

July 8, 2014

Mr. Bryan Learst
WisDOT – NE Region
944 Vanderperren Way
Green Bay, WI 54304

**RE: Wetland delineation report
WisDOT Project 1420-22-00
USH 151, CTH V interchange project
Town and City of Fond du Lac
Fond du Lac County, Wisconsin
OMNI Project E2017A12**

Dear Bryan,

This letter and attachments constitute the wetland delineation report for the USH 151/ CTH V interchange project in the Town and City of Fond du Lac in Fond du Lac County. The WisDOT contact information for the project is Bryan Learst, WisDOT – NE Region, 944 Vanderperren Way, Green Bay, WI 54304; (920) 492-4139; Bryan.Learst@dot.wi.gov.

The construction project involves safety upgrades at the USH 151/CTH V and USH 151/USH 45 intersections. (See project location map, topographic map, and project overview, attached.) The present at-grade CTH V intersection will be eliminated and replaced with an overpass and partial cloverleaf interchange. The present off-ramps to the USH 45 overpass will be eliminated, and traffic routed to the CTH V interchange.

The new interchange will be constructed to the east of the present CTH V intersection on land both north and south of USH 151, and will extend south of Reinhart Rd. The majority of the property within project limits is presently under agricultural tillage.

The hydric nature of the land within the project limits has been manipulated over the years. To maximize tillable acreage, an extensive drain tile system was constructed throughout the project area. (See map of approximate drain tile locations, attached, for approximate tiling configuration south of USH 151.) On the surface a series of straight, shallow swales was constructed, to collect and direct surface runoff into the subsurface drain system, which ultimately discharges into De Neveu Creek to the south of the project area.

The construction of USH 151 has also affected local drainage patterns. Significant fill has been brought onto the field area north of USH 151 within the project limits. The construction of the elevated highway has acted to contain the former southward flow of surface runoff. Former natural drainage patterns north of USH 151 have been altered to divert runoff through culverts under the highway. These culverts now discharge south of the highway into the constructed swale/drain tile system.

As a result, wetland conditions presently exist within the majority of constructed drainage swales in the project area, and are not present in a number of low-lying locations, which may have formerly served as segments of natural drainageways. The delineation activities revealed that in most cases, the wetland conditions identified within the project area were created by the excavation of the drainage swales, irrespective of mapped soil types. Because of the significant manipulation of topography during construction of the drain tile system and roadway construction, it is not possible to associate specific segments of present swales with former natural swales. For that reason, the swale areas presently showing wetland indicators were classified as wetlands.

Wetland delineations were performed according to the Northcentral and Northeast Regional Supplement to the 1987 Corps of Engineers Wetland Delineation Manual. Wetland boundaries were established by transects, which included in most cases upland and wetland/upland boundary locations. Upland points are indicated by a last letter "U" in the name, boundary points by a last letter "L" (for line), and non-boundary wetland points by a last letter "W".

The field work took place on June 16, 17, and 27, 2014. An attempt was made to observe water level measurements at the sampling locations, after allowing an appropriate period of time for water levels to recover. Water table or saturation conditions were not observed in many of the wetland boundary sample locations. Secondary indicators of hydrology were used to identify wetland conditions at wetland locations lacking primary indicators.

The delineation field sheets are attached.

Wetland Area A

Wetland area A is located in a depression, whose south end has been dammed by construction of the highway and pedestrian trail. The depression has been avoided by farm equipment for many years, and shrubs and trees are starting to predominate in the area.

According to the Fond du Lac County, Wisconsin, Soil Survey, the soil in the wetland area consists of Kewaunee silty clay loam (KoB2). Kewaunee soils are well drained soils found on uplands. The soils in wetland area A did not match the mapped description.

Wetland area A drains into a culvert under USH 151, which connects to a drainageway that ultimately discharges to the south into De Neveu Creek. De Neveu Creek flows northward into Lake Winnebago.

Approximately 0.089 acre of degraded shrub swamp will be unavoidably impacted by project activities.

Upland Area B

Upland area B is located in a slight, kidney-shaped depression, which appears to have been at one time a segment of a drainage swale. The depression is located in an old hay field, which has not been farmed for some time.

According to the Fond du Lac County Soil Survey, the soil in the area of the depression consists of Peebles silt loam (PfB). Peebles soils are moderately well drained soils found on uplands.

Six low spots in the depression were assessed. Although opportunistic wetland vegetation was found to predominate in the area, hydric soils were not identified.

Upland Area C

Upland area C is an artificially constructed swale connecting a discharge pipe from a field drain tile system to a culvert under USH 151. The swale is located in an old hay field.

According to the Soil Survey, the soil in the swale area consists primarily of the well-drained Kewaunee silty clay loam (KoB2).

Four low spots in the swale were assessed. All dominant vegetation species were identified as upland species, and non-hydric soil conditions were found at all locations.

Upland Area D

Upland area D is a depression caused by construction of the pedestrian trail to the immediate south of the area. According to the Soil Survey, the soil in the area of the depression consists of the moderately well-drained Peebles silt loam (PfB).

Four low spots in the depression were assessed. Hydric soils were not identified.

Wetland Area E

Wetland area E is located in a depression on the west side of CTH V. The area has not been farmed for many years. Active farming to the west continues, and farm runoff from that area has deposited a layer of silt in the wetland E area.

According to the Soil Survey, the soil in the wetland area consists of Kewaunee silt loam (KnB). Kewaunee silt loam soils are well drained soils found on uplands. The soils in wetland area E did not match the mapped description.

Wetland area E drains into a nearby culvert under CTH V to the east. Drainage then flows to the south under USH 151, and into the constructed swale/drain tile system in the fields to the south of the highway. The system ultimately discharges to the south into De Neveu Creek, which flows northward into Lake Winnebago.

Approximately 0.011 acre of degraded meadow will be unavoidably impacted by project activities.

Wetland Area F

Wetland area F is located in a transition area between the USH 151 south ditch and the constructed grassed swale system in the field to the south of the highway. A culvert discharges water into wetland area F from the highway and area north of the highway.

According to the Soil Survey, the soil in the wetland area within project limits consists of Kewaunee silty clay loam (KoB2) and Manawa silty clay loam (McB). Kewaunee soils are well drained soils found on uplands, while Manawa soils are somewhat poorly drained soils found on uplands. The soils in wetland area F did not match the Kewaunee mapped description.

Wetland area F drains into the constructed grassed swale/drain tile system in the fields to the south of the highway. The system ultimately discharges to the south into De Neveu Creek, which flows northward into Lake Winnebago.

Approximately 0.257 acre of degraded meadow will be unavoidably impacted by project activities.

Wetland Areas G – J

Wetland areas G – J are located in transition areas between the USH 151 south ditch and the constructed grassed swale system in the field to the south of the highway, and extend out into the swale system within project limits. Culverts discharge water into these connected wetland areas from the highway and area north of the highway.

Vegetation was not assessed in the grassed swale portions of these wetland areas, since the swales are frequently disturbed during mowing, cleaning, and other routine maintenance activities.

According to the Soil Survey, the soil in the wetland area consists primarily of the somewhat poorly drained Manawa silty clay loam (McB).

Wetland areas G – J drain into the constructed grassed swale/drain tile system in the fields further to the south. The system ultimately discharges to the south into De Neveu Creek, which flows northward into Lake Winnebago.

Approximately 0.939 acre of degraded meadow will be unavoidably impacted by project activities. The swale system will be replaced by a curving swale in the area.

Wetland Area K

Wetland area K is located south of Reinhart Rd. in a constructed grassed drainage swale. A culvert under Reinhart Rd. discharges water into the north end of the swale. The south end of the swale

terminates abruptly in the field, and is apparently piped from that point underground to De Neveu Creek to the south.

Vegetation was not assessed in wetland area K, since the sample locations were either in the maintained swale or in the surrounding corn field.

According to the Soil Survey, the soil in the wetland K area within project limits consists of the somewhat poorly drained Manawa silty clay loam (McB) and the poorly drained Poygan silty clay loam (Py).

Wetland area K is hydraulically connected to De Neveu Creek to the south, which flows northward into Lake Winnebago.

Approximately 0.094 acre of degraded meadow will be unavoidably impacted by project activities.

Wetland Area L

Wetland area L is located in a slightly depressed area on the south side of Reinhart Rd. in a corn field. Marginal wetland conditions were identified in the area; the field entrance is located through the area, and the area is planted with corn.

Vegetation was not assessed in wetland area L, since the sample locations were in a corn field.

According to the Soil Survey, the soil in the wetland area consists of the poorly drained Poygan silty clay loam (Py).

Wetland area L drains to the west via the road-side ditch into wetland area K, which is hydraulically connected to De Neveu Creek to the south.

Approximately 0.167 acre of degraded shrub swamp will be unavoidably impacted by project activities.

Respectfully submitted,

A handwritten signature in dark ink that reads "Don Brittnacher". The signature is written in a cursive style with a large initial "D".

Don Brittnacher
Wetland Specialist

Attachments

Attachment 1

Maps

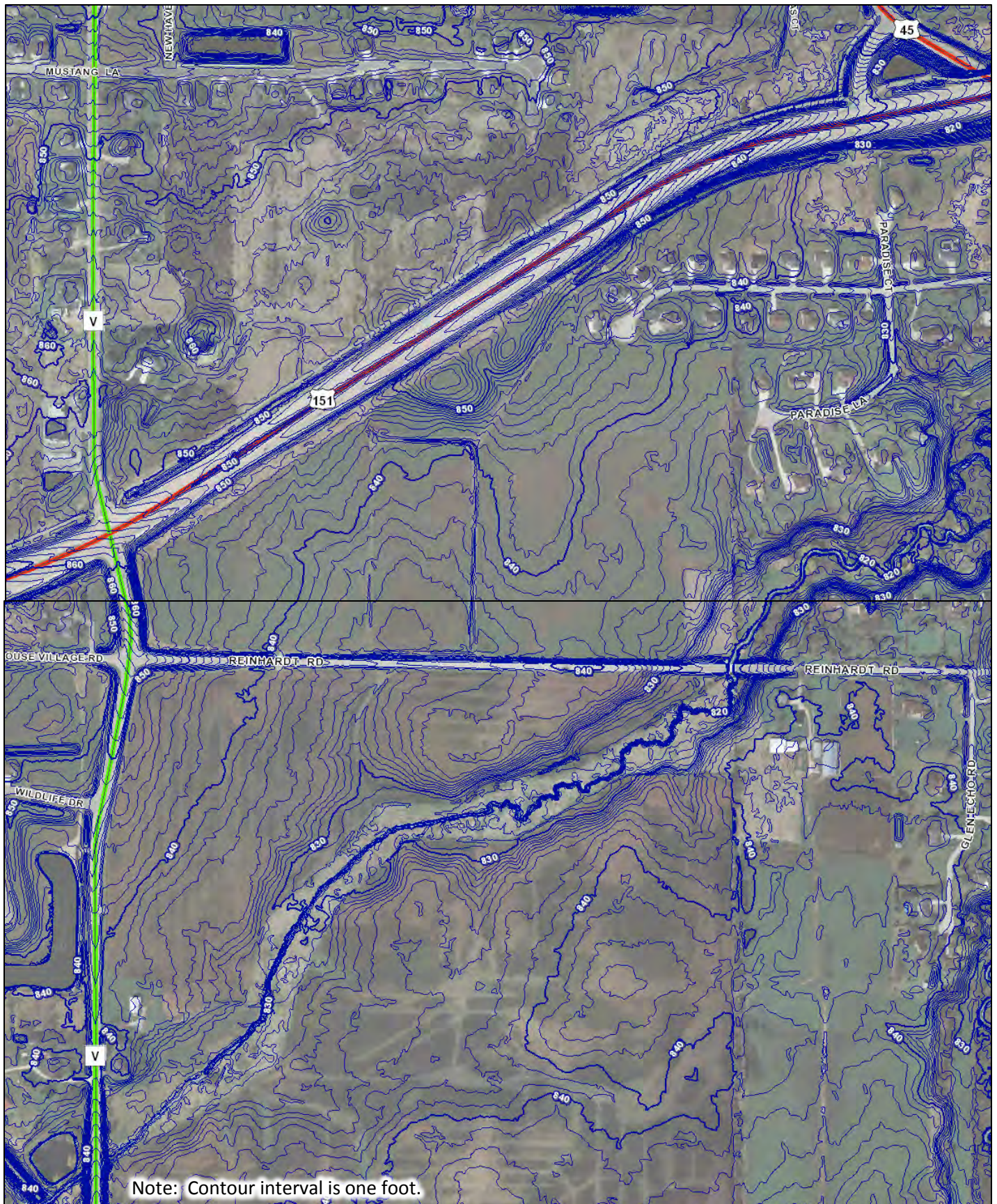


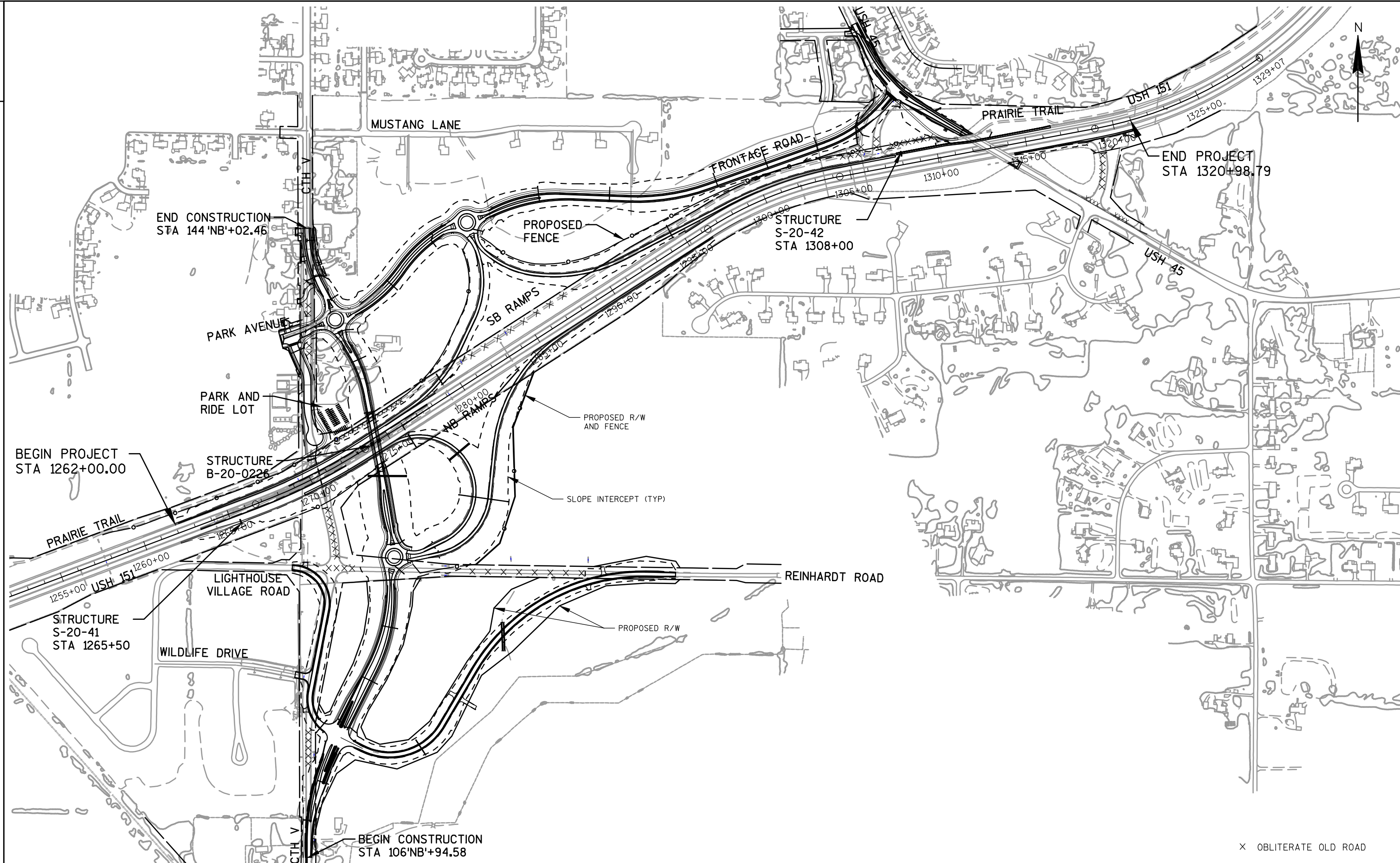
Source: Mapquest, reviewed 7/8/2014.



Project Location Map	
USH 151, CTH V Interchange Project Town and City of Fond du Lac Fond du Lac County, Wisconsin	
	Project Number: E2017A12
	Date: July 8, 2014
One Systems Drive, Appleton, Wisconsin 54914-1654 Phone: (920) 735-6900 Fax: (920) 830-6100	

Topographic Map





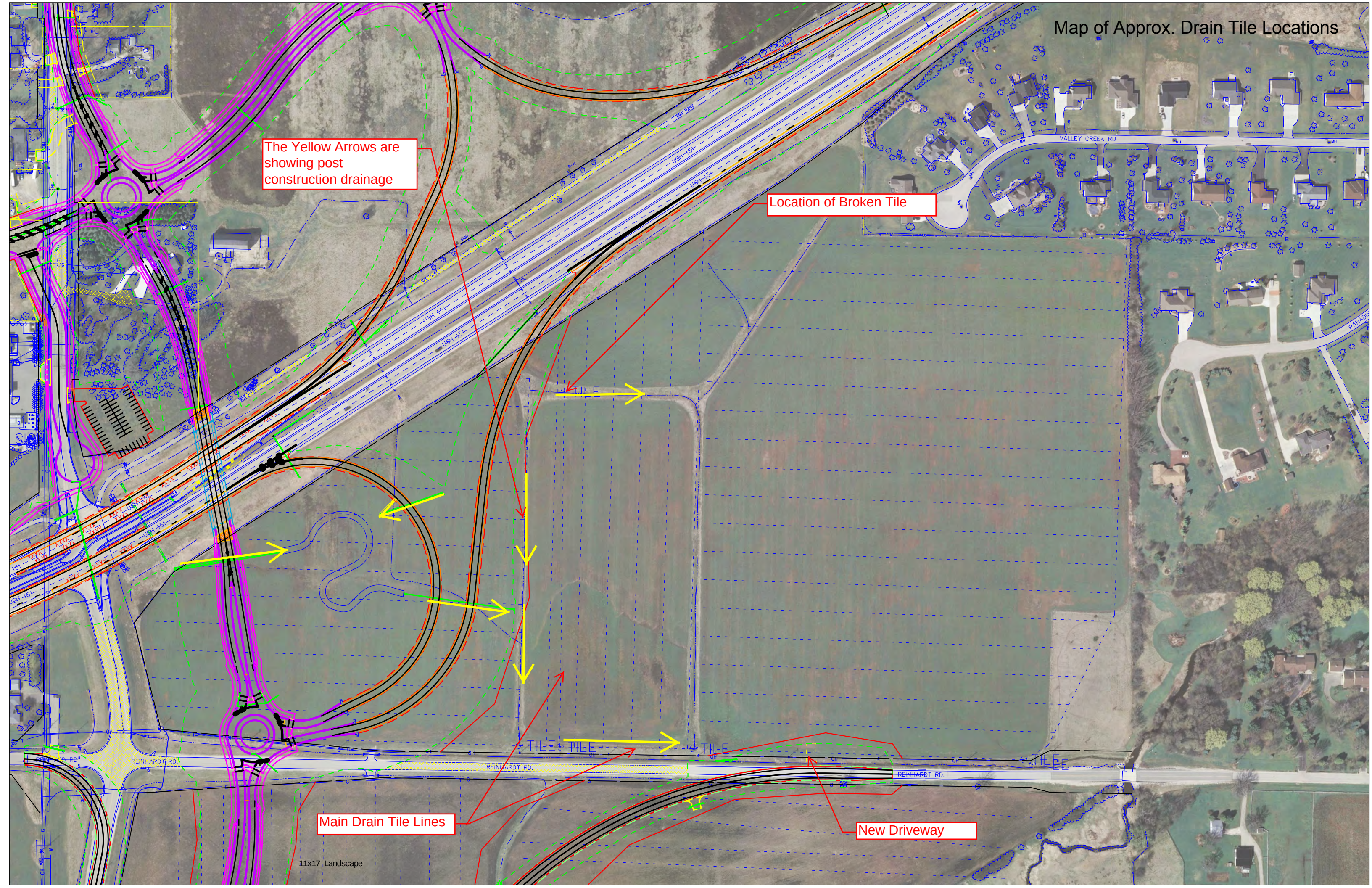
Map of Approx. Drain Tile Locations

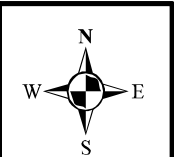
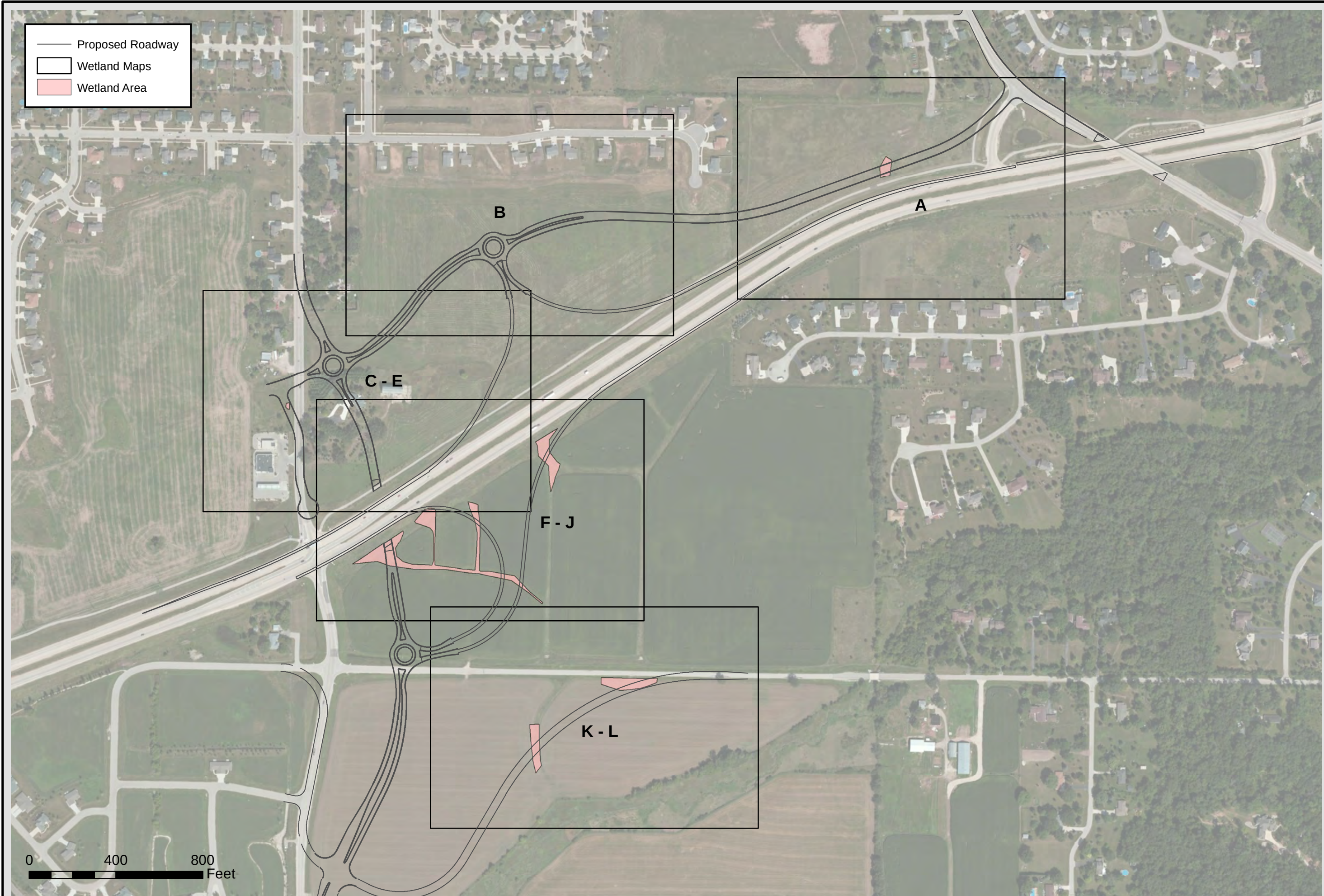
The Yellow Arrows are showing post construction drainage

Location of Broken Tile

Main Drain Tile Lines

New Driveway





Project Manager:	PTR
Project Engineer:	DJB
Drawn By:	JCW
Checked By:	DJB
Date:	7/7/2014

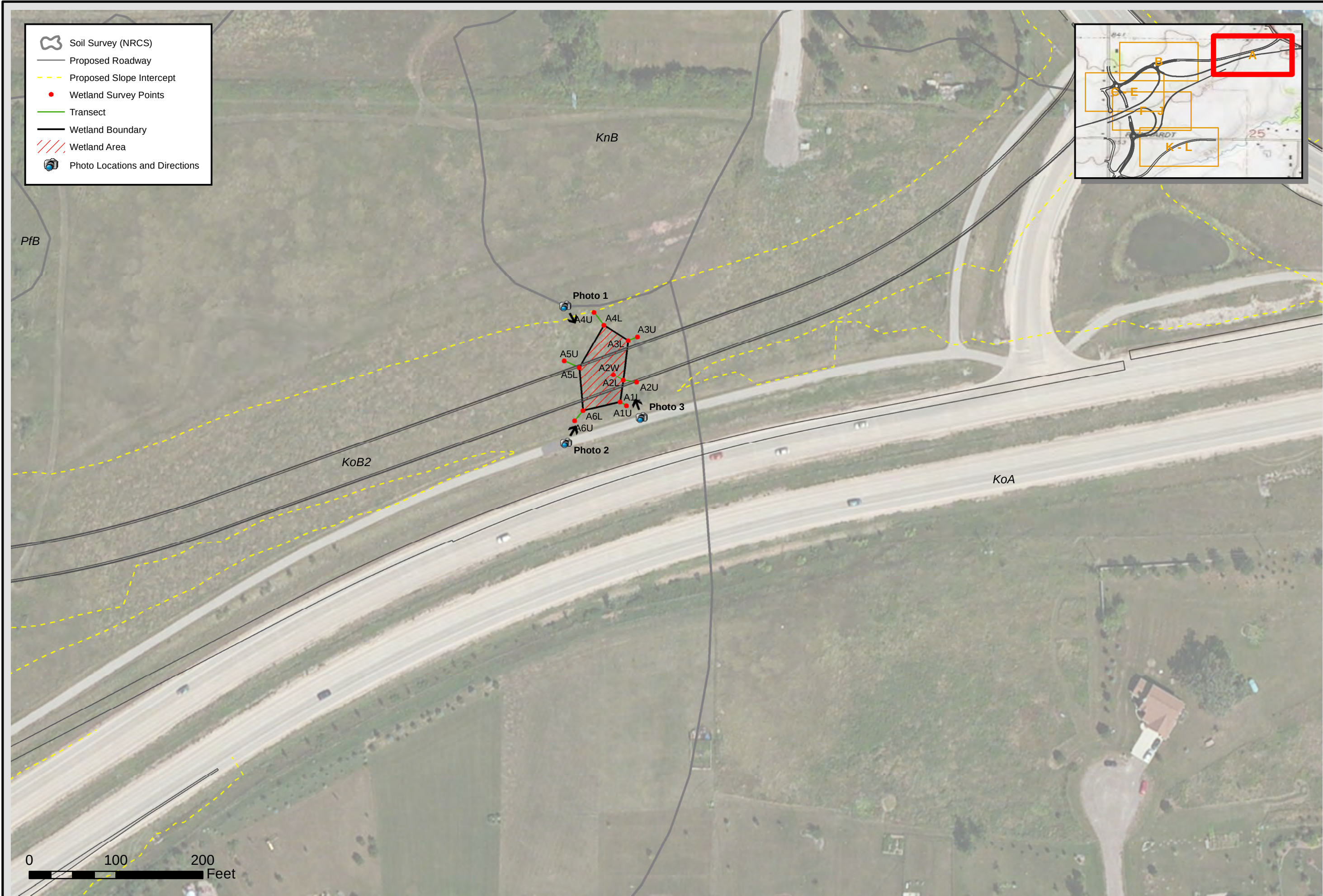
USH 151 AND CTH V
OVERVIEW OF ASSESSED WETLAND AND UPLAND AREAS

TOWN OF FOND DU LAC, FOND DU LAC COUNTY, WISCONSIN

Omni
ASSOCIATES
ONE SYSTEMS DRIVE PHONE (920) 735-6900
APPLETON, WI 54914 FAX (920) 830-6100

SCALE:
1" = 400'
PROJECT NO.
E2017A12
FIGURE NO.
OVERVIEW

F:\TRUJOBS\E2017A12\Wetlands\GIS\WetlandMap_Overview.mxd



Project Manager: PTR	Project Engineer: DJB	Drawn By: JCW	Checked By: DJB	Date: 7/3/2014

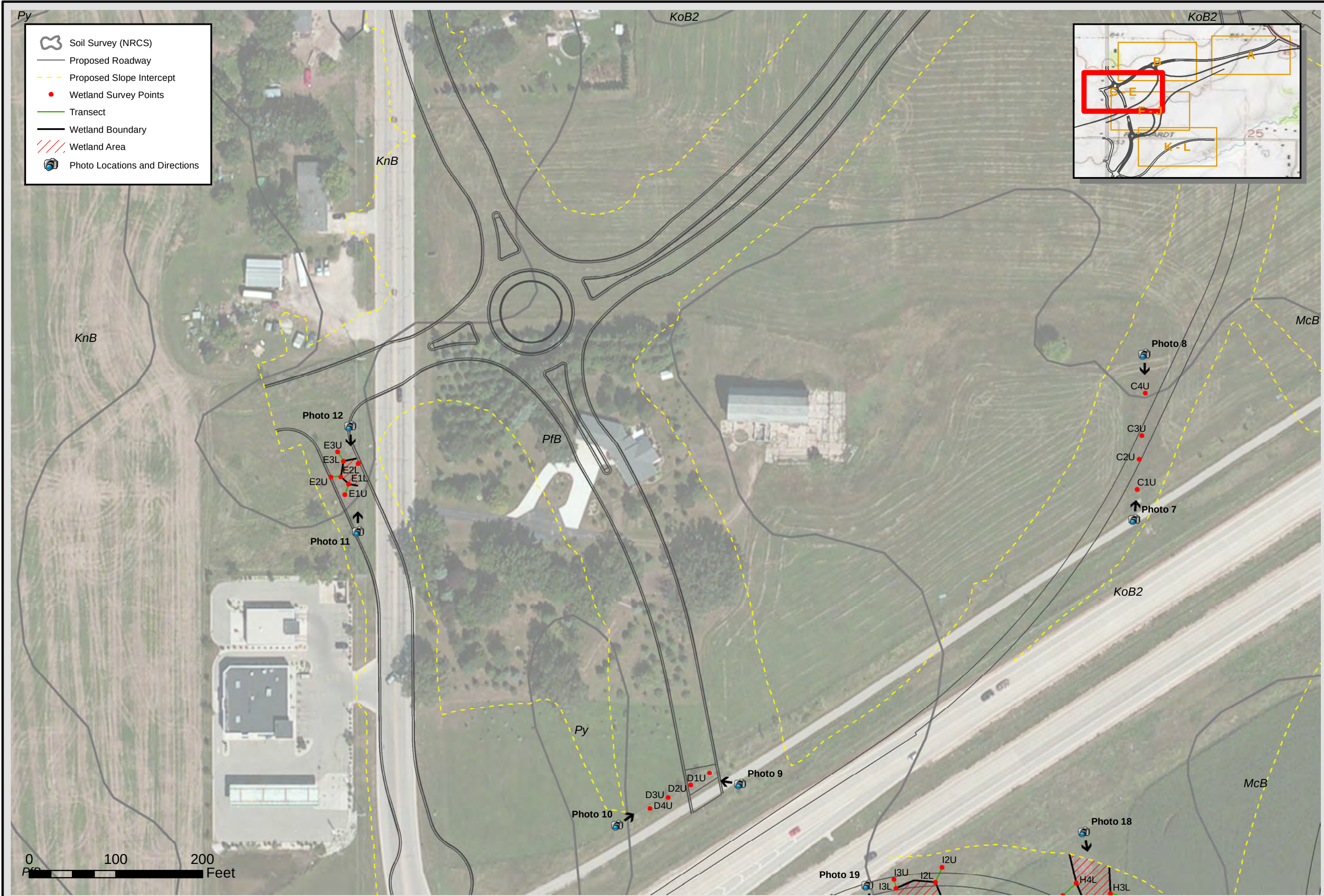
USH 151 AND CTH V
VIEW OF WETLAND A

TOWN OF FOND DU LAC, FOND DU LAC COUNTY, WISCONSIN

OMNI
ASSOCIATES

ONE SYSTEMS DRIVE PHONE (920) 735-6900
APPLETON, WI 54914 FAX (920) 830-6100

SCALE: 1" = 100'
PROJECT NO. E2017A12
FIGURE NO. A



Project Manager: PTR	Date: 7/3/2014
Project Engineer: DJB	
Drawn By: JCW	
Checked By: DJB	

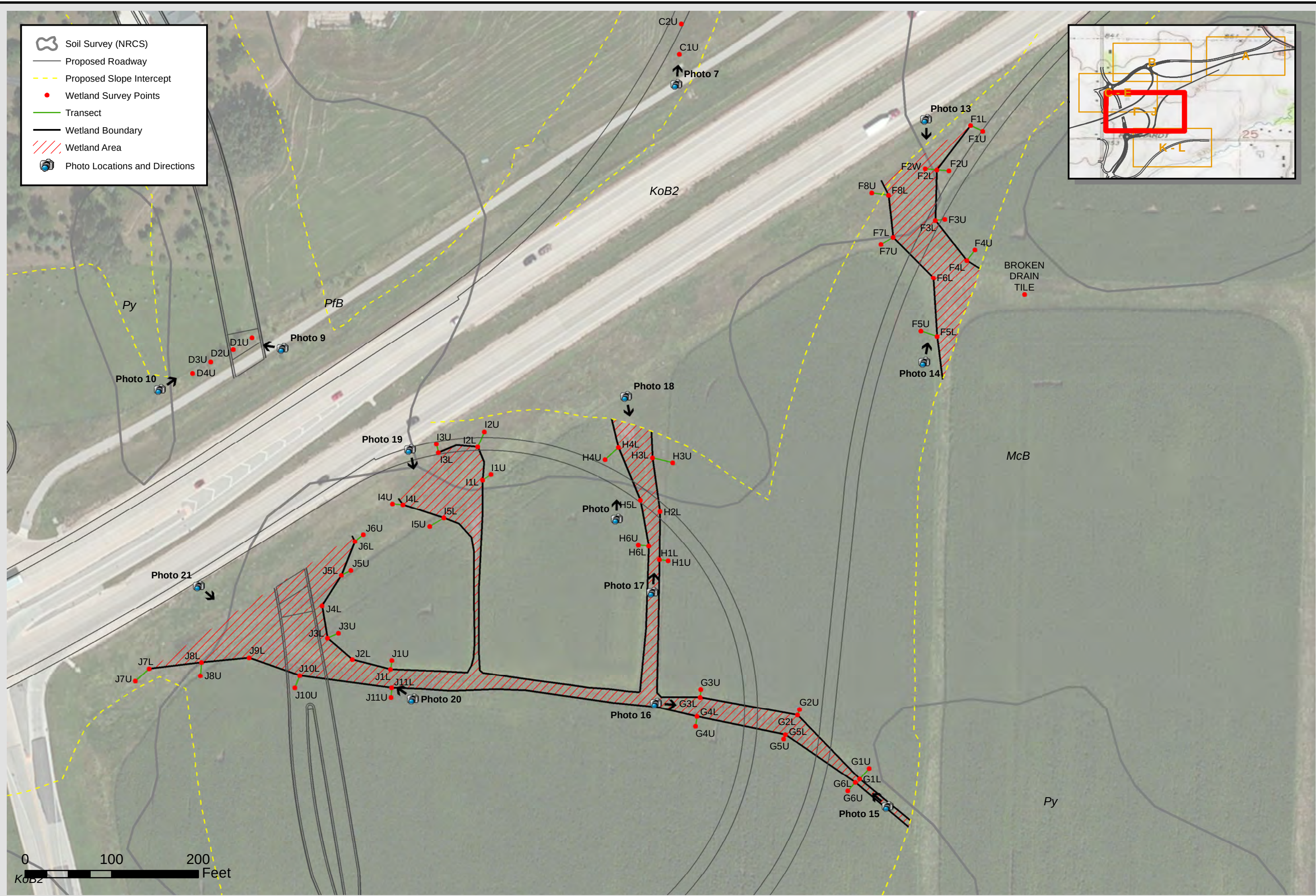
USH 151 AND CTH V
VIEW OF UPLANDS C AND D, AND WETLAND E

TOWN OF FOND DU LAC, FOND DU LAC COUNTY, WISCONSIN

OMNI
ASSOCIATES

ONE SYSTEMS DRIVE PHONE (920) 735-6900
APPLETON, WI 54914 FAX (920) 830-6100

SCALE: 1" = 100'
PROJECT NO. E2017A12
FIGURE NO. C - E



Project Manager: PTR	Date: 7/3/2014
Project Engineer: DJB	
Drawn By: JCW	
Checked By: DJB	

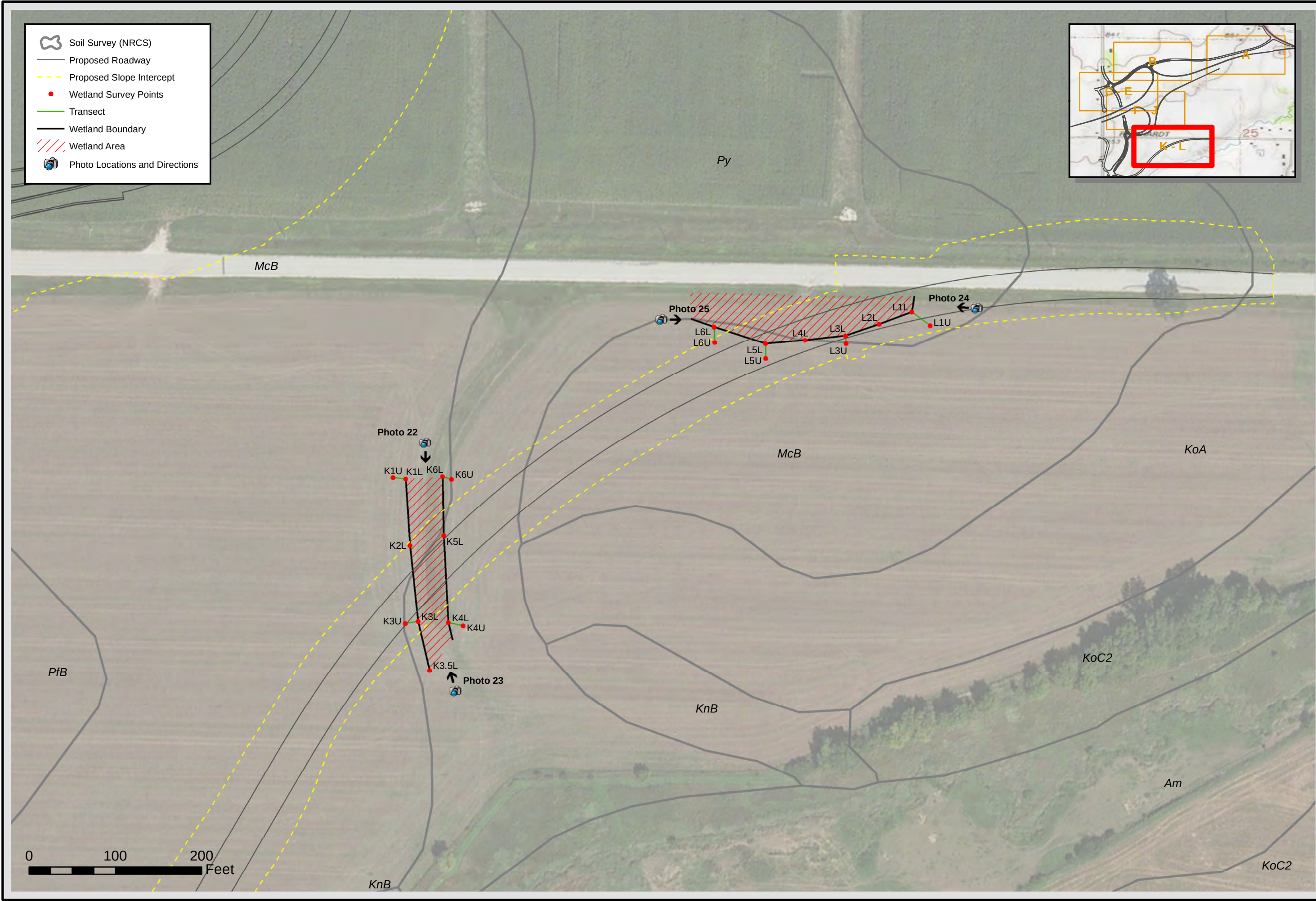
USH 151 AND CTH V
VIEW OF WETLANDS F THROUGH J

TOWN OF FOND DU LAC, FOND DU LAC COUNTY, WISCONSIN

Omni
ASSOCIATES

ONE SYSTEMS DRIVE PHONE (920) 735-6900
APPLETON, WI 54914 FAX (920) 830-6100

SCALE: 1" = 100'
PROJECT NO. E2017A12
FIGURE NO. F - J



Project Manager:	PTR	Date:	7/3/2014
Project Engineer:	DJB		
Drawn By:	JCW		
Checked By:	DJB		

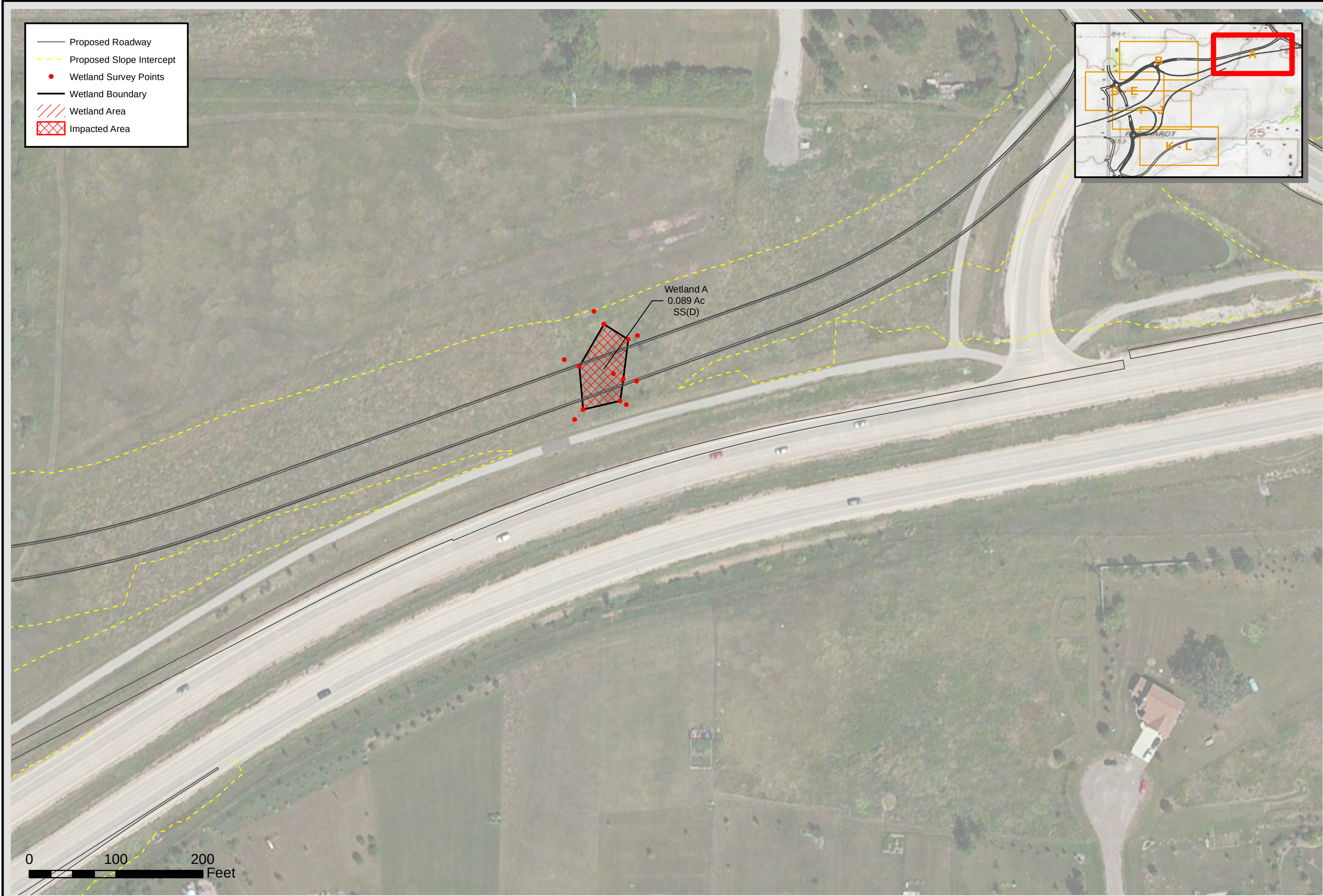
USH 151 AND CTH V
VIEW OF WETLANDS K AND L

Omni
ASSOCIATES

ONE SYSTEMS DRIVE
APPLETON, WI 54914

PHONE (920) 735-6900
FAX (920) 830-6100

SCALE:	1" = 100'
PROJECT NO.	E2017A12
FIGURE NO.	K - L



Project Manager: PTR

Project Engineer: DJB

Drawn By: JCW

Checked By: DJB

Date: 7/7/2014

USH 151 AND CTH V

VIEW OF WETLAND A

IMPACTED AREAS

OMNIA ASSOCIATES

ONE SYSTEMS DRIVE
APPLETON, WI 54914

PHONE (920) 735-6900
FAX (920) 830-6100

SCALE:
1" = 100'

PROJECT NO.
E2017A12

FIGURE NO.
A

W

N

E

S

Project Manager: PTR

Project Engineer: DJB

Drawn By: JCW

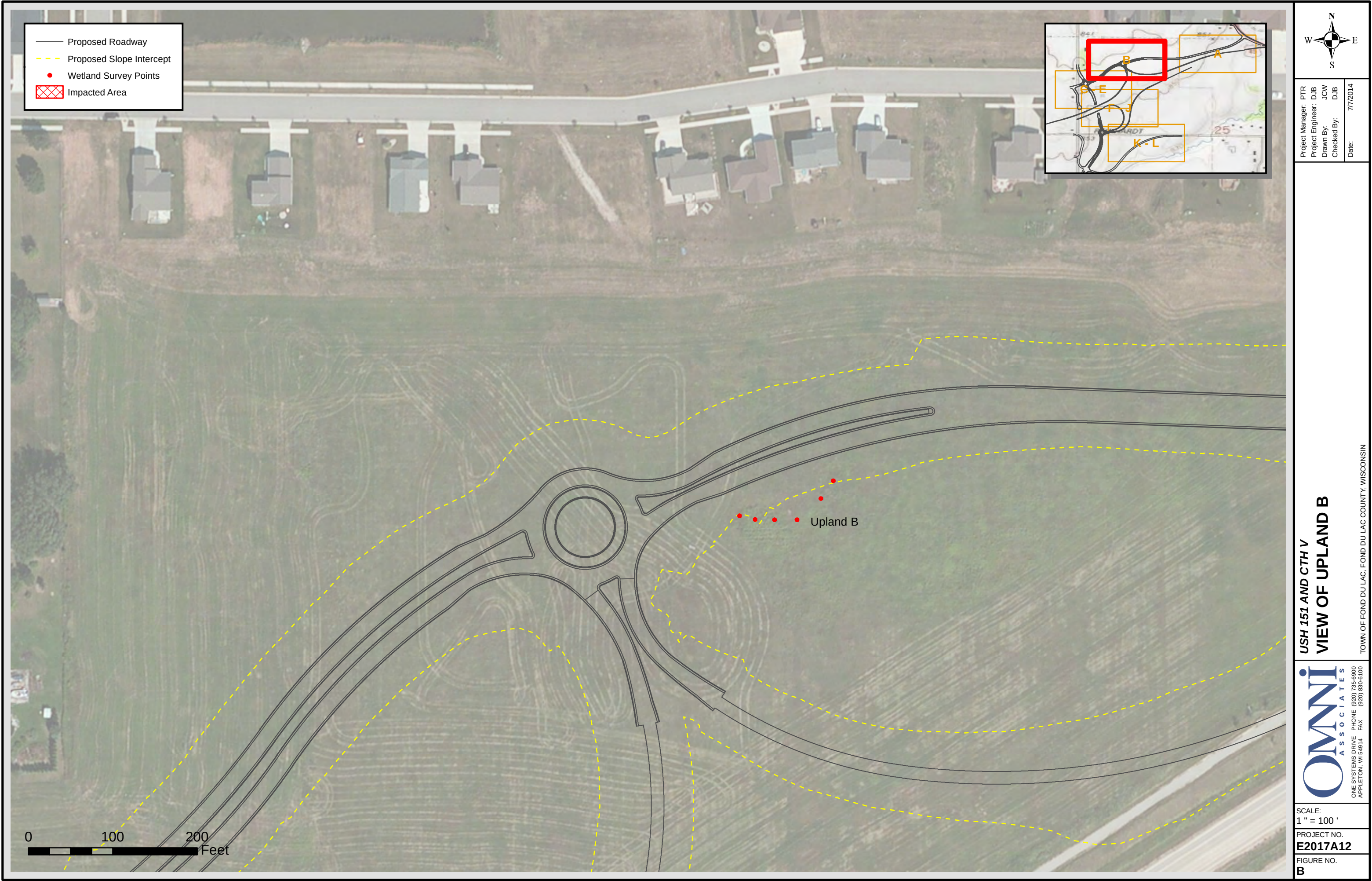
Checked By: DJB

Date: 7/7/2014

TOWN OF FOND DU LAC, FOND DU LAC COUNTY, WISCONSIN

F:\TRUJOBS\E2017A12\Wetlands\GIS\ImpactedAreas.mxd

Service Layer Credits: Copyright © 2011 National Geographic Society, I-cubed
Source: Esri, DigitalGlobe, GeoEye, I-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community



USH 151 AND CTH V
VIEW OF UPLAND B

Omni
ASSOCIATES
ONE SYSTEMS DRIVE PHONE (920) 735-6900
APPLETON, WI 54914 FAX (920) 830-6100

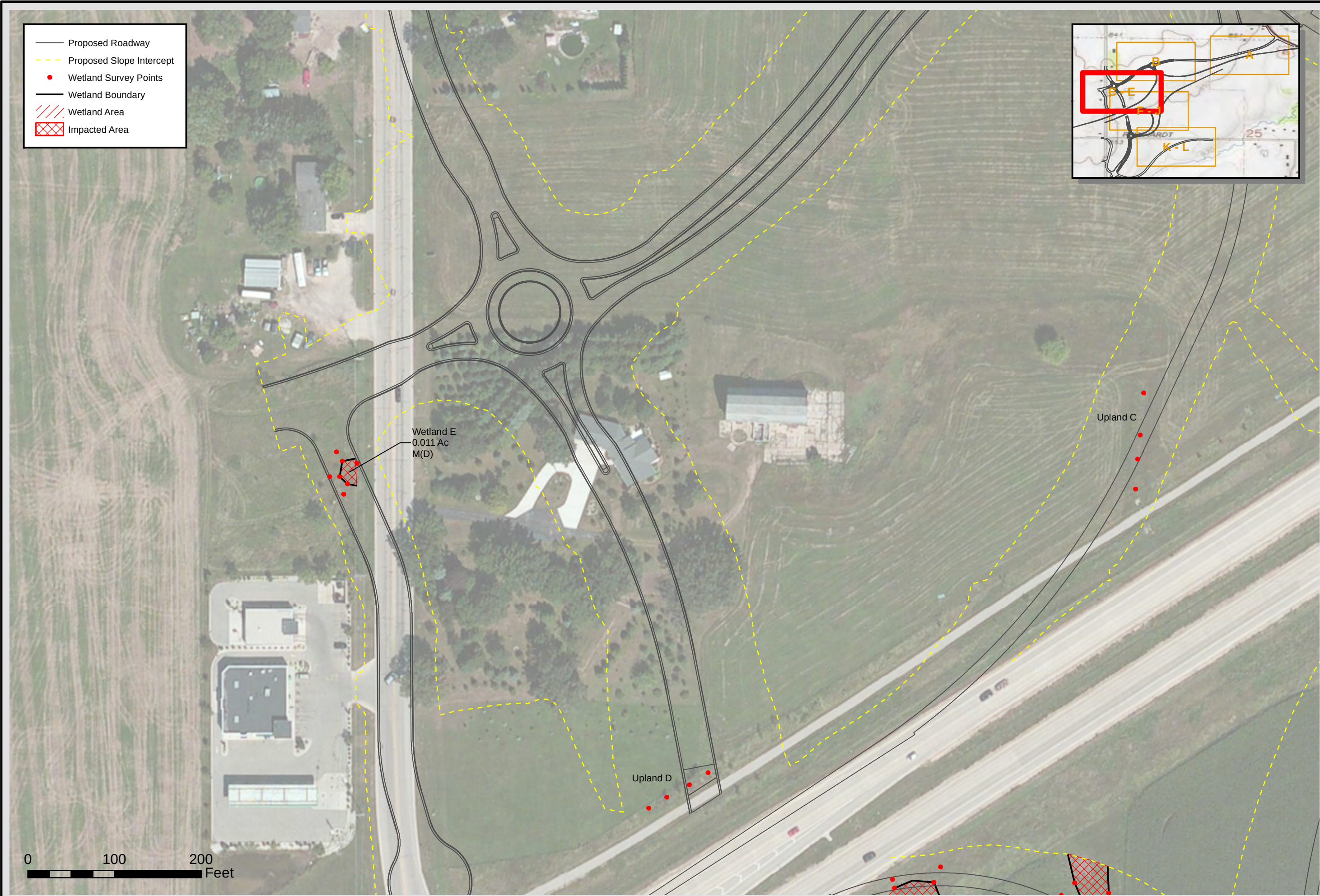
SCALE:
1" = 100'

PROJECT NO.
E2017A12

FIGURE NO.
B

TOWN OF FOND DU LAC, FOND DU LAC COUNTY, WISCONSIN

F:\TRUJOBS\E2017A12\Wetlands\GIS\ImpactedAreas.mxd



W

N

E

S

Project Manager: PTR

Project Engineer: DJB

Drawn By: JCW

Checked By: DJB

Date: 7/7/2014

USH 151 AND CTH V

VIEW OF UPLANDS C AND D, AND WETLAND E

IMPACTED AREAS

TOWN OF FOND DU LAC, FOND DU LAC COUNTY, WISCONSIN

OMNII

ASSOCIATES

ONE SYSTEMS DRIVE
APPLETON, WI 54914

PHONE (920) 735-6900
FAX (920) 830-6100

SCALE:

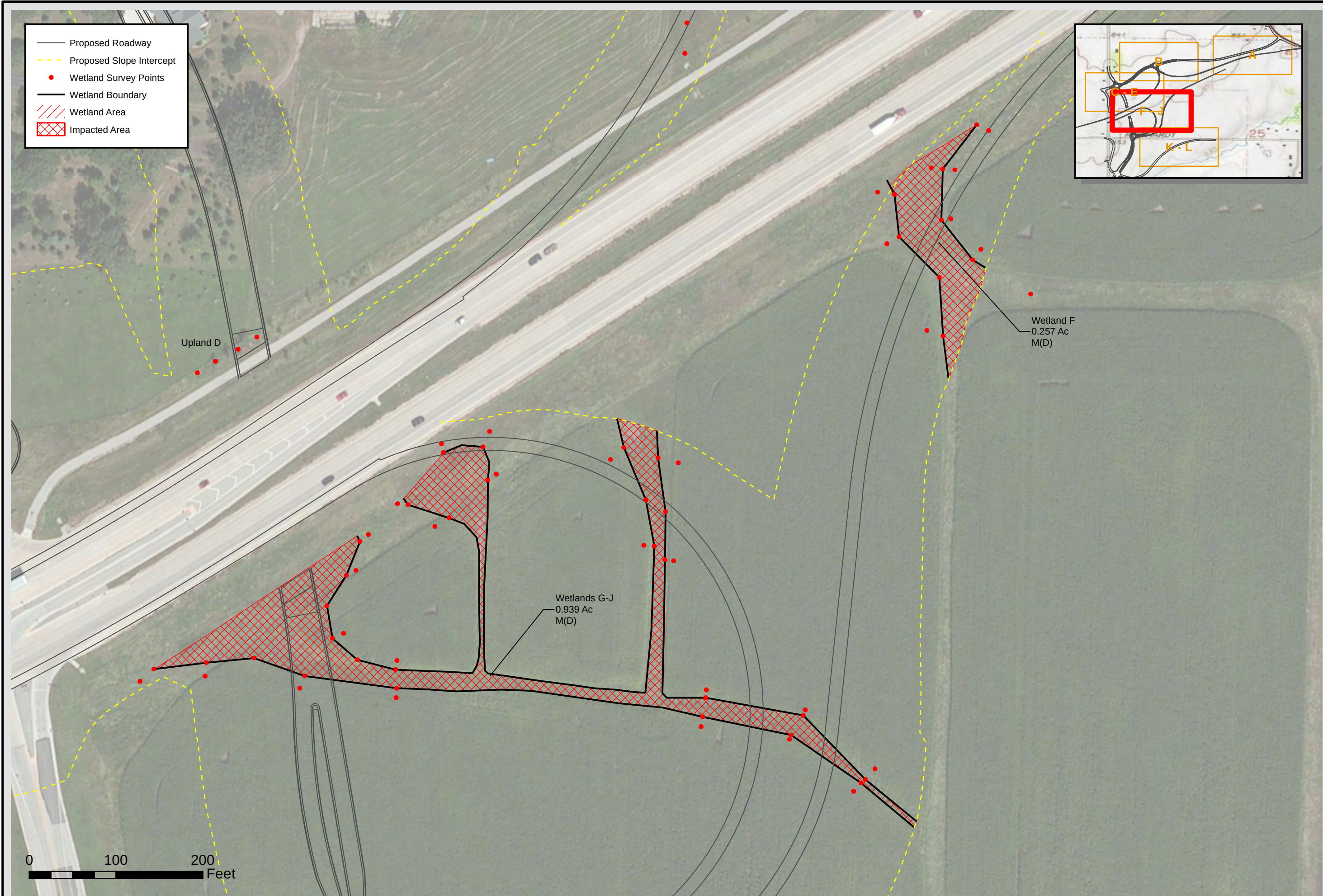
1" = 100'

PROJECT NO.

E2017A12

FIGURE NO.

C - E



Project Manager: PTR

Project Engineer: DJB

Drawn By: JCW

Checked By: DJB

Date: 7/7/2014

USH 151 AND CTH V

VIEW OF WETLANDS F THROUGH J

IMPACTED AREAS

TOWN OF FOND DU LAC, FOND DU LAC COUNTY, WISCONSIN

OMNIA ASSOCIATES

ONE SYSTEMS DRIVE
APPLETON, WI 54914

PHONE (920) 735-6900
FAX (920) 830-6100

SCALE:

1" = 100'

PROJECT NO.

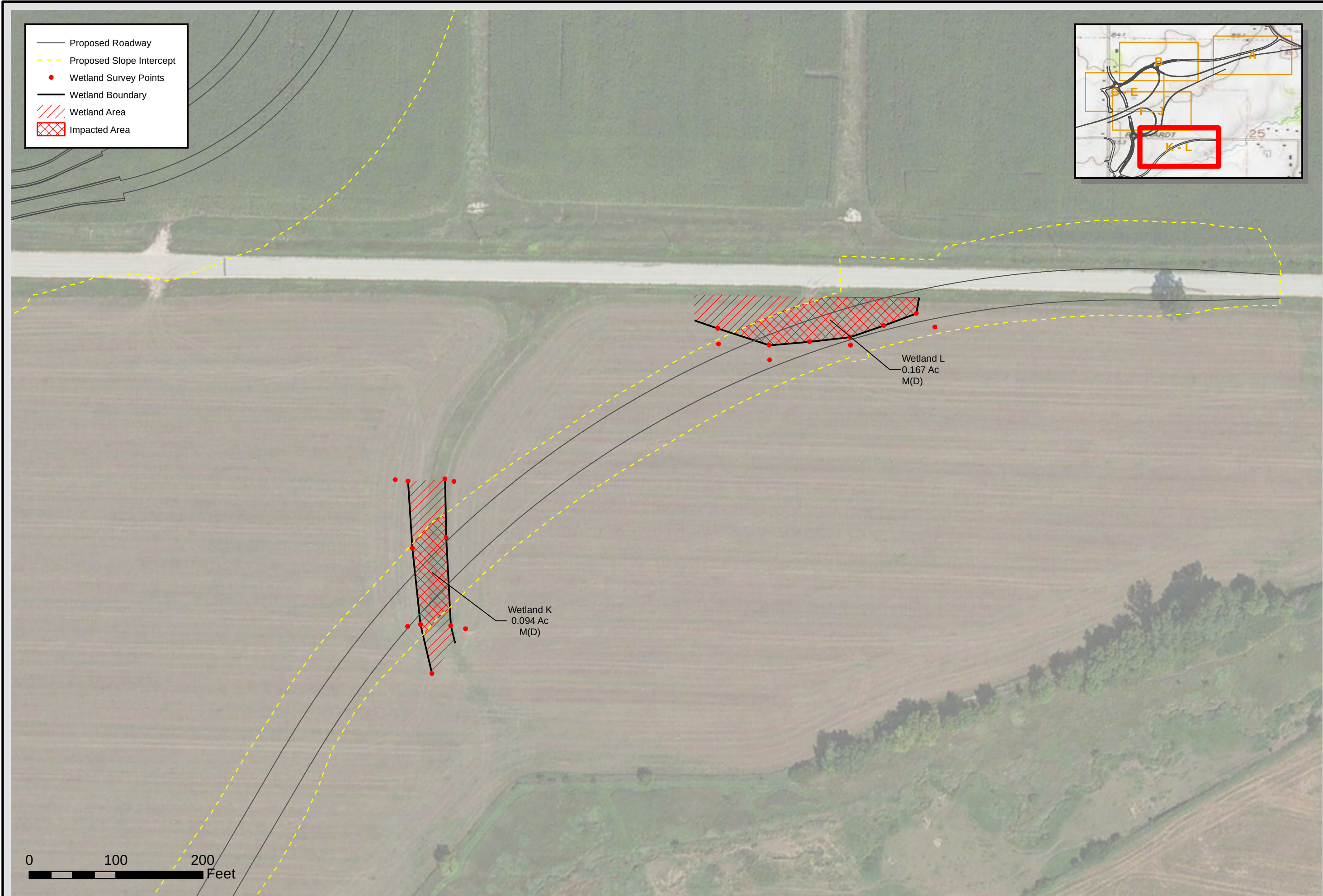
E2017A12

FIGURE NO.

F - J

Service Layer Credits: Copyright © 2011 National Geographic Society, I-cubed
Source: Esri, DigitalGlobe, GeoEye, I-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community

F:\TRUJOBS\E2017A12\Wetlands\GIS\ImpactedAreas.mxd



Project Manager: PTR

Project Engineer: DJB

Drawn By: JCW

Checked By: DJB

Date: 7/7/2014

USH 151 AND CTH V

VIEW OF WETLANDS K AND L

IMPACTED AREAS

TOWN OF FOND DU LAC, FOND DU LAC COUNTY, WISCONSIN

OMNIA

ASSOCIATES

ONE SYSTEMS DRIVE
APPLETON, WI 54914

PHONE (920) 735-6900
FAX (920) 830-6100

SCALE:

1" = 100'

PROJECT NO.

E2017A12

FIGURE NO.

K - L

Service Layer Credits: Copyright © 2011 National Geographic Society, I-cubed
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community

F:\TRUJOBS\E2017A12\Wetlands\GIS\ImpactedAreas.mxd

Attachment 2

Views of Wetland Areas



Photo 1 – View of wetland area A, looking southeast.



Photo 2 – View of wetland area A, looking northeast.



Photo 3 – View of wetland area A, looking northwest.



Photo 4 – View of upland area B, looking east.



Photo 5 – View of upland area B, looking southwest.

Photo 6 – Intentionally left blank.



Photo 7 – View of upland area C, looking north.



Photo 8 – View of upland area C, looking south.



Photo 9 – View of upland area D, looking northwest.



Photo 10 – View of upland area D, looking east.



Photo 11 – View of wetland area E, looking north.



Photo 12 – View of wetland area E, looking south.



Photo 13 – View of wetland area F, looking south.



Photo 14 – View of wetland area F, looking north.



Photo 15 – View of wetland area G, looking west.



Photo 16 – View of wetland area G, looking east.



Photo 17 – View of wetland area H, looking north.



Photo 18 – View of wetland area H, looking south.



Photo 19 – View of wetland area I, looking south.



Photo 20 – View of wetland area J, looking northwest.



Photo 21 – View of wetland area J, looking southeast.



Photo 22 – View of wetland area K, looking south.

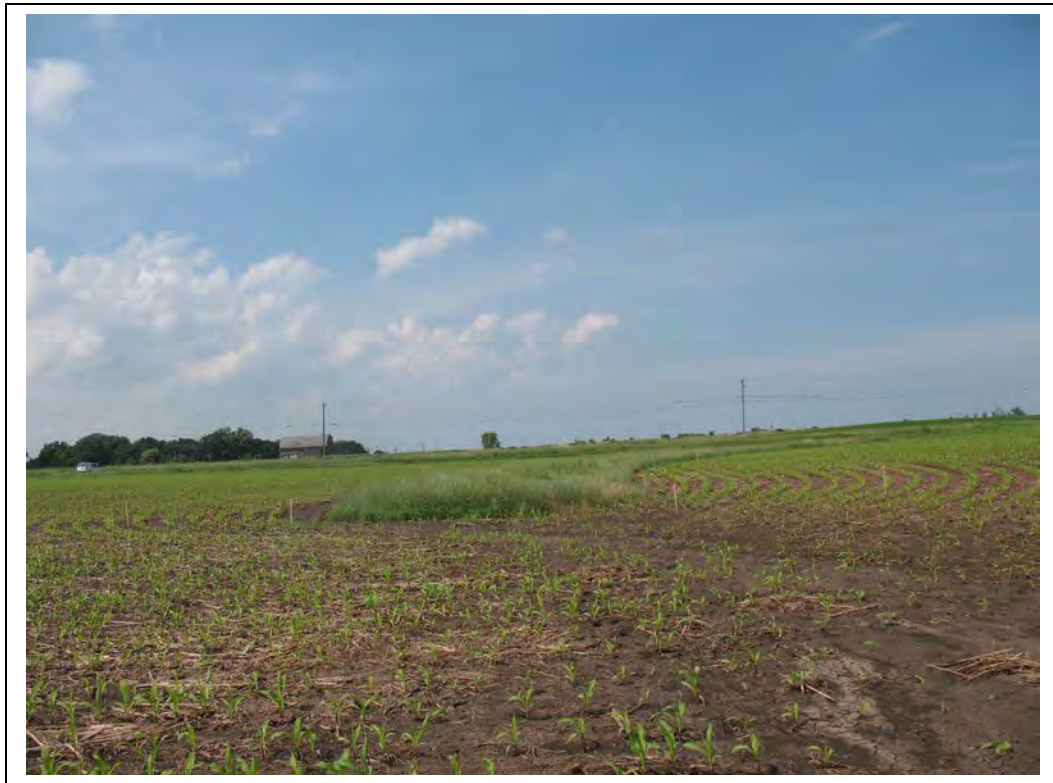


Photo 23 – View of wetland area K, looking north.



Photo 24 – View of wetland area L, looking west.



Photo 25 – View of wetland area L, looking east.

Attachment 3

Field Sheets

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: A1L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.746605 Long: -88.411505 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silty clay loam, 2 to 6 percent slopes, e NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
<u>Sapling/Shrub Stratum</u> Plot Size:					
1.	<i>salix exigua (interior)</i>	25	X	FACW	
2.	<i>lonicera tatarica</i>	15	X	FACU	
3.					
4.					
5.					
6.					
7.					
		40	= Total Cover		
<u>Herb Stratum</u> Plot Size:					
1.	<i>carex vulpinoidea</i>	30	X	OBL	
2.	<i>bromus inermis</i>	30	X	UPL	
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		60	= Total Cover		
<u>Woody Vine Stratum</u> Plot Size:					
1.					
2.					
3.					
4.					
		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: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 30	x 1 = 25
FACW species 25	x 2 = 50
FAC species 0	x 3 = 0
FACU species 15	x 4 = 60
UPL species 30	x 5 = 150
Column Totals: 100 (A)	290 (B)

Prevalence Index = B/A = 2.9

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

SOIL

Sampling Point: A1L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: A1U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.746593 Long: -88.411477 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silty clay loam, 2 to 6 percent slopes, e NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☒ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
<u>Sapling/Shrub Stratum</u> Plot Size:					
1.	<i>salix exigua (interior)</i>	25	X	FACW	
2.	<i>lonicera tatarica</i>	15	X	FACU	
3.					
4.					
5.					
6.					
7.					
		40	= Total Cover		
<u>Herb Stratum</u> Plot Size:					
1.	<i>phalaris arundinacea</i>	25	X	FACW	
2.	<i>bromus inermis</i>	25	X	UPL	
3.	<i>arctium minus Bernh.</i>	10		FACU	
4.	<i>poa pratensis</i>	10		FACU	
5.	<i>cirsium vulgare</i>	10		FACU	
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		80	= Total Cover		
<u>Woody Vine Stratum</u> Plot Size:					
1.					
2.					
3.					
4.					
		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: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>50</u>
FACW species <u>50</u>	x 2 = <u>100</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>45</u>	x 4 = <u>180</u>
UPL species <u>25</u>	x 5 = <u>125</u>
Column Totals: <u>120</u> (A)	<u>405</u> (B)
Prevalence Index = B/A = <u>3.4</u>	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☒ No

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

SOIL

Sampling Point: A1U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: A2L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.746674 Long: -88.411491 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silty clay loam, 2 to 6 percent slopes, e NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
<u>Sapling/Shrub Stratum</u> Plot Size:					
1.	<i>crataegus crus-galli</i>	5	X	FAC	
2.	<i>cornus stolonifera</i>	5	X	FACW	
3.					
4.					
5.					
6.					
7.					
		10	= Total Cover		
<u>Herb Stratum</u> Plot Size:					
1.	<i>phalaris arundinacea</i>	80	X	FACW	
2.	<i>eleocharis obtusa</i>	20	X	OBL	
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
<u>Woody Vine Stratum</u> Plot Size:					
1.					
2.					
3.					
4.					
		0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

SOIL

Sampling Point: A2L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: A2U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.746667 Long: -88.411433 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silty clay loam, 2 to 6 percent slopes, e NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☒ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status		
1. <i>populus tremuloides</i>		5	X	FAC	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>67%</u> (A/B)	
2.						
3.						
4.						
5.						
6.					Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ 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 = _____	
7.						
<u>Sapling/Shrub Stratum</u> Plot Size:		5	= Total Cover			
1. <i>salix exigua (interior)</i>		5	X	FACW	Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☒ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
2.						
3.						
4.						
5.						
6.					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.	
7.						
8.						
9.						
10.						
11.					Hydrophytic Vegetation Present? ☒ Yes ☐ No	
12.						
<u>Herb Stratum</u> Plot Size:		5	= Total Cover			
1. <i>poa pratensis</i>		90	X	FACU	Hydrophytic Vegetation Present? ☒ Yes ☐ No	
2. <i>phalaris arundinacea</i>		10		FACW		
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
<u>Woody Vine Stratum</u> Plot Size:		100	= Total Cover			
1.						
2.						
3.						
4.						
		0	= Total Cover			

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

SOIL

Sampling Point: A2U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: A2W
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.746691 Long: -88.411534 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silty clay loam, 2 to 6 percent slopes, e NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
<u>Sapling/Shrub Stratum</u> Plot Size:					
1.	<i>salix exigua (interior)</i>	5	X	FACW	
2.					
3.					
4.					
5.					
6.					
7.					
		5	= Total Cover		
<u>Herb Stratum</u> Plot Size:					
1.	<i>phalaris arundinacea</i>	40	X	FACW	
2.	<i>typha latifolia</i>	40	X	OBL	
3.	<i>eleocharis obtusa</i>	20	X	OBL	
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
<u>Woody Vine Stratum</u> Plot Size:					
1.					
2.					
3.					
4.					
		0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

SOIL

Sampling Point: A2W

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: A3L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.746799 Long: -88.41147 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silty clay loam, 2 to 6 percent slopes, e NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status		
1. <i>populus tremuloides</i>		5	X	FAC	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%</u> (A/B)	
2.						
3.						
4.						
5.						
6.					Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ 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 = _____	
7.						
<u>Sapling/Shrub Stratum</u> Plot Size:						
1.						
2.						
3.						
4.						
5.						
6.						
7.						
<u>Herb Stratum</u> Plot Size:					Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☒ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
1. <i>phalaris arundinacea</i>		100	X	FACW		
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.	
6.						
7.						
8.						
9.						
10.					Hydrophytic Vegetation Present? ☒ Yes ☐ No	
11.						
12.						
<u>Woody Vine Stratum</u> Plot Size:						
1.						
2.						
3.						
4.						
		0				
Remarks: (Include photo numbers here or on a separate sheet.)						

SOIL

Sampling Point: A3L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: A3U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.746811 Long: -88.411429 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silty clay loam, 2 to 6 percent slopes, e NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe)	
Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>populus tremuloides</i>	5	X	FAC
2.				
3.				
4.				
5.				
6.				
7.				
		5	= Total Cover	

Sapling/Shrub Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
		0	= Total Cover	

Herb Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>phalaris arundinacea</i>	80	X	FACW
2.	<i>solidago altissima</i>	20	X	FACU
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		100	= Total Cover	

Woody Vine Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
		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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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) <u> </u>

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☒ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

SOIL

Sampling Point: A3U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: A4L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.746848 Long: -88.411575 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silty clay loam, 2 to 6 percent slopes, e NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status		
1. <i>populus tremuloides</i>		5	X	FAC	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>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)	
2.						
3.						
4.						
5.						
6.					Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ 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 = _____	
7.						
<u>Sapling/Shrub Stratum</u> Plot Size:						
1.						
2.						
3.						
4.						
5.						
6.						
7.						
<u>Herb Stratum</u> Plot Size:					Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☒ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
1. <i>phalaris arundinacea</i>		40	X	FACW		
2. <i>poa pratensis</i>		30	X	FACU		
3. <i>solidago gigantea</i>		20	X	FACW		
4. <i>carex vulpinoidea</i>		10		OBL		
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.	
6.						
7.						
8.						
9.						
10.					Hydrophytic Vegetation Present? ☒ Yes ☐ No	
11.						
12.						
<u>Woody Vine Stratum</u> Plot Size:						
1.						
2.						
3.						
4.						
		0		= Total Cover		
Remarks: (Include photo numbers here or on a separate sheet.)						

SOIL

Sampling Point: A4L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (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 Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: A4U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.746887 Long: -88.411618 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silty clay loam, 2 to 6 percent slopes, e NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☒ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>poa pratensis</i>	60	X		FACU
2.	<i>solidago altissima</i>	20	X		FACU
3.	<i>cornus racemosa</i>	10			FAC
4.	<i>daucus carota</i>	5			UPL
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		95	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☒ No

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

SOIL

Sampling Point: A4U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (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 Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: A5L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.746714 Long: -88.411683 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silty clay loam, 2 to 6 percent slopes, e NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>phalaris arundinacea</i>	80	X	FACW	
2.	<i>carex vulpinoidea</i>	10		OBL	
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		90	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		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% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

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 ¹	Loc. ²		
0 - 3.5	10YR3/2	100					loam	
3.5 - 7.5	10YR3/2	95	10YR4/6	5	C	M	loam	
7.5 - 9.5	7.5YR4/4	95	10YR4/6	5			clay	
9.5 - 15.5	10YR3/1	100					clay loam	
15.5 - 19	10YR4/1	95	10YR4/6	5	D	M	clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (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 Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: A5U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.746735 Long: -88.411748 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silty clay loam, 2 to 6 percent slopes, e NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☒ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>phalaris arundinacea</i>	40	X	FACW	
2.	<i>poa pratensis</i>	40	X	FACU	
3.	<i>brassica rapa</i>	5		UPL	
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		85	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>40</u>
FACW species <u>40</u>	x 2 = <u>80</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>40</u>	x 4 = <u>160</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>85</u>	(A) <u>265</u> (B)
Prevalence Index = B/A = <u>3.1</u>	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☒ No

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

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 ¹	Loc. ²		
0 - 8	10YR3/2	100					loam	
8 - 10	10YR3/2	98	10YR4/6	2			loam	
10 - 15	10YR3/1	100					loam	
15 - 18	10YR3/1	100					clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

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

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 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.) |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: A6L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.746578 Long: -88.411667 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silty clay loam, 2 to 6 percent slopes, e NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
<u>Sapling/Shrub Stratum</u> Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
<u>Herb Stratum</u> Plot Size:					
1.	<i>phalaris arundinacea</i>	95	X	FACW	
2.	<i>asclepias syriaca</i>	5		UPL	
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
<u>Woody Vine Stratum</u> Plot Size:					
1.					
2.					
3.					
4.					
		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% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species x 1 =	x 1 =
FACW species x 2 =	x 2 =
FAC species x 3 =	x 3 =
FACU species x 4 =	x 4 =
UPL species x 5 =	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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

SOIL

Sampling Point: A6L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: A6U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.746545 Long: -88.411704 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silty clay loam, 2 to 6 percent slopes, e NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☒ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe)	
Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>poa pratensis</i>	40	X		FACU
2.	<i>phalaris arundinacea</i>	25	X		FACW
3.	<i>medicago sativa</i>	15			UPL
4.	<i>cirsium vulgare</i>	5			FACU
5.	<i>daucus carota</i>	5			UPL
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		90	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>25</u>
FACW species <u>25</u>	x 2 = <u>50</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>45</u>	x 4 = <u>180</u>
UPL species <u>20</u>	x 5 = <u>100</u>
Column Totals: <u>90</u>	(A) <u>330</u> (B)
Prevalence Index = B/A = <u>3.7</u>	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☒ No

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

SOIL

Sampling Point: A6U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: B1U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.745739 Long: -88.417722 Datum: WGS 1984
Soil Map Unit Name: Peebles silt loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in old field.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☒ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>eleocharis obtusa</i>	60	X	OBL	
2.	<i>rumex crispus</i>	20	X	FAC	
3.	<i>hordeum jubatum</i>	20	X	FAC	
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

SOIL

Sampling Point: B1U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: B2U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.745727 Long: -88.417651 Datum: WGS 1984
Soil Map Unit Name: Peebles silt loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in old field.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☒ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
<u>Sapling/Shrub Stratum</u> Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
<u>Herb Stratum</u> Plot Size:					
1.	<i>eleocharis obtusa</i>	30	X	OBL	
2.	<i>rumex crispus</i>	20	X	FAC	
3.	<i>hordeum jubatum</i>	20	X	FAC	
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		70	= Total Cover		
<u>Woody Vine Stratum</u> Plot Size:					
1.					
2.					
3.					
4.					
		0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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) <u> </u>

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☒ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

SOIL

Sampling Point: B2U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (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 Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: B3U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.745726 Long: -88.417566 Datum: WGS 1984
Soil Map Unit Name: Peebles silt loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in old field.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☒ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? ☐ Yes ☒ No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					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%</u> (A/B)
2.					
3.					
4.					
5.					
6.					
7.					
		<u>0</u>	= Total Cover		Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ 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.					
2.					
3.					
4.					
5.					
6.					
7.					
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☒ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		<u>100</u>	= 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.
1.					
2.					
3.					
4.					
5.					
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☒ Yes ☐ No
Remarks: (Include photo numbers here or on a separate sheet.)					

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 ¹	Loc. ²		
0 - 2	10YR3/2	100					loam	
2 - 5.5	10YR3/1	100					clay loam	
5.5 - 9	10YR3/1	98	10YR4/6	2	C	M	clay loam	
9 - 13.5	10YR4/1	100					clay loam	
13.5 - 17	10YR4/1	95	10YR4/6	5	D	M	clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

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

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 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.) |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: B4U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.745726 Long: -88.417464 Datum: WGS 1984
Soil Map Unit Name: Peebles silt loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in old field.	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
<u>Sapling/Shrub Stratum</u> Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
<u>Herb Stratum</u> Plot Size:					
1.	<i>eleocharis obtusa</i>	30	X	OBL	
2.	<i>hordeum jubatum</i>	30	X	FAC	
3.	<i>rumex crispus</i>	30	X	FAC	
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		90	= Total Cover		
<u>Woody Vine Stratum</u> Plot Size:					
1.					
2.					
3.					
4.					
		0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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) <u> </u>
Prevalence Index = B/A = <u> </u>	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☒ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

SOIL

Sampling Point: B4U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Date 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: B5U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.745794 Long: -88.417356 Datum: WGS 1984
Soil Map Unit Name: Peebles silt loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in old field.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☒ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>phalaris arundinacea</i>	50	X	FACW	
2.	<i>hordeum jubatum</i>	20	X	FAC	
3.	<i>rumex crispus</i>	20	X	FAC	
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		90	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

SOIL

Sampling Point: B5U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (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 Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: B6U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.745852 Long: -88.417302 Datum: WGS 1984
Soil Map Unit Name: Peebles silt loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in old field.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>phalaris arundinacea</i>	30	X	FACW	
2.	<i>trifolium pratense</i>	20	X	FACU	
3.	<i>rumex crispus</i>	20	X	FAC	
4.	<i>hordeum jubatum</i>	20	X	FAC	
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		90	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		0	= Total Cover		

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% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

SOIL

Sampling Point: B6U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: C1U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.743645 Long: -88.418567 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silty clay loam, 2 to 6 percent slopes, e NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☒ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location is in an old field. A field drain tile discharges into upland area C.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>phleum pratense</i>	20	X		FACU
2.	<i>medicago sativa</i>	20	X		UPL
3.	<i>linaria vulgaris</i>	20	X		UPL
4.	<i>poa pratensis</i>	20	X		FACU
5.	<i>bromus inermis</i>	20	X		UPL
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☒ No

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

SOIL

Sampling Point: C1U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: C2U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.74374 Long: -88.418558 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silty clay loam, 2 to 6 percent slopes, e NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☒ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location is in an old field. A field drain tile discharges into upland area C.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>phleum pratense</i>	40	X		FACU
2.	<i>bromus inermis</i>	30	X		UPL
3.	<i>medicago sativa</i>	20	X		UPL
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		90	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☒ No

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

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 ¹	Loc. ²		
0 - 7	10YR3/2	100					loam	
7 - 12	10YR4/1	100					clay loam	
12 - 14.5	10YR5/1	100					clay loam	
14.5 - 18	7.5YR4/4	100					clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

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

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 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.) |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: C3U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.743815 Long: -88.418547 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silty clay loam, 2 to 6 percent slopes, e NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☒ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location is in an old field. A field drain tile discharges into upland area C.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>bromus inermis</i>	60	X		UPL
2.	<i>phleum pratense</i>	20	X		FACU
3.	<i>linaria vulgaris</i>	20	X		UPL
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☒ No

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

SOIL

Sampling Point: C3U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: C4U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.743949 Long: -88.418532 Datum: WGS 1984
Soil Map Unit Name: Peebles silt loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☒ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location is in an old field. A field drain tile discharges into upland area C.	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					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>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2.					
3.					
4.					
5.					
6.					
7.					
		<u>0</u>	= Total Cover		Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ 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 = _____
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☐ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
		<u>0</u>	= 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.
		<u>80</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☒ No
		<u>0</u>	= Total Cover		
Herb Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		<u>0</u>	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		<u>0</u>	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		<u>0</u>	= Total Cover		
Remarks: (Include photo numbers here or on a separate sheet.)					

SOIL

Sampling Point: C4U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Date 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: D1U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.742749 Long: -88.420434 Datum: WGS 1984
Soil Map Unit Name: Peebles silt loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Depression caused by construction of asphalt trail immediately south.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
<u>Sapling/Shrub Stratum</u> Plot Size:					
1.	<i>populus tremuloides</i>	5	X	FAC	
2.					
3.					
4.					
5.					
6.					
7.					
		5	= Total Cover		
<u>Herb Stratum</u> Plot Size:					
1.	<i>poa pratensis</i>	60	X	FACU	
2.	<i>phalaris arundinacea</i>	40	X	FACW	
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
<u>Woody Vine Stratum</u> Plot Size:					
1.					
2.					
3.					
4.					
		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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species x 1 =	x 1 =
FACW species x 2 =	x 2 =
FAC species x 3 =	x 3 =
FACU species x 4 =	x 4 =
UPL species x 5 =	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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

SOIL

Sampling Point: D1U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: D2U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.742711 Long: -88.420516 Datum: WGS 1984
Soil Map Unit Name: Peebles silt loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Depression caused by construction of asphalt trail immediately south.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status		
1. <i>populus tremuloides</i>		10	X	FAC	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>67%</u> (A/B)	
2.						
3.						
4.						
5.						
6.					Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ 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 = _____	
7.						
<u>Sapling/Shrub Stratum</u> Plot Size:						
1.						
2.						
3.						
4.						
5.						
6.						
7.						
<u>Herb Stratum</u> Plot Size:					Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☒ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
1. <i>phalaris arundinacea</i>		60	X	FACW		
2. <i>poa pratensis</i>		25	X	FACU		
3. <i>phleum pratense</i>		10		FACU		
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.	
6.						
7.						
8.						
9.						
10.					Hydrophytic Vegetation Present? ☒ Yes ☐ No	
11.						
12.						
<u>Woody Vine Stratum</u> Plot Size:						
1.						
2.						
3.						
4.						
		0			Remarks: (Include photo numbers here or on a separate sheet.)	

SOIL

Sampling Point: D2U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: D3U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.742672 Long: -88.420614 Datum: WGS 1984
Soil Map Unit Name: Peebles silt loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Depression caused by construction of asphalt trail immediately south.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☒ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>betula nigra</i>		10		FACW	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%</u> (A/B)
2.					
3.					
4.					
5.					
6.					
7.					
		10	= Total Cover		Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ 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 = _____
<u>Sapling/Shrub Stratum</u> Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☒ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<u>Herb Stratum</u> Plot Size:					
1. <i>phalaris arundinacea</i>		100	X	FACW	
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= 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.
<u>Woody Vine Stratum</u> Plot Size:					
1.					
2.					
3.					
4.					
		0	= Total Cover		Hydrophytic Vegetation Present? ☒ Yes ☐ No
Remarks: (Include photo numbers here or on a separate sheet.) River birch was planted, and not counted.					

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 ¹	Loc. ²		
0 - 6.5	10YR3/2	100					loam	
6.5 - 12	10YR3/1	100					clay loam	
12 - 13.5	10YR3/1	98	10YR4/6	2	C	M	clay loam	
13.5 - 18	10YR4/1	100					clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

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

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 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.) |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: D4U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.742636 Long: -88.420694 Datum: WGS 1984
Soil Map Unit Name: Peebles silt loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☒ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Depression caused by construction of asphalt trail immediately south.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
<u>Sapling/Shrub Stratum</u> Plot Size:					
1.	<i>ulmus americana</i>	5	X	FACW	
2.					
3.					
4.					
5.					
6.					
7.					
		5	= Total Cover		
<u>Herb Stratum</u> Plot Size:					
1.	<i>phalaris arundinacea</i>	30	X	FACW	
2.	<i>poa pratensis</i>	30	X	FACU	
3.	<i>linaria vulgaris</i>	20	X	UPL	
4.	<i>cirsium vulgare</i>	10		FACU	
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		90	= Total Cover		
<u>Woody Vine Stratum</u> Plot Size:					
1.					
2.					
3.					
4.					
		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: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>35</u>
FACW species <u>35</u>	x 2 = <u>70</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>40</u>	x 4 = <u>160</u>
UPL species <u>20</u>	x 5 = <u>100</u>
Column Totals: <u>95</u> (A)	<u>330</u> (B)
Prevalence Index = B/A = <u>3.5</u>	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☒ No

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

SOIL

Sampling Point: D4U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: E1L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 26, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): none Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.743664 Long: -88.422007 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silt loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☐ , Soil ☒ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Depression has layer of silt from farm runoff.	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>phalaris arundinacea</i>	100	X	FACW	
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		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% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species x 1 =	1
FACW species x 2 =	2
FAC species x 3 =	3
FACU species x 4 =	4
UPL species x 5 =	5
Column Totals: (A)	(B)

Prevalence Index = B/A = 0.5

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☒ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

SOIL

Sampling Point: E1L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: E1U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 26, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): none Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.74363 Long: -88.422023 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silt loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
<u>Sapling/Shrub Stratum</u> Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
<u>Herb Stratum</u> Plot Size:					
1.	<i>phalaris arundinacea</i>	60	X		FACW
2.	<i>cirsium discolor</i>	10			UPL
3.	<i>carex (sedge), unknown</i>	10			FACW
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		80	= Total Cover		
<u>Woody Vine Stratum</u> Plot Size:					
1.					
2.					
3.					
4.					
		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% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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) <u> </u>

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☒ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

SOIL

Sampling Point: E1U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: E2L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 26, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): none Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.743687 Long: -88.42204 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silt loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☐ , Soil ☒ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Depression has layer of silt from farm runoff.	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		95	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		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% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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) <u> </u>
Prevalence Index = B/A = <u> </u>	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☒ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

SOIL

Sampling Point: E2L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: E2U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 26, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): none Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.743687 Long: -88.422083 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silt loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☒ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe)	
Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		95	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		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% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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) <u> </u>
Prevalence Index = B/A = <u> </u>	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☒ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

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 ¹	Loc. ²		
0 - 10	10YR3/2	100					loam	
10 - 12	10YR5/1	100					clay loam	
12 - 14.5	7.5YR4/6	90					clay	
	10YR5/1	10						
14.5 - 18	7.5YR4/4	100					clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

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

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 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.) |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: E3L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 26, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): none Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.743735 Long: -88.422029 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silt loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☐ , Soil ☒ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Depression has layer of silt from farm runoff.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☒ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? ☒ Yes ☐ No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
<u>Sapling/Shrub Stratum</u> Plot Size:					
1.	<i>cornus stolonifera</i>	10	X	FACW	
2.					
3.					
4.					
5.					
6.					
7.					
		10	= Total Cover		
<u>Herb Stratum</u> Plot Size:					
1.	<i>phalaris arundinacea</i>	35	X	FACW	
2.	<i>carex (sedge), unknown</i>	35	X	FACW	
3.	<i>solidago canadensis</i>	20	X	FACU	
4.	<i>poa pratensis</i>	10		FACU	
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
<u>Woody Vine Stratum</u> Plot Size:					
1.					
2.					
3.					
4.					
		0	= Total Cover		

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% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

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 ¹	Loc. ²		
0 - 3.5	10YR3/2	100					loam	
3.5 - 6.5	10YR3/2	50					clay loam	
	7.5YR4/4	50						
6.5 - 8	10YR3/1	100					loam	
8 - 12.5	10YR3/1	98	10YR4/6	2	C	M	loam	
12.5 - 20.5	10YR5/1	80	10YR4/6	20	D	M	clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (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 Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Date 6/16/2014
Applicant/Owner: WisDOT State: WI Sampling Point: E3U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 26, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): none Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.743765 Long: -88.422055 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silt loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☒ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>solidago canadensis</i>	35	X		FACU
2.	<i>phalaris arundinacea</i>	25	X		FACW
3.	<i>carex (sedge), unknown</i>	10			FACW
4.	<i>cirsium discolor</i>	10			UPL
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		80	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>35</u>
FACW species <u>35</u>	x 2 = <u>70</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>35</u>	x 4 = <u>140</u>
UPL species <u>10</u>	x 5 = <u>50</u>
Column Totals: <u>80</u>	(A) <u>260</u> (B)
Prevalence Index = B/A = <u>3.3</u>	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☒ No

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

SOIL

Sampling Point: E3U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: F1L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): road ditch to artificial swa Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.743417 Long: -88.417296 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in transition area between road-side ditch and artificial swale.	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>phalaris arundinacea</i>	60	X	FACW	
2.	<i>poa pratensis</i>	20	X	FACU	
3.	<i>medicago sativa</i>	10		UPL	
4.	<i>solidago gigantea</i>	10		FACW	
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>70</u>
FACW species <u>70</u>	x 2 = <u>140</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>20</u>	x 4 = <u>80</u>
UPL species <u>10</u>	x 5 = <u>50</u>
Column Totals: <u>100</u>	(A) <u>270</u> (B)
Prevalence Index = B/A = <u>2.7</u>	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

SOIL

Sampling Point: F1L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: F1U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): road ditch to artificial swa Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.743399 Long: -88.417243 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☒ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in transition area between road-side ditch and artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>poa pratensis</i>	60	X		FACU
2.	<i>cirsium discolor</i>	20	X		UPL
3.	<i>medicago sativa</i>	10			UPL
4.	<i>phalaris arundinacea</i>	10			FACW
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☒ No

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

SOIL

Sampling Point: F1U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: F2L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): road ditch to artificial swa Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.743278 Long: -88.417444 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in transition area between road-side ditch and artificial swale.	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>phalaris arundinacea</i>	65	X	FACW	
2.	<i>poa pratensis</i>	20	X	FACU	
3.	<i>cirsium discolor</i>	15		UPL	
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>65</u>
FACW species <u>65</u>	x 2 = <u>130</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>20</u>	x 4 = <u>80</u>
UPL species <u>15</u>	x 5 = <u>75</u>
Column Totals: <u>100</u>	(A) <u>285</u> (B)
Prevalence Index = B/A = <u>2.9</u>	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

SOIL

Sampling Point: F2L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: F2U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): road ditch to artificial swa Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.743275 Long: -88.417391 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in transition area between road-side ditch and artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>phalaris arundinacea</i>	60	X	FACW	
2.	<i>poa pratensis</i>	40	X	FACU	
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>60</u>
FACW species <u>60</u>	x 2 = <u>120</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>40</u>	x 4 = <u>160</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u>	(A) <u>280</u> (B)
Prevalence Index = B/A = <u>2.8</u>	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

SOIL

Sampling Point: F2U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (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 Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: F2W
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): road ditch to artificial swa Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.743281 Long: -88.417494 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silty clay loam, 2 to 6 percent slopes, e NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in transition area between road-side ditch and artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators:		<u>Secondary Indicators (minimum of two required)</u>	
<u>Primary Indicators (minimum of one is required; check all that apply)</u>			
☐ Surface Water (A1)	☐ Water-Stained Leaves (B9)	☐ Surface Soil Cracks (B6)	
☒ High Water Table (A2)	☐ Aquatic Fauna (B13)	☒ Drainage Patterns (B10)	
☒ Saturation (A3)	☐ Marl Deposits (B15)	☐ Moss Trim Lines (B16)	
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Dry-Season Water Table (C2)	
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Crayfish Burrows (C8)	
☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Stunted or Stressed Plants (D1)	
☐ Iron Deposits (B5)	☐ Thin Muck Surface (C7)	☒ Geomorphic Position (D2)	
☐ Inundation Visible on Aerial Imagery (B7)	☐ Other (Explain in Remarks)	☐ Shallow Aquitard (D3)	
☐ Sparsely Vegetated Concave Surface (B8)		☐ Microtopographic Relief (D4)	
		☒ FAC-Neutral Test (D5)	
Field Observations:			
Surface Water Present? ☐ Yes ☒ No	Depth (inches):		
Water Table Present? ☒ Yes ☐ No	Depth (inches):	4.5	
Saturation Present? ☒ Yes ☐ No	Depth (inches):	0	
(includes capillary fringe)		Wetland Hydrology Present? ☒ Yes ☐ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

Tree Stratum		Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status
1.					
2.					
3.					
4.					
5.					
6.					
7.					
			0	= Total Cover	
Sapling/Shrub Stratum		Plot Size:			
1.					
2.					
3.					
4.					
5.					
6.					
7.					
			0	= Total Cover	
Herb Stratum		Plot Size:			
1.	<i>phalaris arundinacea</i>		100	X	FACW
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
			100	= Total Cover	
Woody Vine Stratum		Plot Size:			
1.					
2.					
3.					
4.					
			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% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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?

☒ Yes ☐ No

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

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 ¹	Loc. ²		
0 - 4	10YR3/2	100					loam	
4 - 6.5	10YR3/2	95	10YR4/6	5	C	M	loam	
6.5 - 12.5	7.5YR4/4	68	10YR4/6	2	D	M	clay loam	
	10YR6/1	30						
12.5 - 15.5	10YR3/1	100					clay loam	
15.5 - 17.5	10YR5/1	100					clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

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

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 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.) |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: F3L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.743117 Long: -88.41745 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

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

SOIL

Sampling Point: F3L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: F3U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.743121 Long: -88.417409 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☒ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>plantago major</i>	20	X		FACU
2.	<i>medicago sativa</i>	20	X		UPL
3.	<i>trifolium repens</i>	20	X		FACU
4.	<i>phalaris arundinacea</i>	15			FACW
5.	<i>phleum pratense</i>	10			FACU
6.	<i>taraxacum officinale Weber</i>	10			FACU
7.	<i>hordeum jubatum</i>	5			FAC
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☒ No

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

SOIL

Sampling Point: F3U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: F4L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.742991 Long: -88.417313 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ 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)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): Water Table Present? ☒ Yes ☐ No Depth (inches): 1 Saturation Present? ☒ Yes ☐ No Depth (inches): 0 (includes capillary fringe) Wetland Hydrology Present? ☒ Yes ☐ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>phalaris arundinacea</i>	70	X	FACW	
2.	<i>plantago major</i>	20	X	FACU	
3.	<i>hordeum jubatum</i>	10		FAC	
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 70
FACW species 70	x 2 = 140
FAC species 10	x 3 = 30
FACU species 20	x 4 = 80
UPL species 0	x 5 = 0
Column Totals: 100 (A)	250 (B)
Prevalence Index = B/A = 2.5	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

SOIL

Sampling Point: F4L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: F4U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.743024 Long: -88.417278 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☒ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>medicago sativa</i>	20	X		UPL
2.	<i>potulaca orelacea</i>	20	X		FACU
3.	<i>trifolium repens</i>	10			FACU
4.	<i>plantago major</i>	5			FACU
5.	<i>hordeum jubatum</i>	5			FAC
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		60	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☒ No

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

SOIL

Sampling Point: F4U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: F5L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.74275 Long: -88.417443 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☒ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☒ Yes ☐ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>phalaris arundinacea</i>	90	X	FACW	
2.	<i>poa pratensis</i>	10		FACU	
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		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% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species x 1 =	x 1 =
FACW species x 2 =	x 2 =
FAC species x 3 =	x 3 =
FACU species x 4 =	x 4 =
UPL species x 5 =	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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

SOIL

Sampling Point: F5L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: F5U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.742768 Long: -88.417513 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators:		<u>Secondary Indicators (minimum of two required)</u>	
<u>Primary Indicators (minimum of one is required; check all that apply)</u>			
☐ Surface Water (A1)	☐ Water-Stained Leaves (B9)	☐ Surface Soil Cracks (B6)	
☐ High Water Table (A2)	☐ Aquatic Fauna (B13)	☐ Drainage Patterns (B10)	
☐ Saturation (A3)	☐ Marl Deposits (B15)	☐ Moss Trim Lines (B16)	
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Dry-Season Water Table (C2)	
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Crayfish Burrows (C8)	
☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Stunted or Stressed Plants (D1)	
☐ Iron Deposits (B5)	☐ Thin Muck Surface (C7)	☐ Geomorphic Position (D2)	
☐ Inundation Visible on Aerial Imagery (B7)	☐ Other (Explain in Remarks)	☐ Shallow Aquitard (D3)	
☐ Sparsely Vegetated Concave Surface (B8)		☐ Microtopographic Relief (D4)	
		☐ FAC-Neutral Test (D5)	
Field Observations:			
Surface Water Present? ☐ Yes ☒ No	Depth (inches):		
Water Table Present? ☒ Yes ☐ No	Depth (inches):	15	
Saturation Present? ☐ Yes ☒ No	Depth (inches):		
(includes capillary fringe)		Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

Tree Stratum		Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status
1.					
2.					
3.					
4.					
5.					
6.					
7.					
			0	= Total Cover	
Sapling/Shrub Stratum		Plot Size:			
1.					
2.					
3.					
4.					
5.					
6.					
7.					
			0	= Total Cover	
Herb Stratum		Plot Size:			
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
			0	= Total Cover	
Woody Vine Stratum		Plot Size:			
1.					
2.					
3.					
4.					
			0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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?

☐ Yes ☐ No

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

Vegetation not assessed; at field edge.

SOIL

Sampling Point: F5U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (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 Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: F7L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): road ditch to artificial swa Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.743064 Long: -88.417635 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in transition area between road-side ditch and artificial swale.	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
<u>Sapling/Shrub Stratum</u> Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
<u>Herb Stratum</u> Plot Size:					
1.	<i>phalaris arundinacea</i>	90	X	FACW	
2.	<i>poa pratensis</i>	10		FACU	
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
<u>Woody Vine Stratum</u> Plot Size:					
1.					
2.					
3.					
4.					
		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% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

SOIL

Sampling Point: F7L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (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 Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: F7U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): road ditch to artificial swa Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.743042 Long: -88.417687 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☒ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in transition area between road-side ditch and artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): Water Table Present? ☒ Yes ☐ No Depth (inches): 17.5 Saturation Present? ☐ Yes ☒ No Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? ☐ Yes ☒ No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>poa pratensis</i>	45	X	FACU	
2.	<i>elytrigia (or elymus) repens</i>	20	X	FACU	
3.	<i>phalaris arundinacea</i>	20	X	FACW	
4.	<i>plantago major</i>	10		FACU	
5.	<i>cirsium discolor</i>	5		UPL	
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		0	= Total Cover		

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

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☒ No

SOIL

Sampling Point: F7U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: F8L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): road ditch to artificial swa Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.743197 Long: -88.417655 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silty clay loam, 2 to 6 percent slopes, e NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in transition area between road-side ditch and artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators:		<u>Secondary Indicators (minimum of two required)</u>	
<u>Primary Indicators (minimum of one is required; check all that apply)</u>			
☐ Surface Water (A1)	☐ Water-Stained Leaves (B9)	☐ Surface Soil Cracks (B6)	
☒ High Water Table (A2)	☐ Aquatic Fauna (B13)	☒ Drainage Patterns (B10)	
☒ Saturation (A3)	☐ Marl Deposits (B15)	☐ Moss Trim Lines (B16)	
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Dry-Season Water Table (C2)	
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Crayfish Burrows (C8)	
☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Stunted or Stressed Plants (D1)	
☐ Iron Deposits (B5)	☐ Thin Muck Surface (C7)	☒ Geomorphic Position (D2)	
☐ Inundation Visible on Aerial Imagery (B7)	☐ Other (Explain in Remarks)	☐ Shallow Aquitard (D3)	
☐ Sparsely Vegetated Concave Surface (B8)		☐ Microtopographic Relief (D4)	
		☒ FAC-Neutral Test (D5)	
Field Observations:			
Surface Water Present? ☐ Yes ☒ No	Depth (inches):		
Water Table Present? ☒ Yes ☐ No	Depth (inches):	10.5	
Saturation Present? ☒ Yes ☐ No	Depth (inches):	5	
(includes capillary fringe)		Wetland Hydrology Present? ☒ Yes ☐ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>phalaris arundinacea</i>	90	X	FACW	
2.	<i>poa pratensis</i>	10		FACU	
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		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% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

SOIL

Sampling Point: F8L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: F8U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): road ditch to artificial swa Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.743205 Long: -88.417728 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silty clay loam, 2 to 6 percent slopes, e NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in transition area between road-side ditch and artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☒ High Water Table (A2) ☐ Aquatic Fauna (B13) ☒ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): Water Table Present? ☒ Yes ☐ No Depth (inches): 4.5 Saturation Present? ☒ Yes ☐ No Depth (inches): 0 (includes capillary fringe) Wetland Hydrology Present? ☒ Yes ☐ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>phalaris arundinacea</i>	70	X	FACW	
2.	<i>poa pratensis</i>	30	X	FACU	
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 70
FACW species 70	x 2 = 140
FAC species 0	x 3 = 0
FACU species 30	x 4 = 120
UPL species 0	x 5 = 0
Column Totals: 100 (A)	260 (B)
Prevalence Index = B/A = 2.6	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

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 ¹	Loc. ²		
0 - 6	10YR3/2	100					loam	
6 - 7	10YR3/2	98	10YR4/6	2			loam	
7 - 11.5	7.5YR4/4	98	10YR4/6	2			clay	
11.5 - 15	7.5YR4/4	100					clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

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

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 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.) |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: G1L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.741349 Long: -88.417783 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

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

<u>Tree Stratum</u>	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
<u>Sapling/Shrub Stratum</u> Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
<u>Herb Stratum</u> Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		0	= Total Cover		
<u>Woody Vine Stratum</u> Plot Size:					
1.					
2.					
3.					
4.					
		0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☐ No

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

No vegetation assessed, since location in a maintained grassed waterway in field.

SOIL

Sampling Point: G1L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: G1U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.741382 Long: -88.417741 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status		
1.						
2.						
3.						
4.						
5.						
6.						
7.						
		0	= Total Cover			
Sapling/Shrub Stratum Plot Size:						
1.						
2.						
3.						
4.						
5.						
6.						
7.						
		0	= Total Cover			
Herb Stratum Plot Size:						
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
		0	= Total Cover			
Woody Vine Stratum Plot Size:						
1.						
2.						
3.						
4.						
		0	= Total Cover			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species x 1 =	x 1 =
FACW species x 2 =	x 2 =
FAC species x 3 =	x 3 =
FACU species x 4 =	x 4 =
UPL species x 5 =	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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☐ No

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

No vegetation assessed, since location in a maintained grassed waterway in field.

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 ¹	Loc. ²		
0 - 9	10YR3/2	100					loam	
9 - 14.5	10YR4/1	100					clay loam	
14.5 - 18	10YR4/4	100					clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

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

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 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.) |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: G2L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.741552 Long: -88.418054 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status																	
1.					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>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)																
2.																					
3.																					
4.																					
5.																					
6.																					
7.																					
		<u>0</u>	= Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td>x 1 =</td> </tr> <tr> <td>FACW species</td> <td>x 2 =</td> </tr> <tr> <td>FAC species</td> <td>x 3 =</td> </tr> <tr> <td>FACU species</td> <td>x 4 =</td> </tr> <tr> <td>UPL species</td> <td>x 5 =</td> </tr> <tr> <td>Column Totals:</td> <td>(A) (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A =</td> </tr> </table>	Total % Cover of:	Multiply by:	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 =	
Total % Cover of:	Multiply by:																				
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 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
		<u>0</u>	= 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? ☐ Yes ☐ No																
		<u>0</u>	= Total Cover		Remarks: (Include photo numbers here or on a separate sheet.) No vegetation assessed, since location in a maintained grassed waterway in field.																
					Woody Vine Stratum Plot Size:																
					Herb Stratum Plot Size:																
					Sapling/Shrub Stratum Plot Size:																
					Tree Stratum Plot Size:																

SOIL

Sampling Point: G2L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: G2U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.741569 Long: -88.418046 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		0	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☐ No

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

No vegetation assessed, since location in a maintained grassed waterway in field.

SOIL

Sampling Point: G2U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: G3L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.741608 Long: -88.418479 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators:		<u>Secondary Indicators (minimum of two required)</u>	
<u>Primary Indicators (minimum of one is required; check all that apply)</u>			
☐ Surface Water (A1)	☐ Water-Stained Leaves (B9)	☐ Surface Soil Cracks (B6)	
☐ High Water Table (A2)	☐ Aquatic Fauna (B13)	☒ Drainage Patterns (B10)	
☐ Saturation (A3)	☐ Marl Deposits (B15)	☐ Moss Trim Lines (B16)	
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Dry-Season Water Table (C2)	
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Crayfish Burrows (C8)	
☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Stunted or Stressed Plants (D1)	
☐ Iron Deposits (B5)	☐ Thin Muck Surface (C7)	☒ Geomorphic Position (D2)	
☐ Inundation Visible on Aerial Imagery (B7)	☐ Other (Explain in Remarks)	☐ Shallow Aquitard (D3)	
☐ Sparsely Vegetated Concave Surface (B8)		☐ Microtopographic Relief (D4)	
		☐ FAC-Neutral Test (D5)	
Field Observations:			
Surface Water Present? ☐ Yes ☒ No	Depth (inches):		
Water Table Present? ☒ Yes ☐ No	Depth (inches):	18	
Saturation Present? ☐ Yes ☒ No	Depth (inches):		
(includes capillary fringe)		Wetland Hydrology Present? ☒ Yes ☐ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status																			
1.					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>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)																		
2.																							
3.																							
4.																							
5.																							
6.																							
7.																							
		<u>0</u>	= Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u> </u></td> <td>x 1 = <u> </u></td> </tr> <tr> <td>FACW species <u> </u></td> <td>x 2 = <u> </u></td> </tr> <tr> <td>FAC species <u> </u></td> <td>x 3 = <u> </u></td> </tr> <tr> <td>FACU species <u> </u></td> <td>x 4 = <u> </u></td> </tr> <tr> <td>UPL species <u> </u></td> <td>x 5 = <u> </u></td> </tr> <tr> <td>Column Totals: <u> </u></td> <td>(A) <u> </u> (B) <u> </u></td> </tr> <tr> <td colspan="2"></td> <td colspan="2">Prevalence Index = B/A = <u> </u></td> </tr></table>	Total % Cover of:	Multiply by:	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) <u> </u>			Prevalence Index = B/A = <u> </u>	
Total % Cover of:	Multiply by:																						
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) <u> </u>																						
		Prevalence Index = B/A = <u> </u>																					
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☐ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																		
1.																							
2.																							
3.																							
4.																							
5.																							
6.																							
7.																							
		<u>0</u>	= 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.																		
8.																							
9.																							
10.																							
11.																							
12.																							
		<u>0</u>	= Total Cover																				
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No																		
1.																							
2.																							
3.																							
		<u>0</u>	= Total Cover																				

Remarks: (Include photo numbers here or on a separate sheet.)
 No vegetation assessed, since location in a maintained grassed waterway in field.

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 ¹	Loc. ²		
0 - 4	10YR3/2	100					loam	
4 - 7.5	10YR3/1	95	10YR4/6	5	C	M	clay loam	
7.5 - 15.5	7.5YR4/4	85	10YR4/6	5	D	M	clay	
	10YR6/1	10						
15.5 - 19	7.5YR4/4						clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (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 Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: G3U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.741633 Long: -88.418476 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status																			
1.					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>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)																		
2.																							
3.																							
4.																							
5.																							
6.																							
7.																							
		<u>0</u>	= Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u> </u></td> <td>x 1 = <u> </u></td> </tr> <tr> <td>FACW species <u> </u></td> <td>x 2 = <u> </u></td> </tr> <tr> <td>FAC species <u> </u></td> <td>x 3 = <u> </u></td> </tr> <tr> <td>FACU species <u> </u></td> <td>x 4 = <u> </u></td> </tr> <tr> <td>UPL species <u> </u></td> <td>x 5 = <u> </u></td> </tr> <tr> <td>Column Totals: <u> </u></td> <td>(A) <u> </u> (B) <u> </u></td> </tr> <tr> <td colspan="2"></td> <td colspan="2">Prevalence Index = B/A = <u> </u></td> </tr></table>	Total % Cover of:	Multiply by:	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) <u> </u>			Prevalence Index = B/A = <u> </u>	
Total % Cover of:	Multiply by:																						
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) <u> </u>																						
		Prevalence Index = B/A = <u> </u>																					
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☐ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																		
1.																							
2.																							
3.																							
4.																							
5.																							
6.																							
7.																							
		<u>0</u>	= 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.																		
8.																							
9.																							
10.																							
11.																							
12.																							
		<u>0</u>	= Total Cover																				
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No																		
1.																							
2.																							
3.																							
		<u>0</u>	= Total Cover																				

Remarks: (Include photo numbers here or on a separate sheet.)
 No vegetation assessed, since location in a maintained grassed waterway in field.

SOIL

Sampling Point: G3U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: G4L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.741547 Long: -88.418493 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

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

<u>Tree Stratum</u>	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status															
1.					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>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)														
2.																			
3.																			
4.																			
5.																			
6.																			
7.																			
		0	= Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td>x 1 =</td> </tr> <tr> <td>FACW species</td> <td>x 2 =</td> </tr> <tr> <td>FAC species</td> <td>x 3 =</td> </tr> <tr> <td>FACU species</td> <td>x 4 =</td> </tr> <tr> <td>UPL species</td> <td>x 5 =</td> </tr> <tr> <td>Column Totals:</td> <td>(A) (B)</td> </tr> </table> Prevalence Index = B/A =	Total % Cover of:	Multiply by:	OBL species	x 1 =	FACW species	x 2 =	FAC species	x 3 =	FACU species	x 4 =	UPL species	x 5 =	Column Totals:	(A) (B)
Total % Cover of:	Multiply by:																		
OBL species	x 1 =																		
FACW species	x 2 =																		
FAC species	x 3 =																		
FACU species	x 4 =																		
UPL species	x 5 =																		
Column Totals:	(A) (B)																		
<u>Sapling/Shrub Stratum</u> Plot Size:																			
1.																			
2.																			
3.																			
4.																			
5.																			
6.																			
7.																			
		0	= Total Cover		Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☐ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
<u>Herb Stratum</u> Plot Size:																			
1.																			
2.																			
3.																			
4.																			
5.																			
6.																			
7.																			
8.																			
9.																			
10.																			
11.																			
12.																			
		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.														
<u>Woody Vine Stratum</u> Plot Size:																			
1.																			
2.																			
3.																			
4.																			
		0	= Total Cover																
Hydrophytic Vegetation Present? ☐ Yes ☐ No																			

Remarks: (Include photo numbers here or on a separate sheet.)
 No vegetation assessed, since location in a maintained grassed waterway in field.

SOIL

Sampling Point: G4L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: G4U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.741517 Long: -88.418499 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		0	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☐ No

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

No vegetation assessed, since location in a maintained grassed waterway in field.

SOIL

Sampling Point: G4U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: G5L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.74149 Long: -88.418107 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators:		<u>Secondary Indicators (minimum of two required)</u>	
<u>Primary Indicators (minimum of one is required; check all that apply)</u>			
☐ Surface Water (A1)	☐ Water-Stained Leaves (B9)	☐ Surface Soil Cracks (B6)	
☐ High Water Table (A2)	☐ Aquatic Fauna (B13)	☒ Drainage Patterns (B10)	
☒ Saturation (A3)	☐ Marl Deposits (B15)	☐ Moss Trim Lines (B16)	
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Dry-Season Water Table (C2)	
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Crayfish Burrows (C8)	
☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Stunted or Stressed Plants (D1)	
☐ Iron Deposits (B5)	☐ Thin Muck Surface (C7)	☒ Geomorphic Position (D2)	
☐ Inundation Visible on Aerial Imagery (B7)	☐ Other (Explain in Remarks)	☐ Shallow Aquitard (D3)	
☐ Sparsely Vegetated Concave Surface (B8)		☐ Microtopographic Relief (D4)	
		☐ FAC-Neutral Test (D5)	
Field Observations:			
Surface Water Present? ☐ Yes ☒ No	Depth (inches):		
Water Table Present? ☒ Yes ☐ No	Depth (inches):	14	
Saturation Present? ☒ Yes ☐ No	Depth (inches):	8	
(includes capillary fringe)		Wetland Hydrology Present? ☒ Yes ☐ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status																																																																																		
1.					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>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)																																																																																	
2.																																																																																						
3.																																																																																						
4.																																																																																						
5.																																																																																						
6.																																																																																						
7.																																																																																						
		<u>0</u>	= Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u> </u></td> <td>x 1 = <u> </u></td> </tr> <tr> <td>FACW species <u> </u></td> <td>x 2 = <u> </u></td> </tr> <tr> <td>FAC species <u> </u></td> <td>x 3 = <u> </u></td> </tr> <tr> <td>FACU species <u> </u></td> <td>x 4 = <u> </u></td> </tr> <tr> <td>UPL species <u> </u></td> <td>x 5 = <u> </u></td> </tr> <tr> <td>Column Totals: <u> </u></td> <td>(A) <u> </u> (B) <u> </u></td> </tr> <tr> <td colspan="2"></td> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u> </u></td> <td rowspan="7"> Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☐ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0¹ ☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation¹ (Explain.) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. </td></tr> <tr> <td colspan="2"></td> <td colspan="2" style="text-align: center;"><u>0</u> = Total Cover</td> </tr> <tr> <td colspan="2"></td> <td colspan="2" style="text-align: center;"><u>0</u> = Total Cover</td> </tr> <tr> <td colspan="2"></td> <td colspan="2" style="text-align: center;"><u>0</u> = Total Cover</td> </tr> <tr> <td colspan="2"></td> <td colspan="2" style="text-align: center;"><u>0</u> = Total Cover</td> </tr> <tr> <td colspan="2"></td> <td colspan="2" style="text-align: center;"><u>0</u> = Total Cover</td> </tr> <tr> <td colspan="2"></td> <td colspan="2" style="text-align: center;"><u>0</u> = Total Cover</td> </tr> <tr> <td colspan="2"></td> <td colspan="2" style="text-align: center;"><u>0</u> = Total Cover</td> <td rowspan="7"> 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. </td></tr> <tr> <td colspan="2"></td> <td colspan="2" style="text-align: center;"><u>0</u> = Total Cover</td> </tr> <tr> <td colspan="2"></td> <td colspan="2" style="text-align: center;"><u>0</u> = Total Cover</td> </tr> <tr> <td colspan="2"></td> <td colspan="2" style="text-align: center;"><u>0</u> = Total Cover</td> </tr> <tr> <td colspan="2"></td> <td colspan="2" style="text-align: center;"><u>0</u> = Total Cover</td> </tr> <tr> <td colspan="2"></td> <td colspan="2" style="text-align: center;"><u>0</u> = Total Cover</td> </tr> <tr> <td colspan="2"></td> <td colspan="2" style="text-align: center;"><u>0</u> = Total Cover</td> </tr> <tr> <td colspan="2"></td> <td colspan="2" style="text-align: center;"><u>0</u> = Total Cover</td> <td rowspan="2"> Hydrophytic Vegetation Present? ☐ Yes ☐ No </td></tr> <tr> <td colspan="2"></td> <td colspan="2" style="text-align: center;"><u>0</u> = Total Cover</td> </tr> </table>	Total % Cover of:	Multiply by:	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) <u> </u>			Prevalence Index = B/A = <u> </u>		Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☐ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			<u>0</u> = Total Cover				<u>0</u> = Total Cover				<u>0</u> = Total Cover				<u>0</u> = Total Cover				<u>0</u> = Total Cover				<u>0</u> = Total Cover				<u>0</u> = 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.			<u>0</u> = Total Cover				<u>0</u> = Total Cover				<u>0</u> = Total Cover				<u>0</u> = Total Cover				<u>0</u> = Total Cover				<u>0</u> = Total Cover				<u>0</u> = Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No			<u>0</u> = Total Cover	
Total % Cover of:	Multiply by:																																																																																					
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) <u> </u>																																																																																					
		Prevalence Index = B/A = <u> </u>		Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☐ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																																																																		
		<u>0</u> = Total Cover																																																																																				
		<u>0</u> = Total Cover																																																																																				
		<u>0</u> = Total Cover																																																																																				
		<u>0</u> = Total Cover																																																																																				
		<u>0</u> = Total Cover																																																																																				
		<u>0</u> = Total Cover																																																																																				
		<u>0</u> = 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.																																																																																		
		<u>0</u> = Total Cover																																																																																				
		<u>0</u> = Total Cover																																																																																				
		<u>0</u> = Total Cover																																																																																				
		<u>0</u> = Total Cover																																																																																				
		<u>0</u> = Total Cover																																																																																				
		<u>0</u> = Total Cover																																																																																				
		<u>0</u> = Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No																																																																																		
		<u>0</u> = Total Cover																																																																																				

Remarks: (Include photo numbers here or on a separate sheet.)
 No vegetation assessed, since location in a maintained grassed waterway in field.

SOIL

Sampling Point: G5L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: G5U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.741476 Long: -88.418114 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status																		
1.					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>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)																	
2.																						
3.																						
4.																						
5.																						
6.																						
7.																						
		<u>0</u>	= Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td>x 1 =</td> </tr> <tr> <td>FACW species</td> <td>x 2 =</td> </tr> <tr> <td>FAC species</td> <td>x 3 =</td> </tr> <tr> <td>FACU species</td> <td>x 4 =</td> </tr> <tr> <td>UPL species</td> <td>x 5 =</td> </tr> <tr> <td>Column Totals:</td> <td>(A) (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A =</td> </tr> </table>		Total % Cover of:	Multiply by:	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 =	
Total % Cover of:	Multiply by:																					
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 =																						
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☐ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																	
		<u>0</u>	= 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.																	
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No																	
		<u>0</u>	= Total Cover		Remarks: (Include photo numbers here or on a separate sheet.) No vegetation assessed, since location in a maintained grassed waterway in field.																	

SOIL

Sampling Point: G5U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: G6L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.741338 Long: -88.417802 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

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

<u>Tree Stratum</u>	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
		0	= Total Cover	

<u>Sapling/Shrub Stratum</u>	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
		0	= Total Cover	

<u>Herb Stratum</u>	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
		0	= Total Cover	

<u>Woody Vine Stratum</u>	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status
1. _____				
2. _____				
3. _____				
4. _____				
		0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☐ No

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

No vegetation assessed, since location in a maintained grassed waterway in field.

SOIL

Sampling Point: G6L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: G6U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.741312 Long: -88.417836 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

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

<u>Tree Stratum</u>	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
		0	= Total Cover	

<u>Sapling/Shrub Stratum</u>	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
		0	= Total Cover	

<u>Herb Stratum</u>	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
		0	= Total Cover	

<u>Woody Vine Stratum</u>	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status
1. _____				
2. _____				
3. _____				
4. _____				
		0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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) <u> </u>

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☐ No

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

No vegetation assessed, since location in a maintained grassed waterway in field.

SOIL

Sampling Point: G6U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: H1L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.742044 Long: -88.418657 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators:		<u>Secondary Indicators (minimum of two required)</u>	
<u>Primary Indicators (minimum of one is required; check all that apply)</u>			
☐ Surface Water (A1)	☐ Water-Stained Leaves (B9)	☐ Surface Soil Cracks (B6)	
☒ High Water Table (A2)	☐ Aquatic Fauna (B13)	☒ Drainage Patterns (B10)	
☒ Saturation (A3)	☐ Marl Deposits (B15)	☐ Moss Trim Lines (B16)	
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Dry-Season Water Table (C2)	
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Crayfish Burrows (C8)	
☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Stunted or Stressed Plants (D1)	
☐ Iron Deposits (B5)	☐ Thin Muck Surface (C7)	☒ Geomorphic Position (D2)	
☐ Inundation Visible on Aerial Imagery (B7)	☐ Other (Explain in Remarks)	☐ Shallow Aquitard (D3)	
☐ Sparsely Vegetated Concave Surface (B8)		☐ Microtopographic Relief (D4)	
		☐ FAC-Neutral Test (D5)	
Field Observations:			
Surface Water Present? ☐ Yes ☒ No	Depth (inches):		
Water Table Present? ☒ Yes ☐ No	Depth (inches):	3.5	
Saturation Present? ☒ Yes ☐ No	Depth (inches):	0	
(includes capillary fringe)		Wetland Hydrology Present? ☒ Yes ☐ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		0	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☐ No

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

No vegetation assessed, since location in a maintained grassed waterway in field.

SOIL

Sampling Point: H1L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: H1U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.74204 Long: -88.418619 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators:		<u>Secondary Indicators (minimum of two required)</u>	
<u>Primary Indicators (minimum of one is required; check all that apply)</u>			
☐ Surface Water (A1)	☐ Water-Stained Leaves (B9)	☐ Surface Soil Cracks (B6)	
☒ High Water Table (A2)	☐ Aquatic Fauna (B13)	☐ Drainage Patterns (B10)	
☒ Saturation (A3)	☐ Marl Deposits (B15)	☐ Moss Trim Lines (B16)	
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Dry-Season Water Table (C2)	
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Crayfish Burrows (C8)	
☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Stunted or Stressed Plants (D1)	
☐ Iron Deposits (B5)	☐ Thin Muck Surface (C7)	☐ Geomorphic Position (D2)	
☐ Inundation Visible on Aerial Imagery (B7)	☐ Other (Explain in Remarks)	☐ Shallow Aquitard (D3)	
☐ Sparsely Vegetated Concave Surface (B8)		☐ Microtopographic Relief (D4)	
		☐ FAC-Neutral Test (D5)	
Field Observations:			
Surface Water Present? ☐ Yes ☒ No	Depth (inches):		
Water Table Present? ☒ Yes ☐ No	Depth (inches):	11.5	
Saturation Present? ☒ Yes ☐ No	Depth (inches):	6	
(includes capillary fringe)		Wetland Hydrology Present? ☒ Yes ☐ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

<u>Tree Stratum</u>	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
		0	= Total Cover	
<u>Sapling/Shrub Stratum</u> Plot Size:				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
		0	= Total Cover	
<u>Herb Stratum</u> Plot Size:				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		0	= Total Cover	
<u>Woody Vine Stratum</u> Plot Size:				
1.				
2.				
3.				
4.				
		0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species x 1 =	x 1 =
FACW species x 2 =	x 2 =
FAC species x 3 =	x 3 =
FACU species x 4 =	x 4 =
UPL species x 5 =	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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☐ No

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

No vegetation assessed, since location in a maintained grassed waterway in field.

SOIL

Sampling Point: H1U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: H3L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.742367 Long: -88.418686 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silty clay loam, 2 to 6 percent slopes, e NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators:		<u>Secondary Indicators (minimum of two required)</u>	
<u>Primary Indicators (minimum of one is required; check all that apply)</u>			
☐ Surface Water (A1)	☐ Water-Stained Leaves (B9)	☐ Surface Soil Cracks (B6)	
☒ High Water Table (A2)	☐ Aquatic Fauna (B13)	☒ Drainage Patterns (B10)	
☒ Saturation (A3)	☐ Marl Deposits (B15)	☐ Moss Trim Lines (B16)	
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Dry-Season Water Table (C2)	
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Crayfish Burrows (C8)	
☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Stunted or Stressed Plants (D1)	
☐ Iron Deposits (B5)	☐ Thin Muck Surface (C7)	☒ Geomorphic Position (D2)	
☐ Inundation Visible on Aerial Imagery (B7)	☐ Other (Explain in Remarks)	☐ Shallow Aquitard (D3)	
☐ Sparsely Vegetated Concave Surface (B8)		☐ Microtopographic Relief (D4)	
		☐ FAC-Neutral Test (D5)	
Field Observations:			
Surface Water Present? ☐ Yes ☒ No	Depth (inches):		
Water Table Present? ☒ Yes ☐ No	Depth (inches):	6.5	
Saturation Present? ☒ Yes ☐ No	Depth (inches):	0	
(includes capillary fringe)		Wetland Hydrology Present? ☒ Yes ☐ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status																			
1.					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>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)																		
2.																							
3.																							
4.																							
5.																							
6.																							
7.																							
		<u>0</u>	= Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u> </u></td> <td>x 1 = <u> </u></td> </tr> <tr> <td>FACW species <u> </u></td> <td>x 2 = <u> </u></td> </tr> <tr> <td>FAC species <u> </u></td> <td>x 3 = <u> </u></td> </tr> <tr> <td>FACU species <u> </u></td> <td>x 4 = <u> </u></td> </tr> <tr> <td>UPL species <u> </u></td> <td>x 5 = <u> </u></td> </tr> <tr> <td>Column Totals: <u> </u></td> <td>(A) <u> </u> (B) <u> </u></td> </tr> <tr> <td colspan="2"></td> <td colspan="2">Prevalence Index = B/A = <u> </u></td> </tr></table>	Total % Cover of:	Multiply by:	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) <u> </u>			Prevalence Index = B/A = <u> </u>	
Total % Cover of:	Multiply by:																						
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) <u> </u>																						
		Prevalence Index = B/A = <u> </u>																					
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☐ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																		
1.																							
2.																							
3.																							
4.																							
5.																							
6.																							
7.																							
		<u>0</u>	= 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.																		
8.																							
9.																							
10.																							
11.																							
12.																							
		<u>0</u>	= Total Cover																				
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No																		
1.																							
2.																							
3.																							
		<u>0</u>	= Total Cover																				

Remarks: (Include photo numbers here or on a separate sheet.)
 No vegetation assessed, since location in a maintained grassed waterway in field.

SOIL

Sampling Point: H3L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (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 Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: H3U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.74235 Long: -88.418598 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silty clay loam, 2 to 6 percent slopes, e NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): Water Table Present? ☒ Yes ☐ No Depth (inches): 13.5 Saturation Present? ☐ Yes ☒ No Depth (inches): (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

<u>Tree Stratum</u>	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
		0	= Total Cover	
<u>Sapling/Shrub Stratum</u>	Plot Size:			
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
		0	= Total Cover	
<u>Herb Stratum</u>	Plot Size:			
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
		0	= Total Cover	
<u>Woody Vine Stratum</u>	Plot Size:			
1. _____				
2. _____				
3. _____				
4. _____				
		0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☐ No

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

No vegetation assessed, since location in a maintained grassed waterway in field.

SOIL

Sampling Point: H3U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: H4L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.742399 Long: -88.418835 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silty clay loam, 2 to 6 percent slopes, e NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ 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)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): Water Table Present? ☒ Yes ☐ No Depth (inches): 10.5 Saturation Present? ☒ Yes ☐ No Depth (inches): 5 (includes capillary fringe) Wetland Hydrology Present? ☒ Yes ☐ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

SOIL

Sampling Point: H4L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (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 Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: H4U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.74236 Long: -88.418893 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silty clay loam, 2 to 6 percent slopes, e NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☒ High Water Table (A2) ☐ Aquatic Fauna (B13) ☒ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): Water Table Present? ☒ Yes ☐ No Depth (inches): 5 Saturation Present? ☒ Yes ☐ No Depth (inches): 0 (includes capillary fringe) Wetland Hydrology Present? ☒ Yes ☐ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

<u>Tree Stratum</u>	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:		
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>0</u> (B)		
3. _____		_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)		
4. _____		_____	_____	_____			
5. _____		_____	_____	_____			
6. _____		_____	_____	_____			
7. _____		_____	_____	_____			
		<u>0</u>	= Total Cover				
<u>Sapling/Shrub Stratum</u>	Plot Size:				Prevalence Index worksheet:		
1. _____		_____	_____	_____	Total % Cover of: _____ Multiply by: _____		
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)		
		<u>0</u>	= Total Cover			Prevalence Index = B/A = _____	
<u>Herb Stratum</u>	Plot Size:				Hydrophytic Vegetation Indicators:		
1. _____		_____	_____	_____	☐ Rapid Test for Hydrophytic Vegetation		
2. _____		_____	_____	_____	☐ Dominance Test is > 50%		
3. _____		_____	_____	_____	☐ Prevalence Index is ≤ 3.0 ¹		
4. _____		_____	_____	_____	☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.)		
5. _____		_____	_____	_____	☐ Problematic Hydrophytic Vegetation ¹ (Explain.)		
6. _____		_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
7. _____		_____	_____	_____			
8. _____		_____	_____	_____			
9. _____		_____	_____	_____			
10. _____		_____	_____	_____			
11. _____		_____	_____	_____			
12. _____		_____	_____	_____			
		<u>0</u>	= Total Cover			Definitions of Vegetation Strata:	
<u>Woody Vine Stratum</u>	Plot Size:				Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
1. _____		_____	_____	_____	Sapling/shrub - Woody plants less than 3 in. DBH, and greater than 3.28 ft. (1 m) tall.		
2. _____		_____	_____	_____	Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.		
3. _____		_____	_____	_____	Woody Vines - All woody vines greater than 3.28 ft. in height.		
4. _____		_____	_____	_____			
		<u>0</u>	= Total Cover			Hydrophytic Vegetation Present? ☐ Yes ☐ No	
Remarks: (Include photo numbers here or on a separate sheet.) No vegetation assessed, since location in a maintained grassed waterway in field.							

SOIL

Sampling Point: H4U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: H6L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.742087 Long: -88.418703 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☒ Yes ☐ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					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>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2.					
3.					
4.					
5.					
6.					
7.					
		<u>0</u>	= Total Cover		Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ 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 = _____
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☐ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
		<u>0</u>	= 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.
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No

SOIL

Sampling Point: H6L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: H6U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.74209 Long: -88.418749 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status																			
1.					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>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)																		
2.																							
3.																							
4.																							
5.																							
6.																							
7.																							
		<u>0</u>	= Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u> </u></td> <td>x 1 = <u> </u></td> </tr> <tr> <td>FACW species <u> </u></td> <td>x 2 = <u> </u></td> </tr> <tr> <td>FAC species <u> </u></td> <td>x 3 = <u> </u></td> </tr> <tr> <td>FACU species <u> </u></td> <td>x 4 = <u> </u></td> </tr> <tr> <td>UPL species <u> </u></td> <td>x 5 = <u> </u></td> </tr> <tr> <td>Column Totals: <u> </u></td> <td>(A) <u> </u> (B) <u> </u></td> </tr> <tr> <td colspan="2"></td> <td colspan="2">Prevalence Index = B/A = <u> </u></td> </tr></table>	Total % Cover of:	Multiply by:	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) <u> </u>			Prevalence Index = B/A = <u> </u>	
Total % Cover of:	Multiply by:																						
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) <u> </u>																						
		Prevalence Index = B/A = <u> </u>																					
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☐ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																		
1.																							
2.																							
3.																							
4.																							
5.																							
6.																							
7.																							
		<u>0</u>	= 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.																		
8.																							
9.																							
10.																							
11.																							
12.																							
		<u>0</u>	= Total Cover																				
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No																		
1.																							
2.																							
3.																							
		<u>0</u>	= Total Cover																				

Remarks: (Include photo numbers here or on a separate sheet.)
 No vegetation assessed, since location in a maintained grassed waterway in field.

SOIL

Sampling Point: H6U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: I1L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): road ditch to artificial swa Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.742296 Long: -88.419428 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silty clay loam, 2 to 6 percent slopes, e NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in transition area between road-side ditch and artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☒ Yes ☐ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>phalaris arundinacea</i>	60	X	FACW	
2.	<i>poa pratensis</i>	30	X	FACU	
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		90	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>60</u>
FACW species <u>60</u>	x 2 = <u>120</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>30</u>	x 4 = <u>120</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>90</u>	(A) <u>240</u> (B)
Prevalence Index = B/A = <u>2.7</u>	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

SOIL

Sampling Point: I1L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: I1U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): road ditch to artificial swa Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.742314 Long: -88.419391 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silty clay loam, 2 to 6 percent slopes, e NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☒ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in transition area between road-side ditch and artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe)	
Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
<u>Sapling/Shrub Stratum</u> Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
<u>Herb Stratum</u> Plot Size:					
1.	<i>poa pratensis</i>	60	X		FACU
2.	<i>elytrigia (or elymus) repens</i>	20	X		FACU
3.	<i>phalaris arundinacea</i>	20	X		FACW
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
<u>Woody Vine Stratum</u> Plot Size:					
1.					
2.					
3.					
4.					
		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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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) <u> </u>

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☒ No

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

SOIL

Sampling Point: I1U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: I2L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): road ditch to artificial swa Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.742402 Long: -88.419449 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silty clay loam, 2 to 6 percent slopes, e NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in transition area between road-side ditch and artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☒ Yes ☐ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>phalaris arundinacea</i>	80	X	FACW	
2.	<i>poa pratensis</i>	20	X	FACU	
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 80
FACW species 80	x 2 = 160
FAC species 0	x 3 = 0
FACU species 20	x 4 = 80
UPL species 0	x 5 = 0
Column Totals: 100 (A)	240 (B)
Prevalence Index = B/A = 2.4	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

SOIL

Sampling Point: I2L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: I2U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): road ditch to artificial swa Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.74245 Long: -88.41942 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silty clay loam, 2 to 6 percent slopes, e NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☒ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in transition area between road-side ditch and artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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) <u> </u>

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☒ No

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

SOIL

Sampling Point: I2U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (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 Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: I3L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): road ditch to artificial swa Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.742384 Long: -88.41962 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silty clay loam, 2 to 6 percent slopes, e NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in transition area between road-side ditch and artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☒ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☒ Yes ☐ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>phalaris arundinacea</i>	80	X	FACW	
2.	<i>typha latifolia</i>	20	X	OBL	
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		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% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species x 1 =	x 1 =
FACW species x 2 =	x 2 =
FAC species x 3 =	x 3 =
FACU species x 4 =	x 4 =
UPL species x 5 =	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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

SOIL

Sampling Point: I3L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: I3U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): road ditch to artificial swa Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.742411 Long: -88.41963 Datum: WGS 1984
Soil Map Unit Name: Kewaunee silty clay loam, 2 to 6 percent slopes, e NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☒ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in transition area between road-side ditch and artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
<u>Sapling/Shrub Stratum</u> Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
<u>Herb Stratum</u> Plot Size:					
1.	<i>poa pratensis</i>	60	X	FACU	
2.	<i>phleum pratense</i>	20	X	FACU	
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		80	= Total Cover		
<u>Woody Vine Stratum</u> Plot Size:					
1.					
2.					
3.					
4.					
		0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☒ No

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

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 ¹	Loc. ²		
0 - 3	10YR3/1	100					loam	
3 - 7.5	7.5YR4/4	100					clay	
7.5 - 12.5	10YR3/1	100					clay loam	
12.5 - 14	10YR3/1	98	10YR4/6	2	C	M	clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (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 Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: I4L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): road ditch to artificial swa Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.742219 Long: -88.419777 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in transition area between road-side ditch and artificial swale.	

HYDROLOGY

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

			Absolute % Cover	Dominant Species?	Indicator Status
Dominance Test worksheet:					
Number of Dominant Species That Are OBL, FACW, or FAC:			1	(A)	
Total Number of Dominant Species Across All Strata:			2	(B)	
Percent of Dominant Species That Are OBL, FACW, or FAC:			50%	(A/B)	
Prevalence Index worksheet:					
Total % Cover of:			Multiply by:		
OBL species	0	x 1 =	50		
FACW species	50	x 2 =	100		
FAC species	0	x 3 =	0		
FACU species	25	x 4 =	100		
UPL species	10	x 5 =	50		
Column Totals:	85	(A)	250	(B)	
Prevalence Index = B/A =			2.9		
Hydrophytic Vegetation Indicators:					
☐ Rapid Test for Hydrophytic Vegetation					
☐ Dominance Test is > 50%					
☒ Prevalence Index is ≤ 3.0 ¹					
☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.)					
☐ Problematic Hydrophytic Vegetation ¹ (Explain.)					
¹ 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? ☒ Yes ☐ No					
Remarks: (Include photo numbers here or on a separate sheet.)					

SOIL

Sampling Point: I4L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: I4U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): road ditch to artificial swa Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.742221 Long: -88.419822 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in transition area between road-side ditch and artificial swale.	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					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>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2.					
3.					
4.					
5.					
6.					
7.					
		<u>0</u>	= Total Cover		Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ 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 = _____
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☐ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
		<u>0</u>	= 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.
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No

SOIL

Sampling Point: I4U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: I5L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): road ditch to artificial swa Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.742177 Long: -88.419597 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in transition area between road-side ditch and artificial swale.	

HYDROLOGY

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

<u>Tree Stratum</u>	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
<u>Sapling/Shrub Stratum</u> Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
<u>Herb Stratum</u> Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		0	= Total Cover		
<u>Woody Vine Stratum</u> Plot Size:					
1.					
2.					
3.					
4.					
		0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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) <u> </u>

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☐ No

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

No vegetation assessed, as location is in alfalfa field.

SOIL

Sampling Point: I5L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/17/2014
Applicant/Owner: WisDOT State: WI Sampling Point: I5U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): road ditch to artificial swa Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.74215 Long: -88.419659 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in transition area between road-side ditch and artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? ☐ Yes ☒ No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status																	
1.					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>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)																
2.																					
3.																					
4.																					
5.																					
6.																					
7.																					
		<u>0</u>	= Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td>x 1 =</td> </tr> <tr> <td>FACW species</td> <td>x 2 =</td> </tr> <tr> <td>FAC species</td> <td>x 3 =</td> </tr> <tr> <td>FACU species</td> <td>x 4 =</td> </tr> <tr> <td>UPL species</td> <td>x 5 =</td> </tr> <tr> <td>Column Totals:</td> <td>(A) (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A =</td> </tr> </table>	Total % Cover of:	Multiply by:	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 =	
Total % Cover of:	Multiply by:																				
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 =																					
		<u>0</u>	= Total Cover																		
		<u>0</u>	= Total Cover																		
		<u>0</u>	= Total Cover																		
		<u>0</u>	= Total Cover																		
		<u>0</u>	= Total Cover																		
Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☐ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ 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? ☐ Yes ☐ No																					
Woody Vine Stratum Plot Size:																					
1.																					
2.																					
3.																					
4.																					
		<u>0</u>	= Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) No vegetation assessed, as location is in alfalfa field.																					

SOIL

Sampling Point: I5U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (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 Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: J1L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.741697 Long: -88.419831 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status																		
1.					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>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)																	
2.																						
3.																						
4.																						
5.																						
6.																						
7.																						
		0	= Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td>x 1 =</td> </tr> <tr> <td>FACW species</td> <td>x 2 =</td> </tr> <tr> <td>FAC species</td> <td>x 3 =</td> </tr> <tr> <td>FACU species</td> <td>x 4 =</td> </tr> <tr> <td>UPL species</td> <td>x 5 =</td> </tr> <tr> <td>Column Totals:</td> <td>(A) (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A =</td> </tr> </table>		Total % Cover of:	Multiply by:	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 =	
Total % Cover of:	Multiply by:																					
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 =																						
		0	= Total Cover		Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☐ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																	
		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.																	
		0	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No																	
		0	= Total Cover		Remarks: (Include photo numbers here or on a separate sheet.) No vegetation assessed, since location in a maintained grassed waterway in field.																	

SOIL

Sampling Point: J1L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (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 Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: J1U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.741726 Long: -88.419825 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		0	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☐ No

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

No vegetation assessed, since location in a maintained grassed waterway in field.

SOIL

Sampling Point: J1U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (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 Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: J3L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.741797 Long: -88.420106 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					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>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2.					
3.					
4.					
5.					
6.					
7.					
		<u>0</u>	= Total Cover		Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ 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 = _____
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☐ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
		<u>0</u>	= 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.
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
Woody Vine Stratum Plot Size:					
Herb Stratum Plot Size:					
Sapling/Shrub Stratum Plot Size:					
Tree Stratum Plot Size:					

Remarks: (Include photo numbers here or on a separate sheet.)
 No vegetation assessed, as location is in alfalfa field.

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 ¹	Loc. ²		
0 - 6.5	10YR3/2	100					silt loam	
6.5 - 13	10YR6/1	95	10YR4/6	5	D	M	silty clay loam	
13 - 17	10YR6/1	80	10YR4/6	20	D	M	silty clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

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

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 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.) |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: J3U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.741812 Long: -88.420058 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Sampling Point: J3U

<u>Tree Stratum</u>	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
		0	= Total Cover	
<u>Sapling/Shrub Stratum</u>	Plot Size:			
1.				
2.				
3.				
4.				
5.				
6.				
7.				
		0	= Total Cover	
<u>Herb Stratum</u>	Plot Size:			
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		0	= Total Cover	
<u>Woody Vine Stratum</u>	Plot Size:			
1.				
2.				
3.				
4.				
		0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☐ No

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

 No vegetation assessed, as location is in alfalfa field.

SOIL

Sampling Point: J3U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: J5L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): road ditch to artificial swa Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.741995 Long: -88.420045 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in transition area between road-side ditch and artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☒ Yes ☐ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>phalaris arundinacea</i>	80	X	FACW	
2.	<i>poa pratensis</i>	20	X	FACU	
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 80
FACW species 80	x 2 = 160
FAC species 0	x 3 = 0
FACU species 20	x 4 = 80
UPL species 0	x 5 = 0
Column Totals: 100 (A)	240 (B)
Prevalence Index = B/A = 2.4	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

SOIL

Sampling Point: J5L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: J5U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): road ditch to artificial swa Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.742011 Long: -88.420004 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in transition area between road-side ditch and artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe)	
Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>phalaris arundinacea</i>	80	X	FACW	
2.	<i>poa pratensis</i>	20	X	FACU	
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 80
FACW species 80	x 2 = 160
FAC species 0	x 3 = 0
FACU species 20	x 4 = 80
UPL species 0	x 5 = 0
Column Totals: 100 (A)	240 (B)
Prevalence Index = B/A = 2.4	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

SOIL

Sampling Point: J5U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: J6L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): road ditch to artificial swa Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.742102 Long: -88.419986 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in transition area between road-side ditch and artificial swale.	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>phalaris arundinacea</i>	80	X	FACW	
2.	<i>poa pratensis</i>	20	X	FACU	
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 80
FACW species 80	x 2 = 160
FAC species 0	x 3 = 0
FACU species 20	x 4 = 80
UPL species 0	x 5 = 0
Column Totals: 100 (A)	240 (B)
Prevalence Index = B/A = 2.4	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

SOIL

Sampling Point: J6L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: J6U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): road ditch to artificial swa Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.742125 Long: -88.41995 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☒ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in transition area between road-side ditch and artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? ☐ Yes ☒ No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>poa pratensis</i>	50	X		FACU
2.	<i>phalaris arundinacea</i>	25	X		FACW
3.	<i>cirsium discolor</i>	15			UPL
4.	<i>linaria vulgaris</i>	10			UPL
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 25
FACW species 25	x 2 = 50
FAC species 0	x 3 = 0
FACU species 50	x 4 = 200
UPL species 25	x 5 = 125
Column Totals: 100 (A)	375 (B)
Prevalence Index = B/A = 3.8	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☒ No

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

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 ¹	Loc. ²		
0 - 3	10YR3/1	100					silt loam	
3 - 5	7.5YR4/4	100					clay	from surface runoff
5 - 11.5	10YR3/1	100					silt loam	
11.5 - 13	10YR3/1	98	10YR4/6	2	C	M	silt loam	
13 - 15	10YR5/1	95	10YR4/6	5	D	M	silty clay loam	
15 - 17.5	7.5YR4/4	100					clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

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

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 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.) |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: J7L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): road ditch to artificial swa Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.7417 Long: -88.420884 Datum: WGS 1984
Soil Map Unit Name: Peebles silt loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in transition area between road-side ditch and artificial swale.	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>phalaris arundinacea</i>	80	X	FACW	
2.	<i>poa pratensis</i>	20	X	FACU	
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>80</u>
FACW species <u>80</u>	x 2 = <u>160</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>20</u>	x 4 = <u>80</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>240</u> (B)
Prevalence Index = B/A = <u>2.4</u>	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

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 ¹	Loc. ²		
0 - 1.5	10YR4/1	100					silt loam	
1.5 - 3.5	10YR6/1	98	10YR4/6	2	D	M	silt loam	
3.5 - 5	10YR5/1	95	10YR4/6	5	D	M	silt loam	
5 - 8	10YR6/1	95	10YR4/6	5	D	M	silty clay	
8 - 11.5	10YR3/1	95	10YR4/6	5	C	M	silty clay loam	
11.5 - 17.5	10YR6/1	75	10YR4/6	5	D	M	silty clay	
	7.5YR4/4	20						

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

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

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 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.) |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: J7U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): road ditch to artificial swa Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.741661 Long: -88.420944 Datum: WGS 1984
Soil Map Unit Name: Peebles silt loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☒ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in transition area between road-side ditch and artificial swale.	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>poa pratensis</i>	80	X		FACU
2.	<i>phalaris arundinacea</i>	20	X		FACW
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>20</u>
FACW species <u>20</u>	x 2 = <u>40</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>80</u>	x 4 = <u>320</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u>	(A) <u>360</u> (B)
Prevalence Index = B/A = <u>3.6</u>	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☒ No

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

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 ¹	Loc. ²		
0 - 5.5	10YR3/1	100					silt loam	
5.5 - 7	10YR4/1	95	10YR4/6	5	D	M	silt loam	
7 - 8.5	10YR3/1	100					silt loam	
8.5 - 16.5	7.5YR4/4	100					clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

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

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 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.) |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: J8L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): road ditch to artificial swa Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.74172 Long: -88.420656 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in transition area between road-side ditch and artificial swale.	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.	<i>phalaris arundinacea</i>	90	X	FACW	
2.	<i>poa pratensis</i>	10		FACU	
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		100	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		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% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☒ Yes ☐ No

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

SOIL

Sampling Point: J8L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: J8U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): road ditch to artificial swa Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.741678 Long: -88.420661 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in transition area between road-side ditch and artificial swale.	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status																		
1.					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%</u> (A/B)																	
2.																						
3.																						
4.																						
5.																						
6.																						
7.																						
		0	= Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td>x 1 =</td> </tr> <tr> <td>FACW species</td> <td>x 2 =</td> </tr> <tr> <td>FAC species</td> <td>x 3 =</td> </tr> <tr> <td>FACU species</td> <td>x 4 =</td> </tr> <tr> <td>UPL species</td> <td>x 5 =</td> </tr> <tr> <td>Column Totals:</td> <td>(A) (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A =</td> </tr> </table>		Total % Cover of:	Multiply by:	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 =	
Total % Cover of:	Multiply by:																					
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 =																						
		0	= Total Cover		Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☒ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																	
		100	= 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.																	
		0	= Total Cover		Hydrophytic Vegetation Present? ☒ Yes ☐ No																	
Remarks: (Include photo numbers here or on a separate sheet.)																						

SOIL

Sampling Point: J8U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: J10L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.741678 Long: -88.420227 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

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

Sampling Point: J10L

Tree Stratum		Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status
1.					
2.					
3.					
4.					
5.					
6.					
7.					
			0	= Total Cover	
Sapling/Shrub Stratum		Plot Size:			
1.					
2.					
3.					
4.					
5.					
6.					
7.					
			0	= Total Cover	
Herb Stratum		Plot Size:			
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
			0	= Total Cover	
Woody Vine Stratum		Plot Size:			
1.					
2.					
3.					
4.					
			0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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?

☐ Yes ☐ No

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

No vegetation assessed, as location is in alfalfa field.

SOIL

Sampling Point: J10L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: J10U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.741639 Long: -88.420249 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Sampling Point: J10U

Northcentral and Northeast Region - Version 2.0

SOIL

Sampling Point: J10U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: J11L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.741639 Long: -88.419827 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? ☒ Yes ☐ No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status																			
1.					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>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)																		
2.																							
3.																							
4.																							
5.																							
6.																							
7.																							
		<u>0</u>	= Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u> </u></td> <td>x 1 = <u> </u></td> </tr> <tr> <td>FACW species <u> </u></td> <td>x 2 = <u> </u></td> </tr> <tr> <td>FAC species <u> </u></td> <td>x 3 = <u> </u></td> </tr> <tr> <td>FACU species <u> </u></td> <td>x 4 = <u> </u></td> </tr> <tr> <td>UPL species <u> </u></td> <td>x 5 = <u> </u></td> </tr> <tr> <td>Column Totals: <u> </u></td> <td>(A) <u> </u> (B) <u> </u></td> </tr> <tr> <td colspan="2"></td> <td colspan="2">Prevalence Index = B/A = <u> </u></td> </tr></table>	Total % Cover of:	Multiply by:	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) <u> </u>			Prevalence Index = B/A = <u> </u>	
Total % Cover of:	Multiply by:																						
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) <u> </u>																						
		Prevalence Index = B/A = <u> </u>																					
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☐ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																		
1.																							
2.																							
3.																							
4.																							
5.																							
6.																							
7.																							
		<u>0</u>	= 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.																		
8.																							
9.																							
10.																							
11.																							
12.																							
		<u>0</u>	= Total Cover																				
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No																		
1.																							
2.																							
3.																							
		<u>0</u>	= Total Cover																				

Remarks: (Include photo numbers here or on a separate sheet.)
 No vegetation assessed, since location in a maintained grassed waterway in field.

SOIL

Sampling Point: J11L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: J11U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.741609 Long: -88.419829 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

SOIL

Sampling Point: J11U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: K1L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.739669 Long: -88.417791 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe)	
Wetland Hydrology Present? ☒ Yes ☐ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status																	
1.					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>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)																
2.																					
3.																					
4.																					
5.																					
6.																					
7.																					
		<u>0</u>	= Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td>x 1 =</td> </tr> <tr> <td>FACW species</td> <td>x 2 =</td> </tr> <tr> <td>FAC species</td> <td>x 3 =</td> </tr> <tr> <td>FACU species</td> <td>x 4 =</td> </tr> <tr> <td>UPL species</td> <td>x 5 =</td> </tr> <tr> <td>Column Totals:</td> <td>(A) (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A =</td> </tr> </table>	Total % Cover of:	Multiply by:	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 =	
Total % Cover of:	Multiply by:																				
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 =																					
		<u>0</u>	= Total Cover																		
		<u>0</u>	= Total Cover																		
		<u>0</u>	= Total Cover																		
		<u>0</u>	= Total Cover																		
		<u>0</u>	= Total Cover																		
Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☐ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ 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? ☐ Yes ☐ No																					
Woody Vine Stratum Plot Size:																					
1.																					
2.																					
3.																					
4.																					
		<u>0</u>	= Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) No vegetation assessed, as location is in corn field.																					

SOIL

Sampling Point: K1L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: K1U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.739672 Long: -88.417847 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status																		
1.					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>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)																	
2.																						
3.																						
4.																						
5.																						
6.					Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u> </u></td> <td>x 1 = <u> </u></td> </tr> <tr> <td>FACW species <u> </u></td> <td>x 2 = <u> </u></td> </tr> <tr> <td>FAC species <u> </u></td> <td>x 3 = <u> </u></td> </tr> <tr> <td>FACU species <u> </u></td> <td>x 4 = <u> </u></td> </tr> <tr> <td>UPL species <u> </u></td> <td>x 5 = <u> </u></td> </tr> <tr> <td>Column Totals: <u> </u></td> <td>(A) <u> </u> (B) <u> </u></td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u> </u></td> </tr> </table>		Total % Cover of:	Multiply by:	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) <u> </u>	Prevalence Index = B/A = <u> </u>	
Total % Cover of:	Multiply by:																					
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) <u> </u>																					
Prevalence Index = B/A = <u> </u>																						
7.																						
		<u>0</u>	= Total Cover																			
<u>Sapling/Shrub Stratum</u>	Plot Size:				Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☐ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																	
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.																	
6.																						
7.																						
8.																						
9.																						
10.					Hydrophytic Vegetation Present? ☐ Yes ☐ No																	
11.																						
12.																						
		<u>0</u>	= Total Cover																			
<u>Woody Vine Stratum</u>	Plot Size:																					
1.																						
2.																						
3.																						
4.																						
		<u>0</u>	= Total Cover																			

Remarks: (Include photo numbers here or on a separate sheet.)
 No vegetation assessed, as location is in corn field.

SOIL

Sampling Point: K1U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (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 Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: K3L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.739215 Long: -88.417738 Datum: WGS 1984
Soil Map Unit Name: Poygan silty clay loam NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe)	
Wetland Hydrology Present? ☒ Yes ☐ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status		
1.						
2.						
3.						
4.						
5.						
6.						
7.						
		0	= Total Cover			
Sapling/Shrub Stratum Plot Size:						
1.						
2.						
3.						
4.						
5.						
6.						
7.						
		0	= Total Cover			
Herb Stratum Plot Size:						
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
		0	= Total Cover			
Woody Vine Stratum Plot Size:						
1.						
2.						
3.						
4.						
		0	= Total Cover			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☐ No

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

No vegetation assessed, as location is in corn field.

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 ¹	Loc. ²		
0 - 4	10YR3/1	98	10YR4/6	2	C	M	silt loam	
4 - 11	10YR3/1	100					silt loam	
11 - 14	10YR5/1	60					silty clay	
	7.5YR4/4	40						
14 - 18	7.5YR4/4	100					clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

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

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 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.) |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: K3U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.739209 Long: -88.417794 Datum: WGS 1984
Soil Map Unit Name: Poygan silty clay loam NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe)	
Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

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 ¹	Loc. ²		
0 - 7	10YR3/1	100					silt loam	
7 - 9.5	7.5YR4/4	100					silty clay	
9.5 - 11	10YR3/1	100					silty clay loam	
11 - 18	7.5YR4/4	100					silty clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

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

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 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.) |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: K4L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.739212 Long: -88.417605 Datum: WGS 1984
Soil Map Unit Name: Poygan silty clay loam NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					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>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2.					
3.					
4.					
5.					
6.					
7.					
		<u>0</u>	= Total Cover		Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ 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 = _____
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☐ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
		<u>0</u>	= 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.
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
Woody Vine Stratum Plot Size:					
Herb Stratum Plot Size:					
Sapling/Shrub Stratum Plot Size:					
Tree Stratum Plot Size:					

Remarks: (Include photo numbers here or on a separate sheet.)
 No vegetation assessed, as location is in corn field.

SOIL

Sampling Point: K4L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: K4U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.739202 Long: -88.417542 Datum: WGS 1984
Soil Map Unit Name: Poygan silty clay loam NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status																		
1.					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>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)																	
2.																						
3.																						
4.																						
5.																						
6.																						
7.																						
		<u>0</u>	= Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td>x 1 =</td> </tr> <tr> <td>FACW species</td> <td>x 2 =</td> </tr> <tr> <td>FAC species</td> <td>x 3 =</td> </tr> <tr> <td>FACU species</td> <td>x 4 =</td> </tr> <tr> <td>UPL species</td> <td>x 5 =</td> </tr> <tr> <td>Column Totals:</td> <td>(A) (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A =</td> </tr> </table>		Total % Cover of:	Multiply by:	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 =	
Total % Cover of:	Multiply by:																					
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 =																						
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☐ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																	
		<u>0</u>	= 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.																	
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No																	
		<u>0</u>	= Total Cover		Remarks: (Include photo numbers here or on a separate sheet.) No vegetation assessed, as location is in corn field.																	

SOIL

Sampling Point: K4U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (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 Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: K6L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.739676 Long: -88.41763 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

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

Sampling Point: K6L

Tree Stratum		Plot Size:		Absolute % Cover	Dominant Species?	Indicator Status
1.						
2.						
3.						
4.						
5.						
6.						
7.						
				0	= Total Cover	
Sapling/Shrub Stratum		Plot Size:		Absolute % Cover	Dominant Species?	Indicator Status
1.						
2.						
3.						
4.						
5.						
6.						
7.						
				0	= Total Cover	
Herb Stratum		Plot Size:		Absolute % Cover	Dominant Species?	Indicator Status
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
				0	= Total Cover	
Woody Vine Stratum		Plot Size:		Absolute % Cover	Dominant Species?	Indicator Status
1.						
2.						
3.						
4.						
				0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☐ No

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

No vegetation assessed, since location in a maintained grassed waterway in field.

SOIL

Sampling Point: K6L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: K6U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): artificial swale Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.739667 Long: -88.417591 Datum: WGS 1984
Soil Map Unit Name: Poygan silty clay loam NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in artificial swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe)	
Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

SOIL

Sampling Point: K6U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: L1L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): slight depression Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.740197 Long: -88.415574 Datum: WGS 1984
Soil Map Unit Name: Poygan silty clay loam NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in active farm field.	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		0	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☐ No

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

No vegetation assessed, as location is in corn field.

SOIL

Sampling Point: L1L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: L1U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): slight depression Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.740154 Long: -88.415494 Datum: WGS 1984
Soil Map Unit Name: Poygan silty clay loam NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in active farm field.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe)	
Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status																	
1.					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>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)																
2.																					
3.																					
4.																					
5.																					
6.																					
7.																					
		<u>0</u>	= Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td>x 1 =</td> </tr> <tr> <td>FACW species</td> <td>x 2 =</td> </tr> <tr> <td>FAC species</td> <td>x 3 =</td> </tr> <tr> <td>FACU species</td> <td>x 4 =</td> </tr> <tr> <td>UPL species</td> <td>x 5 =</td> </tr> <tr> <td>Column Totals:</td> <td>(A) (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A =</td> </tr> </table>	Total % Cover of:	Multiply by:	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 =	
Total % Cover of:	Multiply by:																				
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 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
		<u>0</u>	= 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? ☐ Yes ☐ No																
		<u>0</u>	= Total Cover		Remarks: (Include photo numbers here or on a separate sheet.) No vegetation assessed, as location is in corn field.																

SOIL

Sampling Point: L1U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: L3L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): slight depression Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.740122 Long: -88.415864 Datum: WGS 1984
Soil Map Unit Name: Poygan silty clay loam NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in active farm field.	

HYDROLOGY

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

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status																	
1.					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>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)																
2.																					
3.																					
4.																					
5.																					
6.																					
7.																					
		<u>0</u>	= Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td>x 1 =</td> </tr> <tr> <td>FACW species</td> <td>x 2 =</td> </tr> <tr> <td>FAC species</td> <td>x 3 =</td> </tr> <tr> <td>FACU species</td> <td>x 4 =</td> </tr> <tr> <td>UPL species</td> <td>x 5 =</td> </tr> <tr> <td>Column Totals:</td> <td>(A) (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A =</td> </tr> </table>	Total % Cover of:	Multiply by:	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 =	
Total % Cover of:	Multiply by:																				
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 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
		<u>0</u>	= 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? ☐ Yes ☐ No																
		<u>0</u>	= Total Cover		Remarks: (Include photo numbers here or on a separate sheet.) No vegetation assessed, as location is in corn field.																

SOIL

Sampling Point: L3L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (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 Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: L3U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): slight depression Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.740097 Long: -88.415863 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in active farm field.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Sapling/Shrub Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		0	= Total Cover		
Herb Stratum Plot Size:					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		0	= Total Cover		
Woody Vine Stratum Plot Size:					
1.					
2.					
3.					
4.					
		0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
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 ≤ 3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet.)

☐ Problematic Hydrophytic Vegetation¹ (Explain.)

¹Indicators 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? ☐ Yes ☐ No

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

No vegetation assessed, as location is in corn field.

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 ¹	Loc. ²		
0 - 8.5	10YR3/1	100					silt loam	
8.5 - 9.5	7.5YR4/4	100					clay	
9.5 - 11	10YR3/1	100					silt loam	
11 - 17.5	7.5YR4/4	100					clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

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

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 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.) |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: L5L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): slight depression Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.740097 Long: -88.416216 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in active farm field.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? ☒ Yes ☐ No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status	
1.					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>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2.					
3.					
4.					
5.					
6.					
7.					
		<u>0</u>	= Total Cover		Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ 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 = _____
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☐ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
		<u>0</u>	= 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.
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No
Woody Vine Stratum Plot Size:					
Herb Stratum Plot Size:					
Sapling/Shrub Stratum Plot Size:					
Tree Stratum Plot Size:					

Remarks: (Include photo numbers here or on a separate sheet.)
 No vegetation assessed, as location is in corn field.

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 ¹	Loc. ²		
0 - 6.5	10YR3/1	100					silt loam	
6.5 - 9	10YR3/1	70					silty clay loam	
	7.5YR4/4	20						
	10YR6/1	10						
9 - 15.5	7.5YR4/4	75	10YR4/6	5	D	M	silty clay	
	10YR6/1	20						
15.5 - 18	7.5YR4/4	100					clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

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

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 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.) |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: L5U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): slight depression Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.74005 Long: -88.416215 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in active farm field.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

SOIL

Sampling Point: L5U

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (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 Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: L6L
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): slight depression Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.74015 Long: -88.41644 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☒ Yes ☐ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☒ Yes ☐ No	
Wetland Hydrology Present? ☒ Yes ☐ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in active farm field.	

HYDROLOGY

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

Sampling Point: L6L

Tree Stratum		Plot Size:	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:	0 (B)
3.						Percent of Dominant Species That Are OBL, FACW, or FAC:	0% (A/B)
4.							
5.							
6.							
7.							
			0	= Total Cover			
Sapling/Shrub Stratum		Plot Size:				Prevalence Index worksheet:	
1.						Total % Cover of:	Multiply by:
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)
			0	= Total Cover		Prevalence Index = B/A =	
Herb Stratum		Plot Size:				Hydrophytic Vegetation Indicators:	
1.						☐ Rapid Test for Hydrophytic Vegetation	
2.						☐ Dominance Test is > 50%	
3.						☐ Prevalence Index is ≤ 3.0 ¹	
4.						☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.)	
5.						☐ Problematic Hydrophytic Vegetation ¹ (Explain.)	
6.						¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7.							
8.							
9.							
10.							
11.							
12.							
			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.	
Woody Vine Stratum		Plot Size:				Hydrophytic Vegetation Present?	
1.						☐ Yes	☐ No
2.							
3.							
4.							
			0	= Total Cover			

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

No vegetation assessed, as location is in corn field.

SOIL

Sampling Point: L6L

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (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 Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

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

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: USH 151/CTH V Interchange City/County Fond du Lac / Fond du Lac Sampling Dat 6/27/2014
Applicant/Owner: WisDOT State: WI Sampling Point: L6U
Investigator(s): Don Brittnacher Section, Township, Range: Sec. 25, T 15 N, R 17 E
Landform (hillslope, terrace, etc.): slight depression Local relief (concave, convex, none): slight slope to Slope (%):
Subregion (LRR or MLRA): K / 95A Lat: 43.740101 Long: -88.416438 Datum: WGS 1984
Soil Map Unit Name: Manawa silty clay loam, 2 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? ☒ Yes ☐ No (If no, explain in Remarks.)
Are Vegetation: ☒ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? ☒ Yes ☐ No
Are Vegetation: ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No	Is the Sampled Area Within a Wetland? ☐ Yes ☒ No If yes, optional Wetland Site ID:
Hydric Soil Present? ☐ Yes ☒ No	
Wetland Hydrology Present? ☐ Yes ☒ No	
Remarks: (Explain alternative procedures here or in a separate report.) Location in active farm field.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? ☐ Yes ☒ No Depth (inches): _____ Water Table Present? ☐ Yes ☒ No Depth (inches): _____ Saturation Present? ☐ Yes ☒ No Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? ☐ Yes ☒ No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Tree Stratum	Plot Size:	Absolute % Cover	Dominant Species?	Indicator Status																			
1.					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>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)																		
2.																							
3.																							
4.																							
5.																							
6.																							
7.																							
		<u>0</u>	= Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u> </u></td> <td>x 1 = <u> </u></td> </tr> <tr> <td>FACW species <u> </u></td> <td>x 2 = <u> </u></td> </tr> <tr> <td>FAC species <u> </u></td> <td>x 3 = <u> </u></td> </tr> <tr> <td>FACU species <u> </u></td> <td>x 4 = <u> </u></td> </tr> <tr> <td>UPL species <u> </u></td> <td>x 5 = <u> </u></td> </tr> <tr> <td>Column Totals: <u> </u></td> <td>(A) <u> </u> (B) <u> </u></td> </tr> <tr> <td colspan="2"></td> <td colspan="2">Prevalence Index = B/A = <u> </u></td> </tr></table>	Total % Cover of:	Multiply by:	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) <u> </u>			Prevalence Index = B/A = <u> </u>	
Total % Cover of:	Multiply by:																						
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) <u> </u>																						
		Prevalence Index = B/A = <u> </u>																					
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☐ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet.) ☐ Problematic Hydrophytic Vegetation ¹ (Explain.) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																		
1.																							
2.																							
3.																							
4.																							
5.																							
6.																							
7.																							
		<u>0</u>	= 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.																		
8.																							
9.																							
10.																							
11.																							
12.																							
		<u>0</u>	= Total Cover																				
		<u>0</u>	= Total Cover		Hydrophytic Vegetation Present? ☐ Yes ☐ No																		
1.																							
2.																							
3.																							
		<u>0</u>	= Total Cover																				

Remarks: (Include photo numbers here or on a separate sheet.)
 No vegetation assessed, as location is in corn field.

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 ¹	Loc. ²		
0 - 9	10YR3/2	100					silt loam	
9 - 16.5	7.5YR4/4	100					clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (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 Soils³:

- ☐ 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.)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

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

