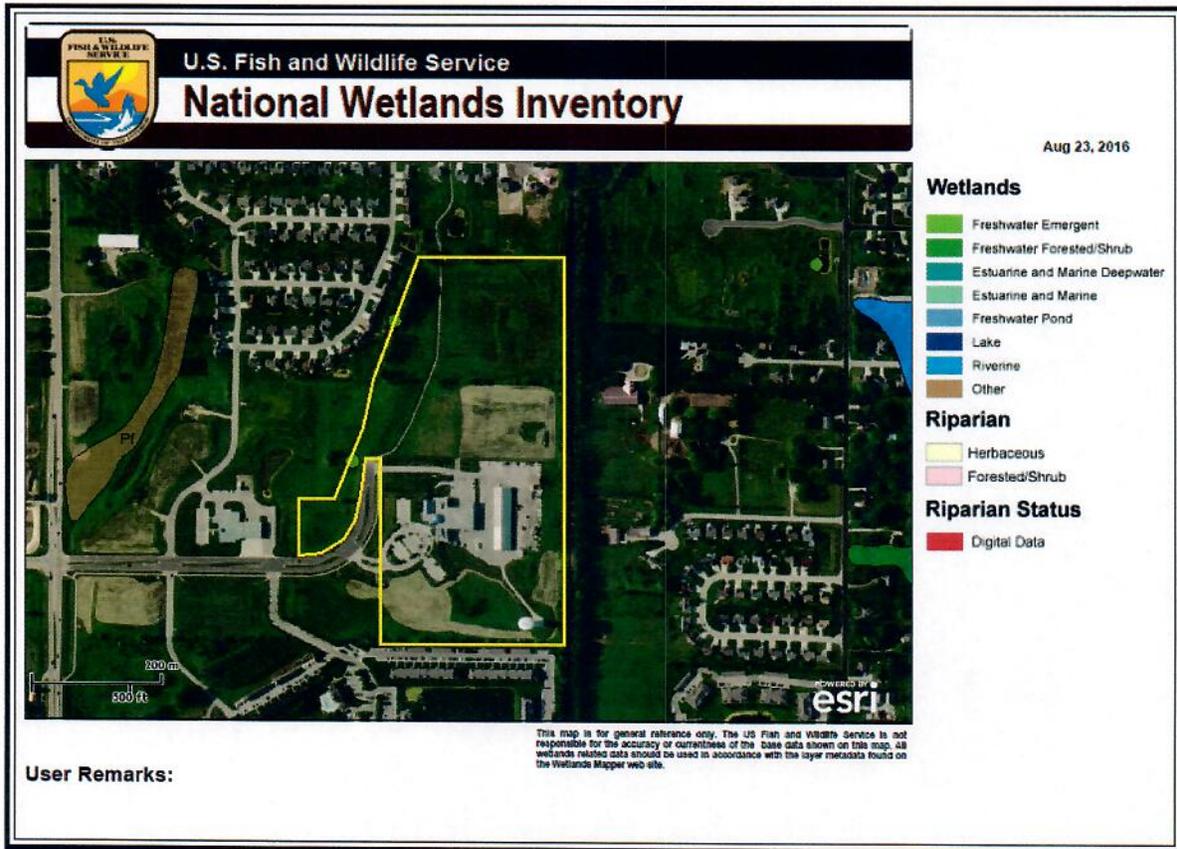


FIGURE 10 WDNr WETLANDS INVENTORY MAP

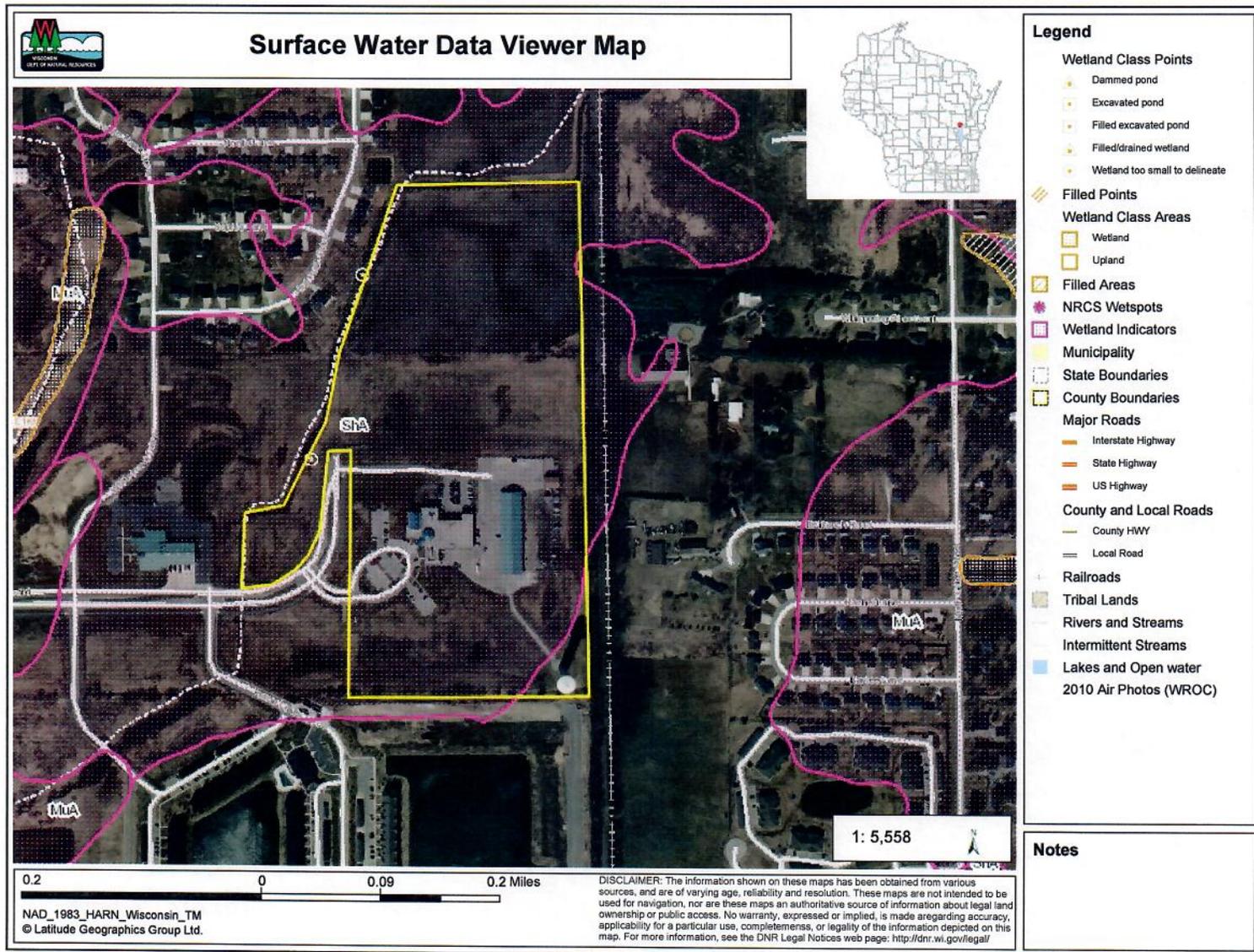


FIGURE 11 NRCS COUNTY SOIL SURVEY MAP

Soil Map—Outagamie County, Wisconsin



Map Scale: 1:3,550 if printed on A portrait (8.5" x 11") sheet.

0 50 100 200 300 Meters

0 150 300 600 900 Feet

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

APPENDIX A
Site Photographs

SITE PHOTOGRAPHS

PHOTO 1: VIEW FACING NORTH TOWARD B1 AND B2

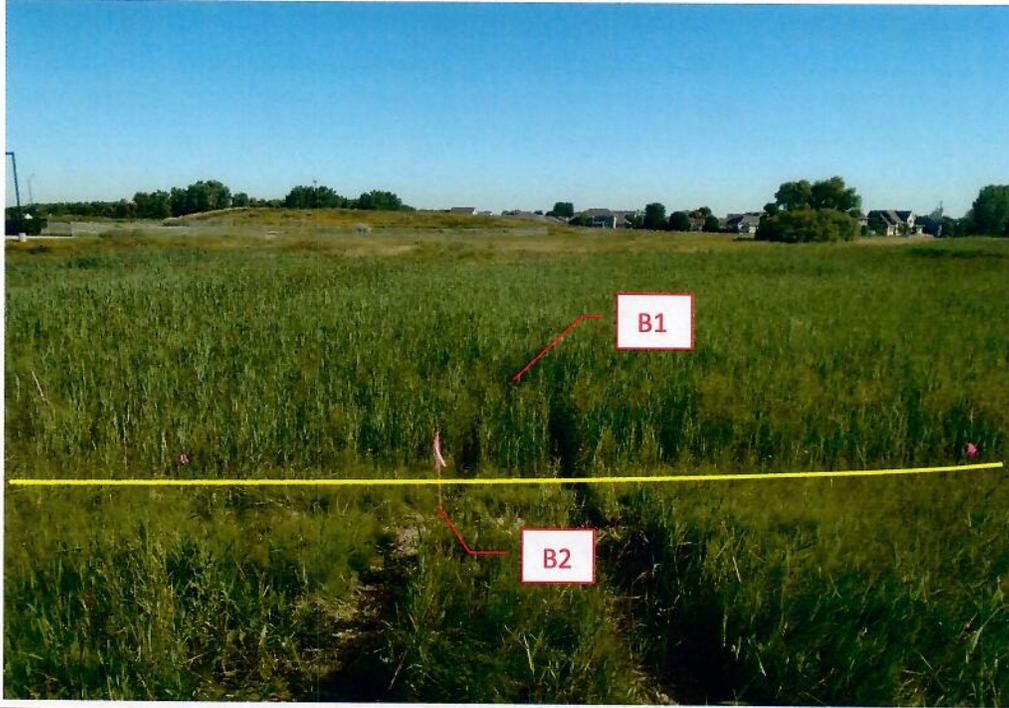


PHOTO 2: VIEW OF WETLAND FACING NORTHEAST, EAST OF B2



SITE PHOTOGRAPHS

PHOTO 3: VIEW FACING NORTHWEST TOWARD B5 AND B6



PHOTO 4: VIEW FROM B6 FACING SOUTH



SITE PHOTOGRAPHS

PHOTO 5: VIEW OF WETLAND A FACING NORTHEAST OF B6



PHOTO 6: VIEW OF UPLAND ISLAND WEST OF B32

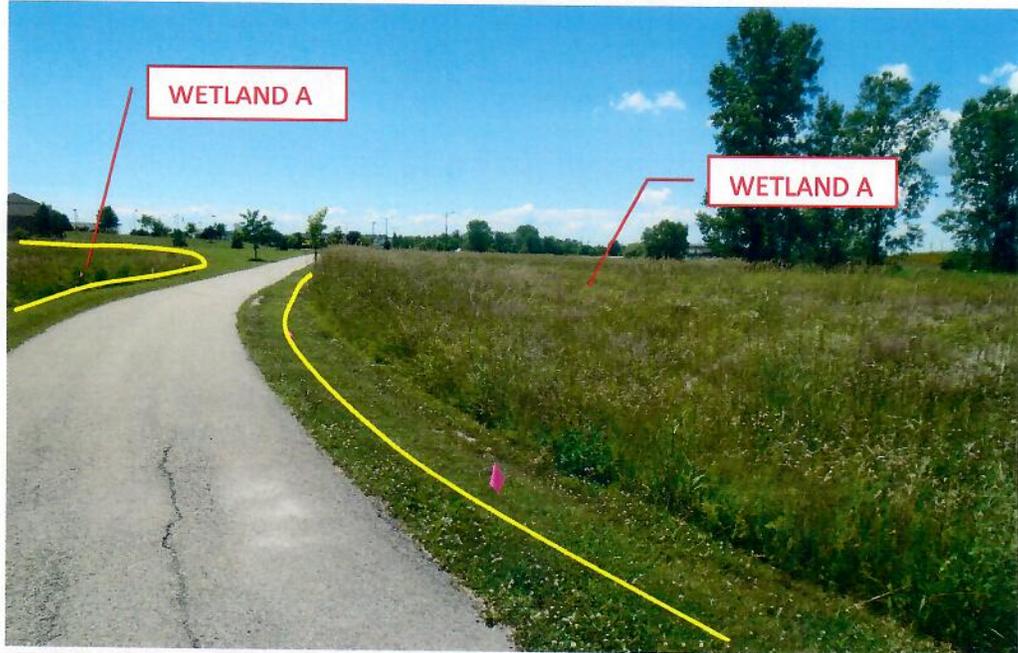


SITE PHOTOGRAPHS

PHOTO 7: VIEW OF WETLAND A SOUTH OF B16



PHOTO 8: VIEW OF WETLAND A FACING SOUTH NEAR B14

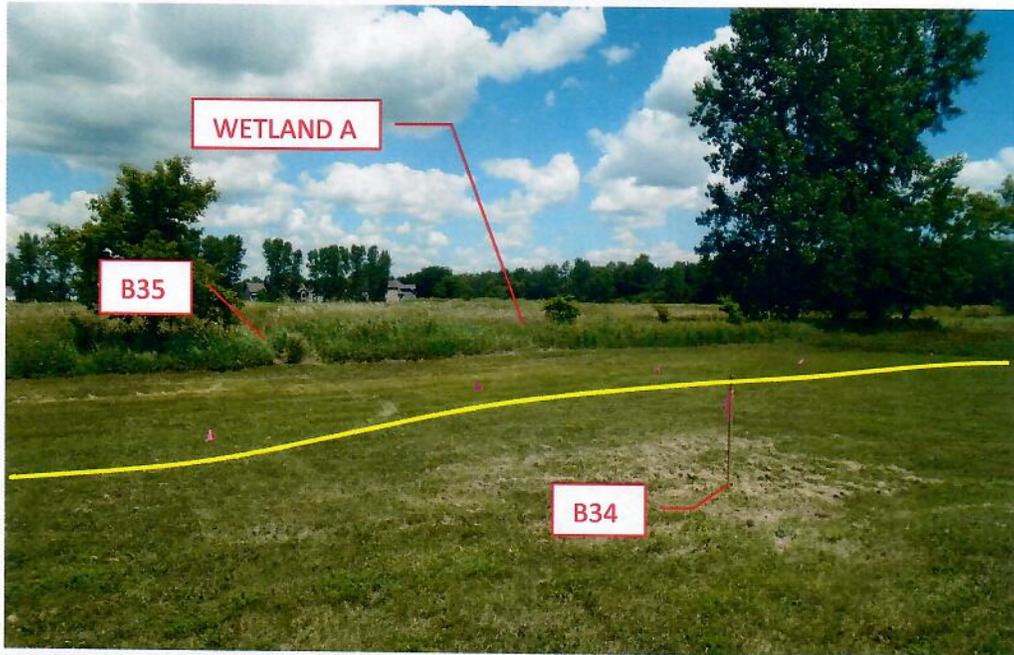


SITE PHOTOGRAPHS

PHOTO 9: VIEW OF WETLAND A AT B72 FACING WEST



PHOTO 10: VIEW OF WETLAND A FACING NORTH NEAR B34



SITE PHOTOGRAPHS

PHOTO 11: VIEW OF AOI FROM B34 FACING SOUTH



PHOTO 12: VIEW OF AOI FROM B34 FACING SOUTHWEST

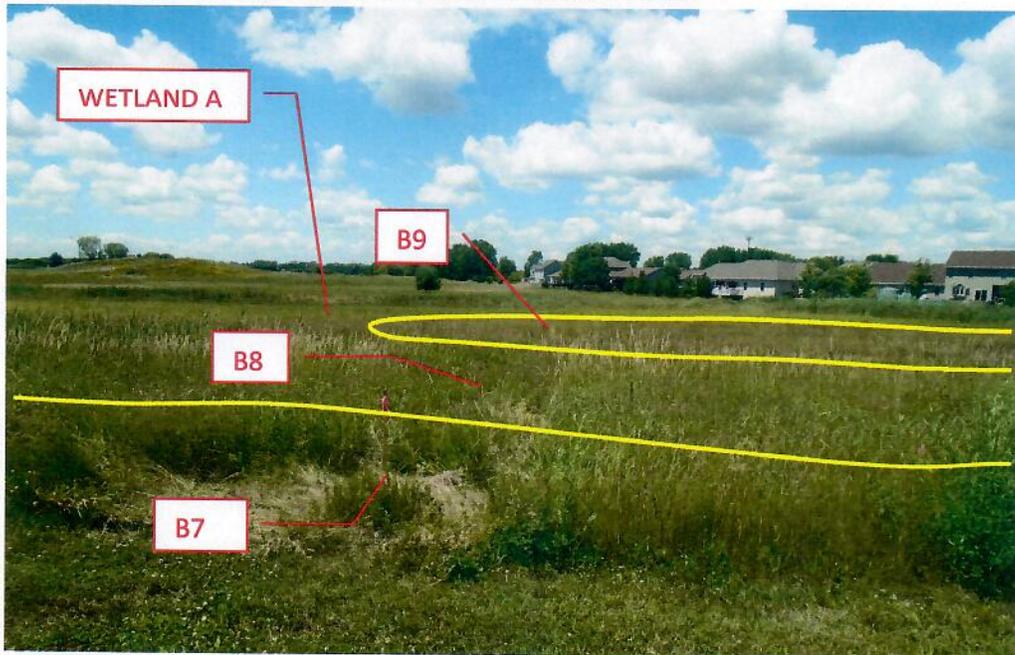


SITE PHOTOGRAPHS

PHOTO 13: VIEW OF AOI FROM B34 FACING EAST



PHOTO 14: VIEW OF WETLAND A FROM B7 FACING WEST

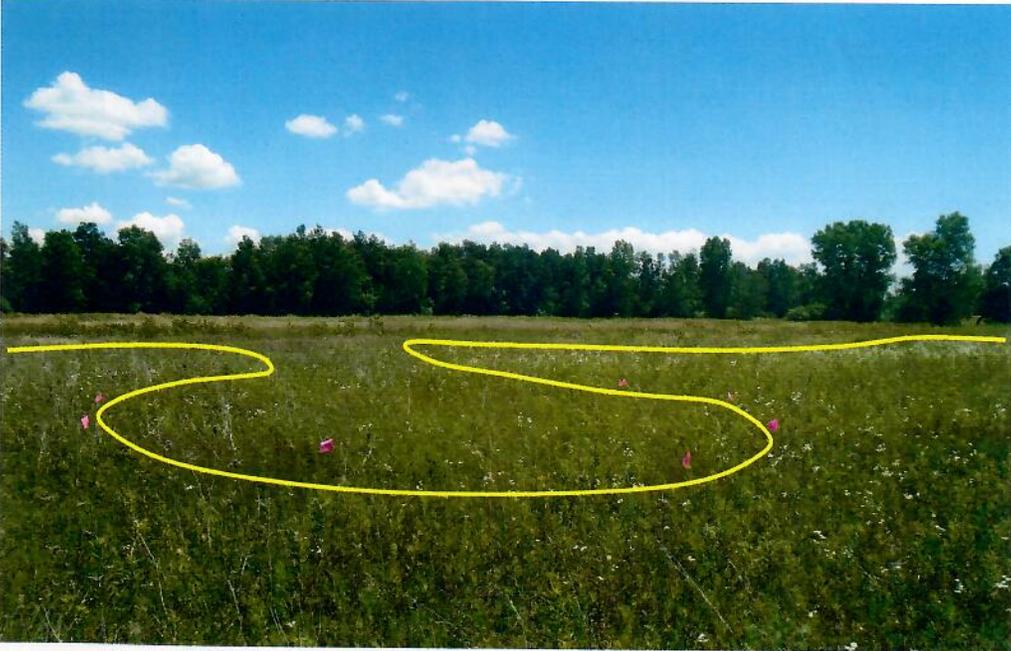


SITE PHOTOGRAPHS

PHOTO 15: VIEW OF WETLAND A, NEAR B72, FACING NORTH



PHOTO 16: VIEW OF WETLAND A, SOUTHWEST OF B21, FACING EAST



SITE PHOTOGRAPHS

PHOTO 17: VIEW OF WETLAND A FACING SOUTHEAST TOWARD B23

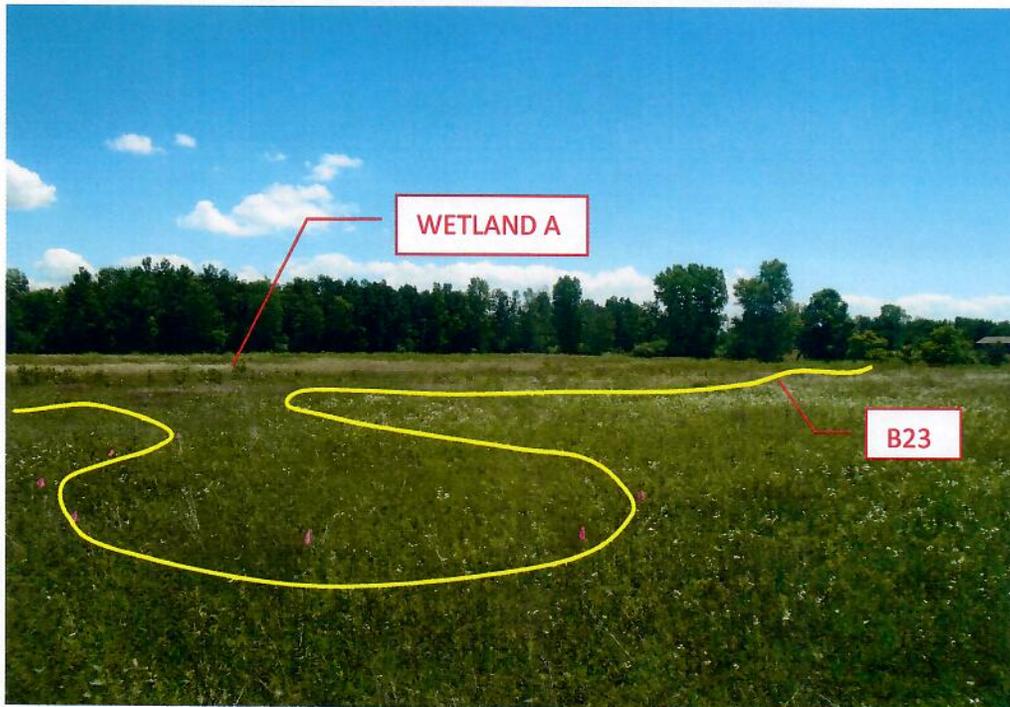
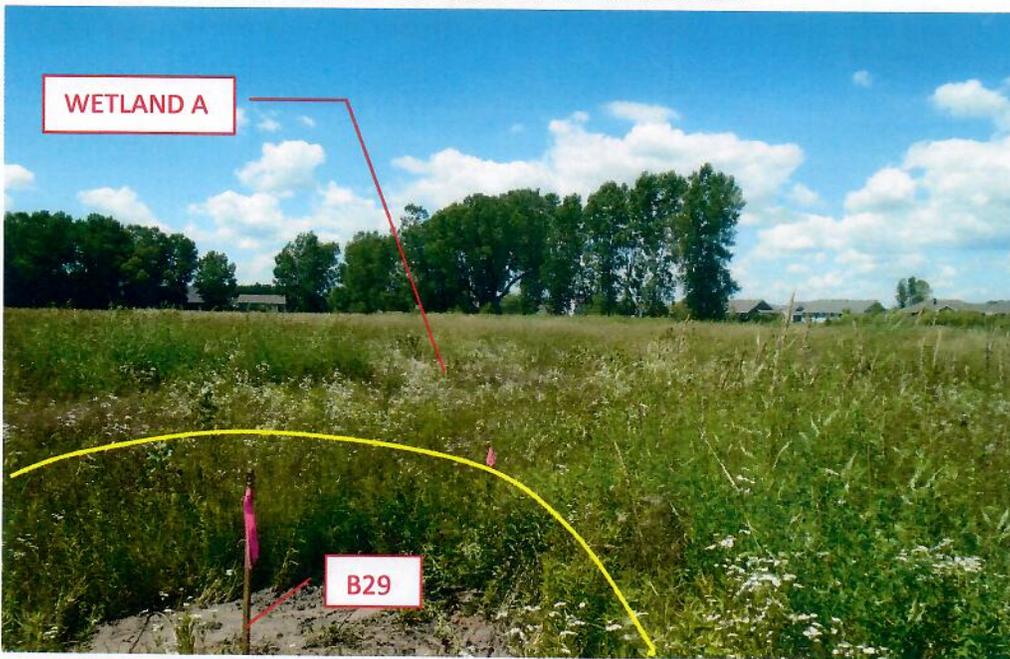


PHOTO 18: VIEW OF WETLAND A AT B29 FACING NORTHWEST

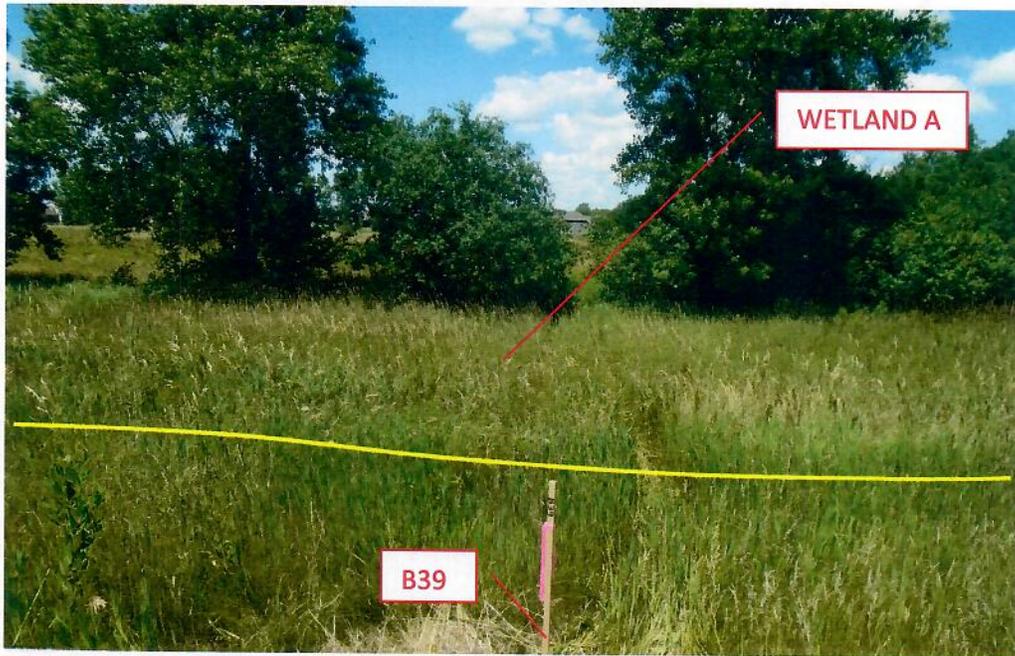


SITE PHOTOGRAPHS

PHOTO 19: VIEW OF WETLAND A SOUTH OF B55, FACING SOUTH



PHOTO 20: VIEW OF WETLAND A AT B39 FACING SOUTH

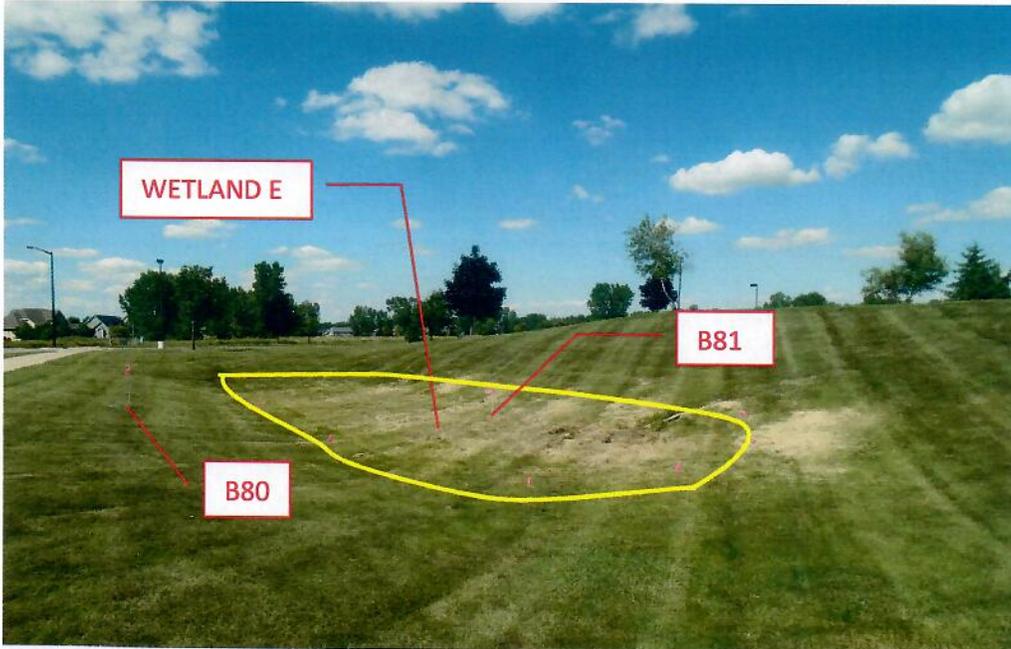


SITE PHOTOGRAPHS

PHOTO 21: VIEW AT B74 FACING SOUTHWEST



PHOTO 22: VIEW OF WETLAND E FACING NORTH



SITE PHOTOGRAPHS

PHOTO 23: VIEW OF WETLAND C FACING WEST

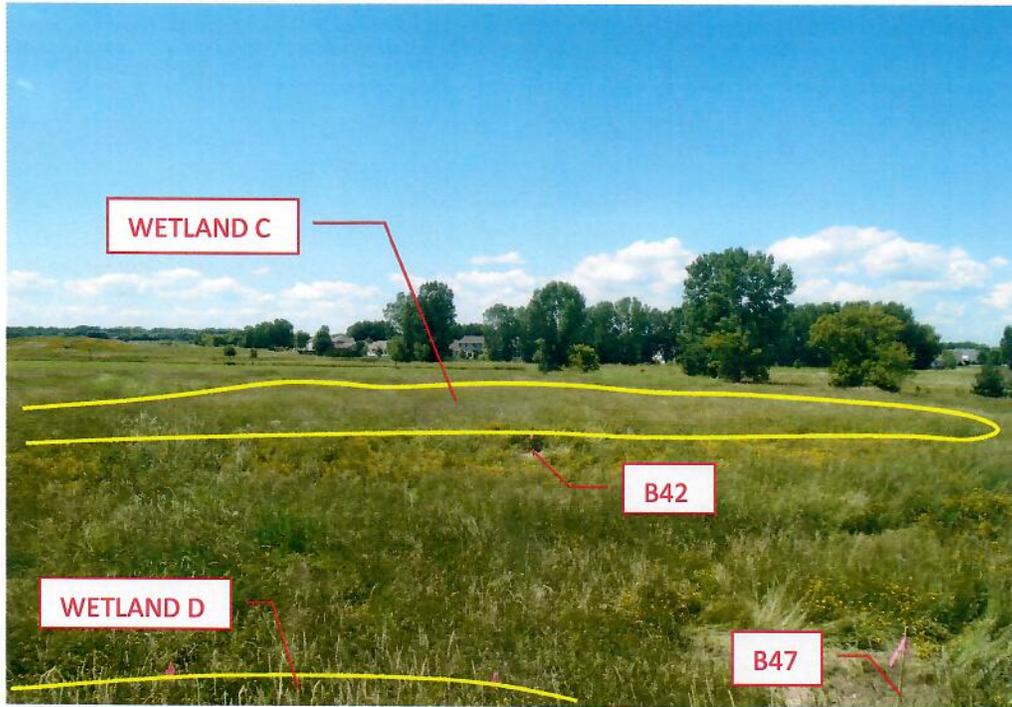
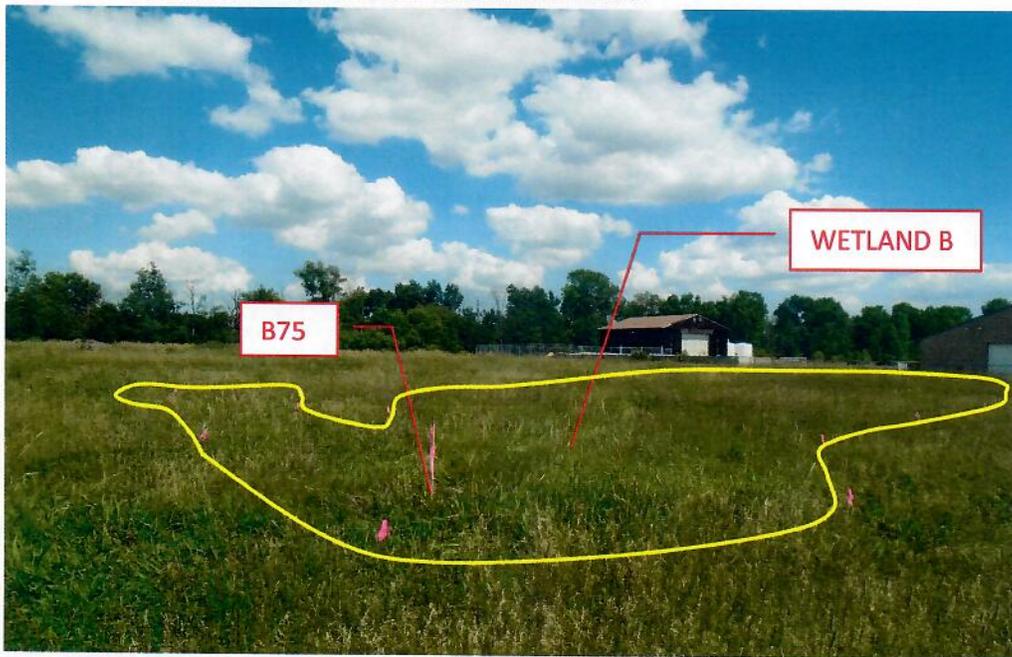


PHOTO 24: VIEW OF WETLAND B FACING NORTHEAST



SITE PHOTOGRAPHS

PHOTO 25: VIEW OF WETLAND D FACING NORTHEAST

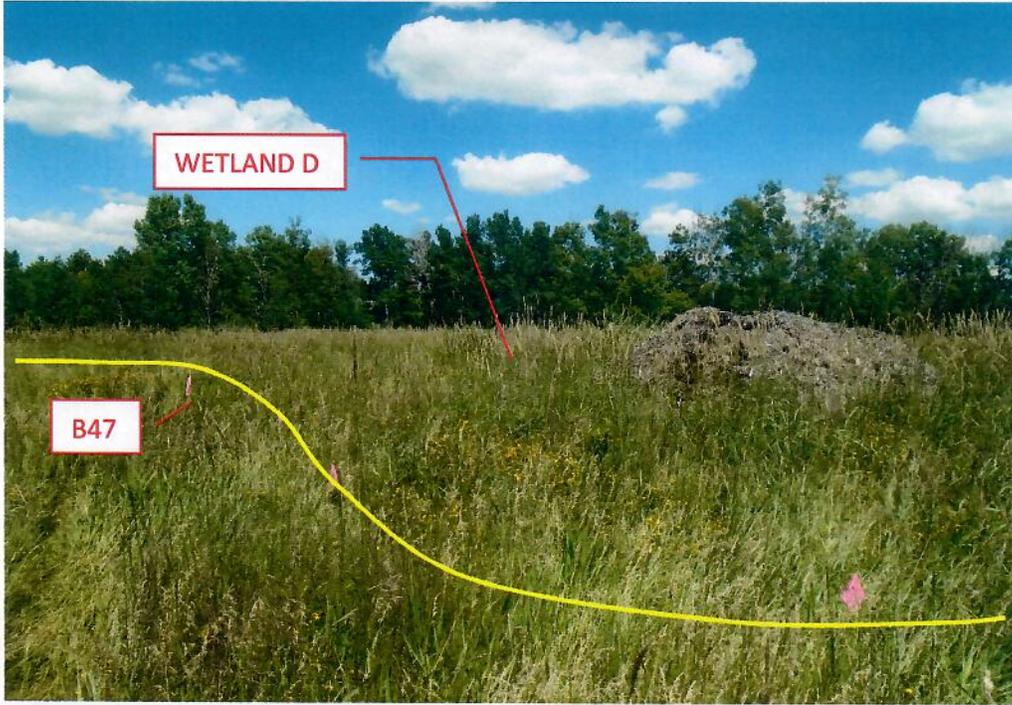


PHOTO 26: VIEW OF WETLAND D FACING NORTHEAST

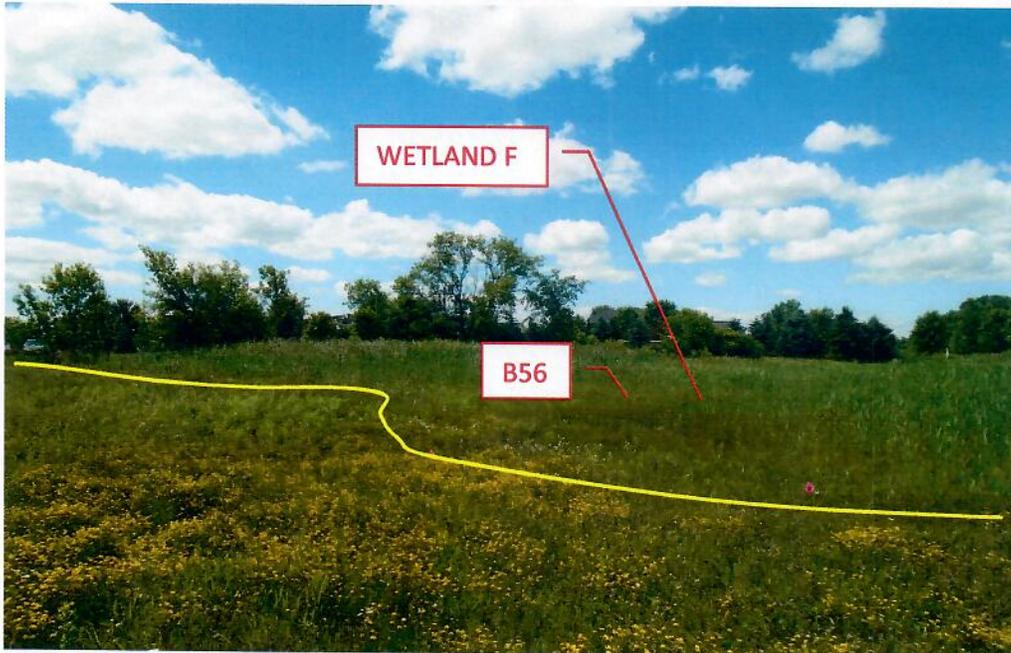


SITE PHOTOGRAPHS

PHOTO 27: VIEW OF WETLAND F FACING WEST



PHOTO 28: VIEW OF WETLAND F FACING SOUTH



SITE PHOTOGRAPHS

PHOTO 29: VIEW OF WETLAND G FACING EAST

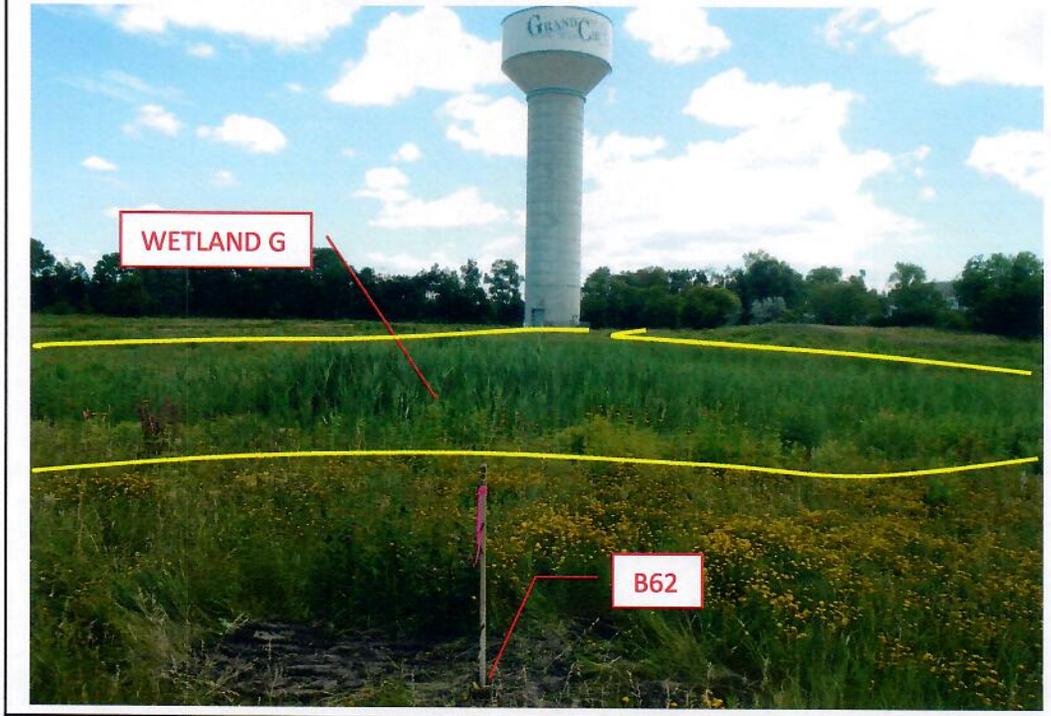


PHOTO 30: VIEW OF WETLAND G FACING NORTHEAST, NORTHWEST OF B60



SITE PHOTOGRAPHS

PHOTO 31: VIEW OF WETLAND G FACING EAST

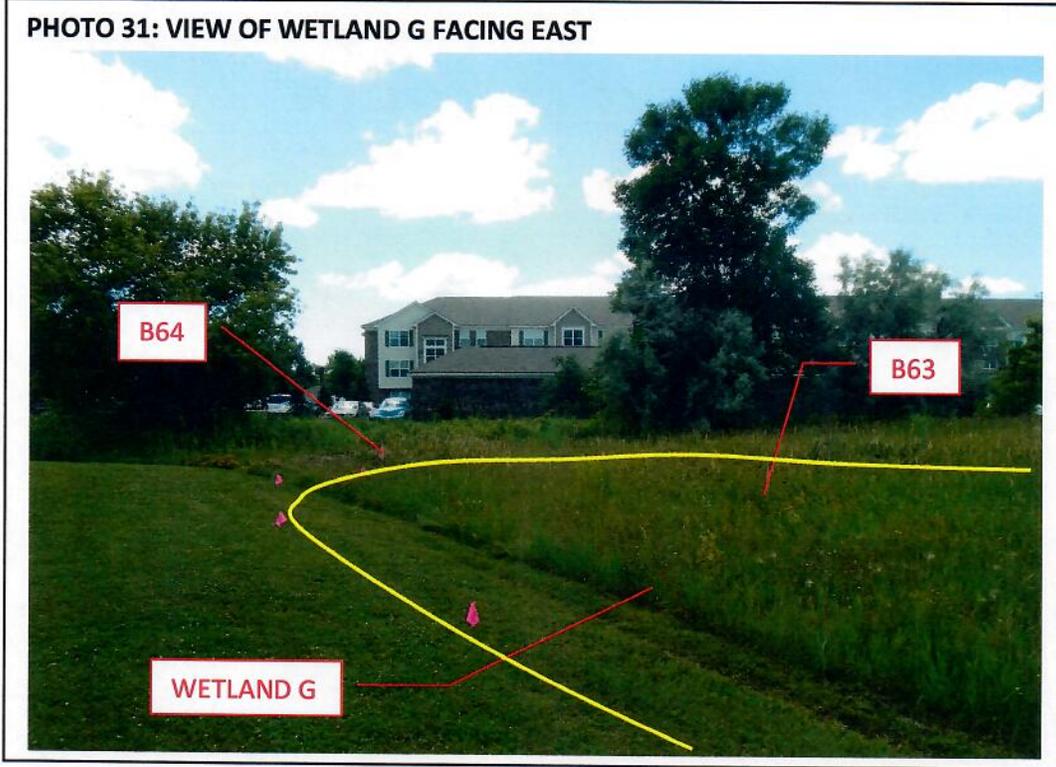


PHOTO 32: VIEW OF WETLAND A FACING SOUTHEAST, NORTH OF B68



APPENDIX B

Witness Evaluation Table

APPENDIX C

Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/23/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B1
 Investigator(s): BRIAN BATES, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): TOESLOPE Local relief (concave, convex, none): NONE
 Slope (%): 0 TO 1 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, IN
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p align="center">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
Field Observations: Surface water present? Yes _____ No <u>X</u> Depth (inches): _____ Water table present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)		Indicators of wetland hydrology present? <u>Y</u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: 		
Remarks:		

VEGETATION - Use scientific names of plants

Sampling Point: B1

Tree Stratum					50/20 Thresholds		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	20%	50%	
1					Tree Stratum	0	0
2					Sapling/Shrub Stratum	0	0
3					Herb Stratum	19	49
4					Woody Vine Stratum	0	0
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Sapling/Shrub Stratum					Dominance Test Worksheet		
Plot Size (15')		Absolute % Cover	Dominant Species	Indicator Status	Number of Dominant Species that are OBL, FACW, or FAC: <u>2</u> (A)		
1					Total Number of Dominant Species Across all Strata: <u>2</u> (B)		
2					Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)		
3							
4							
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Herb Stratum					Prevalence Index Worksheet		
Plot Size (5')		Absolute % Cover	Dominant Species	Indicator Status	Total % Cover of:		
1	<i>Phragmites australis</i>	50	Y	FACW	OBL species	x 1 =	
2	<i>Salix interior</i>	30	Y	FACW	FACW species	x 2 =	
3	<i>Equisetum arvense</i>	10	N	FAC	FAC species	x 3 =	
4	<i>Phalaris arundinacea</i>	5	N	FACW	FACU species	x 4 =	
5	<i>Juncus interior</i>	2	N	FAC	UPL species	x 5 =	
6					Column totals	(A)	(B)
7					Prevalence Index = B/A =		
8							
9							
10							
11							
12							
13							
14							
15							
		97	= Total Cover				
Woody Vine Stratum					Hydrophytic Vegetation Indicators:		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	Rapid test for hydrophytic vegetation		
1					<input checked="" type="checkbox"/> Dominance test is >50%		
2					<input type="checkbox"/> Prevalence index is ≤3.0*		
3					<input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)		
4					<input type="checkbox"/> Problematic hydrophytic vegetation* (explain)		
5					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
		0	= Total Cover				
Remarks: (Include photo numbers here or on a separate sheet)					Definitions of Vegetation Strata:		
MEETS FAC-N TEST					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? <u>Y</u>		

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/23/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B2
 Investigator(s): BRIAN BATES, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 35 TO 40 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, IN
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>N</u> Indicators of wetland hydrology present? <u>N</u>	Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p align="center">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

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

VEGETATION - Use scientific names of plants

Sampling Point: B2

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status		
1					50/20 Thresholds Tree Stratum 20% 50% Tree Stratum 0 0 Sapling/Shrub Stratum 0 0 Herb Stratum 20 51 Woody Vine Stratum 0 0	
2						
3						
4						
5						
6						
7						
8						
9						
10		0	= Total Cover			
Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status		
1					Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across all Strata: 1 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)	
2						
3						
4						
5						
6						
7						
8						
9						
10		0	= Total Cover			
Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status		
1	<i>Equisetum arvense</i>	60	Y	FAC	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 = _____	
2	<i>Phragmites australis</i>	10	N	FACW		
3	<i>Daucus carota</i>	10	N	UPL		
4	<i>Sonchus arvensis</i>	10	N	FACU		
5	<i>Phleum pratense</i>	5	N	FACU		
6	<i>Poa pratensis</i>	5	N	FACU		
7	<i>Cirsium arvense</i>	2	N	FACU		
8						
9						
10						
11						
12						
13						
14						
15		102	= Total Cover			
Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status		
1					Hydrophytic Vegetation Indicators: _____ Rapid test for hydrophytic vegetation <input checked="" type="checkbox"/> Dominance test is >50% _____ Prevalence index is ≤3.0* _____ Morphological 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	
2						
3						
4						
5		0	= Total Cover			
					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? <u> Y </u>	

Remarks: (Include photo numbers here or on a separate sheet)
 DOMINANTS ARE FAC. DOES NOT MEET FAC-N TEST BASED ON NON-DOMINANTS.

VEGETATION - Use scientific names of plants

Sampling Point: B3

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status	50/20 Thresholds		
1					Tree Stratum	20%	50%
2					Tree Stratum	0	0
3					Sapling/Shrub Stratum	0	0
4					Herb Stratum	17	42
5					Woody Vine Stratum	0	0
6					Dominance Test Worksheet		
7					Number of Dominant Species that are OBL, FACW, or FAC: <u>2</u> (A)		
8					Total Number of Dominant Species Across all Strata: <u>2</u> (B)		
9					Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)		
10		0	= Total Cover		Prevalence Index Worksheet		
Sapling/Shrub Stratum					Total % Cover of:		
Plot Size (15')					OBL species _____ x 1 = _____		
Absolute % Cover					FACW species _____ x 2 = _____		
Dominant Species					FAC species _____ x 3 = _____		
Indicator Status					FACU species _____ x 4 = _____		
1					UPL species _____ x 5 = _____		
2					Column totals _____ (A) _____ (B)		
3					Prevalence Index = B/A = _____		
4					Hydrophytic Vegetation Indicators:		
5					<input type="checkbox"/> Rapid test for hydrophytic vegetation		
6					<input checked="" type="checkbox"/> Dominance test is >50%		
7					<input type="checkbox"/> Prevalence index is ≤3.0*		
8					Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)		
9					<input type="checkbox"/> Problematic hydrophytic vegetation* (explain)		
10					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
11					Definitions of Vegetation Strata:		
12					Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
13					Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.		
14					Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.		
15					Woody vines - All woody vines greater than 3.28 ft in height.		
16					Hydrophytic vegetation present? <u>Y</u>		
17							
18							
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96							
97							
98							
99							
100							
Woody Vine Stratum							
Plot Size (30')							
Absolute % Cover							
Dominant Species							
Indicator Status							
1							
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100							
0 = Total Cover							

Remarks: (Include photo numbers here or on a separate sheet)
MEETS FAC-N TEST

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/23/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B4
 Investigator(s): BRIAN BATES, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 25 TO 30 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u> N </u> Hydric soil present? <u> N </u> Indicators of wetland hydrology present? <u> N </u>	Is the sampled area within a wetland? <u> N </u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p style="text-align: center;">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

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

VEGETATION - Use scientific names of plants

Sampling Point: B4

Tree Stratum					50/20 Thresholds		
Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status		20%	50%	
1 _____	_____	_____	_____	Tree Stratum	0	0	
2 _____	_____	_____	_____	Sapling/Shrub Stratum	0	0	
3 _____	_____	_____	_____	Herb Stratum	19	47	
4 _____	_____	_____	_____	Woody Vine Stratum	0	0	
5 _____	_____	_____	_____	Dominance Test Worksheet			
6 _____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A)			
7 _____	_____	_____	_____	Total Number of Dominant Species Across all Strata: <u>2</u> (B)			
8 _____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: <u>0.00%</u> (A/B)			
9 _____	_____	_____	_____	Prevalence Index Worksheet			
10 _____	0 = Total Cover	_____	_____	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 = _____			
Sapling/Shrub Stratum					Hydrophytic Vegetation Indicators:		
Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status	<input type="checkbox"/> Rapid test for hydrophytic vegetation <input type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence index is ≤3.0* <input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic			
1 _____	_____	_____	_____	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.			
2 _____	_____	_____	_____				
3 _____	_____	_____	_____				
4 _____	_____	_____	_____				
5 _____	_____	_____	_____				
6 _____	_____	_____	_____				
7 _____	_____	_____	_____				
8 _____	_____	_____	_____				
9 _____	_____	_____	_____				
10 _____	_____	_____	_____				
11 _____	_____	_____	_____				
12 _____	_____	_____	_____				
13 _____	_____	_____	_____				
14 _____	_____	_____	_____				
15 _____	93 = Total Cover	_____	_____				
Herb Stratum					Hydrophytic vegetation present?		
Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status	<input type="checkbox"/> Rapid test for hydrophytic vegetation <input type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence index is ≤3.0* <input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic			
1 <i>Poa pratensis</i>	40	Y	FACU	Hydrophytic vegetation present? <u>N</u>			
2 <i>Trifolium pratense</i>	20	Y	FACU				
3 <i>Taraxacum officinale</i>	10	N	FACU				
4 <i>Daucus carota</i>	10	N	UPL				
5 <i>Cirsium arvense</i>	5	N	FACU				
6 <i>Medicago lupulina</i>	5	N	FACU				
7 <i>Phalaris arundinacea</i>	3	N	FACW				
8 _____	_____	_____	_____				
9 _____	_____	_____	_____				
10 _____	_____	_____	_____				
11 _____	_____	_____	_____				
12 _____	_____	_____	_____				
13 _____	_____	_____	_____				
14 _____	_____	_____	_____				
15 _____	_____	_____	_____				
Woody Vine Stratum							
Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status				
1 _____	_____	_____	_____				
2 _____	_____	_____	_____				
3 _____	_____	_____	_____				
4 _____	_____	_____	_____				
5 _____	0 = Total Cover	_____	_____				

Remarks: (Include photo numbers here or on a separate sheet)
 DOES NOT MEET FAC-N TEST

SOIL

Sampling Point: B5

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-12	10 YR 3/2	90	10 YR 4/4	10	C	M	SIL	A
12-16	10 YR 2/1	80	10 YR 4/6	20	C	M	SIL	Bw
16-24	10 YR 4/3	60	10 YR 4/6	40	C	M	VFSL	C

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

Indicators for Problematic Hydric Soils:

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (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)

- 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 (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

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

Hydric soil present? Y

Remarks:
 THE SOILS ARE HYDRIC PER THE F6 INDICATOR.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/23/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B6
 Investigator(s): BRIAN BATES, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 35 TO 40 Lat.: *** Long.: *** Datum: ***CONTAC McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u> N </u> Hydric soil present? <u> N </u> Indicators of wetland hydrology present? <u> N </u>	Is the sampled area within a wetland? <u> N </u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p style="text-align: center;">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

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

VEGETATION - Use scientific names of plants

Sampling Point: B6

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status	50/20 Thresholds		
1					Tree Stratum	20%	50%
2					Tree Stratum	0	0
3					Sapling/Shrub Stratum	0	0
4					Herb Stratum	18	46
5					Woody Vine Stratum	0	0
6					Dominance Test Worksheet		
7					Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A)		
8					Total Number of Dominant Species Across all Strata: <u>2</u> (B)		
9					Percent of Dominant Species that are OBL, FACW, or FAC: <u>0.00%</u> (A/B)		
10		0 = Total Cover			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 = _____		
Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status	Hydrophytic Vegetation Indicators:		
1					___ Rapid test for hydrophytic vegetation		
2					___ Dominance test is >50%		
3					___ Prevalence index is ≤3.0*		
4					___ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)		
5					___ Problematic hydrophytic vegetation* (explain)		
6					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
7					Definitions of Vegetation Strata:		
8					Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
9					Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.		
10					Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.		
11					Woody vines - All woody vines greater than 3.28 ft in height.		
12							
13							
14							
15		92 = Total Cover					
Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status	Hydrophytic vegetation present? <u> N </u>		
1							
2							
3							
4							
5							
		0 = Total Cover					

Remarks: (Include photo numbers here or on a separate sheet)
DOES NOT MEET FAC-N TEST

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/23/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B7
 Investigator(s): BRIAN BATES, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 25 Lat.: *** Long.: *** Datum: ***CONTAC McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u> N </u> Hydric soil present? <u> N </u> Indicators of wetland hydrology present? <u> N </u>	Is the sampled area within a wetland? <u> N </u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p align="center">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/23/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B8
 Investigator(s): BRIAN BATES, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): TOESLOPE Local relief (concave, convex, none): NONE
 Slope (%): 1 TO 2 Lat.: *** Long.: *** Datum: ***CONTAC McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p style="text-align: center;">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
Field Observations: Surface water present? Yes _____ No <u>X</u> Depth (inches): _____ Water table present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation present? Yes <u>X</u> No _____ Depth (inches): <u>-16</u> (includes capillary fringe)		Indicators of wetland hydrology present? <u>Y</u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

VEGETATION - Use scientific names of plants

Sampling Point: B8

Tree Stratum					50/20 Thresholds		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status		20%	50%
1					Tree Stratum	0	0
2					Sapling/Shrub Stratum	0	0
3					Herb Stratum	16	41
4					Woody Vine Stratum	0	0
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Sapling/Shrub Stratum					Dominance Test Worksheet		
Plot Size (15')		Absolute % Cover	Dominant Species	Indicator Status	Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A)		
1					Total Number of Dominant Species Across all Strata: <u>1</u> (B)		
2					Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)		
3							
4							
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Herb Stratum					Prevalence Index Worksheet		
Plot Size (5')		Absolute % Cover	Dominant Species	Indicator Status	Total % Cover of:		
1	<i>Phalaris arundinacea</i>	50	Y	FACW	OBL species	x 1 =	
2	<i>Apocynum cannabinum</i>	15	N	FAC	FACW species	x 2 =	
3	<i>Juncus interior</i>	5	N	FAC	FAC species	x 3 =	
4	<i>Equisetum arvense</i>	5	N	FAC	FACU species	x 4 =	
5	<i>Poa pratensis</i>	5	N	FACU	UPL species	x 5 =	
6	<i>Solidago gigantea</i>	2	N	FACW	Column totals	(A) (B)	
7					Prevalence Index = B/A =		
8							
9							
10							
11							
12							
13							
14							
15							
		82	= Total Cover				
Woody Vine Stratum					Hydrophytic Vegetation Indicators:		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	Rapid test for hydrophytic vegetation		
1					<input checked="" type="checkbox"/> Dominance test is >50%		
2					<input type="checkbox"/> Prevalence index is ≤3.0*		
3					<input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)		
4					<input type="checkbox"/> Problematic hydrophytic vegetation* (explain)		
5					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
		0	= Total Cover				
Remarks: (Include photo numbers here or on a separate sheet)					Definitions of Vegetation Strata:		
MEETS FAC-N TEST					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? <u>Y</u>		

VEGETATION - Use scientific names of plants

Sampling Point: B9

Tree Stratum					50/20 Thresholds		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status		20%	50%
1					Tree Stratum	0	0
2					Sapling/Shrub Stratum	0	0
3					Herb Stratum	16	40
4					Woody Vine Stratum	0	0
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Sapling/Shrub Stratum					Dominance Test Worksheet		
Plot Size (15')		Absolute % Cover	Dominant Species	Indicator Status	Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A)		
1					Total Number of Dominant Species Across all Strata: <u>2</u> (B)		
2					Percent of Dominant Species that are OBL, FACW, or FAC: <u>0.00%</u> (A/B)		
3							
4							
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Herb Stratum					Prevalence Index Worksheet		
Plot Size (5')		Absolute % Cover	Dominant Species	Indicator Status	Total % Cover of:		
1	<i>Poa pratensis</i>	25	Y	FACU	OBL species	x 1 =	
2	<i>Sonchus arvensis</i>	25	Y	FACU	FACW species	x 2 =	
3	<i>Phalaris arundinacea</i>	10	N	FACW	FAC species	x 3 =	
4	<i>Juncus tenuis</i>	5	N	FAC	FACU species	x 4 =	
5	<i>Taraxacum officinale</i>	5	N	FACU	UPL species	x 5 =	
6	<i>Trifolium pratense</i>	5	N	FACU	Column totals	(A) (B)	
7	<i>Medicago lupulina</i>	5	N	FACU	Prevalence Index = B/A =		
8							
9							
10							
11							
12							
13							
14							
15							
		80	= Total Cover				
Woody Vine Stratum					Hydrophytic Vegetation Indicators:		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	Rapid test for hydrophytic vegetation		
1					___ Dominance test is >50%		
2					___ Prevalence index is ≤3.0*		
3					___ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)		
4					___ Problematic hydrophytic vegetation* (explain)		
5					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
		0	= Total Cover				
Remarks: (Include photo numbers here or on a separate sheet)					Definitions of Vegetation Strata:		
DOES NOT MEET FAC-N TEST					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? <u>N</u>		

VEGETATION - Use scientific names of plants

Sampling Point: B10

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status														
1					50/20 Thresholds <table style="width:100%; border-collapse: collapse;"> <tr><td>Tree Stratum</td><td style="text-align: right;">20%</td><td style="text-align: right;">50%</td></tr> <tr><td>Sapling/Shrub Stratum</td><td style="text-align: right;">0</td><td style="text-align: right;">0</td></tr> <tr><td>Herb Stratum</td><td style="text-align: right;">18</td><td style="text-align: right;">45</td></tr> <tr><td>Woody Vine Stratum</td><td style="text-align: right;">0</td><td style="text-align: right;">0</td></tr> </table>		Tree Stratum	20%	50%	Sapling/Shrub Stratum	0	0	Herb Stratum	18	45	Woody Vine Stratum	0	0
Tree Stratum	20%	50%																
Sapling/Shrub Stratum	0	0																
Herb Stratum	18	45																
Woody Vine Stratum	0	0																
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10		0 = Total Cover																
Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across all Strata: <u>3</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)													
1																		
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10		0 = Total Cover																
Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status	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 = _____													
1	<i>Salix interior</i>	20	Y	FACW														
2	<i>Juncus tenuis</i>	20	Y	FAC														
3	<i>Equisetum arvense</i>	15	Y	FAC														
4	<i>Carex lacustris</i>	10	N	OBL														
5	<i>Carex vulpinoidea</i>	10	N	OBL														
6	<i>Sonchus arvensis</i>	5	N	FACU														
7	<i>Phalaris arundinacea</i>	5	N	FACW														
8	<i>Cirsium arvense</i>	5	N	FACU														
9																		
10																		
11																		
12																		
13																		
14																		
15		90 = Total Cover																
Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid test for hydrophytic vegetation <input checked="" type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic													
1																		
2																		
3																		
4																		
5		0 = Total Cover																
Remarks: (Include photo numbers here or on a separate sheet)					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.													
MEETS FAC-N TEST							Hydrophytic vegetation present? <u>Y</u>											

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/23/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B11
 Investigator(s): BRIAN BATES, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): TOESLOPE Local relief (concave, convex, none): NONE
 Slope (%): 0 TO 1 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: F.W.E. SPOTS IN DIT
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p align="center">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) Surface (B8)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
Field Observations: Surface water present? Yes _____ No <u>X</u> Depth (inches): _____ Water table present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	Indicators of wetland hydrology present? <u>Y</u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: 	
Remarks:	

VEGETATION - Use scientific names of plants

Sampling Point: B11

Tree Stratum					50/20 Thresholds		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	20%	50%	
1	<i>Populus deltoides</i>	20	Y	FAC	4	10	
2					5	13	
3					18	45	
4					0	0	
5							
6							
7							
8							
9							
10							
		20	= Total Cover				
Sapling/Shrub Stratum					Dominance Test Worksheet		
Plot Size (15')		Absolute % Cover	Dominant Species	Indicator Status	Number of Dominant Species that are OBL, FACW, or FAC: <u>4</u> (A)		
1	<i>Salix interior</i>	25	Y	FACW	Total Number of Dominant Species Across all Strata: <u>4</u> (B)		
2					Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)		
3					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 = _____		
4							
5							
6							
7							
8							
9							
10							
		25	= Total Cover				
Herb Stratum							
Plot Size (5')		Absolute % Cover	Dominant Species	Indicator Status	<input type="checkbox"/> Rapid test for hydrophytic vegetation <input checked="" type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence index is ≤3.0* <input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic hydrophytic vegetation* (explain)		
1	<i>Phalaris arundinacea</i>	25	Y	FACW	*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.		
2	<i>Phragmites australis</i>	25	Y	FACW			
3	<i>Juncus tenuis</i>	10	N	FAC			
4	<i>Salix interior</i>	10	N	FACW			
5	<i>Carex lacustris</i>	10	N	OBL			
6	<i>Scirpus atrovirens</i>	5	N	OBL			
7	<i>Carex vulpinoidea</i>	5	N	OBL			
8							
9							
10							
11							
12							
13							
14							
15							
		90	= Total Cover				
Woody Vine Stratum					Hydrophytic vegetation present?		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes		
1							
2							
3							
4							
5							
		0	= Total Cover				

Remarks: (Include photo numbers here or on a separate sheet)
 MEETS FAC-N TEST

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/23/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B12
 Investigator(s): BRIAN BATES, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 1 TO 2 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u> N </u> Hydric soil present? <u> N </u> Indicators of wetland hydrology present? <u> N </u>	Is the sampled area within a wetland? <u> N </u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p style="text-align: center;">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery <input type="checkbox"/> (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
Field Observations: Surface water present? Yes <u> </u> No <u> X </u> Depth (inches): _____ Water table present? Yes <u> </u> No <u> X </u> Depth (inches): _____ Saturation present? Yes <u> X </u> No <u> </u> Depth (inches): <u> -21 </u> (includes capillary fringe)	Indicators of wetland hydrology present? <u> N </u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <hr/>	
Remarks: <p style="text-align: center;">NO PRIMARY OR SECONDARY INDICATORS OF HYDROLOGY WERE OBSERVED.</p>	

VEGETATION - Use scientific names of plants

Sampling Point: B13

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Phalaris arundinacea</i>	30	Y	FACW
2	<i>Juncus tenuis</i>	15	Y	FAC
3	<i>Poa pratensis</i>	15	Y	FACU
4	<i>Bromus inermis</i>	10	N	UPL
5	<i>Solidago gigantea</i>	5	N	FACW
6	<i>Rumex crispus</i>	5	N	FAC
7	<i>Asclepias incarnata</i>	2	N	OBL
8	<i>Hordeum jubatum</i>	2	N	FAC
9				
10				
11				
12				
13				
14				
15				

Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				

50/20 Thresholds		
	20%	50%
Tree Stratum	0	0
Sapling/Shrub Stratum	0	0
Herb Stratum	17	42
Woody Vine Stratum	0	0

Dominance Test Worksheet	
Number of Dominant Species that are OBL, FACW, or FAC: <u>2</u> (A)	
Total Number of Dominant Species Across all Strata: <u>3</u> (B)	
Percent of Dominant Species that are OBL, FACW, or FAC: <u>66.67%</u> (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*

Morphological 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)
DOMINANTS ARE EQUAL, MEETS FAC-N TEST BASED ON NON-DOMINANTS.

VEGETATION - Use scientific names of plants

Sampling Point: B14

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status				
1					50/20 Thresholds Tree Stratum 20% 50% Tree Stratum 0 0 Sapling/Shrub Stratum 0 0 Herb Stratum 19 47 Woody Vine Stratum 0 0			
2								
3								
4								
5								
6								
7								
8								
9								
10								
		0 = Total Cover			Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across all Strata: 1 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)			
Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status				
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
		0 = Total Cover			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 = _____			
Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status				
1	<i>Phalaris arundinacea</i>	55	Y	FACW			Hydrophytic Vegetation Indicators: ___ Rapid test for hydrophytic vegetation <input checked="" type="checkbox"/> Dominance test is >50% ___ Prevalence index is ≤3.0* ___ Morphological 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	
2	<i>Daucus carota</i>	15	N	UPL				
3	<i>Trifolium pratense</i>	15	N	FACU				
4	<i>Juncus tenuis</i>	5	N	FAC				
5	<i>Scirpus atrovirens</i>	2	N	OBL				
6	<i>Hordeum jubatum</i>	2	N	FAC				
7								
8								
9								
10								
		94 = Total Cover			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.			
Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status				
1								
2								
3								
4								
5								
		0 = Total Cover					Hydrophytic vegetation present? <u> Y </u>	
Remarks: (Include photo numbers here or on a separate sheet) MEETS FAC-N TEST								

SOIL

Sampling Point: B14

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-6	7.5 YR 3/2	100					SIL	A
6-11	7.5 YR 3/4	80	7.5 YR 4/4	20	C	M	SIL	2A
11-24	7.5 YR 5/4	70	7.5 YR 5/8	30	C	M	SIL	Bw

*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 Surface (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 (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric soil present? N

Remarks:

A HORIZON POSSIBLY HISTORICAL GRADED FILL. NO HYDRIC SOIL INDICATORS WERE OBSERVED.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/26/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B15
 Investigator(s): BRIAN BATES, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): CONCAVE
 Slope (%): 1 TO 2 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <div style="border: 1px solid black; padding: 10px; margin: 5px 0;"> <p style="text-align: center;">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p> </div>	

HYDROLOGY

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/26/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B16
 Investigator(s): BRIAN BATES, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 1 TO 2 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p align="center">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) Surface (B8)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)	Field Observations: Surface water present? Yes _____ No <u>X</u> Depth (inches): _____ Water table present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation present? Yes <u>X</u> No _____ Depth (inches): <u>-22</u> (includes capillary fringe)
Indicators of wetland hydrology present? <u>Y</u>		Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: _____ _____
Remarks: _____ _____		

VEGETATION - Use scientific names of plants

Sampling Point: B16

Tree Stratum					50/20 Thresholds		
Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status		20%	50%	
1					Tree Stratum	0	0
2					Sapling/Shrub Stratum	0	0
3					Herb Stratum	16	40
4					Woody Vine Stratum	0	0
5							
6							
7							
8							
9							
10							
				0 = Total Cover			
Sapling/Shrub Stratum					Dominance Test Worksheet		
Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status		Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A)		
1					Total Number of Dominant Species Across all Strata: <u>1</u> (B)		
2					Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)		
3							
4							
5							
6							
7							
8							
9							
10							
				0 = Total Cover			
Herb Stratum					Prevalence Index Worksheet		
Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status		Total % Cover of:		
1	40	Y	FACW		OBL species	<u> </u> x 1 = <u> </u>	
2	10	N	UPL		FACW species	<u> </u> x 2 = <u> </u>	
3	5	N	FACU		FAC species	<u> </u> x 3 = <u> </u>	
4	5	N	FACU		FACU species	<u> </u> x 4 = <u> </u>	
5	5	N	FACU		UPL species	<u> </u> x 5 = <u> </u>	
6	5	N	FACU		Column totals	<u> </u> (A) <u> </u> (B)	
7	5	N	FAC		Prevalence Index = B/A = <u> </u>		
8	2	N	OBL				
9	2	N	OBL				
10	1	N	FACU				
11							
12							
13							
14							
15							
				80 = Total Cover			
Woody Vine Stratum					Hydrophytic Vegetation Indicators:		
Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status		<input type="checkbox"/> Rapid test for hydrophytic vegetation <input checked="" type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence index is ≤3.0* <input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
1					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.		
2							
3							
4							
5							
				0 = Total Cover	Hydrophytic vegetation present? <u>Y</u>		

Remarks: (Include photo numbers here or on a separate sheet)
DOES NOT MEET FAC-N TEST

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/23/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B17
 Investigator(s): BRIAN BATES, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 2 TO 3 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <div style="text-align: center; border: 1px solid black; padding: 5px;"> CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD. </div>	

HYDROLOGY

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

VEGETATION - Use scientific names of plants

Sampling Point: B17

Tree Stratum		Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Populus deltoides</i>		40	Y	FAC
2					
3					
4					
5					
6					
7					
8					
9					
10					
			40	= Total Cover	
Sapling/Shrub Stratum		Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Rhamnus cathartica</i>		25	Y	FAC
2	<i>Salix interior</i>		10	Y	FACW
3					
4					
5					
6					
7					
8					
9					
10					
			35	= Total Cover	
Herb Stratum		Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Phalaris arundinacea</i>		25	Y	FACW
2	<i>Solidago canadensis</i>		15	Y	FACU
3	<i>Rhamnus cathartica</i>		10	N	FAC
4	<i>Vitis riparia</i>		5	N	FAC
5	<i>Cirsium arvense</i>		2	N	FACU
6	<i>Sonchus arvensis</i>		2	N	FACU
7	<i>Asclepias syriaca</i>		2	N	UPL
8					
9					
10					
11					
12					
13					
14					
15					
			61	= Total Cover	
Woody Vine Stratum		Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Vitis riparia</i>		5	Y	FAC
2					
3					
4					
5					
			5	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	8	20
Sapling/Shrub Stratum	7	18
Herb Stratum	12	31
Woody Vine Stratum	1	3

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 5 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 83.33% (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*

____ Morphological 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)
MEETS FAC-N TEST

SOIL

Sampling Point: B17

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-6	10 YR 2/2	100					SIL	A
6-12	10 YR 2/2	85	10 YR 4/4	15	C	M	SIL	A2
12-24	7.5 YR 4/3	75	7.5 YR 5/6	25	C	M	SIL	Bw

*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 Surface (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 (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

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

Hydric soil present? Y

Remarks:
 THE SOILS ARE HYDRIC PER THE F6 INDICATOR.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/23/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B18
 Investigator(s): BRIAN BATES, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 1 TO 2 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <div style="text-align: center; border: 1px solid black; padding: 5px;"> CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD. </div>	

HYDROLOGY

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

VEGETATION - Use scientific names of plants

Sampling Point: B18

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 = Total Cover		

Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 = Total Cover		

Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Phalaris arundinacea</i>	40	Y	FACW
2	<i>Populus deltoides</i>	10	Y	FAC
3	<i>Solidago canadensis</i>	10	Y	FACU
4	<i>Salix petiolaris</i>	5	N	FACW
5	<i>Juncus tenuis</i>	5	N	FAC
6	<i>Hordeum jubatum</i>	5	N	FAC
7	<i>Scirpus atrovirens</i>	5	N	OBL
8	<i>Equisetum arvense</i>	5	N	FAC
9	<i>Asclepias incarnata</i>	5	N	OBL
10	<i>Sonchus arvensis</i>	2	N	FACU
11	<i>Taraxacum officinale</i>	2	N	FACU
12				
13				
14				
15				
		94 = Total Cover		

Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		0 = Total Cover		

50/20 Thresholds		
	20%	50%
Tree Stratum	0	0
Sapling/Shrub Stratum	0	0
Herb Stratum	19	47
Woody Vine Stratum	0	0

Dominance Test Worksheet		
Number of Dominant Species that are OBL, FACW, or FAC: <u>2</u> (A)		
Total Number of Dominant Species Across all Strata: <u>3</u> (B)		
Percent of Dominant Species that are OBL, FACW, or FAC: <u>66.67%</u> (A/B)		

Prevalence Index Worksheet		
Total % Cover of:		
OBL species	<u> </u> x 1 =	<u> </u>
FACW species	<u> </u> x 2 =	<u> </u>
FAC species	<u> </u> x 3 =	<u> </u>
FACU species	<u> </u> x 4 =	<u> </u>
UPL species	<u> </u> x 5 =	<u> </u>
Column totals	<u> </u> (A)	<u> </u> (B)
Prevalence Index = B/A = <u> </u>		

Hydrophytic Vegetation Indicators:
 Rapid test for hydrophytic vegetation
 Dominance test is >50%
 Prevalence index is ≤3.0*
 Morphological 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)
 DOMINANTS ARE EQUAL. MEETS FAC-N TEST BASED ON NON-DOMINANTS.

VEGETATION - Use scientific names of plants

Sampling Point: B19

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 = Total Cover		

Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 = Total Cover		

Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Daucus carota</i>	30	Y	UPL
2	<i>Melilotus alba</i>	20	Y	UPL
3	<i>Solidago altissima</i>	15	N	FACU
4	<i>Solidago canadensis</i>	15	N	FACU
5	<i>Juncus tenuis</i>	15	N	FAC
6	<i>Taraxacum officinale</i>	5	N	FACU
7				
8				
9				
10				
11				
12				
13				
14				
15				
		100 = Total Cover		

Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		0 = Total Cover		

50/20 Thresholds		
	20%	50%
Tree Stratum	0	0
Sapling/Shrub Stratum	0	0
Herb Stratum	20	50
Woody Vine Stratum	0	0

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:	0.00% (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*

Morphological 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)
DOES NOT MEET FAC-N TEST

VEGETATION - Use scientific names of plants

Sampling Point: B20

Tree Stratum					50/20 Thresholds					
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	20%	50%				
1					Tree Stratum	0	0			
2					Sapling/Shrub Stratum	0	0			
3					Herb Stratum	17	43			
4					Woody Vine Stratum	0	0			
5										
6										
7										
8										
9										
10										
		0	= Total Cover							
Sapling/Shrub Stratum					Dominance Test Worksheet					
Plot Size (15')		Absolute % Cover	Dominant Species	Indicator Status	Number of Dominant Species that are OBL, FACW, or FAC: <u>2</u> (A)					
1					Total Number of Dominant Species Across all Strata: <u>2</u> (B)					
2					Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)					
3					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 = _____					
4										
5										
6										
7										
8										
9										
10										
		0	= Total Cover							
Herb Stratum								Hydrophytic Vegetation Indicators:		
Plot Size (5')		Absolute % Cover	Dominant Species	Indicator Status	Rapid test for hydrophytic vegetation <input checked="" type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) Problematic hydrophytic vegetation* (explain)					
1	<i>Juncus tenuis</i>	30	Y	FAC	*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.					
2	<i>Populus deltoides</i>	25	Y	FAC						
3	<i>Phalaris arundinacea</i>	15	N	FACW						
4	<i>Scirpus atrovirens</i>	5	N	OBL						
5	<i>Equisetum arvense</i>	5	N	FAC						
6	<i>Hordeum jubatum</i>	5	N	FAC						
7										
8										
9										
10										
11										
12										
13										
14										
15										
		85	= Total Cover							
Woody Vine Stratum					Hydrophytic vegetation present?					
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	<u>Y</u>					
1										
2										
3										
4										
5										
		0	= Total Cover							

Remarks: (Include photo numbers here or on a separate sheet)
 DOMINANTS ARE FAC. MEETS FAC-N TEST BASED ON NON-DOMINANTS.

VEGETATION - Use scientific names of plants

Sampling Point: B21

Tree Stratum					50/20 Thresholds						
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	20%	50%					
1					Tree Stratum	0	0				
2					Sapling/Shrub Stratum	0	0				
3					Herb Stratum	19	48				
4					Woody Vine Stratum	0	0				
5											
6											
7											
8											
9											
10		0 = Total Cover									
Sapling/Shrub Stratum					Dominance Test Worksheet						
Plot Size (15')		Absolute % Cover	Dominant Species	Indicator Status	Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A)						
1					Total Number of Dominant Species Across all Strata: <u>2</u> (B)						
2					Percent of Dominant Species that are OBL, FACW, or FAC: <u>0.00%</u> (A/B)						
3											
4											
5											
6											
7											
8											
9											
10		0 = Total Cover									
Herb Stratum					Prevalence Index Worksheet						
Plot Size (5')		Absolute % Cover	Dominant Species	Indicator Status	Total % Cover of:						
1	<i>Daucus carota</i>	40	Y	UPL	OBL species	x 1 =					
2	<i>Melilotus alba</i>	20	Y	UPL	FACW species	x 2 =					
3	<i>Juncus tenuis</i>	15	N	FAC	FAC species	x 3 =					
4	<i>Solidago canadensis</i>	10	N	FACU	FACU species	x 4 =					
5	<i>Taraxacum officinale</i>	10	N	FACU	UPL species	x 5 =					
6					Column totals	(A) (B)					
7					Prevalence Index = B/A =						
8											
9											
10											
11											
12											
13											
14											
15		95 = Total Cover									
Woody Vine Stratum					Hydrophytic Vegetation Indicators:						
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	<input type="checkbox"/> Rapid test for hydrophytic vegetation <input type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic						
1					Definitions of Vegetation Strata:						
2											
3											
4											
5		0 = Total Cover									
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? <u> N </u>						
								1			
								2			
								3			
								4			

Remarks: (Include photo numbers here or on a separate sheet)
DOES NOT MEET FAC-N TEST

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/23/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B23
 Investigator(s): BRIAN BATES, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 2 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u> N </u> Hydric soil present? <u> N </u> Indicators of wetland hydrology present? <u> N </u>	Is the sampled area within a wetland? <u> N </u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p align="center">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

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

VEGETATION - Use scientific names of plants

Sampling Point: B23

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status			
1					50/20 Thresholds Tree Stratum 20% 50% Tree Stratum 0 0 Sapling/Shrub Stratum 0 0 Herb Stratum 18 45 Woody Vine Stratum 0 0		
2							
3							
4							
5							
6					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: 0.00% (A/B)		
7							
8							
9							
10							
		0 = Total Cover					
Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status			
1					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 = _____		
2							
3							
4							
5							
6							
7							
8							
9							
10							
		0 = Total Cover					
Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status			
1	<i>Solidago canadensis</i>	25	Y	FACU	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid test for hydrophytic vegetation <input type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence index is ≤3.0* <input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 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.		
2	<i>Melilotus alba</i>	20	Y	UPL			
3	<i>Daucus carota</i>	10	N	UPL			
4	<i>Poa pratensis</i>	10	N	FACU			
5	<i>Juncus tenuis</i>	10	N	FAC			
6	<i>Taraxacum officinale</i>	10	N	FACU			
7	<i>Phleum pratense</i>	5	N	FACU			
8							
9							
10							
11							
12							
13							
14							
15							
		90 = Total Cover					
Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status			
1					Hydrophytic vegetation present? <u> N </u>		
2							
3							
4							
5							
		0 = Total Cover					

Remarks: (Include photo numbers here or on a separate sheet)
DOES NOT MEET FAC-N TEST.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/23/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B24
 Investigator(s): BRIAN BATES, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 2 Lat.: *** Long.: *** Datum: ***CONTAC McMAHON ASSOCIATES, INC
 Soil Map Unit Name SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u> N </u> Hydric soil present? <u> N </u> Indicators of wetland hydrology present? <u> N </u>	Is the sampled area within a wetland? <u> N </u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p align="center">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

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

VEGETATION - Use scientific names of plants

Sampling Point: B25

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Populus deltoides</i>	50	Y	FAC
2	<i>Salix petiolaris</i>	50	Y	FACW
3				
4				
5				
6				
7				
8				
9				
10				

Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Phalaris arundinacea</i>	50	Y	FACW
2	<i>Salix interior</i>	10	N	FACW
3	<i>Populus deltoides</i>	10	N	FAC
4	<i>Hordeum jubatum</i>	5	N	FAC
5	<i>Scirpus atrovirens</i>	2	N	OBL
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				

50/20 Thresholds		
	20%	50%
Tree Stratum	0	0
Sapling/Shrub Stratum	20	50
Herb Stratum	15	39
Woody Vine Stratum	0	0

Dominance Test Worksheet		
Number of Dominant Species that are OBL, FACW, or FAC: <u>3</u> (A)		
Total Number of Dominant Species Across all Strata: <u>3</u> (B)		
Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (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*

Morphological 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)
MEETS FAC-N TEST

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/23/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B26
 Investigator(s): BRIAN BATES, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 2 TO 3 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u> N </u> Hydric soil present? <u> N </u> Indicators of wetland hydrology present? <u> N </u>	Is the sampled area within a wetland? <u> N </u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p style="text-align: center;">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/23/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B27
 Investigator(s): BRIAN BATES, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): TOESLOPE Local relief (concave, convex, none): CONCAVE
 Slope (%): 0 TO 1 Lat.: *** Long.: *** Datum: ***CONTAC McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p align="center">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

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

VEGETATION - Use scientific names of plants

Sampling Point: B27

Tree Stratum					50/20 Thresholds		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status		20%	50%
1					Tree Stratum	0	0
2					Sapling/Shrub Stratum	0	0
3					Herb Stratum	22	55
4					Woody Vine Stratum	0	0
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Sapling/Shrub Stratum					Dominance Test Worksheet		
Plot Size (15')		Absolute % Cover	Dominant Species	Indicator Status	Number of Dominant Species that are OBL, FACW, or FAC:		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
		0	= Total Cover		Total Number of Dominant Species Across all Strata:	2 (A)	
					Percent of Dominant Species that are OBL, FACW, or FAC:	100.00% (A/B)	
Herb Stratum					Prevalence Index Worksheet		
Plot Size (5')		Absolute % Cover	Dominant Species	Indicator Status	Total % Cover of:		
1	<i>Phalaris arundinacea</i>	40	Y	FACW	OBL species	x 1 =	
2	<i>Salix interior</i>	20	Y	FACW	FACW species	x 2 =	
3	<i>Fraxinus pennsylvanica</i>	15	N	FACW	FAC species	x 3 =	
4	<i>Populus deltoides</i>	15	N	FAC	FACU species	x 4 =	
5	<i>Salix petiolaris</i>	15	N	FACW	UPL species	x 5 =	
6	<i>Equisetum arvense</i>	5	N	FAC	Column totals	(A)	(B)
7					Prevalence Index = B/A =		
8							
9							
10							
11							
12							
13							
14							
15							
		110	= Total Cover				
Woody Vine Stratum					Hydrophytic Vegetation Indicators:		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	<input type="checkbox"/> Rapid test for hydrophytic vegetation <input checked="" type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
1							
2							
3							
4							
5							
		0	= Total Cover		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? <u>Y</u>							

Remarks: (Include photo numbers here or on a separate sheet)
MEETS FAC-N TEST

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/23/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B28
 Investigator(s): BRIAN BATES, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 0 TO 1 Lat.: *** Long.: *** Datum: ***CONTAC McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p style="text-align: center;">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

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

VEGETATION - Use scientific names of plants

Sampling Point: B28

Tree Stratum					Plot Size (30')		
		Absolute % Cover	Dominant Species	Indicator Status			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Sapling/Shrub Stratum					Plot Size (15')		
		Absolute % Cover	Dominant Species	Indicator Status			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Herb Stratum					Plot Size (5')		
		Absolute % Cover	Dominant Species	Indicator Status			
1	<i>Juncus tenuis</i>	20	Y	FAC			
2	<i>Populus deltoides</i>	20	Y	FAC			
3	<i>Erigeron strigosus</i>	5	Y	FACU			
4	<i>Salix petiolaris</i>	5	Y	FACW			
5	<i>Solidago gigantea</i>	5	Y	FACW			
6	<i>Hordeum jubatum</i>	5	Y	FAC			
7	<i>Phalaris arundinacea</i>	5	Y	FACW			
8	<i>Rhamnus cathartica</i>	5	Y	FAC			
9	<i>Scirpus atrovirens</i>	5	Y	OBL			
10	<i>Melilotus alba</i>	5	Y	UPL			
11	<i>Cornus alba</i>	2	N	FACW			
12	<i>Taraxacum officinale</i>	2	N	FACU			
13							
14							
15							
		84	= Total Cover				
Woody Vine Stratum					Plot Size (30')		
		Absolute % Cover	Dominant Species	Indicator Status			
1							
2							
3							
4							
5							
		0	= Total Cover				

50/20 Thresholds	20%	50%
Tree Stratum	0	0
Sapling/Shrub Stratum	0	0
Herb Stratum	17	42
Woody Vine Stratum	0	0

Dominance Test Worksheet	
Number of Dominant Species that are OBL, FACW, or FAC: <u>8</u> (A)	
Total Number of Dominant Species Across all Strata: <u>10</u> (B)	
Percent of Dominant Species that are OBL, FACW, or FAC: <u>80.00%</u> (A/B)	

Prevalence Index Worksheet	
Total % Cover of:	
OBL species	<u> </u> x 1 = <u> </u>
FACW species	<u> </u> x 2 = <u> </u>
FAC species	<u> </u> x 3 = <u> </u>
FACU species	<u> </u> x 4 = <u> </u>
UPL species	<u> </u> x 5 = <u> </u>
Column totals	<u> </u> (A) <u> </u> (B)
Prevalence Index = B/A = <u> </u>	

Hydrophytic Vegetation Indicators:	
<input type="checkbox"/> Rapid test for hydrophytic vegetation	
<input checked="" type="checkbox"/> Dominance test is >50%	
<input type="checkbox"/> Prevalence index is ≤3.0*	
<input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)	
<input type="checkbox"/> 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?	<u>Y</u>
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Remarks: (Include photo numbers here or on a separate sheet)

MEETS FAC-N TEST

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/23/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B30
 Investigator(s): BRIAN BATES, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 2 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <div style="border: 1px solid black; padding: 5px; text-align: center;"> CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD. </div>	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
Field Observations: Surface water present? Yes _____ No <u>X</u> Depth (inches): _____ Water table present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		Indicators of wetland hydrology present? <u>Y</u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <div style="border: 1px solid black; height: 20px; width: 100%;"></div>		
Remarks:		

VEGETATION - Use scientific names of plants

Sampling Point: B30

Tree Stratum					50/20 Thresholds		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	20%	50%	
1					Tree Stratum	0	0
2					Sapling/Shrub Stratum	0	0
3					Herb Stratum	17	43
4					Woody Vine Stratum	0	0
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Sapling/Shrub Stratum					Dominance Test Worksheet		
Plot Size (15')		Absolute % Cover	Dominant Species	Indicator Status	Number of Dominant Species that are OBL, FACW, or FAC: <u>5</u> (A)		
1					Total Number of Dominant Species Across all Strata: <u>6</u> (B)		
2					Percent of Dominant Species that are OBL, FACW, or FAC: <u>83.33%</u> (A/B)		
3							
4							
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Herb Stratum					Prevalence Index Worksheet		
Plot Size (5')		Absolute % Cover	Dominant Species	Indicator Status	Total % Cover of:		
1	<i>Phalaris arundinacea</i>	15	Y	FACW	OBL species	x 1 =	
2	<i>Melilotus alba</i>	10	Y	UPL	FACW species	x 2 =	
3	<i>Solidago gigantea</i>	10	Y	FACW	FAC species	x 3 =	
4	<i>Equisetum arvense</i>	10	Y	FAC	FACU species	x 4 =	
5	<i>Populus deltoides</i>	10	Y	FAC	UPL species	x 5 =	
6	<i>Rhamnus cathartica</i>	10	Y	FAC	Column totals	(A)	(B)
7	<i>Erigeron strigosus</i>	5	N	FACU	Prevalence Index = B/A =		
8	<i>Sonchus arvensis</i>	5	N	FACU			
9	<i>Trifolium pratense</i>	5	N	FACU			
10	<i>Taraxacum officinale</i>	5	N	FACU			
11							
12							
13							
14							
15							
		85	= Total Cover				
Woody Vine Stratum					Hydrophytic Vegetation Indicators:		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	Rapid test for hydrophytic vegetation		
1					<input checked="" type="checkbox"/> Dominance test is >50%		
2					<input type="checkbox"/> Prevalence index is ≤3.0*		
3					<input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)		
4					<input type="checkbox"/> Problematic hydrophytic vegetation* (explain)		
5					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
		0	= Total Cover				
Remarks: (Include photo numbers here or on a separate sheet)					Definitions of Vegetation Strata:		
MEETS FAC-N TEST					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? <u>Y</u>		

VEGETATION - Use scientific names of plants

Sampling Point: B31

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 = Total Cover		

Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status
1 <i>Salix interior</i>				FACW
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 = Total Cover		

Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status
1 <i>Salix interior</i>		30	Y	FACW
2 <i>Salix petiolaris</i>		20	Y	FACW
3 <i>Phragmites australis</i>		10	N	FACW
4 <i>Cornus alba</i>		5	N	FACW
5 <i>Asclepias incarnata</i>		5	N	OBL
6 <i>Juncus tenuis</i>		5	N	FAC
7 <i>Vitis riparia</i>		5	N	FAC
8				
9				
10				
11				
12				
13				
14				
15				
		80 = Total Cover		

Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		0 = Total Cover		

50/20 Thresholds		
	20%	50%
Tree Stratum	0	0
Sapling/Shrub Stratum	0	0
Herb Stratum	16	40
Woody Vine Stratum	0	0

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:	100.00% (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*

Morphological 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)
MEETS FAC-N TEST

VEGETATION - Use scientific names of plants

Sampling Point: B32

Tree Stratum					50/20 Thresholds		
Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status		20%	50%	
1					Tree Stratum	0	0
2					Sapling/Shrub Stratum	0	0
3					Herb Stratum	18	46
4					Woody Vine Stratum	0	0
5							
6							
7							
8							
9							
10							
0 = Total Cover							
Sapling/Shrub Stratum					Dominance Test Worksheet		
Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status				
1					Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A)		
2					Total Number of Dominant Species Across all Strata: <u>1</u> (B)		
3					Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)		
4							
5							
6							
7							
8							
9							
10							
0 = Total Cover							
Herb Stratum					Prevalence Index Worksheet		
Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status				
1	50	Y	FACW		Total % Cover of:		
2	10	N	FAC		OBL species <u> </u> x 1 = <u> </u>		
3	10	N	OBL		FACW species <u> </u> x 2 = <u> </u>		
4	5	N	OBL		FAC species <u> </u> x 3 = <u> </u>		
5	5	N	OBL		FACU species <u> </u> x 4 = <u> </u>		
6	5	N	FACU		UPL species <u> </u> x 5 = <u> </u>		
7	2	N	FACU		Column totals <u> </u> (A) <u> </u> (B)		
8	2	N	FAC		Prevalence Index = B/A = <u> </u>		
9	2	N	FACU				
10	1	N	FACU				
11							
12							
13							
14							
15							
92 = Total Cover							
Woody Vine Stratum					Hydrophytic Vegetation Indicators:		
Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status				
1					<input type="checkbox"/> Rapid test for hydrophytic vegetation		
2					<input checked="" type="checkbox"/> Dominance test is >50%		
3					<input type="checkbox"/> Prevalence index is ≤3.0*		
4					<input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)		
5					<input type="checkbox"/> Problematic hydrophytic vegetation* (explain)		
					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
Remarks: (Include photo numbers here or on a separate sheet)					Definitions of Vegetation Strata:		
MEETS FAC-N TEST					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.		
0 = Total Cover					Hydrophytic vegetation present? <u>Y</u>		

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/23/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B33
 Investigator(s): BRIAN BATES, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 2 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>N</u> Indicators of wetland hydrology present? <u>Y</u>	Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <div style="text-align: center; border: 1px solid black; padding: 5px;"> CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD. </div>	

HYDROLOGY

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

VEGETATION - Use scientific names of plants

Sampling Point: B33

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

50/20 Thresholds		
	20%	50%
Tree Stratum	0	0
Sapling/Shrub Stratum	0	0
Herb Stratum	20	50
Woody Vine Stratum	0	0

Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Dominance Test Worksheet	
Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A)	
Total Number of Dominant Species Across all Strata: <u>1</u> (B)	
Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)	

Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Phalaris arundinacea</i>	25	Y	FACW
2	<i>Solidago canadensis</i>	15	N	UPL
3	<i>Equisetum arvense</i>	15	N	FAC
4	<i>Melilotus alba</i>	15	N	UPL
5	<i>Daucus carota</i>	5	N	UPL
6	<i>Rhamnus cathartica</i>	5	N	FAC
7	<i>Sonchus arvensis</i>	5	N	FACU
8	<i>Carex bebbii</i>	5	N	OBL
9	<i>Juncus tenuis</i>	5	N	FAC
10	<i>Vitis riparia</i>	5	N	FAC
11				
12				
13				
14				
15				

Prevalence Index Worksheet	
Total % Cover of:	
OBL species	<u> </u> x 1 = <u> </u>
FACW species	<u> </u> x 2 = <u> </u>
FAC species	<u> </u> x 3 = <u> </u>
FACU species	<u> </u> x 4 = <u> </u>
UPL species	<u> </u> x 5 = <u> </u>
Column totals	<u> </u> (A) <u> </u> (B)
Prevalence Index = B/A = <u> </u>	

Hydrophytic Vegetation Indicators:
 Rapid test for hydrophytic vegetation
 Dominance test is >50%
 Prevalence index is ≤3.0*
 Morphological 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

Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				

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)
 MEETS FAC-N TEST

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/23/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B34
 Investigator(s): BRIAN BATES, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 4 TO 5 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation X, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u> N </u> Hydric soil present? <u> N </u> Indicators of wetland hydrology present? <u> N </u>	Is the sampled area within a wetland? <u> N </u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p align="center">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD. NON-NORMAL CIRCUMSTANCE. THE SAMPLING POINT HAS MOWING HISTORY.</p>	

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 <u> X </u> Depth (inches): _____ Water table present? Yes _____ No <u> X </u> Depth (inches): _____ Saturation present? Yes _____ No <u> X </u> Depth (inches): _____ (includes capillary fringe)		Indicators of wetland hydrology present? <u> N </u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: _____		
Remarks: <p align="center">NO PRIMARY OR SECONDARY INDICATORS OF HYDROLOGY WERE OBSERVED.</p>		

VEGETATION - Use scientific names of plants

Sampling Point: B34

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status	50/20 Thresholds		
1					Tree Stratum	20%	50%
2					Tree Stratum	0	0
3					Sapling/Shrub Stratum	0	0
4					Herb Stratum	17	43
5					Woody Vine Stratum	0	0
6					Dominance Test Worksheet		
7					Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A)		
8					Total Number of Dominant Species Across all Strata: <u>2</u> (B)		
9					Percent of Dominant Species that are OBL, FACW, or FAC: <u>0.00%</u> (A/B)		
10		0 = Total Cover			Prevalence Index Worksheet		
Sapling/Shrub Stratum					Total % Cover of:		
Plot Size (15')					OBL species _____ x 1 = _____		
Absolute % Cover					FACW species _____ x 2 = _____		
Dominant Species					FAC species _____ x 3 = _____		
Indicator Status					FACU species _____ x 4 = _____		
1					UPL species _____ x 5 = _____		
2					Column totals _____ (A) _____ (B)		
3					Prevalence Index = B/A = _____		
4					Hydrophytic Vegetation Indicators:		
5					___ Rapid test for hydrophytic vegetation		
6					___ Dominance test is >50%		
7					___ Prevalence index is ≤3.0*		
8					___ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)		
9					___ Problematic hydrophytic vegetation* (explain)		
10					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
11					Definitions of Vegetation Strata:		
12					Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
13					Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.		
14					Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.		
15					Woody vines - All woody vines greater than 3.28 ft in height.		
Herb Stratum					Hydrophytic vegetation present? <u>N</u>		
Plot Size (5')							
Absolute % Cover							
Dominant Species							
Indicator Status							
1	<i>Poa pratensis</i>	30	Y	FACU			
2	<i>Melilotus alba</i>	25	Y	UPL			
3	<i>Trifolium pratense</i>	15	N	FACU			
4	<i>Taraxacum officinale</i>	10	N	FACU			
5	<i>Plantago major</i>	5	N	FACU			
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
85 = Total Cover							
Woody Vine Stratum							
Plot Size (30')							
Absolute % Cover							
Dominant Species							
Indicator Status							
1							
2							
3							
4							
5							
0 = Total Cover							

Remarks: (Include photo numbers here or on a separate sheet)
DOES NOT MEET FAC-N TEST. NON-NORMAL CIRCUMSTANCE. THE SAMPLING POINT HAS MOWING HISTORY. PROBLEMATIC HYDROPHYTIC VEGETATION PROCEDURES NOT EVALUATED BASED ON A LACK OF HYDRIC SOIL AND HYDROLOGY.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/23/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B35
 Investigator(s): BRIAN BATES, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 1 TO 2 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <div style="border: 1px solid black; padding: 10px; margin: 5px 0;"> <p style="text-align: center;">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p> </div>	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
Field Observations: Surface water present? Yes _____ No <u>X</u> Depth (inches): _____ Water table present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		Indicators of wetland hydrology present? <u>Y</u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <div style="border: 1px solid black; height: 20px; margin: 5px 0;"></div>		
Remarks:		

VEGETATION - Use scientific names of plants

Sampling Point: B35

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 = Total Cover		

Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status
1 <i>Acer negundo</i>		10	Y	FAC
2				
3				
4				
5				
6				
7				
8				
9				
10				
		10 = Total Cover		

Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status
1 <i>Phalaris arundinacea</i>		40	Y	FACW
2 <i>Juncus tenuis</i>		10	Y	FAC
3 <i>Toxicodendron radicans</i>		10	Y	FAC
4 <i>Solidago canadensis</i>		10	Y	FACU
5 <i>Cornus alba</i>		10	Y	FACW
6 <i>Equisetum arvense</i>		5	N	FAC
7 <i>Populus deltoides</i>		2	N	FAC
8				
9				
10				
11				
12				
13				
14				
15				
		87 = Total Cover		

Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		0 = Total Cover		

50/20 Thresholds

	20%	50%
Tree Stratum	0	0
Sapling/Shrub Stratum	2	5
Herb Stratum	17	44
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 5 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 83.33% (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*

Morphological 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)
MEETS FAC-N TEST

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/23/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B36
 Investigator(s): BRIAN BATES, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 3 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u> N </u> Hydric soil present? <u> N </u> Indicators of wetland hydrology present? <u> N </u>	Is the sampled area within a wetland? <u> N </u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p align="center">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/23/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B37
 Investigator(s): BRIAN BATES, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 1 TO 2 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Yes Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? Yes circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u> N </u> Hydric soil present? <u> N </u> Indicators of wetland hydrology present? <u> N </u>	Is the sampled area within a wetland? <u> N </u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <div style="text-align: center; border: 1px solid black; padding: 5px;"> CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD. </div>	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) Surface (B8)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
Field Observations: Surface water present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water table present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Indicators of wetland hydrology present? <u> N </u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: <div style="text-align: center; border: 1px solid black; padding: 5px;"> NO PRIMARY OR SECONDARY INDICATORS OF HYDROLOGY WERE OBSERVED. </div>	

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/23/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B38
 Investigator(s): BRIAN BATES, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 1 TO 2 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p align="center">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

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

VEGETATION - Use scientific names of plants

Sampling Point: B38

Tree Stratum					50/20 Thresholds		
Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status		20%	50%	
1					Tree Stratum	0	0
2					Sapling/Shrub Stratum	0	0
3					Herb Stratum	16	41
4					Woody Vine Stratum	0	0
5							
6							
7							
8							
9							
10							
		0	= Total Cover				

Sapling/Shrub Stratum				
Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status	
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0	= Total Cover	

Herb Stratum				
Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status	
1	30	Y	FACW	
2	15	Y	FAC	
3	10	N	FAC	
4	5	N	FAC	
5	5	N	FAC	
6	5	N	OBL	
7	5	N	FACW	
8	5	N	FACU	
9	2	N	FACW	
10				
11				
12				
13				
14				
15				
		82	= Total Cover	

Woody Vine Stratum				
Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status	
1				
2				
3				
4				
5				
		0	= Total Cover	

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: 100.00% (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*

____ Morphological 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)
 MEETS FAC-N TEST.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/23/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B39
 Investigator(s): BRIAN BATES, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 10 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u> N </u> Hydric soil present? <u> N </u> Indicators of wetland hydrology present? <u> N </u>	Is the sampled area within a wetland? <u> N </u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p align="center">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B41
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): TOESLOPE Local relief (concave, convex, none): NONE
 Slope (%): 0 TO 1 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil X, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p align="center">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

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

VEGETATION - Use scientific names of plants

Sampling Point: B41

Tree Stratum					50/20 Thresholds		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	20%	50%	
1					Tree Stratum	0	0
2					Sapling/Shrub Stratum	0	0
3					Herb Stratum	18	45
4					Woody Vine Stratum	0	0
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Sapling/Shrub Stratum					Dominance Test Worksheet		
Plot Size (15')		Absolute % Cover	Dominant Species	Indicator Status	Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A)		
1					Total Number of Dominant Species Across all Strata: <u>1</u> (B)		
2					Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)		
3							
4							
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Herb Stratum					Prevalence Index Worksheet		
Plot Size (5')		Absolute % Cover	Dominant Species	Indicator Status	Total % Cover of:		
1	<i>Phalaris arundinacea</i>	70	Y	FACW	OBL species	x 1 =	
2	<i>Eleocharis obtusa</i>	15	N	OBL	FACW species	x 2 =	
3	<i>Hordeum jubatum</i>	5	N	FAC	FAC species	x 3 =	
4					FACU species	x 4 =	
5					UPL species	x 5 =	
6					Column totals	(A)	(B)
7					Prevalence Index = B/A =		
8							
9							
10							
11							
12							
13							
14							
15							
		90	= Total Cover				
Woody Vine Stratum					Hydrophytic Vegetation Indicators:		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	<input type="checkbox"/> Rapid test for hydrophytic vegetation <input checked="" type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence index is ≤3.0* <input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic hydrophytic vegetation* (explain)		
1					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
2							
3							
4							
5							
		0	= Total Cover				
Remarks: (Include photo numbers here or on a separate sheet)					Definitions of Vegetation Strata:		
MEETS FAC-N TEST					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? <u>Y</u>		

SOIL

Sampling Point: B41

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-10	7.5 YR 3/3	100					SIL	HISTORICAL FILL
10-24	5 YR 4/4	85	5 YR 4/6	15	C	M	C	HISTORICAL FILL

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

Hydric Soil Indicators:

Indicators for Problematic Hydric Soils:

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (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)

- 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 (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric soil present? Y

Remarks:

THE SAMPLING POINT CONTAINS HISTORICAL FILL. FILL WAS PLACED IN THE YEAR 2000 BASED ON OUTAGAMIE COUNTY IMAGERY AND IS THE NORMAL CIRCUMSTANCE. SUBSEQUENTLY, THE SOILS ARE NOT CONSIDERED SIGNIFICANTLY DISTURBED. NO NON-PROBLEMATIC HYDRIC SOIL INDICATORS ABOVE OBSERVED SO PROCEDURES FOR PROBLEMATIC HYDRIC SOIL INDICATORS EVALUATED. STEP 1. I VERIFIED THAT HYDROPHYTIC VEGETATION IS PRESENT. STEP 2. I VERIFIED THAT AT LEAST 1 PRIMARY OR TWO SECONDARY INDICATORS OF HYDROLOGY WERE PRESENT. STEP 3. THE SOIL PROFILE WAS THOROUGHLY DESCRIBED. THE LANDSCAPE SETTING IS IN A POSITION TO COLLECT AND CONCENTRATE WATER BASED ON GEOMORPHIC POSITION/SLOPE. NON-PROBLEMATIC HYDRIC SOIL INDICATORS ABOVE ARE POSSIBLY LACKING AS A RESULT OF THE RED PARENT MATERIAL FILL SOILS. RED PARENT MATERIAL SOILS ARE PROBLEMATIC BECAUSE THEY ARE LESS LIKELY TO SHOW COLOR PATTERNS ASSOCIATED WITH REDUCING CONDITIONS. BPJ THE FILL SOILS ARE ACTING AS IN-SITU SOILS AND THE SOILS ARE HYDRIC PER THE F21 PROBLEMATIC HYDRIC SOIL INDICATOR.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B42
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 2 TO 3 Lat.: *** Long.: *** Datum: ***CONTAC McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u> N </u> Hydric soil present? <u> N </u> Indicators of wetland hydrology present? <u> N </u>	Is the sampled area within a wetland? <u> N </u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p style="text-align: center;">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

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

VEGETATION - Use scientific names of plants

Sampling Point: B42

Tree Stratum					50/20 Thresholds		
Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status		20%	50%	
1					Tree Stratum	0	0
2					Sapling/Shrub Stratum	0	0
3					Herb Stratum	19	49
4					Woody Vine Stratum	0	0
5							
6							
7							
8							
9							
10							
	0	= Total Cover					
Sapling/Shrub Stratum					Dominance Test Worksheet		
Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status				
1					Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A)		
2					Total Number of Dominant Species Across all Strata: <u>2</u> (B)		
3					Percent of Dominant Species that are OBL, FACW, or FAC: <u>50.00%</u> (A/B)		
4							
5							
6							
7							
8							
9							
10							
	0	= Total Cover					
Herb Stratum					Prevalence Index Worksheet		
Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status				
1	50	Y	FACU		Total % Cover of:		
2	30	Y	FACW		OBL species _____ x 1 = _____		
3	10	N	FACU		FACW species _____ x 2 = _____		
4	5	N	FACU		FAC species _____ x 3 = _____		
5	2	N	FACU		FACU species _____ x 4 = _____		
6					UPL species _____ x 5 = _____		
7					Column totals _____ (A) _____ (B)		
8					Prevalence Index = B/A = _____		
9							
10							
11							
12							
13							
14							
15							
	97	= Total Cover					
Woody Vine Stratum					Hydrophytic Vegetation Indicators:		
Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status				
1					___ Rapid test for hydrophytic vegetation		
2					___ Dominance test is >50%		
3					___ Prevalence index is ≤3.0*		
4					___ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)		
5					___ Problematic hydrophytic vegetation* (explain)		
	0	= Total Cover			*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
Remarks: (Include photo numbers here or on a separate sheet)					Definitions of Vegetation Strata:		
DOMINANTS ARE EQUAL. DOES NOT MEET FAC-N TEST BASED ON NON-DOMINANTS.					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? <u> N </u>		

VEGETATION - Use scientific names of plants

Sampling Point: B43

Tree Stratum					50/20 Thresholds		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	20%	50%	
1					Tree Stratum	0	0
2					Sapling/Shrub Stratum	0	0
3					Herb Stratum	19	48
4					Woody Vine Stratum	0	0
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Sapling/Shrub Stratum					Dominance Test Worksheet		
Plot Size (15')		Absolute % Cover	Dominant Species	Indicator Status	Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A)		
1					Total Number of Dominant Species Across all Strata: <u>2</u> (B)		
2					Percent of Dominant Species that are OBL, FACW, or FAC: <u>0.00%</u> (A/B)		
3							
4							
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Herb Stratum					Prevalence Index Worksheet		
Plot Size (5')		Absolute % Cover	Dominant Species	Indicator Status	Total % Cover of:		
1	<i>Lotus corniculatus</i>	30	Y	FACU	OBL species	x 1 =	
2	<i>Poa pratensis</i>	20	Y	FACU	FACW species	x 2 =	
3	<i>Trifolium pratense</i>	15	N	FACU	FAC species	x 3 =	
4	<i>Phalaris arundinacea</i>	15	N	FACW	FACU species	x 4 =	
5	<i>Taraxacum officinale</i>	10	N	FACU	UPL species	x 5 =	
6	<i>Sonchus arvensis</i>	5	N	FACU	Column totals	(A) (B)	
7					Prevalence Index = B/A =		
8							
9							
10							
11							
12							
13							
14							
15							
		95	= Total Cover				
Woody Vine Stratum					Hydrophytic Vegetation Indicators:		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	Rapid test for hydrophytic vegetation		
1					Dominance test is >50%		
2					Prevalence index is ≤3.0*		
3					Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)		
4					Problematic hydrophytic vegetation* (explain)		
5					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
		0	= Total Cover				
Remarks: (Include photo numbers here or on a separate sheet)					Definitions of Vegetation Strata:		
DOES NOT MEET FAC-N TEST					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? <u>N</u>		

SOIL

Sampling Point: B43

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-10	10 YR 3/2	100					SIL	HISTORICAL FILL
10-24	5 YR 4/4	90	5 YR 4/6	10	C	M	C	HISTORICAL FILL

*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 Surface (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 (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? N

Remarks:

THE SAMPLING POINT CONTAINS HISTORICAL FILL. THE FILL WAS PLACED IN THE YEAR 2000 BASED ON OUTAGAMIE COUNTY IMAGERY AND IS THE NORMAL CIRCUMSTANCE. SUBSEQUENTLY, THE SOILS ARE NOT CONSIDERED SIGNIFICANTLY DISTURBED. NO HYDRIC SOIL INDICATORS ABOVE OBSERVED. PROBLEMATIC HYDRIC SOIL PROCEDURES NOT EVALUATED BASED ON A LACK OF HYDROPHYTES AND HYDROLOGY.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B44
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 2 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u> N </u> Hydric soil present? <u> N </u> Indicators of wetland hydrology present? <u> N </u>	Is the sampled area within a wetland? <u> N </u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p align="center">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

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

VEGETATION - Use scientific names of plants

Sampling Point: B44

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status	50/20 Thresholds	
1 _____					Tree Stratum	0 0
2 _____					Sapling/Shrub Stratum	0 0
3 _____					Herb Stratum	16 40
4 _____					Woody Vine Stratum	0 0
5 _____					Dominance Test Worksheet	
6 _____					Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A)	
7 _____					Total Number of Dominant Species Across all Strata: <u>5</u> (B)	
8 _____					Percent of Dominant Species that are OBL, FACW, or FAC: <u>20.00%</u> (A/B)	
9 _____					Prevalence Index Worksheet	
10 _____		<u>0</u> = Total Cover			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 = _____	
Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status		
1 _____						
2 _____						
3 _____						
4 _____						
5 _____						
6 _____						
7 _____						
8 _____						
9 _____						
10 _____		<u>0</u> = Total Cover				
Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status		
1 <i>Poa pratensis</i>		30	Y	FACU	Hydrophytic Vegetation Indicators:	
2 <i>Asclepias syriaca</i>		10	Y	UPL	____ Rapid test for hydrophytic vegetation	
3 <i>Trifolium pratense</i>		10	Y	FACU	____ Dominance test is >50%	
4 <i>Taraxacum officinale</i>		10	Y	FACU	____ Prevalence index is ≤3.0*	
5 <i>Phalaris arundinacea</i>		10	Y	FACW	____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)	
6 <i>Sonchus arvensis</i>		5	N	FACU	____ Problematic hydrophytic vegetation* (explain)	
7 <i>Lotus corniculatus</i>		5	N	FACU	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
8 _____					Definitions of Vegetation Strata:	
9 _____					Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
10 _____					Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.	
11 _____					Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
12 _____					Woody vines - All woody vines greater than 3.28 ft in height.	
13 _____						
14 _____						
15 _____		<u>80</u> = Total Cover				
Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status		
1 _____					Hydrophytic vegetation present? <u>N</u>	
2 _____						
3 _____						
4 _____						
5 _____		<u>0</u> = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet)						
DOES NOT MEET FAC-N TEST						

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B45
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): TOESLOPE Local relief (concave, convex, none): NONE
 Slope (%): 0 TO 1 Lat.: *** Long.: *** Datum: ***CONTAC McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil X, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p style="text-align: center;">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

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

VEGETATION - Use scientific names of plants

Sampling Point: B45

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 = Total Cover		

Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 = Total Cover		

Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Phalaris arundinacea</i>	60	Y	FACW
2	<i>Poa pratensis</i>	10	N	FACU
3	<i>Phragmites australis</i>	5	N	FACW
4	<i>Sonchus arvensis</i>	5	N	FACU
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		80 = Total Cover		

Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		0 = Total Cover		

50/20 Thresholds

	20%	50%
Tree Stratum	0	0
Sapling/Shrub Stratum	0	0
Herb Stratum	16	40
Woody Vine Stratum	0	0

Dominance Test Worksheet

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

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

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (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*

Morphological 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)
MEETS FAC-N TEST

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B46
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 2 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? _____ Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? _____ circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u> N </u> Hydric soil present? <u> N </u> Indicators of wetland hydrology present? <u> N </u>	Is the sampled area within a wetland? <u> N </u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <div style="border: 1px solid black; padding: 5px; text-align: center;"> CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD. </div>	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
Field Observations: Surface water present? Yes _____ No <u> X </u> Depth (inches): _____ Water table present? Yes _____ No <u> X </u> Depth (inches): _____ Saturation present? Yes _____ No <u> X </u> Depth (inches): _____ (includes capillary fringe)		Indicators of wetland hydrology present? <u> N </u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: <div style="border: 1px solid black; padding: 5px; text-align: center;"> NO PRIMARY OR SECONDARY INDICATORS OF HYDROLOGY WERE OBSERVED. </div>		

VEGETATION - Use scientific names of plants

Sampling Point: B46

Tree Stratum					50/20 Thresholds		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	20%	50%	
1					Tree Stratum	0	0
2					Sapling/Shrub Stratum	0	0
3					Herb Stratum	18	45
4					Woody Vine Stratum	0	0
5							
6							
7							
8							
9							
10							
		0	= Total Cover		Dominance Test Worksheet		
					Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A)		
					Total Number of Dominant Species Across all Strata: <u>2</u> (B)		
					Percent of Dominant Species that are OBL, FACW, or FAC: <u>0.00%</u> (A/B)		
Sapling/Shrub Stratum					Prevalence Index Worksheet		
Plot Size (15')		Absolute % Cover	Dominant Species	Indicator Status	Total % Cover of:		
1					OBL species	x 1 =	
2					FACW species	x 2 =	
3					FAC species	x 3 =	
4					FACU species	x 4 =	
5					UPL species	x 5 =	
6					Column totals	(A)	(B)
7					Prevalence Index = B/A =		
8							
9							
10							
		0	= Total Cover		Hydrophytic Vegetation Indicators:		
					<input type="checkbox"/> Rapid test for hydrophytic vegetation		
					<input type="checkbox"/> Dominance test is >50%		
					<input type="checkbox"/> Prevalence index is ≤3.0*		
					Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)		
					<input type="checkbox"/> Problematic hydrophytic vegetation* (explain)		
					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
Herb Stratum					Definitions of Vegetation Strata:		
Plot Size (5')		Absolute % Cover	Dominant Species	Indicator Status	Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
1	<i>Bromus inermis</i>	40	Y	UPL	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.		
2	<i>Lotus corniculatus</i>	25	Y	FACU	Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.		
3	<i>Cirsium arvense</i>	5	N	FACU	Woody vines - All woody vines greater than 3.28 ft in height.		
4	<i>Phalaris arundinacea</i>	5	N	FACW			
5	<i>Sonchus arvensis</i>	5	N	FACU			
6	<i>Poa pratensis</i>	5	N	FACU			
7	<i>Solidago canadensis</i>	5	N	FACU			
8							
9							
10							
11							
12							
13							
14							
15							
		90	= Total Cover		Hydrophytic vegetation present? <u>N</u>		
Woody Vine Stratum							
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status			
1							
2							
3							
4							
5							
		0	= Total Cover				

Remarks: (Include photo numbers here or on a separate sheet)
DOES NOT MEET FAC-N TEST

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B47
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 2 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u> N </u> Hydric soil present? <u> N </u> Indicators of wetland hydrology present? <u> N </u>	Is the sampled area within a wetland? <u> N </u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p align="center">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

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

VEGETATION - Use scientific names of plants

Sampling Point: B47

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status	50/20 Thresholds		
1					Tree Stratum	20%	50%
2					Tree Stratum	0	0
3					Sapling/Shrub Stratum	0	0
4					Herb Stratum	16	40
5					Woody Vine Stratum	0	0
6					Dominance Test Worksheet		
7					Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A)		
8					Total Number of Dominant Species Across all Strata: <u>2</u> (B)		
9					Percent of Dominant Species that are OBL, FACW, or FAC: <u>0.00%</u> (A/B)		
10		0	= Total Cover		Prevalence Index Worksheet		
Sapling/Shrub Stratum					Total % Cover of:		
Plot Size (15')					OBL species _____ x 1 = _____		
Absolute % Cover					FACW species _____ x 2 = _____		
Dominant Species					FAC species _____ x 3 = _____		
Indicator Status					FACU species _____ x 4 = _____		
1					UPL species _____ x 5 = _____		
2					Column totals _____ (A) _____ (B)		
3					Prevalence Index = B/A = _____		
4					Hydrophytic Vegetation Indicators:		
5					___ Rapid test for hydrophytic vegetation		
6					___ Dominance test is >50%		
7					___ Prevalence index is ≤3.0*		
8					___ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)		
9					___ Problematic hydrophytic vegetation* (explain)		
10					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
11					Definitions of Vegetation Strata:		
12					Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
13					Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.		
14					Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.		
15					Woody vines - All woody vines greater than 3.28 ft in height.		
0 = Total Cover					Hydrophytic vegetation present? <u>N</u>		
Herb Stratum							
Plot Size (5')							
Absolute % Cover							
Dominant Species							
Indicator Status							
1							
2	<i>Bromus inermis</i>	20	Y	UPL			
3	<i>Poa pratensis</i>	20	Y	FACU			
4	<i>Trifolium pratense</i>	15	N	FACU			
5	<i>Lotus corniculatus</i>	15	N	FACU			
6	<i>Taraxacum officinale</i>	5	N	FACU			
7	<i>Phleum pratense</i>	5	N	FACU			
8							
9							
10							
11							
12							
13							
14							
15							
80 = Total Cover							
Woody Vine Stratum							
Plot Size (30')							
Absolute % Cover							
Dominant Species							
Indicator Status							
1							
2							
3							
4							
5							
0 = Total Cover							

Remarks: (Include photo numbers here or on a separate sheet)
DOES NOT MEET FAC-N TEST

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B48
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 2 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u> N </u> Hydric soil present? <u> N </u> Indicators of wetland hydrology present? <u> N </u>	Is the sampled area within a wetland? <u> N </u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <div style="text-align: center; border: 1px solid black; padding: 5px;"> CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD. </div>	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery <input type="checkbox"/> (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
Field Observations: Surface water present? Yes _____ No <u> X </u> Depth (inches): _____ Water table present? Yes _____ No <u> X </u> Depth (inches): _____ Saturation present? Yes _____ No <u> X </u> Depth (inches): _____ (includes capillary fringe)	Indicators of wetland hydrology present? <u> N </u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <hr/>	
Remarks: <div style="text-align: center; border: 1px solid black; padding: 5px;"> NO PRIMARY OR SECONDARY INDICATORS OF HYDROLOGY WERE OBSERVED. </div>	

VEGETATION - Use scientific names of plants

Sampling Point: B48

Tree Stratum					50/20 Thresholds		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	20%	50%	
1					Tree Stratum	0	0
2					Sapling/Shrub Stratum	0	0
3					Herb Stratum	18	45
4					Woody Vine Stratum	0	0
5							
6							
7							
8							
9							
10							
		0	= Total Cover				

Sapling/Shrub Stratum					Dominance Test Worksheet		
Plot Size (15')		Absolute % Cover	Dominant Species	Indicator Status	Number of Dominant Species that are OBL, FACW, or FAC:		(A)
1						0	
2					Total Number of Dominant Species Across all Strata:	3	(B)
3					Percent of Dominant Species that are OBL, FACW, or FAC:	0.00%	(A/B)
4							
5							
6							
7							
8							
9							
10							
		0	= Total Cover				

Herb Stratum					Prevalence Index Worksheet		
Plot Size (5')		Absolute % Cover	Dominant Species	Indicator Status	Total % Cover of:		
1	<i>Bromus inermis</i>	40	Y	UPL	OBL species	x 1 =	
2	<i>Lotus corniculatus</i>	25	Y	FACU	FACW species	x 2 =	
3	<i>Poa pratensis</i>	20	Y	FACU	FAC species	x 3 =	
4	<i>Taraxacum officinale</i>	2	N	FACU	FACU species	x 4 =	
5	<i>Trifolium pratense</i>	2	N	FACU	UPL species	x 5 =	
6	<i>Rumex crispus</i>	1	N	FAC	Column totals	(A)	(B)
7					Prevalence Index = B/A =		
8							
9							
10							
11							
12							
13							
14							
15							
		90	= Total Cover				

Woody Vine Stratum					Hydrophytic Vegetation Indicators:		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	<input type="checkbox"/> Rapid test for hydrophytic vegetation		
1					<input type="checkbox"/> Dominance test is >50%		
2					<input type="checkbox"/> Prevalence index is ≤3.0*		
3					<input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)		
4					<input type="checkbox"/> Problematic hydrophytic vegetation* (explain)		
5					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
		0	= Total Cover				

Remarks: (Include photo numbers here or on a separate sheet)					Definitions of Vegetation Strata:		
DOES NOT MEET FAC-N TEST					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	

VEGETATION - Use scientific names of plants

Sampling Point: B49

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status	50/20 Thresholds		
1 _____					Tree Stratum	20%	50%
2 _____					Sapling/Shrub Stratum	0	0
3 _____					Herb Stratum	0	0
4 _____					Woody Vine Stratum	20	50
5 _____						0	0
6 _____					Dominance Test Worksheet		
7 _____					Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A)		
8 _____					Total Number of Dominant Species Across all Strata: <u>1</u> (B)		
9 _____					Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)		
10 _____		0	= Total Cover		Prevalence Index Worksheet		
Sapling/Shrub Stratum					Total % Cover of:		
Plot Size (15')					OBL species _____ x 1 = _____		
Absolute % Cover					FACW species _____ x 2 = _____		
Dominant Species					FAC species _____ x 3 = _____		
Indicator Status					FACU species _____ x 4 = _____		
1 _____					UPL species _____ x 5 = _____		
2 _____					Column totals _____ (A) _____ (B)		
3 _____					Prevalence Index = B/A = _____		
4 _____					Hydrophytic Vegetation Indicators:		
5 _____					____ Rapid test for hydrophytic vegetation		
6 _____					<input checked="" type="checkbox"/> Dominance test is >50%		
7 _____					____ Prevalence index is ≤3.0*		
8 _____					____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)		
9 _____					____ Problematic hydrophytic vegetation* (explain)		
10 _____					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
11 _____					Definitions of Vegetation Strata:		
12 _____					Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
13 _____					Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.		
14 _____					Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.		
15 _____					Woody vines - All woody vines greater than 3.28 ft in height.		
100 = Total Cover					Hydrophytic vegetation present? <u>Y</u>		
Woody Vine Stratum							
Plot Size (30')							
Absolute % Cover							
Dominant Species							
Indicator Status							
1 _____							
2 _____							
3 _____							
4 _____							
5 _____							
0 = Total Cover							
Remarks: (Include photo numbers here or on a separate sheet)							
MEETS FAC-N TEST							

VEGETATION - Use scientific names of plants

Sampling Point: B51

Tree Stratum					50/20 Thresholds					
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	20%	50%				
1	<i>Acer negundo</i>	15	Y	FAC	Tree Stratum	5	13			
2	<i>Populus tremuloides</i>	10	Y	FAC	Sapling/Shrub Stratum	6	15			
3					Herb Stratum	18	46			
4					Woody Vine Stratum	0	0			
5										
6										
7										
8										
9										
10		25	= Total Cover							
Sapling/Shrub Stratum					Dominance Test Worksheet					
Plot Size (15')		Absolute % Cover	Dominant Species	Indicator Status	Number of Dominant Species that are OBL, FACW, or FAC: <u>3</u> (A)					
1	<i>Populus tremuloides</i>	30	Y	FAC	Total Number of Dominant Species Across all Strata: <u>6</u> (B)					
2					Percent of Dominant Species that are OBL, FACW, or FAC: <u>50.00%</u> (A/B)					
3					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 = _____					
4										
5										
6										
7										
8										
9										
10		30	= Total Cover							
Herb Stratum								Hydrophytic Vegetation Indicators:		
Plot Size (5')		Absolute % Cover	Dominant Species	Indicator Status				<input type="checkbox"/> Rapid test for hydrophytic vegetation <input type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence index is ≤3.0* <input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic hydrophytic vegetation* (explain)		
1	<i>Daucus carota</i>	30	Y	UPL	*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.					
2	<i>Sonchus arvensis</i>	15	Y	FACU						
3	<i>Poa pratensis</i>	15	Y	FACU						
4	<i>Taraxacum officinale</i>	10	N	FACU						
5	<i>Populus tremuloides</i>	10	N	FAC						
6	<i>Phalaris arundinacea</i>	5	N	FACW						
7	<i>Solidago gigantea</i>	3	N	FACW						
8	<i>Cirsium arvense</i>	2	N	FACU						
9	<i>Rhamnus cathartica</i>	2	N	FAC						
10										
11										
12										
13										
14										
15		92	= Total Cover							
Woody Vine Stratum					Hydrophytic vegetation present?					
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	<input type="checkbox"/> <u>N</u>					
1										
2										
3										
4										
5		0	= Total Cover							

Remarks: (Include photo numbers here or on a separate sheet)
DOES NOT MEET FAC-N TEST

SOIL

Sampling Point: B51

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-14	7.5 YR 3/2 &	50					SIL	HISTORICAL FILL
	7.5 YR 5/4	50						
14-24	7.5 YR 3/2 &	40	7.5 YR 4/6	5	C	M	SIL	HISTORICAL FILL
	7.5 YR 5/4	40	7.5 YR 4/6	5	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 Surface (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 (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric soil present? N

Remarks:

THE SAMPLING POINT CONTAINS HISTORICAL FILL. THE FILL WAS PLACED IN THE YEAR 2000 BASED ON OUTAGAMIE COUNTY IMAGERY AND IS THE NORMAL CIRCUMSTANCE. SUBSEQUENTLY, THE SOILS ARE NOT CONSIDERED SIGNIFICANTLY DISTURBED. NO HYDRIC SOIL INDICATORS ABOVE OBSERVED. PROBLEMATIC HYDRIC SOIL PROCEDURES NOT EVALUATED BASED ON A LACK OF HYDROPHYTES AND HYDROLOGY.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B52
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): GENTLY ROLLING FIELD Local relief (concave, convex, none): NONE
 Slope (%): 0 TO 1 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation X, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p align="center">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD. NON-NORMAL CIRCUMSTANCE, SAMPLING POINT APPEARS TO HAVE BEEN MOWED WITHIN THE LAST FEW YEARS.</p>	

HYDROLOGY

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B53
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): SLIGHT CONVEX
 Slope (%): 2 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>N</u>	Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p style="text-align: center;">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
Field Observations: Surface water present? Yes _____ No <u>X</u> Depth (inches): _____ Water table present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		Indicators of wetland hydrology present? <u>N</u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: <p style="text-align: center;">NO PRIMARY OR SECONDARY INDICATORS OF HYDROLOGY WERE OBSERVED. AREA IS HIGHER IN ELEVATION THAN B52, LIKELY THE RESULT OF NO HYDROLOGY INDICATORS.</p>		

VEGETATION - Use scientific names of plants

Sampling Point: B53

Tree Stratum					50/20 Thresholds		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	20%	50%	
1					Tree Stratum	0	0
2					Sapling/Shrub Stratum	16	40
3					Herb Stratum	16	41
4					Woody Vine Stratum	0	0
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Sapling/Shrub Stratum					Dominance Test Worksheet		
Plot Size (15')		Absolute % Cover	Dominant Species	Indicator Status	Number of Dominant Species that are OBL, FACW, or FAC: <u>3</u> (A)		
1	<i>Populus deltoides</i>	80	Y	FAC	Total Number of Dominant Species Across all Strata: <u>3</u> (B)		
2					Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)		
3							
4							
5							
6							
7							
8							
9							
10							
		80	= Total Cover				
Herb Stratum					Prevalence Index Worksheet		
Plot Size (5')		Absolute % Cover	Dominant Species	Indicator Status	Total % Cover of:		
1	<i>Populus deltoides</i>	25	Y	FAC	OBL species	<u> </u> x 1 =	<u> </u>
2	<i>Juncus tenuis</i>	20	Y	FAC	FACW species	<u> </u> x 2 =	<u> </u>
3	<i>Pastinaca sativa</i>	10	N	UPL	FAC species	<u> </u> x 3 =	<u> </u>
4	<i>Sonchus oleraceus</i>	10	N	FACU	FACU species	<u> </u> x 4 =	<u> </u>
5	<i>Geum aleppicum</i>	5	N	FAC	UPL species	<u> </u> x 5 =	<u> </u>
6	<i>Melilotus alba</i>	5	N	UPL	Column totals	<u> </u> (A)	<u> </u> (B)
7	<i>Asclepias syriaca</i>	2	N	UPL	Prevalence Index = B/A =	<u> </u>	<u> </u>
8	<i>Asclepias incarnata</i>	2	N	OBL			
9	<i>Ulmus americana</i>	1	N	FACW			
10	<i>Frangula alnus</i>	1	N	FAC			
11	<i>Taraxacum officinale</i>	1	N	FACU			
12							
13							
14							
15							
		82	= Total Cover				
Woody Vine Stratum					Hydrophytic Vegetation Indicators:		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	<input type="checkbox"/> Rapid test for hydrophytic vegetation		
1					<input checked="" type="checkbox"/> Dominance test is >50%		
2					<input type="checkbox"/> Prevalence index is ≤3.0*		
3					Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)		
4					Problematic hydrophytic vegetation* (explain)		
5					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
		0	= Total Cover				
Woody Vine Stratum					Definitions of Vegetation Strata:		
1					Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
2					Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.		
3					Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.		
4					Woody vines - All woody vines greater than 3.28 ft in height.		
5							
		0	= Total Cover		Hydrophytic vegetation present? <u>Y</u>		

Remarks: (Include photo numbers here or on a separate sheet)
 SAMPLING POINT IS FAC DOMINANT. DOES NOT MEET FAC-N TEST BASED ON NON-DOMINANTS.

VEGETATION - Use scientific names of plants

Sampling Point: B54

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status	50/20 Thresholds	
1					Tree Stratum	20% 0
2					Sapling/Shrub Stratum	50% 0
3					Herb Stratum	0 20
4					Woody Vine Stratum	0 50
5						
6						
7						
8						
9						
10		0				
0 = Total Cover						
Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet	
1					Number of Dominant Species that are OBL, FACW, or FAC:	0 (A)
2					Total Number of Dominant Species Across all Strata:	2 (B)
3					Percent of Dominant Species that are OBL, FACW, or FAC:	0.00% (A/B)
4						
5						
6						
7						
8						
9						
10		0				
0 = Total Cover						
Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status	Prevalence Index Worksheet	
1	<i>Poa pratensis</i>	30	Y	FACU	Total % Cover of:	
2	<i>Daucus carota</i>	20	Y	UPL	OBL species	x 1 =
3	<i>Solidago altissima</i>	15	N	FACU	FACW species	x 2 =
4	<i>Phragmites australis</i>	15	N	FACW	FAC species	x 3 =
5	<i>Phalaris arundinacea</i>	5	N	FACW	FACU species	x 4 =
6	<i>Frangula alnus</i>	5	N	FAC	UPL species	x 5 =
7	<i>Taraxacum officinale</i>	5	N	FACU	Column totals	(A) (B)
8	<i>Cirsium arvense</i>	5	N	FACU	Prevalence Index = B/A =	
9						
10						
11						
12						
13						
14						
15		100				
100 = Total Cover						
Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status	Hydrophytic Vegetation Indicators:	
1					<input type="checkbox"/> Rapid test for hydrophytic vegetation	
2					<input type="checkbox"/> Dominance test is >50%	
3					<input type="checkbox"/> Prevalence index is ≤3.0*	
4					<input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)	
5					<input type="checkbox"/> 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? <u> N </u>	
Remarks: (Include photo numbers here or on a separate sheet)						
DOES NOT MEET FAC-N TEST						

SOIL

Sampling Point: B54

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-9	10 YR 2/1	100					SIL	HISTORICAL FILL
9-30	10 YR 3/3 &	60	7.5 YR 4/6	10	C	M	SIL	HISTORICAL FILL
	7.5 YR 4/4	20	7.5 YR 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:

Indicators for Problematic Hydric Soils:

- | | | |
|---|--|--|
| <input type="checkbox"/> Histisol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) | <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) | <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) | <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Dark Surface (S7) (LRR K, L) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Redox Dark Surface (F6) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B) |
| <input type="checkbox"/> Sandy Redox (S5) | | <input type="checkbox"/> Red Parent Material (F21) |
| <input type="checkbox"/> Stripped Matrix (S6) | | <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | | <input type="checkbox"/> Other (Explain in Remarks) |

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

Restrictive Layer (if observed): Type: <u>HEAVY COMPACTION, PLATY STRUCTURE</u> Depth (inches): <u>0-30</u>	Hydric soil present? <u> N </u>
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Remarks:
 THE SAMPLING POINT CONTAINS HISTORICAL FILL. THE FILL WAS PLACED IN THE YEAR 2000 BASED ON OUTAGAMIE COUNTY IMAGERY AND IS THE NORMAL CIRCUMSTANCE. SUBSEQUENTLY, THE SOILS ARE NOT CONSIDERED SIGNIFICANTLY DISTURBED. NO HYDRIC SOIL INDICATORS ABOVE OBSERVED. PROBLEMATIC HYDRIC SOIL PROCEDURES NOT EVALUATED BASED ON A LACK OF HYDROPHYTES AND HYDROLOGY.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B55
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): SLIGHT CONCAVE
 Slope (%): 4 TO 5 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u> N </u> Hydric soil present? <u> Y </u> Indicators of wetland hydrology present? <u> N </u>	Is the sampled area within a wetland? <u> N </u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <div style="text-align: center; border: 1px solid black; padding: 5px;"> CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD. </div>	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
Field Observations: Surface water present? Yes _____ No <u> X </u> Depth (inches): _____ Water table present? Yes _____ No <u> X </u> Depth (inches): _____ Saturation present? Yes <u> X </u> No _____ Depth (inches): <u> -27 </u> (includes capillary fringe)		Indicators of wetland hydrology present? <u> N </u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: <div style="text-align: center; border: 1px solid black; padding: 5px;"> NO PRIMARY OR SECONDARY INDICATORS OF HYDROLOGY WERE OBSERVED. </div>		

VEGETATION - Use scientific names of plants

Sampling Point: B56

Tree Stratum					50/20 Thresholds		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	20%	50%	
1					Tree Stratum	0	0
2					Sapling/Shrub Stratum	0	0
3					Herb Stratum	16	40
4					Woody Vine Stratum	0	0
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Sapling/Shrub Stratum					Dominance Test Worksheet		
Plot Size (15')		Absolute % Cover	Dominant Species	Indicator Status	Number of Dominant Species that are OBL, FACW, or FAC: <u>3</u> (A)		
1					Total Number of Dominant Species Across all Strata: <u>3</u> (B)		
2					Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)		
3							
4							
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Herb Stratum					Prevalence Index Worksheet		
Plot Size (5')		Absolute % Cover	Dominant Species	Indicator Status	Total % Cover of:		
1	<i>Phalaris arundinacea</i>	25	Y	FACW	OBL species	x 1 =	
2	<i>Juncus tenuis</i>	15	Y	FAC	FACW species	x 2 =	
3	<i>Typha angustifolia</i>	15	Y	OBL	FAC species	x 3 =	
4	<i>Phragmites australis</i>	10	N	FACW	FACU species	x 4 =	
5	<i>Carex vulpinoidea</i>	10	N	OBL	UPL species	x 5 =	
6	<i>Solidago canadensis</i>	5	N	FACU	Column totals	(A)	(B)
7					Prevalence Index = B/A =		
8							
9							
10							
11							
12							
13							
14							
15							
		80	= Total Cover				
Woody Vine Stratum					Hydrophytic Vegetation Indicators:		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	<input type="checkbox"/> Rapid test for hydrophytic vegetation <input checked="" type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic hydrophytic vegetation* (explain)		
1					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
2							
3							
4							
5							
		0	= Total Cover				
Remarks: (Include photo numbers here or on a separate sheet)					Definitions of Vegetation Strata:		
MEETS FAC-N TEST					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? <u>Y</u>		

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B57
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): TOESLOPE Local relief (concave, convex, none): NONE
 Slope (%): 0 TO 1 Lat.: *** Long.: *** Datum: ***CONTAC McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u> N </u> Hydric soil present? <u> N </u> Indicators of wetland hydrology present? <u> N </u>	Is the sampled area within a wetland? <u> N </u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p style="text-align: center;">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

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

VEGETATION - Use scientific names of plants

Sampling Point: B57

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status	50/20 Thresholds		
1 _____					Tree Stratum	20%	50%
2 _____					0	0	0
3 _____					Sapling/Shrub Stratum	0	0
4 _____					0	0	0
5 _____					Herb Stratum	20	50
6 _____					0	0	0
7 _____					Woody Vine Stratum	0	0
8 _____							
9 _____							
10 _____							
		0	= Total Cover				
Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet		
1 _____					Number of Dominant Species that are OBL, FACW, or FAC: <u>2</u> (A)		
2 _____					Total Number of Dominant Species Across all Strata: <u>4</u> (B)		
3 _____					Percent of Dominant Species that are OBL, FACW, or FAC: <u>50.00%</u> (A/B)		
4 _____							
5 _____							
6 _____							
7 _____							
8 _____							
9 _____							
10 _____							
		0	= Total Cover				
Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status	Prevalence Index Worksheet		
1 <i>Poa pratensis</i>		35	Y	FACU	Total % Cover of:		
2 <i>Phalaris arundinacea</i>		10	Y	FACW	OBL species _____ x 1 = _____		
3 <i>Frangula alnus</i>		10	Y	FAC	FACW species _____ x 2 = _____		
4 <i>Daucus carota</i>		10	Y	UPL	FAC species _____ x 3 = _____		
5 <i>Cirsium arvense</i>		5	N	FACU	FACU species _____ x 4 = _____		
6 <i>Solidago altissima</i>		5	N	FACU	UPL species _____ x 5 = _____		
7 <i>Solidago canadensis</i>		5	N	FACU	Column totals _____ (A) _____ (B)		
8 <i>Vitis riparia</i>		5	N	FAC	Prevalence Index = B/A = _____		
9 <i>Equisetum arvense</i>		5	N	FAC			
10 <i>Sonchus oleraceus</i>		5	N	FACU			
11 <i>Parthenocissus quinquefolia</i>		5	N	FACU			
12 _____							
13 _____							
14 _____							
15 _____							
		100	= Total Cover				
Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status	Hydrophytic Vegetation Indicators:		
1 _____					____ Rapid test for hydrophytic vegetation		
2 _____					____ Dominance test is >50%		
3 _____					____ Prevalence index is ≤3.0*		
4 _____					____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)		
5 _____					____ Problematic hydrophytic vegetation* (explain)		
		0	= Total Cover		*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? <u>N</u>		
Remarks: (Include photo numbers here or on a separate sheet) DOES NOT MEET FAC-N TEST							

SOIL

Sampling Point: B57

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-18	10 YR 3/2 &	80					SIL	HISTORICAL FILL
	7.5 YR 4/4	20					SIL	
18-27	10 YR 3/3	90	10 YR 4/4	10	C	M	SIL	A

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

Hydric Soil Indicators:

Indicators for Problematic Hydric Soils:

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (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)

- 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 (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric soil present? N

Remarks:

NO HYDRIC SOIL INDICATORS WERE OBSERVED.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B58
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 3 Lat.: *** Long.: *** Datum: ***CONTAC McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>N</u> Indicators of wetland hydrology present? <u>N</u>	Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p style="text-align: center;">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
Field Observations: Surface water present? Yes _____ No <u>X</u> Depth (inches): _____ Water table present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation present? Yes <u>X</u> No _____ Depth (inches): <u>-21</u> (includes capillary fringe)		Indicators of wetland hydrology present? <u>N</u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: <p style="text-align: center;">NO PRIMARY OR SECONDARY INDICATORS OF HYDROLOGY WERE OBSERVED.</p>		

VEGETATION - Use scientific names of plants

Sampling Point: B58

Tree Stratum					50/20 Thresholds		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	20%	50%	
1					Tree Stratum	0	0
2					Sapling/Shrub Stratum	0	0
3					Herb Stratum	17	43
4					Woody Vine Stratum	0	0
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Sapling/Shrub Stratum					Dominance Test Worksheet		
Plot Size (15')		Absolute % Cover	Dominant Species	Indicator Status	Number of Dominant Species that are OBL, FACW, or FAC: <u>2</u> (A)		
1					Total Number of Dominant Species Across all Strata: <u>2</u> (B)		
2					Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)		
3							
4							
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Herb Stratum					Prevalence Index Worksheet		
Plot Size (5')		Absolute % Cover	Dominant Species	Indicator Status	Total % Cover of:		
1	<i>Silphium integrifolium</i>	25	Y	FAC	OBL species	x 1 =	
2	<i>Desmodium canadense</i>	20	Y	FAC	FACW species	x 2 =	
3	<i>Poa pratensis</i>	10	N	FACU	FAC species	x 3 =	
4	<i>Solidago altissima</i>	5	N	FACU	FACU species	x 4 =	
5	<i>Solidago canadensis</i>	5	N	FACU	UPL species	x 5 =	
6	<i>Andropogon gerardi</i>	5	N	FACU	Column totals	(A) (B)	
7	<i>Asclepias syriaca</i>	5	N	UPL	Prevalence Index = B/A =		
8	<i>Pastinaca sativa</i>	5	N	UPL			
9	<i>Phalaris arundinacea</i>	5	N	FACW			
10							
11							
12							
13							
14							
15							
		85	= Total Cover				
Woody Vine Stratum					Hydrophytic Vegetation Indicators:		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	<input type="checkbox"/> Rapid test for hydrophytic vegetation <input checked="" type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
1							
2							
3							
4							
5							
		0	= Total Cover				
Remarks: (Include photo numbers here or on a separate sheet)					Definitions of Vegetation Strata:		
DOMINANTS ARE FAC. DOES NOT MEET FAC-N TEST BASED ON NON-DOMINANTS.					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? <u>Y</u>		

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B59
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): TOESLOPE Local relief (concave, convex, none): NONE
 Slope (%): 0 TO 1 Lat.: *** Long.: *** Datum: ***CONTAC McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>N</u>	Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p style="text-align: center;">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
Field Observations: Surface water present? Yes _____ No <u>X</u> Depth (inches): _____ Water table present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)		Indicators of wetland hydrology present? <u>N</u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: <p style="text-align: center;">NO PRIMARY OR SECONDARY INDICATORS OF HYDROLOGY WERE OBSRVED.</p>		

VEGETATION - Use scientific names of plants

Sampling Point: B59

Tree Stratum					50/20 Thresholds		
Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status		20%	50%	
1				Tree Stratum	0	0	
2				Sapling/Shrub Stratum	0	0	
3				Herb Stratum	18	45	
4				Woody Vine Stratum	0	0	
5							
6							
7							
8							
9							
10							
0 = Total Cover				Dominance Test Worksheet			
Sapling/Shrub Stratum					Number of Dominant Species that are OBL,		
Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status				
1				FACW, or FAC:	3	(A)	
2				Total Number of Dominant Species Across all Strata:	4	(B)	
3				Percent of Dominant Species that are OBL, FACW, or FAC:	75.00%	(A/B)	
4							
5							
6							
7							
8							
9							
10							
0 = Total Cover				Prevalence Index Worksheet			
Herb Stratum					Total % Cover of:		
Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status				
1	20	Y	OBL	OBL species	x 1 =		
2	15	Y	FACW	FACW species	x 2 =		
3	15	Y	FACU	FAC species	x 3 =		
4	15	Y	FACW	FACU species	x 4 =		
5	10	N	FACU	UPL species	x 5 =		
6	10	N	OBL	Column totals	(A)	(B)	
7	5	N	OBL	Prevalence Index = B/A =			
8							
9							
10							
11							
12							
13							
14							
15							
90 = Total Cover				Hydrophytic Vegetation Indicators:			
Woody Vine Stratum					Rapid test for hydrophytic vegetation		
Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status				
1				<input checked="" type="checkbox"/> Dominance test is >50%			
2				<input type="checkbox"/> Prevalence index is ≤3.0*			
3				<input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)			
4				<input type="checkbox"/> Problematic hydrophytic vegetation* (explain)			
5				*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.			
0 = Total Cover				Hydrophytic vegetation present? <u>Y</u>			

Remarks: (Include photo numbers here or on a separate sheet)
MEETS FAC-N TEST

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B60
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): TOESLOPE Local relief (concave, convex, none): NONE
 Slope (%): 0 TO 1 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil X, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p align="center">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
Field Observations: Surface water present? Yes _____ No <u>X</u> Depth (inches): _____ Water table present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation present? Yes <u>X</u> No _____ Depth (inches): <u>0 TO -3</u> (includes capillary fringe)		Indicators of wetland hydrology present? <u>Y</u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: 		
Remarks:		

VEGETATION - Use scientific names of plants

Sampling Point: B60

Tree Stratum					50/20 Thresholds		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	20%	50%	
1					Tree Stratum	0	0
2					Sapling/Shrub Stratum	0	0
3					Herb Stratum	17	44
4					Woody Vine Stratum	0	0
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Sapling/Shrub Stratum					Dominance Test Worksheet		
Plot Size (15')		Absolute % Cover	Dominant Species	Indicator Status	Number of Dominant Species that are OBL, FACW, or FAC: <u>2</u> (A)		
1					Total Number of Dominant Species Across all Strata: <u>3</u> (B)		
2					Percent of Dominant Species that are OBL, FACW, or FAC: <u>66.67%</u> (A/B)		
3							
4							
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Herb Stratum					Prevalence Index Worksheet		
Plot Size (5')		Absolute % Cover	Dominant Species	Indicator Status	Total % Cover of:		
1	<i>Phalaris arundinacea</i>	15	Y	FACW	OBL species	x 1 =	
2	<i>Juncus tenuis</i>	15	Y	FAC	FACW species	x 2 =	
3	<i>Poa pratensis</i>	15	Y	FACU	FAC species	x 3 =	
4	<i>Daucus carota</i>	10	N	UPL	FACU species	x 4 =	
5	<i>Equisetum arvense</i>	5	N	FAC	UPL species	x 5 =	
6	<i>Solidago gigantea</i>	5	N	FACW	Column totals	(A) (B)	
7	<i>Asclepias incarnata</i>	5	N	OBL	Prevalence Index = B/A =		
8	<i>Mentha arvensis</i>	5	N	FACW			
9	<i>Sonchus oleraceus</i>	5	N	FACU			
10	<i>Trifolium pratense</i>	5	N	FACU			
11	<i>Cirsium arvense</i>	2	N	FACU			
12							
13							
14							
15							
		87	= Total Cover				
Woody Vine Stratum					Hydrophytic Vegetation Indicators:		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	Rapid test for hydrophytic vegetation		
1					<input checked="" type="checkbox"/> Dominance test is >50%		
2					<input type="checkbox"/> Prevalence index is ≤3.0*		
3					Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)		
4					Problematic hydrophytic vegetation* (explain)		
5					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
		0	= Total Cover				
Remarks: (Include photo numbers here or on a separate sheet)					Definitions of Vegetation Strata:		
DOMINANTS EQUAL. DOES NOT MEET FAC-N TEST BASED ON NON-DOMINANTS					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? <u>Y</u>		

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B61
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 2 TO 3 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u> N </u> Hydric soil present? <u> N </u> Indicators of wetland hydrology present? <u> N </u>	Is the sampled area within a wetland? <u> N </u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p style="text-align: center;">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

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

VEGETATION - Use scientific names of plants

Sampling Point: B61

Tree Stratum					50/20 Thresholds		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	20%	50%	
1					Tree Stratum	0	0
2					Sapling/Shrub Stratum	0	0
3					Herb Stratum	20	50
4					Woody Vine Stratum	0	0
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Sapling/Shrub Stratum					Dominance Test Worksheet		
Plot Size (15')		Absolute % Cover	Dominant Species	Indicator Status	Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A)		
1					Total Number of Dominant Species Across all Strata: <u>2</u> (B)		
2					Percent of Dominant Species that are OBL, FACW, or FAC: <u>0.00%</u> (A/B)		
3							
4							
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Herb Stratum					Prevalence Index Worksheet		
Plot Size (5')		Absolute % Cover	Dominant Species	Indicator Status	Total % Cover of:		
1	<i>Poa pratensis</i>	40	Y	FACU	OBL species	x 1 =	
2	<i>Daucus carota</i>	20	Y	UPL	FACW species	x 2 =	
3	<i>Lotus corniculatus</i>	15	N	FACU	FAC species	x 3 =	
4	<i>Medicago lupulina</i>	10	N	FACU	FACU species	x 4 =	
5	<i>Sonchus oleraceus</i>	10	N	FACU	UPL species	x 5 =	
6	<i>Phalaris arundinacea</i>	5	N	FACW	Column totals	(A) =	(B) =
7					Prevalence Index = B/A =		
8							
9							
10							
11							
12							
13							
14							
15							
		100	= Total Cover				
Woody Vine Stratum					Hydrophytic Vegetation Indicators:		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	<input type="checkbox"/> Rapid test for hydrophytic vegetation <input type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence index is ≤3.0* <input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic hydrophytic vegetation* (explain)		
1					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
2							
3							
4							
5							
		0	= Total Cover				
Remarks: (Include photo numbers here or on a separate sheet)					Definitions of Vegetation Strata:		
DOES NOT MEET FAC-N TEST					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? <u>N</u>		

SOIL

Sampling Point: B61

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-5	5 YR 4/4	100					C	HISTORICAL FILL
5-18	10 YR 3/2	100					SIL	A
18-24	5 YR 4/4	90	5 YR 4/6	10	C	M	C	Bt

*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 Surface (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 (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

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

Hydric soil present? N

Remarks:
 NO HYDRIC SOIL INDICATORS WERE OBSERVED.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B62
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 7 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u> N </u> Hydric soil present? <u> N </u> Indicators of wetland hydrology present? <u> N </u>	Is the sampled area within a wetland? <u> N </u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <div style="border: 1px solid black; padding: 5px; text-align: center;"> CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD. </div>	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
Field Observations: Surface water present? Yes _____ No <u> X </u> Depth (inches): _____ Water table present? Yes _____ No <u> X </u> Depth (inches): _____ Saturation present? Yes _____ No <u> X </u> Depth (inches): _____ (includes capillary fringe)		Indicators of wetland hydrology present? <u> N </u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <hr/>		
Remarks: <div style="border: 1px solid black; padding: 5px;"> NO PRIMARY OR SECONDARY INDICATORS OF HYDROLOGY WERE OBSERVED. </div>		

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B63
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): TOESLOPE Local relief (concave, convex, none): NONE
 Slope (%): 0 TO 1 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p style="text-align: center;">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery <input type="checkbox"/> (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)	Field Observations: Surface water present? Yes _____ No <u>X</u> Depth (inches): _____ Water table present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)
Indicators of wetland hydrology present? <u>Y</u>		Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: _____ _____ _____
Remarks: _____ _____		

VEGETATION - Use scientific names of plants

Sampling Point: B63

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 = Total Cover		

Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 = Total Cover		

Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Phalaris arundinacea</i>	40	Y	FACW
2	<i>Schoenoplectus tabernaemontani</i>	20	Y	OBL
3	<i>Eleocharis obtusa</i>	10	N	OBL
4	<i>Scirpus atrovirens</i>	10	N	OBL
5	<i>Equisetum arvense</i>	2	N	FAC
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		82 = Total Cover		

Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		0 = Total Cover		

50/20 Thresholds

	20%	50%
Tree Stratum	0	0
Sapling/Shrub Stratum	0	0
Herb Stratum	16	41
Woody Vine Stratum	0	0

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: 100.00% (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*

Morphological 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)
MEETS FAC-N TEST

SOIL

Sampling Point: B63

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-5	7.5 YR 4/3	95	10 YR 4/6	5	C	M	SICL	HISTORICAL FILL
5-10	10 YR 3/2	90	10 YR 4/6	10	C	M	SIL	HISTORICAL FILL
10-14	7.5 YR 5/4	80	7.5 YR 5/6	20	C	M	C	HISTORICAL FILL
14-30	7.5 YR 3/2	80	7.5 YR 4/6	20	C	M	SICL	HISTORICAL FILL

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

Indicators for Problematic Hydric Soils:

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (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)

- 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 (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric soil present? Y

Remarks:

THE SAMPLING POINT CONTAINS HISTORICAL FILL AND HYDRIC SOILS EXIST BENEATH THE FILL. THE REDOXIMORPHIC FEATURES IN THE FILL DO NOT APPEAR TO BE FILL DERIVED BASED ON GEOMORPHIC POSITION, SATURATION, DOMINANCE OF HYDROPHYTES AND WATER STAINED LEAVES. BPJ THAT THE F6 INDICATOR IS APPLICABLE TO THE 5" TO 10" FILL HORIZON.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B64
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 2 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u> N </u> Hydric soil present? <u> N </u> Indicators of wetland hydrology present? <u> N </u>	Is the sampled area within a wetland? <u> N </u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p style="text-align: center;">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

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

VEGETATION - Use scientific names of plants

Sampling Point: B64

Tree Stratum					50/20 Thresholds		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	20%	50%	
1					Tree Stratum	0	0
2					Sapling/Shrub Stratum	0	0
3					Herb Stratum	18	45
4					Woody Vine Stratum	0	0
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Sapling/Shrub Stratum					Dominance Test Worksheet		
Plot Size (15')		Absolute % Cover	Dominant Species	Indicator Status			
1					Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A)		
2					Total Number of Dominant Species Across all Strata: <u>3</u> (B)		
3					Percent of Dominant Species that are OBL, FACW, or FAC: <u>0.00%</u> (A/B)		
4							
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Herb Stratum					Prevalence Index Worksheet		
Plot Size (5')		Absolute % Cover	Dominant Species	Indicator Status			
1	<i>Poa pratensis</i>	35	Y	FACU	Total % Cover of:		
2	<i>Daucus carota</i>	25	Y	UPL	OBL species _____ x 1 = _____		
3	<i>Trifolium pratense</i>	20	Y	FACU	FACW species _____ x 2 = _____		
4	<i>Melilotus alba</i>	10	N	UPL	FAC species _____ x 3 = _____		
5					FACU species _____ x 4 = _____		
6					UPL species _____ x 5 = _____		
7					Column totals _____ (A) _____ (B)		
8					Prevalence Index = B/A = _____		
9							
10							
11							
12							
13							
14							
15							
		90	= Total Cover				
Woody Vine Stratum					Hydrophytic Vegetation Indicators:		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status			
1					___ Rapid test for hydrophytic vegetation		
2					___ Dominance test is >50%		
3					___ Prevalence index is ≤3.0*		
4					___ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)		
5					___ Problematic hydrophytic vegetation* (explain)		
6					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
7							
8							
9							
10							
11							
12							
13							
14							
15							
		0	= Total Cover				
Woody Vine Stratum					Definitions of Vegetation Strata:		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status			
1					Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
2					Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.		
3					Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.		
4					Woody vines - All woody vines greater than 3.28 ft in height.		
5							
		0	= Total Cover				
					Hydrophytic vegetation present? <u> N </u>		

Remarks: (Include photo numbers here or on a separate sheet)
DOES NOT MEET FAC-N TEST

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B65
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): TOESLOPE Local relief (concave, convex, none): NONE
 Slope (%): 0 TO 1 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p align="center">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B66
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 1 TO 2 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u> N </u> Hydric soil present? <u> N </u> Indicators of wetland hydrology present? <u> N </u>	Is the sampled area within a wetland? <u> N </u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <div style="border: 1px solid black; padding: 10px; text-align: center;"> CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD. </div>	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
Field Observations: Surface water present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water table present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Indicators of wetland hydrology present? <u> N </u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <div style="border: 1px solid black; height: 40px; margin-top: 5px;"></div>		
Remarks: <div style="border: 1px solid black; padding: 5px; text-align: center;"> NO PRIMARY OR SECONDARY INDICATORS OF HYDROLOGY WERE OBSERVED. </div>		

VEGETATION - Use scientific names of plants

Sampling Point: B66

Tree Stratum					50/20 Thresholds		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	20%	50%	
1					Tree Stratum	0	0
2					Sapling/Shrub Stratum	0	0
3					Herb Stratum	18	46
4					Woody Vine Stratum	0	0
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Sapling/Shrub Stratum					Dominance Test Worksheet		
Plot Size (15')		Absolute % Cover	Dominant Species	Indicator Status	Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A)		
1					Total Number of Dominant Species Across all Strata: <u>2</u> (B)		
2					Percent of Dominant Species that are OBL, FACW, or FAC: <u>0.00%</u> (A/B)		
3							
4							
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Herb Stratum					Prevalence Index Worksheet		
Plot Size (5')		Absolute % Cover	Dominant Species	Indicator Status	Total % Cover of:		
1	<i>Poa pratensis</i>	30	Y	FACU	OBL species	x 1 =	
2	<i>Daucus carota</i>	20	Y	UPL	FACW species	x 2 =	
3	<i>Sonchus oleraceus</i>	15	N	FACU	FAC species	x 3 =	
4	<i>Phalaris arundinacea</i>	10	N	FACW	FACU species	x 4 =	
5	<i>Solidago canadensis</i>	5	N	FACU	UPL species	x 5 =	
6	<i>Bromus inermis</i>	5	N	UPL	Column totals	(A)	(B)
7	<i>Taraxacum officinale</i>	5	N	FACU	Prevalence Index = B/A =		
8	<i>Cirsium arvense</i>	2	N	FACU			
9							
10							
11							
12							
13							
14							
15							
		92	= Total Cover				
Woody Vine Stratum					Hydrophytic Vegetation Indicators:		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	<input type="checkbox"/> Rapid test for hydrophytic vegetation <input type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence index is ≤3.0* <input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
1					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.		
2							
3							
4							
5							
		0	= Total Cover		Hydrophytic vegetation present? <u>N</u>		

Remarks: (Include photo numbers here or on a separate sheet)
DOES NOT MEET FAC-N TEST

SOIL

Sampling Point: B66

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-17	10 YR 3/2 &	30					SIL	HISTORICAL FILL
	10 YR 4/4	70					SIL	
17-20	10 YR 3/2	90	10 YR 3/6	10	C	M	SIL	HISTORICAL FILL
20-23	10 YR 2/2	95	7.5 YR 3/4	5	C	M	SIL	A
23-30	7.5 YR 4/4	90	7.5 YR 4/6	10	C	M	SIL	Bw

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

Indicators for Problematic Hydric Soils:

- | | | |
|---|--|--|
| <input type="checkbox"/> Histisol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) | <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) | <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) | <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Dark Surface (S7) (LRR K, L) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Redox Dark Surface (F6) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B) |
| <input type="checkbox"/> Sandy Redox (S5) | | <input type="checkbox"/> Red Parent Material (F21) |
| <input type="checkbox"/> Stripped Matrix (S6) | | <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | | <input type="checkbox"/> Other (Explain in Remarks) |

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric soil present? N

Remarks:

NO HYDRIC SOIL INDICATORS WERE OBSERVED.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B67
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): TOESLOPE Local relief (concave, convex, none): NONE
 Slope (%): 0 TO 1 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p style="text-align: center;">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

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

VEGETATION - Use scientific names of plants

Sampling Point: B67

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 = Total Cover		

Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 = Total Cover		

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

Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		0 = Total Cover		

50/20 Thresholds		
	20%	50%
Tree Stratum	0	0
Sapling/Shrub Stratum	0	0
Herb Stratum	19	48
Woody Vine Stratum	0	0

Dominance Test Worksheet	
Number of Dominant Species that are OBL, FACW, or FAC:	3 (A)
Total Number of Dominant Species Across all Strata:	4 (B)
Percent of Dominant Species that are OBL, FACW, or FAC:	75.00% (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*
 Morphological 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)
 MEETS FAC-N TEST

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B68
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): TOESLOPE Local relief (concave, convex, none): NONE
 Slope (%): 0 TO 1 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p align="center">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) Surface (B8)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)	Field Observations: Surface water present? Yes <u>X</u> No _____ Depth (inches): <u>+2**</u> Water table present? Yes <u>X</u> No _____ Depth (inches): <u>-12</u> Saturation present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)
Indicators of wetland hydrology present? <u>Y</u>		
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: <p align="center">** 2'-3' FROM SAMPLING POINT</p>		

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B69
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 2 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u> N </u> Hydric soil present? <u> N </u> Indicators of wetland hydrology present? <u> N </u>	Is the sampled area within a wetland? <u> N </u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p align="center">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

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

VEGETATION - Use scientific names of plants

Sampling Point: B69

Tree Stratum					50/20 Thresholds		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	20%	50%	
1					Tree Stratum	0	0
2					Sapling/Shrub Stratum	0	0
3					Herb Stratum	16	40
4					Woody Vine Stratum	0	0
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Sapling/Shrub Stratum					Dominance Test Worksheet		
Plot Size (15')		Absolute % Cover	Dominant Species	Indicator Status	Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A)		
1					Total Number of Dominant Species Across all Strata: <u>1</u> (B)		
2					Percent of Dominant Species that are OBL, FACW, or FAC: <u>0.00%</u> (A/B)		
3							
4							
5							
6							
7							
8							
9							
10							
		0	= Total Cover		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 =		
Herb Stratum					Hydrophytic Vegetation Indicators:		
Plot Size (5')		Absolute % Cover	Dominant Species	Indicator Status	<input type="checkbox"/> Rapid test for hydrophytic vegetation <input type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence index is ≤3.0* <input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic hydrophytic vegetation* (explain)		
1	<i>Poa pratensis</i>	60	Y	FACU	*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.		
2	<i>Lotus corniculatus</i>	5	N	FACU			
3	<i>Asclepias syriaca</i>	5	N	UPL			
4	<i>Cirsium arvense</i>	5	N	FACU			
5	<i>Silphium intergrifolium</i>	5	N	FAC			
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
		80	= Total Cover				
Woody Vine Stratum					Hydrophytic vegetation present? <u>N</u>		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status			
1							
2							
3							
4							
5							
		0	= Total Cover				

Remarks: (Include photo numbers here or on a separate sheet)
DOES NOT MEET FAC-N TEST

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B70
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): TOESLOPE Local relief (concave, convex, none): NONE
 Slope (%): 0 TO 1 Lat.: *** Long.: *** Datum: ***CONTAC McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p align="center">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

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

VEGETATION - Use scientific names of plants

Sampling Point: B70

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status	50/20 Thresholds	
1					Tree Stratum	20% 0
2					Sapling/Shrub Stratum	50% 0
3					Herb Stratum	0 20
4					Woody Vine Stratum	0 50
5						
6						
7						
8						
9						
10		0				
					Dominance Test Worksheet	
					Number of Dominant Species that are OBL, FACW, or FAC: <u>2</u> (A)	
					Total Number of Dominant Species Across all Strata: <u>2</u> (B)	
					Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)	
Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status	Prevalence Index Worksheet	
1					Total % Cover of:	
2					OBL species _____ x 1 = _____	
3					FACW species _____ x 2 = _____	
4					FAC species _____ x 3 = _____	
5					FACU species _____ x 4 = _____	
6					UPL species _____ x 5 = _____	
7					Column totals _____ (A) _____ (B)	
8					Prevalence Index = B/A = _____	
9						
10		0				
					Hydrophytic Vegetation Indicators:	
					<input type="checkbox"/> Rapid test for hydrophytic vegetation	
					<input checked="" type="checkbox"/> Dominance test is >50%	
					<input type="checkbox"/> Prevalence index is ≤3.0*	
					<input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)	
					<input type="checkbox"/> Problematic hydrophytic vegetation* (explain)	
					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status	Definitions of Vegetation Strata:	
1					Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
2					Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.	
3					Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
4					Woody vines - All woody vines greater than 3.28 ft in height.	
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15		100				
					Hydrophytic vegetation present? <u>Y</u>	
Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status		
1						
2						
3						
4						
5						
					0 = Total Cover	

Remarks: (Include photo numbers here or on a separate sheet)
MEETS FAC-N TEST

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B71
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 3 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u> N </u> Hydric soil present? <u> N </u> Indicators of wetland hydrology present? <u> N </u>	Is the sampled area within a wetland? <u> N </u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p align="center">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

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

VEGETATION - Use scientific names of plants

Sampling Point: B71

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status			
1	<i>Poa pratensis</i>	30	Y	FACU			
2	<i>Lotus corniculatus</i>	20	Y	FACU			
3	<i>Phalaris arundinacea</i>	15	N	FACW			
4	<i>Cirsium arvense</i>	10	N	FACU			
5	<i>Daucus carota</i>	10	N	UPL			
6	<i>Vitis riparia</i>	2	N	FAC			
7	<i>Asclepias syriaca</i>	2	N	UPL			
8							
9							
10							
11							
12							
13							
14							
15							
		89	= Total Cover				
Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status			
1							
2							
3							
4							
5							
		0	= Total Cover				

50/20 Thresholds		
	20%	50%
Tree Stratum	0	0
Sapling/Shrub Stratum	0	0
Herb Stratum	18	45
Woody Vine Stratum	0	0
Dominance Test Worksheet		
Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A)		
Total Number of Dominant Species Across all Strata: <u>2</u> (B)		
Percent of Dominant Species that are OBL, FACW, or FAC: <u>0.00%</u> (A/B)		
Prevalence Index Worksheet		
Total % Cover of:		
OBL species	<u>0</u> x 1 =	<u>0</u>
FACW species	<u>0</u> x 2 =	<u>0</u>
FAC species	<u>0</u> x 3 =	<u>0</u>
FACU species	<u>0</u> x 4 =	<u>0</u>
UPL species	<u>0</u> x 5 =	<u>0</u>
Column totals	<u>0</u> (A)	<u>0</u> (B)
Prevalence Index = B/A = <u>0</u>		
Hydrophytic Vegetation Indicators:		
<input type="checkbox"/> Rapid test for hydrophytic vegetation		
<input type="checkbox"/> Dominance test is >50%		
<input type="checkbox"/> Prevalence index is ≤3.0*		
<input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)		
<input type="checkbox"/> 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? <u>N</u>		

Remarks: (Include photo numbers here or on a separate sheet)
DOES NOT MEET FAC-N TEST

SOIL

Sampling Point: B71

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-17	7.5 YR 3/2	100					SIL	HISTORICAL FILL
17-24	7.5 YR 3/2	90	7.5 YR 4/6	10	C	M	SIL	HISTORICAL FILL

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

Indicators for Problematic Hydric Soils:

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (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)

- 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 (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric soil present? N

Remarks:

NO HYDRIC SOIL INDICATORS WERE OBSERVED.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B72
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): TOESLOPE Local relief (concave, convex, none): NONE
 Slope (%): 0 TO 1 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p align="center">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

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

VEGETATION - Use scientific names of plants

Sampling Point: B72

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 = Total Cover		

Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 = Total Cover		

Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Phalaris arundinacea</i>	40	Y	FACW
2	<i>Typha angustifolia</i>	15	Y	OBL
3	<i>Carex vulpinoidea</i>	15	Y	OBL
4	<i>Juncus tenuis</i>	5	N	FAC
5	<i>Poa pratensis</i>	5	N	FACU
6	<i>Solidago canadensis</i>	2	N	FACU
7	<i>Solidago gigantea</i>	2	N	FACW
8				
9				
10				
11				
12				
13				
14				
15				
		84 = Total Cover		

Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		0 = Total Cover		

50/20 Thresholds		
	20%	50%
Tree Stratum	0	0
Sapling/Shrub Stratum	0	0
Herb Stratum	17	42
Woody Vine Stratum	0	0

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:	100.00% (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*

Morphological 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)
MEETS FAC-N TEST

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B73
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): TOESLOPE Local relief (concave, convex, none): NONE
 Slope (%): 0 TO 1 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD. </div>	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
Field Observations: Surface water present? Yes _____ No <u>X</u> Depth (inches): _____ Water table present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation present? Yes <u>X</u> No _____ Depth (inches): <u>-17</u> (includes capillary fringe)		Indicators of wetland hydrology present? <u>Y</u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B74
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 1 TO 2 Lat.: *** Long.: *** Datum: ***CONTAC McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u> N </u> Hydric soil present? <u> N </u> Indicators of wetland hydrology present? <u> N </u>	Is the sampled area within a wetland? <u> N </u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p style="text-align: center;">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

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

VEGETATION - Use scientific names of plants

Sampling Point: B74

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		<u>0</u> = Total Cover		

Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		<u>0</u> = Total Cover		

Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Trifolium pratense</i>	50	Y	FACU
2	<i>Ambrosia artemisiifolia</i>	25	Y	FACU
3	<i>Hordeum jubatum</i>	15	N	FAC
4	<i>Carex vulpinoidea</i>	5	N	OBL
5	<i>Juncus tenuis</i>	2	N	FAC
6	<i>Phalaris arundinacea</i>	2	N	FACW
7				
8				
9				
10				
11				
12				
13				
14				
15				
		<u>99</u> = Total Cover		

Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		<u>0</u> = Total Cover		

50/20 Thresholds		
	20%	50%
Tree Stratum	0	0
Sapling/Shrub Stratum	0	0
Herb Stratum	20	50
Woody Vine Stratum	0	0

Dominance Test Worksheet	
Number of Dominant Species that are OBL, FACW, or FAC:	<u>0</u> (A)
Total Number of Dominant Species Across all Strata:	<u>2</u> (B)
Percent of Dominant Species that are OBL, FACW, or FAC:	<u>0.00%</u> (A/B)

Prevalence Index Worksheet	
Total % Cover of:	
OBL species	<u> </u> x 1 = <u> </u>
FACW species	<u> </u> x 2 = <u> </u>
FAC species	<u> </u> x 3 = <u> </u>
FACU species	<u> </u> x 4 = <u> </u>
UPL species	<u> </u> x 5 = <u> </u>
Column totals	<u> </u> (A) <u> </u> (B)
Prevalence Index = B/A =	<u> </u>

Hydrophytic Vegetation Indicators:

Rapid test for hydrophytic vegetation

Dominance test is >50%

Prevalence index is ≤3.0*

Morphological 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)
DOES NOT MEET FAC-N TEST

SOIL

Sampling Point: B74

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-34	5 YR 4/4	95	5 YR 4/6	5	C	M	C	HISTORICAL FILL
			REDOX.					
			POSSIBLY					
			FILL					
			DERIVED					

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

Indicators for Problematic Hydric Soils:

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (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)

- 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 (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric soil present? <u> N </u>
--	--

Remarks:
 THE SAMPLING POINT CONTAINS HISTORICAL FILL. NO HYDRIC SOIL INDICATORS WERE OBSERVED

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B75
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): TOESLOPE Local relief (concave, convex, none): NONE
 Slope (%): 0 TO 1 Lat.: *** Long.: *** Datum: ***CONTAC McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p style="text-align: center;">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

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

VEGETATION - Use scientific names of plants

Sampling Point: B75

Tree Stratum					50/20 Thresholds		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	20%	50%	
1					Tree Stratum	0	0
2					Sapling/Shrub Stratum	0	0
3					Herb Stratum	19	48
4					Woody Vine Stratum	0	0
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Sapling/Shrub Stratum					Dominance Test Worksheet		
Plot Size (15')		Absolute % Cover	Dominant Species	Indicator Status	Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A)		
1					Total Number of Dominant Species Across all Strata: <u>1</u> (B)		
2					Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)		
3							
4							
5							
6							
7							
8							
9							
10							
		0	= Total Cover				
Herb Stratum					Prevalence Index Worksheet		
Plot Size (5')		Absolute % Cover	Dominant Species	Indicator Status	Total % Cover of:		
1	<i>Phalaris arundinacea</i>	50	Y	FACW	OBL species	x 1 =	
2	<i>Trifolium pratense</i>	15	N	FACU	FACW species	x 2 =	
3	<i>Poa pratensis</i>	15	N	FACU	FAC species	x 3 =	
4	<i>Taraxacum officinale</i>	5	N	FACU	FACU species	x 4 =	
5	<i>Juncus tenuis</i>	5	N	FAC	UPL species	x 5 =	
6	<i>Elymus repens</i>	5	N	FACU	Column totals	(A)	(B)
7					Prevalence Index = B/A =		
8							
9							
10							
11							
12							
13							
14							
15							
		95	= Total Cover				
Woody Vine Stratum					Hydrophytic Vegetation Indicators:		
Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status	<input type="checkbox"/> Rapid test for hydrophytic vegetation <input checked="" type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic hydrophytic vegetation* (explain)		
1					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
2							
3							
4							
5							
		0	= Total Cover				
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? <u>Y</u>		
Remarks: (Include photo numbers here or on a separate sheet) MEETS FAC-N TEST							

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B76
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 1 TO 2 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u> N </u> Hydric soil present? <u> N </u> Indicators of wetland hydrology present? <u> N </u>	Is the sampled area within a wetland? <u> N </u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p align="center">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

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

VEGETATION - Use scientific names of plants

Sampling Point: B76

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		<u>0</u> = Total Cover		

Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		<u>0</u> = Total Cover		

Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Poa pratensis</i>	40	Y	FACU
2	<i>Elymus repens</i>	30	Y	FACU
3	<i>Trifolium pratense</i>	10	N	FACU
4	<i>Phleum pratense</i>	10	N	FACU
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		<u>90</u> = Total Cover		

Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		<u>0</u> = Total Cover		

50/20 Thresholds		
	20%	50%
Tree Stratum	0	0
Sapling/Shrub Stratum	0	0
Herb Stratum	18	45
Woody Vine Stratum	0	0

Dominance Test Worksheet	
Number of Dominant Species that are OBL, FACW, or FAC:	<u>0</u> (A)
Total Number of Dominant Species Across all Strata:	<u>2</u> (B)
Percent of Dominant Species that are OBL, FACW, or FAC:	<u>0.00%</u> (A/B)

Prevalence Index Worksheet	
Total % Cover of:	
OBL species	<u> </u> x 1 = <u> </u>
FACW species	<u> </u> x 2 = <u> </u>
FAC species	<u> </u> x 3 = <u> </u>
FACU species	<u> </u> x 4 = <u> </u>
UPL species	<u> </u> x 5 = <u> </u>
Column totals	<u> </u> (A) <u> </u> (B)
Prevalence Index = B/A =	<u> </u>

Hydrophytic Vegetation Indicators:

Rapid test for hydrophytic vegetation

Dominance test is >50%

Prevalence index is ≤3.0*

Morphological 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)
DOES NOT MEET FAC-N TEST.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B77
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 3 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Yes Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? Yes circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u> N </u> Hydric soil present? <u> N </u> Indicators of wetland hydrology present? <u> N </u>	Is the sampled area within a wetland? <u> N </u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <div style="text-align: center; border: 1px solid black; padding: 5px;"> CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD. </div>	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
Field Observations: Surface water present? Yes _____ No <u> X </u> Depth (inches): _____ Water table present? Yes _____ No <u> X </u> Depth (inches): _____ Saturation present? Yes _____ No <u> X </u> Depth (inches): _____ (includes capillary fringe)		Indicators of wetland hydrology present? <u> N </u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <div style="border: 1px solid black; height: 20px; width: 100%;"></div>		
Remarks: <div style="text-align: center; border: 1px solid black; padding: 5px;"> NO PRIMARY OR SECONDARY INDICATORS OF HYDROLOGY WERE OBSERVED. </div>		

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B78
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): TOESLOPE Local relief (concave, convex, none): SLIGHT CONCAVE
 Slope (%): 0 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p style="text-align: center;">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
Field Observations: Surface water present? Yes _____ No <u>X</u> Depth (inches): _____ Water table present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)		Indicators of wetland hydrology present? <u>Y</u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

VEGETATION - Use scientific names of plants

Sampling Point: B78

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Typha angustifolia</i>	30	Y	OBL
2	<i>Juncus tenuis</i>	20	Y	FAC
3	<i>Phragmites australis</i>	15	N	FACW
4	<i>Schoenoplectus tabernaemontani</i>	10	N	OBL
5	<i>Phalaris arundinacea</i>	5	N	FACW
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				

50/20 Thresholds		
	20%	50%
Tree Stratum	0	0
Sapling/Shrub Stratum	0	0
Herb Stratum	16	40
Woody Vine Stratum	0	0

Dominance Test Worksheet	
Number of Dominant Species that are OBL, FACW, or FAC: <u>2</u> (A)	
Total Number of Dominant Species Across all Strata: <u>2</u> (B)	
Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (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	
<input checked="" type="checkbox"/> Dominance test is >50%	
_____ Prevalence index is ≤3.0*	
_____ Morphological 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)
MEETS FAC-N TEST

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B79
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 5 TO 6 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u> N </u> Hydric soil present? <u> N </u> Indicators of wetland hydrology present? <u> N </u>	Is the sampled area within a wetland? <u> N </u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <div style="border: 1px solid black; padding: 10px; margin: 5px 0;"> <p style="text-align: center;">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p> </div>	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery <input type="checkbox"/> (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
Field Observations: Surface water present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water table present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Indicators of wetland hydrology present? <u> N </u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <div style="border: 1px solid black; height: 40px; margin: 5px 0;"></div>	
Remarks: <p style="text-align: center;">NO PRIMARY OR SECONDARY INDICATORS OF HYDROLOGY WERE OBSERVED.</p>	

VEGETATION - Use scientific names of plants

Sampling Point: B79

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 = Total Cover		

Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 = Total Cover		

Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Poa pratensis</i>	30	Y	FACU
2	<i>Lotus corniculatus</i>	20	Y	FACU
3	<i>Phragmites australis</i>	15	N	FACW
4	<i>Taraxacum officinale</i>	10	N	FACU
5	<i>Cirsium arvense</i>	10	N	FACU
6	<i>Trifolium pratense</i>	5	N	FACU
7	<i>Acer negundo</i>	2	N	FAC
8	<i>Daucus carota</i>	2	N	UPL
9	<i>Rumex crispus</i>	2	N	FAC
10				
11				
12				
13				
14				
15				
		96 = Total Cover		

Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		0 = Total Cover		

50/20 Thresholds		
	20%	50%
Tree Stratum	0	0
Sapling/Shrub Stratum	0	0
Herb Stratum	19	48
Woody Vine Stratum	0	0

Dominance Test Worksheet		
Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A)		
Total Number of Dominant Species Across all Strata: <u>2</u> (B)		
Percent of Dominant Species that are OBL, FACW, or FAC: <u>0.00%</u> (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 $\leq 3.0^*$

Morphological 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)
DOES NOT MEET FAC-N TEST

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B80
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): BACKSLOPE Local relief (concave, convex, none): NONE
 Slope (%): 10 TO 15 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation X, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? No
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u> N </u> Hydric soil present? <u> N </u> Indicators of wetland hydrology present? <u> N </u>	Is the sampled area within a wetland? <u> N </u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p style="text-align: center;">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD. NON-NORMAL CIRCUMSTANCE, THE AREA HAS MOWING HISTORY.</p>	

HYDROLOGY

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

VEGETATION - Use scientific names of plants

Sampling Point: B80

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 = Total Cover		

Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 = Total Cover		

Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status
1 <i>Poa pratensis</i>		100	Y	FACU
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		100 = Total Cover		

Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		0 = Total Cover		

50/20 Thresholds		
	20%	50%
Tree Stratum	0	0
Sapling/Shrub Stratum	0	0
Herb Stratum	20	50
Woody Vine Stratum	0	0

Dominance Test Worksheet		
Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A)		
Total Number of Dominant Species Across all Strata: <u>1</u> (B)		
Percent of Dominant Species that are OBL, FACW, or FAC: <u>0.00%</u> (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*
- Morphological 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)
 NON-NORMAL CIRCUMSTANCE, THE AREA HAS MOWING HISTORY. DOES NOT MEET FAC-N TEST. PROBLEMATIC HYDROPHYTIC VEGETATION PROCEDURES NOT REQUIRED BASED ON A LACK OF HYDROLOGY AND HYDRIC SOILS.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TOWN OF GRAND CHUTE City/County: OUTAGAMIE Sampling Date: 6/27/16
 Applicant/Owner: TOWN OF GRAND CHUTE State: WISCONSIN Sampling Point: B81
 Investigator(s): BRIAN BATES, PSS & TOM NIETZEL, PSS Section, Township, Range: SECTION 9, T21N, R17E
 Landform (hillslope, terrace, etc.): TOESLOPE Local relief (concave, convex, none): NONE
 Slope (%): 0 Lat.: *** Long.: *** Datum: ***CONTACT McMAHON ASSOCIATES, INC
 Soil Map Unit Name: SHIOCTON SILT LOAM (ShA) NWI Classification: NONE
 Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
 Are vegetation X, soil _____, or hydrology _____ significantly disturbed? Are "normal
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? circumstances" present? No
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p style="text-align: center;">CLIMATIC CONDITIONS ARE NORMAL PER THE NRCS ANTECEDENT HYDROLOGIC CONDITION EVALUATION METHOD.</p>	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
Field Observations: Surface water present? Yes _____ No <u>X</u> Depth (inches): _____ Water table present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)		Indicators of wetland hydrology present? <u>Y</u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

VEGETATION - Use scientific names of plants

Sampling Point: B81

Tree Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 = Total Cover		

Sapling/Shrub Stratum	Plot Size (15')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		0 = Total Cover		

Herb Stratum	Plot Size (5')	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Poa pratensis</i>	90	Y	FACU
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		90 = Total Cover		

Woody Vine Stratum	Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		0 = Total Cover		

50/20 Thresholds		
	20%	50%
Tree Stratum	0	0
Sapling/Shrub Stratum	0	0
Herb Stratum	18	45
Woody Vine Stratum	0	0

Dominance Test Worksheet		
Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A)		
Total Number of Dominant Species Across all Strata: <u>1</u> (B)		
Percent of Dominant Species that are OBL, FACW, or FAC: <u>0.00%</u> (A/B)		

Prevalence Index Worksheet		
Total % Cover of:		
OBL species	<u>0</u> x 1 =	<u>0</u>
FACW species	<u>0</u> x 2 =	<u>0</u>
FAC species	<u>0</u> x 3 =	<u>0</u>
FACU species	<u>90</u> x 4 =	<u>360</u>
UPL species	<u>0</u> x 5 =	<u>0</u>
Column totals	<u>90</u> (A)	<u>360</u> (B)
Prevalence Index = B/A = <u>4.00</u>		

Hydrophytic Vegetation Indicators:

Rapid test for hydrophytic vegetation

Dominance test is >50%

Prevalence index is ≤3.0*

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

Problematic hydrophytic vegetation*

X (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)
THE SAMPLING POINT HAS MOWING HISTORY. NON-NORMAL CIRCUMSTANCE. SEE SEPARATE SHEET.

B81 VEGETATION DISCUSSION

Dominance Test not met. The Prevalence Index was evaluated since both hydric soils and wetland hydrology were present. The Prevalence Index was not met. The area is a problematic wetland situation per Chapter 5. Vegetation has been historically mowed. It is a managed plant community and the vegetation present may not accurately represent natural conditions (hydrophytes possibly eliminated) because of the historical management. Subsequently, the Procedures for Problematic Vegetation were evaluated.

Step 1 was "met" since indicators of hydric soil and hydrology were present. Step 2 was "met" since multiple appropriate landscape settings were identified: geomorphic position/low or nearly level area (<3% slope) and overall area is concave. Proceeded to Step 3 and then to Step 4d Procedures for Problematic Hydrophytic Vegetation - Specific Problematic Vegetation Situation - Managed Plant Community:

4d(4) The hydrophytic vegetation status at this sampling point has been made based on the presence of hydric soils, wetland hydrology and hydrophytes observed at similar elevations west of the road. It is my B.P.J. that if this sampling point was not a managed plant community, hydrophytes would be dominant based on landscape position and the presence of hydric soils and wetland hydrology. Based on this B.P.J., the vegetation is considered disturbed and normal circumstances are not present.

APPENDIX D
County & Web Soil
Survey Excerpts

Hydric Soil List - All Components

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

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

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

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

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

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

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

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

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

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

References:

- Federal Register. July 13, 1994. Changes in hydric soils of the United States.
Federal Register. Doc. 2012-4733 Filed 2-28-12. February, 28, 2012. Hydric soils of the United States.
Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.
Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.
Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.
Vasilas, L.M., G.W. Hurt, and C.V. Noble, editors. Version 7.0, 2010. Field indicators of hydric soils in the United States.

Report—Hydric Soil List - All Components

Hydric Soil List - All Components—WI087-Outagamie County, Wisconsin					
Map symbol and map unit name	Component/Local Phase	Comp. pct.	Landform	Hydric status	Hydric criteria met (code)
GrB: Grays silt loam, 2 to 6 percent slopes	Grays	100	Lake plains	No	—
	Mottles in the lower subsoil		—	No	—
	Mundelein silt loam		—	No	—
	Nichols very fine sandy loam		—	No	—
	Slope is greater than 6%		—	No	—
	Substratum is silty clay loam		—	No	—
	Surface is eroded		—	No	—
NfB: Nichols very fine sandy loam, 2 to 6 percent slopes	Nichols	100	Lake plains	No	—
	Grays silt loam		—	No	—
	Shiocton silt loam		—	No	—
	Slope is greater than 6%		—	No	—
	Slope is less than 2%		—	No	—
	Surface is silt loam		—	No	—
SeC: Shawano fine sand, rolling	Shawano	100	Dunes on outwash plains	No	—
	Boyer loamy sand		—	No	—
	Rousseau loamy fine sand		—	No	—
	Slope is greater than 6%		—	No	—
	Surface is loamy fine sand		—	No	—
	Surface is severely eroded		—	No	—
ShA: Shiocton silt loam, 0 to 3 percent slopes	Shiocton	100	Lake plains	No	—
	Keowns silt loam		Depressions	Yes	2,3
	Mundelein silt loam		—	No	—
	Nichols very fine sandy loam		—	No	—
	Surface is fine sandy loam		—	No	—
	Wainola loamy fine sand		—	No	—

Data Source Information

Soil Survey Area: Outagamie County, Wisconsin

Survey Area Data: Version 9, Sep 25, 2015

where sand and gravel have been removed to a depth of several feet or more for highway construction and other engineering projects. Most of these gravel pits are in or near areas of Casco and Boyer soils. Most areas are round or rectangular and range from less than 1 acre to about 5 acres in size.

Included in mapping are areas of soil overburden scraped from the pit areas. Gravel pits are not rated for soil properties or any selected use.

In some places Gravel pits are used for recreation areas or wildlife habitat. Not placed in a capability unit or woodland group.

Grays Series

The Grays series consists of nearly level and gently sloping, well drained and moderately well drained soils on old glacial lake plains. These soils formed under prairie grasses and scattered bur oaks.

In a representative profile the surface layer is very dark grayish brown silt loam about 9 inches thick. The subsoil is about 16 inches thick. It is brown silty clay loam in the upper part and brown silt loam in the lower part. The substratum is brown stratified silt loam and very fine sand to a depth of about 60 inches.

Grays soils have high available water capacity and moderate permeability.

Most areas of these soils are used for all crops commonly grown in the county.

Representative profile of Grays silt loam, 0 to 2 percent slopes, in cropland 396 feet north and 660 feet west of the southeastern corner of sec. 14, T. 22 N., R. 16 E.

Ap—0 to 9 inches; very dark grayish brown (10YR 3/2) silt loam; moderate fine subangular blocky structure; very friable; common roots; neutral; abrupt smooth boundary.

B21t—9 to 14 inches; brown (7.5YR 4/4) silty clay loam; moderate medium subangular blocky structure; friable; reddish brown (5YR 4/4) continuous clay films on faces of peds; upon drying, thin light brownish gray (10YR 6/2) coatings appear on faces of peds; neutral; abrupt wavy boundary.

B22t—14 to 20 inches; brown (7.5YR 4/4) silty clay loam; moderate medium subangular blocky structure; friable; reddish brown (5YR 4/4) patchy clay flows; neutral; abrupt wavy boundary.

B3t—20 to 25 inches; brown (7.5YR 4/4) silt loam; moderate fine and medium subangular blocky structure; friable; neutral; abrupt wavy boundary.

IIC—25 to 60 inches; brown (7.5YR 5/4) silt loam and very fine sand; laminated; friable; slight effervescence; mildly alkaline.

The solum ranges from 20 to 40 inches in thickness, but generally is 20 to 30 inches thick. The A and B horizons are medium acid to neutral.

The Ap horizon is very dark gray, very dark grayish brown, dark brown, very dark brown, or black and is 6 to 9 inches thick. The C horizon is commonly stratified silt loam and very fine sand, but some pedons contain lenses of silt, fine sand, or silty clay loam. High-chroma mottles are in the B and IIC horizons in some places.

Grays soils are near Mundelein and Nichols soils.

They are better drained than Mundelein soils and have a finer textured B horizon than Nichols soils.

GrA—Grays silt loam, 0 to 2 percent slopes. This nearly level soil is on lacustrine plains. Most areas are irregular in shape and range from 2 to 200 acres in size. This soil has the profile described as representative of the series.

Included with this soil in mapping are a few areas of gently sloping Grays soils and areas where the surface layer is very fine sandy loam. Also included are some small areas of Mundelein and Nichols soils.

This soil has high natural fertility and moderately low organic-matter content. The effective root zone is deep. Runoff is slow. There are no major management concerns for crop production.

Most areas of this soil are used for crops, and some remain in woodland. This soil is well suited to all crops commonly grown in the county and to specialty crops. Capability unit I-1; woodland group 1o.

GrB—Grays silt loam, 2 to 6 percent slopes. This gently sloping soil is on glacial lake plains. Most areas are irregular in shape and range from 2 to 500 acres in size. This soil has a thinner surface layer than the soil described as representative of the series.

Included with this soil in mapping are areas where the surface layer is very fine sandy loam. Also included are some areas of Mundelein and Nichols soils.

This soil has high natural fertility and moderately low organic-matter content. The effective root zone is deep. Runoff is medium. Erosion is the main hazard on this soil. Where this soil is farmed intensively, erosion control is needed.

Most areas of this soil are used for crops. This soil is well suited to all crops commonly grown in the county and to specialty crops such as peas, green beans, and soybeans. Capability unit IIe-1; woodland group 1o.

Hebron Series

The Hebron series consists of well drained and moderately well drained, gently sloping soils on lacustrine plains and stream valley benches. These soils formed under mixed hardwood forests dominantly of oak, birch, and basswood.

In a representative profile the surface layer is very dark brown loam about 5 inches thick. The subsurface layer is dark grayish brown loam about 5 inches thick. The subsoil is about 26 inches thick. It is dark yellowish brown and brown loam in the upper part and brown silty clay loam and silty clay in the lower part. The substratum is brown silty clay to a depth of about 60 inches.

Hebron soils have high available water capacity and moderately slow permeability.

Most areas of these soils are cultivated and used for all crops commonly grown in the county.

Representative profile of Hebron loam, 2 to 6 percent slopes, in an uncultivated field 330 feet north and 900 feet east of the southwestern corner of sec. 31, T. 21 N., R. 18 E.

A1—0 to 5 inches; very dark brown (10YR 2/2) loam; moderate medium granular structure; very friable; neutral; clear smooth boundary.

A2—5 to 10 inches; dark grayish brown (10YR

400 feet east of the northwestern corner of sec. 23, T. 22 N., R. 16 E.

Ap—0 to 10 inches; black (10YR 2/1) silt loam; moderate medium granular structure; friable; many roots; neutral; abrupt smooth boundary.

B2t—10 to 22 inches; brown (7.5YR 5/4) silty clay loam; many fine distinct strong brown (7.5YR 5/8) and grayish brown (10YR 5/2) mottles; moderate fine subangular blocky structure; friable; many roots to 15 inches; thin patchy clay films; neutral; clear smooth boundary.

B3t—22 to 27 inches; brown (7.5YR 5/4) light silty clay loam; many fine distinct strong brown (7.5YR 5/8) and grayish brown (10YR 5/2) mottles; weak fine subangular blocky structure; friable; thin very patchy clay films; mildly alkaline; clear smooth boundary.

C—27 to 60 inches; light brown (7.5YR 6/4) silt loam and very fine sand; stratified few fine distinct strong brown (7.5YR 5/8) and grayish brown (10YR 5/2) mottles; moderate fine platy structure; friable; many fine prominent brown (7.5YR 5/2) calcium carbonate concretions; violent effervescence; moderately alkaline.

The solum is 24 to 36 inches thick. The A and B horizons are medium acid to mildly alkaline, and the C horizon is slightly acid to moderately alkaline.

The A horizon is dark grayish brown or black and is 8 to 12 inches thick. The C horizon is dominantly stratified silt loam and very fine sand.

Mundelein soils are near Grays and Shiocton soils. They are wetter than Grays soils and have a higher clay content in the B horizon than Shiocton soils.

MuA—Mundelein silt loam, 0 to 3 percent slopes. This nearly level and gently sloping soil is on glacial lake plains. Most areas are irregular in shape and range from 2 to 400 acres in size.

Included with this soil in mapping are small areas of Grays, Keowns, and Shiocton soils.

This soil has high natural fertility and high organic-matter content. The effective rooting depth is limited by the water table. Runoff is very slow. Wetness is the main limitation to use of this soil. Surface drainage is beneficial for crop production.

Most drained areas of this soil are used for crops. Undrained areas are used mostly for pasture, woodland, or wildlife habitat. If drained this soil is well suited to most crops commonly grown in the county. Capability unit IIw-4; woodland group 4o.

Namur Series

The Namur series consists of well drained, nearly level and gently sloping soils that formed in a thin silt loam mantle in areas that are shallow or very shallow to limestone bedrock. The native vegetation was mixed deciduous and coniferous forests.

In a representative profile the surface layer is very dark brown silt loam about 5 inches thick. It is underlain to a depth of at least 60 inches by light gray consolidated limestone bedrock.

Namur soils have very low available water capacity and moderate permeability.

Most areas of these soils are in woodland or wildlife habitat and some are used for pasture.

Representative profile of Namur silt loam, 1 to 6 percent slopes, in a woodlot 1,380 feet south and 325 feet west of the northeastern corner of sec. 30, T. 22 N., R. 15 E.

A1—0 to 5 inches; very dark brown (10YR 2/2) silt loam; moderate fine and medium subangular blocky structure; very friable; neutral; abrupt smooth boundary.

R—5 to 60 inches; light gray (10YR 7/2) consolidated limestone bedrock.

The thickness of the solum and depth to limestone bedrock are 3 to 12 inches. The bedrock is consolidated limestone which is creviced in some areas. The A horizon is slightly acid to mildly alkaline. It is very dark brown or black and is 3 to 12 inches thick.

Namur soils are near Kolberg soils and areas of Rock outcrop. They are thinner over limestone than Kolberg soils. Namur soils do not have the exposures of limestone that are characteristic of Rock outcrop.

NaB—Namur silt loam, 1 to 6 percent slopes. This nearly level and gently sloping soil is on uplands that are shallow or very shallow to limestone. Most areas are long and narrow and range from 5 to 100 acres in size.

Included with this soil in mapping are a few small areas of Bonduel, Channahon, and Kolberg soils and some areas of Rock outcrop.

This soil has low natural fertility and moderately low organic-matter content. The effective rooting depth is limited by limestone. Runoff is medium. Erosion is a slight or moderate hazard and drought is a very severe hazard.

Most areas of this soil are in woodland or wildlife habitat, but some are in pasture. This soil is best suited to wildlife habitat. Capability unit VI_s-5; woodland group 4d.

Nichols Series

The Nichols series consists of moderately well drained, nearly level and gently sloping soils on old glacial lake plains. These soils formed under mixed northern hardwoods consisting of maple, ash, birch, and aspen.

In a representative profile the surface layer is dark grayish brown, very fine sandy loam about 8 inches thick. The subsoil is brown and dark brown, very fine sandy loam about 18 inches thick. The substratum to a depth of about 60 inches is yellowish brown, stratified silt and very fine sand.

Nichols soils have high available water capacity and moderate permeability. Permeability is slow where the substratum is clayey.

Most areas of these soils are used for cultivated crops. Some areas remain in woodland or pasture.

Representative profile of Nichols very fine sandy loam, 2 to 6 percent slopes, in a cultivated area 660 feet east and 100 feet north of the southwestern corner of sec. 15, T. 23 N., R. 15 E.

Ap—0 to 8 inches; dark grayish brown (10YR 4/2) very fine sandy loam; moderate very

- fine granular structure; very friable; slightly acid; abrupt smooth boundary.
- B1—8 to 11 inches; brown (10YR 5/3) very fine sandy loam; moderate fine subangular blocky structure; very friable; neutral; abrupt wavy boundary.
- B2—11 to 17 inches; dark brown (7.5YR 4/4) very fine sandy loam; weak medium platy structure parting to moderate fine subangular blocky; very friable; neutral; gradual smooth boundary.
- B3—17 to 26 inches; dark brown (7.5YR 4/4) very fine sandy loam; moderate thick platy structure parting to moderate medium subangular blocky; very friable; slight effervescence; mildly alkaline.
- C—26 to 60 inches; yellowish brown (10YR 5/4) silt and very fine sand, stratified; residual platy structure; very friable; violent effervescence; moderately alkaline.

The solum is 24 to 30 inches thick. The A and B horizons are slightly acid to mildly alkaline, and the C horizon is moderately alkaline.

The A horizon is dark grayish brown, very dark grayish brown, or very dark brown and is 4 to 9 inches thick. The C horizon is mostly silt and very fine sand which is stratified. Some pedons contain strata which range from sandy to clayey.

Nichols soils are near Grays and Shiocton soils. They are better drained than Shiocton soils and lack the B2t horizon that is characteristic of Grays soils.

NfA—Nichols very fine sandy loam, 0 to 2 percent slopes. This nearly level soil is on glacial lake plains. Most areas are irregular in shape and range from 5 to 500 acres in size. This soil has a thicker combined surface layer and subsoil than the soil described as representative of the series.

Included with this soil in mapping are some gently sloping Nichols soils and a few areas of Shiocton soils. Also included are some small areas that have a silt loam surface layer.

This soil has high natural fertility and low organic-matter content. The effective root zone is deep. Runoff is slow. Removal of excess surface water during extended periods of heavy rain is the main management concern. Surface drainage is beneficial.

Most areas of this soil are used for crops. This soil is well suited to all crops commonly grown in the county and to specialty crops, such as cabbage or cauliflower. Capability unit I-1; woodland group 1c.

NfB—Nichols very fine sandy loam, 2 to 6 percent slopes. This gently sloping soil is on glacial lake plains. Most areas are irregular in shape and range from 3 to 600 acres in size. This soil has the profile described as representative of the series.

Included with the soil in mapping are some areas of nearly level and sloping Nichols soils and some small areas of Nichols soils that have a silt loam surface layer. Also included are some areas of Grays and Shiocton soils.

This soil has high natural fertility and low organic-matter content. The effective root zone is deep. Runoff is slow. Erosion is the main hazard. Terraces, strip-cropping, and crop rotation are practices that reduce runoff and erosion.

Most areas of this soil are used for cultivated crops. Some areas remain in woodland or pasture. This soil is well suited to all crops commonly grown in the county and to specialty crops, such as cabbage and cauliflower. Capability unit IIe-1; woodland group 1c.

NsA—Nichols very fine sandy loam, clayey substratum, 0 to 2 percent slopes. This nearly level soil is in glacial lake basins. Most areas are irregular in shape and range from 5 to 200 acres in size. This soil has a profile similar to the one described as representative of the series, but it is underlain by clayey material at a depth of 40 to 60 inches.

Included with this soil in mapping are a few areas of Grays and Shiocton soils and some areas of Nichols soils that have a silt loam surface layer. A few small areas of Nichols soils that do not have a clayey substratum are also included.

This soil has high natural fertility and low organic-matter content. The effective rooting depth is limited by the clayey substratum. Runoff is slow. The accumulation of excess surface water during extended periods of heavy rain is the main limitation. Surface drainage is beneficial in removing this excess water.

This soil is mostly used for crops. It is well suited to most crops in the county and to specialty crops, such as cabbage and cauliflower. Capability unit I-1; woodland group 1c.

NsB—Nichols very fine sandy loam, clayey substratum, 2 to 6 percent slopes. This gently sloping soil is in glacial lake basins. Most areas are irregular in shape and range from 3 to 120 acres in size. This soil has a profile similar to the one described as representative of the series, but it is underlain by clayey material at a depth of 40 to 60 inches.

Included with this soil in mapping are a few small areas of Shiocton soils. Also included are some small areas of Nichols soils that have a silt loam surface layer and a few areas that do not have a clayey substratum.

This soil has high natural fertility and low organic-matter content. The effective rooting depth is limited by the clayey substratum. Runoff is slow. Erosion is the main hazard. Practices such as minimum tillage, mulching, and plowing under crop residue reduce runoff and erosion.

Most areas of this soil are used for crops. This soil is well suited to most crops commonly grown in the county and to specialty crops, such as cabbage and cauliflower. Capability unit IIe-1; woodland group 1c.

Onaway Series

The Onaway series consists of well drained and moderately well drained, gently sloping to moderately steep soils on glacial till plains and moraines. The native vegetation included northern red oak, white pine, white ash, sugar maple, beech, aspen, and basswood.

In a representative profile the surface layer is very dark grayish brown loam about 4 inches thick. The subsurface layer is pinkish gray fine sandy loam about 1 inch thick. The subsoil is about 22 inches thick. It is dark brown fine sandy loam in the upper part, pinkish gray fine sandy loam in the middle part, and reddish brown clay loam in the lower part. The substratum to a depth of about 60 inches is brown loam.

the lower part. The substratum is brown fine sand to a depth of about 60 inches.

Rousseau soils have low available water capacity and rapid permeability.

Most areas of these soils are used for woodland and wildlife habitat.

Representative profile of Rousseau loamy fine sand, 2 to 6 percent slopes, in a woodlot 650 feet north and 660 feet east of the southwestern corner of sec. 4, T. 24 N., R. 19 E.

A1—0 to 3 inches; black (10YR 2/1) loamy fine sand; weak fine granular structure; very friable; many roots; strongly acid; abrupt wavy boundary.

A2—3 to 6 inches; grayish brown (10YR 5/2) fine sand; weak thin platy structure; very friable; few roots; medium acid; abrupt wavy boundary.

B21ir—6 to 9 inches; dark reddish brown (5YR 3/4) fine sand; moderate fine subangular blocky structure; friable; few roots; strongly acid; abrupt wavy boundary.

B22ir—9 to 14 inches; yellowish red (5YR 4/6) fine sand; weak fine subangular blocky structure; very friable; few roots; strongly acid; clear wavy boundary.

B3—14 to 21 inches; strong brown (7.5YR 5/6) fine sand; weak fine subangular blocky structure; very friable to loose; few roots; slightly acid; clear wavy boundary.

C—21 to 60 inches; brown (7.5YR 5/4) fine sand; single grained; loose; slightly acid.

The solum is 20 to 30 inches thick. The A and B horizons are strongly acid to slightly acid and the C horizon is medium acid or slightly acid. The A horizon is black or very dark brown and is 3 to 6 inches thick.

Rousseau soils are near Boyer, Deford, and Wainola soils. They are more sandy in the B horizon than Boyer soils and are better drained than Deford and Wainola soils.

RoB—Rousseau loamy fine sand, 2 to 6 percent slopes. This gently sloping soil is on sandy lacustrine and outwash plains. Most areas are irregular in shape and range from 2 to 120 acres in size.

Included with this soil in mapping are some small areas of nearly level Rousseau soils and some small areas that are severely eroded. Also included are some small areas of Shawano and Wainola soils and some soils that are very fine sand throughout.

This soil has low natural fertility and low organic-matter content. The effective root zone is deep. Runoff is slow. A low natural fertility level and low available water capacity are the main limitations to use of this soil. This soil is also subject to soil blowing. Management is needed for dependable crop production. Supplemental irrigation, additions of organic matter, fertilization, and protection from blowing are beneficial to this soil.

Most areas of this soil are in pasture or woodland. This soil is best suited to woodland and wildlife habitat. Capability unit IVs-3; woodland group 2s.

Shawano Series

The Shawano series consists of excessively drained

rolling and hilly soils on sand dunes and outwash ridges. The native vegetation consisted of red oak, sugar maple, white ash, basswood, white pine, and red pine.

In a representative profile the surface layer is very dark grayish brown fine sand about 5 inches thick. The subsoil is brown fine sand about 23 inches thick. The substratum is yellowish brown fine sand to a depth of about 60 inches (fig. 7).

Shawano soils have low available water capacity and rapid permeability.

Representative profile of Shawano fine sand, rolling, on a pine plantation 350 feet south and 350 feet east of the northwestern corner of sec. 29, T. 24 N., R. 16 E.

O1— $\frac{1}{2}$ inch to 0; leaf litter.

A11—0 to 2 inches; very dark grayish brown (10YR 3/2) fine sand; weak medium granular structure; very friable; few roots; medium acid; abrupt wavy boundary.

A12—2 to 5 inches; very dark grayish brown (10YR 3/2) fine sand; weak medium granular structure; very friable; slightly acid; abrupt wavy boundary.

B2—5 to 28 inches; brown (7.5YR 4/4) fine sand;



Figure 7.—Profile of a Shawano fine sand.

weak fine subangular blocky structure; very friable; slightly acid; clear smooth boundary.

C—28 to 60 inches; yellowish brown (10YR 5/6) fine sand; single grained; loose; slightly acid.

The solum is 20 to 40 inches thick and is medium acid or slightly acid. The C horizon is medium acid to mildly alkaline. The A horizon is very dark grayish brown or black and is typically less than 6 inches thick. The B horizon is fine sand or very fine sand.

Shawano soils are near Boyer and Rousseau soils. They have more sand in the B horizon and finer sand in the C horizon than Boyer soils. Shawano soils have less iron accumulation in the solum than Rousseau soils.

SeC—Shawano fine sand, rolling. This soil is on sand dunes in areas of glacial outwash. Most areas are elongated and range from 3 to 120 acres in size. Slopes are 6 to 12 percent. This soil has the profile described as representative of the series.

Included with this soil in mapping are small areas of Boyer and Wainola soils. Also included are some undulating and hilly Shawano soils and some areas where the surface layer is loamy fine sand.

This soil has low natural fertility and very low organic-matter content. The effective root zone is deep. Runoff is slow. The main hazards are soil blowing and erosion. Management practices that maintain a permanent plant cover are needed to reduce these hazards.

Most areas of this soil are used for woodland or wildlife habitat and are suited to these uses. This soil is unsuited to commercial crop production. Capability unit VII_s-9; woodland group 2s.

SeD—Shawano fine sand, hilly. This soil is on sand dunes in areas of glacial outwash. Most areas are elongated and range from 2 to 40 acres in size. Slopes are 12 to 20 percent.

Included with this soil in mapping are some small areas of Boyer and Rousseau soils. Also included are some areas of Shawano soils with slopes of less than 12 percent and areas with slopes up to 35 percent.

This soil has low natural fertility and very low organic-matter content. The effective root zone is deep. Runoff is medium or rapid. This soil is subject to soil blowing, and erosion is a severe hazard. It is also droughty. Management practices that maintain a permanent plant cover are needed.

Most areas of this soil are used for woodland or wildlife habitat, to which they are suited. This soil is unsuited to commercial crop production. Capability unit VII_s-9; woodland group 2s.

Shiocton Series

The Shiocton series consists of somewhat poorly drained, nearly level and gently sloping soils on lacustrine plains. The natural vegetation included red maple, white ash, birch, and red oak.

In a representative profile the surface layer is very dark grayish brown silt loam about 10 inches thick. The subsoil is about 16 inches thick. It is brown mottled silt loam with lenses of very fine sand in the upper part and light yellowish brown, yellowish brown, and strong brown very fine sandy loam with lenses of silt in the lower part. The substratum to a depth of about

60 inches is brown mottled silt stratified with very fine sand.

Shiocton soils have high available water capacity. Permeability is moderate, except it is very slow in the substratum of the Shiocton clayey substratum soils.

These soils are used for crops and pasture. Undrained areas are mostly in woodland or wildlife habitat.

Representative profile of Shiocton silt loam, 0 to 3 percent slopes, in cropland 2,030 feet south and 50 feet west of the northeastern corner of sec. 21, T. 22 N., R. 17 E.

Ap—0 to 10 inches; very dark grayish brown (10YR 3/2) silt loam; weak medium and fine subangular blocky structure; very friable; common roots; slight effervescence; mildly alkaline; abrupt smooth boundary.

B2—10 to 15 inches; brown (7.5YR 4/4) silt loam with lenses of very fine sand; many medium and coarse prominent strong brown (7.5YR 5/8) and common medium distinct grayish brown (10YR 5/2) mottles; weak very thick platy structure parting to weak coarse subangular blocky; very friable; few roots; strong effervescence; moderately alkaline; clear wavy boundary.

B3—15 to 26 inches; mixed yellowish brown (10YR 5/8), light yellowish brown (10YR 6/4), and strong brown (7.5YR 5/6 and 5/8) very fine sandy loam with lenses of coarse silt; weak and moderate medium platy structure parting to weak medium and coarse subangular blocky; very friable; strong effervescence; moderately alkaline; clear wavy boundary.

C1—26 to 30 inches; brown (7.5YR 5/4) coarse silt and very fine sand, stratified; many fine and medium prominent yellowish brown (10YR 5/8) and few fine distinct light brownish gray (10YR 6/2) mottles; weak thin platy structure; friable; violent effervescence; moderately alkaline; gradual wavy boundary.

C2—30 to 60 inches; brown (7.5YR 5/4) very fine sand and silt, stratified; many fine and medium prominent yellowish brown (10YR 5/8) and common fine distinct light brownish gray (10YR 6/2) mottles; massive; friable; violent effervescence; moderately alkaline.

The solum is 20 to 36 inches thick. It is slightly acid to mildly alkaline in the upper part and neutral to moderately alkaline in the lower part. The C horizon is neutral to moderately alkaline.

The A horizon is very dark grayish brown, very dark gray, black, or very dark brown and is 8 to 15 inches thick. The B horizon is silt loam or very fine sandy loam with lenses of very fine sand in some pedons. The C horizon is silt and very fine sandy loam that is stratified with very fine sand, medium sand, silty clay loam, or silty clay.

Shiocton soils are near Keowns, Mundelein, and Nichols soils. They have less clay in the B horizon than Mundelein soils, are wetter than Nichols soils, and are better drained than Keowns soils.

weak fine subangular blocky structure; very friable; slightly acid; clear smooth boundary.

C—28 to 60 inches; yellowish brown (10YR 5/6) fine sand; single grained; loose; slightly acid.

The solum is 20 to 40 inches thick and is medium acid or slightly acid. The C horizon is medium acid to mildly alkaline. The A horizon is very dark grayish brown or black and is typically less than 6 inches thick. The B horizon is fine sand or very fine sand.

Shawano soils are near Boyer and Rousseau soils. They have more sand in the B horizon and finer sand in the C horizon than Boyer soils. Shawano soils have less iron accumulation in the solum than Rousseau soils.

SeC—Shawano fine sand, rolling. This soil is on sand dunes in areas of glacial outwash. Most areas are elongated and range from 3 to 120 acres in size. Slopes are 6 to 12 percent. This soil has the profile described as representative of the series.

Included with this soil in mapping are small areas of Boyer and Wainola soils. Also included are some undulating and hilly Shawano soils and some areas where the surface layer is loamy fine sand.

This soil has low natural fertility and very low organic-matter content. The effective root zone is deep. Runoff is slow. The main hazards are soil blowing and erosion. Management practices that maintain a permanent plant cover are needed to reduce these hazards.

Most areas of this soil are used for woodland or wildlife habitat and are suited to these uses. This soil is unsuited to commercial crop production. Capability unit VII_s-9; woodland group 2s.

SeD—Shawano fine sand, hilly. This soil is on sand dunes in areas of glacial outwash. Most areas are elongated and range from 2 to 40 acres in size. Slopes are 12 to 20 percent.

Included with this soil in mapping are some small areas of Boyer and Rousseau soils. Also included are some areas of Shawano soils with slopes of less than 12 percent and areas with slopes up to 35 percent.

This soil has low natural fertility and very low organic-matter content. The effective root zone is deep. Runoff is medium or rapid. This soil is subject to soil blowing, and erosion is a severe hazard. It is also droughty. Management practices that maintain a permanent plant cover are needed.

Most areas of this soil are used for woodland or wildlife habitat, to which they are suited. This soil is unsuited to commercial crop production. Capability unit VII_s-9; woodland group 2s.

Shiocton Series

The Shiocton series consists of somewhat poorly drained, nearly level and gently sloping soils on lacustrine plains. The natural vegetation included red maple, white ash, birch, and red oak.

In a representative profile the surface layer is very dark grayish brown silt loam about 10 inches thick. The subsoil is about 16 inches thick. It is brown mottled silt loam with lenses of very fine sand in the upper part and light yellowish brown, yellowish brown, and strong brown very fine sandy loam with lenses of silt in the lower part. The substratum to a depth of about

60 inches is brown mottled silt stratified with very fine sand.

Shiocton soils have high available water capacity. Permeability is moderate, except it is very slow in the substratum of the Shiocton clayey substratum soils.

These soils are used for crops and pasture. Undrained areas are mostly in woodland or wildlife habitat.

Representative profile of Shiocton silt loam, 0 to 3 percent slopes, in cropland 2,030 feet south and 50 feet west of the northeastern corner of sec. 21, T. 22 N., R. 17 E.

Ap—0 to 10 inches; very dark grayish brown (10YR 3/2) silt loam; weak medium and fine subangular blocky structure; very friable; common roots; slight effervescence; mildly alkaline; abrupt smooth boundary.

B2—10 to 15 inches; brown (7.5YR 4/4) silt loam with lenses of very fine sand; many medium and coarse prominent strong brown (7.5YR 5/8) and common medium distinct grayish brown (10YR 5/2) mottles; weak very thick platy structure parting to weak coarse subangular blocky; very friable; few roots; strong effervescence; moderately alkaline; clear wavy boundary.

B3—15 to 26 inches; mixed yellowish brown (10YR 5/8), light yellowish brown (10YR 6/4), and strong brown (7.5YR 5/6 and 5/8) very fine sandy loam with lenses of coarse silt; weak and moderate medium platy structure parting to weak medium and coarse subangular blocky; very friable; strong effervescence; moderately alkaline; clear wavy boundary.

C1—26 to 30 inches; brown (7.5YR 5/4) coarse silt and very fine sand, stratified; many fine and medium prominent yellowish brown (10YR 5/8) and few fine distinct light brownish gray (10YR 6/2) mottles; weak thin platy structure; friable; violent effervescence; moderately alkaline; gradual wavy boundary.

C2—30 to 60 inches; brown (7.5YR 5/4) very fine sand and silt, stratified; many fine and medium prominent yellowish brown (10YR 5/8) and common fine distinct light brownish gray (10YR 6/2) mottles; massive; friable; violent effervescence; moderately alkaline.

The solum is 20 to 36 inches thick. It is slightly acid to mildly alkaline in the upper part and neutral to moderately alkaline in the lower part. The C horizon is neutral to moderately alkaline.

The A horizon is very dark grayish brown, very dark gray, black, or very dark brown and is 8 to 15 inches thick. The B horizon is silt loam or very fine sandy loam with lenses of very fine sand in some pedons. The C horizon is silt and very fine sandy loam that is stratified with very fine sand, medium sand, silty clay loam, or silty clay.

Shiocton soils are near Keowns, Mundelein, and Nichols soils. They have less clay in the B horizon than Mundelein soils, are wetter than Nichols soils, and are better drained than Keowns soils.

ShA—Shiocton silt loam, 0 to 3 percent slopes. This nearly level and gently sloping soil is on lacustrine plains. Most areas are irregular in shape and range from 2 to 1,200 acres in size. This soil has the profile described as representative of the series.

Included with this soil in mapping are a few small areas of Shiocton soil where the surface layer is very fine sandy loam and a few areas of Mundelein and Nichols soils.

This soil has high natural fertility and high organic-matter content. The effective rooting depth is limited by the water table. Runoff is very slow. Wetness is the main limitation of this soil. This soil is subject to flooding for brief periods. Surface drainage removes excess water.

This soil is used for crops or pasture. Many areas remain in woodland and are used for wildlife habitat. If drained, this soil is well suited to most crops commonly grown in the county and to specialty crops, such as cabbage and cauliflower. It is also well suited to growing row crops year after year. Capability unit IIw-4; woodland group 1o.

SkA—Shiocton silt loam, clayey substratum, 0 to 3 percent slopes. This nearly level and gently sloping soil is on lacustrine plains. Most areas are elongated and range from 5 to 200 acres in size. This soil is similar to the one described as representative of the series, but it is underlain by clayey material at a depth of 40 to 60 inches.

Included with this soil in mapping are small areas of Keowns and Mundelein soils. Also included are areas where the clayey substratum is at a depth of 30 to 40 inches and some areas that lack a clayey substratum.

This soil has high natural fertility and high organic-matter content. The effective root zone is limited by the water table and, in drained areas, by the underlying clayey substratum. This soil is subject to frequent flooding. Surface drainage can be used to remove excess water.

Where drained, most areas of this soil are used for crops and pasture. This soil is well suited to continuous row cropping and woodland. Undrained areas are used for permanent pasture, woodland, or wildlife habitat. Capability unit IIw-4; woodland group 1o.

SnB—Shiocton-Nichols complex, 2 to 6 percent slopes. These undulating soils are on lacustrine plains. Most areas are irregular in shape and range from 40 to 200 acres in size. This complex is about 50 percent Shiocton silt loam and about 30 percent Nichols very fine sandy loam. Shiocton soils are in depressions and drainageways. Nichols soils are on the higher, more convex side slopes. The soils in this complex are in such small areas and are so closely intermingled that it is not feasible to map them individually at the scale used.

Included in mapping are some Grays, Keowns, and Mundelein soils.

Runoff is slow. Erosion is the main hazard on Nichols soils, and wetness is the main hazard on Shiocton soils. Management practices are needed on Nichols soils that maintain plant cover and reduce runoff and erosion. Drainage is needed on Shiocton soils for dependable crop production.

Most of this complex is cultivated. If they are properly drained and erosion is controlled, the soils are

well suited to all crops commonly grown in the county and to specialty crops, such as cabbage and cauliflower. Capability unit IIe-1; woodland group 1o.

Solona Series

The Solona series consists of somewhat poorly drained, nearly level and gently sloping soils on glacial till plains. The natural vegetation was dominantly mixed deciduous forest consisting of elm, ash, maple, some white-cedar, and red oak.

In a representative profile the surface layer is black silt loam about 8 inches thick. The subsurface layer is dark grayish brown mottled silt loam about 3 inches thick. The subsoil is brown mottled heavy loam 13 inches thick. The substratum is reddish brown mottled loam to a depth of about 60 inches.

Solona soils have high available water capacity and moderate permeability.

Most areas of these soils are drained and used for all crops commonly grown in the county. Undrained areas are in woodland.

Representative profile of Solona silt loam, 1 to 3 percent slopes, in an uncultivated area 200 feet north and 1,980 feet west of the southeastern corner of sec. 6, T. 24 N., R. 19 E.

A1—0 to 8 inches; black (10YR 2/1) silt loam; moderate fine granular structure; very friable; many roots; neutral; abrupt wavy boundary.

A2—8 to 11 inches; dark grayish brown (10YR 4/2) silt loam; few fine prominent strong brown (7.5YR 5/6) mottles; weak medium platy structure parting to moderate fine subangular blocky; very friable; many roots; common coarse distinct black (10YR 2/1) worm casts; neutral; abrupt wavy boundary.

B21t—11 to 18 inches; brown (7.5YR 4/4) heavy loam; few fine distinct strong brown (7.5YR 5/6) and light brownish gray (10YR 6/2) mottles; thin patchy clay films on faces of peds; moderate medium subangular blocky structure; friable; mildly alkaline; clear smooth boundary.

B22t—18 to 24 inches; brown (7.5YR 4/4) heavy loam; few fine distinct strong brown (7.5YR 5/6) and brown (7.5YR 5/2) mottles; thin patchy clay films on faces of peds; moderate medium subangular blocky structure; firm; mildly alkaline; clear smooth boundary.

C—24 to 60 inches; reddish brown (5YR 5/4) loam; common medium distinct strong brown (7.5YR 5/6) and pinkish gray (7.5YR 6/2) mottles; massive; firm; strong effervescence; moderately alkaline.

The thickness of the solum and the depth to carbonates range from 20 to 40 inches but are generally less than 30 inches. The A and B horizons are neutral to mildly alkaline, and the C horizon is mildly alkaline or moderately alkaline.

The A1 or Ap horizon is very dark brown or black and is 4 to 9 inches thick. The B2t horizon is loam,

APPENDIX E
Literature Review List

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