IH 94 Wetland Delineation
Milwaukee County

DOT Project I.D. 1030-20-08

April 2017

Prepared for

Wisconsin Department of Transportation
Southeast Region
141 Northwest Barstow St.
Waukesha, WI 53187

Prepared by

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Project No.: 2016-0061.15

CONTENTS

APPENDICES

1.0 INTRODUCTION

Per the request of the Wisconsin Department of Transportation (WisDOT), GRAEF conducted a wetland delineation within a designated Study Area primarily located along IH 94 extending just north of West Oakwood Road in the north to West County Line Road in the south, in the City of Oak Creek, Milwaukee County, Wisconsin (Figure 1, Appendix A).

The purpose of this wetland delineation was to determine the current location and extent of wetlands located within designated Study Areas. Our study is presented here in terms of methodology, results, and conclusions.

The wetland delineation field investigation was conducted by GRAEF scientists Mike Al-wathiqui and Geoffrey B. Parish on November 10, 11, 14 and 16, 2016. A Statement of Qualifications on the field investigators is provided in Appendix I.

2.0 METHODS

This delineation was conducted in accordance with the guidelines of the Corps of Engineers Wetland Delineation Manual (Environmental Laboratory, 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0, 2010), the Corps of Engineers and the Wisconsin Department of Natural Resources guidance on delineation reports (2015), the Wisconsin Department of Natural Resources guidelines (WI Department of Administration, WI Coastal Management Program, 1995) and Wisconsin Department of Transportation Wetland Mitigation Banking Technical Guidelines (1993). National Wetland Indicator status and taxonomic nomenclature is referenced from The National Wetland Plant List (Lichvar et al., 2016). National Wetland Indicator status is based on the Midwest Region.

Prior to conducting fieldwork, GRAEF scientists reviewed several maps including the United States Geological Survey (USGS) 7.5' Quadrangle maps, Wisconsin Wetland Inventory Map, Natural Resource Conservation Service (NRCS) Soil Survey Map, and aerial photographs. *Note: NRCS no longer releases their NRCS Wetland Inventory Maps to other than the landowner or operator without documented permission from the landowner or operator; therefore, they were not reviewed nor are they included with this report.*

Precipitation data from approximately 90 days prior to the field investigation was obtained from a weather station near the Study Area and compared with 30-year average precipitation data obtained from an NRCS WETS Table for the County where the Study Area was located to determine if antecedent hydrologic conditions at the time of the site visit were normal for the time of the year.

Sampling points were located in areas exhibiting wetland and upland characteristics to document the presence and/or absence of wetlands and to provide support for the delineated wetland boundaries. At each sampling point, data were collected to document the vegetation, soils, and indicators of wetland

hydrology. The wetland boundaries were staked using wire pin flags and when needed flagging tape. Wetland boundaries were generally determined by distinct to subtle differences in the abundance of hydrophytic vegetation and upland vegetation, apparent topographic breaks, and regular probing of soils.

A Farm Service Agency (FSA) crop slide review was conducted for agricultural areas having been farmed within recent years. The crop slide review was conducted using the guidelines described in the Hydrology Tools for Wetland Determination, Engineering Field Handbook, Chapter 19 (USDA Natural Resources Conservation Service, 1997). Slides were thoroughly examined for wetness signatures using the NRCS-CPA-32W form.

A Floristic Quality Assessment (FQA) for each wetland was conducted using the guidelines described in Development of a Floristic Quality Assessment for Wisconsin (Bernthal, 2003) as adopted and amended from the Plants of the Chicago Region (Swink and Wilhelm, 1994). A meander survey was performed for each wetland area to identify and document all vascular plant species present and identifiable at the time of the site visit. Based on the data collected, mean C and Floristic Quality Index (FQI) values were calculated using coefficients of conservatism values made available by the University of Wisconsin-Madison Herbarium's "Checklist of the Vascular Plants of Wisconsin".

3.0 RESULTS AND DISCUSSION

3.1 BACKGROUND REVIEW

3.1.1 Topography

Topography of the Study Area generally consists of high elevations adjacent the roadway on hills through which this section of IH 94 has been cut. Low elevations occur in roadside swales at the base of the embankment of IH 94.

3.1.2 Wisconsin Wetland Inventory

The Wisconsin Wetland Inventory (WWI) map (Figure 2, Appendix A) depicted 17 wetlands within the Study Area. The types of wetland shown on the WWI map are listed in Table 1 below.

Table 1. Mapped WWI Wetland Types

Map Unit Symbol	Description
E1K	Emergent Persistent, Wet Soil, Palustrine
E1Ka	Emergent Persistent, Wet Soil, Palustrine, abandoned
E2K	Emergent, Narrow-Leaved, Persistent, Wet Soil, Palustrine

E2Ka	Emergent, Narrow-Leaved, Persistent, Wet Soil, Palustrine, abandoned
S3K	Shrub Scrub, Broad-Leaved, Deciduous, Wet Soil, Palustrine
S3/E2K	Shrub Scrub, Broad-Leaved, Deciduous / Emergent, Narrow-Leaved, Wet Soil, Palustrine
T3K	Forested, Broad-Leaved, Deciduous, Wet Soil, Palustrine
T3/E1K	Forested, Broad-Leaved, Deciduous / Emergent Persistent, Wet Soil, Palustrine
T3/E2K	Forested, Broad-Leaved, Deciduous / Emergent, Narrow-Leaved, Persistent, Wet Soil, Palustrine

3.1.3 Soils

According to the NRCS Soil Survey map (Figure 3, Appendix A) 15 mapped soil units are located within the Study Area. The types of mapped soils are listed on Table 2 below.

Table 2. Mapped Soils

Map Unit Symbol	Taxonomic Classification	Hydric Classification
Am Alluvial land	None	Hydric Inclusions
AsA Ashkum silty clay loam, 0 to 2 percent slopes	Typic Endoaquolls	Hydric
BlA Blount silt loam, 1 to 3 percent slopes	Aeric Epiaqualfs	Hydric Inclusions
Cv Clayey land	None	Non Hydric
FoB Fox loam, 2 to 6 percent slopes	Typic Hapludalfs	Non Hydric
FrA Fox loam, clayey substratum, 0 to 2 percent slopes	Typic Hapludalfs	Non Hydric
FsB Fox silt loam, 2 to 6 percent slopes	Typic Hapludalfs	Non Hydric
FtB Fox silt loam, loamy substratum, 2 to 6 percent slopes	Typic Hapludalfs	Non Hydric
GrB Grays silt loam, 2 to 6 percent slopes	Oxyaquic Hapludalfs	Non Hydric

HeA Hebron loam, 0 to 2 percent slopes	Oxyaquic Hapludalfs	Non Hydric
MzdB Morley silt loam, 2 to 6 percent slopes	Oxyaquic Hapludalfs	Non Hydric
MzdB2 Morley silt loam, 2 to 6 percent slopes, eroded	Oxyaquic Hapludalfs	Non Hydric
MzdC2 Morley silt loam, 6 to 12 percent slopes, eroded	Oxyaquic Hapludalfs	Non Hydric
PrA Pistakee silt loam, 1 to 3 percent slopes	Aquic Udifluvents	Hydric Inclusions
Sg Sawmill silt loam, calcareous variant	Cumulic Endoaquolls	Hydric

3.1.4 Precipitation Data.

The WETS analysis worksheet is provided in Appendix B. According to the USDA eFOTG Database, the total precipitation from a nearby weather station MILWAUKEE MITCHELL AP, WI839 for the 14 days prior to the site visit was 0.53 inches. The most recent rainfall event prior to the site visits was 0.52 inches, which occurred on November 2. The total precipitation for the 90 days prior to the month of November was approximately 11.45 inches, which was 1.65 inches above a 30-year average. The precipitation data for the 90-day period preceding the month of November were entered into a WETS analysis worksheet to determine antecedent hydrologic conditions at the time of the site visit for field investigation purposes. Based on this analysis, the precipitation total for the 90 days prior to the site visits was considered above average, suggesting that the surface or near-surface hydrology at the time of the site visit was not normal and that hydrologic conditions during the site visit were not typical.

3.1.5 FSA Crop Slide Review

A Farm Service Agency (FSA) crop slide review was conducted to further examine the farmed fields located within the Study Area. Aerial slides and digital images ranging from 1980-2014 were examined by Mike Al-wathiqui on November, 15 2016. Electronic copies of slides during years having normal precipitation (1980, 1981, 1982, 1983, 1984, 1987, 1991, 1993, 1995, 1996, 1998, 2000, 2001, 2002, 20005, 2006, 2007, 2008 and 2011), along with dry years (1985, 1988, 1989, 1992, 1994, 1997, 2010 and 2014) and wet years (1986, 1990 and 1999) are included on a CD attached to this report. The review forms based on the NRCS-CPA-32W form are included in Appendix C.

Area A displayed wetness signatures 100% (19 out of 19) of the years that normal rainfall was reported. Additionally, the wetness signature in this area is visible 100% (30 out of 30) of all of the years reviewed regardless of rainfall.

Area B displayed wetness signatures 21% (4 out of 19) of the years that normal rainfall was reported. Additionally, the wetness signature in this area is visible 20% (6 out of 30) of all of the years reviewed regardless of rainfall.

Area C displayed wetness signatures 5% (1 out of 19) of the years that normal rainfall was reported. Additionally, the wetness signature in this area is visible 3% (1 out of 30) of all of the years reviewed regardless of rainfall.

Area D displayed wetness signatures 58% (11 out of 19) of the years that normal rainfall was reported. Additionally, the wetness signature in this area is visible 50% (15 out of 30) of all of the years reviewed regardless of rainfall.

Area E displayed wetness signatures 21% (4 out of 19) of the years that normal rainfall was reported. Additionally, the wetness signature in this area is visible 33% (10 out of 30) of all of the years reviewed regardless of rainfall.

Area F displayed wetness signatures 68% (13 out of19) of the years that normal rainfall was reported. Additionally, the wetness signature in this area is visible 60% (18 out of 30) of all of the years reviewed regardless of rainfall.

3.2 FIELD STUDY

3.2.1 Site Description

The Study Area is primarily located along IH 94 extending just north of West Oakwood Road in the north to West County Line Road in the south, in the City of Oak Creek, Milwaukee County, Wisconsin. Topography of the Study Area generally consists of high elevations adjacent the roadway on hills through which this section of IH 94 has been cut. Low elevations occur in roadside swales at the base of the embankment of IH 94.

3.2.2 Wetlands

Twenty wetlands ((W10-5, W10-5a, W10-7, W11-2, W11-3, W11-3a, W11-3b, W11-10a, W11-10b, W11-14, W11-15 and W-1 through W-9)) were delineated. The delineated wetland boundaries and data points are shown on maps (Exhibit 1-1 through 1-5) in Appendix D. Photographs were taken at each data point and other notable locations (Appendix E). Wetland determination data forms from the 2009 delineations are in Appendix F. Data was collected 2016 and was recorded on Wetland Determination Data Forms at 51 data points to document wetland and upland locations (Appendix G). Plant lists from wetlands delineated in 2009 that were verified in 2016 are in Appendix H. Plant lists from wetlands delineated in 2016 are in Appendix I.

Table 3, Appendix J provides a detailed summary of each delineated wetland. The table provides, for each wetland, data on the name, size, C-value, FQI value, wetland sample points, adjacent upland sample points, mapped WWI wetlands, wetland plant community descriptions, dominant wetland vegetation, adjacent upland vegetation, mapped wetland soils and classifications, observed hydric soil field indicators, observed hydrology indicators, comments on apparent connectivity to surface waters, comments on how wetland boundaries were determined, and other general comments.

4.0 CONCLUSION

Based on the wetlands delineation completed by GRAEF 20 wetlands (W10-5, W10-5a, W10-7, W11-2, W11-3, W11-3a, W11-3b, W11-10a, W11-10b, W11-14, W11-15 and W-1 through W-9) were delineated with a total of 18.15 acres. One waterway, the Root River, was also identified and mapped.

Activity in delineated wetlands or waterways may require permits from the U.S. Army Corps of Engineers, Wisconsin Department of Natural Resources, and local governments prior to beginning any work.

5.0 LIMITATIONS

The results of this field study are based on site conditions at the time of the field study, which was conducted in accordance with current regulatory policy and methods. Unknown and future conditions that affect observations of field indicators, and change in interpretation of regulatory policy, may modify future findings.

Statements within this report about the connectivity of the delineated wetlands to surface waters are the professional opinions of GRAEF's scientists and are not significant nexus determinations or jurisdictional determinations. Opinions on connectivity are based on general field observations and a cursory review available map resources. The ultimate authority to determine jurisdiction resides with the U.S. Army Corps of Engineers and the Wisconsin Department of Natural Resources.

The U.S. Army Corps of Engineers and the Wisconsin Department of Natural Resources have the ultimate authority to determine wetland boundaries, and adjustments to wetland boundaries may occur based on decisions made by these regulatory agencies.

6.0 REFERENCES

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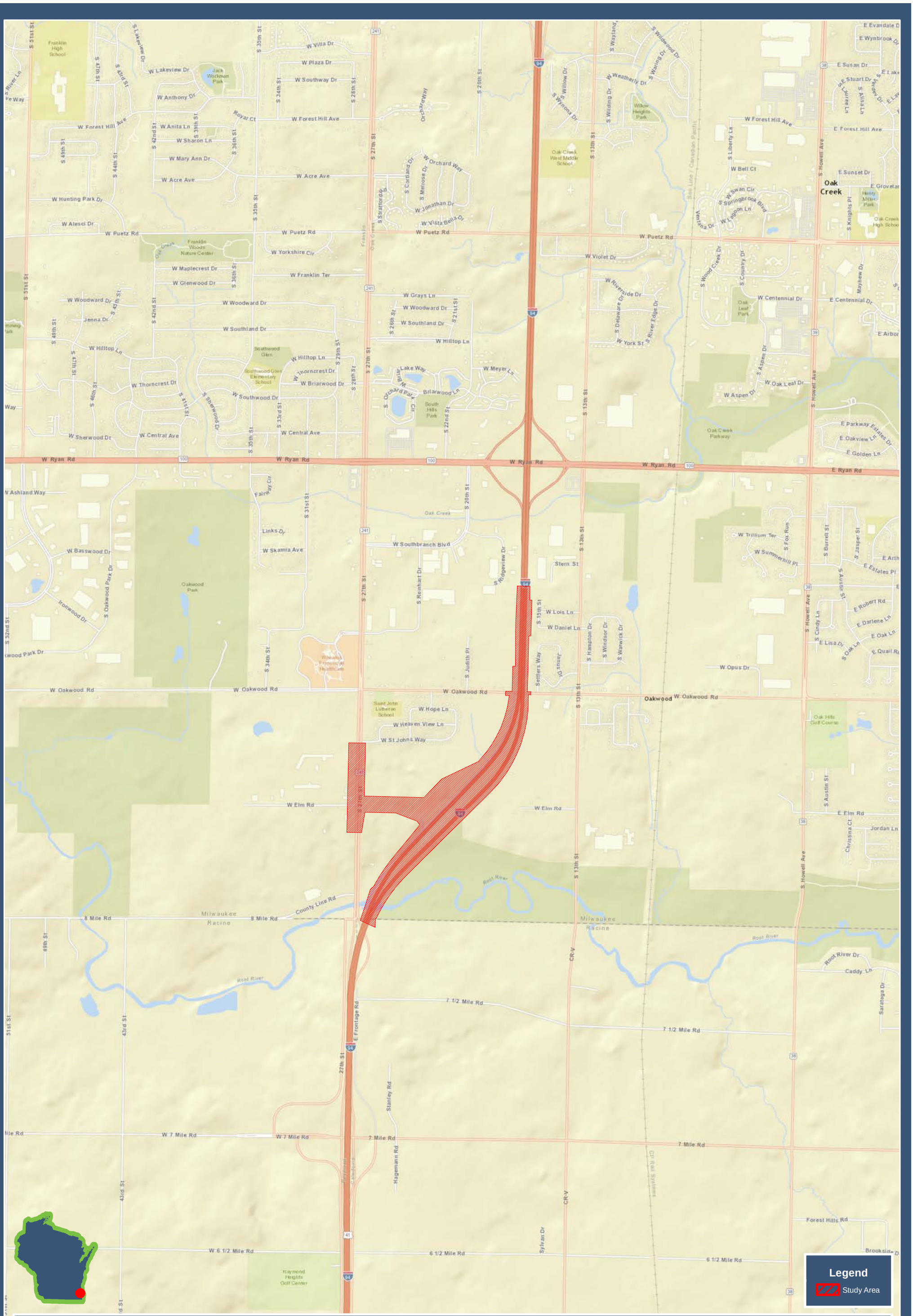
APPENDICES

APPENDIX A

Figures



SITE LOCATION MAP

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #1

GRAEF

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WISCONSIN WETLAND INVENTORY

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #2-1

GRAEF

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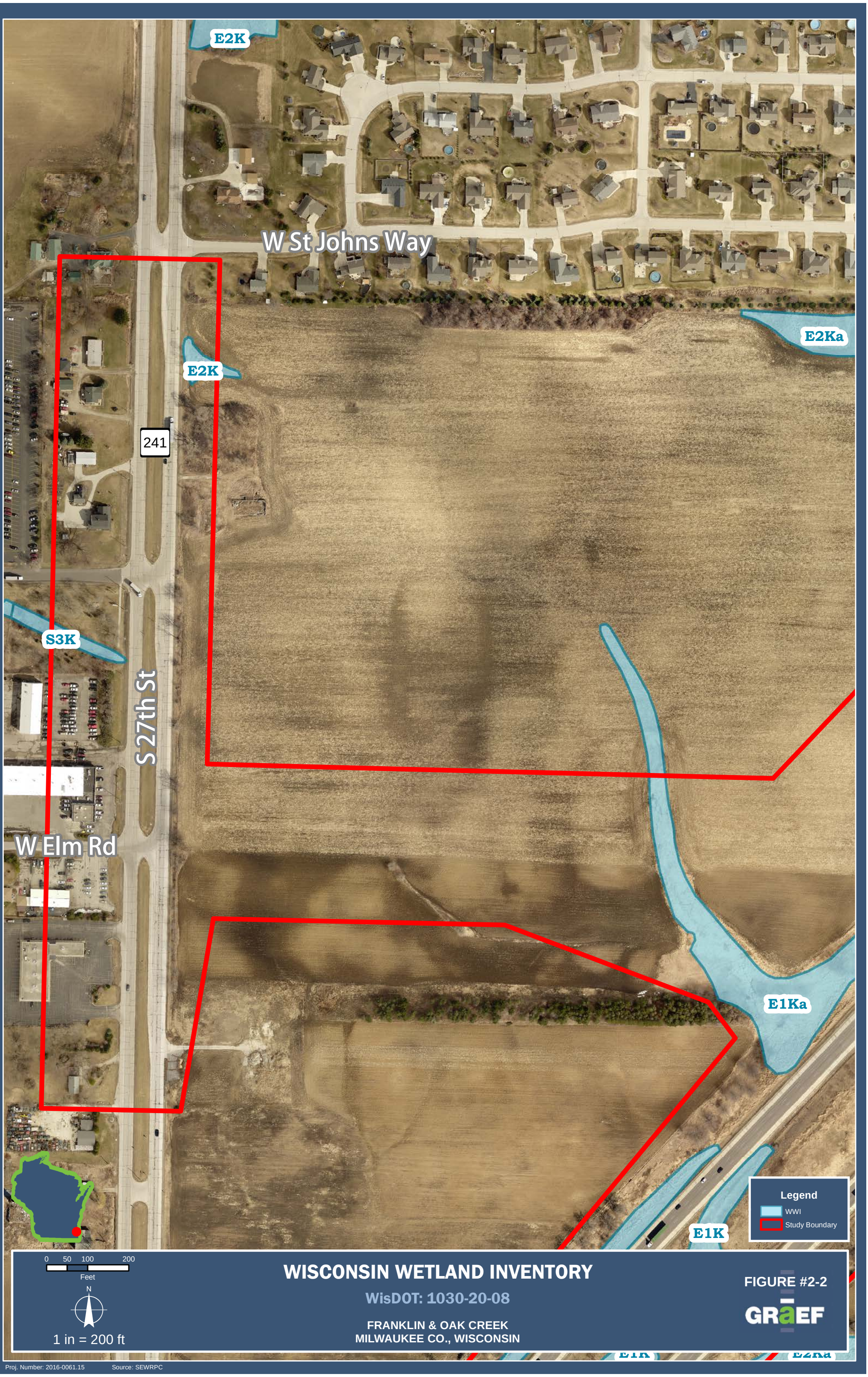

WISCONSIN WETLAND INVENTORY

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #2-2

GRAEF

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WISCONSIN WETLAND INVENTORY

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #2-3

GRAEF

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WISCONSIN WETLAND INVENTORY

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #2-4

GRAEF

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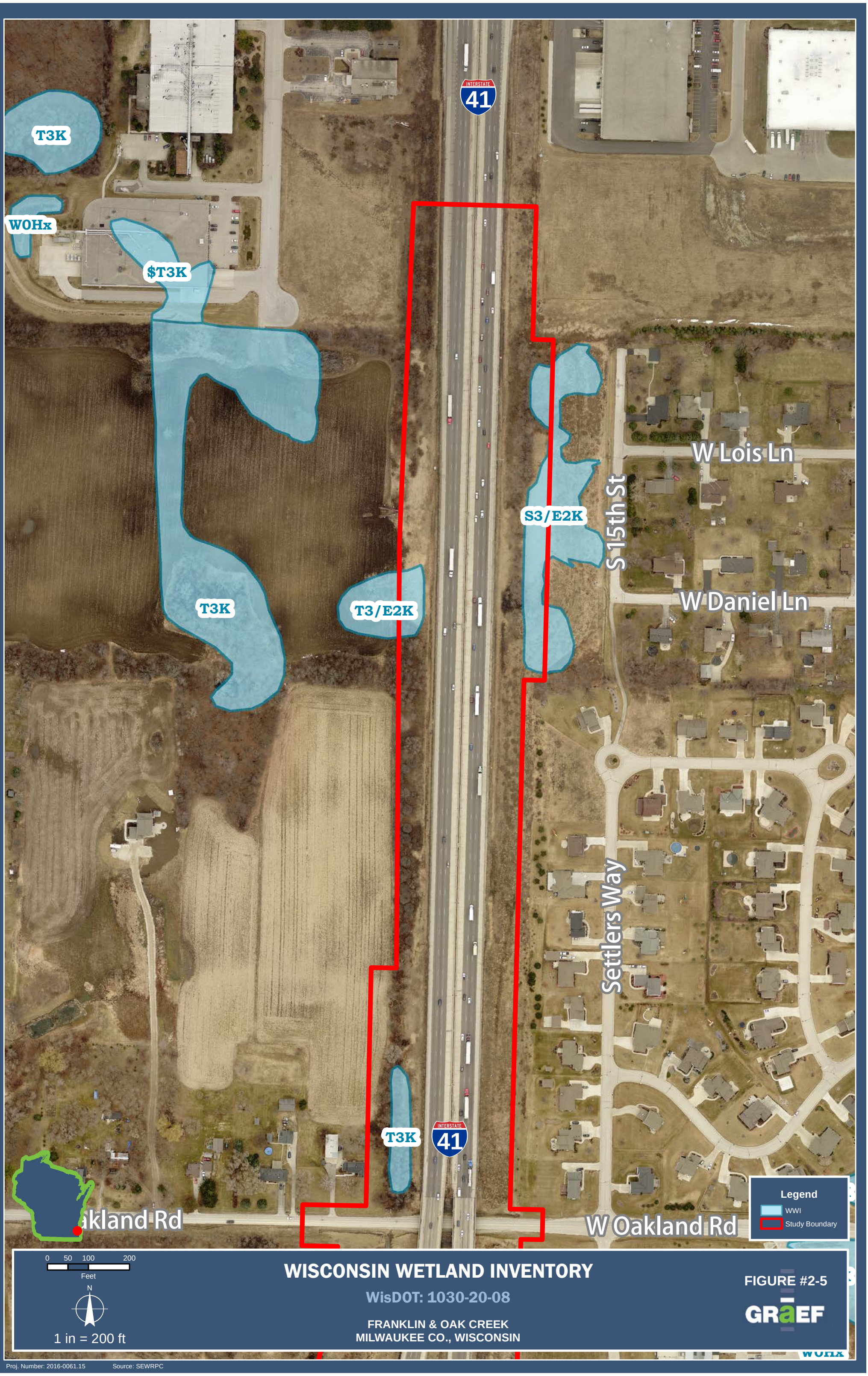

WISCONSIN WETLAND INVENTORY

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #2-5

GRAEF

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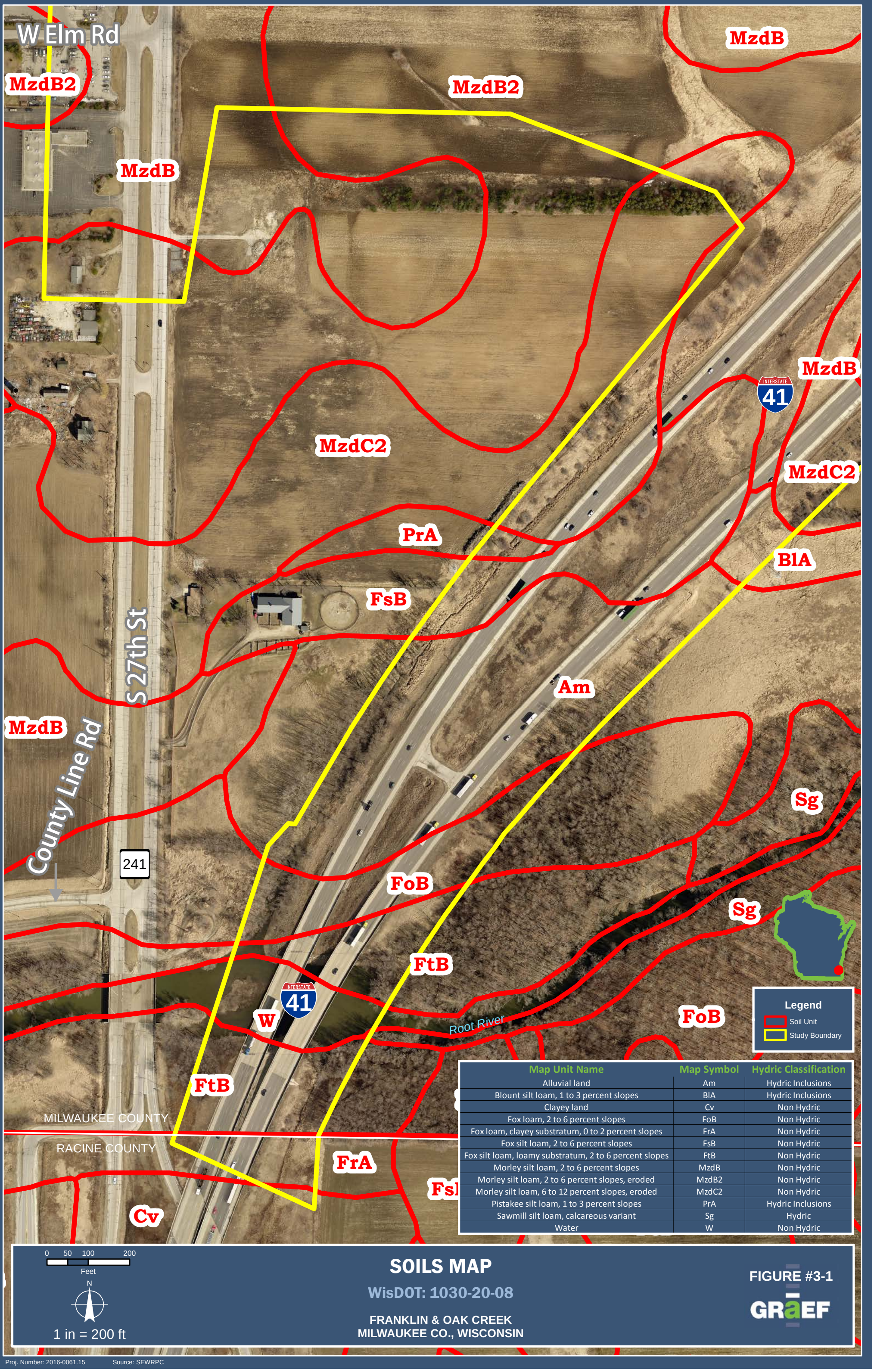

Map Unit Name	Map Symbol	Hydric Classification
Alluvial land	Am	Hydric Inclusions
Blount silt loam, 1 to 3 percent slopes	BlA	Hydric Inclusions
Clayey land	Cv	Non Hydric
Fox loam, 2 to 6 percent slopes	FoB	Non Hydric
Fox loam, clayey substratum, 0 to 2 percent slopes	FrA	Non Hydric
Fox silt loam, 2 to 6 percent slopes	FsB	Non Hydric
Fox silt loam, loamy substratum, 2 to 6 percent slopes	FtB	Non Hydric
Morley silt loam, 2 to 6 percent slopes	MzdB	Non Hydric
Morley silt loam, 2 to 6 percent slopes, eroded	MzdB2	Non Hydric
Morley silt loam, 6 to 12 percent slopes, eroded	MzdC2	Non Hydric
Pistakee silt loam, 1 to 3 percent slopes	PrA	Hydric Inclusions
Sawmill silt loam, calcareous variant	Sg	Hydric
Water	W	Non Hydric

SOILS MAP

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #3-1

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Map Unit Name	Map Symbol	Hydric Classification
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Morley silt loam, 2 to 6 percent slopes	MzdB	Non Hydric
Morley silt loam, 2 to 6 percent slopes, eroded	MzdB2	Non Hydric
Morley silt loam, 6 to 12 percent slopes, eroded	MzdC2	Non Hydric

Legend
- Soil Unit
- Study Boundary

W St Johns Way

S 27th St

W Elm Rd

241

INTERSTATE 41

0 50 100 200
Feet

N

1 in = 200 ft

SOILS MAP

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #3-2

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MzdB
MzdB
BlA
MzdB
HeA
JuA
AsA
MzdB
MzdC2
BlA
MzdB
MzdB2
MzdB
MzdC2
MzdB2
BlA

Map Unit Name	Map Symbol	Hydric Classification
Ashkum silty clay loam, 0 to 2 percent slopes	AsA	Hydric
Blount silt loam, 1 to 3 percent slopes	BlA	Hydric Inclusions
Hebron loam, 0 to 2 percent slopes	HeA	Non Hydric
Morley silt loam, 2 to 6 percent slopes	MzdB	Non Hydric
Morley silt loam, 2 to 6 percent slopes, eroded	MzdB2	Non Hydric
Morley silt loam, 6 to 12 percent slopes, eroded	MzdC2	Non Hydric

Legend
Soil Unit
Study Boundary

0 50 100 200
Feet
N
1 in = 200 ft

SOILS MAP

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #3-3

GRAEF

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Map Unit Name	Map Symbol	Hydric Classification
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Blount silt loam, 1 to 3 percent slopes	BlA	Hydric Inclusions
Grays silt loam, 2 to 6 percent slopes	GrB	Non Hydric
Hebron loam, 0 to 2 percent slopes	HeA	Non Hydric
Morley silt loam, 2 to 6 percent slopes	MzdB	Non Hydric

Legend

- Soil Unit
- Study Boundary

BlA
MzdB
BlA
Settlers Way
MzdB
GrB
INTERSTATE 41
MzdB
W Oakland Rd
W Oakland Rd
BlA
MzdB
AsA
HeA
AsA
INTERSTATE 41
BlA

0 50 100 200
Feet

N

1 in = 200 ft

SOILS MAP

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #3-4

GRAEF

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Grays silt loam, 2 to 6 percent slopes	GrB	Non Hydric
Morley silt loam, 2 to 6 percent slopes	MzdB	Non Hydric
Morley silt loam, 2 to 6 percent slopes, eroded	MzdB2	Non Hydric

Legend

- Soil Unit
- Study Boundary

AsA
MzdB
MzdB2
MzdB
BlA
BlA
MzdB
MzdB
BlA
GrB
MzdB
MzdB
BlA

INTERSTATE 41

W Lois Ln
S 15th St
W Daniel Ln
Settlers Way
W Oakland Rd
W Oakland Rd

0 50 100 200
Feet

N

1 in = 200 ft

SOILS MAP

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #3-5

GRAEF

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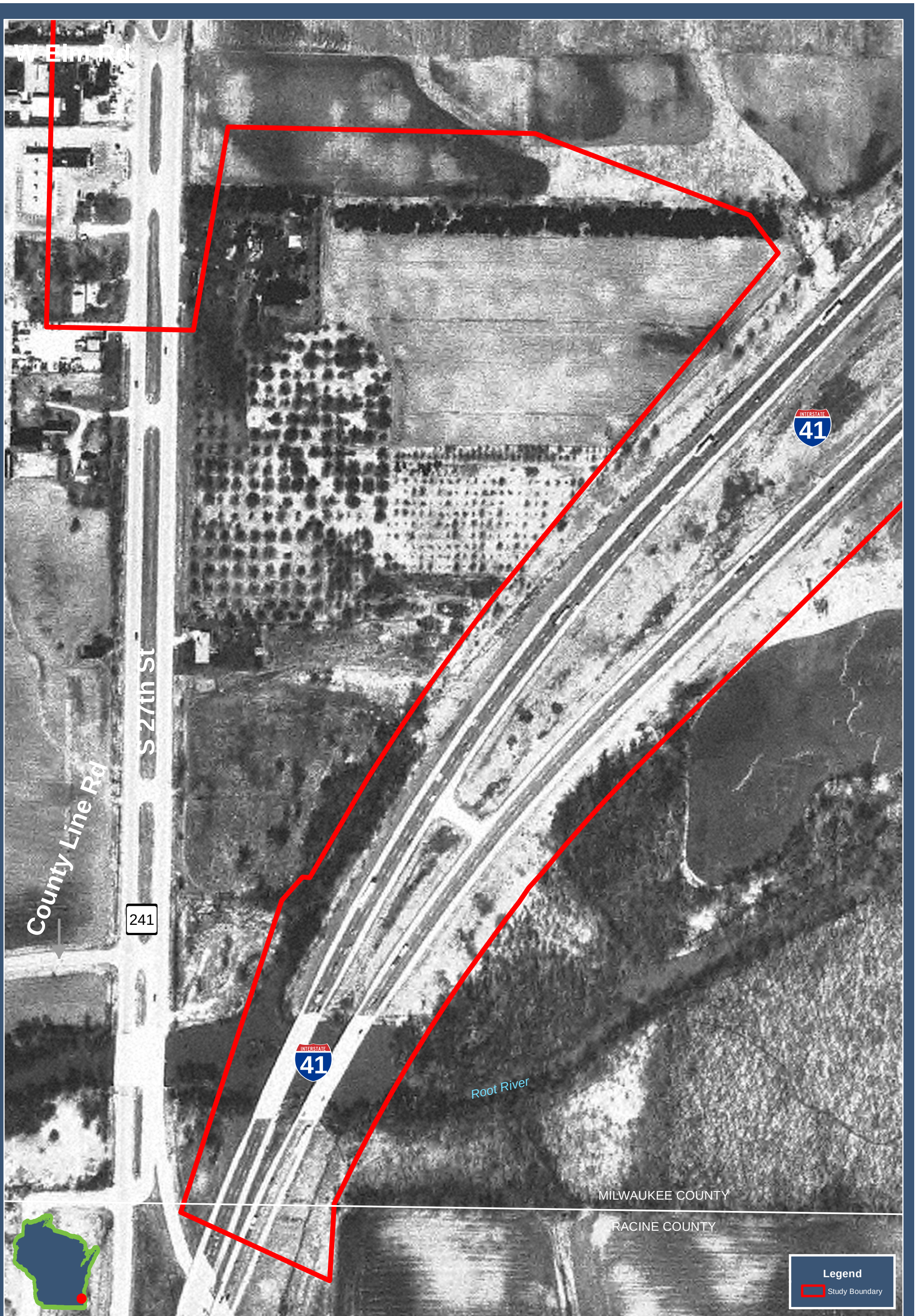

1995 AERIAL

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #4-1

GRAEF

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1995 AERIAL

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #4-2

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1995 AERIAL

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #4-3

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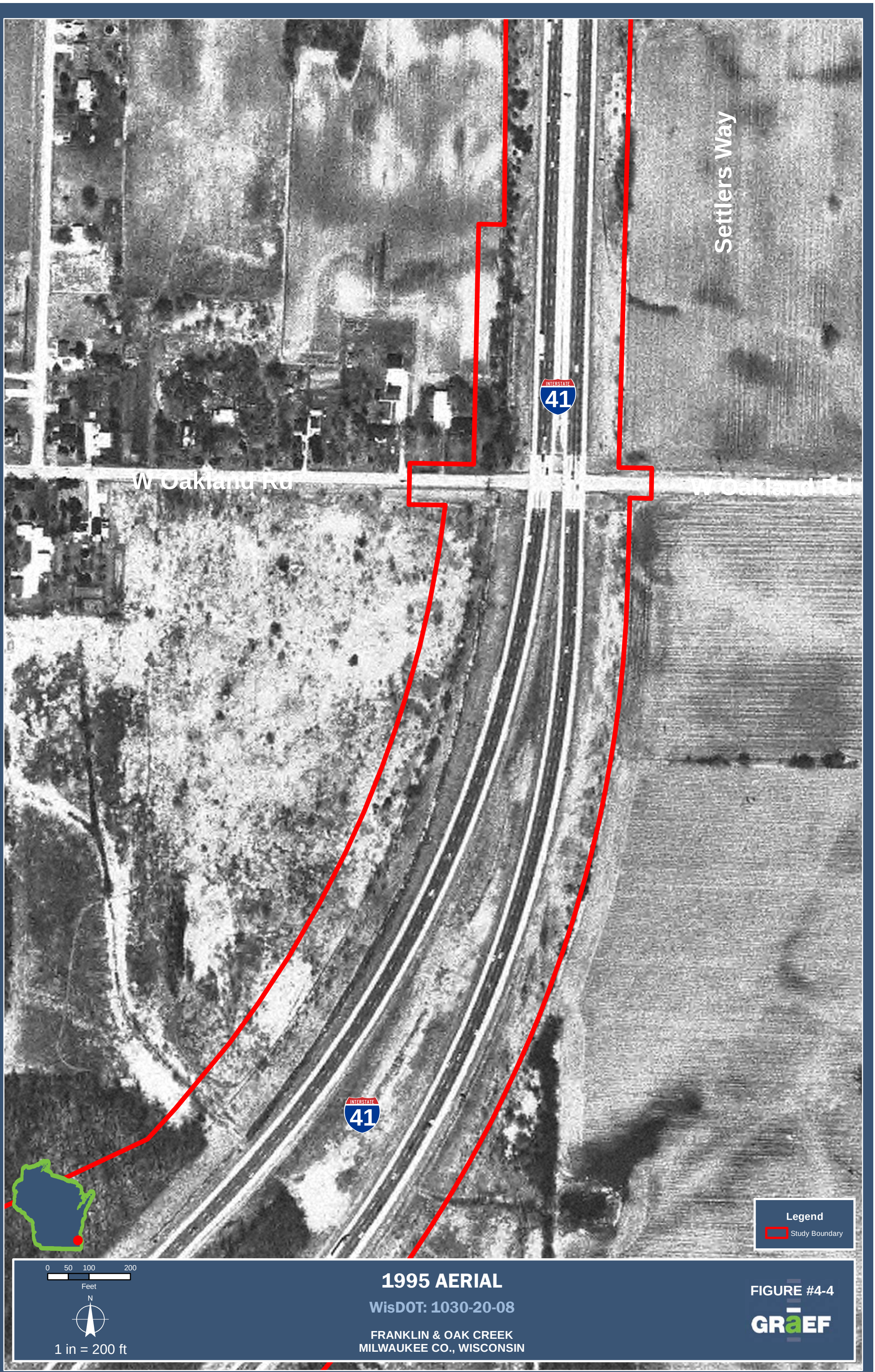

1995 AERIAL

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #4-4

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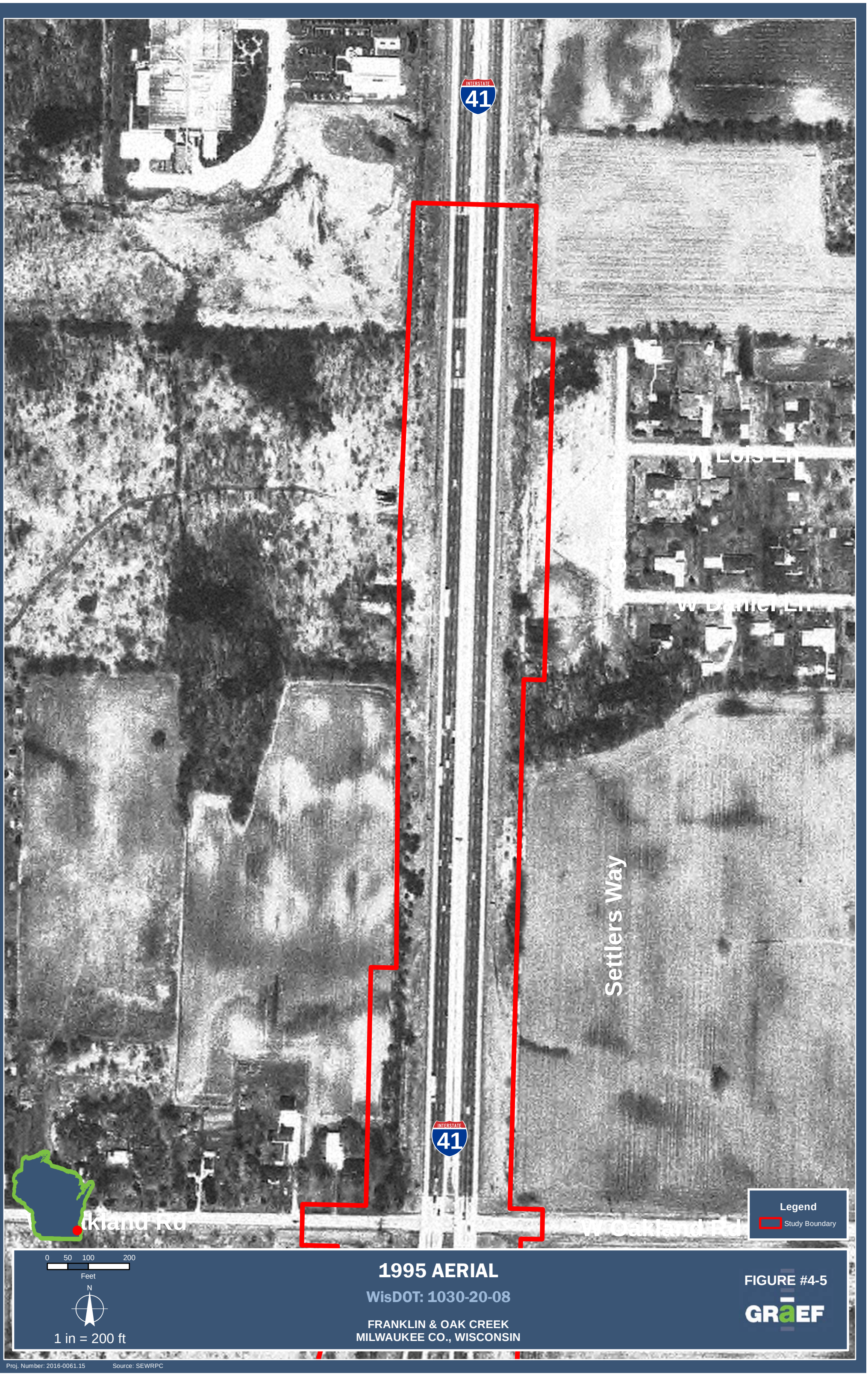

1995 AERIAL

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #4-5

GRAEF

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Proj. Number: 2016-0061.15
Source: SEWRPC

2000 AERIAL

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #5-1

GRAEF

Path: X:\MKL\2016\2016061-15\GIS\Map\2000_Aerial.mxd
Date Saved: 2/24/2017 9:56:32 AM
User: 1871

Proj. Number: 2016-0061.15
Source: SEWRPC

W St Johns Way

241

S 27th St

W Elm Rd

Legend

Study Boundary

0 50 100 200

Feet

N

1 in = 200 ft

2000 AERIAL

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #5-2

GRAEF

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Date Saved: 2/24/2017 9:56:32 AM

User: 1871

Proj. Number: 2016-0061.15

Source: SEWRPC

2000 AERIAL

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #5-3

GRAEF

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Proj. Number: 2016-0061.15
Source: SEWRPC

2000 AERIAL

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #5-4

GRAEF

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Proj. Number: 2016-0061.15
Source: SEWRPC

2000 AERIAL

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #5-5

GRAEF

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Date Saved: 2/24/2017 9:56:32 AM
User: 1871

Proj. Number: 2016-0061.15
Source: SEWRPC

W Elm Rd

S 27th St

County Line Rd

241

INTERSTATE 41

INTERSTATE 41

Root River

MILWAUKEE COUNTY

RACINE COUNTY

Legend

Study Boundary

0 50 100 200

Feet

N

1 in = 200 ft

2005 AERIAL

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #6-1

GRAEF

Path: X:\ML\2016\20160061-15\GIS\Map\2005_Aerial.mxd

Date Saved: 2/24/2017 9:53:24 AM

User: 1871

Proj. Number: 2016-0061.15

Source: SEWRPC

2005 AERIAL

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #6-2

GRAEF

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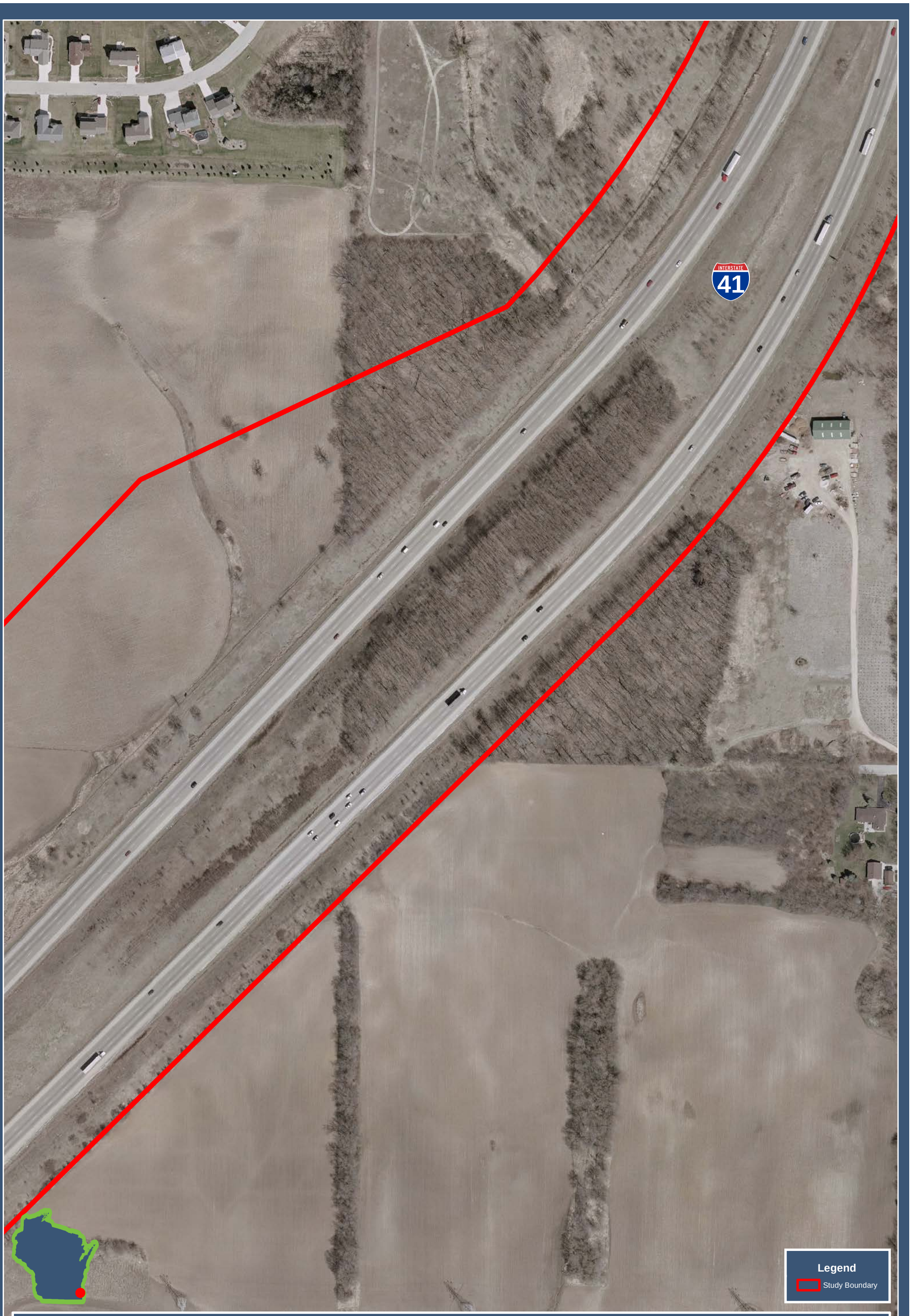
User: 1871

Proj. Number: 2016-0061.15
Source: SEWRPC



Legend

Study Boundary

0 50 100 200

Feet

N

1 in = 200 ft

2005 AERIAL

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #6-3

GRAEF

Path: X:\ML\2016\20160061-15\GIS\Map\2005_Aerial.mxd

Date Saved: 2/24/2017 9:53:24 AM

User: 1871

Proj. Number: 2016-0061.15

Source: SEWRPC

2005 AERIAL

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #6-4

GRAEF

Path: X:\ML\2016\2016061-15\GIS\Map\2005_Aerial.mxd
Date Saved: 2/24/2017 9:53:24 AM
User: 1871

Proj. Number: 2016-0061.15
Source: SEWRPC

INTERSTATE 41

W Lois Ln

S 15th St

W Daniel Ln

Settlers Way

W Oakland Rd

INTERSTATE 41

Legend

Study Boundary

0 50 100 200

Feet

N

1 in = 200 ft

2005 AERIAL

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #6-5

GRAEF

Path: X:\IML\2016\20160061-15\GIS\Map\2005_Aerial.mxd

Date Saved: 2/24/2017 9:53:24 AM

User: 1871

Proj. Number: 2016-0061.15

Source: SEWRPC

W Elm Rd

S 27th St

County Line Rd

241

INTERSTATE 41

INTERSTATE 41

Root River

MILWAUKEE COUNTY

RACINE COUNTY

Legend

Study Boundary

0 50 100 200

Feet

N

1 in = 200 ft

2010 AERIAL

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #7-1

GRAEF

Path: X:\ML\2016\2016060061-15\GIS\Map\2010_Aerial.mxd

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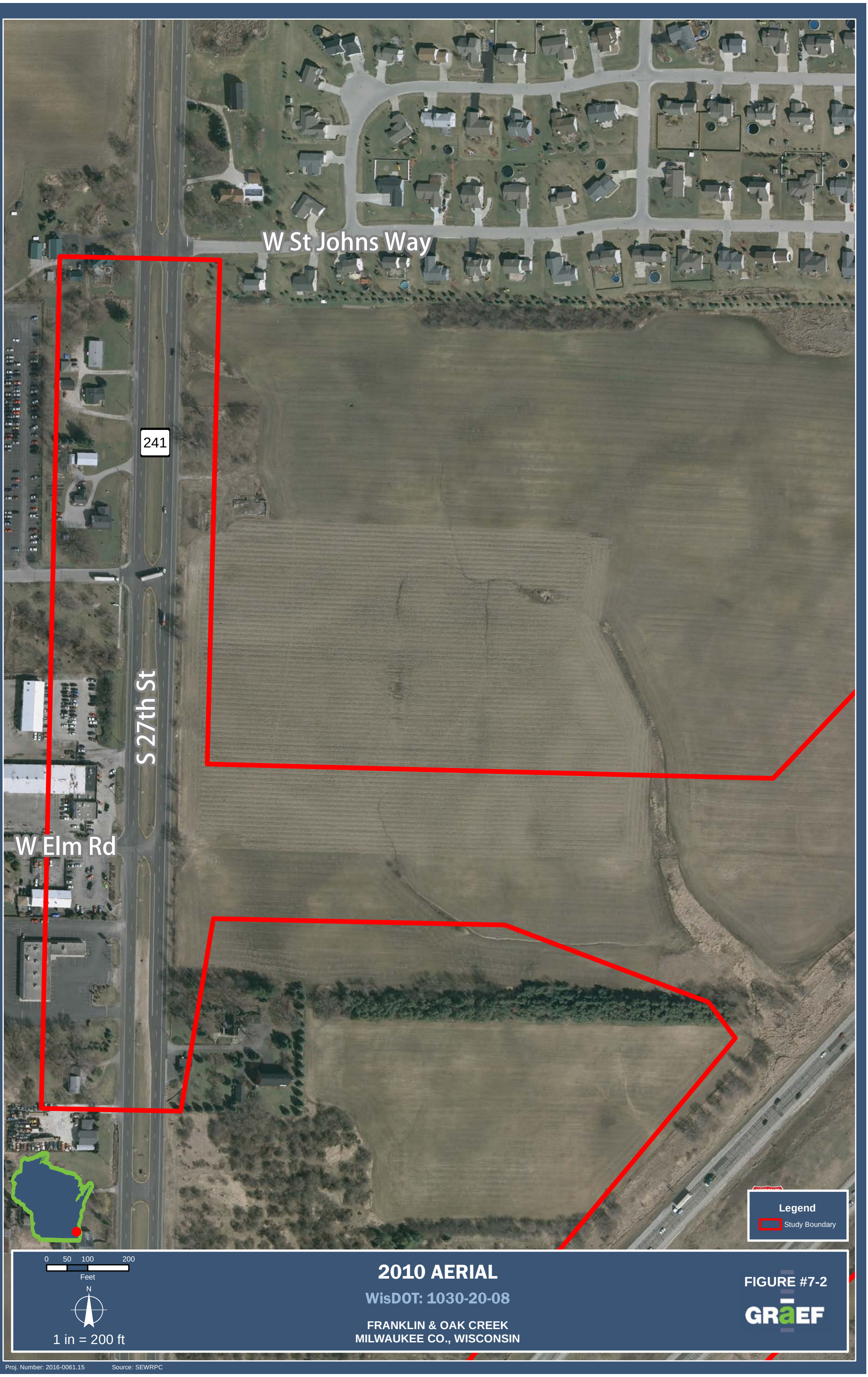
User: 1871

Proj. Number: 2016-0061.15

Source: SEWRPC



2010 AERIAL

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #7-2

GRAEF

Path: X:\ML\2016\2016060061-15\GIS\Map\2010_Aerial.mxd
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User: 1871

Proj. Number: 2016-0061.15
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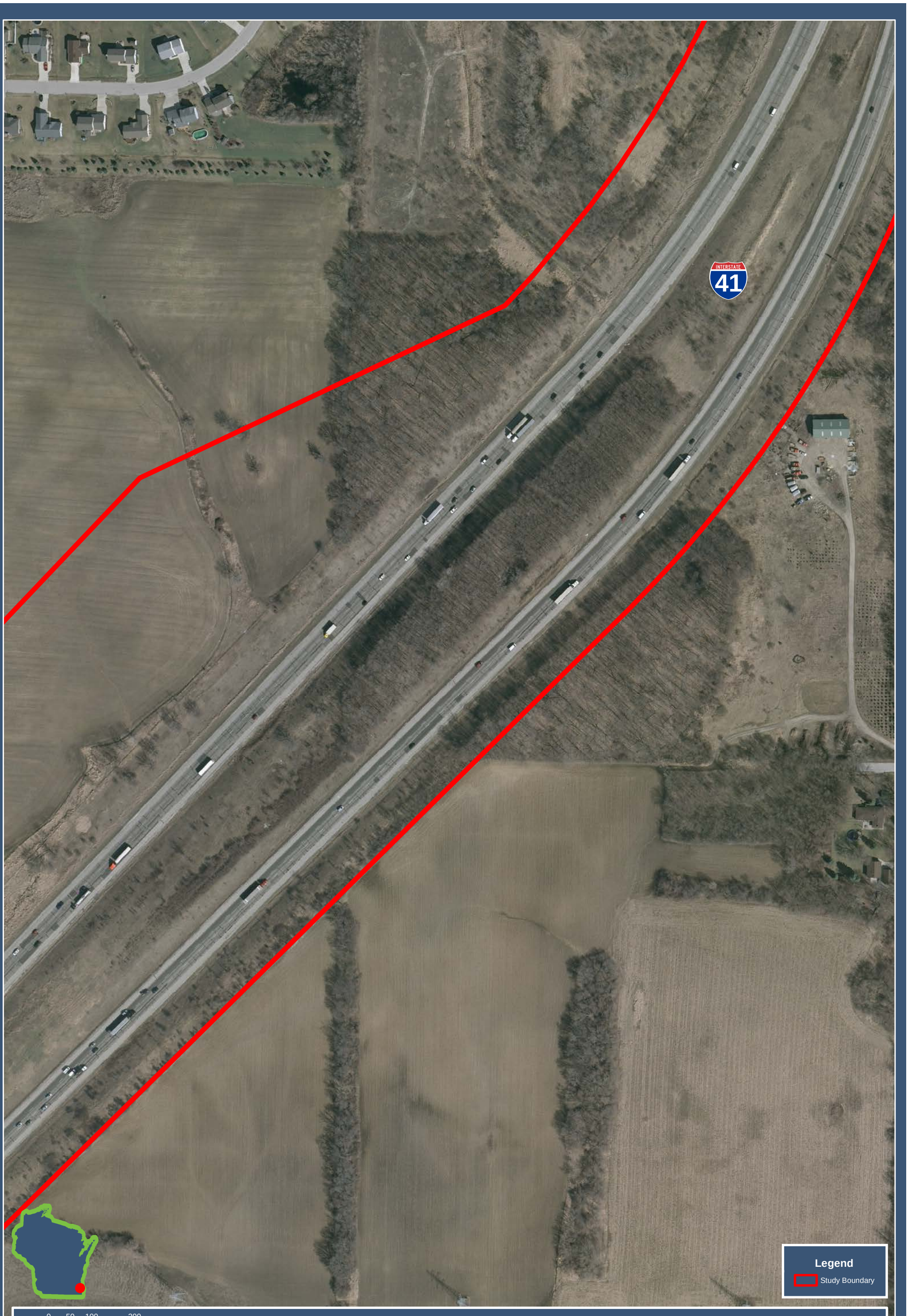


2010 AERIAL

WisDOT: 1030-20-08

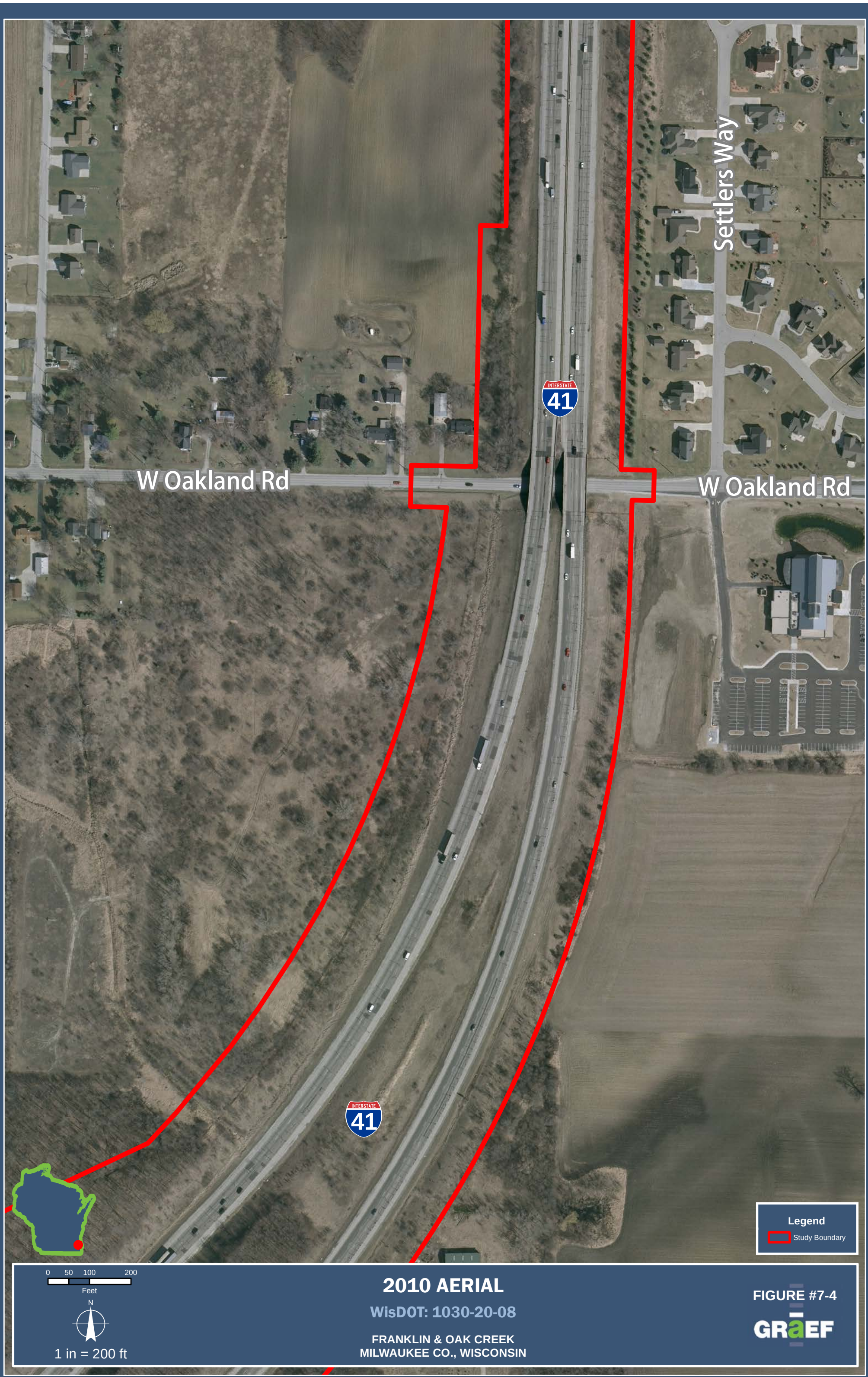
FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #7-3

GRAEF

Path: X:\ML\2016\20160061-15\GIS\Map\2010_Aerial.mxd
Date Saved: 2/24/2017 9:50:00 AM
User: 1871

Proj. Number: 2016-0061.15
Source: SEWRPC



2010 AERIAL

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #7-4

GRAEF

Path: X:\IML\2016\20160061-15\GIS\Map\2010_Aerial.mxd
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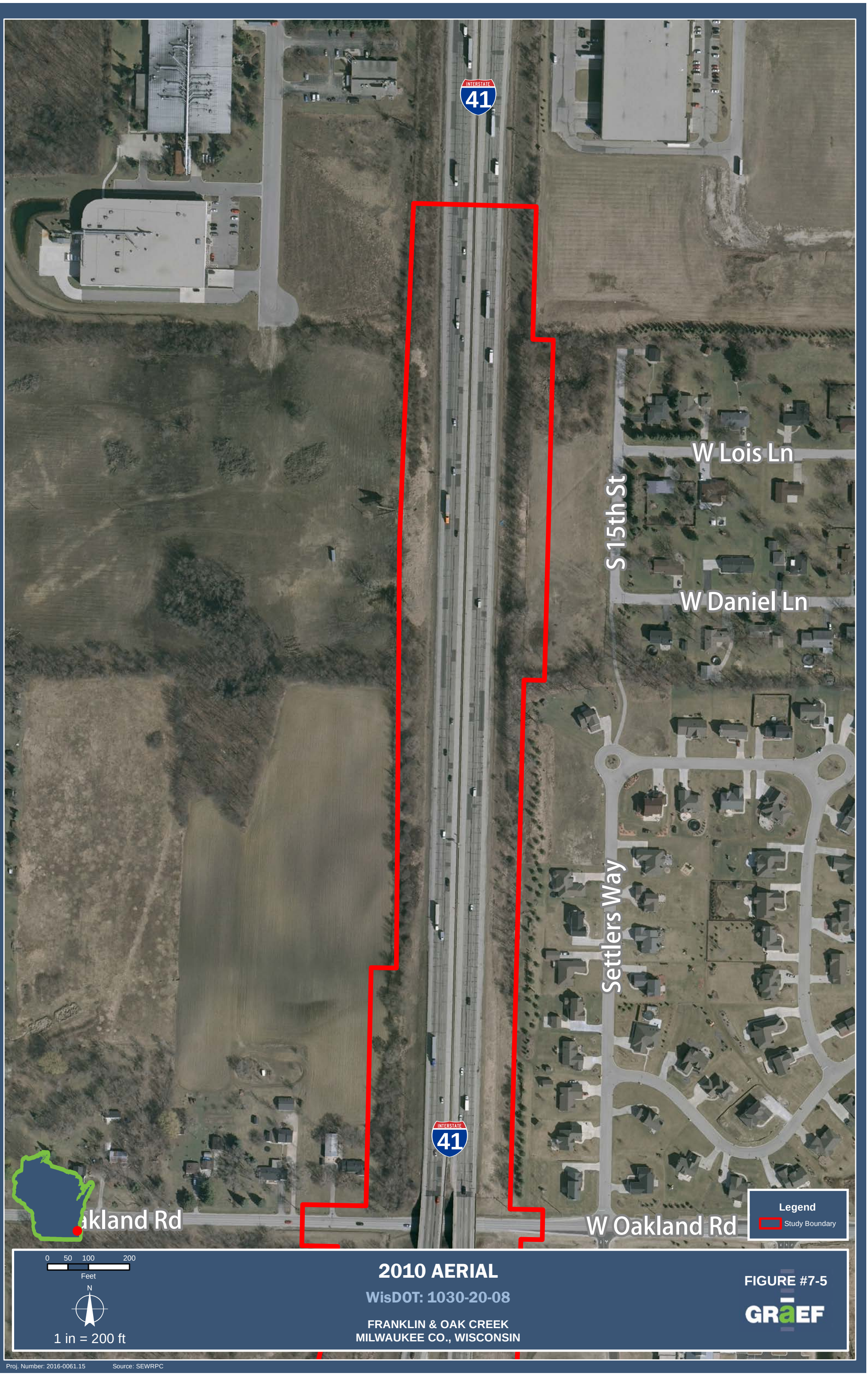
Proj. Number: 2016-0061.15
Source: SEWRPC



2010 AERIAL

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #7-5

GRAEF

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User: 1871

Proj. Number: 2016-0061.15
Source: SEWRPC

2015 AERIAL

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #8-1

GRAEF

Path: X:\ML\2016\20160061-15\GIS\Map\2015_Aerial.mxd
Date Saved: 2/24/2017 9:46:17 AM
User: 1871

Proj. Number: 2016-0061.15
Source: SEWRPC

W St Johns Way

241

S 27th St

W Elm Rd

Legend

Study Boundary

0 50 100 200

Feet

N

1 in = 200 ft

2015 AERIAL

WisDOT: 1030-20-08

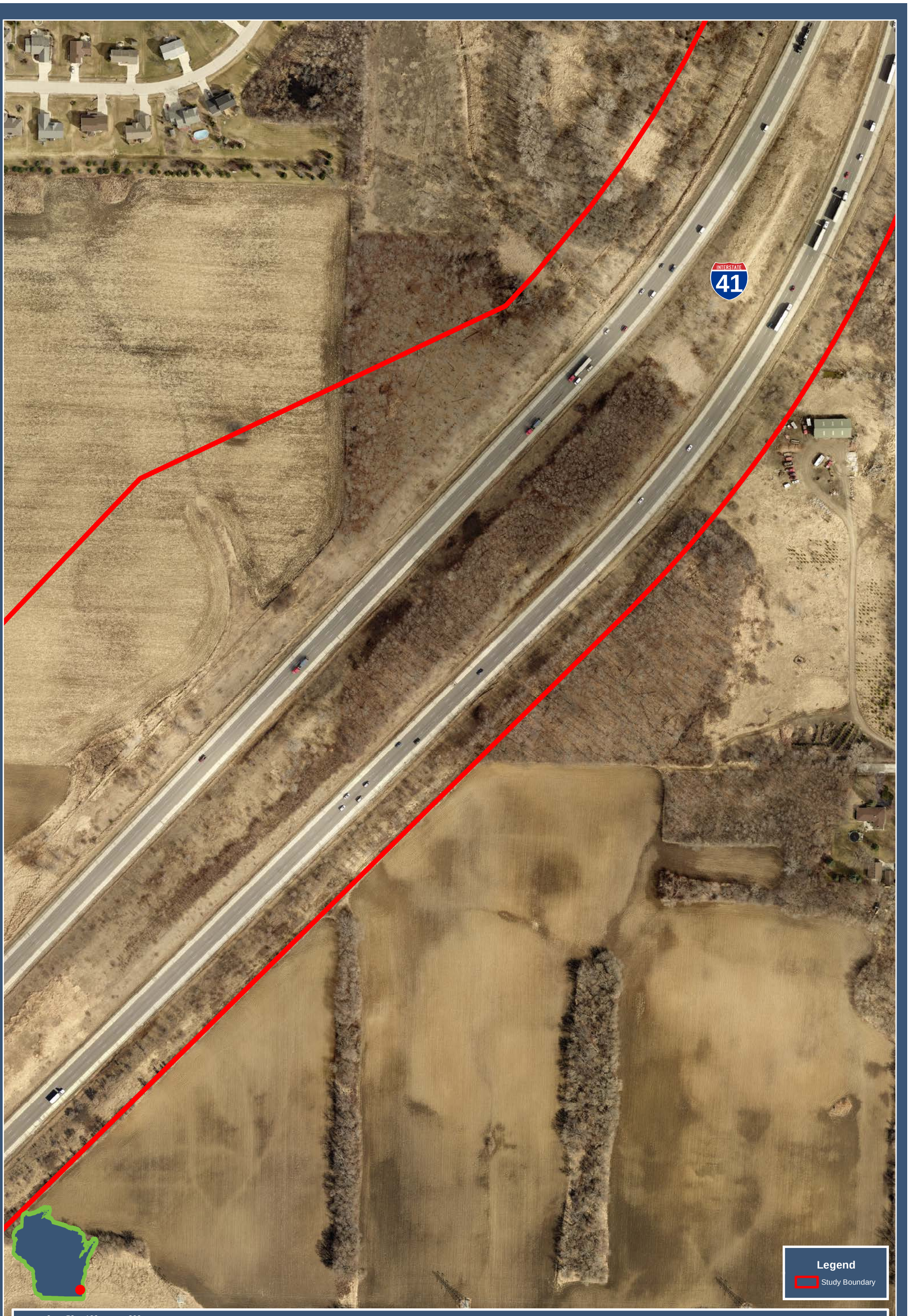
FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #8-2

GRAEF

User: 1871 Date Saved: 2/24/2017 9:46:17 AM Path: X:\ML\2016\2016061-15\GIS\Map\2015_Aerial.mxd

Proj. Number: 2016-0061.15 Source: SEWRPC



2015 AERIAL

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #8-3

GRAEF

Path: X:\ML\2016\2016061-15\GIS\Map\2015_Aerial.mxd
Date Saved: 2/24/2017 9:46:17 AM
User: 1871

Proj. Number: 2016-0061.15
Source: SEWRPC

2015 AERIAL

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #8-4

GRAEF

Path: X:\ML\2016\20160061-15\GIS\Map\2015_Aerial.mxd
Date Saved: 2/24/2017 9:46:17 AM
User: 1871

Proj. Number: 2016-0061.15
Source: SEWRPC

INTERSTATE 41

W Lois Ln

S 15th St

W Daniel Ln

Settlers Way

INTERSTATE 41

W Oakland Rd

W Oakland Rd

Legend

Study Boundary

0 50 100 200

Feet

N

1 in = 200 ft

2015 AERIAL

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

FIGURE #8-5

GRAEF

Path: X:\ML\20161\20160061-15\GIS\Map\2015_Aerial.mxd

Date Saved: 2/24/2017 9:46:17 AM

User: 1871

Proj. Number: 2016-0061.15

Source: SEWRPC

GRĀEF

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APPENDIX B

WETS Analysis

WETS Analysis

Project Site: IH 94 Milwaukee County
Project Number: 2016-0061.15
Period of interest: August through October 2016
County: Milwaukee

Long-term rainfall records (from WETS table)

	Month	3 years in 10 less than	Normal	3 years in 10 greater than
1st month prior:	Oct	1.62	2.65	3.21
2nd month prior:	Sep	2.01	3.18	3.83
3rd month prior:	Aug	2.51	3.97	4.79
		Sum =	**9.80**	

Site determination

Site Rainfall (in)	Condition Dry/Normal*/Wet	Condition** Value	Month Weight	Product
3.56	wet	3	3	9
4.30	wet	3	2	6
3.59	normal	2	1	2
Sum = **11.45**			Sum*** =	**17**

*Normal precipitation with 30% to 70% probability of occurrence

Determination: Wet / Dry / Normal

**Condition value:

Dry =	1
Normal =	2
Wet =	3

***If sum is:

6 to 9	then period has been drier than normal
10 to 14	then period has been normal
15 to 18	then period has been wetter than normal

Precipitation data source: NOAA Regional Climate Center

WETS Station: MILWAUKEE MITCHELL AP, WI

Reference: Donald E.Woodward, ed. 1997. *Hydrology Tools for Wetland Determination* , Chapter 19. Engineering Field Handbook. U.S. Department of Agriculture, Natural Resources Conservation Service, Fort Worth, TX.

GRĀEF

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APPENDIX C

FSA Crop Slide Review

A

B

C

D

E

INTERSTATE 41

Legend

Review Area

Study Boundary

0 50 100 200

Feet

N

1 in = 200 ft

FSA CROP PHOTO REVIEW AREAS

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

EXHIBIT

GRAEF

Path: X:\WL\2016\20160061-15\GIS\Map\FSA.mxd

Date Saved: 4/26/2017 9:09:36 AM

User: 0695

Proj. Number: 2016-0061.15

Source: ESRI

Form based on NRCS-CPA-32W
(9-6-06)

Wetland Documentation Record

Remotely Sensed Data Summary

Owner/Operator: WisDOT County: Milwaukee State: WI

Slide Reviewer: Mike Al-wathqiui Date: 11/15/2016

Site Identification: IH 94 Location: A

Farm Service Agency Aerial Color Slide Data

Date (Yr)	Month	Normal Rainfall (in) 3 months prior	Dry, Normal, or Wet? (D/N/W)	Interpretation - (codes listed in box below)
1980	aug	10.20	N	cr, 6d, y 7a
1981	jul	10.4	N	cr, 6a, y 7a
1982	jul	10.4	N	cr, 6a, y 7a
1983	jul	10.4	N	cr, 6a, y 7a
1984	jul	10.4	N	cr, 6a, y 7a
1985	jul	10.4	D	cr, n 7a
1986	aug	10.20	W	cr, 6d, y 7a
1987	sep	11.17	N	cr, 6d, y 7a
1988	jul	10.4	D	cr, 6a, y 7a
1989	jul	10.4	D	cr, 6d, y 7a
1990	aug	10.20	W	cr, 6a, y 7a
1991	jul	10.4	N	cr, 6a, y 7a
1992	jul	10.4	D	cr, 6a, y 7a
1993	jul	10.4	N	cr, 6d, y 7a
1994	jul	10.4	D	cr, 6d, y 7a
1995	jun	9.43	N	cr, 6a, y 7a
1996	aug	10.20	N	cr, 6a, y 7a
1997	jun	9.43	D	cr, 6a, y 7a
1998	jun	9.43	N	cr, 6a, y 7a
1999	jun	9.43	W	cr, 6a, y 7a
2000	jun	9.43	N	cr, 6a, y 7a
2001	jun	9.43	N	cr, 6a, y 7a
2002	jun	9.43	N	cr, 6a, y 7a
2005	aug	10.20	N	cr, 6a, y 7a
2006	sep	11.17	N	cr, 6a, y 7a
2007	apr	6.09	N	cr, 6a, y 7a
2008	sep	11.17	N	cr, 6d, y 7a
2010	may	8.02	D	cr, 6a, y 7a
2011	jul	10.4	N	cr, 6b, y 7a
2014	apr	6.09	D	cr, 6d, y 7a

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

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

* Data not available at this time from NRCS or USGS
**Data from USGS website

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

All Years: 30 years out of 30 years have wet (W) signatures Percentage = 100%
Normal Years: 19 years out of 19 years have wet (W) signatures Percentage = 100%

Comments:

Form based on NRCS-CPA-32W
(9-6-06)

Wetland Documentation Record

Remotely Sensed Data Summary

Owner/Operator: WisDOT County: Milwaukee State: WI

Slide Reviewer: Mike Al-wathqiui Date: 11/15/2016

Site Identification: IH 94 Location: B

Farm Service Agency Aerial Color Slide Data

Date (Yr)	Month	Normal Rainfall (in) 3 months prior	Dry, Normal, or Wet? (D/N/W)	Interpretation - (codes listed in box below)
1980	aug	10.20	N	cr, n
1981	jul	10.4	N	cr, n
1982	jul	10.4	N	cr, n
1983	jul	10.4	N	cr, n
1984	jul	10.4	N	cr, n
1985	jul	10.4	D	cr, n
1986	aug	10.20	W	cr, 6d, y-
1987	sep	11.17	N	cr, n
1988	jul	10.4	D	cr, n
1989	jul	10.4	D	cr, n
1990	aug	10.20	W	cr, n
1991	jul	10.4	N	cr, n
1992	jul	10.4	D	cr, n
1993	jul	10.4	N	cr, n
1994	jul	10.4	D	cr, n
1995	jun	9.43	N	cr, n
1996	aug	10.20	N	cr, n
1997	jun	9.43	D	cr, n
1998	jun	9.43	N	n, cr
1999	jun	9.43	W	n, cr
2000	jun	9.43	N	cr, 6d, y-
2001	jun	9.43	N	cr, 6d, y-
2002	jun	9.43	N	n, cr
2005	aug	10.20	N	n, cr
2006	sep	11.17	N	n, cr
2007	apr	6.09	N	cr, 6d, y-
2008	sep	11.17	N	cr, 6d, y-
2010	may	8.02	D	cr, 6d, y-
2011	jul	10.4	N	n, cr
2014	apr	6.09	D	n, cr

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

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

* Data not available at this time from NRCS or USGS
**Data from USGS website

Does slide/air photo data indicate the site is a wetland? Yes [No] Indiscernible

All Years: 6 years out of 30 years have wet (W) signatures Percentage = 20%
Normal Years: 4 years out of 19 years have wet (W) signatures Percentage = 21%

Comments:

Form based on NRCS-CPA-32W
(9-6-06)

Wetland Documentation Record

Remotely Sensed Data Summary

Owner/Operator: WisDOT County: Milwaukee State: WI

Slide Reviewer: Mike Al-wathqiui Date: 11/15/2016

Site Identification: IH 94 Location: C

Farm Service Agency Aerial Color Slide Data

Date (Yr)	Month	Normal Rainfall (in) 3 months prior	Dry, Normal, or Wet? (D/N/W)	Interpretation - (codes listed in box below)
1980	aug	10.20	N	cr, n
1981	jul	10.4	N	cr, n
1982	jul	10.4	N	cr, n
1983	jul	10.4	N	cr, n
1984	jul	10.4	N	cr, n
1985	jul	10.4	D	cr, n
1986	aug	10.20	W	cr, n
1987	sep	11.17	N	cr, n
1988	jul	10.4	D	cr, n
1989	jul	10.4	D	cr, n
1990	aug	10.20	W	cr, n
1991	jul	10.4	N	cr, n
1992	jul	10.4	D	cr, n
1993	jul	10.4	N	cr, n
1994	jul	10.4	D	cr, n
1995	jun	9.43	N	cr, n
1996	aug	10.20	N	cr, n
1997	jun	9.43	D	cr, n
1998	jun	9.43	N	cr, n
1999	jun	9.43	W	cr, n
2000	jun	9.43	N	cr, n
2001	jun	9.43	N	cr, n
2002	jun	9.43	N	cr, n
2005	aug	10.20	N	cr, n
2006	sep	11.17	N	cr, n
2007	apr	6.09	N	cr, n
2008	sep	11.17	N	cr, 6d, y-
2010	may	8.02	D	cr, n
2011	jul	10.4	N	cr, n
2014	apr	6.09	D	cr, n

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

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

* Data not available at this time from NRCS or USGS
**Data from USGS website

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

All Years: 1 years out of 30 years have wet (W) signatures Percentage = 3%
Normal Years: 1 years out of 19 years have wet (W) signatures Percentage = 5%

Comments:

Form based on NRCS-CPA-32W
(9-6-06)

Wetland Documentation Record

Remotely Sensed Data Summary

Owner/Operator: WisDOT County: Milwaukee State: WI

Slide Reviewer: Mike Al-wathqiui Date: 11/15/2016

Site Identification: IH 94 Location: D

Farm Service Agency Aerial Color Slide Data

Date (Yr)	Month	Normal Rainfall (in) 3 months prior	Dry, Normal, or Wet? (D/N/W)	Interpretation - (codes listed in box below)
1980	aug	10.20	N	cr, n
1981	jul	10.4	N	cr, n
1982	jul	10.4	N	cr, n
1983	jul	10.4	N	cr, n
1984	jul	10.4	N	cr, n
1985	jul	10.4	D	cr, n
1986	aug	10.20	W	cr, n
1987	sep	11.17	N	cr, 6b, y-
1988	jul	10.4	D	cr, n
1989	jul	10.4	D	cr, n
1990	aug	10.20	W	cr, n
1991	jul	10.4	N	cr, n
1992	jul	10.4	D	cr, n
1993	jul	10.4	N	cr, n
1994	jul	10.4	D	cr, n
1995	jun	9.43	N	cr, n
1996	aug	10.20	N	cr, 6b, y-
1997	jun	9.43	D	cr, 6a, y
1998	jun	9.43	N	cr, 6a, y
1999	jun	9.43	W	cr, 6a, y
2000	jun	9.43	N	cr, 6a, y
2001	jun	9.43	N	cr, 6a, y
2002	jun	9.43	N	cr, 6a, y
2005	aug	10.20	N	cr, 6a, y
2006	sep	11.17	N	cr, 6a, y
2007	apr	6.09	N	cr, 6d, y
2008	sep	11.17	N	cr, 6a, y
2010	may	8.02	D	cr, 6a, y
2011	jul	10.4	N	cr, 6b, y
2014	apr	6.09	D	cr, 6d, y

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

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

* Data not available at this time from NRCS or USGS
**Data from USGS website

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

All Years: 15 years out of 30 years have wet (W) signatures Percentage = 50%
Normal Years: 11 years out of 19 years have wet (W) signatures Percentage = 58%

Comments:

Form based on NRCS-CPA-32W
(9-6-06)

Wetland Documentation Record

Remotely Sensed Data Summary

Owner/Operator: WisDOT County: Milwaukee State: WI

Slide Reviewer: Mike Al-wathqiui Date: 11/15/2016

Site Identification: IH 94 Location: E

Farm Service Agency Aerial Color Slide Data

Date (Yr)	Month	Normal Rainfall (in) 3 months prior	Dry, Normal, or Wet? (D/N/W)	Interpretation - (codes listed in box below)
1980	aug	10.20	N	cr, 6d, y-
1981	jul	10.4	N	cr, n
1982	jul	10.4	N	cr, n
1983	jul	10.4	N	cr, 6a, y-
1984	jul	10.4	N	cr, n
1985	jul	10.4	D	cr, n
1986	aug	10.20	W	cr, 6d, y-
1987	sep	11.17	N	cr, n
1988	jul	10.4	D	cr, 6a, y-
1989	jul	10.4	D	cr, 6d, y-
1990	aug	10.20	W	cr, 6d, y-
1991	jul	10.4	N	cr, n
1992	jul	10.4	D	cr, 6a, y-
1993	jul	10.4	N	cr, n
1994	jul	10.4	D	cr, n
1995	jun	9.43	N	cr, n
1996	aug	10.20	N	cr, 6d, y-
1997	jun	9.43	D	cr, n
1998	jun	9.43	N	cr, n
1999	jun	9.43	W	cr, n
2000	jun	9.43	N	cr, n
2001	jun	9.43	N	cr, n
2002	jun	9.43	N	cr, n
2005	aug	10.20	N	cr, n
2006	sep	11.17	N	cr, n
2007	apr	6.09	N	cr, n
2008	sep	11.17	N	cr, 6d, y-
2010	may	8.02	D	cr, n
2011	jul	10.4	N	cr, n
2014	apr	6.09	D	cr, 6a, y-

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

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

* Data not available at this time from NRCS or USGS
**Data from USGS website

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

All Years: 10 years out of 30 years have wet (W) signatures Percentage = 33%
Normal Years: 4 years out of 19 years have wet (W) signatures Percentage = 21%

Comments:

Form based on NRCS-CPA-32W
(9-6-06)

Wetland Documentation Record

Remotely Sensed Data Summary

Owner/Operator: WisDOT County: Milwaukee State: WI

Slide Reviewer: Mike Al-wathqiui Date: 11/15/2016

Site Identification: IH 94 Location: F

Farm Service Agency Aerial Color Slide Data

Date (Yr)	Month	Normal Rainfall (in) 3 months prior	Dry, Normal, or Wet? (D/N/W)	Interpretation - (codes listed in box below)
1980	aug	10.20	N	cr, n
1981	jul	10.4	N	cr, 6a, y-
1982	jul	10.4	N	cr, 6a, y-
1983	jul	10.4	N	cr, 6a, y-
1984	jul	10.4	N	cr, 6a, y-
1985	jul	10.4	D	cr, n
1986	aug	10.20	W	cr, n
1987	sep	11.17	N	cr, n
1988	jul	10.4	D	cr, 6d, y-
1989	jul	10.4	D	cr, n
1990	aug	10.20	W	cr, n
1991	jul	10.4	N	cr, n
1992	jul	10.4	D	cr, n
1993	jul	10.4	N	cr, n
1994	jul	10.4	D	cr, n
1995	jun	9.43	N	cr, n
1996	aug	10.20	N	cr, 6a, y-
1997	jun	9.43	D	cr, 6a, y-
1998	jun	9.43	N	cr, 6a, y-
1999	jun	9.43	W	cr, 6a, y-
2000	jun	9.43	N	cr, 6a, y-
2001	jun	9.43	N	cr, 6a, y-
2002	jun	9.43	N	cr, 6a, y-
2005	aug	10.20	N	cr, 6a, y-
2006	sep	11.17	N	cr, 6d, y-
2007	apr	6.09	N	cr, 6d, y-
2008	sep	11.17	N	cr, 6d, y-
2010	may	8.02	D	cr, 6a, y-
2011	jul	10.4	N	cr, n
2014	apr	6.09	D	cr, 6b, y-

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

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

* Data not available at this time from NRCS or USGS
**Data from USGS website

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

All Years: 18 years out of 30 years have wet (W) signatures Percentage = 60%
Normal Years: 13 years out of 19 years have wet (W) signatures Percentage = 68%

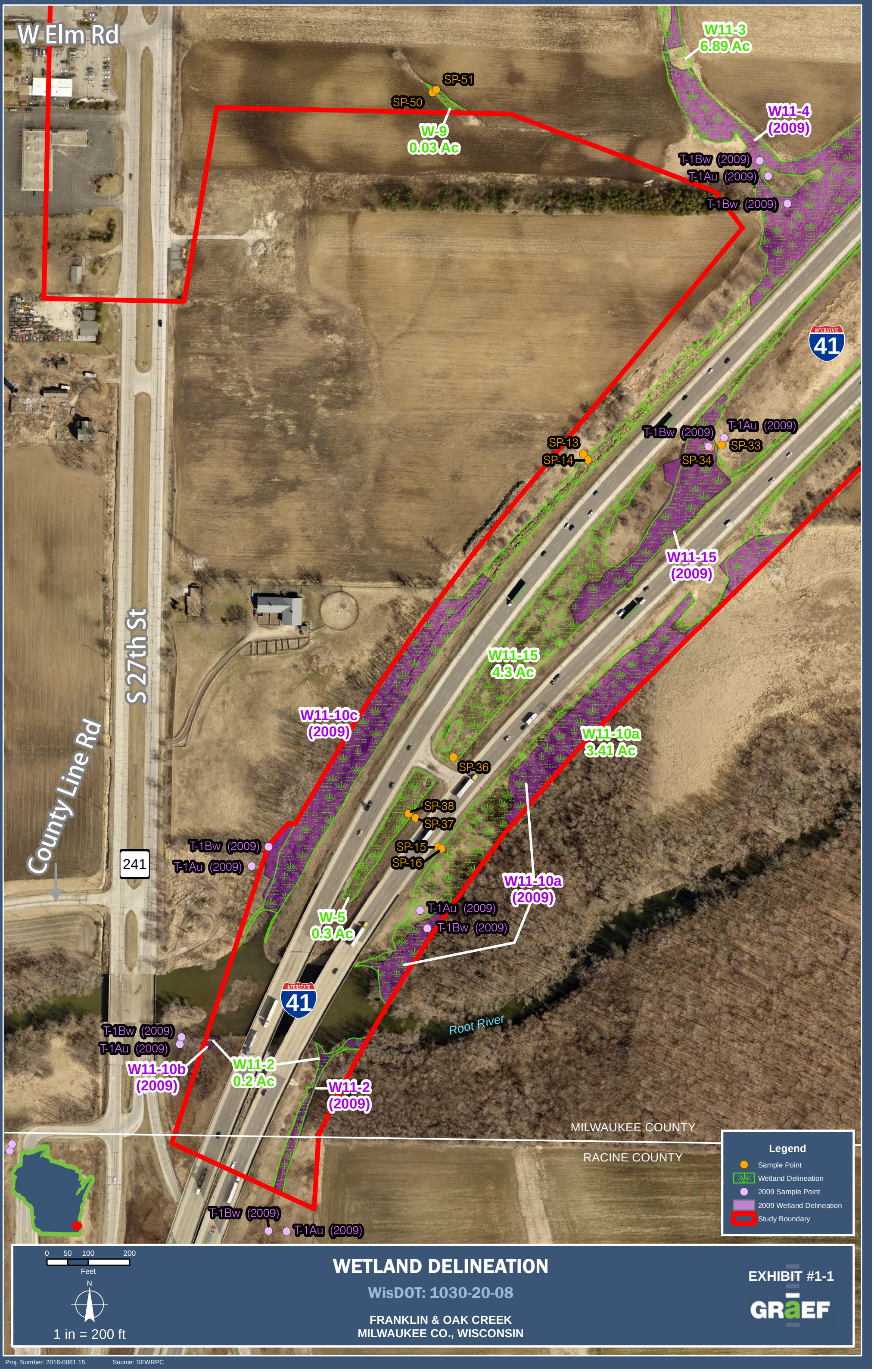
Comments:

GRĀEF

collaborāte / formulāte / innovāte

APPENDIX D

Wetland Delineation Maps


W Elm Rd
W11-3
6.89 Ac
SP-51
SP-50
W-9
0.03 Ac
W11-4
(2009)
T-1Bw (2009)
T-1Au (2009)
T-1Bw (2009)
INTERSTATE
41
SP-13
SP-14
T-1Bw (2009)
T-1Au (2009)
SP-33
SP-34
W11-15
(2009)
S 27th St
W11-15
4.3 Ac
W11-10c
(2009)
W11-10a
3.41 Ac
SP-36
SP-38
SP-37
SP-15
SP-16
T-1Bw (2009)
T-1Au (2009)
241
County Line Rd
W11-10a
(2009)
W-5
0.3 Ac
T-1Au (2009)
T-1Bw (2009)
INTERSTATE
41
T-1Bw (2009)
T-1Au (2009)
W11-10b
(2009)
W11-2
0.2 Ac
W11-2
(2009)
Root River
MILWAUKEE COUNTY
RACINE COUNTY
T-1Bw (2009)
T-1Au (2009)
Legend
Sample Point
Wetland Delineation
2009 Sample Point
2009 Wetland Delineation
Study Boundary
0 50 100 200
Feet
N
1 in = 200 ft
WETLAND DELINEATION
WisDOT: 1030-20-08
FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN
EXHIBIT #1-1
GRAEF
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Date Saved: 2/23/2017 12:23:43 PM
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Proj. Number: 2016-0061.15
Source: SEWRPC

W St Johns Way

SP-44
SP-43
W-6
0.12 Ac
W-7
0.11 Ac
SP-46
SP-45
241
SP-48
SP-47
W-8
0.01 Ac
S 27th St
W Elm Rd
SP-51
SP-50
W-9
0.03 Ac
W11-3
6.89 Ac
W11-4
(2009)
T-1Bw (2009)
T-1Au (2009)
T-1Bw (2009)
T-1Bw (2009)

Legend
- Sample Point
- Wetland Delineation
- 2009 Sample Point
- 2009 Wetland Delineation
- Study Boundary

0 50 100 200
Feet

N

1 in = 200 ft

WETLAND DELINEATION

WisDOT: 1030-20-08

FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN

EXHIBIT #1-2

GRAEF

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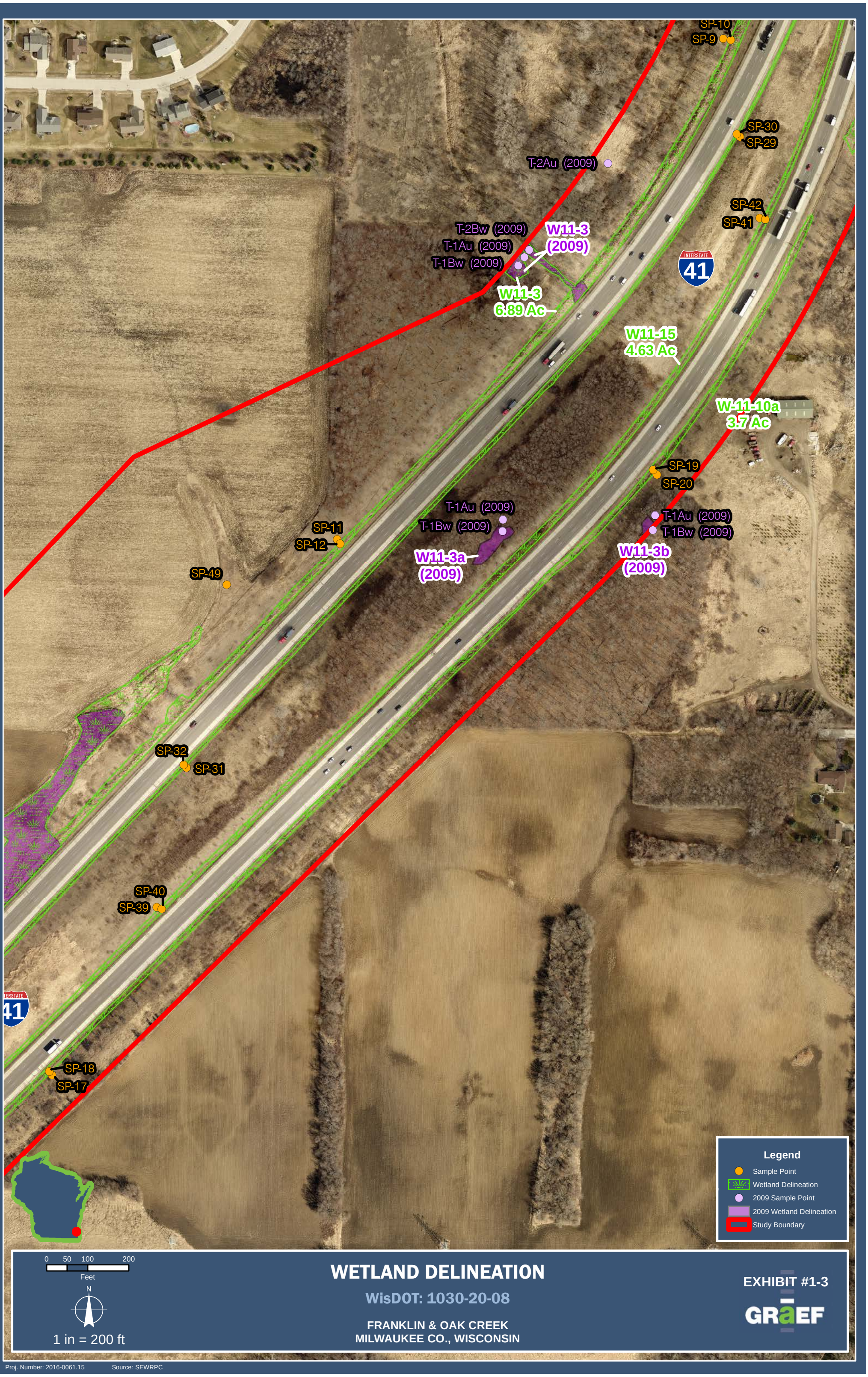
Proj. Number: 2016-0061.15
Source: SEWRPC


SP-10
SP-9
SP-30
SP-29
T-2Au (2009)
SP-42
SP-41
T-2Bw (2009)
T-1Au (2009)
T-1Bw (2009)
W11-3
(2009)
INTERSTATE
41
W11-3
6.89 Ac
W11-15
4.63 Ac
W-11-10a
3.7 Ac
SP-19
SP-20
T-1Au (2009)
T-1Bw (2009)
T-1Au (2009)
T-1Bw (2009)
SP-11
SP-12
W11-3a
(2009)
W11-3b
(2009)
SP-49
SP-32
SP-31
SP-40
SP-39
INTERSTATE
41
SP-18
SP-17
Legend
Sample Point
Wetland Delineation
2009 Sample Point
2009 Wetland Delineation
Study Boundary
0 50 100 200
Feet
N
1 in = 200 ft
WETLAND DELINEATION
WisDOT: 1030-20-08
FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN
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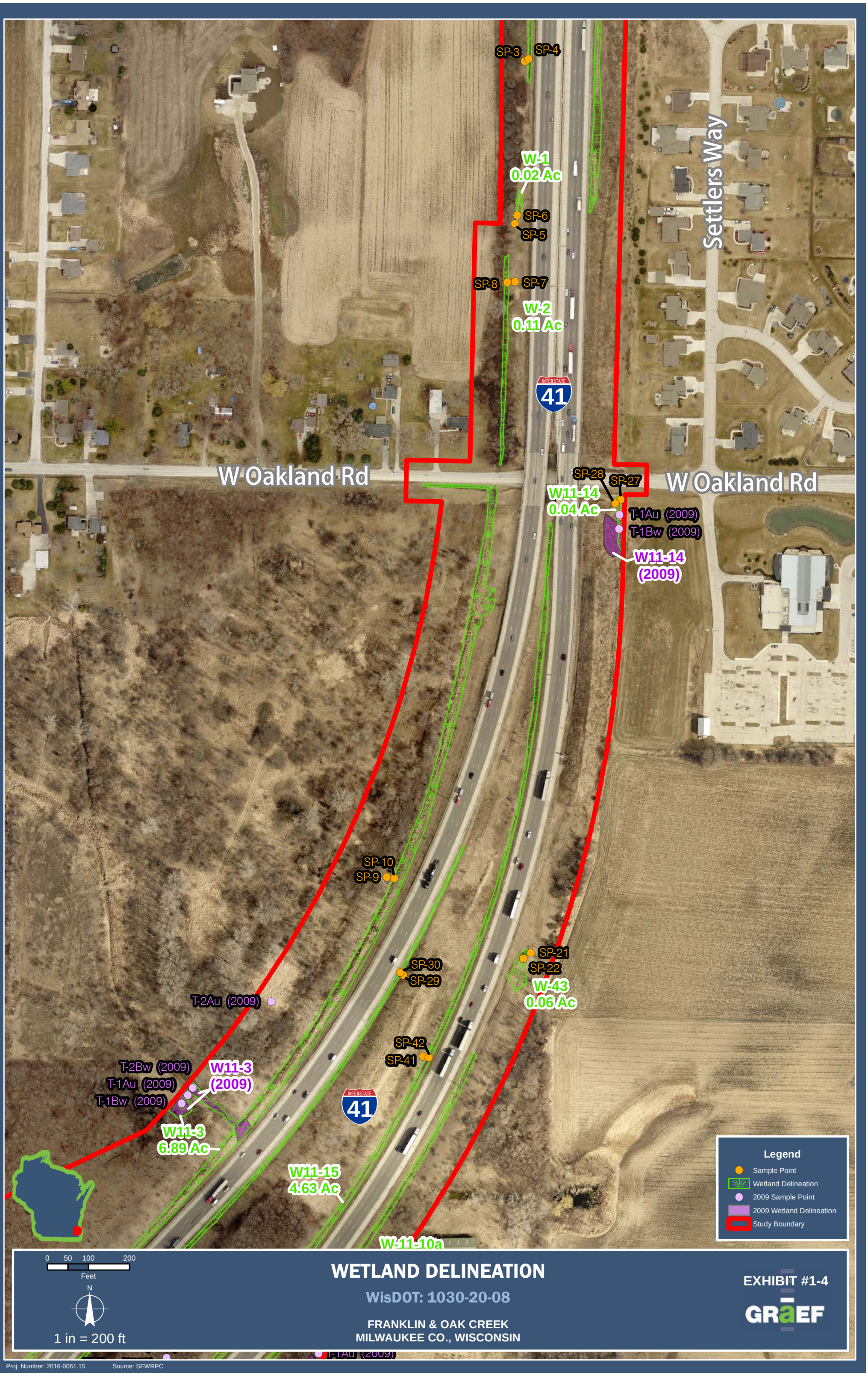
Proj. Number: 2016-0061.15
Source: SEWRPC


SP-3
SP-4
W-1
0.02 Ac
SP-6
SP-5
SP-8
SP-7
W-2
0.11 Ac
Settlers Way
W Oakland Rd
W Oakland Rd
SP-28
SP-27
W11-14
0.04 Ac
T-1Au (2009)
T-1Bw (2009)
W11-14
(2009)
SP-10
SP-9
SP-21
SP-22
SP-30
SP-29
W-43
0.06 Ac
T-2Au (2009)
SP-42
SP-41
T-2Bw (2009)
T-1Au (2009)
T-1Bw (2009)
W11-3
(2009)
W11-3
6.89 Ac
W11-15
4.63 Ac
W-11-10a
T-1Au (2009)
INTERSTATE
41
Legend
Sample Point
Wetland Delineation
2009 Sample Point
2009 Wetland Delineation
Study Boundary
0 50 100 200
Feet
N
1 in = 200 ft
WETLAND DELINEATION
WisDOT: 1030-20-08
FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN
EXHIBIT #1-4
GRAEF
User: 1871
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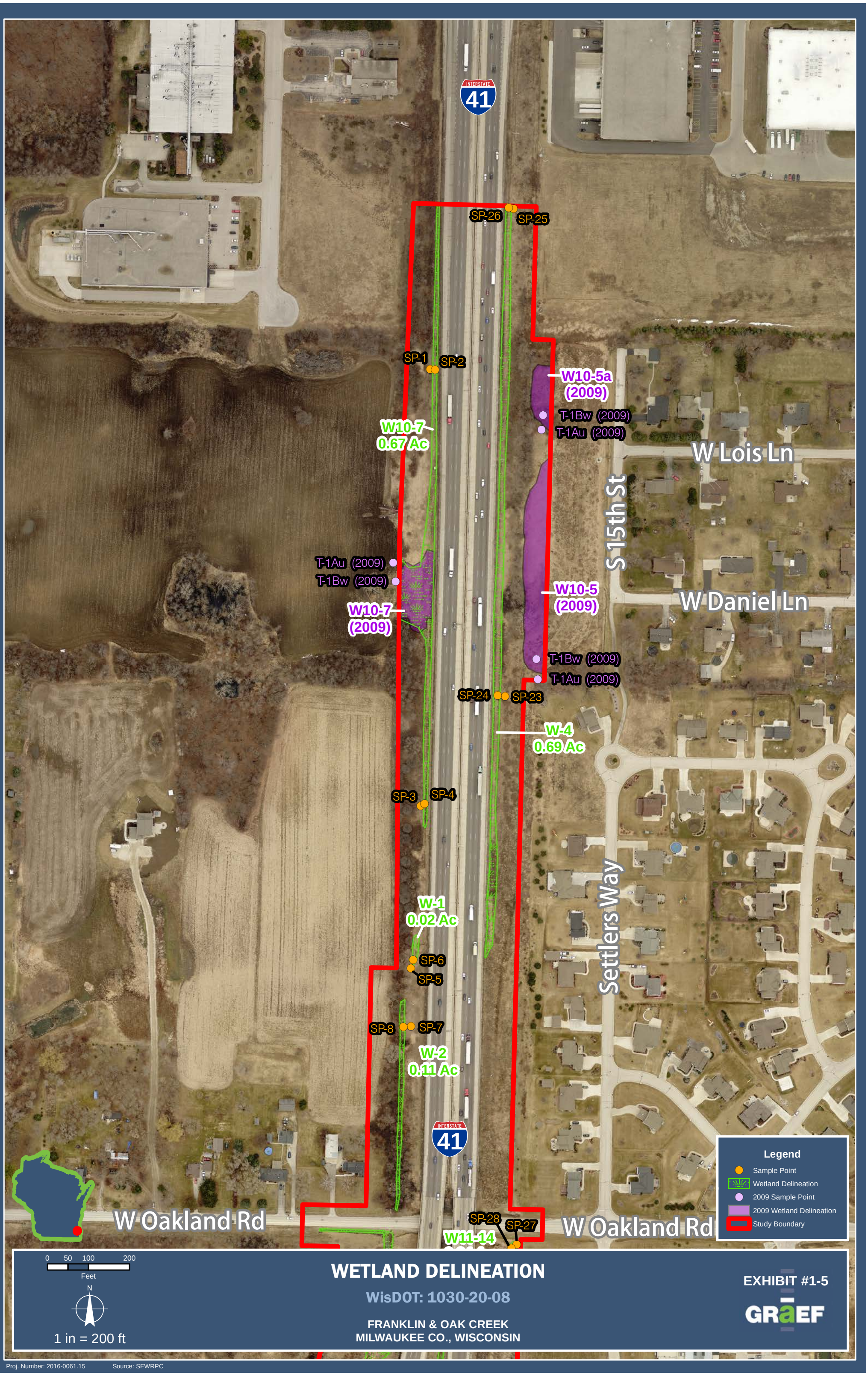
Proj. Number: 2016-0061.15
Source: SEWRPC


INTERSTATE 41
SP-26
SP-25
SP-1
SP-2
W10-5a (2009)
T-1Bw (2009)
T-1Au (2009)
W10-7 0.67 Ac
W Lois Ln
S 15th St
T-1Au (2009)
T-1Bw (2009)
W10-7 (2009)
W10-5 (2009)
W Daniel Ln
T-1Bw (2009)
T-1Au (2009)
SP-24
SP-23
W-4 0.69 Ac
SP-3
SP-4
W-1 0.02 Ac
SP-6
SP-5
Settlers Way
SP-8
SP-7
W-2 0.11 Ac
INTERSTATE 41
W Oakland Rd
SP-28
SP-27
W11-14
W Oakland Rd
Legend
Sample Point
Wetland Delineation
2009 Sample Point
2009 Wetland Delineation
Study Boundary
0 50 100 200
Feet
N
1 in = 200 ft
WETLAND DELINEATION
WisDOT: 1030-20-08
FRANKLIN & OAK CREEK
MILWAUKEE CO., WISCONSIN
EXHIBIT #1-5
GRAEF
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Date Saved: 2/23/2017 12:23:43 PM
Path: X:\ML\2016\2016061-15\GIS\Map\Wetland Delineation.mxd
Proj. Number: 2016-0061.15
Source: SEWRPC

APPENDIX E

Site Photographs

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 10, 2016

Photo #: 1

Direction of View:

Comment: upland sample point location SP-1 adjacent to wetland W10-7. The dominant upland plants at the sample point were Bells Honey Suckle, Kentucky Bluegrass, Tall Fescue and Wild Strawberry,

Photo #: 2

Direction of View:

Comment: wetland sample point SP-2 located in wetland W10-7. The shallow marsh plant community at the sample point was dominated by Narrowleaf Cattail.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 10, 2016

Photo #: 3

Direction of View: south

Comment: shallow marsh plant community in wetland W10-7.

Photo #: 4

Direction of View:

Comment: upland sample point location SP-3 adjacent to wetland W10-7. The dominant upland plant at the sample point was Kentucky Blue Grass.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 10, 2016

Photo #: 5

Direction of View:

Comment: wetland sample point SP-4 located in wetland W10-7. The wet meadow plant community at the sample point was dominated by Reed Canary Grass and Seaside Goldenrod.

Photo #: 6

Direction of View: north

Comment: wet meadow plant community in wetland W10-7.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 10, 2016

Photo #: 7

Direction of View:

Comment: upland sample point location SP-5 adjacent to wetland W-1. The dominant upland plant at the sample point was Smooth Brome.

Photo #: 8

Direction of View:

Comment: wetland sample point SP-6 located in wetland W-1. The wet meadow plant community at the sample point was dominated by Reed Canary Grass.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 10, 2016

Photo #: 9

Direction of View: north

Comment: wet meadow plant community in wetland W-1.

Photo #: 10

Direction of View:

Comment: upland sample point location SP-7 adjacent to wetland W-2. The dominant upland plant at the sample point was Smooth Brome.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 10, 2016

Photo #: 11

Direction of View:

Comment: wetland sample point SP-8 located in wetland W-2. The shallow marsh plant community at the sample point was dominated by Narrowleaf Cattail.

Photo #: 12

Direction of View: north

Comment: shallow marsh plant community in wetland W-2.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 10, 2016

Photo #: 13

Direction of View:

Comment: upland sample point location SP-9 adjacent to wetland W11-3. The dominant upland plants at the sample point were Common Buckthorn, Kentucky Bluegrass, Smooth Brome and Tall Fescue.

Photo #: 14

Direction of View:

Comment: wetland sample point SP-10 located in wetland W11-3. The shallow marsh plant community at the sample point was dominated by Narrowleaf Cattail.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 10, 2016

Photo #: 15

Direction of View: northeast

Comment: shallow marsh plant community in wetland W11-3.

Photo #: 16

Direction of View:

Comment: upland sample point location SP-11 adjacent to wetland W11-3. The dominant upland plants at the sample point were Kentucky Bluegrass and Smooth Brome.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 10, 2016

Photo #: 17

Direction of View:

Comment: wetland sample point SP-12 located in wetland W11-3. The shallow marsh plant at the sample point community was dominated by Narrowleaf Cattail.

Photo #: 18

Direction of View: northeast

Comment: shallow marsh plant community in wetland W11-3.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 11, 2016

Photo #: 19

Direction of View:

Comment: upland sample point location SP-13 adjacent to wetland W11-3. The dominant upland plants at the sample point were Common Buckthorn, Kentucky Bluegrass, Smooth Brome and Tall Fescue.

Photo #: 20

Direction of View:

Comment: wetland sample point SP-14 located in wetland W11-3. The shallow marsh plant community at the sample point was dominated by Reed Canary Grass, Narrowleaf Cattail and Purple Loosestrife.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 11, 2016

Photo #: 21

Direction of View: northeast

Comment: shallow marsh plant community in wetland W11-3.

Photo #: 22

Direction of View: southwest

Comment: shallow marsh plant community in wetland W11-3.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 11, 2016

Photo #: 23

Direction of View:

Comment: upland sample point location SP-15 adjacent to wetland W11-10a. The dominant upland plants at the sample point were Kentucky Bluegrass, Tall Fescue and Wormwood.

Photo #: 24

Direction of View:

Comment: wetland sample point SP-16 located in wetland W11-10a. The wet meadow plant community at the sample point was dominated by Seaside Goldenrod.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 11, 2016

Photo #: 25

Direction of View: northeast

Comment: wet meadow plant community in wetland W11-10a.

Photo #: 26

Direction of View:

Comment: upland sample point location SP-17 adjacent to wetland W11-10a. The dominant upland plants at the sample point were Canada Goldenrod, Kentucky Bluegrass and Tall Fescue.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 11, 2016

Photo #: 27

Direction of View:

Comment: wetland sample point SP-18 located in wetland W11-10a. The shallow marsh plant community at the sample point was dominated by Common Reed and Narrowleaf Cattail.

Photo #: 28

Direction of View: southwest

Comment: shallow marsh plant community in wetland W11-10a.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 11, 2016

Photo #: 29

Direction of View:

Comment: upland sample point location SP-19 adjacent to wetland W11-10a. The dominant upland plants at the sample point were Queen Ann's Lace and Tall Fescue.

Photo #: 30

Direction of View:

Comment: wetland sample point SP-20 located in wetland W11-10a. The shallow marsh plant community at the sample point was dominated by Narrowleaf Cattail and Reed Canary Grass.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 11, 2016

Photo #: 31

Direction of View: northeast

Comment: shallow marsh plant community in wetland W11-10a.

Photo #: 32

Direction of View:

Comment: upland sample point location SP-21 adjacent to wetland W-3. The dominant upland plants at the sample point were Canada Thistle and Kentucky Bluegrass.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 11, 2016

Photo #: 33

Direction of View:

Comment: wetland sample point SP-22 located in wetland W-3. The wet meadow plant community at the sample point was dominated by Reed Canary Grass.

Photo #: 34

Direction of View: south

Comment: wet meadow plant community in wetland W-3.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 11, 2016

Photo #: 35

Direction of View:

Comment: upland sample point location SP-23 adjacent to wetland W-4. The dominant upland plants at the sample point were Crown Vetch and Kentucky Bluegrass.

Photo #: 36

Direction of View:

Comment: wetland sample point SP-24 located in wetland W-4. The shallow marsh plant community at the sample point was dominated by Narrowleaf Cattail.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 11, 2016

Photo #: 37

Direction of View: northeast

Comment: shallow marsh plant community in wetland W-4.

Photo #: 38

Direction of View:

Comment: upland sample point location SP-25 adjacent to wetland W-4. The dominant upland plants at the sample point were Kentucky Bluegrass and Tall Fescue.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 11, 2016

Photo #: 39

Direction of View:

Comment: wetland sample point SP-26 located in wetland W-4. The shallow marsh plant community at the sample point was dominated by Narrowleaf Cattail.

Photo #: 40

Direction of View: north

Comment: shallow marsh plant community in wetland W-4.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 11, 2016

Photo #: 41

Direction of View:

Comment: upland sample point location SP-27 adjacent to wetland W11-14. The dominant upland plants at the sample point were Kentucky Bluegrass, Queen Ann's Lace and Tall Fescue.

Photo #: 42

Direction of View:

Comment: wetland sample point SP-28 located in wetland W11-14. The wet meadow plant community at the sample point was dominated by Reed Canary Grass.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 11, 2016

Photo #: 43

Direction of View: south

Comment: wet meadow plant community in wetland W11-14.

Photo #: 44

Direction of View:

Comment: upland sample point location SP-29 adjacent to wetland W11-15. The dominant upland plants at the sample point were Birdsfoot Trefoil and Kentucky Bluegrass.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 11, 2016

Photo #: 45

Direction of View:

Comment: wetland sample point SP-30 located in wetland W11-15. The shallow marsh plant community at the sample point was dominated by Narrowleaf Cattail and Reed Canary Grass.

Photo #: 46

Direction of View: southwest

Comment: shallow marsh plant community in wetland W11-15.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 11, 2016

Photo #: 47

Direction of View:

Comment: upland sample point location SP-31 adjacent to wetland W11-15. The dominant upland plants at the sample point were Canada Goldenrod and Kentucky Bluegrass.

Photo #: 48

Direction of View:

Comment: wetland sample point SP-32 located in wetland W11-15. The shallow marsh plant community at the sample point was dominated by Narrowleaf Cattail.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 11, 2016

Photo #: 49

Direction of View: southwest

Comment: shallow marsh plant community in wetland W11-15.

Photo #: 50

Direction of View:

Comment: upland sample point location SP-33 adjacent to wetland W11-15. The dominant upland plant at the sample point was Reed Canary Grass.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 11, 2016

Photo #: 51

Direction of View:

Comment: wetland sample point SP-34 located in wetland W11-15. The shallow marsh plant community at the sample point was dominated by Narrowleaf Cattail and Reed Canary Grass.

Photo #: 52

Direction of View: southwest

Comment: shallow marsh plant community in wetland W11-15.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 11, 2016

Photo #: 53

Direction of View:

Comment: upland sample point location SP-35 adjacent to wetland W11-15. The dominant upland plants at the sample point were Kentucky Bluegrass and Tall Fescue.

Photo #: 54

Direction of View:

Comment: wetland sample point SP-36 located in wetland W11-15. The wet meadow plant community the sample point was at dominated by Reed Canary Grass and Seaside Goldenrod.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 11, 2016

Photo #: 55

Direction of View: northeast

Comment: wet meadow plant community in wetland W11-15.

Photo #: 56

Direction of View:

Comment: upland sample point location SP-37 adjacent to wetland W-5. The dominant upland plants at the sample point was Kentucky Bluegrass.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 11, 2016

Photo #: 57

Direction of View:

Comment: wetland sample point SP-38 located in wetland W-5. The shallow marsh plant community at the sample point was dominated by Narrowleaf Cattail and Seaside Goldenrod.

Photo #: 58

Direction of View: southwest

Comment: shallow marsh plant community in wetland W-5.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 11, 2016

Photo #: 59

Direction of View:

Comment: upland sample point location SP-39 adjacent to wetland W11-15. The dominant upland plants at the sample point were Smooth Brome and Tall Fescue.

Photo #: 60

Direction of View:

Comment: wetland sample point SP-40 located in wetland W11-15. The shallow marsh plant community at the sample point was dominated by Reed Canary Grass and Narrowleaf Cattail.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 11, 2016

Photo #: 61

Direction of View: southwest

Comment: shallow marsh plant community in wetland W11-15.

Photo #: 62

Direction of View:

Comment: upland sample point location SP-41 adjacent to wetland W11-15. The dominant upland plants at the sample point were Kentucky Bluegrass and Tall Fescue.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 11, 2016

Photo #: 63

Direction of View:

Comment: wetland sample point SP-42 located in wetland W11-15. The shallow marsh plant community at the sample point was dominated by Narrowleaf Cattail.

Photo #: 64

Direction of View: northeast

Comment: shallow marsh plant community in wetland W11-15.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 11, 2016

Photo #: 65

Direction of View:

Comment: upland sample point location SP-43 adjacent to wetland W-6. The dominant upland plant at the sample point was Kentucky Bluegrass.

Photo #: 66

Direction of View:

Comment: wetland sample point SP-44 located in wetland W-6. The shallow marsh plant community at the sample pointwas dominated by Hybrid Cattail and Reed Canary Grass.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 11, 2016

Photo #: 67

Direction of View: west

Comment: shallow marsh plant community in wetland W-6.

Photo #: 68

Direction of View:

Comment: upland sample point location SP-45 adjacent to wetland W-7. The dominant upland plant at the sample point was Queen Ann's Lace and Seaside Goldenrod.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 11, 2016

Photo #: 69

Direction of View:

Comment: wetland sample point SP-46 located in wetland W-7. The shallow marsh plant community at the sample point was dominated by Hybrid Cattail and Reed Canary Grass.

Photo #: 70

Direction of View: north

Comment: shallow marsh plant community in wetland W-7.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 11, 2016

Photo #: 71

Direction of View:

Comment: upland sample point location SP-47 adjacent to wetland W-8. The dominant upland plants at the sample point were Kentucky Bluegrass and Tall Fescue.

Photo #: 72

Direction of View:

Comment: wetland sample point SP-48 located in wetland W-8. The shallow marsh plant community at the sample point was dominated by Narrowleaf Cattail.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 11, 2016 and November 14, 2016

Photo #: 73

Direction of View: north

Comment: shallow marsh plant community in wetland W-8.

Photo #: 74

Direction of View: southwest

Comment: fringe of wetland W11-3 adjacent to the Root River.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 14, 2016 and November 16, 2016

Photo #: 75

Direction of View:

Comment: upland sample point location SP-50 adjacent to wetland W-9. The dominant upland plants at the sample point were Canada Thistle and Soybean.

.

Photo #: 76

Direction of View:

Comment: wetland sample point SP-51 located in wetland W-9. The wet meadow plant community at the sample point was dominated by Cinnamon Willow Herb.

SITE PHOTOGRAPHS

IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 16, 2016 and November 18, 2016

Photo #: 77

Direction of View: northwest

Comment: wet meadow plant community in wetland W-9.

Photo #: 78

Direction of View:

Comment: sample point location SP-49 documenting upland conditions in the crop slide review Area A.

GRĀEF

collaborāte / formulāte / innovāte

APPENDIX F

Wetland Determination Data Forms 2009

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **IH-94 Mainline** City/County: **Oak Creek/ Milwaukee** Sampling Date: **9/2/2009**

Applicant/Owner: **WDOT** State: **WI** Sampling Point: **W10-5 T-1 A(u)**

Investigator(s): **Marcus S. Anderson / Tina M. Myers** Section, Township, Range: **Section 30, T5N R22E**

Landform (hillslope, terrace, etc.): **Hillslope** Local relief (concave, convex, none): **None**

Slope (%): **20%** Lat: **See Fig. 2** Long: **See Fig. 2** Datum: **NA**

Soil Map Unit Name: **Morley silt loam (MzdB)** WWI Classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks)

Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes **X** 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 **X**			
Hydric Soil Present?	Yes _____	No **X**	Is the Sampled Area	Yes _____	No **X**
Wetland Hydrology Present?	Yes _____	No **X**	within a Wetland?		

Remarks:

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: **30 ft. radius**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***Acer saccharum***	**60%**	**Yes**	**FACU**
2. ***Tilia americana***	**10%**	**No**	**FACU**
3. ***Populus tremuloides***	**10%**	**No**	**FAC**
4.			
5.			
	80%	= Total Cover	

Sapling/Shrub Stratum (Plot Size: **15 ft. radius**)			
1. ***Rhamnus cathartica***	**20%**	**Yes**	**FACU**
2.			
3.			
4.			
5.			
	20%	= Total Cover	

Herb Stratum (Plot Size: **5 ft. radius**)			
1. ***Solidago canadensis***	**30%**	**Yes**	**FACU**
2. ***Vitis riparia***	**5%**	**No**	**FACW**
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	35%	= Total Cover	

Woody Vine Stratum (Plot Size: **N/A**)			
1. **N/A**			
2.			
	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:

_____ Dominance Test is >50%

_____ Prevalence Index is ≤ 3.0[1]

_____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No **X**

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

This is an upland, hardwood forest plant community.

SOIL

Sampling Point: **W10-5 T-1 A(u)**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/3	100	None				Silt loam	
8-18	10YR 4/4	100	10YR 4/6	2%	C	M	Silty clay loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **N/A**

Depth (inches): **N/A**

Hydric Soil Present? Yes ___ No **X**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ 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)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No **X** Depth (inches): ___

Water Table Present? Yes ___ No **X** Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No **X** Depth (inches): ___

Wetland Hydrology Present? Yes ___ No **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No wetland hydrology indicators observed.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH-94 Mainline | City/County: Oak Creek/ Milwaukee | Sampling Date: 9/2/2009

Applicant/Owner: WDOT | State: WI | Sampling Point: W10-5 T-1 B(w)

Investigator(s): Marcus S. Anderson / Tina M. Myers | Section, Township, Range: Section 30, T5N R22E

Landform (hillslope, terrace, etc.): Terrace | Local relief (concave, convex, none): Concave

Slope (%): 0% | Lat: See Fig. 2 | Long: See Fig. 2 | Datum: NA

Soil Map Unit Name: Blount silt loam (BIA) | WWI Classification: Wetland smaller than 2 acres

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)

Are Vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____ Soil *X 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 X	No ____		
Hydric Soil Present?	Yes X	No ____	Is the Sampled Area	Yes X No ____
Wetland Hydrology Present?	Yes X	No ____	within a Wetland?	

Remarks:

*** This area experiences seasonal wetland hydrology.**

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: N/A)	Absolute % Cover	Dominant Species	Indicator Status
1. N/A			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot Size: 15 ft. radius)			
1. *Fraxinus pennsylvanica*	30%	Yes	FACW
2.			
3.			
4.			
5.			
	30%	= Total Cover	

Herb Stratum (Plot Size: 5 ft. radius)			
1. *Carex stricta*	70%	Yes	OBL
2. *Juncus torreyi*	60%	Yes	FACW
3. *Euthamia graminifolia*	5%	No	FACW
4. *Rhamnus frangula*	2%	No	FAC
5. *Aster novae-angliae*	2%	No	FACW
6. *Fragaria virginiana*	2%	No	FAC
7.			
8.			
9.			
10.			
	141%	= Total Cover	

Woody Vine Stratum (Plot Size: N/A)			
1. N/A			
2.			
	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:

X Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

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

This is a wet meadow plant community.

SOIL

Sampling Point: **W10-5 T-1 B(w)**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 5/2	100	10YR 6/1	30%	D	M	Silty clay	
			10YR 5/6	20%	C	M		

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **Substantial clay layer**

Depth (inches): **Throughout profile**

Hydric Soil Present? Yes X No ___

Remarks:

Topsoil appears to have been stripped. Only the B horizon is present.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ 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)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **IH-94 Mainline** City/County: **Oak Creek/ Milwaukee** Sampling Date: **9/2/2009**

Applicant/Owner: **WDOT** State: **WI** Sampling Point: **W10-5a T-1 A(u)**

Investigator(s): **Marcus S. Anderson / Tina M. Myers** Section, Township, Range: **Section 30, T5N R22E**

Landform (hillslope, terrace, etc.): **Hillslope** Local relief (concave, convex, none): **None**

Slope (%): **2%** Lat: **See Fig. 2** Long: **See Fig. 2** Datum: **NA**

Soil Map Unit Name: **Blount silt loam (BIA)** WWI Classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks)

Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____

Are Vegetation _____ Soil ***X** 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 **X**			
Hydric Soil Present?	Yes ***X**	No _____	Is the Sampled Area within a Wetland?	Yes _____	No **X**
Wetland Hydrology Present?	Yes _____	No **X**			

Remarks:

*** Soils are naturally problematic - appears to be a drained hydric soil.**

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: **N/A**)	Absolute % Cover	Dominant Species	Indicator Status
1. **N/A**			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot Size: **15 ft. radius**)			
1. ***Rhus typhina***	**40%**	**Yes**	**UPL**
2. ***Rosa multiflora***	**25%**	**Yes**	**FACU**
3. ***Crataegus mollis***	**20%**	**Yes**	**FACW**
4. ***Fraxinus pennsylvanica***	**5%**	**No**	**FACW**
5.			
	90%	= Total Cover	

Herb Stratum (Plot Size: **5 ft. radius**)			
1. ***Solidago canadensis***	**80%**	**Yes**	**FACU**
2. ***Poa pratensis***	**60%**	**Yes**	**FAC**
3. ***Daucus carota***	**5%**	**No**	**UPL**
4. ***Crataegus mollis***	**5%**	**No**	**FACW**
5. ***Aster novae-angliae***	**10%**	**No**	**FACW**
6.			
7.			
8.			
9.			
10.			
	160%	= Total Cover	

Woody Vine Stratum (Plot Size: **N/A**)			
1. **N/A**			
2.			
	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: **6** (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	**40%**	x 2 =	**80**
FAC species	**60%**	x 3 =	**180**
FACU species	**105%**	x 4 =	**420**
UPL species	**45%**	x 5 =	**225**
Column Totals:	**250%**	(A)	**905** (B)

Prevalence Index = B/A = **3.62**

Hydrophytic Vegetation Indicators:

_____ Dominance Test is >50%

_____ Prevalence Index is ≤ 3.0[1]

_____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No **X**

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

This is an upland, shrub scrub plant community.

SOIL

Sampling Point: **W10-5a T-1 A(u)**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 3/2	100	None				Silt loam	
7-18	10YR 4/2	100	10YR 4/4	5%	C	M	Silty clay loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **N/A**

Depth (inches): **N/A**

Hydric Soil Present? Yes **X** No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ 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)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No **X** Depth (inches): ___

Water Table Present? Yes ___ No **X** Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No **X** Depth (inches): ___

Wetland Hydrology Present? Yes ___ No **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No wetland hydrology indicators observed.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH-94 Mainline | City/County: Oak Creek/ Milwaukee | Sampling Date: 9/2/2009
Applicant/Owner: WDOT | State: WI | Sampling Point: W10-5a T-1 B(w)
Investigator(s): Marcus S. Anderson / Tina M. Myers | Section, Township, Range: Section 30, T5N R22E
Landform (hillslope, terrace, etc.): Wetland depression | Local relief (concave, convex, none): Concave
Slope (%): 2% | Lat: See Fig. 2 | Long: See Fig. 2 | Datum: NA
Soil Map Unit Name: Blount silt loam (BIA) | WWI Classification: S3/E2K
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)
Are Vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No ____		
Hydric Soil Present?	Yes X	No ____	Is the Sampled Area	Yes X No ____
Wetland Hydrology Present?	Yes X	No ____	within a Wetland?	

Remarks:

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: 20 ft. radius)	Absolute % Cover	Dominant Species	Indicator Status
1. *Fraxinus pennsylvanica*	50%	Yes	FACW
2. *Crataegus mollis*	5%	No	FACW
3.			
4.			
5.			
	55%	= Total Cover	

Sapling/Shrub Stratum (Plot Size: N/A)			
1. N/A			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herb Stratum (Plot Size: 5 ft. radius)			
1. *Phalaris arundinacea*	80%	Yes	FACW
2. *Carex vulpinoidea*	10%	No	OBL
3. *Toxicodendron radicans*	3%	No	FAC
4. *Lycopus americana*	3%	No	OBL
5. *Solanum dulcamara*	3%	No	FAC
6. *Vitis riparia*	10%	No	FACW
7.			
8.			
9.			
10.			
	109%	= Total Cover	

Woody Vine Stratum (Plot Size: N/A)			
1. N/A			
2.			
	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 =
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:

X Dominance Test is >50%
____ Prevalence Index is ≤ 3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

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

This is a wet meadow plant community.

SOIL

Sampling Point: **W10-5a T-1 B(w)**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 3/1	100	None				Silty clay loam	
7-10	10YR 4/1	100	10YR 5/6	2%	C	M	Silty clay	
10-18	10YR 4/1	100	10YR 5/6	30%	C	M	Silty clay	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **Silty clay**

Depth (inches): **7**

Hydric Soil Present? Yes **X** No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ 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)
- ___ Gauge or Well Data (D9)
- *X Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No **X** Depth (inches): ___

Water Table Present? Yes ___ No **X** Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No **X** Depth (inches): ___

Wetland Hydrology Present? Yes **X** No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

*** Exposed tree/shrub roots also observed.**

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **IH-94 Mainline** City/County: **Racine Kilbournville/** Sampling Date: **8/18/2009**

Applicant/Owner: **WDOT** State: **WI** Sampling Point: **W11-2 T-1 A(u)**

Investigator(s): **Tina M. Myers** Section, Township, Range: **Section 6, T4N R22E**

Landform (hillslope, terrace, etc.): **Hillslope** Local relief (concave, convex, none): **None**

Slope (%): **45%** Lat: **See Fig. 2** Long: **See Fig. 2** Datum: **NA**

Soil Map Unit Name: **Clayey land (Cv)** WWI Classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ***X** (if no, explain in Remarks)

Are Vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes **X** 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 **X**			
Hydric Soil Present?	Yes ____	No **X**	Is the Sampled Area	Yes ____	No **X**
Wetland Hydrology Present?	Yes ____	No **X**	within a Wetland?		

Remarks:

*** The WETS Analysis indicates that recent weather conditions have been drier than normal.**

This sample point is located on a steep hillslope.

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: **N/A**)	Absolute % Cover	Dominant Species	Indicator Status
1. **N/A**			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot Size: **N/A**)			
1. **N/A**			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herb Stratum (Plot Size: **5 ft. radius**)			
1. ***Bromus inermis***	**60%**	**Yes**	**UPL**
2. ***Coronilla varia***	**50%**	**Yes**	**UPL**
3. ***Daucus carota***	**20%**	**No**	**UPL**
4. ***Rudbeckia hirta***	**3%**	**No**	**FACU**
5. ***Solidago canadensis***	**5%**	**No**	**FACU**
6. ***Poa pratensis***	**50%**	**Yes**	**FAC**
7. ***Oenothera biennis***	**2%**	**No**	**FACU**
8. ***Aster novae-angliae***	**5%**	**No**	**FACW**
9.			
10.			
	195%	= Total Cover	

Woody Vine Stratum (Plot Size: **N/A**)			
1. **N/A**			
2.			
	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	____	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:

____ Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

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

This is an upland, old field plant community.

SOIL

Sampling Point: **W11-2 T-1 A(u)**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/1	100	None				Silt loam	
8-20	2.5Y 5/4	100	10YR 5/8	20%	C	M	Silt	
			10YR 6/1	5%	D	M		

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **N/A**

Depth (inches): **N/A**

Hydric Soil Present? Yes ___ No **X**

Remarks:

The soils are very dry and well drained on an approximately 45% hillslope.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ 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)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No **X** Depth (inches): ___

Water Table Present? Yes ___ No **X** Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No **X** Depth (inches): ___

Wetland Hydrology Present? Yes ___ No **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No wetland hydrology indicators were observed. Past alterations to the landscape evident due to the historic construction of IH-94.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH-94 Mainline | City/County: Kilbournville/ Racine | Sampling Date: 8/18/2009
Applicant/Owner: WDOT | State: WI | Sampling Point: W11-2 T-1 B(w)
Investigator(s): Tina M. Myers | Section, Township, Range: Section 6, T4N R22E
Landform (hillslope, terrace, etc.): Wetland depression | Local relief (concave, convex, none): Concave
Slope (%): 0-1% | Lat: See Fig. 2 | Long: See Fig. 2 | Datum: NA
Soil Map Unit Name: Clayey land (Cv) | WWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No *X (if no, explain in Remarks)
Are Vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No ____		
Hydric Soil Present?	Yes X	No ____	Is the Sampled Area within a Wetland?	Yes X No ____
Wetland Hydrology Present?	Yes X	No ____		

Remarks:
*** The WETS Analysis indicates that recent weather conditions have been drier than normal.**

This is a wetland ditch located along the IH-94 exit ramp. This feature drains towards the Root River located to the north.

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: N/A)	Absolute % Cover	Dominant Species	Indicator Status
1. N/A			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot Size: N/A)			
1. N/A			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herb Stratum (Plot Size: 5 ft. radius)			
1. *Phragmites australis*	100%	Yes	FACW
2. *Solidago canadensis*	10%	No	FACU
3. *Parthenocissus quinquefolia*	10%	No	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	120%	= Total Cover	

Woody Vine Stratum (Plot Size: N/A)			
1. N/A			
2.			
	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:

X Dominance Test is >50%
____ Prevalence Index is ≤ 3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

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

This plant community is indicative of a roadside wetland ditch. *Phragmites australis* and *Typha spp.* are the dominate vegetation within this wetland.

SOIL

Sampling Point: **W11-2 T-1 B(w)**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 2/1	100	None				Silt loam	
8-20	10YR 5/2	100	7.5YR 5/8	10%	C	M	Silty clay	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **Silty clay**

Depth (inches): **8**

Hydric Soil Present? Yes **X** No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ 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)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No **X** Depth (inches): ___

Water Table Present? Yes ___ No **X** Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No **X** Depth (inches): ___

Wetland Hydrology Present? Yes **X** No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This sample point was located along the edge of the wetland within a dry area. However, portions of the wetland are saturated despite the current dry weather conditions. This wetland feature drains towards the Root River directly north of the wetland.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **IH-94 Mainline** City/County: **Oak Creek/ Milwaukee** Sampling Date: **9/2/2009**

Applicant/Owner: **WDOT** State: **WI** Sampling Point: **W11-3a T-1 A(u)**

Investigator(s): **Eric C. Parker / Julie A. Paschal** Section, Township, Range: **Section 31, T5N R22E**

Landform (hillslope, terrace, etc.): **Slight hillslope** Local relief (concave, convex, none): **Convex**

Slope (%): **5-7%** Lat: **See Fig. 2** Long: **See Fig. 2** Datum: **NA**

Soil Map Unit Name: **Blount silt loam (BIA)** WWI Classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks)

Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes **X** 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 **X**			
Hydric Soil Present?	Yes _____	No **X**	Is the Sampled Area within a Wetland?	Yes _____	No **X**
Wetland Hydrology Present?	Yes _____	No **X**			

Remarks:

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: **30 ft. radius**)	Absolute % Cover	Dominant Species	Indicator Status
1. *Tilia americana*	50%	Yes	FACU
2. *Fraxinus pennsylvanica*	15%	No	FACW
3. *Acer saccharum*	20%	Yes	FACU
4.			
5.			
	85%	= Total Cover	

Sapling/Shrub Stratum (Plot Size: **15 ft. radius**)			
1. *Lonicera x bella*	25%	Yes	FACU
2. *Prunus virginiana*	10%	Yes	FAC
3.			
4.			
5.			
	35%	= Total Cover	

Herb Stratum (Plot Size: **5 ft. radius**)			
1. *Phalaris arundinacea*	2%	No	FACW
2. *Geum canadense*	5%	Yes	FAC
3. *Arisaema triphyllum*	2%	No	FACW
4. *Leersia virginica*	2%	No	FACW
5. *Geranium maculatum*	5%	Yes	FACU
6.			
7.			
8.			
9.			
10.			
	16%	= Total Cover	

Woody Vine Stratum (Plot Size: **15 ft. radius**)			
1. *Parthenocissus quinquefolia*	30%	Yes	FAC
2.			
	30%	= 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: **7** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **43%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	21%	x 2 =	42
FAC species	45%	x 3 =	135
FACU species	100%	x 4 =	400
UPL species		x 5 =	
Column Totals:	166% (A)		577 (B)

Prevalence Index = B/A = **3.48**

Hydrophytic Vegetation Indicators:

_____ Dominance Test is >50%

_____ Prevalence Index is ≤ 3.0[1]

_____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No **X**

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

Approximately 50% of the ground surface was observed to be bare ground due to the dense tree canopy. This is a mesic woodland plant community.

SOIL

Sampling Point: **W11-3a T-1 A(u)**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	2.5 Y 5/2	100	10YR 4/6	2%	C	M	Silt loam	
4-16	10YR 4/2	40	None				Silty clay loam	
4-16	10YR 5/4	60	None				Silty clay loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

_____ Coast Prairie Redox (A16)
_____ Iron-Manganese Masses (F12)
_____ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **N/A**

Depth (inches): **N/A**

Hydric Soil Present? Yes _____ No **X**

Remarks:

Mixed matrix observed from 4-16 inches.

HYDROLOGY

Wetland Hydrology Indicators:

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

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Water-Stained Leaves (B9)
___ Aquatic Fauna (B13)
___ True Aquatic Plants (B14)
___ 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)
___ Gauge or Well Data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

_____ Surface Soil Cracks (B6)
_____ Drainage Patterns (B10)
_____ Dry-Season Water Table (C2)
_____ Crayfish Burrows (C8)
_____ Saturation Visible on Aerial Imagery (C9)
_____ Stunted or Stressed Plants (D1)
_____ Geomorphic Position (D2)
_____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No **X** Depth (inches): _____
Water Table Present? Yes ____ No **X** Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes ____ No **X** Depth (inches): _____

Wetland Hydrology Present? Yes ____ No **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This area is located within a mesic woodland at a higher elevation than the corresponding wetland sample point.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **IH-94 Mainline** City/County: **Oak Creek/ Milwaukee** Sampling Date: **9/2/2009**

Applicant/Owner: **WDOT** State: **WI** Sampling Point: **W11-3a T-1 B(w)**

Investigator(s): **Eric C. Parker / Julie A. Paschal** Section, Township, Range: **Section 31, T5N R22E**

Landform (hillslope, terrace, etc.): **Terrace** Local relief (concave, convex, none): **Concave**

Slope (%): **0-2%** Lat: **See Fig. 2** Long: **See Fig. 2** Datum: **NA**

Soil Map Unit Name: **Ashkum silty clay loam (AsA)** WWI Classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks)

Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes **X** 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 **X**	No _____		
Hydric Soil Present?	Yes **X**	No _____	Is the Sampled Area within a Wetland?	Yes **X** No _____
Wetland Hydrology Present?	Yes **X**	No _____		

Remarks:

This is an ephemeral wooded swamp wetland.

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: **30 ft. radius**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***Fraxinus pennsylvanica***	**50%**	**Yes**	**FACW**
2.			
3.			
4.			
5.			
	50% = Total Cover		

Sapling/Shrub Stratum (Plot Size: **15 ft. radius**)			
1. ***Rhamnus cathartica***	**20%**	**Yes**	**FACU**
2.			
3.			
4.			
5.			
	20% = Total Cover		

Herb Stratum (Plot Size: **5 ft. radius**)			
1. ***Phalaris arundinacea***	**60%**	**Yes**	**FACW**
2. ***Vitis riparia***	**10%**	**No**	**FACW**
3. ***Parthenocissus quinquefolia***	**10%**	**No**	**FAC**
4. ***Aster lateriflorus***	**5%**	**No**	**FACW**
5. ***Carex scoparia***	**40%**	**Yes**	**FACW**
6.			
7.			
8.			
9.			
10.			
	125% = Total Cover		

Woody Vine Stratum (Plot Size: **N/A**)			
1. **N/A**			
2.			
	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:

X Dominance Test is >50%

_____ Prevalence Index is ≤ 3.0[1]

_____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes **X** No _____

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

This is a wooded swamp plant community.

SOIL

Sampling Point: **W11-3a T-1 B(w)**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 3/1	100	None				Silt loam	
7-18	10YR 5/2	100	10YR 5/4	7%	C	M	Silt loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **N/A**

Depth (inches): **N/A**

Hydric Soil Present? Yes **X** No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- X Water Marks (B1)
- X Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- X Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ 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)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? Yes **X** No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This is a depressional, ephemeral wetland located on a high plateau between the northbound and southbound lanes of IH-94.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH-94 Mainline | City/County: Oak Creek/ Milwaukee | Sampling Date: 9/2/2009
Applicant/Owner: WDOT | State: WI | Sampling Point: W11-3b T-1 A(u)
Investigator(s): Marcus S. Anderson / Tina M. Myers | Section, Township, Range: Section 31, T5N R22E
Landform (hillslope, terrace, etc.): Hillslope | Local relief (concave, convex, none): None
Slope (%): 2-3% | Lat: See Fig. 2 | Long: See Fig. 2 | Datum: NA
Soil Map Unit Name: Blount silt loam (BIA) | WWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)
Are Vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X		
Hydric Soil Present?	Yes ____	No X	Is the Sampled Area within a Wetland?	Yes ____ No X
Wetland Hydrology Present?	Yes ____	No X		

Remarks:

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: 30 ft. radius)	Absolute % Cover	Dominant Species	Indicator Status
1. *Tilia americana*	80%	Yes	FACU
2. *Acer saccharum*	50%	Yes	FACU
3.			
4.			
5.			
	130%	= Total Cover	

Sapling/Shrub Stratum (Plot Size: 15 ft. radius)			
1. *Rhamnus cathartica*	40%	Yes	FACU
2. *Lonicera x bella*	35%	Yes	FACU
3. *Ribes cynosbati*	5%	No	UPL
4.			
5.			
	80%	= Total Cover	

Herb Stratum (Plot Size: 5 ft. radius)			
1. *Carex pensylvanica*	40%	Yes	UPL
2. *Parthenocissus quinquefolia*	5%	No	FAC
3. *Geranium maculatum*	5%	No	FACU
4. *Arisaema triphyllum*	5%	No	FACW
5.			
6.			
7.			
8.			
9.			
10.			
	55%	= Total Cover	

Woody Vine Stratum (Plot Size: N/A)			
1. N/A			
2.			
	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:

____ Dominance Test is >50%
____ Prevalence Index is ≤ 3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

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

This is a well to moderately well drained mesic forest dominated by FACU species such as basswood and sugar maple.

SOIL

Sampling Point: **W11-3b T-1 A(u)**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/2	100	None				Silt loam	
4-12	10YR 4/3	100	None				Silt loam	
12-20	10YR 5/3	100	10YR 4/6	2%	C	M	Silt loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **N/A**

Depth (inches): **N/A**

Hydric Soil Present? Yes ___ No **X**

Remarks:

High chroma colors indicate well to moderately well drained conditions.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ 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)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No **X**	Depth (inches): ___
Water Table Present?	Yes ___	No **X**	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No **X**	Depth (inches): ___

Wetland Hydrology Present? Yes ___ No **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This is a well to moderately well drained mesic forest. No wetland hydrology indicators observed.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **IH-94 Mainline** City/County: **Oak Creek/ Milwaukee** Sampling Date: **9/2/2009**

Applicant/Owner: **WDOT** State: **WI** Sampling Point: **W11-3b T-1 B(w)**

Investigator(s): **Marcus S. Anderson** Section, Township, Range: **Section 31, T5N R22E**

Landform (hillslope, terrace, etc.): **Wetland depression** Local relief (concave, convex, none): **Concave**

Slope (%): **0-1%** Lat: **See Fig. 2** Long: **See Fig. 2** Datum: **NA**

Soil Map Unit Name: **Blount silt loam (BIA)** WWI Classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks)

Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes **X** 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 **X**	No _____			
Hydric Soil Present?	Yes **X**	No _____	Is the Sampled Area	Yes **X**	No _____
Wetland Hydrology Present?	Yes **X**	No _____	within a Wetland?		

Remarks:

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: **N/A**)	Absolute % Cover	Dominant Species	Indicator Status
1. **N/A**			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot Size: **N/A**)			
1. **N/A**			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herb Stratum (Plot Size: **5 ft. radius**)			
1. ***Glyceria striata***	**60%**	**Yes**	**OBL**
2. ***Toxicodendron radicans***	**10%**	**No**	**FAC**
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	70%	= Total Cover	

Woody Vine Stratum (Plot Size: **N/A**)			
1. **N/A**			
2.			
	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:

X Dominance Test is >50%

_____ Prevalence Index is ≤ 3.0[1]

_____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes **X** No _____

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

SOIL

Sampling Point: **W11-3b T-1 B(w)**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 2/1	100	None				Silt loam	
6-13	10YR 4/1	100	10YR 4/4	10%	C	M	Silty clay loam	
13-20	10YR 5/1	100	10YR 5/6	10%	C	M	Silty clay loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **N/A**

Depth (inches): **N/A**

Hydric Soil Present? Yes **X** No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- X Inundation Visible on Aerial Imagery (B7)
- X Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ 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)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes X	No ___	Depth (inches): 18
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 14

Wetland Hydrology Present? Yes **X** No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH-94 Mainline | City/County: Oak Creek/ Milwaukee | Sampling Date: 8/19/2009
Applicant/Owner: WDOT | State: WI | Sampling Point: W11-10b T-1 A(u)
Investigator(s): Marcus S. Anderson / Julie A. Paschal | Section, Township, Range: Section 31, T5N R22E
Landform (hillslope, terrace, etc.): Hillslope | Local relief (concave, convex, none): None
Slope (%): 5-10% | Lat: See Fig. 2 | Long: See Fig. 2 | Datum: NA
Soil Map Unit Name: Fox loam (FtB) | WWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)
Are Vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X		
Hydric Soil Present?	Yes ____	No X	Is the Sampled Area within a Wetland?	Yes ____ No X
Wetland Hydrology Present?	Yes ____	No X		

Remarks:

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: N/A)	Absolute % Cover	Dominant Species	Indicator Status
1. N/A			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot Size: 15 ft. radius)			
1. *Crataegus crus-galli*	70%	Yes	FAC
2.			
3.			
4.			
5.			
	70%	= Total Cover	

Herb Stratum (Plot Size: 5 ft. radius)			
1. *Solidago canadensis*	50%	Yes	FACU
2. *Glechoma hederacea*	10%	No	FACU
3. *Phalaris arundinacea*	10%	No	FACW
4. *Parthenocissus quinquefolia*	10%	No	FAC
5. *Geum aleppicum*	10%	No	FAC
6.			
7.			
8.			
9.			
10.			
	90%	= Total Cover	

Woody Vine Stratum (Plot Size: N/A)			
1. N/A			
2.			
	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		x 1 =	
FACW species	10%	x 2 =	20
FAC species	90%	x 3 =	270
FACU species	60%	x 4 =	240
UPL species		x 5 =	
Column Totals:	160% (A)		530 (B)

Prevalence Index = B/A = 3.31

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤ 3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

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

This is an upland, shrub scrub plant community.

SOIL

Sampling Point: **W11-10b T-1 A(u)**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/3	100	None				Silt loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **N/A**

Depth (inches): **N/A**

Hydric Soil Present? Yes ___ No **X**

Remarks:

The soils are very dry.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ 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)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No **X** Depth (inches): ___

Water Table Present? Yes ___ No **X** Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No **X** Depth (inches): ___

Wetland Hydrology Present? Yes ___ No **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No wetland hydrology indicators observed.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **IH-94 Mainline** City/County: **Oak Creek/ Milwaukee** Sampling Date: **8/19/2009**

Applicant/Owner: **WDOT** State: **WI** Sampling Point: **W11-10b T-1 B(w)**

Investigator(s): **Marcus S. Anderson / Julie A. Paschal** Section, Township, Range: **Section 31, T5N R22E**

Landform (hillslope, terrace, etc.): **Terrace** Local relief (concave, convex, none): **Convex**

Slope (%): **0%** Lat: **See Fig. 2** Long: **See Fig. 2** Datum: **NA**

Soil Map Unit Name: **Fox loam (FtB)** WWI Classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks)

Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes **X** 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 **X**	No _____			
Hydric Soil Present?	Yes **X**	No _____	Is the Sampled Area within a Wetland?	Yes **X**	No _____
Wetland Hydrology Present?	Yes **X**	No _____			

Remarks:

This sample point is within a floodplain forest along the Root River.

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: **30 ft. radius**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***Populus deltoides***	20%	Yes	FAC
2. ***Acer saccharinum***	30%	Yes	FACW
3. ***Fraxinus pennsylvanica***	25%	Yes	FACW
4. ***Ulmus americana***	20%	No	FACW
5.			
	95%	= Total Cover	

Sapling/Shrub Stratum (Plot Size: **N/A**)			
1. **N/A**			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herb Stratum (Plot Size: **5 ft. radius**)			
1. ***Phalaris arundinacea***	60%	Yes	FACW
2. ***Polygonum virginianum***	20%	No	FAC
3. ***Aster lanceolatus***	30%	Yes	FACW
4. ***Cyperus esculentus***	20%	No	FACW
5.			
6.			
7.			
8.			
9.			
10.			
	130%	= Total Cover	

Woody Vine Stratum (Plot Size: **N/A**)			
1. **N/A**			
2.			
	0%	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **6** (A)

Total Number of Dominant Species Across All Strata: **6** (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:

X Dominance Test is >50%

_____ Prevalence Index is ≤ 3.0[1]

_____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes **X** No _____

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

This is a wet meadow/floodplain forest plant community.

SOIL

Sampling Point: **W11-10b T-1 B(w)**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 2/1	100	None				Silt loam	
18-24	10YR 5/2	100	10YR 4/6	10%	C	M	Silty clay loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- X Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **N/A**

Depth (inches): **N/A**

Hydric Soil Present? Yes **X** No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- X Water Marks (B1)
- X Sediment Deposits (B2)
- X 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)
- ___ True Aquatic Plants (B14)
- ___ 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)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No **X** Depth (inches): ___

Water Table Present? Yes ___ No **X** Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes **X** No ___ Depth (inches) **18**

Wetland Hydrology Present? Yes **X** No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH-94 Mainline | City/County: Oak Creek/ Milwaukee | Sampling Date: 9/15/2009
Applicant/Owner: WDOT | State: WI | Sampling Point: W10-7 T-1 A(u)
Investigator(s): Julie A. Paschal | Section, Township, Range: Section 30, T5N R22E
Landform (hillslope, terrace, etc.): Slight hillslope | Local relief (concave, convex, none): Convex
Slope (%): 5% | Lat: See Fig. 2 | Long: See Fig. 2 | Datum: NA
Soil Map Unit Name: Blount silt loam (BIA) | WWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)
Are Vegetation *X Soil *X or Hydrology *X significantly disturbed? Are "Normal Circumstances" present? Yes ____ No **X
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 X		
Hydric Soil Present?	Yes ____	No X	Is the Sampled Area within a Wetland?	Yes ____ No X
Wetland Hydrology Present?	Yes ____	No X		

Remarks:
*** Soils, vegetation,and hydrology are all disturbed due to grubbing and tilling in this area for apparent development.**
**** Disturbed conditions observed due to apparent preparation for future development.**

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: 30 ft. radius)	Absolute % Cover	Dominant Species	Indicator Status
1. *Populus deltoides*	15%	Yes	FAC
2.			
3.			
4.			
5.			
	15%	= Total Cover	

Sapling/Shrub Stratum (Plot Size: N/A)			
1. N/A			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herb Stratum (Plot Size: 5 ft. radius)			
1. *Barbarea vulgaris*	10%	Yes	FAC
2. *Taraxacum officinale*	5%	Yes	FACU
3. *Viburnum lentago*	5%	Yes	FAC
4. *Daucus carota*	2%	No	UPL
5. *Cirsium arvense*	2%	No	FACU
6. *Melilotus alba*	1%	No	FACU
7.			
8.			
9.			
10.			
	25%	= Total Cover	

Woody Vine Stratum (Plot Size: N/A)			
1. N/A			
2.			
	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	30%	x 3 = 90
FACU species	8%	x 4 = 32
UPL species	2%	x 5 = 10
Column Totals:	40% (A)	132 (B)

Prevalence Index = B/A = 3.30

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
____ Prevalence Index is ≤ 3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)
Primarily bare ground in this area due to recent grubbing and tilling. The vegetation passes the Dominance Test but does not pass the Prevalence Index or the FAC-Neutral Test. In addition, the disturbed conditions of this area create problematic vegetation. Professional opinion indicates this is an upland plant community.

SOIL

Sampling Point: **W10-7 T-1 A(u)**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/2	100	None				Silt loam	
8-18	10YR 2/2	100	None				Silty clay loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

[2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **N/A**

Depth (inches): **N/A**

Hydric Soil Present? Yes ___ No **X**

Remarks:

Soils are disturbed due to recent grubbing and tilling.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ 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)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No **X** Depth (inches): ___

Water Table Present? Yes ___ No **X** Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No **X** Depth (inches): ___

Wetland Hydrology Present? Yes ___ No **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No wetland hydrology indicators observed.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH-94 Mainline | City/County: Oak Creek/ Milwaukee | Sampling Date: 9/15/2009
Applicant/Owner: WDOT | State: WI | Sampling Point: W10-7 T-1 B(w)
Investigator(s): Julie A. Paschal | Section, Township, Range: Section 30, T5N R22E
Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave
Slope (%): 0-2% | Lat: See Fig. 2 | Long: See Fig. 2 | Datum: NA
Soil Map Unit Name: Blount silt loam (BIA) | WWI Classification: T3/E2K
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)
Are Vegetation ____ Soil ____ or Hydrology *X significantly disturbed? Are "Normal Circumstances" present? Yes ____ No **X
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 X	No ____			
Hydric Soil Present?	Yes X	No ____	Is the Sampled Area within a Wetland?	Yes X	No ____
Wetland Hydrology Present?	Yes X	No ____			

Remarks:
*** Hydrology is disturbed due to recent grubbing and tilling for apparent development. The majority of this wetland is disturbed due to these activities. The soils and vegetation at this sample point, however, are minimally disturbed - no tilling or grubbing here.**
**** Disturbed conditions observed due to apparent preparation for future development.**

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: N/A)	Absolute % Cover	Dominant Species	Indicator Status
1. N/A			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot Size: N/A)			
1. N/A			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herb Stratum (Plot Size: 5 ft. radius)			
1. *Phalaris arundinacea*	100%	Yes	FACW
2. *Barbarea vulgaris*	5%	No	FAC
3. *Carex atherodes*	2%	No	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	107%	= Total Cover	

Woody Vine Stratum (Plot Size: N/A)			
1. N/A			
2.			
	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:
X Dominance Test is >50%
____ Prevalence Index is ≤ 3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks: (Include photo numbers here or on a separate sheet.)
This is a *Phalaris arundinacea* dominated wet meadow wetland near a roadside ditch.

SOIL

Sampling Point: **W10-7 T-1 B(w)**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 3/1	100	None				Silt loam	
16-20	10YR 6/1	100	10YR 4/6	20%	C	M	Silty clay loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- X Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **N/A**

Depth (inches): **N/A**

Hydric Soil Present? Yes **X** No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ 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)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? Yes **X** No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **IH-94 Mainline** City/County: **Oak Creek/ Milwaukee** Sampling Date: **9/15/2009**

Applicant/Owner: **WDOT** State: **WI** Sampling Point: **W11-3 T-1 A(u)**

Investigator(s): **Julie A. Paschal** Section, Township, Range: **Section 31, T5N R22E**

Landform (hillslope, terrace, etc.): **Hillslope** Local relief (concave, convex, none): **Convex**

Slope (%): **10-15%** Lat: **See Fig. 2** Long: **See Fig. 2** Datum: **NA**

Soil Map Unit Name: **Ashkum silty clay loam (AsA)** WWI Classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks)

Are Vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes **X** 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 **X**		
Hydric Soil Present?	Yes _____	No **X**	Is the Sampled Area within a Wetland?	Yes _____ No **X**
Wetland Hydrology Present?	Yes _____	No **X**		

Remarks:

This is an upland, woodland area.

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: **30 ft. radius**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***Juglans nigra***	**70%**	**Yes**	**FACU**
2.			
3.			
4.			
5.			
	70% = Total Cover		

Sapling/Shrub Stratum (Plot Size: **15 ft. radius**)			
1. ***Rhamnus cathartica***	**50%**	**Yes**	**FACU**
2.			
3.			
4.			
5.			
	50% = Total Cover		

Herb Stratum (Plot Size: **5 ft. radius**)			
1. ***Rhamnus cathartica***	**10%**	**Yes**	**FACU**
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	10% = Total Cover		

Woody Vine Stratum (Plot Size: **15 ft. radius**)			
1. ***Parthenocissus quinquefolia***	**10%**	**Yes**	**FAC**
2.			
	10% = 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: **4** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **25%** (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:

_____ Dominance Test is >50%

_____ Prevalence Index is ≤ 3.0[1]

_____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No **X**

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

Due to the dense tree and shrub strata, 80% bare ground was observed within the herbaceous stratum at this sample point. This is an upland, woodland plant community.

SOIL

Sampling Point: **W11-3 T-1 A(u)**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 3/2	100	None				Silt loam	
7-16	2.5Y 5/3	100	10YR 5/4	5%	C	M	Silty clay	

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

[2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **N/A**

Depth (inches): **N/A**

Hydric Soil Present? Yes ___ No **X**

Remarks:

Rocks observed within the soil profile. Soils are very dry and compacted.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ 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)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No **X**	Depth (inches): ___
Water Table Present?	Yes ___	No **X**	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No **X**	Depth (inches): ___

Wetland Hydrology Present? Yes ___ No **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No wetland hydrology indicators observed. This sample point is located on an approximately 10% slope between a drainage swale and a depressional *Phalaris arundinacea* dominated wet meadow. The hydrologic connection between the swale and the wet meadow is located west of this sample point in a low lying area.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH-94 Mainline | City/County: Oak Creek/ Milwaukee | Sampling Date: 9/15/2009
Applicant/Owner: WDOT | State: WI | Sampling Point: W11-3 T-1 B(w)
Investigator(s): Julie A. Paschal | Section, Township, Range: Section 31, T5N R22E
Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave
Slope (%): 0-1% | Lat: See Fig. 2 | Long: See Fig. 2 | Datum: NA
Soil Map Unit Name: Ashkum silty clay loam (AsA) | WWI Classification: T3K
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)
Are Vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No ____		
Hydric Soil Present?	Yes X	No ____	Is the Sampled Area within a Wetland?	Yes X No ____
Wetland Hydrology Present?	Yes X	No ____		

Remarks:

This is a wet meadow wetland adjacent to a drainage swale.

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: N/A)	Absolute % Cover	Dominant Species	Indicator Status
1. N/A			
2.			
3.			
4.			
5.			
	0% = Total Cover		

Sapling/Shrub Stratum (Plot Size: N/A)			
1. N/A			
2.			
3.			
4.			
5.			
	0% = Total Cover		

Herb Stratum (Plot Size: 5 ft. radius)			
1. *Phalaris arundinacea*	100%	Yes	FACW
2. *Solidago gigantea*	15%	No	FACW
3. *Cirsium arvense*	5%	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	120% = Total Cover		

Woody Vine Stratum (Plot Size: N/A)			
1. N/A			
2.			
	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:

X Dominance Test is >50%
____ Prevalence Index is ≤ 3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

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

This is a *Phalaris arundinacea* dominated wet meadow wetland adjacent to a drainage swale.

SOIL

Sampling Point: **W11-3 T-1 B(w)**

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-12	10YR 3/1	100	None				Silt loam	
12-18	7.5YR 5/2	100	7.5YR 5/8	20%	C	M	Silty clay loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- X Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **N/A**

Depth (inches): **N/A**

Hydric Soil Present? Yes **X** No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ 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)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No **X** Depth (inches): ___

Water Table Present? Yes ___ No **X** Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No **X** Depth (inches): ___

Wetland Hydrology Present? Yes **X** No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This is a depressional area adjacent to a drainage swale.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **IH-94 Mainline** City/County: **Oak Creek/ Milwaukee** Sampling Date: **9/2/2009**

Applicant/Owner: **WDOT** State: **WI** Sampling Point: **W11-4 T-1 A(u)**

Investigator(s): **Eric C. Parker / Julie A. Paschal** Section, Township, Range: **Section 31, T5N R22E**

Landform (hillslope, terrace, etc.): **Slight slope** Local relief (concave, convex, none): **Convex**

Slope (%): **2%** Lat: **See Fig. 2** Long: **See Fig. 2** Datum: **NA**

Soil Map Unit Name: **Morley silt loam (MzdB2)** WWI Classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks)

Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes **X** 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 **X**			
Hydric Soil Present?	Yes _____	No **X**	Is the Sampled Area within a Wetland?	Yes _____	No **X**
Wetland Hydrology Present?	Yes _____	No **X**			

Remarks:

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: **30 ft. radius**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***Juglans nigra***	**50%**	**Yes**	**FACU**
2.			
3.			
4.			
5.			
	50% = Total Cover		

Sapling/Shrub Stratum (Plot Size: **15 ft. radius**)			
1. ***Rubus occidentalis***	**5%**	**Yes**	**UPL**
2.			
3.			
4.			
5.			
	5% = Total Cover		

Herb Stratum (Plot Size: **5 ft. radius**)			
1. ***Bromus inermis***	**100%**	**Yes**	**UPL**
2. ***Glechoma hederacea***	**2%**	**No**	**FACU**
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	102% = Total Cover		

Woody Vine Stratum (Plot Size: **N/A**)			
1. **N/A**			
2.			
	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:

_____ Dominance Test is >50%

_____ Prevalence Index is ≤ 3.0[1]

_____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No **X**

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

This is an upland, old field plant community with partial tree canopy provided by *Juglans nigra*. This area is between a farmed field and a partially ditched wetland.

SOIL

Sampling Point: **W11-4 T-1 A(u)**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/2	100	None				Silt loam	
12-18	10YR 5/3	100	None				Silty clay loam	
18+	10YR 4/6	100	None				Silty clay loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Iron-Manganese Masses (F12)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **N/A**

Depth (inches): **N/A**

Hydric Soil Present? Yes ___ No **X**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Water-Stained Leaves (B9)
___ Aquatic Fauna (B13)
___ True Aquatic Plants (B14)
___ 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)
___ Gauge or Well Data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface Soil Cracks (B6)
X Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No **X** Depth (inches): ___

Water Table Present? Yes **X** No ___ Depth (inches): **16**

Saturation Present? (includes capillary fringe) Yes **X** No ___ Depth (inches): **14**

Wetland Hydrology Present? Yes ___ No **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This sample point is located slightly upslope from the adjacent wetland.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH-94 Mainline | City/County: Oak Creek/ Milwaukee | Sampling Date: 9/2/2009
Applicant/Owner: WDOT | State: WI | Sampling Point: W11-4 T-1 B(w)
Investigator(s): Eric C. Parker / Julie A. Paschal | Section, Township, Range: Section 31, T5N R22E
Landform (hillslope, terrace, etc.): Swale/ditch | Local relief (concave, convex, none): Concave
Slope (%): 5-7% | Lat: See Fig. 2 | Long: See Fig. 2 | Datum: NA
Soil Map Unit Name: Morley silt loam (MzdB2) | WWI Classification: E1Ka
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)
Are Vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No ____		
Hydric Soil Present?	Yes X	No ____	Is the Sampled Area	Yes X No ____
Wetland Hydrology Present?	Yes X	No ____	within a Wetland?	

Remarks:

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: 30 ft. radius)	Absolute % Cover	Dominant Species	Indicator Status
1. *Fraxinus pennsylvanica*	20%	Yes	FACW
2. *Populus deltoides*	15%	Yes	FAC
3.			
4.			
5.			
	35%	= Total Cover	

Sapling/Shrub Stratum (Plot Size: 15 ft. radius)			
1. *Salix amygdaloides*	25%	Yes	FACW
2.			
3.			
4.			
5.			
	25%	= Total Cover	

Herb Stratum (Plot Size: 5 ft. radius)			
1. *Phalaris arundinacea*	100%	Yes	FACW
2. *Vitis riparia*	10%	No	FACW
3. *Polygonum pensylvanicum*	8%	No	FACW
4. *Cirsium arvense*	5%	No	FACU
5. *Solidago gigantea*	10%	No	FACW
6.			
7.			
8.			
9.			
10.			
	133%	= Total Cover	

Woody Vine Stratum (Plot Size: N/A)			
1. N/A			
2.			
	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:

X Dominance Test is >50%
____ Prevalence Index is ≤ 3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

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

This is a wet meadow/shrub scrub wetland plant community.

SOIL

Sampling Point: **W11-4 T-1 B(w)**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 4/2	100	7.5YR 5/8	2%	C	PL	Silty clay loam	
8-18	10YR 4/2	100	10YR 4/3	5%	C	M	Silty clay loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **N/A**

Depth (inches): **N/A**

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology is provided by the adjacent farm field swale and roadside ditch.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **IH-94 Mainline** City/County: **Oak Creek/ Milwaukee** Sampling Date: **9/15/2009**

Applicant/Owner: **WDOT** State: **WI** Sampling Point: **W11-4 T-2 A(u)**

Investigator(s): **Eric C. Parker / Julie A. Paschal** Section, Township, Range: **Section 31, T5N R22E**

Landform (hillslope, terrace, etc.): **Hillslope** Local relief (concave, convex, none): **Convex**

Slope (%): **7-10%** Lat: **See Fig. 2** Long: **See Fig. 2** Datum: **NA**

Soil Map Unit Name: **Morley silt loam (MzdB2)** WWI Classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks)

Are Vegetation ***X** Soil ***X** or Hydrology ***X** significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ****X**

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 **X**			
Hydric Soil Present?	Yes _____	No **X**	Is the Sampled Area within a Wetland?	Yes _____	No **X**
Wetland Hydrology Present?	Yes _____	No **X**			

Remarks:

*** The vegetation, soils, and hydrology have been disturbed due to cropping, tilling, and drain tile installation.**

**** Conditions are altered due to annual farming.**

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: **N/A**)	Absolute % Cover	Dominant Species	Indicator Status
1. **N/A**			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot Size: **N/A**)			
1. **N/A**			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herb Stratum (Plot Size: **5 ft. radius**)			
1. ***Glycine max* (planted)**	**90%**	**Yes**	**UPL**
2. ***Ambrosia artemisiifolia***	**10%**	**No**	**FACU**
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100%	= Total Cover	

Woody Vine Stratum (Plot Size: **N/A**)			
1. **N/A**			
2.			
	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: **1** (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:

_____ Dominance Test is >50%

_____ Prevalence Index is ≤ 3.0[1]

_____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No **X**

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

The soybean crop appears healthy and robust in this portion of the field. *Ambrosia artemisiifolia* presumed to be dead due to herbiciding.

SOIL

Sampling Point: **W11-4 T-2 A(u)**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/2	100	None				Silt loam	
8-12	10YR 3/2	50	None				Silt loam	Mixed matrix 8-12 inches due to
8-12	10YR 3/1	50	10YR 5/8	2%	C	M	Silty clay loam	tilling
12-18	10YR 3/1	100	10YR 5/8	2%	C	M	Silty clay loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **N/A**

Depth (inches): **N/A**

Hydric Soil Present? Yes ___ No **X**

Remarks:

Soils are disturbed due to annual tilling.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ 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)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No **X** Depth (inches): ___

Water Table Present? Yes ___ No **X** Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No **X** Depth (inches): ___

Wetland Hydrology Present? Yes ___ No **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No wetland hydrology indicators observed. This sample point is upslope of the adjacent wetland swale.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH-94 Mainline | City/County: Oak Creek/ Milwaukee | Sampling Date: 9/15/2009
Applicant/Owner: WDOT | State: WI | Sampling Point: W11-4 T-2 B(w)
Investigator(s): Eric C. Parker / Julie A. Paschal | Section, Township, Range: Section 31, T5N R22E
Landform (hillslope, terrace, etc.): Slight slope | Local relief (concave, convex, none): Concave
Slope (%): 0-2% | Lat: See Fig. 2 | Long: See Fig. 2 | Datum: NA
Soil Map Unit Name: Morley silt loam (MzdB2) | WWI Classification: E1Ka
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)
Are Vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No ____		
Hydric Soil Present?	Yes X	No ____	Is the Sampled Area within a Wetland?	Yes X No ____
Wetland Hydrology Present?	Yes X	No ____		

Remarks:
This is a *Phalaris arundinacea* dominated drainage swale located within a farmed soybean field.

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: N/A)	Absolute % Cover	Dominant Species	Indicator Status
1. N/A			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot Size: N/A)			
1. N/A			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herb Stratum (Plot Size: 5 ft. radius)			
1. *Phalaris arundinacea*	100%	Yes	FACW
2. *Vitis riparia*	5%	No	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	105%	= Total Cover	

Woody Vine Stratum (Plot Size: N/A)			
1. N/A			
2.			
	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:
X Dominance Test is >50%
____ Prevalence Index is ≤ 3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks: (Include photo numbers here or on a separate sheet.)
This is a *Phalaris arundinacea* dominated drainage swale.

SOIL

Sampling Point: **W11-4 T-2 B(w)**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 3/2	100	10YR 5/8	5%	C	PL	Silty clay loam	
5-7	10YR 3/2	100	None				Sand	
7-10	10YR 3/2	100	10YR 5/8	5%	C	M	Silty clay loam	
10-20	10YR 3/1	100	10YR 5/8	8%	C	M	Silty clay loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **N/A**

Depth (inches): **N/A**

Hydric Soil Present? Yes X No ___

Remarks:

Sand seam at 5-7 inches.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 7

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

A drainage swale is visible on the aerial at this location. Light tones (*Phalaris arundinacea*) also visible.

Remarks:

This drainage swale connects to a roadside ditch that is tributary to Oak Creek.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **IH-94 Mainline** City/County: **Oak Creek/ Milwaukee** Sampling Date: **8/19/2009**

Applicant/Owner: **WDOT** State: **WI** Sampling Point: **W11-10a T-1 A(u)**

Investigator(s): **Marcus S. Anderson/Julie A. Paschal** Section, Township, Range: **Section 31, T5N R22E**

Landform (hillslope, terrace, etc.): **Hillslope** Local relief (concave, convex, none): **Convex**

Slope (%): **2-5%** Lat: **See Fig. 2** Long: **See Fig. 2** Datum: **NA**

Soil Map Unit Name: **Fox loam (FtB)** WWI Classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks)

Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes **X** 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 **X**			
Hydric Soil Present?	Yes _____	No **X**	Is the Sampled Area within a Wetland?	Yes _____	No **X**
Wetland Hydrology Present?	Yes _____	No **X**			

Remarks:

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: **N/A**)	Absolute % Cover	Dominant Species	Indicator Status
1. **N/A**			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot Size: **N/A**)			
1. **N/A**			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herb Stratum (Plot Size: **5 ft. radius**)			
1. ***Poa pratensis***	**50%**	**Yes**	**FAC**
2. ***Cirsium arvense***	**40%**	**Yes**	**FACU**
3. ***Elytrigia repens***	**40%**	**Yes**	**FACU**
4. ***Asclepias syriaca***	**10%**	**No**	**UPL**
5. ***Sonchus oleraceus***	**15%**	**No**	**FACU**
6. ***Solidago canadensis***	**5%**	**No**	**FACU**
7.			
8.			
9.			
10.			
	160%	= Total Cover	

Woody Vine Stratum (Plot Size: **N/A**)			
1. **N/A**			
2.			
	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		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:

_____ Dominance Test is >50%

_____ Prevalence Index is ≤ 3.0[1]

_____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No **X**

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

This is an upland, old field plant community.

SOIL

Sampling Point: **W11-10a T-1 A(u)**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 2/2	100	None				Loam	
16-18	10YR 3/2	100	None				Sandy loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Iron-Manganese Masses (F12)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **N/A**

Depth (inches): **N/A**

Hydric Soil Present? **Yes** ___ **No** **X**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Water-Stained Leaves (B9)
___ Aquatic Fauna (B13)
___ True Aquatic Plants (B14)
___ 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)
___ Gauge or Well Data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface Soil Cracks (B6)
___ Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No **X** Depth (inches): ___

Water Table Present? Yes ___ No **X** Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No **X** Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No wetland hydrology indicators were observed.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH-94 Mainline | City/County: Oak Creek/ Milwaukee | Sampling Date: 8/19/2009

Applicant/Owner: WDOT | State: WI | Sampling Point: W11-10a T-1 B(w)

Investigator(s): Marcus S. Anderson/Julie A. Paschal | Section, Township, Range: Section 31, T5N R22E

Landform (hillslope, terrace, etc.): Terrace | Local relief (concave, convex, none): None

Slope (%): 0-1% | Lat: See Fig. 2 | Long: See Fig. 2 | Datum: NA

Soil Map Unit Name: Fox loam (FtB) | WWI Classification: T3K

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)

Are Vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____ Soil ____ or Hydrology *X 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 X	No ____		
Hydric Soil Present?	Yes X	No ____	Is the Sampled Area within a Wetland?	Yes X No ____
Wetland Hydrology Present?	Yes X	No ____		

Remarks:

*** This area experiences seasonal wetland hydrology.**

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: N/A)	Absolute % Cover	Dominant Species	Indicator Status
1. N/A			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot Size: 15 ft. radius)			
1. *Salix interior*	20%	Yes	OBL
2.			
3.			
4.			
5.			
	20%	= Total Cover	

Herb Stratum (Plot Size: 5 ft. radius)			
1. *Phalaris arundinacea*	100%	Yes	FACW
2. *Impatiens capensis*	30%	Yes	FACW
3. *Parthenocissus quinquefolia*	5%	No	FAC
4. *Carex lacustris*	5%	No	OBL
5.			
6.			
7.			
8.			
9.			
10.			
	140%	= Total Cover	

Woody Vine Stratum (Plot Size: N/A)			
1. N/A			
2.			
	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:

X Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

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

This is a wet meadow plant community at the edge of a floodplain forest adjacent to the Root River.

SOIL

Sampling Point: **W11-10a T-1 B(w)**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR 3/1	100	10YR 4/4	2%	C	M	Silt loam	
9-18	10YR 4/1	100	10YR 4/6	5%	C	M	Loam	

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

[2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **N/A**

Depth (inches): **N/A**

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tillec Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This area experiences seasonal wetland hydrology.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **IH-94 Mainline** City/County: **Oak Creek/ Milwaukee** Sampling Date: **8/19/2009**

Applicant/Owner: **WDOT** State: **WI** Sampling Point: **W11-10a T-2 A(u)**

Investigator(s): **Marcus S. Anderson / Julie A. Paschal** Section, Township, Range: **Section 31, T5N R22E**

Landform (hillslope, terrace, etc.): **Hillslope** Local relief (concave, convex, none): **Convex**

Slope (%): **5-10%** Lat: **See Fig. 2** Long: **See Fig. 2** Datum: **NA**

Soil Map Unit Name: **Fox loam (FtB)** WWI Classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (if no, explain in Remarks)

Are Vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes **X** 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 **X**			
Hydric Soil Present?	Yes ____	No **X**	Is the Sampled Area within a Wetland?	Yes ____	No **X**
Wetland Hydrology Present?	Yes ____	No **X**			

Remarks:

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: **N/A**)	Absolute % Cover	Dominant Species	Indicator Status
1. **N/A**			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot Size: **N/A**)			
1. **N/A**			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herb Stratum (Plot Size: **5 ft. radius**)			
1. ***Daucus carota***	**40%**	**Yes**	**UPL**
2. ***Poa pratensis***	**30%**	**Yes**	**FAC**
3. ***Solidago canadensis***	**30%**	**Yes**	**FACU**
4. ***Sonchus oleraceus***	**5%**	**No**	**FACU**
5. ***Cirsium arvense***	**5%**	**No**	**FACU**
6.			
7.			
8.			
9.			
10.			
	110%	= Total Cover	

Woody Vine Stratum (Plot Size: **N/A**)			
1. **N/A**			
2.			
	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		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:

____ Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

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

This is an upland, old field plant community.

SOIL

Sampling Point: **W11-10a T-2 A(u)**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-13	10YR 3/2	100	None				Silt loam	
13-18	10YR 4/3	100	None				Loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **N/A**

Depth (inches): **N/A**

Hydric Soil Present? Yes ___ No **X**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ 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)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No **X** Depth (inches): ___

Water Table Present? Yes ___ No **X** Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No **X** Depth (inches): ___

Wetland Hydrology Present? Yes ___ No **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No wetland hydrology indicators observed.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **IH-94 Mainline** City/County: **Oak Creek/ Milwaukee** Sampling Date: **8/19/2009**

Applicant/Owner: **WDOT** State: **WI** Sampling Point: **W11-10a T-2 B(w)**

Investigator(s): **Marcus S. Anderson / Julie A. Paschal** Section, Township, Range: **Section 31, T5N R22E**

Landform (hillslope, terrace, etc.): **Concave depression** Local relief (concave, convex, none): **Concave**

Slope (%): **0-2%** Lat: **See Fig. 2** Long: **See Fig. 2** Datum: **NA**

Soil Map Unit Name: **Sawmill silt loam (Sg)** WWI Classification: **T3K**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks)

Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____

Are Vegetation _____ Soil _____ or Hydrology ***X** 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 **X**	No _____		
Hydric Soil Present?	Yes **X**	No _____	Is the Sampled Area	Yes **X** No _____
Wetland Hydrology Present?	Yes **X**	No _____	within a Wetland?	

Remarks:

*** This area experiences seasonal wetland hydrology.**

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: **30 ft. radius**)	Absolute % Cover	Dominant Species	Indicator Status
1. ***Fraxinus pennsylvanica***	**20%**	**Yes**	**FACW**
2.			
3.			
4.			
5.			
	20%	= Total Cover	

Sapling/Shrub Stratum (Plot Size: **N/A**)			
1. **N/A**			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herb Stratum (Plot Size: **5 ft. radius**)			
1. ***Phalaris arundinacea***	**90%**	**Yes**	**FACW**
2. ***Salix interior***	**20%**	**No**	**OBL**
3. ***Geum aleppicum***	**5%**	**No**	**FAC**
4. ***Carex pellita***	**10%**	**No**	**OBL**
5.			
6.			
7.			
8.			
9.			
10.			
	125%	= Total Cover	

Woody Vine Stratum (Plot Size: **N/A**)			
1. **N/A**			
2.			
	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 = _____
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:

X Dominance Test is >50%

_____ Prevalence Index is ≤ 3.0[1]

_____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes **X** No _____

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

This is a wet meadow plant community at the edge of a hardwood swamp adjacent to the Root River.

SOIL

Sampling Point: **W11-10a T-2 B(w)**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 3/1	100	None				Silt loam	
5-18	10YR 4/2	100	10YR 4/6	20%	C	M	Silt loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **N/A**

Depth (inches): **N/A**

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ 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)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 16

Wetland Hydrology Present? Yes ___ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This area experiences seasonal wetland hydrology and is located within a low topographic position in the overall landscape.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **IH-94 Mainline** City/County: **Oak Creek/ Milwaukee** Sampling Date: **8/19/2009**

Applicant/Owner: **WDOT** State: **WI** Sampling Point: **W11-10a T-3 A(u)**

Investigator(s): **Marcus S. Anderson / Julie A. Paschal** Section, Township, Range: **Section 31, T5N R22E**

Landform (hillslope, terrace, etc.): **Hillslope** Local relief (concave, convex, none): **Convex**

Slope (%): **20%** Lat: **See Fig. 2** Long: **See Fig. 2** Datum: **NA**

Soil Map Unit Name: **Alluvial land (Am)** WWI Classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks)

Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes **X** 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 **X**			
Hydric Soil Present?	Yes _____	No **X**	Is the Sampled Area within a Wetland?	Yes _____	No **X**
Wetland Hydrology Present?	Yes _____	No **X**			

Remarks:

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: **N/A**)	Absolute % Cover	Dominant Species	Indicator Status
1. **N/A**			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot Size: **N/A**)			
1. **N/A**			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herb Stratum (Plot Size: **5 ft. radius**)			
1. ***Bromus inermis***	**60%**	**Yes**	**UPL**
2. ***Solidago canadensis***	**30%**	**Yes**	**FACU**
3. ***Daucus carota***	**20%**	**No**	**UPL**
4. ***Asclepias syriaca***	**10%**	**No**	**UPL**
5.			
6.			
7.			
8.			
9.			
10.			
	120%	= Total Cover	

Woody Vine Stratum (Plot Size: **N/A**)			
1. **N/A**			
2.			
	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:

_____ Dominance Test is >50%

_____ Prevalence Index is ≤ 3.0[1]

_____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No **X**

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

This is an upland, old field plant community.

SOIL

Sampling Point: **W11-10a T-3 A(u)**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/2	100	None				Silt loam	
8-18	10YR 4/3	100	None				Silt loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Iron-Manganese Masses (F12)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **N/A**

Depth (inches): **N/A**

Hydric Soil Present? **Yes** ___ **No** **X**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Water-Stained Leaves (B9)
___ Aquatic Fauna (B13)
___ True Aquatic Plants (B14)
___ 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)
___ Gauge or Well Data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface Soil Cracks (B6)
___ Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No **X** Depth (inches): ___

Water Table Present? Yes ___ No **X** Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No **X** Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No wetland hydrology indicators were observed.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **IH-94 Mainline** City/County: **Oak Creek/ Milwaukee** Sampling Date: **8/19/2009**

Applicant/Owner: **WDOT** State: **WI** Sampling Point: **W11-10a T-3 B(w)**

Investigator(s): **Marcus S. Anderson / Julie A. Paschal** Section, Township, Range: **Section 31, T5N R22E**

Landform (hillslope, terrace, etc.): **Concave depression** Local relief (concave, convex, none): **Concave**

Slope (%): **0%** Lat: **See Fig. 2** Long: **See Fig. 2** Datum: **NA**

Soil Map Unit Name: **Alluvial land (Am)** WWI Classification: **E2Ka**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks)

Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____

Are Vegetation _____ Soil _____ or Hydrology ***X** 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 **X**	No _____		
Hydric Soil Present?	Yes **X**	No _____	Is the Sampled Area within a Wetland?	Yes **X** No _____
Wetland Hydrology Present?	Yes **X**	No _____		

Remarks:

*** This area experiences seasonal wetland hydrology.**

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: **N/A**)	Absolute % Cover	Dominant Species	Indicator Status
1. **N/A**			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot Size: **15 ft. radius**)			
1. ***Salix interior***	**10%**	**Yes**	**OBL**
2.			
3.			
4.			
5.			
	10%	= Total Cover	

Herb Stratum (Plot Size: **5 ft. radius**)			
1. ***Phalaris arundinacea***	**90%**	**Yes**	**FACW**
2. ***Rumex crispus***	**10%**	**No**	**FAC**
3. ***Ambrosia trifida***	**30%**	**Yes**	**FAC**
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	130%	= Total Cover	

Woody Vine Stratum (Plot Size: **N/A**)			
1. **N/A**			
2.			
	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	**10%**	x 1 = **10**
FACW species	**90%**	x 2 = **180**
FAC species	**40%**	x 3 = **120**
FACU species		x 4 =
UPL species		x 5 =
Column Totals:	**140%** (A)	**310** (B)

Prevalence Index = B/A = **2.21**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

X Prevalence Index is ≤ 3.0[1]

_____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes **X** No _____

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

This is a wet meadow plant community dominated by *Phalaris arundinacea*.

SOIL

Sampling Point: **W11-10a T-3 B(w)**

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-8	10YR 2/1	100	None				Silt loam	
8-18	10YR 5/2	100	10YR 4/6	5%	C	M	Silty clay loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **N/A**

Depth (inches): **N/A**

Hydric Soil Present? Yes **X** No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ 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)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- X Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No **X** Depth (inches): ___

Water Table Present? Yes ___ No **X** Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No **X** Depth (inches): ___

Wetland Hydrology Present? Yes **X** No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This area experiences seasonal wetland hydrology.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH-94 Mainline | City/County: Oak Creek/ Milwaukee | Sampling Date: 8/19/2009
Applicant/Owner: WDOT | State: WI | Sampling Point: W11-10c T-1 A(u)
Investigator(s): Marcus S. Anderson / Julie A. Paschal | Section, Township, Range: Section 31, T5N R22E
Landform (hillslope, terrace, etc.): Hillslope | Local relief (concave, convex, none): Convex
Slope (%): 5-10% | Lat: See Fig. 2 | Long: See Fig. 2 | Datum: NA
Soil Map Unit Name: Fox loam (FoB) | WWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)
Are Vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No ____		
Hydric Soil Present?	Yes ____	No X	Is the Sampled Area within a Wetland?	Yes ____ No X
Wetland Hydrology Present?	Yes ____	No X		

Remarks:

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: 30 ft. radius)	Absolute % Cover	Dominant Species	Indicator Status
1. *Acer negundo*	30%	Yes	FACW
2.			
3.			
4.			
5.			
	30%	= Total Cover	

Sapling/Shrub Stratum (Plot Size: 15 ft. radius)			
1. *Lonicera x bella*	10%	Yes	UPL
2.			
3.			
4.			
5.			
	10%	= Total Cover	

Herb Stratum (Plot Size: 5 ft. radius)			
1. *Phalaris arundinacea*	60%	Yes	FACW
2. *Glechoma hederacea*	30%	Yes	FACU
3. *Parthenocissus quinquefolia*	5%	No	FAC
4. *Geum aleppicum*	5%	No	FAC
5.			
6.			
7.			
8.			
9.			
10.			
	100%	= Total Cover	

Woody Vine Stratum (Plot Size: N/A)			
1. N/A			
2.			
	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		x 1 =	
FACW species	90%	x 2 =	180
FAC species	10%	x 3 =	30
FACU species	30%	x 4 =	120
UPL species	10%	x 5 =	50
Column Totals:	140% (A)		380 (B)

Prevalence Index = B/A = 2.71

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
X Prevalence Index is ≤ 3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

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

This is a borderline hydrophytic plant community. The vegetation passes the Prevalence Index but not the FAC-Neutral Test or the Dominance Test. The plant species present are opportunistic species that are often found within riparian areas such as this sample point.

SOIL

Sampling Point: **W11-10c T-1 A(u)**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/2	100	None				Silt loam	
12-18	10YR 4/2	100	None				Silt loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **N/A**

Depth (inches): **N/A**

Hydric Soil Present? Yes ___ No **X**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ 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)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No **X** Depth (inches): ___

Water Table Present? Yes ___ No **X** Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No **X** Depth (inches): ___

Wetland Hydrology Present? Yes ___ No **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No wetland hydrology indicators were observed. This area is located approximately 5 feet higher in the topography than the adjacent wetland.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH-94 Mainline | City/County: Oak Creek/ Milwaukee | Sampling Date: 8/19/2009
Applicant/Owner: WDOT | State: WI | Sampling Point: W11-10c T-1 B(w)
Investigator(s): Marcus S. Anderson / Julie A. Paschal | Section, Township, Range: Section 31, T5N R22E
Landform (hillslope, terrace, etc.): Terrace | Local relief (concave, convex, none): Concave
Slope (%): 0-1% | Lat: See Fig. 2 | Long: See Fig. 2 | Datum: NA
Soil Map Unit Name: Alluvial land (Am) | WWI Classification: T3K
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)
Are Vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No ____		
Hydric Soil Present?	Yes X	No ____	Is the Sampled Area within a Wetland?	Yes X No ____
Wetland Hydrology Present?	Yes X	No ____		

Remarks:

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: 30 ft. radius)	Absolute % Cover	Dominant Species	Indicator Status
1. *Fraxinus pennsylvanica*	50%	Yes	FACW
2. *Acer saccharinum*	40%	Yes	FACW
3.			
4.			
5.			
	90%	= Total Cover	

Sapling/Shrub Stratum (Plot Size: N/A)			
1. N/A			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herb Stratum (Plot Size: 5 ft. radius)			
1. *Phalaris arundinacea*	40%	Yes	FACW
2. *Ambrosia trifida*	10%	No	FAC
3. *Aster lanceolatus*	10%	No	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	60%	= Total Cover	

Woody Vine Stratum (Plot Size: N/A)			
1. N/A			
2.			
	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:

X Dominance Test is >50%
____ Prevalence Index is ≤ 3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

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

This is a floodplain forest plant community.

SOIL

Sampling Point: **W11-10c T-1 B(w)**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 2/1	100	None				Silt	
6-20	10YR 2/1	100	10YR 4/4	20%	C	M	Silt	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **N/A**

Depth (inches): **N/A**

Hydric Soil Present? Yes **X** No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- X Water Marks (B1)
- X Sediment Deposits (B2)
- X Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- X Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ 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)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- X Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No **X** Depth (inches): ___

Water Table Present? Yes ___ No **X** Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes **X** No ___ Depth (inches) **16**

Wetland Hydrology Present? Yes **X** No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **IH-94 Mainline** City/County: **Oak Creek/ Milwaukee** Sampling Date: **9/2/2009**

Applicant/Owner: **WDOT** State: **WI** Sampling Point: **W11-14 T-1 A(u)**

Investigator(s): **Marcus S. Anderson / Tina M. Myers** Section, Township, Range: **Section 32, T5N R22E**

Landform (hillslope, terrace, etc.): **Very gradual slope** Local relief (concave, convex, none): **None**

Slope (%): **2%** Lat: **See Fig. 2** Long: **See Fig. 2** Datum: **NA**

Soil Map Unit Name: **Blount silt loam (BIA)** WWI Classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (if no, explain in Remarks)

Are Vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes **X** 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 **X**		
Hydric Soil Present?	Yes **X**	No ____	Is the Sampled Area	Yes ____ No **X**
Wetland Hydrology Present?	Yes ____	No **X**	within a Wetland?	

Remarks:

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: **N/A**)	Absolute % Cover	Dominant Species	Indicator Status
1. **N/A**			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot Size: **N/A**)			
1. **N/A**			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herb Stratum (Plot Size: **5 ft. radius**)			
1. ***Poa pratensis***	**45%**	**Yes**	**FAC**
2. ***Elytrigia repens***	**50%**	**Yes**	**FACU**
3. ***Festuca elatior***	**60%**	**Yes**	**FACU**
4. ***Solidago canadensis***	**2%**	**No**	**FACU**
5. ***Parthenocissus quinquefolia***	**3%**	**No**	**FAC**
6.			
7.			
8.			
9.			
10.			
	160%	= Total Cover	

Woody Vine Stratum (Plot Size: **N/A**)			
1. **N/A**			
2.			
	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		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:

____ Dominance Test is >50%

____ Prevalence Index is ≤ 3.0[1]

____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

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

This is an upland, old field plant community dominated by Eurasian grasses.

SOIL

Sampling Point: **W11-14 T-1 A(u)**

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/1	100	None				Silty clay loam	
6-10	10YR 4/2	100	10YR 4/6	2%	C	M	Silty clay loam	
10-20	10YR 2/1	100	None				Silty clay loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **N/A**

Depth (inches): **N/A**

Hydric Soil Present? Yes X No ___

Remarks:

Soil is moist from recent rains, but no saturation or water table present.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ 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)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No wetland hydrology indicators observed.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **IH-94 Mainline** City/County: **Oak Creek/ Milwaukee** Sampling Date: **9/2/2009**

Applicant/Owner: **WDOT** State: **WI** Sampling Point: **W11-14 T-1 B(w)**

Investigator(s): **Marcus S. Anderson / Tina M. Myers** Section, Township, Range: **Section 32, T5N R22E**

Landform (hillslope, terrace, etc.): **Concave depression** Local relief (concave, convex, none): **Slightly concave**

Slope (%): **0-1%** Lat: **See Fig. 2** Long: **See Fig. 2** Datum: **NA**

Soil Map Unit Name: **Blount silt loam (BIA)** WWI Classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks)

Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____

Are Vegetation _____ Soil _____ or Hydrology ***X** 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 **X**	No _____			
Hydric Soil Present?	Yes **X**	No _____	Is the Sampled Area within a Wetland?	Yes **X**	No _____
Wetland Hydrology Present?	Yes **X**	No _____			

Remarks:

*** This area experiences seasonal hydrology.**

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: **N/A**)	Absolute % Cover	Dominant Species	Indicator Status
1. **N/A**			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot Size: **N/A**)			
1. **N/A**			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herb Stratum (Plot Size: **5 ft. radius**)			
1. ***Phalaris arundinacea***	**75%**	**Yes**	**FACW**
2. ***Poa pratensis***	**50%**	**Yes**	**FAC**
3. ***Verbena hastata***	**3%**	**No**	**FACW**
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	128%	= Total Cover	

Woody Vine Stratum (Plot Size: **N/A**)			
1. **N/A**			
2.			
	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 =
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:

X Dominance Test is >50%

_____ Prevalence Index is ≤ 3.0[1]

_____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes **X** No _____

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

This is a wet meadow plant community.

SOIL

Sampling Point: **W11-14 T-1 B(w)**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/2	100	10YR 4/6	5%	C	M	Silty clay loam	
6-20	10YR 2/1	100	10YR 5/6	5%	C	M	Silty clay loam	
			10YR 4/6	10%	C	M		

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **N/A**

Depth (inches): **N/A**

Hydric Soil Present? Yes **X** No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ 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)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No **X** Depth (inches): ___

Water Table Present? Yes ___ No **X** Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No **X** Depth (inches): ___

Wetland Hydrology Present? Yes **X** No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: **IH-94 Mainline** City/County: **Oak Creek/ Milwaukee** Sampling Date: **9/15/2009**

Applicant/Owner: **WDOT** State: **WI** Sampling Point: **W11-15 T-1 A(u)**

Investigator(s): **Eric C. Parker / Julie A. Paschal** Section, Township, Range: **Section 31, T5N R22E**

Landform (hillslope, terrace, etc.): **Hillslope** Local relief (concave, convex, none): **Convex**

Slope (%): **10-15%** Lat: **See Fig. 2** Long: **See Fig. 2** Datum: **NA**

Soil Map Unit Name: **Morley silt loam (MzdC2)** WWI Classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks)

Are Vegetation _____ Soil ***X** or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes **X** 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 **X**			
Hydric Soil Present?	Yes _____	No **X**	Is the Sampled Area	Yes _____	No **X**
Wetland Hydrology Present?	Yes _____	No **X**	within a Wetland?		

Remarks:

*** Soils are disturbed due to the presence of fill material from historic construction of I-94.**

This sample point is in an upland area within the I-94 median.

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: **N/A**)	Absolute % Cover	Dominant Species	Indicator Status
1. **N/A**			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot Size: **N/A**)			
1. **N/A**			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herb Stratum (Plot Size: **5 ft. radius**)			
1. ***Eupatorium altissimum***	**30%**	**Yes**	**FACU**
2. ***Asclepias syriaca***	**10%**	**No**	**UPL**
3. ***Poa pratensis***	**80%**	**Yes**	**FAC**
4. ***Solidago canadensis***	**20%**	**No**	**FACU**
5.			
6.			
7.			
8.			
9.			
10.			
	140%	= Total Cover	

Woody Vine Stratum (Plot Size: **N/A**)			
1. **N/A**			
2.			
	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	_____	x 1 = _____
FACW species	_____	x 2 = _____
FAC species	**80%**	x 3 = **240**
FACU species	**50%**	x 4 = **200**
UPL species	**10%**	x 5 = **50**
Column Totals:	**140%** (A)	**490** (B)

Prevalence Index = B/A = **3.50**

Hydrophytic Vegetation Indicators:

_____ Dominance Test is >50%

_____ Prevalence Index is ≤ 3.0[1]

_____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

_____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No **X**

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

This is an upland, old field plant community.

SOIL

Sampling Point: **W11-15 T-1 A(u)**

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/2	100	None				Silty clay loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **N/A**

Depth (inches): **N/A**

Hydric Soil Present? Yes ___ No **X**

Remarks:

Fill material observed 0-18 inches. Gravel and cobble present throughout the profile. Soils are very dry and compacted.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ 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)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No **X** Depth (inches): ___

Water Table Present? Yes ___ No **X** Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No **X** Depth (inches): ___

Wetland Hydrology Present? Yes ___ No **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No wetland hydrology indicators were observed. This area is at a higher elevation in the topography than the adjacent wetland.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH-94 Mainline | City/County: Oak Creek/ Milwaukee | Sampling Date: 9/15/2009
Applicant/Owner: WDOT | State: WI | Sampling Point: W11-15 T-1 B(w)
Investigator(s): Julie A. Paschal | Section, Township, Range: Section 31, T5N R22E
Landform (hillslope, terrace, etc.): Terrace | Local relief (concave, convex, none): Concave
Slope (%): 0-2% | Lat: See Fig. 2 | Long: See Fig. 2 | Datum: NA
Soil Map Unit Name: Morley silt loam (MzdC2) | WWI Classification: E1K
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)
Are Vegetation ____ Soil ____ or Hydrology *X significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No ____		
Hydric Soil Present?	Yes X	No ____	Is the Sampled Area	Yes X No ____
Wetland Hydrology Present?	Yes X	No ____	within a Wetland?	

Remarks:
*** Hydrology has been historically disturbed due to the construction of I-94.**

This is a wet meadow wetland located within the I-94 median. This wetland is connected to the Root River via culverts beneath I-94.

VEGETATION - Use scientific names for plants.

Tree Stratum (Plot Size: N/A)	Absolute % Cover	Dominant Species	Indicator Status
1. N/A			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot Size: N/A)			
1. N/A			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herb Stratum (Plot Size: 5 ft. radius)			
1. *Phalaris arundinacea*	100%	Yes	FACW
2. *Typha angustifolia*	25%	Yes	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	125%	= Total Cover	

Woody Vine Stratum (Plot Size: N/A)			
1. N/A			
2.			
	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 =
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:

X Dominance Test is >50%
____ Prevalence Index is ≤ 3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

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

SOIL

Sampling Point: **W11-15 T-1 B(w)**

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 3/1.5	100	7.5YR 5/8	10%	C	PL/M	Silt loam	
10-18	10YR 3/1.5	100	5YR 4/6	15%	C	M	Silty clay loam	Gravel and sand present. Blocky soil structure.

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: **N/A**

Depth (inches): **N/A**

Hydric Soil Present? Yes X No ___

Remarks:

Soil is moist.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Drainage pattern visible in this area on the aerial.

Remarks:

This is a drainageway within the I-94 median. This wetland is connected to the Root River via culverts beneath I-94.

GRĀEF

collaborāte / formulāte / innovāte

APPENDIX G

Wetland Determination Data Forms 2016

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 10-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-1 (u)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 30 T 5N R 22E

Landform (hillslope, terrace, etc.): Hillside | Local relief (concave, convex, none): convex

Slope: 20.0% / 11.3 ° | Lat.: 42.8636017 | Long.: -87.9378967 | Datum: WGS84

Soil Map Unit Name: Morley silt loam, 2 to 6 percent slopes | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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** ◉
Hydric Soil Present?	Yes ○	No ◉	
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:
Hydrological conditions were wetter than normal. An upland plant community and upland soils were documented. There were no indicators of wetland hydrology present. The sample point was located in an upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Herb Stratum (Plot size: 5' radius)				
1. Fragaria virginiana	20	☑	33.3%	FACU
2. Festuca arundinacea	10	☑	16.7%	FACU
3. Poa pratensis	10	☑	16.7%	FAC
4. Lonicera X bella	10	☑	16.7%	FACU
5. Plantago lanceolata	5	☐	8.3%	FACU
6. Solidago canadensis	5	☐	8.3%	FACU
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	60		= Total Cover	
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 4 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 25.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	60 (A)		230 (B)

Prevalence Index = B/A = 3.833

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes** ○ **No** ◉

Remarks: (Include photo numbers here or on a separate sheet.)
An upland plant community was documented.

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

SOIL

Sampling Point: **SP-1 (u)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc²	Texture	Remarks
0-8	10YR	3/2	100						Silty Clay Loam	
8-18	10YR	5/3	90	10YR	5/6	10	C	M	Silty Clay Loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydric soils were not observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 10-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-2 (W10-7)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 30 T 5N R 22E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave

Slope: 2.0% / 1.1 ° | Lat.: 42.8636017 | Long.: -87.9378967 | Datum: WGS84

Soil Map Unit Name: Morley silt loam, 2 to 6 percent slopes | WWI classification: T3/E2K

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 ○**
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
Hydrological conditions were wetter than normal. A wetland plant community, hydric soils and multiple indicators of wetland hydrology were present. The data point was located in a wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Typha angustifolia	90	☑	69.2%	OBL
2. Poa pratensis	20	☐	15.4%	FAC
3. Solidago canadensis	10	☐	7.7%	FACU
4. Symphyotrichum novae-angliae	10	☐	7.7%	FACW
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	130	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	90	x 1 =	90
FACW species	10	x 2 =	20
FAC species	20	x 3 =	60
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	130 (A)		210 (B)

Prevalence Index = B/A = 1.615

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes ◉ No ○**

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

A wetland plant community was documented by the Rapid Test, Dominance Test and the Prevalence Index.

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

SOIL

Sampling Point: **SP-2 (W10-7)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc²	Texture	Remarks
0-4	10YR	3/1	100						Silty Clay Loam	
4-16	10YR	5/2	70	10YR	5/6	30	C	M	Silty Clay	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☑ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by A11 Depleted Below Dark Surface and F3 Depleted Matrix.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ◉ No ○ Depth (inches): 10

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology was documented by saturation at 10 inches (A3) and two secondary indicators, which were D2 Geomorphic Position and D5 FAC-neutral Test.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 10-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-3 (u)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 30 T 5N R 22E

Landform (hillslope, terrace, etc.): Hillside | Local relief (concave, convex, none): convex

Slope: 20.0% / 11.3 ° | Lat.: 42.8606987 | Long.: -87.9380035 | Datum: WGS84

Soil Map Unit Name: Morley silt loam, 2 to 6 percent slopes | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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** ◉
Hydric Soil Present?	Yes ○	No ◉	
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:
Hydrological conditions were wetter than normal. A wetland plant community was documented because of the presence of Kentucky Blue Grass. However, neither hydric soils nor indicators of wetland hydrology were observed. The sample point was located in an upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Poa pratensis	90	☑	84.1%	FAC
2. Achillea millefolium	5	☐	4.7%	FACU
3. Daucus carota	5	☐	4.7%	UPL
4. Sonchus arvensis	5	☐	4.7%	FACU
5. Toxicodendron radicans	2	☐	1.9%	FAC
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	107	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	92	x 3 =	276
FACU species	10	x 4 =	40
UPL species	5	x 5 =	25
Column Totals:	107 (A)		341 (B)

Prevalence Index = B/A = 3.187

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes** ◉ **No** ○

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

The criteria for a wetland plant community was met by the dominance of Kentucky Blue Grass.

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

SOIL

Sampling Point: **SP-3 (u)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc²	Texture	Remarks
0-7	10YR	3/2	100						Silty Clay Loam	
7-20	10YR	4/6	70	10YR	6/1	30			Silty Clay Loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydric soils were not observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 10-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-4 (W10-7)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 30 T 5N R 22E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave

Slope: 1.0% / 0.6 ° | Lat.: 42.8606987 | Long.: -87.9380035 | Datum: WGS84

Soil Map Unit Name: Morley silt loam, 2 to 6 percent slopes | WWI classification: T3/E2K

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** ○
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
Hydrological conditions were wetter than normal. A wetland plant community, hydric soils and multiple indicators of wetland hydrology were present. The data point was located in a wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Phalaris arundinacea	90	☑	47.4%	FACW
2. Solidago sempervirens	80	☑	42.1%	FACW
3. Poa pratensis	20	☐	10.5%	FAC
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	190	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	170	x 2 =	340
FAC species	20	x 3 =	60
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	190 (A)		400 (B)

Prevalence Index = B/A = 2.105

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes** ◉ **No** ○

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

A wetland plant community was documented by the Rapid Test, Dominance Test and the Prevalence Index.

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

SOIL

Sampling Point: **SP-4 (W10-7)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc²	Texture	Remarks
0-2	10YR	3/1	90	10YR	4/6	10	C	M	Silty Clay Loam	
2-16	10YR	4/1	80	10YR	4/6	20	C	M	Silty Clay	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☑ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by A11 Depleted Below Dark Surface and F3 Depleted Matrix.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

The conditions of wetland hydrology were documented with two secondary indicators of wetland hydrology, which were D2 Geomorphic Position and D5 FAC-neutral Test.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 10-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-5 (u)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 30 T 5N R 22E

Landform (hillslope, terrace, etc.): Hillside | Local relief (concave, convex, none): convex

Slope: 10.0% / 5.7 ° | Lat.: 42.8596001 | Long.: -87.9381027 | Datum: WGS84

Soil Map Unit Name: Morley silt loam, 2 to 6 percent slopes | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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** ◉
Hydric Soil Present?	Yes ◉	No ○	
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:
Hydrological conditions were wetter than normal. An upland plant community was present. A hydric soil was present and one secondary hydrology indicator was found probably because of proximity to the boundary. The data point was located in an upland

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Bromus inermis	100	☑	100.0%	FACU
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	100	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 1 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	100 (A)		400 (B)

Prevalence Index = B/A = 4.000

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes** ○ **No** ◉

Remarks: (Include photo numbers here or on a separate sheet.)
An upland plant community was documented.

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

SOIL

Sampling Point: **SP-5 (u)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-11	10YR	3/1	90	10YR	4/6	10	C	M	Silty Clay Loam	
11-25	10YR	4/1	70	10YR	5/6	30	C	M	Silty Clay Loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☑ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by A11 Depleted Below Dark Surface and F6 Redox Dark Surface.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

There were no primary indicators of wetland hydrology and only one secondary indicator was documented. Wetland hydrology was not documented.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 10-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-6 (W-1)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 30 T 5N R 22E

Landform (hillslope, terrace, etc.): Swale | Local relief (concave, convex, none): concave

Slope: 10.0% / 5.7 ° | Lat.: 42.8596992 | Long.: -87.9381027 | Datum: WGS84

Soil Map Unit Name: Morley silt loam, 2 to 6 percent slopes | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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** ○
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
Hydrological conditions were wetter than normal. A wetland plant community, hydric soils and multiple indicators of wetland hydrology were present. The data point was located in a wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Herb Stratum (Plot size: 5' radius)				
1. Phalaris arundinacea	100	☑	83.3%	FACW
2. Poa pratensis	20	☐	16.7%	FAC
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	120		= Total Cover	
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	20	x 3 =	60
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	120 (A)		260 (B)

Prevalence Index = B/A = 2.167

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes** ◉ **No** ○

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

A wetland plant community was documented by the Rapid Test, Dominance Test and the Prevalence Index.

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

SOIL

Sampling Point: **SP-6 (W-1)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-6	10YR	3/1	90	10YR	4/6	10	C	M	Silty Clay Loam	
6-17	10YR	4/1	80	10YR	5/6	20	C	M	Silty Clay	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☑ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by A11 Depleted Below Dark Surface, F3 Depleted Matrix, and F6 Redox Dark Surface.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

The conditions of wetland hydrology were documented with two secondary indicators of wetland hydrology, which were D2 Geomorphic Position and D5 FAC-neutral Test.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 10-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-7 (u)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 30 T 5N R 22E

Landform (hillslope, terrace, etc.): Hillside | Local relief (concave, convex, none): convex

Slope: 20.0% / 11.3 ° | Lat.: 42.8592987 | Long.: -87.9381027 | Datum: WGS84

Soil Map Unit Name: Grays silt loam, 2 to 6 percent slopes | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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** ◉
Hydric Soil Present?	Yes ○	No ◉	
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:
Hydrological conditions were wetter than normal. An upland plant community and upland soils were documented. There were no indicators of wetland hydrology present. The sample point was located in an upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Bromus inermis	100	☑	100.0%	FACU
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	100	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 1 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	100 (A)		400 (B)

Prevalence Index = B/A = 4.000

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes** ○ **No** ◉

Remarks: (Include photo numbers here or on a separate sheet.)
An upland plant community was observed.

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

SOIL

Sampling Point: **SP-7 (u)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)	%	Type [1]	Loc²	Texture	Remarks
0-22	10YR	3/2	80					Silty Clay Loam	
	10YR	3/3	20						

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

There were no indicators of hydric conditions. Hydric soils were not observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 10-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-8 (W-2)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 30 T 5N R 22E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave

Slope: 5.0% / 2.9 ° | Lat.: 42.8591995 | Long.: -87.9382019 | Datum: WGS84

Soil Map Unit Name: Grays silt loam, 2 to 6 percent slopes | WWI classification: T3K

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 ○**
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
Hydrological conditions were wetter than normal. A wetland plant community, hydric soils and multiple indicators of wetland hydrology were present. The data point was located in a wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Typha angustifolia	90	☑	75.0%	OBL
2. Phalaris arundinacea	20	☐	16.7%	FACW
3. Poa pratensis	10	☐	8.3%	FAC
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	120	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	90	x 1 =	90
FACW species	20	x 2 =	40
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	120 (A)		160 (B)

Prevalence Index = B/A = 1.333

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes ◉ No ○**

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

A wetland plant community was documented by the Rapid Test, Dominance Test and the Prevalence Index.

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

SOIL

Sampling Point: **SP-8 (W-2)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-10	10YR	4/1	90	10YR	4/6	10	C	M	Silty Clay Loam	
10-17	10YR	5/1	80	10YR	5/6	20	C	M	Silty Clay Loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by F3 Depleted Matrix.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):
Water Table Present?	Yes ◉	No ○	Depth (inches): 11
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches): 0

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology was documented by a water table at 11 inches, saturation at 0 inches and two secondary indicators, which were D2 Geomorphic Position and D5 FAC-neutral Test.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 10-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-9 (up)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Hillside | Local relief (concave, convex, none): convex

Slope: 20.0% / 11.3 ° | Lat.: 42.8553009 | Long.: -87.9392014 | Datum: WGS84

Soil Map Unit Name: Morley silt loam, 2 to 6 percent slopes | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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 ◉**
Hydric Soil Present?	Yes ○	No ◉	
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:
Hydrological conditions were wetter than normal. An upland plant community and upland soils were documented. There were no indicators of wetland hydrology present. The sample point was located in an upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' rad)				
1. Rhamnus cathartica	50	☑	83.3%	FAC
2. Rubus occidentalis	5	☐	8.3%	UPL
3. Lonicera tatarica	5	☐	8.3%	FACU
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	60		= Total Cover	
Herb Stratum (Plot size: 5' radius)				
1. Bromus inermis	60	☑	40.0%	FACU
2. Festuca arundinacea	60	☑	40.0%	FACU
3. Poa pratensis	30	☑	20.0%	FAC
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	150		= Total Cover	
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	80	x 3 =	240
FACU species	125	x 4 =	500
UPL species	5	x 5 =	25
Column Totals:	210 (A)		765 (B)

Prevalence Index = B/A = 3.643

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes ○ No ◉**

Remarks: (Include photo numbers here or on a separate sheet.)
An upland plant community was observed.

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

SOIL

Sampling Point: **SP-9 (up)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc²	Texture	Remarks
0-10	10YR	3/2	100						Silty Clay Loam	
10-20	10YR	4/1	90	10YR	4/6	10	C	M	Silty Clay Loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydric soils were not observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 10-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-10 (W11-3)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave

Slope: 5.0% / 2.9 ° | Lat.: 42.8553009 | Long.: -87.9392014 | Datum: WGS84

Soil Map Unit Name: Morley silt loam, 2 to 6 percent slopes | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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** ○
Hydric Soil Present?	Yes ◉	No ○	
Wetland Hydrology Present?	Yes ◉	No ○	

Remarks:
Hydrological conditions were wetter than normal. A wetland plant community, hydric soils and multiple indicators of wetland hydrology were present. The data point was located in a wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Herb Stratum (Plot size: 5' radius)				
1. Typha angustifolia	100	☑	66.7%	OBL
2. Poa pratensis	30	☑	20.0%	FAC
3. Phalaris arundinacea	20	☐	13.3%	FACW
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	150		= Total Cover	
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	100	x 1 =	100
FACW species	20	x 2 =	40
FAC species	30	x 3 =	90
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	150 (A)		230 (B)

Prevalence Index = B/A = 1.533

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes** ◉ **No** ○

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

A wetland plant community was documented by the Rapid Test, Dominance Test and the Prevalence Index.

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

SOIL

Sampling Point: **SP-10 (W11-3)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc²	Texture	Remarks
0-5	10YR	3/1	100						Silty Clay Loam	
5-17	10YR	5/1	70	10YR	5/6	30	C	M	Silty Clay Loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ☐ 2 cm Muck (A10)
- ☑ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by A11 Depleted Below Dark Surface and F3 Depleted Matrix.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ◉ No ○ Depth (inches): 10

Saturation Present? (includes capillary fringe) Yes ◉ No ○ Depth (inches): 4

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology was documented by a water table at 10 inches, saturation at 4 inches and two secondary indicators, which were D2 Geomorphic Position and D5 FAC-neutral Test.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 10-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-11 (u)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Hillside | Local relief (concave, convex, none): convex

Slope: 25.0% / 14.0 ° | Lat.: 42.8518982 | Long.: -87.9427032 | Datum: WGS84

Soil Map Unit Name: Ashkum silty clay loam, 0 to 2 percent slopes | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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** ◉
Hydric Soil Present?	Yes ◉	No ○	
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:
Hydrological conditions were wetter than normal. Hydric soils were present, although an upland plant community was documented and no indicators of wetland hydrology were observed. The sample point is in an upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Bromus inermis	100	☑	37.7%	FACU
2. Poa pratensis	80	☑	30.2%	FAC
3. Solidago canadensis	50	☐	18.9%	FACU
4. Festuca arundinacea	30	☐	11.3%	FACU
5. Daucus carota	5	☐	1.9%	UPL
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	265	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	80	x 3 =	240
FACU species	180	x 4 =	720
UPL species	5	x 5 =	25
Column Totals:	265 (A)		985 (B)

Prevalence Index = B/A = 3.717

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes** ○ **No** ◉

Remarks: (Include photo numbers here or on a separate sheet.)
An upland plant community was observed.

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

SOIL

Sampling Point: **SP-11 (u)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc²	Texture	Remarks
0-9	10YR	3/2	100						Silty Clay Loam	
9-19	10YR	4/2	98	10YR	4/6	2	C	M	Silty Clay Loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☑ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by A11 Depleted Below Dark Surface and F3 Depleted Matrix.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 10-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-12 (W11-3)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave

Slope: 1.0% / 0.6 ° | Lat.: 42.8518982 | Long.: -87.9427032 | Datum: WGS84

Soil Map Unit Name: Ashkum silty clay loam, 0 to 2 percent slopes | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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 ○**
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
Hydrological conditions were wetter than normal. A wetland plant community, hydric soils and multiple indicators of wetland hydrology were present. The data point was located in a wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Typha angustifolia	100	☑	71.4%	OBL
2. Festuca arundinacea	20	☐	14.3%	FACU
3. Solidago canadensis	10	☐	7.1%	FACU
4. Poa pratensis	10	☐	7.1%	FAC
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	140	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	100	x 1 =	100
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	140 (A)		250 (B)

Prevalence Index = B/A = 1.786

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes ◉ No ○**

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

A wetland plant community was documented by the Rapid Test, Dominance Test and the Prevalence Index.

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

SOIL

Sampling Point: **SP-12 (W11-3)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc²	Texture	Remarks
0-5	10YR	3/1	100						Silty Clay Loam	
5-14	10YR	5/1	80	10YR	5/6	20	C	M	Sandy Clay	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☑ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by A11 Depleted Below Dark Surface and F3 Depleted Matrix.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ◉ No ○ Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology was documented by a water table at 0 inches and two secondary indicators, which were D2 Geomorphic Position and D5 FAC-neutral Test.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-13 (up)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Hillside | Local relief (concave, convex, none): convex

Slope: 25.0% / 14.0 ° | Lat.: 42.8480988 | Long.: -87.9478989 | Datum: WGS84

Soil Map Unit Name: Morley silt loam, 6 to 12 percent slopes, eroded | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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** ◉
Hydric Soil Present?	Yes ○	No ◉	
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:
Hydrological conditions were wetter than normal. An upland plant community and upland soils were documented. There were no indicators of wetland hydrology present. The sample point was located in an upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Bromus inermis	100	☑	51.3%	FACU
2. Festuca arundinacea	50	☑	25.6%	FACU
3. Poa pratensis	25	☐	12.8%	FAC
4. Daucus carota	20	☐	10.3%	UPL
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	195	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	25	x 3 =	75
FACU species	150	x 4 =	600
UPL species	20	x 5 =	100
Column Totals:	195 (A)		775 (B)

Prevalence Index = B/A = 3.974

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes** ○ **No** ◉

Remarks: (Include photo numbers here or on a separate sheet.)
An upland plant community was observed.

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

SOIL

Sampling Point: **SP-13 (up)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)	%	Type [1]	Loc²	Texture	Remarks
0-10	10YR	3/2	100					Silty Clay Loam	
10-19	10YR	5/3	70					Silt Loam	
	10YR	6/6	30						

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydric soils were not observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-14 (W11-3)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave

Slope: 3.0% / 1.7 ° | Lat.: 42.8479996 | Long.: -87.9478989 | Datum: WGS84

Soil Map Unit Name: Morley silt loam, 6 to 12 percent slopes, eroded | WWI classification: E2K

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 ○**
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
Hydrological conditions were wetter than normal. A wetland plant community, hydric soils and multiple indicators of wetland hydrology were present. The data point was located in a wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Typha angustifolia	90	☑	45.0%	OBL
2. Lythrum salicaria	40	☑	20.0%	OBL
3. Phalaris arundinacea	30	☐	15.0%	FACW
4. Carex lacustris	20	☐	10.0%	OBL
5. Solidago gigantea	20	☐	10.0%	FACW
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	200	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	150	x 1 =	150
FACW species	50	x 2 =	100
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	200 (A)		250 (B)

Prevalence Index = B/A = 1.250

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes ◉ No ○**

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

A wetland plant community was documented by the Rapid Test, Dominance Test and the Prevalence Index.

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

SOIL

Sampling Point: **SP-14 (W11-3)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-16	10YR	4/2	90	10YR	4/6	10	C	M	Silty Clay Loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by F3 Depleted Matrix.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ◉ No ○ Depth (inches): 10

Saturation Present? (includes capillary fringe) Yes ◉ No ○ Depth (inches): 7

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology was documented by a water table at 10 inches, saturation at 7 inches and two secondary indicators, which were D2 Geomorphic Position and D5 FAC-neutral Test.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-15 (up)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Hillside | Local relief (concave, convex, none): convex

Slope: 20.0% / 11.3 ° | Lat.: 42.8454018 | Long.: -87.9492035 | Datum: WGS84

Soil Map Unit Name: Fox loam, 2 to 6 percent slopes | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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 ◉**
Hydric Soil Present?	Yes ○ No ◉	
Wetland Hydrology Present?	Yes ○ No ◉	

Remarks:
Hydrological conditions were wetter than normal. An upland plant community and upland soils were documented. There were no indicators of wetland hydrology present. The sample point was located in an upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Festuca arundinacea	40	☑	36.4%	FACU
2. Artemisia absinthium	30	☑	27.3%	UPL
3. Poa pratensis	30	☑	27.3%	FAC
4. Taraxacum officinale	10	☐	9.1%	FACU
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	110	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	30	x 3 =	90
FACU species	50	x 4 =	200
UPL species	30	x 5 =	150
Column Totals:	110 (A)		440 (B)

Prevalence Index = B/A = 4.000

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes ○ No ◉**

Remarks: (Include photo numbers here or on a separate sheet.)
An upland plant community was observed.

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

SOIL

Sampling Point: **SP-15 (up)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)	%	Type [1]	Loc²	Texture	Remarks
0-6	10YR	3/2	100					Silt Loam	Gravel present
6-20	10YR	4/1	60					Silty Clay	Gravel present
	10YR	4/6	40						

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydric soils were not observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-16 (W11-10a)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Footslope | Local relief (concave, convex, none): concave

Slope: 3.0% / 1.7 ° | Lat.: 42.8454018 | Long.: -87.9492035 | Datum: WGS84

Soil Map Unit Name: Fox loam, 2 to 6 percent slopes | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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** ○
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
Hydrological conditions were wetter than normal. A wetland plant community, hydric soils and multiple indicators of wetland hydrology were present. The data point was located in a wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Solidago sempervirens	100	☑	71.4%	FACW
2. Poa pratensis	30	☑	21.4%	FAC
3. Festuca arundinacea	10	☐	7.1%	FACU
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	140	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	30	x 3 =	90
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	140 (A)		330 (B)

Prevalence Index = B/A = 2.357

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes** ◉ **No** ○

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

A wetland plant community was documented by the Dominance Test and the Prevalence Index.

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

SOIL

Sampling Point: **SP-16 (W11-10a)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc²	Texture	Remarks
0-15	10YR	4/1	80	10YR	4/6	20	C	M	Silty Clay	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by F3 Depleted Matrix.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

The conditions of wetland hydrology were documented with two secondary indicators of wetland hydrology, which were D2 Geomorphic Position and D5 FAC-neutral Test.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-17 (up)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Hillside | Local relief (concave, convex, none): convex

Slope: 25.0% / 14.0 ° | Lat.: 42.8483009 | Long.: -87.9452972 | Datum: WGS84

Soil Map Unit Name: Morley silt loam, 6 to 12 percent slopes, eroded | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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** ◉
Hydric Soil Present?	Yes ◉	No ○	
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:
Hydrological conditions were wetter than normal. An upland plant community was present. A hydric soil was present probably due to the proximity to the boundary. The data point was located in an upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Festuca arundinacea	60	☑	42.9%	FACU
2. Solidago canadensis	40	☑	28.6%	FACU
3. Poa pratensis	30	☑	21.4%	FAC
4. Taraxacum officinale	10	☐	7.1%	FACU
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	140	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	30	x 3 =	90
FACU species	110	x 4 =	440
UPL species	0	x 5 =	0
Column Totals:	140 (A)		530 (B)

Prevalence Index = B/A = 3.786

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes** ○ **No** ◉

Remarks: (Include photo numbers here or on a separate sheet.)
An upland plant community was observed.

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

SOIL

Sampling Point: **SP-17 (up)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc²	Texture	Remarks
0-8	10YR	3/2	100						Silty Clay Loam	
8-22	10YR	4/1	70	10YR	5/6	30	C	M	Silty Clay	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☑ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by A11 Depleted Below Dark Surface and F3 Depleted Matrix.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-18 (W11-10a)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave

Slope: 5.0% / 2.9 ° | Lat.: 42.8484001 | Long.: -87.9453964 | Datum: WGS84

Soil Map Unit Name: Morley silt loam, 6 to 12 percent slopes, eroded | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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** ○
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
Hydrological conditions were wetter than normal. A wetland plant community, hydric soils and multiple indicators of wetland hydrology were present. The data point was located in a wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Typha angustifolia	60	☑	31.6%	OBL
2. Phalaris arundinacea	70	☑	36.8%	FACW
3. Poa pratensis	50	☑	26.3%	FAC
4. Juncus torreyi	10	☐	5.3%	FACW
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	190	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	60	x 1 =	60
FACW species	80	x 2 =	160
FAC species	50	x 3 =	150
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	190 (A)		370 (B)

Prevalence Index = B/A = 1.947

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes** ◉ **No** ○

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

A wetland plant community was documented by the Rapid Test, Dominance Test and the Prevalence Index.

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

SOIL

Sampling Point: **SP-18 (W11-10a)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-15	10YR	4/1	80	10YR	4/6	20	C	M	Silty Clay	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by F3 Depleted Matrix.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ◉ No ○ Depth (inches): 9

Saturation Present? (includes capillary fringe) Yes ◉ No ○ Depth (inches): 7

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology was documented by a water table at 9 inches, saturation at 7 inches and two secondary indicators, which were D2 Geomorphic Position and D5 FAC-neutral Test.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-19 (up)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Hillside | Local relief (concave, convex, none): convex

Slope: 20.0% / 11.3 ° | Lat.: 42.8524017 | Long.: -87.9397964 | Datum: WGS84

Soil Map Unit Name: Ashkum silty clay loam, 0 to 2 percent slopes | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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 ◉**
Hydric Soil Present?	Yes ○	No ◉	
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:
Hydrological conditions were wetter than normal. An upland plant community and upland soils were documented. There were no indicators of wetland hydrology present. The sample point was located in an upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Festuca arundinacea	50	☑	40.0%	FACU
2. Daucus carota	30	☑	24.0%	UPL
3. Bromus inermis	20	☐	16.0%	FACU
4. Sonchus arvensis	10	☐	8.0%	FACU
5. Fragaria virginiana	5	☐	4.0%	FACU
6. Phalaris arundinacea	5	☐	4.0%	FACW
7. Solidago canadensis	5	☐	4.0%	FACU
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	125	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	0	x 3 =	0
FACU species	90	x 4 =	360
UPL species	30	x 5 =	150
Column Totals:	125 (A)		520 (B)

Prevalence Index = B/A = 4.160

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes ○ No ◉**

Remarks: (Include photo numbers here or on a separate sheet.)
An upland plant community was observed.

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

SOIL

Sampling Point: **SP-19 (up)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc²	Texture	Remarks
0-9	10YR	3/2	100						Silty Clay Loam	
9-18	10YR	5/3	80	10YR	5/6	20	C	M	Silt Loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydric soils were not observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-20 (W11-10a)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave

Slope: 5.0% / 2.9 ° | Lat.: 42.8524017 | Long.: -87.9399033 | Datum: WGS84

Soil Map Unit Name: Ashkum silty clay loam, 0 to 2 percent slopes | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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 ○**
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
Hydrological conditions were wetter than normal. A wetland plant community, hydric soils and multiple indicators of wetland hydrology were present. The data point was located in a wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Typha angustifolia	80	☑	43.2%	OBL
2. Phalaris arundinacea	50	☑	27.0%	FACW
3. Poa pratensis	30	☐	16.2%	FAC
4. Juncus torreyi	10	☐	5.4%	FACW
5. Agrostis gigantea	5	☐	2.7%	FACW
6. Juncus tenuis	5	☐	2.7%	FAC
7. Solidago sempervirens	5	☐	2.7%	FACW
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	185	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	80	x 1 =	80
FACW species	70	x 2 =	140
FAC species	35	x 3 =	105
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	185 (A)		325 (B)

Prevalence Index = B/A = 1.757

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes ◉ No ○**

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

A wetland plant community was documented by the Rapid Test, Dominance Test and the Prevalence Index.

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

SOIL

Sampling Point: **SP-20 (W11-10a)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-9	10YR	4/1	70	10YR	4/6	30	C	M	Silty Clay	
9-15	10YR	5/1	70	10YR	5/6	30	C	M	Silty Clay	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by F3 Depleted Matrix.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ◉ No ○ Depth (inches): 10

Saturation Present? (includes capillary fringe) Yes ◉ No ○ Depth (inches): 7

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology was documented by a water table at 10 inches, saturation at 7 inches and two secondary indicators, which were D2 Geomorphic Position and D5 FAC-neutral Test.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-21 (up)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Footslope | Local relief (concave, convex, none): concave

Slope: 2.0% / 1.1 ° | Lat.: 42.8548012 | Long.: -87.9378967 | Datum: WGS84

Soil Map Unit Name: Ashkum silty clay loam, 0 to 2 percent slopes | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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** ◉
Hydric Soil Present?	Yes ◉	No ○	
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:
Hydrological conditions were wetter than normal. Hydric soils were present, although an upland plant community was documented and no indicators of wetland hydrology were observed. The sample point is in an upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Poa pratensis	100	☑	58.8%	FAC
2. Cirsium arvense	40	☑	23.5%	FACU
3. Symphyotrichum novae-angliae	30	☐	17.6%	FACW
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	170	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	100	x 3 =	300
FACU species	40	x 4 =	160
UPL species	0	x 5 =	0
Column Totals:	170 (A)		520 (B)

Prevalence Index = B/A = 3.059

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes** ○ **No** ◉

Remarks: (Include photo numbers here or on a separate sheet.)
An upland plant community was observed.

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

SOIL

Sampling Point: **SP-21 (up)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc²	Texture	Remarks
0-12	10YR	3/2	100						Silt Loam	
12-23	10YR	4/1	80	10YR	5/6	20	C	M	Silty Clay	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☑ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by A11 Depleted Below Dark Surface.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

There were no indicators of wetland hydrology.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-22 (W-3)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave

Slope: 2.0% / 1.1 ° | Lat.: 42.8546982 | Long.: -87.9380035 | Datum: WGS84

Soil Map Unit Name: Ashkum silty clay loam, 0 to 2 percent slopes | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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** ○
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
Hydrological conditions were wetter than normal. A wetland plant community, hydric soils and multiple indicators of wetland hydrology were present. The data point was located in a wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Phalaris arundinacea	100	☑	100.0%	FACW
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	100	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A = 2.000

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes** ◉ **No** ○

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

A wetland plant community was documented by the Rapid Test, Dominance Test and the Prevalence Index.

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

SOIL

Sampling Point: **SP-22 (W-3)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc²	Texture	Remarks
0-6	10YR	3/2	100						Silty Clay Loam	
6-17	10YR	3/1	90	10YR	4/6	10	C	M	Silt Loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by F6 Redox Dark Surface.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

The conditions of wetland hydrology were documented with two secondary indicators of wetland hydrology, which were D2 Geomorphic Position and D5 FAC-neutral Test.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-23 (up)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 30 T 5N R 22E

Landform (hillslope, terrace, etc.): Hillside | Local relief (concave, convex, none): convex

Slope: 10.0% / 5.7 ° | Lat.: 42.8614998 | Long.: -87.9372025 | Datum: WGS84

Soil Map Unit Name: Morley silt loam, 2 to 6 percent slopes | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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** ◉
Hydric Soil Present?	Yes ○	No ◉	
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:
Hydrological conditions were wetter than normal. An upland plant community and upland soils were documented. There were no indicators of wetland hydrology present. The sample point was located in an upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Herb Stratum (Plot size: 5' radius)				
1. Coronilla varia	60	☑	61.2%	UPL
2. Poa pratensis	30	☑	30.6%	FAC
3. Solidago sempervirens	5	☐	5.1%	FACW
4. Symphyotrichum novae-angliae	3	☐	3.1%	FACW
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	98		= Total Cover	
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	8	x 2 =	16
FAC species	30	x 3 =	90
FACU species	0	x 4 =	0
UPL species	60	x 5 =	300
Column Totals:	98 (A)		406 (B)

Prevalence Index = B/A = 4.143

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes** ○ **No** ◉

Remarks: (Include photo numbers here or on a separate sheet.)
An upland plant community was observed.

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

SOIL

Sampling Point: **SP-23 (up)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc²	Texture	Remarks
0-10	10YR	3/2	70						Silty Clay Loam	
	10YR	2/1	20	10YR	4/6	10	C	M		
10-20	10YR	4/6	60						Silty Clay Loam	
	10YR	5/1	20							
	10YR	2/1	20							

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydric soils were not observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-24 (W-4)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 30 T 5N R 22E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave

Slope: 2.0% / 1.1 ° | Lat.: 42.8614998 | Long.: -87.9373016 | Datum: WGS84

Soil Map Unit Name: Morley silt loam, 2 to 6 percent slopes | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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 ○**
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
Hydrological conditions were wetter than normal. A wetland plant community, hydric soils and multiple indicators of wetland hydrology were present. The data point was located in a wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15' radius)				
1. Cornus alba var. alba	10	☑	100.0%	FACW
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	10	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Typha angustifolia	70	☑	38.9%	OBL
2. Poa pratensis	60	☑	33.3%	FAC
3. Populus deltoides	30	☐	16.7%	FAC
4. Solidago sempervirens	10	☐	5.6%	FACW
5. Euthamia graminifolia	5	☐	2.8%	FACW
6. Solidago canadensis	5	☐	2.8%	FACU
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	180	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	70	x 1 =	70
FACW species	25	x 2 =	50
FAC species	90	x 3 =	270
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	190 (A)		410 (B)

Prevalence Index = B/A = 2.158

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes ◉ No ○**

Remarks: (Include photo numbers here or on a separate sheet.)
The criteria for a wetland plant community was met.

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

SOIL

Sampling Point: **SP-24 (W-4)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-7	10YR	3/2	100						Silty Clay Loam	
7-14	10YR	6/1	60	10YR	4/6	40	C	M	Silty Clay	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☑ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by A11 Depleted Below Dark Surface and F3 Depleted Matrix.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ◉ No ○ Depth (inches): 12

Saturation Present? (includes capillary fringe) Yes ◉ No ○ Depth (inches): 11

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology was documented by a water table at 12 inches, saturation at 11 inches and two secondary indicators, which were D2 Geomorphic Position and D5 FAC-neutral Test.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-25 (up)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 30 T 5N R 22E

Landform (hillslope, terrace, etc.): Hillside | Local relief (concave, convex, none): convex

Slope: 20.0% / 11.3 ° | Lat.: 42.8647003 | Long.: -87.9372025 | Datum: WGS84

Soil Map Unit Name: Morley silt loam, 2 to 6 percent slopes, eroded | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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 ◉**
Hydric Soil Present?	Yes ◉	No ○	
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:
Hydrological conditions were wetter than normal. An upland plant community was present and there were no indicators of wetland hydrology. A hydric soil was present probably due to the proximity to the boundary. The data point was located in an upland.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Herb Stratum (Plot size: 5' radius)				
1. Poa pratensis	90	☑	50.0%	FAC
2. Festuca arundinacea	70	☑	38.9%	FACU
3. Daucus carota	10	☐	5.6%	UPL
4. Symphyotrichum novae-angliae	10	☐	5.6%	FACW
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	180		= Total Cover	
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	90	x 3 =	270
FACU species	70	x 4 =	280
UPL species	10	x 5 =	50
Column Totals:	180 (A)		620 (B)

Prevalence Index = B/A = 3.444

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes ○ No ◉**

Remarks: (Include photo numbers here or on a separate sheet.)
An upland plant community was observed.

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

SOIL

Sampling Point: **SP-25 (up)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc²	Texture	Remarks
0-7	10YR	3/2	100						Silty Clay Loam	
7-21	10YR	4/1	90	10YR	5/6	10	C	M	Silty Clay	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by F3 Depleted Matrix.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-26 (W-4)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 30 T 5N R 22E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave

Slope: 2.0% / 1.1 ° | Lat.: 42.8647003 | Long.: -87.9372025 | Datum: WGS84

Soil Map Unit Name: Morley silt loam, 2 to 6 percent slopes, eroded | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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 ○**
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
Hydrological conditions were wetter than normal. A wetland plant community, hydric soils and multiple indicators of wetland hydrology were present. The data point was located in a wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Typha angustifolia	80	☑	72.7%	OBL
2. Poa pratensis	20	☐	18.2%	FAC
3. Solidago canadensis	10	☐	9.1%	FACU
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	110	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	80	x 1 =	80
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	110 (A)		180 (B)

Prevalence Index = B/A = 1.636

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes ◉ No ○**

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

A wetland plant community was documented by the Rapid Test, Dominance Test and the Prevalence Index.

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

SOIL

Sampling Point: **SP-26 (W-4)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-6	10YR	3/2	100						Silty Clay Loam	
6-13	10YR	5/1	70	10YR	5/6	30	C	M	Silty Clay Loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☑ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by A11 Depleted Below Dark Surface and F3 Depleted Matrix.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☑ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ◉ No ○ Depth (inches): 12

Saturation Present? (includes capillary fringe) Yes ◉ No ○ Depth (inches): 11

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology was documented by a water table at 12 inches, saturation at 11 inches and with three secondary indicators, which were C8 Crayfish Burrows, D2 Geomorphic Position and D5 FAC-neutral Test.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-27 (up)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Footslope | Local relief (concave, convex, none): convex

Slope: 2.0% / 1.1 ° | Lat.: 42.8577995 | Long.: -87.9371033 | Datum: WGS84

Soil Map Unit Name: Blount silt loam, 1 to 3 percent slopes | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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 ◉**
Hydric Soil Present?	Yes ◉	No ○	
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:
Hydrological conditions were wetter than normal. An upland plant community was present and there were no indicators of wetland hydrology. A hydric soil was present probably due to the proximity to the boundary. The data point was located in an upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Festuca arundinacea	80	☑	45.7%	FACU
2. Poa pratensis	60	☑	34.3%	FAC
3. Lotus corniculatus	20	☐	11.4%	FACU
4. Daucus carota	10	☐	5.7%	UPL
5. Sonchus arvensis	5	☐	2.9%	FACU
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	175	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	60	x 3 =	180
FACU species	105	x 4 =	420
UPL species	10	x 5 =	50
Column Totals:	175 (A)		650 (B)

Prevalence Index = B/A = 3.714

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes ○ No ◉**

Remarks: (Include photo numbers here or on a separate sheet.)
An upland plant community was observed.

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

SOIL

Sampling Point: **SP-27 (up)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc²	Texture	Remarks
0-10	10YR	3/2	100						Silty Clay Loam	
10-16	10YR	5/1	70	10YR	5/6	30	C	M	Silty Clay	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☑ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by A11 Depleted Below Dark Surface and F3 Depleted Matrix.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-28 (W11-14)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave

Slope: 2.0% / 1.1 ° | Lat.: 42.8577995 | Long.: -87.9372025 | Datum: WGS84

Soil Map Unit Name: Blount silt loam, 1 to 3 percent slopes | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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 ○**
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
Hydrological conditions were wetter than normal. A wetland plant community, hydric soils and multiple indicators of wetland hydrology were present. The data point was located in a wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size:)				
1. Phalaris arundinacea	100	☑	93.5%	FACW
2. Typha angustifolia	3	☐	2.8%	OBL
3. Solidago sempervirens	3	☐	2.8%	FACW
4. Rumex crispus	1	☐	0.9%	FAC
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	107	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	3	x 1 =	3
FACW species	103	x 2 =	206
FAC species	1	x 3 =	3
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	107 (A)		212 (B)

Prevalence Index = B/A = 1.981

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes ◉ No ○**

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

A wetland plant community was documented by the Rapid Test, Dominance Test and the Prevalence Index.

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

SOIL

Sampling Point: **SP-28 (W11-14)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-11	10YR	3/1	80	10YR	4/6	20	C	M	Silty Clay	
11-14	10YR	2/1	90	10YR	4/6	10	C	M	Silty Clay	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by F6 Redox Dark Surface.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ◉ No ○ Depth (inches): 14

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

The conditions of wetland hydrology were documented with two secondary indicators, which were D2 Geomorphic Position and D5 FAC-neutral Test.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-29 (up)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Hillside | Local relief (concave, convex, none): convex

Slope: 20.0% / 11.3 ° | Lat.: 42.854599 | Long.: -87.9391022 | Datum: WGS84

Soil Map Unit Name: Hebron loam, 0 to 2 percent slopes | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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** ◉
Hydric Soil Present?	Yes ○	No ◉	
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:
Hydrological conditions were wetter than normal. An upland plant community and upland soils were documented. There were no indicators of wetland hydrology present. The sample point was located in an upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Poa pratensis	70	☑	73.7%	FAC
2. Lotus corniculatus	20	☑	21.1%	FACU
3. Sonchus arvensis	5	☐	5.3%	FACU
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	95	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	70	x 3 =	210
FACU species	25	x 4 =	100
UPL species	0	x 5 =	0
Column Totals:	95 (A)		310 (B)

Prevalence Index = B/A = 3.263

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes** ○ **No** ◉

Remarks: (Include photo numbers here or on a separate sheet.)
An upland plant community was observed.

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

SOIL

Sampling Point: **SP-29 (up)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)	%	Type [1]	Loc²	Texture	Remarks
0-5	10YR	3/2	100					Silty Clay Loam	
5-22	10YR	5/6	60					Silty Clay Loam	
	10YR	5/1	40						

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydric soils were not observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-30 (W11-15)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave

Slope: 2.0% / 1.1 ° | Lat.: 42.854599 | Long.: -87.9391022 | Datum: WGS84

Soil Map Unit Name: Hebron loam, 0 to 2 percent slopes | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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 ○**
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
Hydrological conditions were wetter than normal. A wetland plant community, hydric soils and multiple indicators of wetland hydrology were present. The data point was located in a wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Phalaris arundinacea	90	☑	50.0%	FACW
2. Typha angustifolia	80	☑	44.4%	OBL
3. Poa pratensis	10	☐	5.6%	FAC
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	180	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	80	x 1 =	80
FACW species	90	x 2 =	180
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	180 (A)		290 (B)

Prevalence Index = B/A = 1.611

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes ◉ No ○**

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

A wetland plant community was documented by the Rapid Test, Dominance Test and the Prevalence Index.

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

SOIL

Sampling Point: **SP-30 (W11-15)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-12	10YR	4/1	80	10YR	5/6	20	C	M	Silty Clay Loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by F3 Depleted Matrix.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):	
Water Table Present?	Yes ◉	No ○	Depth (inches):	11
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches):	9

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology was documented by a water table at 11 inches, saturation at 9 inches and two secondary indicators, which were D2 Geomorphic Position and D5 FAC-neutral Test.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-31 (up)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Hillside | Local relief (concave, convex, none): convex

Slope: 25.0% / 14.0 ° | Lat.: 42.850399 | Long.: -87.9440994 | Datum: WGS84

Soil Map Unit Name: Morley silt loam, 2 to 6 percent slopes, eroded | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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** ◉
Hydric Soil Present?	Yes ○	No ◉	
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:
Hydrological conditions were wetter than normal. A wetland plant community was documented because of the presence of Kentucky Blue Grass. However, neither hydric soils nor indicators of wetland hydrology were observed. The sample point was located in an upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Poa pratensis	100	☑	63.3%	FAC
2. Solidago canadensis	30	☐	19.0%	FACU
3. Festuca arundinacea	20	☐	12.7%	FACU
4. Leucanthemum vulgare	5	☐	3.2%	UPL
5. Lotus corniculatus	3	☐	1.9%	FACU
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	158	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	100	x 3 =	300
FACU species	53	x 4 =	212
UPL species	5	x 5 =	25
Column Totals:	158 (A)		537 (B)

Prevalence Index = B/A = 3.399

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes** ◉ **No** ○

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

A wetland plant community was documented because of the presence of Kentucky Blue Grass.

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

SOIL

Sampling Point: **SP-31 (up)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)	%	Type [1]	Loc²	Texture	Remarks
0-6	10YR	3/2	100					Silty Clay Loam	
6-21	10YR	5/2	50					Silt Loam	
	10YR	5/6	50						

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydric soils were not observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-32 (W11-15)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave

Slope: 3.0% / 1.7 ° | Lat.: 42.850399 | Long.: -87.9440994 | Datum: WGS84

Soil Map Unit Name: Morley silt loam, 2 to 6 percent slopes, eroded | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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 ○**
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
Hydrological conditions were wetter than normal. A wetland plant community, hydric soils and multiple indicators of wetland hydrology were present. The data point was located in a wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Typha angustifolia	80	☑	64.0%	OBL
2. Poa pratensis	30	☑	24.0%	FAC
3. Euthamia graminifolia	5	☐	4.0%	FACW
4. Phalaris arundinacea	5	☐	4.0%	FACW
5. Solidago canadensis	5	☐	4.0%	FACU
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	125	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	80	x 1 =	80
FACW species	10	x 2 =	20
FAC species	30	x 3 =	90
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	125 (A)		210 (B)

Prevalence Index = B/A = 1.680

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes ◉ No ○**

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

A wetland plant community was documented by the Dominance Test and the Prevalence Index.

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

SOIL

Sampling Point: **SP-32 (W11-15)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-15	10YR	4/1	80	10YR	4/6	20	C	M	Silty Clay	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by F3 Depleted Matrix.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☑ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ◉ No ○ Depth (inches): 5

Saturation Present? (includes capillary fringe) Yes ◉ No ○ Depth (inches): 0

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology was documented by a water table at 5 inches, saturation at 0 inches and two secondary indicators, which were D2 Geomorphic Position and D5 FAC-neutral Test.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-33 (up)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Footslope | Local relief (concave, convex, none): convex

Slope: 10.0% / 5.7 ° | Lat.: 42.8480988 | Long.: -87.946701 | Datum: WGS84

Soil Map Unit Name: Fox silt loam, 2 to 6 percent slopes | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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** ◉
Hydric Soil Present?	Yes ○	No ◉	
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:
Hydrological conditions were wetter than normal. A wetland plant community was documented because of the presence of Reed Canary Grass. However, neither hydric soils nor indicators of wetland hydrology were observed. The sample point was located in an upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Phalaris arundinacea	100	☑	80.0%	FACW
2. Solidago canadensis	20	☐	16.0%	FACU
3. Persicaria pensylvanica	5	☐	4.0%	FACW
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	125	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	105	x 2 =	210
FAC species	0	x 3 =	0
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	125 (A)		290 (B)

Prevalence Index = B/A = 2.320

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes** ◉ **No** ○

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

A wetland plant community was documented because of the presence of Reed Canary Grass.

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

SOIL

Sampling Point: **SP-33 (up)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-12	10YR	2/3	100						Silty Clay Loam	
12-24	10YR	3/2	90	10YR	4/6	10	C	M	Silty Clay Loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydric soils were not observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Only one secondary indicator of wetland hydrology was observed, D5 FAC-neutral Test. The sample point location did not meet the minimum criteria of wetland hydrology indicators.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-34 (W11-15)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave

Slope: 1.0% / 0.6 ° | Lat.: 42.8480988 | Long.: -87.9468002 | Datum: WGS84

Soil Map Unit Name: Fox silt loam, 2 to 6 percent slopes | WWI classification: E1K

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 ○**
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
Hydrological conditions were wetter than normal. A wetland plant community, hydric soils and multiple indicators of wetland hydrology were present. The data point was located in a wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Phalaris arundinacea	100	☑	55.6%	FACW
2. Typha angustifolia	60	☑	33.3%	OBL
3. Solidago sempervirens	20	☐	11.1%	FACW
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	180	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	60	x 1 =	60
FACW species	120	x 2 =	240
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	180 (A)		300 (B)

Prevalence Index = B/A = 1.667

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes ◉ No ○**

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

A wetland plant community was documented by the Rapid Test, Dominance Test and the Prevalence Index.

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

SOIL

Sampling Point: **SP-34 (W11-15)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-13	10YR	3/1	70	10YR	5/6	30	C	M	Silty Clay Loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by F6 Redox Dark Surface.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):
Water Table Present?	Yes ◉	No ○	Depth (inches): 10
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches): 9

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology was documented by a water table at 10 inches, saturation at 9 inches and two secondary indicators, which were D2 Geomorphic Position and D5 FAC-neutral Test.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-35 (up)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Hillside | Local relief (concave, convex, none): convex

Slope: 15.0% / 8.5 ° | Lat.: 42.846015 | Long.: -87.949057 | Datum: WGS84

Soil Map Unit Name: Alluvial land | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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 ◉**
Hydric Soil Present?	Yes ○	No ◉	
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:
Hydrological conditions were wetter than normal. An upland plant community and upland soils were documented. There were no indicators of wetland hydrology present. The sample point was located in an upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Herb Stratum (Plot size: 5' radius)				
1. Poa pratensis	90	☑	66.7%	FAC
2. Festuca arundinacea	40	☑	29.6%	FACU
3. Artemisia absinthium	5	☐	3.7%	UPL
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	135		= Total Cover	
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	90	x 3 =	270
FACU species	40	x 4 =	160
UPL species	5	x 5 =	25
Column Totals:	135 (A)		455 (B)

Prevalence Index = B/A = 3.370

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes ○ No ◉**

Remarks: (Include photo numbers here or on a separate sheet.)
An upland plant community was observed.

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

SOIL

Sampling Point: **SP-35 (up)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)	%	Type [1]	Loc²	Texture	Remarks
0-22	10YR	3/2	60					Silty Clay Loam	
	10YR	4/6	40						

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydric soils were not observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

There were no indicators of hydric conditions.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-36 (W11-15)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave

Slope: 1.0% / 0.6 ° | Lat.: 42.8460038 | Long.: -87.9490967 | Datum: WGS84

Soil Map Unit Name: Alluvial land | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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** ○
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
Hydrological conditions were wetter than normal. A wetland plant community, hydric soils and multiple indicators of wetland hydrology were present. The data point was located in a wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Typha angustifolia	90	☑	52.9%	OBL
2. Solidago sempervirens	80	☑	47.1%	FACW
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	170	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	90	x 1 =	90
FACW species	80	x 2 =	160
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	170 (A)		250 (B)

Prevalence Index = B/A = 1.471

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes** ◉ **No** ○

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

A wetland plant community was documented by the Rapid Test, Dominance Test and the Prevalence Index.

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

SOIL

Sampling Point: **SP-36 (W11-15)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-14	10YR	4/1	60	10YR	5/6	40	C	M	Silty Clay	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by F3 Depleted Matrix.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ◉ No ○ Depth (inches): 14

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

The conditions of wetland hydrology were documented with two secondary indicators, which were D2 Geomorphic Position and D5 FAC-neutral Test.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-37 (up)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Hillside | Local relief (concave, convex, none): convex

Slope: 15.0% / 8.5 ° | Lat.: 42.8456001 | Long.: -87.9494019 | Datum: WGS84

Soil Map Unit Name: Alluvial land | WWI classification: E1K

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** ◉
Hydric Soil Present?	Yes ○	No ◉	
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:
Hydrological conditions were wetter than normal. A wetland plant community was documented because of the presence of Kentucky Blue Grass. However, neither hydric soils nor indicators of wetland hydrology were observed. The sample point was located in an upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Poa pratensis	100	☑ 100.0%	FAC
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	100	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	100	x 3 =	300
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		300 (B)

Prevalence Index = B/A = 3.000

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes** ◉ **No** ○

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

The criteria for a wetland plant community was met by the dominance of Kentucky Blue Grass.

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

SOIL

Sampling Point: **SP-37 (up)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc²	Texture	Remarks
0-15	10YR	3/3	60	10YR	5/6	10	C	M	Silty Clay Loam	
	10YR	3/2	30							

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydric soils were not observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-38 (W-5)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave

Slope: 1.0% / 0.6 ° | Lat.: 42.8456993 | Long.: -87.949501 | Datum: WGS84

Soil Map Unit Name: Alluvial land | WWI classification: E1K

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 ○**
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
Hydrological conditions were wetter than normal. A wetland plant community, hydric soils and multiple indicators of wetland hydrology were present. The data point was located in a wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Typha angustifolia	90	☑	52.9%	OBL
2. Solidago sempervirens	80	☑	47.1%	FACW
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	170	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	90	x 1 =	90
FACW species	80	x 2 =	160
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	170 (A)		250 (B)

Prevalence Index = B/A = 1.471

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes ◉ No ○**

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

A wetland plant community was documented by the Rapid Test, Dominance Test and the Prevalence Index.

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

SOIL

Sampling Point: **SP-38 (W-5)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-6	10YR	4/2	60	10YR	5/6	20	C	M	Silty Clay	
	10YR	3/2	20							
6-16	10YR	3/1	90	10YR	4/6	10	C	M	Silty Clay	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by F3 Depleted Matrix and F6 Redox Dark Surface.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ◉ No ○ Depth (inches): 16

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

The conditions of wetland hydrology were documented with two secondary indicators, which were D2 Geomorphic Position and D5 FAC-neutral Test.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-39 (up)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Hillside | Local relief (concave, convex, none): convex

Slope: 25.0% / 14.0 ° | Lat.: 42.8494987 | Long.: -87.944397 | Datum: WGS84

Soil Map Unit Name: Morley silt loam, 2 to 6 percent slopes | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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** ◉
Hydric Soil Present?	Yes ◉	No ○	
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:
Hydrological conditions were wetter than normal. Hydric soils were present, although an upland plant community was documented and no indicators of wetland hydrology were observed. The sample point is in an upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Herb Stratum (Plot size: 5' radius)				
1. Festuca arundinacea	70	☑	50.0%	FACU
2. Bromus inermis	50	☑	35.7%	FACU
3. Solidago canadensis	20	☐	14.3%	FACU
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	140		= Total Cover	
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	140	x 4 =	560
UPL species	0	x 5 =	0
Column Totals:	140 (A)		560 (B)

Prevalence Index = B/A = 4.000

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes** ○ **No** ◉

Remarks: (Include photo numbers here or on a separate sheet.)
An upland soil was documented.

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

SOIL

Sampling Point: **SP-39 (up)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc²	Texture	Remarks
0-9	10YR	3/2	100						Silt Loam	
9-18	10YR	4/2	90	10YR	4/6	10	C	M	Silty Clay	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☑ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by A11 Depleted Below Dark Surface and F3 Depleted Matrix.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-40 (W11-15)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave

Slope: 2.0% / 1.1 ° | Lat.: 42.8494987 | Long.: -87.9442978 | Datum: WGS84

Soil Map Unit Name: Morley silt loam, 2 to 6 percent slopes | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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 ○**
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
Hydrological conditions were wetter than normal. A wetland plant community was documented because of the presence of Kentucky Blue Grass. However, neither hydric soils nor indicators of wetland hydrology were observed. The sample point was located in a

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Typha angustifolia	90	☑	60.0%	OBL
2. Phalaris arundinacea	30	☑	20.0%	FACW
3. Poa pratensis	20	☐	13.3%	FAC
4. Festuca arundinacea	10	☐	6.7%	FACU
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	150	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	90	x 1 =	90
FACW species	30	x 2 =	60
FAC species	20	x 3 =	60
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	150 (A)		250 (B)

Prevalence Index = B/A = 1.667

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes ◉ No ○**

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

A wetland plant community was documented by the Rapid Test, Dominance Test and the Prevalence Index.

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

SOIL

Sampling Point: **SP-40 (W11-15)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-13	10YR	4/2	80	10YR	5/6	20	C	M	Silty Clay	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by F3 Depleted Matrix.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ◉ No ○ Depth (inches): 8

Saturation Present? (includes capillary fringe) Yes ◉ No ○ Depth (inches): 1

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology was documented by a water table at 8 inches, saturation at 1 inches and two secondary indicators, which were D2 Geomorphic Position and D5 FAC-neutral Test.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-41 (up)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Hillside | Local relief (concave, convex, none): concave

Slope: 15.0% / 8.5 ° | Lat.: 42.8540993 | Long.: -87.9389038 | Datum: WGS84

Soil Map Unit Name: Ashkum silty clay loam, 0 to 2 percent slopes | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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** ◉
Hydric Soil Present?	Yes ○	No ◉	
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:
Hydrological conditions were wetter than normal. An upland plant community and upland soils were documented. There were no indicators of wetland hydrology present. The sample point was located in an upland.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Herb Stratum (Plot size: 5' radius)				
1. Festuca arundinacea	80	☑	61.5%	FACU
2. Poa pratensis	30	☑	23.1%	FAC
3. Bromus inermis	5	☐	3.8%	FACU
4. Daucus carota	5	☐	3.8%	UPL
5. Lotus corniculatus	5	☐	3.8%	FACU
6. Solidago canadensis	5	☐	3.8%	FACU
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	130		= Total Cover	
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	30	x 3 =	90
FACU species	95	x 4 =	380
UPL species	5	x 5 =	25
Column Totals:	130 (A)		495 (B)

Prevalence Index = B/A = 3.808

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes** ○ **No** ◉

Remarks: (Include photo numbers here or on a separate sheet.)
An upland plant community was observed.

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

SOIL

Sampling Point: **SP-41 (up)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)	%	Type [1]	Loc²	Texture	Remarks
0-10	10YR	3/2	100					Silty Clay Loam	
10-18	10YR	5/3	70					Silty Clay Loam	
	10YR	4/3	30						

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydric soils were not observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-42 (W11-15)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave

Slope: 2.0% / 1.1 ° | Lat.: 42.8540993 | Long.: -87.9389038 | Datum: WGS84

Soil Map Unit Name: Ashkum silty clay loam, 0 to 2 percent slopes | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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 ○**
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
Hydrological conditions were wetter than normal. A wetland plant community was documented because of the presence of Kentucky Blue Grass. However, neither hydric soils nor indicators of wetland hydrology were observed. The sample point was located in a

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Herb Stratum (Plot size: 5' radius)				
1. Typha angustifolia	80	☑	62.5%	OBL
2. Poa pratensis	30	☑	23.4%	FAC
3. Phalaris arundinacea	10	☐	7.8%	FACW
4. Juncus tenuis	5	☐	3.9%	FAC
5. Euthamia graminifolia	3	☐	2.3%	FACW
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	128		= Total Cover	
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	80	x 1 =	80
FACW species	13	x 2 =	26
FAC species	35	x 3 =	105
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	128 (A)		211 (B)

Prevalence Index = B/A = 1.648

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes ◉ No ○**

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

A wetland plant community was documented by the Dominance Test and the Prevalence Index.

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

SOIL

Sampling Point: **SP-42 (W11-15)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc²	Texture	Remarks
0-7	10YR	2/1	100						Silty Clay	
7-12	10YR	5/2	70	10YR	5/6	30	C	M	Silty Clay	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☑ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by A11 Depleted Below Dark Surface and F3 Depleted Matrix.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ◉ No ○ Depth (inches): 11

Saturation Present? (includes capillary fringe) Yes ◉ No ○ Depth (inches): 0

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology was documented by a water table at 11 inches, saturation at 0 inches and with two secondary indicators, which were D2 Geomorphic Position and D5 FAC-neutral Test.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-43 (up)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 36 T 5N R 21E

Landform (hillslope, terrace, etc.): Hillside | Local relief (concave, convex, none): convex

Slope: 20.0% / 11.3 ° | Lat.: 42.8544998 | Long.: -87.9518967 | Datum: WGS84

Soil Map Unit Name: Blount silt loam, 1 to 3 percent slopes | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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** ◉
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ○ No ◉	

Remarks:
Hydrological conditions were wetter than normal. A wetland plant community and a hydric soil were present probably because of proximity to the boundary. The data point was located in an upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Poa pratensis	100	☑	81.3%	FAC
2. Festuca arundinacea	20	☐	16.3%	FACU
3. Glechoma hederacea	3	☐	2.4%	FACU
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	123	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	100	x 3 =	300
FACU species	23	x 4 =	92
UPL species	0	x 5 =	0
Column Totals:	123 (A)		392 (B)

Prevalence Index = B/A = 3.187

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes** ◉ **No** ○

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

The criteria for a wetland plant community was met by the dominance of Kentucky Blue Grass.

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

SOIL

Sampling Point: **SP-43 (up)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc²	Texture	Remarks
0-9	10YR	3/2	100						Silt Loam	
9-21	10YR	4/1	80	10YR	5/6	20	C	M	Silty Clay	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☑ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by A11 Depleted Below Dark Surface and F3 Depleted Matrix.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-44 (W-6)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 36 T 5N R 21E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave

Slope: 1.0% / 0.6 ° | Lat.: 42.8544998 | Long.: -87.9520035 | Datum: WGS84

Soil Map Unit Name: Morley silt loam, 2 to 6 percent slopes | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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** ○
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
Hydrological conditions were wetter than normal. A wetland plant community, hydric soils and multiple indicators of wetland hydrology were present. The data point was located in a wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0		= Total Cover	
Herb Stratum (Plot size: 5' radius)				
1. Typha angustifolia	100	☑	83.3%	OBL
2. Solidago sempervirens	10	☐	8.3%	FACW
3. Cirsium arvense	5	☐	4.2%	FACU
4. Panicum capillare	5	☐	4.2%	FAC
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	120		= Total Cover	
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	100	x 1 =	100
FACW species	10	x 2 =	20
FAC species	5	x 3 =	15
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	120 (A)		155 (B)

Prevalence Index = B/A = 1.292

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes** ◉ **No** ○

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

A wetland plant community was documented by the Rapid Test, Dominance Test and the Prevalence Index.

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

SOIL

Sampling Point: **SP-44 (W-6)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-15	10YR	4/1	80	10YR	4/6	20	C	M	Silty Clay	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by F3 Depleted Matrix.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ◉ No ○ Depth (inches): 11

Saturation Present? (includes capillary fringe) Yes ◉ No ○ Depth (inches): 10

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology was documented by a water table at 11 inches, saturation at 10 inches and two secondary indicators, which were D2 Geomorphic Position and D5 FAC-neutral Test.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-45 (up)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Hillside | Local relief (concave, convex, none): convex

Slope: 5.0% / 2.9 ° | Lat.: 42.8540001 | Long.: -87.9513016 | Datum: WGS84

Soil Map Unit Name: Morley silt loam, 2 to 6 percent slopes | WWI classification: E2K

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 ◉**
Hydric Soil Present?	Yes ○ No ◉	
Wetland Hydrology Present?	Yes ○ No ◉	

Remarks:
Hydrological conditions were wetter than normal. An upland plant community and upland soils were documented. Only one secondary indicator of wetland hydrology was observed. The sample point was located in an upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Solidago sempervirens	80	☑	53.3%	FACW
2. Daucus carota	70	☑	46.7%	UPL
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	150	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	80	x 2 =	160
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	70	x 5 =	350
Column Totals:	150 (A)		510 (B)

Prevalence Index = B/A = 3.400

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes ○ No ◉**

Remarks: (Include photo numbers here or on a separate sheet.)
An upland plant community was observed.

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

SOIL

Sampling Point: **SP-45 (up)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc²	Texture	Remarks
0-12	10YR	3/2	100						Silty Clay	
12-18	10YR	3/2	90	10YR	4/6	10	C	M	Silty Clay	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydric soils were not observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Only one secondary indicator of hydrology was observed. Two secondary indicators are necessary to document for wetland hydrology.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-46 (W-7)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave

Slope: 1.0% / 0.6 ° | Lat.: 42.8540001 | Long.: -87.9514008 | Datum: WGS84

Soil Map Unit Name: Morley silt loam, 2 to 6 percent slopes | WWI classification: E2K

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 ○**
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
Hydrological conditions were wetter than normal. A wetland plant community, hydric soils and multiple indicators of wetland hydrology were present. The data point was located in a wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Phalaris arundinacea	100	☑	76.9%	FACW
2. Typha angustifolia	20	☐	15.4%	OBL
3. Daucus carota	5	☐	3.8%	UPL
4. Cirsium arvense	3	☐	2.3%	FACU
5. Sonchus arvensis	2	☐	1.5%	FACU
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	130	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	5	x 4 =	20
UPL species	5	x 5 =	25
Column Totals:	130 (A)		265 (B)

Prevalence Index = B/A = 2.038

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes ◉ No ○**

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

A wetland plant community was documented by the Rapid Test, Dominance Test and the Prevalence Index.

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

SOIL

Sampling Point: **SP-46 (W-7)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-13	10YR	3/1	90	10YR	4/6	10	C	M	Silty Clay Loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by F6 Redox Dark Surface.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

The conditions of wetland hydrology were documented with two secondary indicators of wetland hydrology, which were D2 Geomorphic Position and D5 FAC-neutral Test.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-47 (up)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 36 T 5N R 21E

Landform (hillslope, terrace, etc.): Footslope | Local relief (concave, convex, none): convex

Slope: 10.0% / 5.7 ° | Lat.: 42.8530006 | Long.: -87.9520035 | Datum: WGS84

Soil Map Unit Name: Morley silt loam, 2 to 6 percent slopes, eroded | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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** ◉
Hydric Soil Present?	Yes ○	No ◉	
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:
Hydrological conditions were wetter than normal. An upland plant community and upland soils were documented. There were no indicators of wetland hydrology present. The sample point was located in an upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Poa pratensis	100	☑	65.4%	FAC
2. Festuca arundinacea	40	☑	26.1%	FACU
3. Daucus carota	10	☐	6.5%	UPL
4. Sonchus arvensis	3	☐	2.0%	FACU
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	153	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	100	x 3 =	300
FACU species	43	x 4 =	172
UPL species	10	x 5 =	50
Column Totals:	153 (A)		522 (B)

Prevalence Index = B/A = 3.412

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes** ○ **No** ◉

Remarks: (Include photo numbers here or on a separate sheet.)
An upland plant community was observed.

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

SOIL

Sampling Point: **SP-47 (up)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc²	Texture	Remarks
0-12	10YR	2/1	100						Silty Clay Loam	
12-18	10YR	5/1	40						Silty Clay Loam	
	10YR	2/1	50	10YR	5/6	10	C	M		

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydric soils were not observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-48 (W-8)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 36 T 5N R 21E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave

Slope: 2.0% / 1.1 ° | Lat.: 42.8530006 | Long.: -87.9520035 | Datum: WGS84

Soil Map Unit Name: Morley silt loam, 2 to 6 percent slopes, eroded | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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** ○
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
Hydrological conditions were wetter than normal. A wetland plant community, hydric soils and multiple indicators of wetland hydrology were present. The data point was located in a wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Typha angustifolia	80	☑	88.9%	OBL
2. Cirsium arvense	10	☐	11.1%	FACU
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	90	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	80	x 1 =	80
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	90 (A)		120 (B)

Prevalence Index = B/A = 1.333

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes** ◉ **No** ○

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

A wetland plant community was documented by the Rapid Test, Dominance Test and the Prevalence Index.

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

SOIL

Sampling Point: **SP-48 (W-8)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc²	Texture	Remarks
0-9	10YR	2/1	100						Silt Loam	
9-15	10YR	5/1	80	10YR	5/6	20	C	M	Silty Clay Loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☑ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by A11 Depleted Below Dark Surface and F3 Depleted Matrix.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

The conditions of wetland hydrology were documented with two secondary indicators of wetland hydrology, which were D2 Geomorphic Position and D5 FAC-neutral Test.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 18-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-49 (FSA Area)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Footslope | Local relief (concave, convex, none): concave

Slope: 10.0% / 5.7 ° | Lat.: 42.8516006 | Long.: -87.9437027 | Datum: WGS84

Soil Map Unit Name: Morley silt loam, 2 to 6 percent slopes, eroded | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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** ◉
Hydric Soil Present?	Yes ○	No ◉	
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:
Hydrological conditions were wetter than normal. An upland plant community and upland soils were documented. There were no indicators of wetland hydrology present. The sample point was located in an upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Festuca arundinacea	100	☑	70.4%	FACU
2. Asclepias syriaca	30	☑	21.1%	FACU
3. Bromus inermis	10	☐	7.0%	FACU
4. Cirsium arvense	2	☐	1.4%	FACU
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	142	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	142	x 4 =	568
UPL species	0	x 5 =	0
Column Totals:	142 (A)		568 (B)

Prevalence Index = B/A = 4.000

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes** ○ **No** ◉

Remarks: (Include photo numbers here or on a separate sheet.)
An upland plant community was observed.

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

SOIL

Sampling Point: **SP-49 (FSA Area)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)	%	Type [1]	Loc²	Texture	Remarks
0-14	10YR	3/2	100					Silt Loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

Hydric soils were not observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-50 (up)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Footslope | Local relief (concave, convex, none): convex

Slope: 5.0% / 2.9 ° | Lat.: 42.8504982 | Long.: -87.9493027 | Datum: WGS84

Soil Map Unit Name: Morley silt loam, 2 to 6 percent slopes, eroded | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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 ◉**
Hydric Soil Present?	Yes ○	No ◉	
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:
Hydrological conditions were wetter than normal. An upland plant community and upland soils were documented. There were no indicators of wetland hydrology present. The sample point was located in an upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Glycine max	40	☑	53.3%	UPL
2. Cirsium arvense	20	☑	26.7%	FACU
3. Taraxacum officinale	10	☐	13.3%	FACU
4. Sonchus arvensis	5	☐	6.7%	FACU
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	75	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	35	x 4 =	140
UPL species	40	x 5 =	200
Column Totals:	75 (A)		340 (B)

Prevalence Index = B/A = 4.533

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes ○ No ◉**

Remarks: (Include photo numbers here or on a separate sheet.)
An upland plant community was observed.

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

SOIL

Sampling Point: **SP-50 (up)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)	%	Type [1]	Loc²	Texture	Remarks
0-18	10YR	3/2	60					Silty Clay Loam	
	10YR	3/3	40						

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

There were no indicators of hydric soils. An upland soil was documented.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: IH 94 Milwaukee County | City/County: Oak Creek/Milwaukee | Sampling Date: 11-Nov-16

Applicant/Owner: WisDOT | State: WI | Sampling Point: **SP-51 (W-9)**

Investigator(s): Mike Al-wathiqui, Geof Parish | Section, Township, Range: S 31 T 5N R 22E

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): concave

Slope: 1.0% / 0.6 ° | Lat.: 42.8504982 | Long.: -87.9492035 | Datum: WGS84

Soil Map Unit Name: Morley silt loam, 2 to 6 percent slopes, eroded | WWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ○ No ◉ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ 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 ○**
Hydric Soil Present?	Yes ◉ No ○	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
Hydrological conditions were wetter than normal. A wetland plant community, hydric soils and multiple indicators of wetland hydrology were present. The data point was located in a wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. Epilobium coloratum	70	☑	48.3%	OBL
2. Typha angustifolia	60	☑	41.4%	OBL
3. Poa pratensis	10	☐	6.9%	FAC
4. Sonchus arvensis	5	☐	3.4%	FACU
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	145	= Total Cover		
Woody Vine Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	130	x 1 =	130
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	145 (A)		180 (B)

Prevalence Index = B/A = 1.241

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)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? **Yes ◉ No ○**

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

A wetland plant community was documented by the Rapid Test, Dominance Test and the Prevalence Index.

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

SOIL

Sampling Point: **SP-51 (W-9)**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc [2]	Texture	Remarks
0-15	10YR	3/2	90	10YR	4/6	10	C	M	Silty Clay Loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

The criteria for hydric soils was met by F6 Redox Dark Surface.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ 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)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

The conditions of wetland hydrology were documented with two secondary indicators of wetland hydrology, which were D2 Geomorphic Position and D5 FAC-neutral Test.

GRĀEF

collaborāte / formulāte / innovāte

APPENDIX H

Plant Lists 2009

FLORISTIC QUALITY ASSESSMENT

IH-94 Racine and Milwaukee Counites

2008 0120.17

9/2/2009

Plant Community Area: W10-5A ***Observer(s):*** Tina M. Myers/ Marcus Anderson

Community Classification:

WDOT *Shallow Marsh (SM) / Hardwood Swamp (WS)*

Dominant	Scientific Name	Common Name	Ind. Status (1988)	WI C Value
☐	Agrostis gigantea	redtop grass	NI	
☐	Aster novae-angliae	New England aster	FACW	3
☐	Carex bebbii	Bebb's oval sedge	OBL	4
☐	Carex vulpinoidea var. vulpinoidea	brown fox sedge	OBL	2
☐	Crataegus mollis	downy hawthorne	FACW minus	2
☐	Epilobium coloratum	cinnamon willow-herb	OBL	3
☐	Fraxinus pennsylvanica	green ash	FACW	2
☐	Geum canadense var. canadense	white avens	FAC	2
☐	Juncus torreyi	Torrey's rush	FACW	4
☐	Lycopus americanus	American bugleweed	FACW plus	4
☐	Parthenocissus quinquefolia var. quinquefolia	virginia creeper	FAC minus	5
☑	Phalaris arundinacea	reed canary grass	FACW plus	
☐	Rhamnus frangula	glossy buckthorn	FAC plus	
☐	Solanum dulcamara var. dulcamara	bittersweet nightshade	FAC	
☐	Toxicodendron radicans ssp. negundo	common poison ivy	FAC plus	4
☑	Typha angustifolia	narrow-leaf cattail	OBL	
☐	Vitis riparia	riverbank grape	FACW minus	2

$$FQI = \bar{C}\sqrt{N}$$

Where: FQI = Floristic Quality Index
$\bar{C}$ = Mean C Value
N = Number of native taxa

TOTAL =	**37**
N =	**12**
$\bar{C}$ =	**3.1**
FQI =	**10.7**

FLORISTIC QUALITY ASSESSMENT

IH-94 Racine and Milwaukee Counites

2008 0120.17

8/18/2009

Plant Community Area: W11-2 ***Observer(s):*** Julie Paschal/ Tina M. Myers

Community Classification:

WDOT *Riparian Wooded Wetland (RPF) / Shallow Marsh (SM)*

Dominant	Scientific Name	Common Name	Ind. Status (1988)	WI C Value
☑	Acer saccharinum	silver maple	FACW	2
☐	Alisma subcordatum	southern water-plantain	OBL	3
☐	Ambrosia trifida var. trifida	giant ragweed	FAC plus	0
☑	Aster lateriflorus var. lateriflorus	common calico aster	FACW minus	3
☐	Aster novae-angliae	New England aster	FACW	3
☐	Bidens cernua	nodding beggar-ticks	OBL	4
☐	Bidens frondosa	common beggar's ticks	FACW	1
☑	Boehmeria cylindrica var. cylindrica	small-spike false nettle	OBL	6
☐	Carex grayi	common bur sedge	FACW plus	7
☐	Carex lacustris	common lake sedge	OBL	6
☐	Carex sp.	sedge	CBD	
☐	Cirsium arvense var. arvense	Canada thistle	FACU	
☐	Elaeagnus umbellata var. parviflora	autumn olive	UPL	
☐	Elymus virginicus var. virginicus	Virginia wild rye	FACW minus	6
☐	Euthamia graminifolia var. graminifolia	hairy grass-leaved goldenrod	FACW minus	4
☐	Fraxinus pennsylvanica	green ash	FACW	2
☐	Geum aleppicum	yellow avens	FAC plus	3
☐	Helenium autumnale var. autumnale	common sneezeweed	FACW plus	4
☐	Impatiens capensis	orange jewelweed	FACW	2
☐	Iris virginica var. shrevei	southern blue flag	OBL	5
☐	Leersia oryzoides	rice cutgrass	OBL	3
☐	Ludwigia alternifolia	seedbox	OBL	7
☐	Lycopus americanus	American bugleweed	FACW plus	4
☐	Lysimachia nummularia	moneywort	FACW plus	
☐	Lysimachia quadriflora	narrow-leaved loosestrife	OBL	9
☐	Lythrum salicaria	purple loosestrife	OBL	
☐	Mimulus ringens var. ringens	Allegheny monkey-flower	OBL	6
☐	Parthenocissus quinquefolia var. quinquefolia	virginia creeper	FAC minus	5
☑	Phalaris arundinacea	reed canary grass	FACW plus	
☑	Phragmites australis	giant reed grass	FACW plus	1
☐	Physostegia virginiana ssp. virginiana	false dragonhead	FACW	7
☑	Pilea pumila	Canada clearweed	FACW	3
☐	Plantago major var. major	common plantain	FAC plus	
☐	Poa pratensis	Kentucky bluegrass	FAC minus	
☑	Polygonum lapathifolium var. lapathifolium	nodding smartweed	FACW plus	2

FLORISTIC QUALITY ASSESSMENT

IH-94 Racine and Milwaukee Counites

2008 0120.17

8/18/2009

Plant Community Area: W11-2 ***Observer(s):*** Julie Paschal/ Tina M. Myers

Community Classification:

WDOT *Riparian Wooded Wetland (RPF) / Shallow Marsh (SM)*

☐	Populus deltoides ssp. deltoides	eastern cottonwood	FAC plus	2
☐	Rorippa palustris ssp. hispida var. hispida	rough marsh cress	OBL	3
☐	Rudbeckia laciniata var. laciniata	cut-leaf coneflower	FACW plus	6
☐	Sagittaria latifolia var. latifolia	broad-leaf arrowhead	OBL	3
☐	Salix bebbiana	Bebb's willow	FACW plus	7
☐	Salix interior	sandbar willow	OBL	2
☐	Salix x rubens	hybrid crack willow	FAC	
☐	Scirpus atrovirens	green bulrush	OBL	3
☐	Sium suave	tall water parsnip	OBL	5
☐	Solanum dulcamara var. dulcamara	bittersweet nightshade	FAC	
☐	Solidago canadensis var. scabra	tall goldenrod	FACU	1
☐	Solidago gigantea	giant goldenrod	FACW	3
☐	Sonchus arvensis ssp. arvensis	field sow thistle	FAC minus	
☐	Toxicodendron radicans ssp. negundo	common poison ivy	FAC plus	4
☐	Typha angustifolia	narrow-leaf cattail	OBL	
☐	Ulmus americana	American elm	FACW minus	3
☐	Vitis riparia	riverbank grape	FACW minus	2

$$FQI = \bar{C}\sqrt{N}$$

Where: FQI = Floristic Quality Index
$\bar{C}$ = Mean C Value
N = Number of native taxa

TOTAL =	**152**
N =	**40**
$\bar{C}$ =	**3.8**
FQI =	**24.0**

FLORISTIC QUALITY ASSESSMENT

IH-94 Racine and Milwaukee Counites

2008 0120.17

9/2/2009

Plant Community Area: W11-3A ***Observer(s):*** Eric C. Parker / Julie A. Paschal

Community Classification:

WDOT *Wet Meadow (M)*

Dominant	Scientific Name	Common Name	Ind. Status (1988)	WI C Value
☐	Aster lateriflorus var. lateriflorus	common calico aster	FACW minus	3
☐	Carex scoparia var. scoparia	lance-fruited oval sedge	FACW	4
☐	Dioscorea villosa var. villosa	wild yam	FAC minus	4
☐	Fraxinus pennsylvanica	green ash	FACW	2
☑	Phalaris arundinacea	reed canary grass	FACW plus	
☐	Populus deltoides ssp. deltoides	eastern cottonwood	FAC plus	2
☐	Toxicodendron radicans ssp. negundo	common poison ivy	FAC plus	4
☐	Ulmus americana	American elm	FACW minus	3
☐	Vitis riparia	riverbank grape	FACW minus	2

$$FQI = \bar{C}\sqrt{N}$$

Where: FQI = Floristic Quality Index
$\bar{C}$ = Mean C Value
N = Number of native taxa

TOTAL =	**24**
N =	**8**
$\bar{C}$ =	**3.0**
FQI =	**8.5**

FLORISTIC QUALITY ASSESSMENT

IH-94 Racine and Milwaukee Counites

2008 0120.17

9/2/2009

Plant Community Area: W11-3B ***Observer(s):*** Tina M. Myers/ Marcus Anderson

Community Classification:

WDOT *Wet Meaodw (M)*

Dominant	Scientific Name	Common Name	Ind. Status (1988)	WI C Value
☐	Arisaema triphyllum ssp. triphyllum	jack-in-the-pulpit	FACW minus	7
☐	Aster lateriflorus var. lateriflorus	common calico aster	FACW minus	3
☐	Aster puniceus var. puniceus	redstem aster	OBL	5
☑	Carex hystericina	porcupine sedge	OBL	3
☐	Geum canadense var. canadense	white avens	FAC	2
☑	Glyceria striata	fowl manna grass	OBL	4
☐	Impatiens capensis	orange jewelweed	FACW	2
☐	Parthenocissus quinquefolia var. quinquefolia	virginia creeper	FAC minus	5
☐	Phalaris arundinacea	reed canary grass	FACW plus	
☐	Pilea pumila	Canada clearweed	FACW	3
☐	Rhamnus cathartica	common buckthorn	FACU plus	
☐	Tilia americana	American basswood	FACU	5
☐	Toxicodendron radicans ssp. negundo	common poison ivy	FAC plus	4
☐	Ulmus americana	American elm	FACW minus	3
☐	Vitis riparia	riverbank grape	FACW minus	2

$$FQI = \bar{C}\sqrt{N}$$

Where: FQI = Floristic Quality Index
$\bar{C}$ = Mean C Value
N = Number of native taxa

TOTAL =	**48**
N =	**13**
$\bar{C}$ =	**3.7**
FQI =	**13.3**

FLORISTIC QUALITY ASSESSMENT

IH-94 Racine and Milwaukee Counites

2008 0120.17

8/19/2009

Plant Community Area: W11-10B ***Observer(s):*** Julie Paschal

Community Classification:

WDOT *Riparian Wooded Wetland (RPF)*

Dominant	Scientific Name	Common Name	Ind. Status (1988)	WI C Value
☐	Acer saccharinum	silver maple	FACW	2
☐	Amaranthus	spiny amaranth	FACU	
☐	Ambrosia trifida var. trifida	giant ragweed	FAC plus	0
☐	Aster lanceolatus var. simplex	panicled aster	FACW	4
☐	Bidens frondosa	common beggar's ticks	FACW	1
☐	Calystegia sepium ssp. sepium	common hedge bindweed	FAC	2
☐	Crataegus mollis	downy hawthorne	FACW minus	2
☐	Cyperus esculentus var. esculentus	field nut sedge	FACW	0
☐	Elymus canadensis var. canadensis	Canadian wild rye	FAC minus	4
☑	Fraxinus pennsylvanica	green ash	FACW	2
☐	Geum canadense var. canadense	white avens	FAC	2
☐	Glechoma hederacea var. hederacea	common ground ivy	FACU	
☐	Helenium autumnale var. autumnale	common sneezeweed	FACW plus	4
☐	Impatiens capensis	orange jewelweed	FACW	2
☐	Leersia oryzoides	rice cutgrass	OBL	3
☐	Parthenocissus quinquefolia var. quinquefolia	virginia creeper	FAC minus	5
☑	Phalaris arundinacea	reed canary grass	FACW plus	
☐	Physalis virginiana var. virginiana	lance-leaved ground cherry	UPL	4
☐	Pilea pumila	Canada clearweed	FACW	3
☐	Plantago major var. major	common plantain	FAC plus	
☐	Polygonum hydropiper	water pepper	OBL	
☐	Populus deltoides ssp. deltoides	eastern cottonwood	FAC plus	2
☐	Sagittaria latifolia var. latifolia	broad-leaf arrowhead	OBL	3
☐	Salix amygdaloides	peach-leaved willow	FACW	4
☐	Sium suave	tall water parsnip	OBL	5
☐	Taraxacum officinale ssp. vulgare	common dandelion	FACU	
☐	Ulmus americana	American elm	FACW minus	3
☐	Vitis riparia	riverbank grape	FACW minus	2

$$FQI = \bar{C}\sqrt{N}$$

Where: FQI = Floristic Quality Index
$\bar{C}$ = Mean C Value
N = Number of native taxa

TOTAL =	**59**
N =	**22**
$\bar{C}$ =	**2.7**
FQI =	**12.6**

FLORISTIC QUALITY ASSESSMENT

IH-94 Racine and Milwaukee Counites

2008 0120.17

9/15/2009

Plant Community Area: W10-7 ***Observer(s):*** Eric C. Parker / Julie A. Paschal

Community Classification:

WDOT *Shrub Scrub (SS) / Wet Meadow (M)*

Dominant	Scientific Name	Common Name	Ind. Status (1988)	WI C Value
☐	Acalypha rhomboidea	common copper-leaf	FACU	0
☐	Ambrosia artemisiifolia var. elatior	common ragweed	FACU	0
☐	Asclepias incarnata ssp. incarnata	marsh milkweed	OBL	5
☐	Barbarea vulgaris var. vulgaris	common winter cress	FAC	
☐	Carex atherodes	hairy-leaved lake sedge	OBL	8
☐	Carex sp.	sedge	CBD	
☐	Chenopodium album var. album	lamb's quarters	FAC minus	
☐	Cirsium arvense var. arvense	Canada thistle	FACU	
☐	Cornus amomum ssp. obliqua	silky dogwood	FACW plus	4
☐	Cornus sericea ssp. sericea	red-osier dogwood	FACW	3
☐	Echinochloa crusgalli var. crusgalli	wild millet	FACW	
☑	Fraxinus pennsylvanica	green ash	FACW	2
☐	Geum canadense var. canadense	white avens	FAC	2
☐	Panicum dichotomiflorum var.	kneegrass	FACW minus	0
☑	Phalaris arundinacea	reed canary grass	FACW plus	
☐	Polygonum pensylvanicum	pinkweed	FACW plus	1
☐	Populus deltoides ssp. deltoides	eastern cottonwood	FAC plus	2
☐	Rhamnus frangula	glossy buckthorn	FAC plus	
☐	Toxicodendron radicans ssp. negundo	common poison ivy	FAC plus	4
☐	Typha x glauca	blue cattail	OBL	
☐	Ulmus americana	American elm	FACW minus	3
☐	Viburnum lentago	nannyberry	FAC plus	4
☐	Vitis riparia	riverbank grape	FACW minus	2

$$FQI = \bar{C}\sqrt{N}$$

Where: FQI = Floristic Quality Index
$\bar{C}$ = Mean C Value
N = Number of native taxa

TOTAL =	**40**
N =	**15**
$\bar{C}$ =	**2.7**
FQI =	**10.3**

FLORISTIC QUALITY ASSESSMENT

IH-94 Racine and Milwaukee Counites

2008 0120.17

8/19/2009

Plant Community Area: W11-10A ***Observer(s):*** Marcus Anderson / Julie Paschal

Community Classification:

WDOT *Riparian Emergent (RPE) / Riparian Wooded (RPF) Wetland*

Dominant	Scientific Name	Common Name	Ind. Status (1988)	WI C Value
☐	Acer negundo var. negundo	common box elder	FACW minus	0
☐	Ambrosia trifida var. trifida	giant ragweed	FAC plus	0
☐	Carex pellita	broad-leaved woolly sedge	OBL	4
☐	Circaea lutetiana ssp. canadensis	common enchanter's nightshade	FACU	2
☐	Cirsium arvense var. arvense	Canada thistle	FACU	
☐	Crataegus mollis	downy hawthorne	FACW minus	2
☐	Equisetum arvense	field horsetail	FAC	1
☑	Fraxinus pennsylvanica	green ash	FACW	2
☐	Geum canadense var. canadense	white avens	FAC	2
☐	Impatiens capensis	orange jewelweed	FACW	2
☐	Parthenocissus quinquefolia var. quinquefolia	virginia creeper	FAC minus	5
☑	Phalaris arundinacea	reed canary grass	FACW plus	
☐	Physostegia virginiana ssp. virginiana	false dragonhead	FACW	7
☐	Polygonum persicaria var. persicaria	lady's thumb	FACW	
☑	Salix interior	sandbar willow	OBL	2
☐	Vitis riparia	riverbank grape	FACW minus	2

$$FQI = \bar{C}\sqrt{N}$$

Where: FQI = Floristic Quality Index
$\bar{C}$ = Mean C Value
N = Number of native taxa

TOTAL =	**31**
N =	**13**
$\bar{C}$ =	**2.4**
FQI =	**8.6**

FLORISTIC QUALITY ASSESSMENT

IH-94 Racine and Milwaukee Counites

2008 0120.17

8/19/2009

Plant Community Area: W11-10C ***Observer(s):*** Julie Paschal

Community Classification:

WDOT *Shallow Marsh (SM)*

Dominant	Scientific Name	Common Name	Ind. Status (1988)	WI C Value
☐	Acer saccharinum	silver maple	FACW	2
☐	Acorus americanus	sweet flag	OBL	7
☐	Amaranthus retroflexus	red-root amaranth	FACU	0
☐	Ambrosia trifida var. trifida	giant ragweed	FAC plus	0
☐	Angelica atropurpurea	great angelica	OBL	6
☐	Aster lanceolatus var. simplex	panicled aster	FACW	4
☐	Aster novae-angliae	New England aster	FACW	3
☐	Bidens frondosa	common beggar's ticks	FACW	1
☑	Bolboschoenus fluviatilis	river bulrush	OBL	6
☐	Calystegia sepium ssp. americana	narrow-leaf hedge bindweed	FAC	2
☐	Carex grayi	common bur sedge	FACW plus	7
☐	Crataegus mollis	downy hawthorne	FACW minus	2
☐	Echinocystis lobata	wild cucumber	FACW	2
☑	Fraxinus pennsylvanica	green ash	FACW	2
☐	Leersia oryzoides	rice cutgrass	OBL	3
☐	Lythrum salicaria	purple loosestrife	OBL	
☑	Phalaris arundinacea	reed canary grass	FACW plus	
☐	Polygonum hydropiper	water pepper	OBL	
☐	Polygonum virginianum	jumpseed	FAC	7
☐	Rumex crispus	curled dock	FAC plus	
☐	Salix interior	sandbar willow	OBL	2
☐	Schoenoplectus tabernaemontani	soft-stem bulrush	OBL	4
☐	Spartina pectinata	prairie cordgrass	FACW plus	5
☐	Thalictrum dasycarpum	tall meadow rue	FACW minus	4
☑	Typha angustifolia	narrow-leaf cattail	OBL	
☐	Vitis riparia	riverbank grape	FACW minus	2

$$FQI = \bar{C}\sqrt{N}$$

Where: FQI = Floristic Quality Index
$\bar{C}$ = Mean C Value
N = Number of native taxa

TOTAL =	**71**
N =	**21**
$\bar{C}$ =	**3.4**
FQI =	**15.5**

FLORISTIC QUALITY ASSESSMENT

IH-94 Racine and Milwaukee Counites

2008 0120.17

9/2/2009

Plant Community Area: W11-14 ***Observer(s):*** Julie A. Paschal

Community Classification:

WDOT *Wet Meadow (M)*

Dominant	Scientific Name	Common Name	Ind. Status (1988)	WI C Value
☐	Agrostis gigantea	redtop grass	NI	
☐	Aster novae-angliae	New England aster	FACW	3
☐	Cirsium arvense var. arvense	Canada thistle	FACU	
☐	Daucus carota	Queen Anne's lace	UPL	
☐	Elytrigia repens	quackgrass	FACU	
☐	Fraxinus pennsylvanica	green ash	FACW	2
☑	Phalaris arundinacea	reed canary grass	FACW plus	
☑	Poa pratensis	Kentucky bluegrass	FAC minus	
☐	Rumex crispus	curled dock	FAC plus	
☐	Typha angustifolia	narrow-leaf cattail	OBL	
☐	Verbena hastata var. hastata	blue vervain	FACW plus	3

$$FQI = \bar{C}\sqrt{N}$$

Where: FQI = Floristic Quality Index
$\bar{C}$ = Mean C Value
N = Number of native taxa

TOTAL =	**8**
N =	**3**
$\bar{C}$ =	**2.7**
FQI =	**4.6**

FLORISTIC QUALITY ASSESSMENT

IH-94 Racine and Milwaukee Counites

2008 0120.17

9/15/2009

Plant Community Area: W11-15 ***Observer(s):*** Eric C. Parker / Julie A. Paschal

Community Classification:

WDOT *Shallow Marsh (SM)*

Dominant	Scientific Name	Common Name	Ind. Status (1988)	WI C Value
☐	Agrostis gigantea	redtop grass	NI	
☐	Asclepias syriaca	common milkweed	UPL	1
☐	Aster novae-angliae	New England aster	FACW	3
☐	Barbarea vulgaris var. vulgaris	common winter cress	FAC	
☐	Carex pellita	broad-leaved woolly sedge	OBL	4
☐	Cirsium arvense var. arvense	Canada thistle	FACU	
☐	Lythrum salicaria	purple loosestrife	OBL	
☑	Phalaris arundinacea	reed canary grass	FACW plus	
☐	Solidago canadensis var. scabra	tall goldenrod	FACU	1
☐	Solidago gigantea	giant goldenrod	FACW	3
☐	Solidago sempervirens var. sempervirens	seaside goldenrod	FACU	
☑	Typha angustifolia	narrow-leaf cattail	OBL	
☐	Vitis riparia	riverbank grape	FACW minus	2

$$FQI = \bar{C}\sqrt{N}$$

Where: FQI = Floristic Quality Index
$\bar{C}$ = Mean C Value
N = Number of native taxa

TOTAL =	**14**
N =	**6**
$\bar{C}$ =	**2.3**
FQI =	**5.7**

FLORISTIC QUALITY ASSESSMENT

IH-94 Racine and Milwaukee Counites

2008 0120.17

9/15/2009

Plant Community Area: W11-3 ***Observer(s):*** Eric C. Parker / Julie A. Paschal

Community Classification:

WDOT *Wet Meadow (M) / Shallow Marsh (SM)*

Dominant	Scientific Name	Common Name	Ind. Status (1988)	WI C Value
☐	Agrostis gigantea	redtop grass	NI	
☐	Alisma subcordatum	southern water-plantain	OBL	3
☐	Aster puniceus var. puniceus	redstem aster	OBL	5
☐	Barbarea vulgaris var. vulgaris	common winter cress	FAC	
☐	Bidens frondosa	common beggar's ticks	FACW	1
☐	Echinochloa crusgalli var. crusgalli	wild millet	FACW	
☐	Eleocharis erythropoda	bald spikerush	OBL	3
☐	Epilobium coloratum	cinnamon willow-herb	OBL	3
☐	Euthamia graminifolia var. graminifolia	hairy grass-leaved goldenrod	FACW minus	4
☐	Fraxinus pennsylvanica	green ash	FACW	2
☐	Juncus dudleyi	Dudley's rush	FAC	4
☐	Juncus torreyi	Torrey's rush	FACW	4
☐	Leersia oryzoides	rice cutgrass	OBL	3
☐	Lycopus americanus	American bugleweed	FACW plus	4
☑	Phalaris arundinacea	reed canary grass	FACW plus	
☐	Sagittaria latifolia var. latifolia	broad-leaf arrowhead	OBL	3
☑	Schoenoplectus tabernaemontani	soft-stem bulrush	OBL	4
☐	Scirpus atrovirens	green bulrush	OBL	3
☐	Solidago gigantea	giant goldenrod	FACW	3
☐	Sparganium eurycarpum	giant bur reed	OBL	5
☑	Typha angustifolia	narrow-leaf cattail	OBL	
☐	Verbena hastata var. hastata	blue vervain	FACW plus	3

$$FQI = \bar{C}\sqrt{N}$$

Where: FQI = Floristic Quality Index
$\bar{C}$ = Mean C Value
N = Number of native taxa

TOTAL =	**57**
N =	**17**
$\bar{C}$ =	**3.4**
FQI =	**13.8**

FLORISTIC QUALITY ASSESSMENT

IH-94 Racine and Milwaukee Counites

2008 0120.17

9/15/2009

Plant Community Area: W11-4 ***Observer(s):*** Eric C. Parker / Julie A. Paschal

Community Classification:

WDOT *Wet Meadow (M) / Scrub Shrub (SS) / Shallow Marsh (SM)*

Dominant	Scientific Name	Common Name	Ind. Status (1988)	WI C Value
☐	Ambrosia artemisiifolia var. elatior	common ragweed	FACU	0
☑	Ambrosia trifida var. trifida	giant ragweed	FAC plus	0
☐	Aster puniceus var. puniceus	redstem aster	OBL	5
☐	Bidens frondosa	common beggar's ticks	FACW	1
☐	Bromus inermis ssp. inermis	smooth brome	UPL	
☐	Cirsium arvense var. arvense	Canada thistle	FACU	
☐	Cyperus esculentus var. esculentus	field nut sedge	FACW	0
☐	Daucus carota	Queen Anne's lace	UPL	
☑	Echinochloa crusgalli var. crusgalli	wild millet	FACW	
☐	Eleocharis erythropoda	bald spikerush	OBL	3
☐	Elytrigia repens	quackgrass	FACU	
☐	Epilobium coloratum	cinnamon willow-herb	OBL	3
☐	Juncus tenuis	path rush	FAC	1
☐	Panicum dichotomiflorum var.	kneegrass	FACW minus	0
☑	Phalaris arundinacea	reed canary grass	FACW plus	
☐	Polygonum pensylvanicum	pinkweed	FACW plus	1
☐	Populus deltoides ssp. deltoides	eastern cottonwood	FAC plus	2
☐	Rumex crispus	curled dock	FAC plus	
☐	Salix amygdaloides	peach-leaved willow	FACW	4
☐	Setaria faberi	giant foxtail	FACU plus	
☐	Setaria glauca	yellow foxtail	FAC	
☐	Solidago gigantea	giant goldenrod	FACW	3
☐	Sonchus arvensis ssp. arvensis	field sow thistle	FAC minus	
☐	Typha angustifolia	narrow-leaf cattail	OBL	
☐	Vitis riparia	riverbank grape	FACW minus	2

$$FQI = \bar{C}\sqrt{N}$$

Where: FQI = Floristic Quality Index
$\bar{C}$ = Mean C Value
N = Number of native taxa

TOTAL =	**25**
N =	**14**
$\bar{C}$ =	**1.8**
FQI =	**6.7**

GRĀEF

collaborāte / formulāte / innovāte

APPENDIX I

Plant Lists 2016

FLORISTIC QUALITY ASSESSMENT

IH 94 Milwaukee County

WisDOT Project ID 1030-20-08

11-14-2016

Plant Community ID: W10-7 (2016) ***Observer(s):*** Geof Parish & Mike Al-wathiqui

Community Classification:

WisDOT Shallow Marsh

Eggers and Reed Shallow Marsh

Dominant	Scientific Name	Common Name	Ind. Status	WI C Value
☐	Artemisia absinthium	absinth sage-wort		
☐	Cirsium arvense	Canada thistle	FACU	
☐	Daucus carota	Queen Anne's-lace		
☐	Euthamia graminifolia	grass-leaved goldenrod	FACW	4
☐	Festuca arundinacea	reed fescue	FACU	
☐	Lactuca serriola	prickly lettuce	FACU	
☑	Phalaris arundinacea	reed canary grass	FACW	
☐	Poa pratensis	Kentucky bluegrass	FAC	
☐	Salix interior	Sandbar Willow	FACW	2
☐	Solanum dulcamara	bittersweet nightshade	FAC	
☐	Solidago canadensis	Canadian goldenrod	FACU	1
☐	Solidago gigantea	giant goldenrod	FACW	3
☑	Solidago sempervirens	seaside goldenrod	FACW	
☐	Symphyotrichum novae-angliae	New England aster	FACW	3
☑	Typha angustifolia	narrow-leaved cat-tail	OBL	

$$FQI = \bar{C}\sqrt{N}$$

Where: FQI = Floristic Quality Index
$\bar{C}$ = Mean C Value
N = Number of native taxa

TOTAL =	**13**
N =	**5**
$\bar{C}$ =	**2.6**
FQI =	**5.8**

FLORISTIC QUALITY ASSESSMENT

IH 94 Milwaukee County

WisDOT Project ID 1030-20-08

11-14-2016

Plant Community ID: W11-10a (2016) ***Observer(s):*** Geof Parish & Mike Al-wathiqui

Community Classification:

WisDOT Fresh Meadow & Shallow Marsh

Eggers and Reed Fresh (Wet) Meadow & Shallow Marsh

Dominant	Scientific Name	Common Name	Ind. Status	WI C Value
☐	Agrostis gigantea	redtop	FACW	
☐	Artemisia absinthium	absinth sage-wort		
☐	Carex vulpinoidea	brown fox sedge	FACW	2
☐	Cirsium arvense	Canada thistle	FACU	
☐	Cornus racemosa	gray dogwood	FAC	2
☐	Epilobium coloratum	cinnamon willow-herb	OBL	3
☐	Equisetum arvense	common horsetail	FAC	1
☐	Euthamia graminifolia	grass-leaved goldenrod	FACW	4
☐	Festuca arundinacea	reed fescue	FACU	
☐	Fraxinus pennsylvanica	green ash	FACW	2
☐	Juncus tenuis	path rush	FAC	1
☐	Juncus torreyi	Torrey's rush	FACW	4
☐	Lactuca serriola	prickly lettuce	FACU	
☐	Lythrum salicaria	purple loosestrife	OBL	
☐	Panicum capillare	common witch grass	FAC	1
☐	Persicaria pensylvanica	Pinkweed	FACW	1
☑	Phalaris arundinacea	reed canary grass	FACW	
☑	Phragmites australis	common reed	FACW	1
☑	Poa pratensis	Kentucky bluegrass	FAC	
☐	Rumex crispus	curly dock	FAC	
☐	Solanum dulcamara	bittersweet nightshade	FAC	
☐	Solidago canadensis	Canadian goldenrod	FACU	1
☐	Solidago gigantea	giant goldenrod	FACW	3
☑	Solidago sempervirens	seaside goldenrod	FACW	
☐	Sonchus arvensis	field sow-thistle	FACU	
☐	Symphyotrichum novae-angliae	New England aster	FACW	3
☑	Typha angustifolia	narrow-leaved cat-tail	OBL	
☐	Typha X glauca	hybrid cat-tail	OBL	
☐	Verbena hastata	blue vervain	FACW	3

FLORISTIC QUALITY ASSESSMENT

IH 94 Milwaukee County

WisDOT Project ID 1030-20-08

11-14-2016

Plant Community ID: W11-10a (2016) ***Observer(s):*** Geof Parish & Mike Al-wathiqui

Community Classification:

WisDOT	Fresh Meadow & Shallow Marsh
Eggers and Reed	Fresh (Wet) Meadow & Shallow Marsh

$$FQI = \bar{C} \sqrt{N}$$

Where: FQI = Floristic Quality Index
$\bar{C}$ = Mean C Value
N = Number of native taxa

TOTAL =	**32**
N =	**15**
$\bar{C}$ =	**2.1**
FQI =	**8.3**

FLORISTIC QUALITY ASSESSMENT

IH 94 Milwaukee County

WisDOT Project ID 1030-20-08

11-14-2016

Plant Community ID: W11-14 (2016) ***Observer(s):*** Geof Parish & Mike Al-wathiqui

Community Classification:

WisDOT Fresh Meadow

Eggers and Reed Fresh (Wet) Meadow

Dominant	Scientific Name	Common Name	Ind. Status	WI C Value
☐	Cirsium vulgare	bull thistle	FACU	
☐	Cornus stolonifera	red osier dogwood		3
☐	Dipsacus fullonum	common teasel	FACU	
☐	Elymus repens	quackgrass	FACU	
☐	Hordeum jubatum	foxtail barley	FAC	
☑	Phalaris arundinacea	reed canary grass	FACW	
☑	Poa pratensis	Kentucky bluegrass	FAC	
☐	Solidago canadensis	Canadian goldenrod	FACU	1
☐	Solidago sempervirens	seaside goldenrod	FACW	
☐	Symphyotrichum novae-angliae	New England aster	FACW	3
☐	Typha angustifolia	narrow-leaved cat-tail	OBL	

$$FQI = \overline{C}\sqrt{N}$$

Where: FQI = Floristic Quality Index
$\overline{C}$ = Mean C Value
N = Number of native taxa

TOTAL =	**7**
N =	**3**
$\overline{C}$ =	**2.3**
FQI =	**4.0**

FLORISTIC QUALITY ASSESSMENT

IH 94 Milwaukee County

WisDOT Project ID 1030-20-08

11-14-2016

Plant Community ID: W11-15 (2016) ***Observer(s):*** Geof Parish & Mike Al-wathiqui

Community Classification:

WisDOT	Shallow Marsh
Eggers and Reed	Shallow Marsh

Dominant	Scientific Name	Common Name	Ind. Status	WI C Value
☐	Agrostis gigantea	redtop	FACW	
☐	Artemisia absinthium	absinth sage-wort		
☐	Bromus inermis	smooth brome	FACU	
☐	Cirsium arvense	Canada thistle	FACU	
☐	Cirsium vulgare	bull thistle	FACU	
☐	Daucus carota	Queen Anne's-lace		
☐	Equisetum arvense	common horsetail	FAC	1
☐	Euthamia graminifolia	grass-leaved goldenrod	FACW	4
☐	Festuca arundinacea	reed fescue	FACU	
☐	Juncus tenuis	path rush	FAC	1
☐	Juncus torreyi	Torrey's rush	FACW	4
☐	Lactuca serriola	prickly lettuce	FACU	
☐	Lythrum salicaria	purple loosestrife	OBL	
☐	Pastinaca sativa	wild parsnip		
☑	Phalaris arundinacea	reed canary grass	FACW	
☑	Phragmites australis	common reed	FACW	1
☐	Poa pratensis	Kentucky bluegrass	FAC	
☐	Poa pratensis	Kentucky bluegrass	FAC	
☐	Rumex crispus	curly dock	FAC	
☐	Solanum dulcamara	bittersweet nightshade	FAC	
☐	Solidago canadensis	Canadian goldenrod	FACU	1
☐	Solidago gigantea	giant goldenrod	FACW	3
☑	Solidago sempervirens	seaside goldenrod	FACW	
☐	Symphyotrichum novae-angliae	New England aster	FACW	3
☑	Typha angustifolia	narrow-leaved cat-tail	OBL	
☐	Typha X glauca	hybrid cat-tail	OBL	
☐	Verbena hastata	blue vervain	FACW	3

FLORISTIC QUALITY ASSESSMENT

IH 94 Milwaukee County

WisDOT Project ID 1030-20-08

11-14-2016

Plant Community ID: W11-15 (2016) ***Observer(s):*** Geof Parish & Mike Al-wathiqui

Community Classification:

WisDOT	Shallow Marsh
Eggers and Reed	Shallow Marsh

$$FQI = \bar{C}\sqrt{N}$$

Where: FQI = Floristic Quality Index
$\bar{C}$ = Mean C Value
N = Number of native taxa

TOTAL =	**21**
N =	**9**
$\bar{C}$ =	**2.3**
FQI =	**7.0**

FLORISTIC QUALITY ASSESSMENT

IH 94 Milwaukee County

WisDOT Project ID 1030-20-08

11-14-2016

Plant Community ID: W11-3 (2016) ***Observer(s):*** Geof Parish & Mike Al-wathiqui

Community Classification:

WisDOT Shrub Scrub & Shallow Marsh

Eggers and Reed Shrub Carr & Shallow Marsh

Dominant	Scientific Name	Common Name	Ind. Status	WI C Value
☐	Agrostis gigantea	redtop	FACW	
☐	Agrostis stolonifera	creeping bent grass	FACW	
☐	Alisma subcordatum	common water-plantain	OBL	3
☐	Artemisia absinthium	absinth sage-wort		
☐	Bidens frondosa	Devil's-Pitchfork	FACW	1
☐	Carex lacustris	common lake sedge	OBL	6
☐	Cirsium arvense	Canada thistle	FACU	
☐	Cirsium vulgare	bull thistle	FACU	
☐	Cornus stolonifera	red osier dogwood		3
☐	Daucus carota	Queen Anne's-lace		
☐	Epilobium coloratum	cinnamon willow-herb	OBL	3
☐	Equisetum arvense	common horsetail	FAC	1
☐	Euthamia graminifolia	grass-leaved goldenrod	FACW	4
☐	Festuca arundinacea	reed fescue	FACU	
☐	Fraxinus pennsylvanica	green ash	FACW	2
☐	Glechoma hederacea	creeping-Charlie	FACU	
☐	Juncus torreyi	Torrey's rush	FACW	4
☐	Lactuca serriola	prickly lettuce	FACU	
☐	Leucanthemum vulgare	ox-eye daisy		
☐	Lythrum salicaria	purple loosestrife	OBL	
☐	Panicum capillare	common witch grass	FAC	1
☐	Phalaris arundinacea	reed canary grass	FACW	
☐	Phragmites australis	common reed	FACW	1
☐	Plantago major	broad-leaved plantain	FAC	
☐	Poa pratensis	Kentucky bluegrass	FAC	
☐	Populus tremuloides	aspen	FAC	2
☐	Rhamnus cathartica	common buckthorn	FAC	
☐	Rubus occidentalis	black-cap		2
☐	Rumex crispus	curly dock	FAC	

FLORISTIC QUALITY ASSESSMENT

IH 94 Milwaukee County

WisDOT Project ID 1030-20-08

11-14-2016

Plant Community ID: W11-3 (2016) ***Observer(s):*** Geof Parish & Mike Al-wathiqui

Community Classification:

WisDOT Shrub Scrub & Shallow Marsh

Eggers and Reed Shrub Carr & Shallow Marsh

☐	Salix fragilis	brittle willow	FAC	
☑	Salix interior	Sandbar Willow	FACW	2
☐	Schoenoplectus fluviatilis	River Club-Rush	OBL	
☐	Solanum dulcamara	bittersweet nightshade	FAC	
☐	Solidago canadensis	Canadian goldenrod	FACU	1
☐	Solidago gigantea	giant goldenrod	FACW	3
☐	Solidago sempervirens	seaside goldenrod	FACW	
☐	Sonchus arvensis	field sow-thistle	FACU	
☐	Spartina pectinata	prairie cord grass	FACW	5
☐	Symphyotrichum novae-angliae	New England aster	FACW	3
☐	Symphyotrichum puniceum	Purple-Stem American-Aster	OBL	
☑	Typha angustifolia	narrow-leaved cat-tail	OBL	
☐	Typha X glauca	hybrid cat-tail	OBL	
☐	Vitis riparia	river-bank grape	FACW	2

$$FQI = \overline{C}\sqrt{N}$$

Where: FQI = Floristic Quality Index
$\overline{C}$ = Mean C Value
N = Number of native taxa

TOTAL =	**49**
N =	**19**
$\overline{C}$ =	**2.6**
FQI =	**11.2**

FLORISTIC QUALITY ASSESSMENT

IH 94 Milwaukee County

WisDOT Project ID 1030-20-08

11-14-2016

Plant Community ID: W-1 ***Observer(s):*** Geof Parish & Mike Al-wathiqui

Community Classification:

WisDOT Wet Meadow

Eggers and Reed Fresh (Wet) Meadow

Dominant	Scientific Name	Common Name	Ind. Status	WI C Value
☐	Artemisia absinthium	absinth sage-wort		
☐	Cirsium arvense	Canada thistle	FACU	
☐	Festuca arundinacea	reed fescue	FACU	
☐	Fraxinus pennsylvanica	green ash	FACW	2
☑	Phalaris arundinacea	reed canary grass	FACW	
☐	Poa pratensis	Kentucky bluegrass	FAC	
☐	Solidago canadensis	Canadian goldenrod	FACU	1
☐	Solidago gigantea	giant goldenrod	FACW	3

$$FQI = \overline{C}\sqrt{N}$$

Where: FQI = Floristic Quality Index
$\overline{C}$ = Mean C Value
N = Number of native taxa

TOTAL =	**6**
N =	**3**
$\overline{C}$ =	**2.0**
FQI =	**3.5**

FLORISTIC QUALITY ASSESSMENT

IH 94 Milwaukee County

WisDOT Project ID 1030-20-08

11-14-2016

Plant Community ID: W-2 ***Observer(s):*** Geof Parish & Mike Al-wathiqui

Community Classification:

WisDOT: Wet Meadow, Shallow Marsh & Hardwood Swamp

Eggers and Reed: Fresh (Wet) Meadow, Shallow Marsh & Hardwood Swamp

Dominant	Scientific Name	Common Name	Ind. Status	WI C Value
☐	Agrostis gigantea	redtop	FACW	
☐	Cirsium vulgare	bull thistle	FACU	
☐	Cornus stolonifera	red osier dogwood		3
☐	Festuca arundinacea	reed fescue	FACU	
☐	Fraxinus pennsylvanica	green ash	FACW	2
☑	Phalaris arundinacea	reed canary grass	FACW	
☐	Poa pratensis	Kentucky bluegrass	FAC	
☑	Rhamnus cathartica	common buckthorn	FAC	
☐	Solanum dulcamara	bittersweet nightshade	FAC	
☐	Solidago canadensis	Canadian goldenrod	FACU	1
☐	Solidago gigantea	giant goldenrod	FACW	3
☐	Solidago sempervirens	seaside goldenrod	FACW	
☑	Typha angustifolia	narrow-leaved cat-tail	OBL	
☑	Ulmus americana	American elm	FACW	3
☐	Viburnum opulus	cranberry viburnum	FAC	6
☐	Vitis riparia	river-bank grape	FACW	2

$$FQI = \bar{C}\sqrt{N}$$

Where: FQI = Floristic Quality Index
$\bar{C}$ = Mean C Value
N = Number of native taxa

TOTAL =	**20**
N =	**7**
$\bar{C}$ =	**2.9**
FQI =	**7.6**

FLORISTIC QUALITY ASSESSMENT

IH 94 Milwaukee County

WisDOT Project ID 1030-20-08

11-14-2016

Plant Community ID: W-3 ***Observer(s):*** Geof Parish & Mike Al-wathiqui

Community Classification:

WisDOT Wet Meadow

Eggers and Reed Fresh (Wet) Meadow

Dominant	Scientific Name	Common Name	Ind. Status	WI C Value
☐	Cirsium arvense	Canada thistle	FACU	
☐	Cirsium vulgare	bull thistle	FACU	
☐	Fraxinus pennsylvanica	green ash	FACW	2
☐	Juncus tenuis	path rush	FAC	1
☑	Phalaris arundinacea	reed canary grass	FACW	
☐	Poa pratensis	Kentucky bluegrass	FAC	
☐	Solidago canadensis	Canadian goldenrod	FACU	1
☐	Solidago gigantea	giant goldenrod	FACW	3
☐	Solidago sempervirens	seaside goldenrod	FACW	
☐	Symphyotrichum novae-angliae	New England aster	FACW	3

$$FQI = \overline{C}\sqrt{N}$$

Where: FQI = Floristic Quality Index
$\overline{C}$ = Mean C Value
N = Number of native taxa

TOTAL =	**10**
N =	**5**
$\overline{C}$ =	**2.0**
FQI =	**4.5**

FLORISTIC QUALITY ASSESSMENT

IH 94 Milwaukee County

WisDOT Project ID 1030-20-08

11-14-2016

Plant Community ID: W-4 ***Observer(s):*** Geof Parish & Mike Al-wathiqui

Community Classification:

WisDOT Shallow Marsh

Eggers and Reed Shallow Marsh

Dominant	Scientific Name	Common Name	Ind. Status	WI C Value
☐	Agrostis gigantea	redtop	FACW	
☐	Artemisia absinthium	absinth sage-wort		
☐	Bromus inermis	smooth brome	FACU	
☐	Cirsium arvense	Canada thistle	FACU	
☐	Dipsacus fullonum	common teasel	FACU	
☐	Euthamia graminifolia	grass-leaved goldenrod	FACW	4
☐	Festuca arundinacea	reed fescue	FACU	
☐	Hordeum jubatum	foxtail barley	FAC	
☐	Phalaris arundinacea	reed canary grass	FACW	
☐	Phragmites australis	common reed	FACW	1
☐	Poa pratensis	Kentucky bluegrass	FAC	
☐	Quercus alba	white oak	FACU	7
☐	Rumex crispus	curly dock	FAC	
☐	Solidago canadensis	Canadian goldenrod	FACU	1
☐	Solidago gigantea	giant goldenrod	FACW	3
☑	Solidago sempervirens	seaside goldenrod	FACW	
☐	Symphyotrichum novae-angliae	New England aster	FACW	3
☑	Typha angustifolia	narrow-leaved cat-tail	OBL	
☑	Typha X glauca	hybrid cat-tail	OBL	

$$FQI = \bar{C}\sqrt{N}$$

Where: FQI = Floristic Quality Index
$\bar{C}$ = Mean C Value
N = Number of native taxa

TOTAL =	**19**
N =	**6**
$\bar{C}$ =	**3.2**
FQI =	**7.8**

FLORISTIC QUALITY ASSESSMENT

IH 94 Milwaukee County

WisDOT Project ID 1030-20-08

11-17-2016

Plant Community ID: W-5 ***Observer(s):*** Geof Parish & Mike Al-wathiqui

Community Classification:

WisDOT Shallow Marsh

Eggers and Reed Shallow Marsh

Dominant	Scientific Name	Common Name	Ind. Status	WI C Value
☐	Cirsium arvense	Canada thistle	FACU	
☐	Cirsium vulgare	bull thistle	FACU	
☐	Daucus carota	Queen Anne's-lace		
☐	Dipsacus fullonum	common teasel	FACU	
☐	Euthamia graminifolia	grass-leaved goldenrod	FACW	4
☐	Nepeta cataria	catnip	FACU	
☐	Poa pratensis	Kentucky bluegrass	FAC	
☐	Rumex crispus	curly dock	FAC	
☑	Solidago sempervirens	seaside goldenrod	FACW	
☐	Symphyotrichum novae-angliae	New England aster	FACW	3
☑	Typha angustifolia	narrow-leaved cat-tail	OBL	
☑	Typha X glauca	hybrid cat-tail	OBL	

$$FQI = \bar{C}\sqrt{N}$$

Where: FQI = Floristic Quality Index
$\bar{C}$ = Mean C Value
N = Number of native taxa

TOTAL =	**7**
N =	**2**
$\bar{C}$ =	**3.5**
FQI =	**4.9**

FLORISTIC QUALITY ASSESSMENT

IH 94 Milwaukee County

WisDOT Project ID 1030-20-08

11-14-2016

Plant Community ID: W-6 ***Observer(s):*** Geof Parish & Mike Al-wathiqui

Community Classification:

WisDOT	Shallow Marsh
Eggers and Reed	Shallow Marsh

Dominant	Scientific Name	Common Name	Ind. Status	WI C Value
☐	Arctium minus	common burdock	FACU	
☐	Asparagus officinalis	asparagus	FACU	
☐	Cirsium arvense	Canada thistle	FACU	
☐	Cirsium vulgare	bull thistle	FACU	
☐	Daucus carota	Queen Anne's-lace		
☐	Elymus repens	quackgrass	FACU	
☐	Festuca arundinacea	reed fescue	FACU	
☐	Glechoma hederacea	creeping-Charlie	FACU	
☐	Lactuca serriola	prickly lettuce	FACU	
☐	Nepeta cataria	catnip	FACU	
☑	Phalaris arundinacea	reed canary grass	FACW	
☐	Phragmites australis	common reed	FACW	1
☐	Poa pratensis	Kentucky bluegrass	FAC	
☐	Rumex crispus	curly dock	FAC	
☐	Salix nigra	black willow	OBL	4
☐	Solanum dulcamara	bittersweet nightshade	FAC	
☐	Solidago sempervirens	seaside goldenrod	FACW	
☑	Typha X glauca	hybrid cat-tail	OBL	

$$FQI = \bar{C}\sqrt{N}$$

Where: FQI = Floristic Quality Index
$\bar{C}$ = Mean C Value
N = Number of native taxa

TOTAL =	**5**
N =	**2**
$\bar{C}$ =	**2.5**
FQI =	**3.5**

FLORISTIC QUALITY ASSESSMENT

IH 94 Milwaukee County

WisDOT Project ID 1030-20-08

11-14-2016

Plant Community ID: W-7 ***Observer(s):*** Geof Parish & Mike Al-wathiqui

Community Classification:

WisDOT	Shallow Marsh
Eggers and Reed	Shallow Marsh

Dominant	Scientific Name	Common Name	Ind. Status	WI C Value
☐	Cirsium arvense	Canada thistle	FACU	
☐	Cyperus strigosus	false nut sedge	FACW	1
☐	Daucus carota	Queen Anne's-lace		
☐	Hordeum jubatum	foxtail barley	FAC	
☐	Juncus tenuis	path rush	FAC	1
☐	Lactuca serriola	prickly lettuce	FACU	
☑	Phalaris arundinacea	reed canary grass	FACW	
☐	Solanum dulcamara	bittersweet nightshade	FAC	
☐	Solidago sempervirens	seaside goldenrod	FACW	
☐	Typha angustifolia	narrow-leaved cat-tail	OBL	
☑	Typha X glauca	hybrid cat-tail	OBL	

$$FQI = \bar{C}\sqrt{N}$$

Where: FQI = Floristic Quality Index
$\bar{C}$ = Mean C Value
N = Number of native taxa

TOTAL =	**2**
N =	**2**
$\bar{C}$ =	**1.0**
FQI =	**1.4**

FLORISTIC QUALITY ASSESSMENT

IH 94 Milwaukee County

WisDOT Project ID 1030-20-08

11-14-2016

Plant Community ID: W-8 ***Observer(s):*** Geof Parish & Mike Al-wathiqui

Community Classification:

WisDOT	Shallow Marsh
Eggers and Reed	Shallow Marsh

Dominant	Scientific Name	Common Name	Ind. Status	WI C Value
☐	Cirsium arvense	Canada thistle	FACU	
☐	Festuca arundinacea	reed fescue	FACU	
☐	Phalaris arundinacea	reed canary grass	FACW	
☐	Poa pratensis	Kentucky bluegrass	FAC	
☐	Solanum dulcamara	bittersweet nightshade	FAC	
☐	Solidago sempervirens	seaside goldenrod	FACW	
☑	Typha angustifolia	narrow-leaved cat-tail	OBL	

$$FQI = \bar{C}\sqrt{N}$$

Where: FQI = Floristic Quality Index
$\bar{C}$ = Mean C Value
N = Number of native taxa

TOTAL =	
N =	**0**
$\bar{C}$ =	
FQI =	

FLORISTIC QUALITY ASSESSMENT

IH 94 Milwaukee County

WisDOT Project ID 1030-20-08

11-14-2016

Plant Community ID: W-9 ***Observer(s):*** Geof Parish & Mike Al-wathiqui

Community Classification:

WisDOT Fresh Meadow

Eggers and Reed Fresh (Wet) Meadow

Dominant	Scientific Name	Common Name	Ind. Status	WI C Value
☐	Cirsium arvense	Canada thistle	FACU	
☐	Cirsium vulgare	bull thistle	FACU	
☐	Daucus carota	Queen Anne's-lace		
☑	Epilobium coloratum	cinnamon willow-herb	OBL	3
☐	Lactuca serriola	prickly lettuce	FACU	
☐	Phalaris arundinacea	reed canary grass	FACW	
☐	Phragmites australis	common reed	FACW	1
☐	Poa pratensis	Kentucky bluegrass	FAC	
☐	Rubus occidentalis	black-cap		2
☐	Rumex crispus	curly dock	FAC	
☐	Salix nigra	black willow	OBL	4
☐	Solidago canadensis	Canadian goldenrod	FACU	1
☐	Solidago gigantea	giant goldenrod	FACW	3
☐	Solidago sempervirens	seaside goldenrod	FACW	
☐	Sonchus arvensis	field sow-thistle	FACU	
☐	Typha angustifolia	narrow-leaved cat-tail	OBL	
☐	Ulmus americana	American elm	FACW	3

$$FQI = \bar{C}\sqrt{N}$$

Where: FQI = Floristic Quality Index
$\bar{C}$ = Mean C Value
N = Number of native taxa

TOTAL =	**17**
N =	**7**
$\bar{C}$ =	**2.4**
FQI =	**6.4**

GRAEF

collaborate / formulate / innovate

APPENDIX J

Wetland Summary Table

Table 3. Wetland Summary Table

Wetland ID	Size (Acres)	C Value	FQI Value	Wetland Sample Point(s)	Adjacent Upland Sample Point(s)	WWI Mapped Wetland(s)	Wetland Plant Community Description(s)	Dominant Wetland Vegetation	Adjacent Upland Vegetation	Mapped Wetland Soil Type	Mapped Soil Taxonomic Classification	Mapped Soils Hydric Classification	Hydric Soil Field Indicator(s)	Hydrology Field Indicators	Comments on Apparent Connectivity to Surface Waters †	ADID Wetland Status ‡	Comments
Wetlands Delineated in 2008 - Boundaries Confirmed in 2016																	
W10-5	0.61	3.1 (2009)	10.7 (2009)	W10-5 T-1 B(w) (2009)	W10-5 T-1 A(u) (2009)	Wetland smaller than 2 acres	Wet Meadow	Tussock Sedge *(Carex stricta),* Torrey's Rush *(Juncus torreyi)* & Green Ash *(Fraxinus pennsylvanica)*	Canada Goldenrod (*Solidago canadensis*) , Common Buckthorn (*Rhamnus cathartica*) & Silver Maple (*Acer saccharum*)	Blount silt loam & Morley silt loam	Aeric Epiaqualfs & Oxyaquic Hapludalfs	Hydric Inclusions & Non Hydric	(2009) F3 Depleted Matrix	(2009) D2 Geomorphic Position & D5 FAC-Neutral Test	Runoff from wetland W10-5 drains into W10-5a. W10-5a probably drains west to roadside wetlands and ditches that drain north to Oak Creek.	Non ADID	The 2009 boundaries within the new study area were verified in 2016.
W10-5a	0.17	3.1 (2009)	10.7 (2009)	W10-5a T-1 B(w) (2009)	W10-5a T-1 A(u) (2009)	S3/E2K	Shallow Marsh & Hardwood Swamp	Narrowleaf Cattail (*Typha angustifolia*), Reed Canary Grass (*Phalaris arundinacea*) & Green Ash (*Fraxinus pennsylvanica*)	Staghorn Sumac (*Rhus typhina*), Multiflora Rose (*Rosa multiflora*), Downy Hawthorn (*Crataegus mollis*), Canada Goldenrod (*Solidago canadensis*) & Kentucky Bluegrass (*Poa pratensis*)	Blount silt loam	Aeric Epiaqualfs	Hydric Inclusions	(2009) A11 Depleted Below Dark Surface & F3 Depleted Matrix	(2009) D2 Geomorphic Position, D5 FAC-Neutral Test & Other - Exposed Tree Roots	Wetland W10-5a probably drains west to roadside wetlands and ditches that drain north to Oak Creek.	Non ADID	The 2009 boundaries within the new study area were verified in 2016.
W11-2	0.20	3.8 (2009)	24.0 (2009)	W11-2 T-1 B(w) (2009)	W11-2 T-1 A(u) (2009)	T3K	Riparian Wooded Wetland & Shallow Marsh	Calico Aster (*Symphyotrichum lateriflorum*), Canadian Clearweed (*Pilea pumila*), Common Reed (*Phragmites australis*), Curlytop Knotweed (*Persicaria lapathifolia*), Reed Canary Grass (*Phalaris arundinacea*) Silver Maple (*Acer saccharinum*) & Smallspike False Nettle (*Boehmeria cylindrica*)	Calico Aster (*Symphyotrichum lateriflorum*), Canada Clearweed (*Pilea pumila*), Common Buckthorn (*Rhamnus cathartica*), False Nettle (*Boehmeria cylindrica*), Nodding Smartweed (*Persicaria lapathifolia*), Reed Canary Grass (*Phalaris arundinacea*) & Silver Maple (*Acer saccharinum*)	Fox silt loam & Sawmill silt loam	Typic Hapludalfs & Cumulic Endoaquolls	Non Hydric & Hydric	(2009) A11 Depleted Below Dark Surface & F3 Depleted Matrix	(2009) B10 Drainage Patterns, D2 Geomorphic Position & D5 FAC-Neutral Test	Sections of wetland W11-2 are adjacent to the Root River. The areas that are not adjacent to the river drain into the areas that are adjacent.	ADID Wetland east of IH 43, but not including the shallow marsh swale.	The 2009 boundaries within the new study area were verified in 2016.
W11-3a	0.08	3.0 (2009)	8.5 (2009)	W11-3a T-1 A(u) (2009)	W11-3a T-1 B(w) (2009)	None	Wet Meadow	Reed Canary Grass (*Phalaris arundinacea*)	American Basswood (*Tilia americana*), Bell's Honeysuckle (*Lonicera x bella*), White Avens (*Geum canadense*) & Virginia Creeper (*Parthenocissus quinquefolia*)	Ashkum silty clay loam	Typic Endoaquolls	Hydric	(2009) A11 Depleted Below Dark Surface	(2009) B1 Water Marks, B2 Sediment Deposits, B4 Algal Mat or Crust, B9 Water-Stained Leaves, D2 Geomorphic Position & D5 FAC-Neutral Test	Wetland W11-3a appears isolated in a topographic depression on a ridge top between the northbound and southbound lanes.	Non ADID	The 2009 boundaries were verified in 2016.
W11-3b	0.02	3.7 (2009)	13.3 (2009)	W11-3b T-1 A(u) (2009)	W11-3b T-1 B(w) (2009)	T3/E2K	Wet Meadow	Porcupine Sedge (*Carex hystericina*) & Fowl Mannagrass (*Glyceria striata*)	Pennsylvania sedge (*Carex pennsylvanica*), Common buckthorn (*Rhamnus cathartica*), Bell's Honeysuckle (*Lonicera x bella*), American Basswood (*Tilia americana*) & Sugar Maple (*Acer saccharum*)	Ashkum silty clay loam & Morley silt loam	Typic Endoaquolls & Oxyaquic Hapludalfs	Hydric & Non Hydric	(2009) F3 Depleted Matrix	(2009) A3 Saturation, B7 Inundation Visible on Aerial Imagery, B8 Sparsely Vegetated Concave Surface, C9 Saturation Visible on Aerial Imagery, D2 Geomorphic Position & D5 FAC-Neutral Test	Wetland W11-3b appears isolated in a topographic depression.	Non ADID	The 2009 boundaries within the new study area were verified in 2016.
W11-10b	0.02	2.7 (2009)	12.6 (2009)	W11-10b T-1 A(u) (2009)	W11-10b T-1 B(w) (2009)	None	Riparian Wooded Wetland	Green Ash (Fraxinus pennsylvanica) Reed Canary Grass (Phalaris arundinacea)	Canada Goldenrod (*Solidago canadensis*) & Cockspur Hawthorn (*Crataegus crus-galli*)	Fox silt loam	Typic Hapludalfs	Non Hydric	(2009) A12 Thick Dark Surface	(2009) B1 Water Marks, B2 Sediment Deposits, B3 Drift Deposits, B10 Drainage Patterns, D2 Geomorphic Position & D5 FAC-Neutral Test	Wetland W11-10b is adjacent to the Root River.	Non ADID	The 2009 boundaries within the new study area were verified in 2016.
Wetlands Delineated in 2008 - Boundaries Revised in 2016																	
W10-7	0.67	2.6	5.8	SP-2, SP-4 & W10-7 T-1 B(w) (2009)	SP-1, SP-3 & W10-7 T-1 A(u) (2009)	T3/E2K	Shallow Marsh, Shrub Scrub & Wet Meadow	Green Ash (*Fraxinus pennsylvanica*), Narrowleaf Cattail (*Typha angustifolia*), Reed Canary Grass (*Phalaris arundinacea*) & Seaside Goldenrod (*Solidago sempervirens*)	Eastern Cottonwood (*Populus deltoides*), Bell's Honeysuckle (*Lonicera X bella*), Kentucky Bluegrass (*Poa pratensis*), Tall Fescue (*Festuca arundinacea*), Wild Strawberry (*Fragaria virginiana*) & Yellow Rocket (*Barbarea vulgaris*)	Blount silt loam & Morley silt loam	Aeric Epiaqualfs & Oxyaquic Hapludalfs	Hydric Inclusions & Non Hydric	(2016) A11 Depleted Below Dark Surface & F3 Depleted Matrix; A11 Depleted Below Dark Surface & F3 Depleted Matrix; (2009) A12 Thick Dark Surface	(2016) A3 Saturation, D2 Geomorphic Position & D5 FAC-Neutral Test; D2 Geomorphic Position & D5 FAC-Neutral Test; (2009) B10 Drainage Patterns & D5 FAC-Neutral Test	Runoff from wetland W10-7 flows east to roadside wetlands and ditches that convey water north to Oak Creek.	Non ADID	Wetland areas in swales and ditches connected to the wetland area delineated in 2009 were added to wetland W10-7.
W11-3	6.89	2.6	11.2	SP-10, SP-12, SP-14, W11-3 T-1 A(u) (2009), W11-4 T-1 B(w) (2009), W11-4 T-2 B(w) (2009) & W11-10c T-1 B(w) (2009)	SP-9, SP-11, SP-13, W11-3 T-1 B(w) (2009), W11-4 T-1 A(u) (2009), W11-4 T-2 A(u) (2009) & W11-10c T-1 A(u) (2009)	T3K, E1Ka, E2K & E3K	Wet Meadow, Shallow Marsh & Shrub Scrub	Kentucky Bluegrass (*Poa pratensis*), Narrowleaf Cattail (Typha angustifolia), Purple Loosestrife (Lythrum salicaria), Reed Canary Grass (*Phalaris arundinacea*), Softstem Bulrush (*Schoenoplectus tabernaemontani*) & Sandbar Willow (*Salix interior*)	Black Walnut (*Juglans nigra*), Canada Goldenrod (*Solidago canadensis*), Common Buckthorn (*Rhamnus cathartica*), Kentucky Bluegrass (*Poa pratensis*), Smooth Brome (*Bromus inermis*) & Tall Fescue (*Festuca arundinacea*)	Alluvial land, Ashkum silty clay loam, Blount silt loam, Fox silt loam, Hebron loam, Morley silt loam & Pistakee silt loam	None, Typic Endoaquolls, Aeric Epiaqualfs, Typic Hapludalfs, Oxyaquic Hapludalfs, Oxyaquic Hapludalfs & Aquic Udifluvents	Hydric Inclusions, Hydric, Hydric Inclusions, Non Hydric, Non Hydric & Hydric Inclusions	(2016) A11 Depleted Below Dark Surface & F3 Depleted Matrix; A11 Depleted Below Dark Surface & F3 Depleted Matrix; F3 Depleted Matrix (2009) A12 Thick Dark Surface; F3 Depleted Matrix; F6 redox Dark Surface; F6 redox Dark Surface;	(2016) A2 High Water Table, A3 Saturation, D2 Geomorphic Position & D5 FAC-neutral Test; A2 High Water Table, D2 Geomorphic Position & D5 FAC-neutral Test; A2 High Water Table, A3 Saturation, D2 Geomorphic Position & D5 FAC-Neutral Test; C3 Oxidized Rhizospheres on Living Roots, B10 Drainage Patterns & D5 FAC-Neutral Test; C3 Oxidized Rhizospheres on Living Roots, B10 Drainage Patterns, C9 Saturation Visible on Aerial Roots & D5 FAC-Neutral Test; B1 Water Marks, B2 Sediment Deposits, B3 Drift Deposits, B8 Sparsely Vegetated Concave Surface, B9 Water-Stained Leaves, B6 Surface Soil Cracks, D2 Geomorphic Position & D5 FAC-Neutral Test	Runoff from wetland W11-3 flows southwest along the highway, and eventually drains directly into the Root River.	ADID Wetland for approximately the first 50 feet north of the Root River to the Root River	Wetlands delineated in 2009, W11-3, W11-4 and W11-10c, were connected through wetland swales and ditches, and were mapped as one wetland in 2016, wetland W11-3.
W11-10a	3.70	2.1	8.3	SP-16, SP-18, SP-20, W11-10a T-1 B(w) (2009), W11-10a T-2 B(w) (2009) & W11-10a T-3 B(w) (2009)	SP-15, SP-17, SP-19, W11-10a T-1 A(u) (2009), W11-10a T-2 A(u) (2009) & W11-10a T-3 A(u) (2009)	E2Ka & T3K	Wet Meadow, Shallow Marsh, Riparian Emergent & Riparian Wooded Wetlands	Common Reed (*Phragmites australis*), Kentucky Bluegrass (*Poa pratensis*), Narrowleaf Cattail (*Typha angustifolia*), Reed Canary Grass (*Phalaris arundinacea*) & Seaside Goldenrod (*Solidago sempervirens*)	Canada Goldenrod (*Solidago canadensis*), Kentucky Bluegrass (*Poa pratensis*), Quack Grass (*Elymus repens*), Queen Anne's Lace (*Daucus carota*), Smooth Brome (*Bromus inermis*), Tall Fescue (*Festuca arundinacea*) & Wormwood (*Artemisia absinthium*)	Alluvial land, Ashkum silty clay loam, Blount silt loam, Fox silt loam, Morley silt loam & Sawmill silt loam	None, Typic Endoaquolls, Aeric Epiaqualfs, Typic Hapludalfs, Oxyaquic Hapludalfs & Cumulic Endoaquolls	Hydric Inclusions, Hydric, Hydric Inclusions, Non Hydric, Non Hydric & Hydric	(2016) F3 Depleted Matrix; F3 Depleted Matrix; F3 Depleted Matrix; (2009) A11 Depleted Below Dark Surface, F3 Depleted Matrix & Redox Dark Surface; A11 Depleted Below Dark Surface; & A11 Depleted Below Dark Surface	(2016) D2 Geomorphic Position & D5 FAC-neutral Test; A2 High Water Table, A3 Saturation, D2 Geomorphic Position & D5 FAC-neutral Test; A2 High Water Table, A3 Saturation, D2 Geomorphic Position & D5 FAC-neutral Test; (2009) D2 Geomorphic Position & D5 FAC-Neutral Test; B10 Drainage Patterns, D2 Geomorphic Position & D5 FAC-Neutral Test; & B6 Surface Soil Cracks, B10 Drainage Patterns, D2 Geomorphic Position & D5 FAC-Neutral Test	Runoff from wetland W11-10a flows southwest along the highway, and eventually drains directly into the Root River.	Riparian sections of the wetland are mapped as a ADID wetland.	The wetland indicator status of Seaside Goldenrod changed from FACU to FACW between 2009 and the present, which resulted in inclusion of additional areas into wetland W11-10a. Wetland areas in swales and ditches connected to the wetland area delineated in 2009 were also added to the delineated area.

Wetland ID	Size (Acres)	C Value	FQI Value	Wetland Sample Point(s)	Adjacent Upland Sample Point(s)	WWI Mapped Wetland(s)	Wetland Plant Community Description(s)	Dominant Wetland Vegetation	Adjacent Upland Vegetation	Mapped Wetland Soil Type	Mapped Soil Taxonomic Classification	Mapped Soils Hydric Classification	Hydric Soil Field Indicator(s)	Hydrology Field Indicators	Comments on Apparent Connectivity to Surface Waters †	ADID Wetland Status ‡	Comments
W11-14	0.04	2.3	4.0	SP-28 & W11-14 T-1 B(w) (2009)	SP-27	None	Wet Meadow	Kentucky Bluegrass (*Poa pratensis*) & Reed Canary Grass (*Phalaris arundinacea*)	Kentucky Bluegrass (*Poa pratensis*), Queen Anne's Lace (*Daucus carota*) & Tall Fescue (*Festuca arundinacea*)	Blount silt loam	Aeric Epiaqualfs	Hydric Inclusions	(2016) F6 Redox Dark Surface; (2009) F6 Redox Dark Surface	(2016) D2 Geomorphic Position & D5 FAC-neutral Test; (2009) D2 Geomorphic Position & D5 FAC-Neutral Test	Runoff from wetland W11-14 flows north into ditches and wetlands along Oakwood Road.	Non ADID	The west side of the wetland appears to have been filled with a berm after the 2009 delineation. The 2009 upland sample point was located in an area that is now wetland.
W11-15	4.30	2.3	7.0	SP-30, SP-32, SP-34, SP-36, SP-40, SP-42 & W11-15 T-1 B(w) (2009)	SP-29, SP-31, SP-33, SP-35, SP-39, SP-41 & W11-15 T-1 A(u) (2009)	E1K	Shallow Marsh	Common Reed (*Phragmites australis*), Narrowleaf Cattail (*Typha angustifolia*), Reed Canary Grass (*Phalaris arundinacea*) & Seaside Goldenrod (*Solidago sempervirens*)	Birdsfoot trefoil (*Lotus corniculatus*), Canada Goldenrod (*Solidago canadensis*), Kentucky Bluegrass (*Poa pratensis*), Reed Canary Grass (*Phalaris arundinacea*), Smooth Brome (*Bromus inermis*) & Tall Fescue (*Festuca arundinacea*)	Alluvial land, Ashkum silty clay loam, Blount silt loam, Fox silt loam, Hebron loam & Morley silt loam	None, Typic Endoaquolls, Aeric Epiaqualfs, Typic Hapludalfs, Oxyaquic Hapludalfs & Oxyaquic Hapludalfs	Hydric Inclusions, Hydric, Hydric Inclusions, Non Hydric, Non Hydric & Non Hydric	(2016) F3 Depleted Matrix; F3 Depleted Matrix; F6 Redox Dark Surface; F3 Depleted Matrix; A11 Depleted Below Dark Surface & F3 Depleted Matrix; (2009) F6 Redox Dark Surface	(2016) A2 High Water Table, A3 Saturation, D2 Geomorphic Position & D5 FAC-neutral Test; A2 High Water Table, A3 Saturation, D2 Geomorphic Position & D5 FAC-neutral Test; A2 High Water Table, A3 Saturation, D2 Geomorphic Position & D5 FAC-neutral Test; D2 Geomorphic Position & D5 FAC-neutral Test; A2 High Water Table, A3 Saturation, D2 Geomorphic Position & D5 FAC-neutral Test; A2 High Water Table, A3 Saturation, C8 Crayfish Burrows; D2 Geomorphic Position & D5 FAC-neutral Test; (2009) C3 Oxidized Rhizospheres on Living Roots, B10 Drainage Patterns, C9 Saturation Visible on Aerial Imagery & D5 FAC-Neutral Test	Runoff from wetland W11-15 drains southeast under northbound IH 94 into wetland W11-10a. Runoff in wetland W11-10a drains into the Root River.	Non ADID	The wetland indicator status of Seaside Goldenrod changed from FACU to FACW between 2009 and the present, which resulted in inclusion of additional areas into wetland W11-15. Wetland areas in swales and ditches connected to the wetland area delineated in 2009 were also added to the delineated area.
Wetlands Delineated in 2016																	
W-1	0.02	2.0	3.5	SP-6	SP-5	None	Wet Meadow	Reed Canary Grass (*Phalaris arundinacea*)	Smooth Brome (*Bromus inermis*)	Morley silt loam	Oxyaquic Hapludalfs	Non Hydric	A11 Depleted Below Dark Surface, F3 Depleted Matrix & F6 Redox Dark Surface	D2 Geomorphic Position & D5 FAC-neutral Test	Runoff from wetland W-1 drains into wetland W-2. Runoff from W-2 drains under Oakwood Road into wetland W11-3, which drains into the Root River.	Non ADID	Boundary based on distinct topographic breaks, subtle changes in hydrophytic vs upland vegetation, and frequent soil probes.
W-2	0.11	2.9	7.6	SP-8	SP-7	T3K	Wet Meadow, Shallow Marsh & Hardwood Swamp	Common Buckthorn (*Rhamnus cathartica*), Reed Canary Grass (*Phalaris arundinacea*), Narrowleaf Cattail (*Typha angustifolia*) & American Elm (*Ulmus americana*)	Smooth Brome (*Bromus inermis*)	Blount silt loam & Grays silt loam	Aeric Epiaqualfs & Oxyaquic Hapludalfs	Hydric Inclusions & Non Hydric	F3 Depleted Matrix	A2 High Water Table, A3 Saturation, D2 Geomorphic Position & D5 FAC-neutral Test	Runoff from W-2 drains under Oakwood Road into wetland W11-3, which drains into the Root River.	Non ADID	Boundary based on distinct topographic breaks, subtle changes in hydrophytic vs upland vegetation, and frequent soil probes.
W-3	0.06	2.0	4.5	SP-22	SP-21	None	Wet Meadow	Reed Canary Grass (*Phalaris arundinacea*)	Canada thistle (*Cirsium arvense*) & Kentucky Bluegrass (*Poa pratensis*)	Ashkum silty clay loam	Typic Endoaquolls	Hydric	F6 Redox Dark Surface	D2 Geomorphic Position & D5 FAC-neutral Test	Runoff from wetland W-3 drains west into the ditches along the highway that drain into wetland W11-10a. Runoff from wetland W11-10a drains into the Root River.	Non ADID	Boundary based on distinct topographic breaks, subtle changes in hydrophytic vs upland vegetation, and frequent soil probes.
W-4	0.69	3.2	7.8	SP-24 & SP-26	SP-23 & SP-25	None	Shallow Marsh	Narrowleaf Cattail (*Typha angustifolia*), Hybrid Cattail (*Typha X glauca*) & Seaside Goldenrod (*Solidago sempervirens*)	Crown Vetch (*Coronilla varia*), Kentucky Bluegrass (*Poa pratensis*) & Tall Fescue (*Festuca arundinacea*)	Blount silt loam, Grays silt loam & Morley silt loam	Aeric Epiaqualfs, Oxyaquic Hapludalfs & Oxyaquic Hapludalfs	Hydric Inclusions, Non Hydric & Non Hydric	A11 Depleted Below Dark Surface & F3 Depleted Matrix; & A11 Depleted Below Dark Surface & F3 Depleted Matrix	A2 High Water Table, A3 Saturation, D2 Geomorphic Position & D5 FAC-neutral Test; & A2 High Water Table, A3 Saturation, C8 Crayfish Burrows, D2 Geomorphic Position & D5 FAC-neutral Test	Runoff from the northern section of wetland W-4 drains north toward Oak Creek.	Non ADID	Boundary based on distinct topographic breaks, subtle changes in hydrophytic vs upland vegetation, and frequent soil probes.
W-5	0.30	3.5	4.9	SP-38	SP-37	E1K	Shallow Marsh	Narrowleaf Cattail (*Typha angustifolia*), Hybrid Cattail (*Typha X glauca*) & Seaside Goldenrod (*Solidago sempervirens*)	Kentucky Bluegrass (*Poa pratensis*)	Alluvial land & Fox loam	None & Typic Hapludalfs	Hydric Inclusions & Non Hydric	F3 Depleted Matrix & F6 Redox Dark Surface	D2 Geomorphic Position & D5 FAC-neutral Test	Runoff from wetland W-5 drains north into wetland W11-15. Wetland W11-15 drains southeast under northbound IH 94 into wetland W11-10a. Runoff in wetland W11-10a drains into the Root River.	Non ADID	Boundary based on distinct topographic breaks, subtle changes in hydrophytic vs upland vegetation, and frequent soil probes.
W-6	0.12	2.5	3.5	SP-44	SP-43	Wetland smaller than 2 acres	Shallow Marsh	Reed Canary Grass (*Phalaris arundinacea*) & Hybrid Cattail (*Typha X glauca*)	Kentucky Bluegrass (*Poa pratensis*)	Blount silt loam & Morley silt loam	Aeric Epiaqualfs & Oxyaquic Hapludalfs	Hydric Inclusions & Non Hydric	F3 Depleted Matrix	A2 High Water Table, A3 Saturation, D2 Geomorphic Position & D5 FAC-neutral Test	Runoff from wetland W-6 drains east through a culvert under 27th Street into wetland W-7. Runoff from W-7 flows into the adjacent agricultural field to the east.	Non ADID	Boundary based on distinct topographic breaks, subtle changes in hydrophytic vs upland vegetation, and frequent soil probes.
W-7	0.11	1.0	1.4	SP-46	SP-45	E2K	Shallow Marsh	Reed Canary Grass (*Phalaris arundinacea*) & Hybrid Cattail (*Typha X glauca*)	Queen Anne's Lace (*Daucus carota*) & Seaside Goldenrod (*Solidago sempervirens*)	Morley silt loam	Oxyaquic Hapludalfs	Non Hydric	F6 Redox Dark Surface	D2 Geomorphic Position & D5 FAC-neutral Test	Runoff from wetland W-7 flows into the adjacent agricultural field to the east.	Non ADID	Boundary based on distinct topographic breaks, subtle changes in hydrophytic vs upland vegetation, and frequent soil probes.
W-8	0.01	0.0	0.0	SP-48	SP-47	None	Shallow Marsh	Narrowleaf Cattail (*Typha angustifolia*)	Kentucky Bluegrass (*Poa pratensis*) & Tall Fescue (*Festuca arundinacea*)	Morley silt loam	Oxyaquic Hapludalfs	Non Hydric	A11 Depleted Below Dark Surface & F3 Depleted Matrix	D2 Geomorphic Position & D5 FAC-neutral Test	Runoff from wetland W-8 flows south through roadside culverts, swales, wetlands and ditches and eventually drains into the Root River.	Non ADID	Boundary based on distinct topographic breaks, subtle changes in hydrophytic vs upland vegetation, and frequent soil probes.
W-9	0.03	2.4	6.4	SP-51	SP-50	None	Wet Meadow	Cinnamon Willow Herb (*Epilobium coloratum*)	Canada thistle (*Cirsium arvense*) & Soybeans (*Glycine max*)	Morley silt loam	Oxyaquic Hapludalfs	Non Hydric	F6 Redox Dark Surface	D2 Geomorphic Position & D5 FAC-neutral Test	Runoff from wetland W-9 flows through a farm swale that drains into wetland W11-3. Runoff from wetland W11-3 flows southwest along the highway, and eventually drains directly into the Root River.	Non ADID	Boundary based on distinct topographic breaks, subtle changes in hydrophytic vs upland vegetation, and frequent soil probes.

† Comments on connectivity are the professional opinion of the investigator based on general field observations at the time of the field visit and occasionally map resources. The ability to evaluate connectivity in the field may often be limited by public ROW access and private land access limitations. These opinions are subject to change based on further investigation and data availability. These opinions are not a jurisdictional determination nor a significant nexus

‡ Advanced Identification of Wetland Disposal Areas (ADID) are mapped areas that are inappropriate for fill. In southeastern Wisconsin these areas were identified by ACOE, USEPA and WDNR. Wetland ADIA status was obtained from the Southeastern Wisconsin Regional Planning Commission web page at: http://maps.sewrpc.org/regionallandinfo/adid/viewer.htm

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APPENDIX K

Statement of Qualifications

STATEMENT OF QUALIFICATIONS

FIELD INVESTIGATORS:

Geoffrey B. Parish, P.G., P.H.

Mr. Parish is a hydrologist and geologist with M.S. and B.S. degrees in geosciences from the University of Wisconsin-Milwaukee. He has studied wetland hydrology and soils in Wisconsin, and Illinois for almost twenty years. His wetland work has included wetland delineations, wetland mitigation projects, including enhancements, restorations and creations in Wisconsin and Illinois. Geof has worked on over 300 delineations in Wisconsin in the past six years. He was on a team of scientists that provided expert witness services to the US Department of Justice regarding impacts to a state of Wisconsin owned wetland. In 2014 and 2015 Geof co-taught Wetland Hydrology for the UW-Milwaukee School of Continuing Education Water Technology Program. The class focused on hydrology basics, wetland hydrology indicators, determining sources of wetland hydrology, soil indicators of wetland hydrology, hydrology of plant community types, wetland water budgets and restoration of wetlands. The 2014 proposed revisions of the definition of "Waters of the U.S." were presented in 2014 and the finalized definition published in 2015 was presented in 2015 along with connectivity concepts. Geof has worked on habitat mapping, including numerous plant species such as Forked Aster, Prairie Milkweed Small White Lady Slipper Hairy Wild Petunia and Slender Bog Arrow-grass, inarticulate species Karner Blue Butterfly, Gorgone Checker Spot, Phlox Moth and the Persius Dusky Wing, and animals such as Northern Cricket Frog and Red-shouldered Hawk. Geof has worked on the assessment of wetland functions using the WDNR Wetland Rapid Assessment Method Version 2.0 for project corridors. Geof has worked on invasive species mapping projects, such as mapping Phragmites australis along IH 94 in Kenosha and Racine Counties, and mapped the location of invasive species along over thirty miles of the Fox River from the City of Waukesha to Waterford, Wisconsin.

Mike Al-wathiqui

Mr. Al-wathiqui received his M.S. degree in Freshwater Resources and Technology from the University of Wisconsin-Milwaukee's School of Freshwater Science. He received a B.S. degree in Biology and Natural Resource Management at the University of Wisconsin-Milwaukee as well. He has completed the WDNR's Critical Methods in Wetland Delineation and Advanced Wetland Delineation Course in 2016 as well as WDNR's Basic Wetland Delineators course in 2015. Mike has over five years of diverse ecological experience including performing wetland delineations, riparian landscape management, environmental education and stream studies. Mike has been performing wetland delineations for the past two years and has authored many delineation reports and wetland permit applications. He is familiar with state and federal wetland regulation and water policy and regularly coordinates with the WDNR and Army Corps of Engineers applying for wetland permits. Mike has years of experience in invasive vegetation management and vegetation monitoring. He provided invasive vegetation management and monitoring services for a Pike River management plan in Racine County. He has also worked at the WDNR on a trail management plan controlling invasive vegetation species along the Hank Aaron State Trail and with non-profits managing invasive vegetation species along the Milwaukee River greenway. Mike has also worked for the City of Milwaukee Forestry Department treating Ash trees to protect against infestation by the Emerald Ash Borer. He currently holds a valid Wisconsin Pesticide Applicators License. Mike has additional experience in developing metrics for assessing biological integrity of stream ecosystems. He recently worked on a project with the US Forest Service on assessing stream health and invertebrate community structure of various freshwater Hawaiian streams.