

IH 94 Wetland Delineation Milwaukee County

DOT Project I.D. 1030-20-08

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Prepared for

Wisconsin Department of Transportation

Southeast Region 141 Northwest Barstow St. Waukesha, WI 53187

Prepared by



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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
ТЗК	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
BIA 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 of 19) 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 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

Appendix B WETS Analysis

Appendix C FSA Crop Slide Review

Appendix D Wetland Delineation

Maps

Appendix E Site Photographs

Appendix F Wetland Determination

Data Forms 2009

Appendix G Wetland Determination

Data Forms 2016

Appendix H Plant Lists 2009

Appendix I Plant Lists 2016

Appendix J Wetland Summary

Table

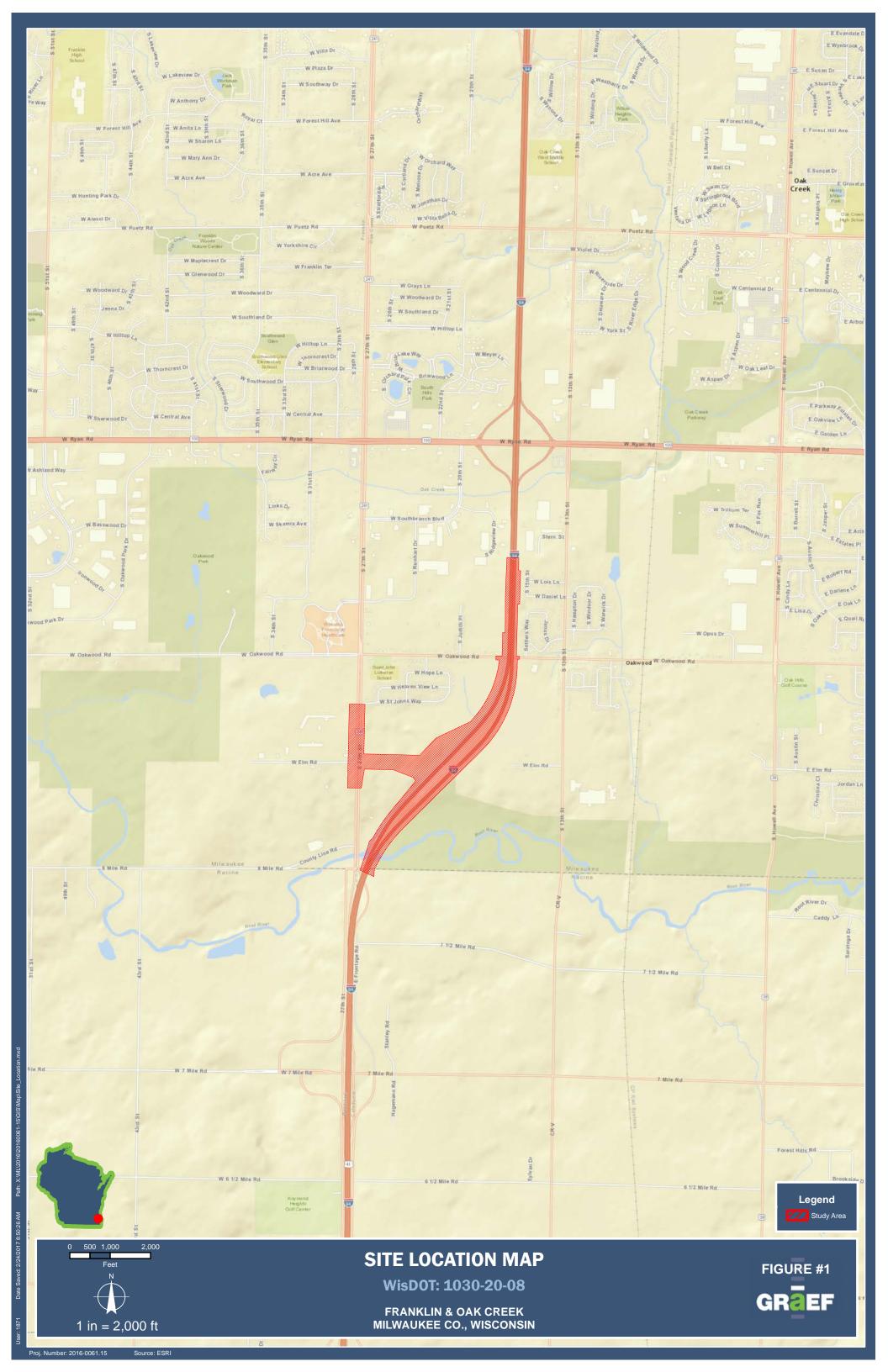
Appendix K Statement of

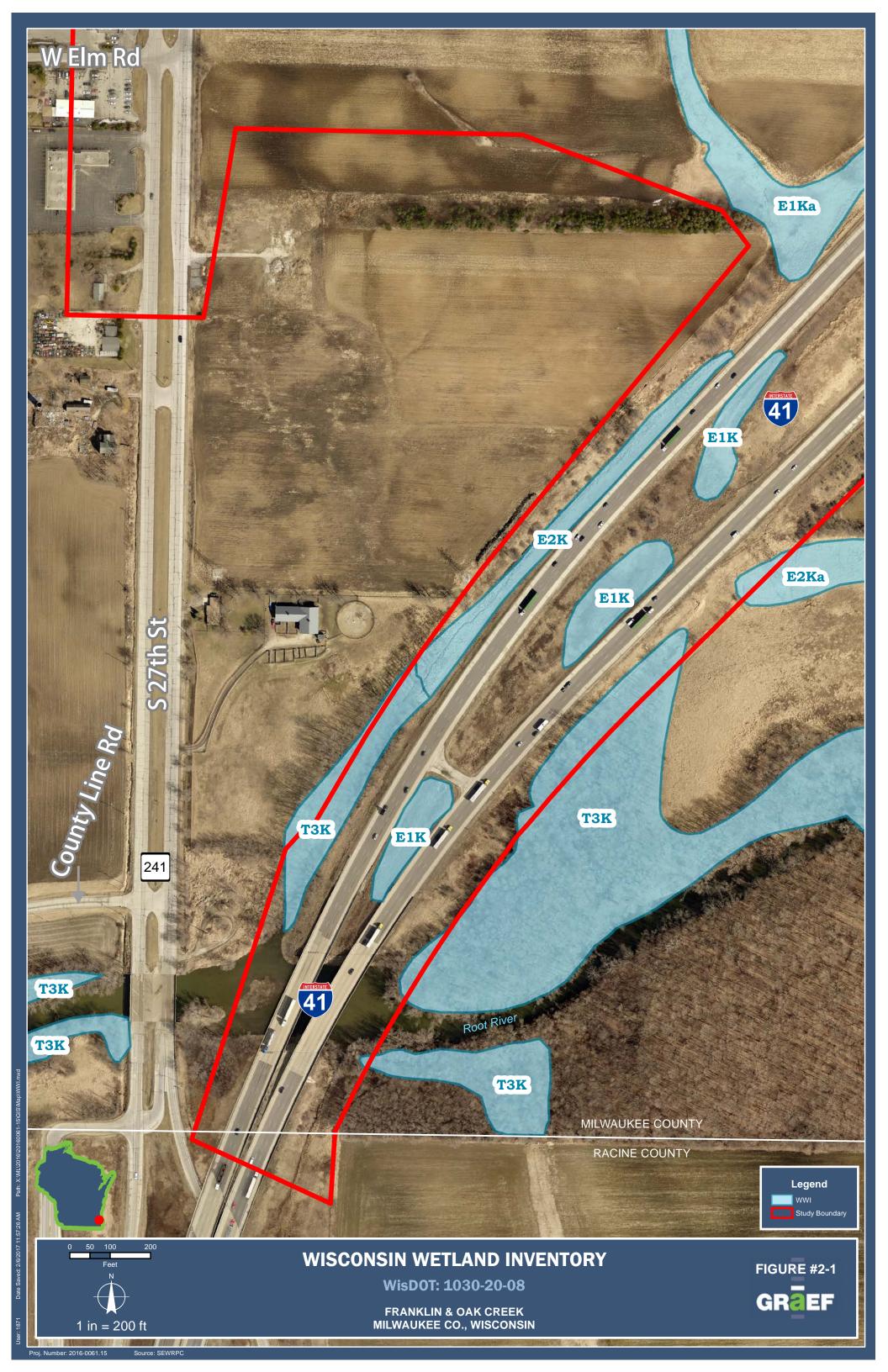
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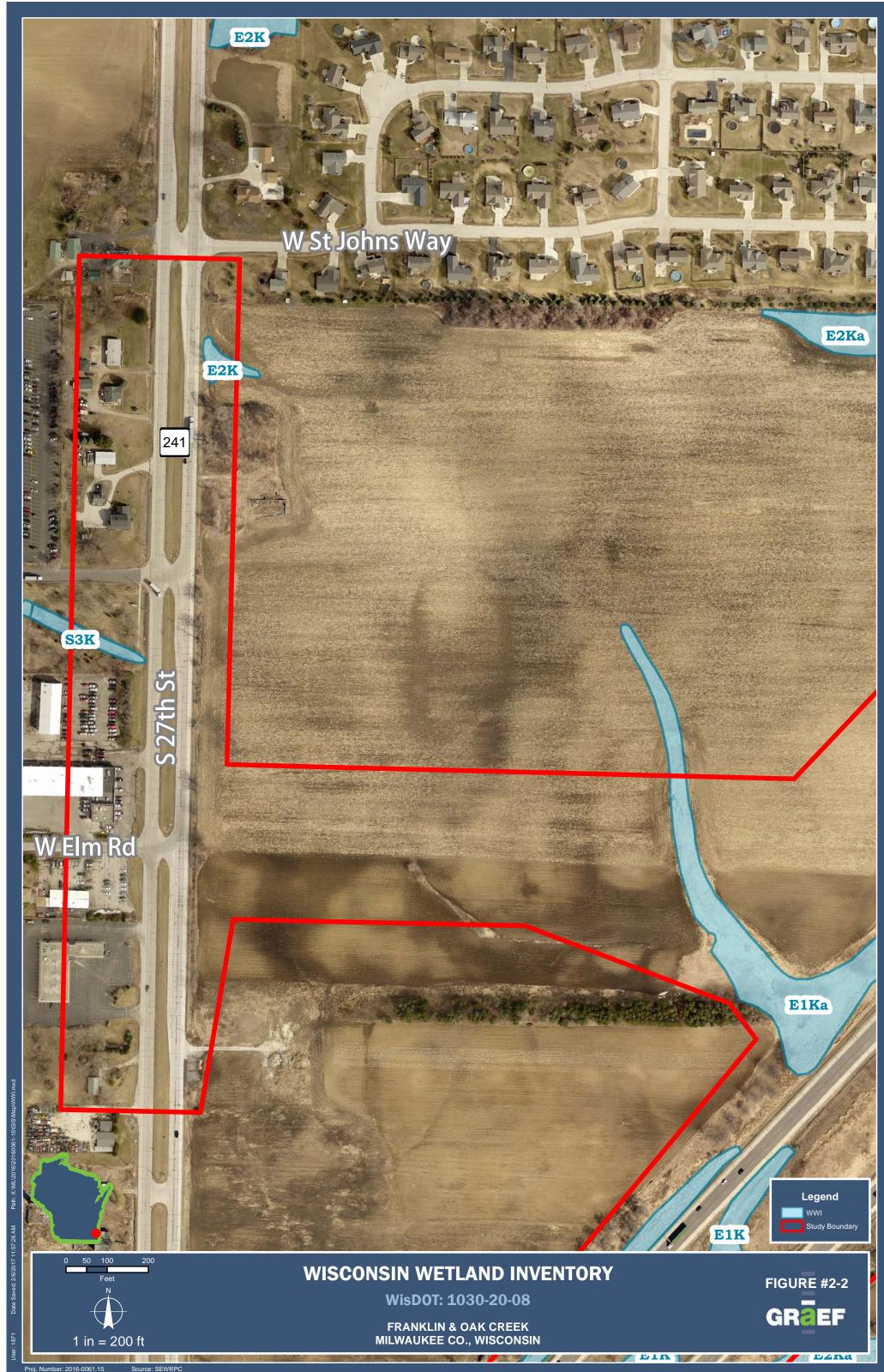


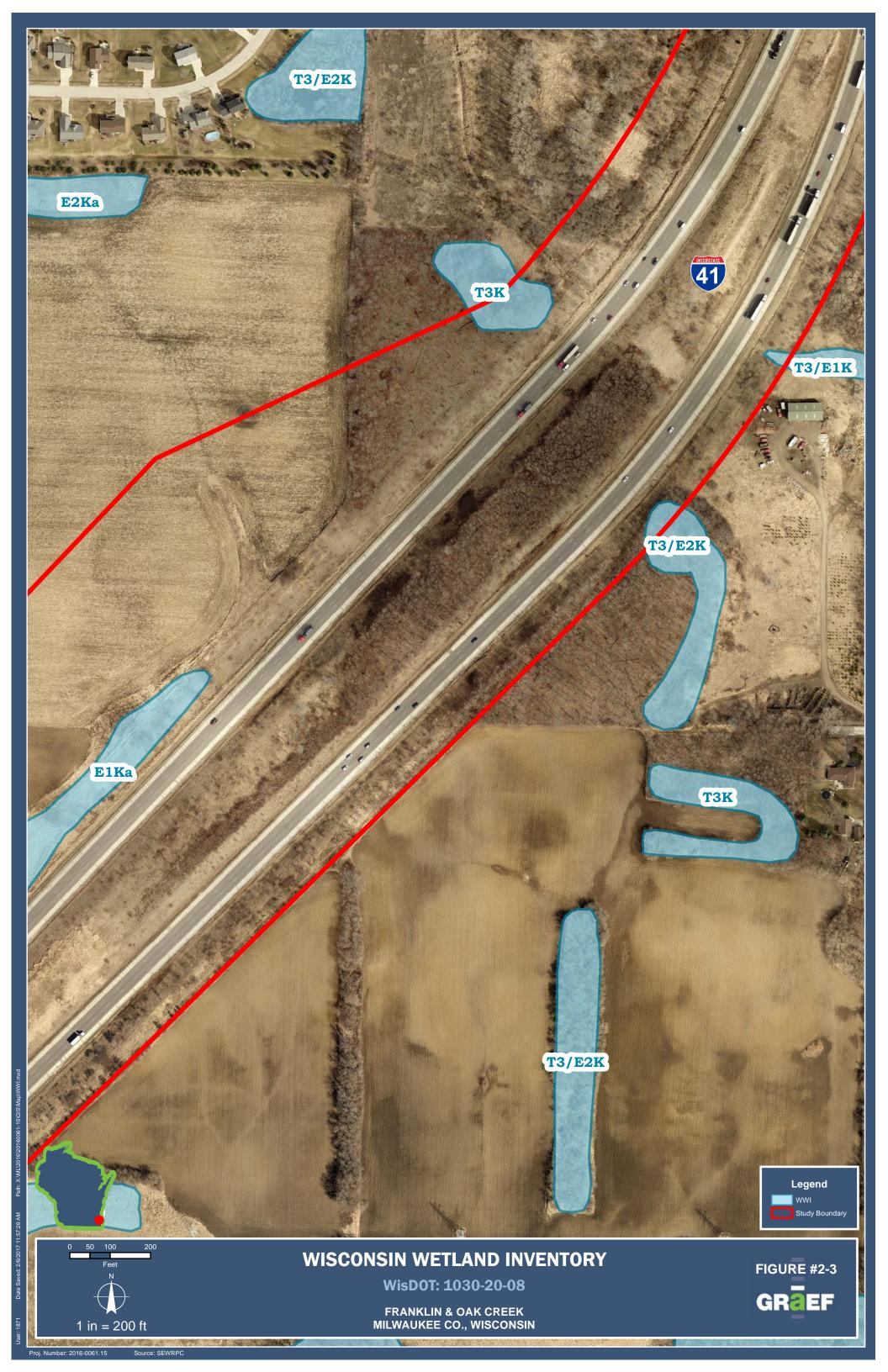
APPENDIX A

Figures

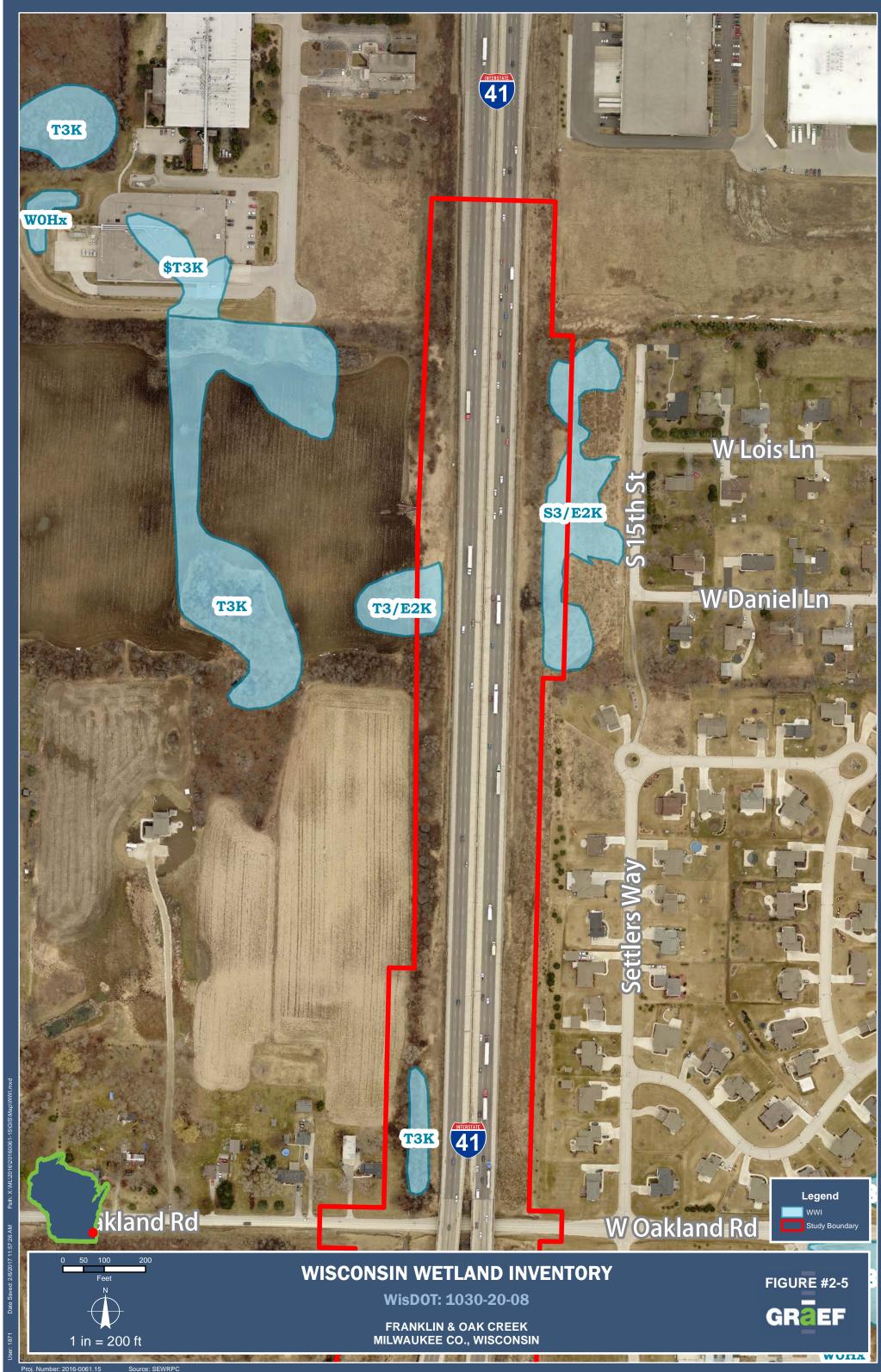


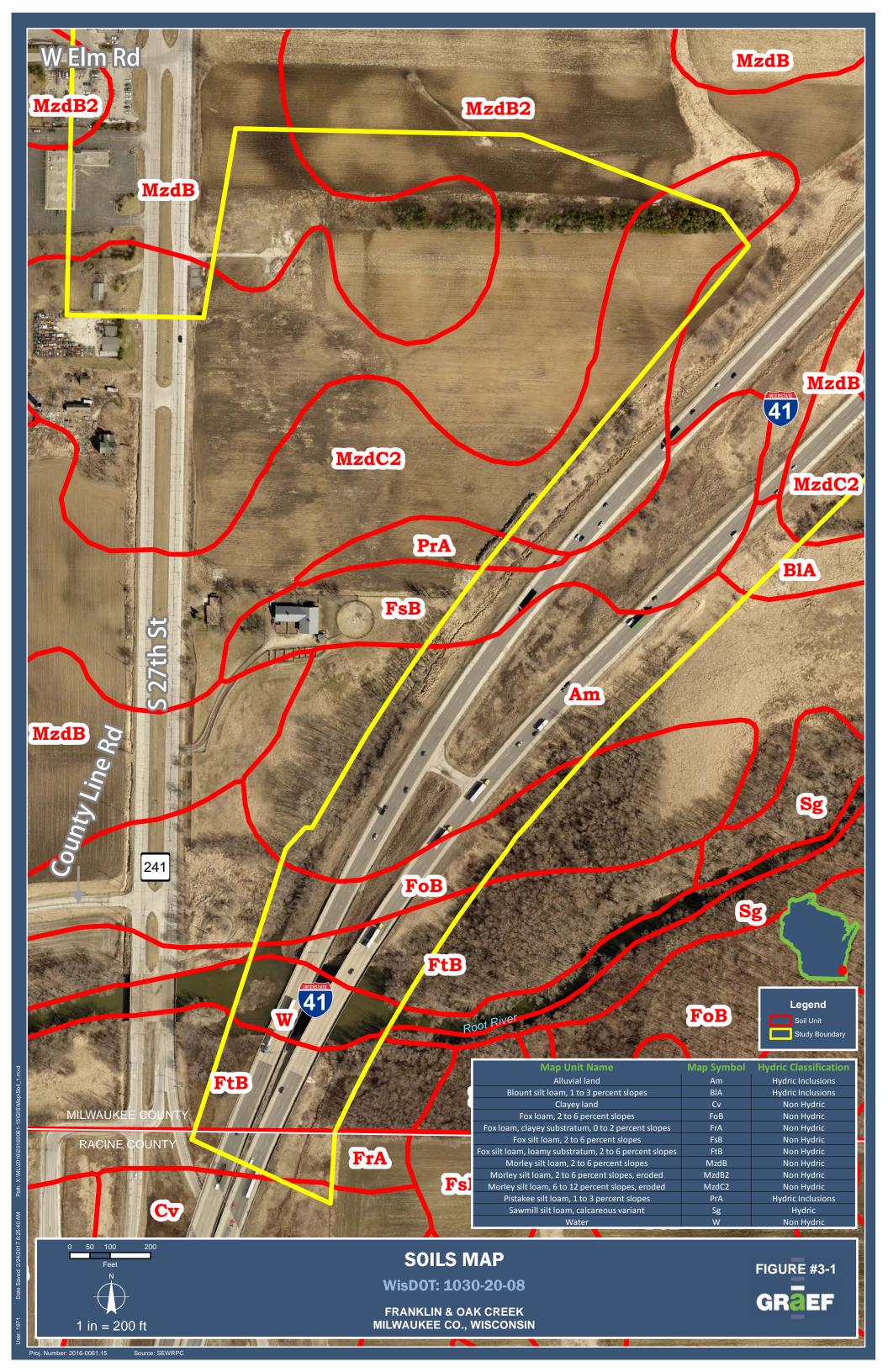


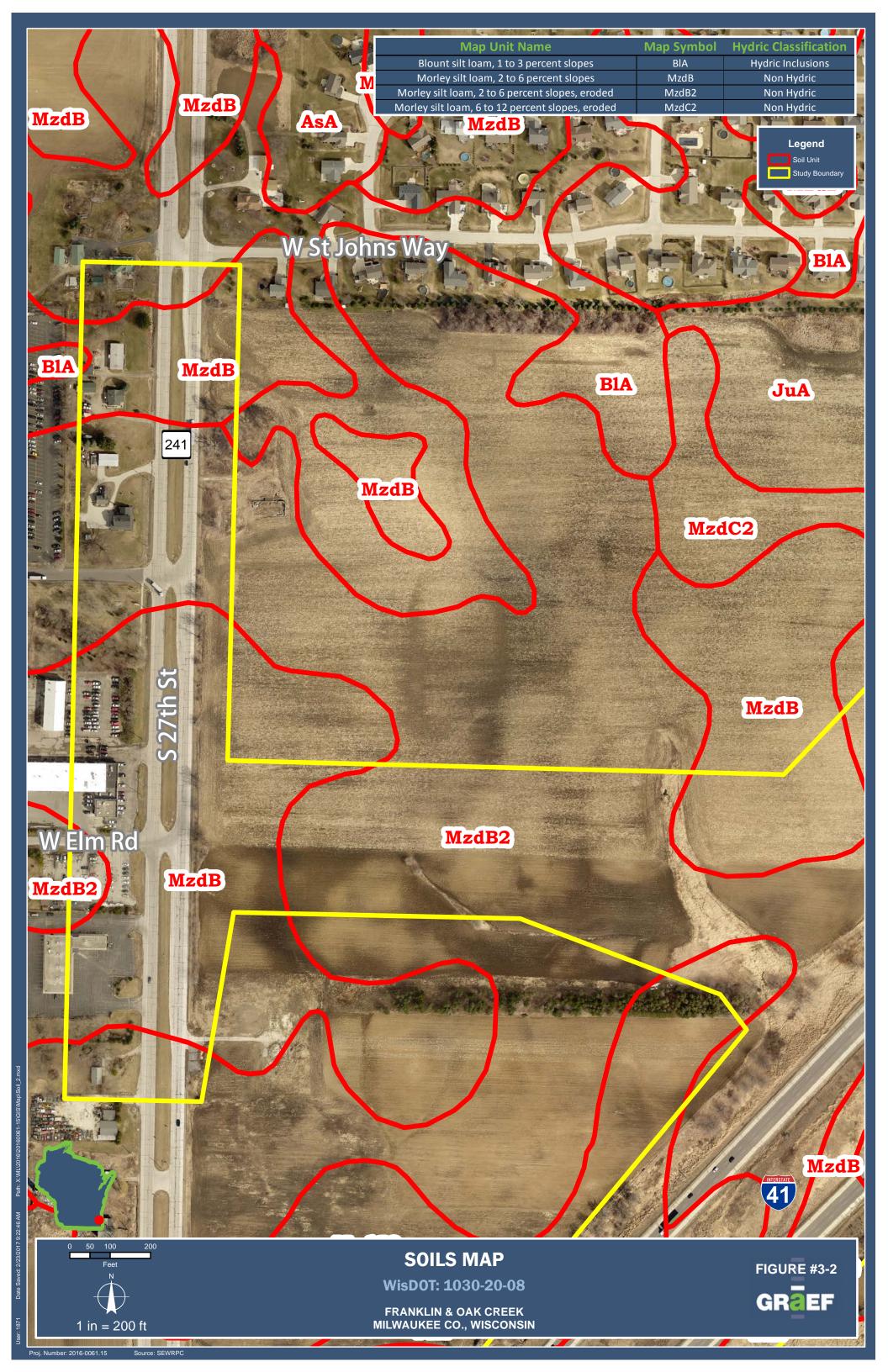


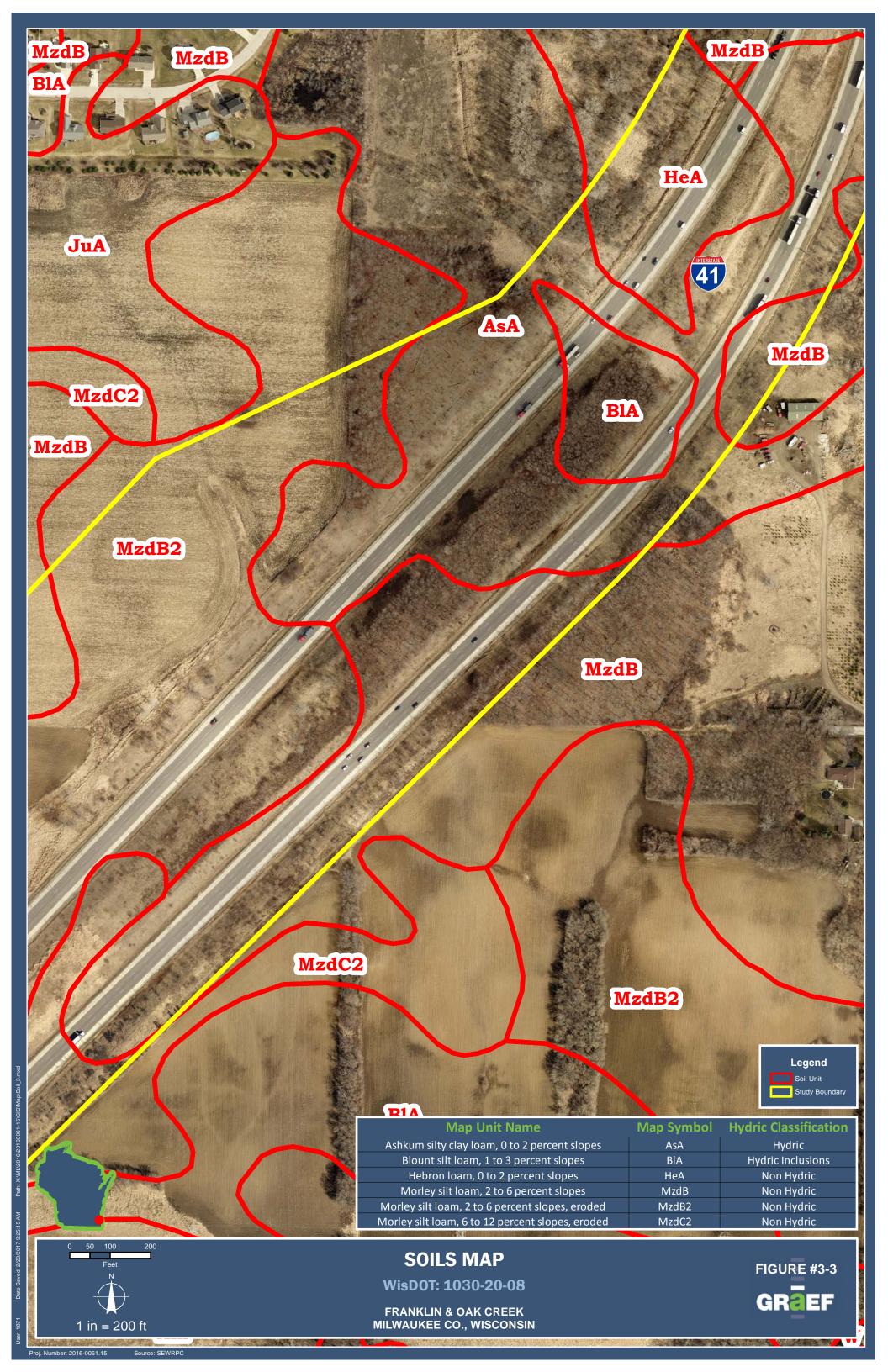


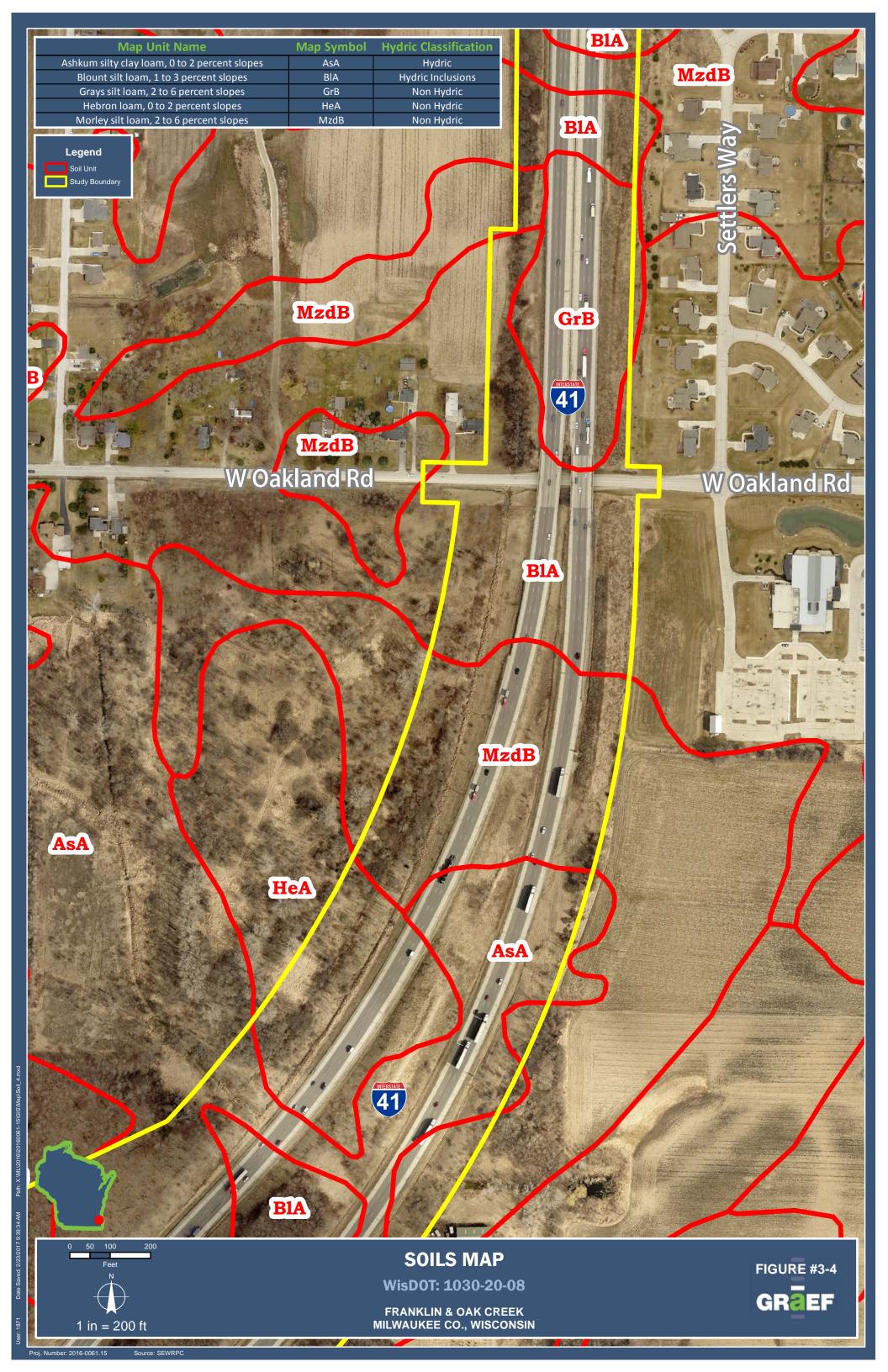


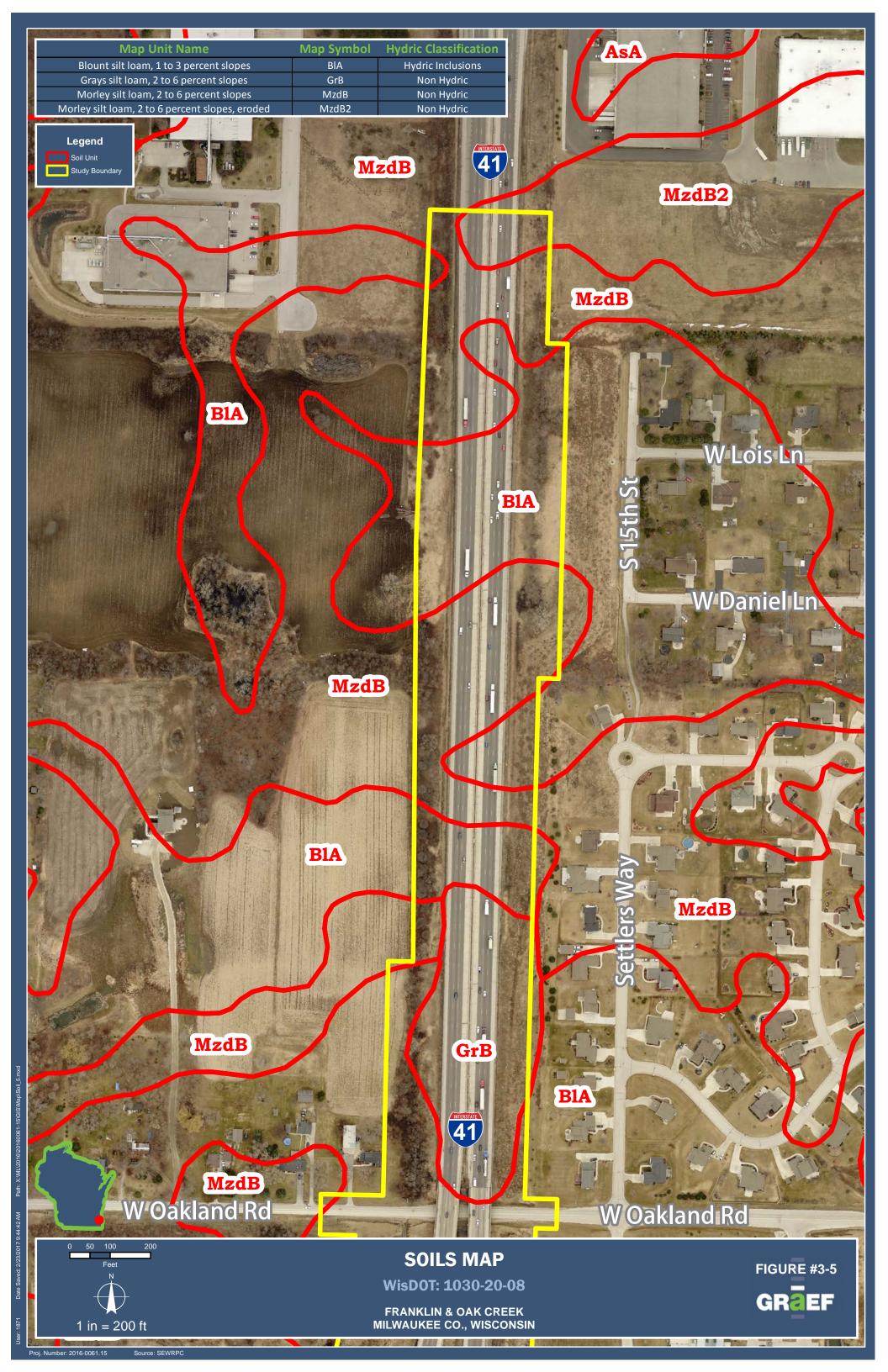


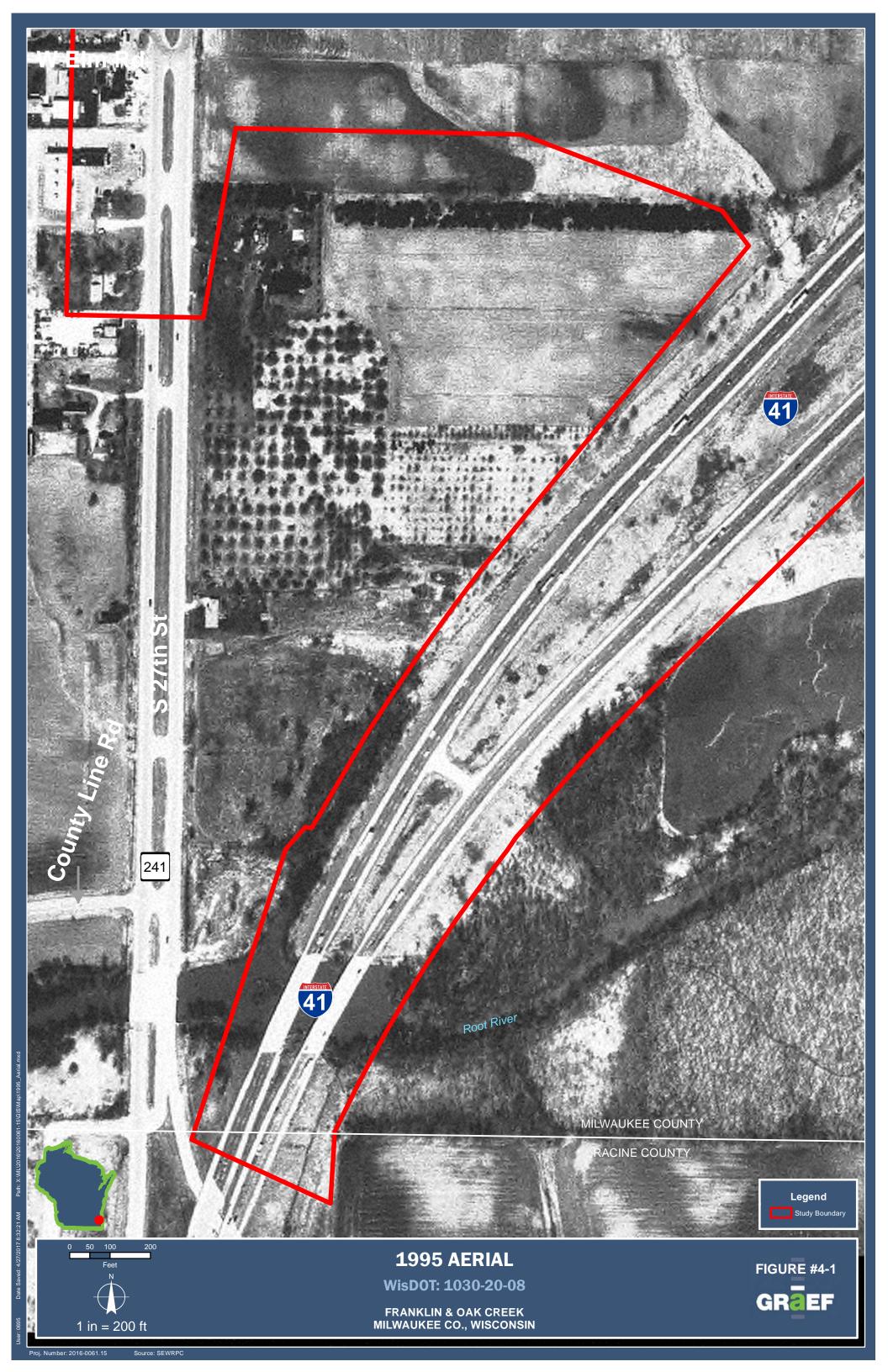








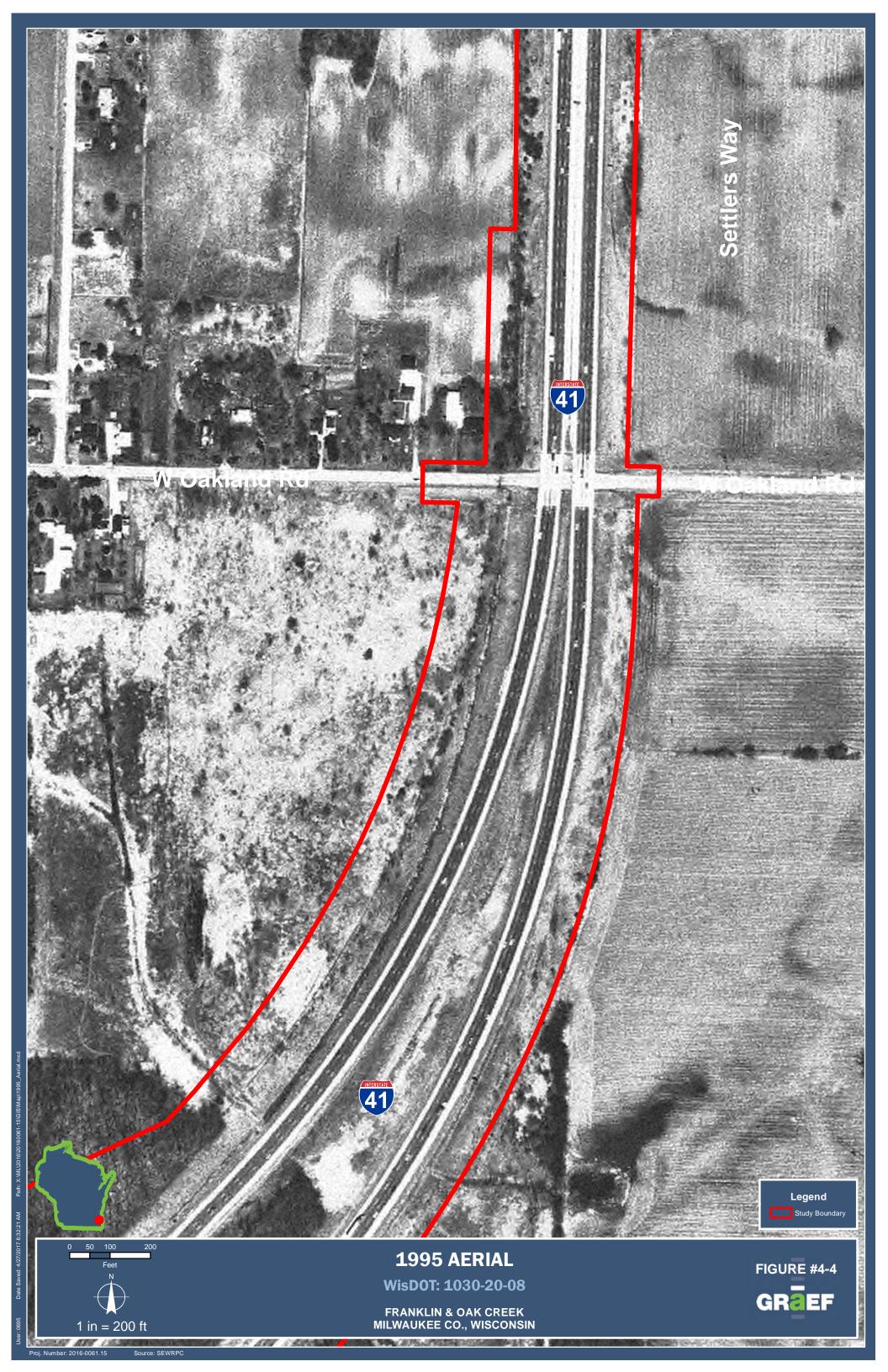


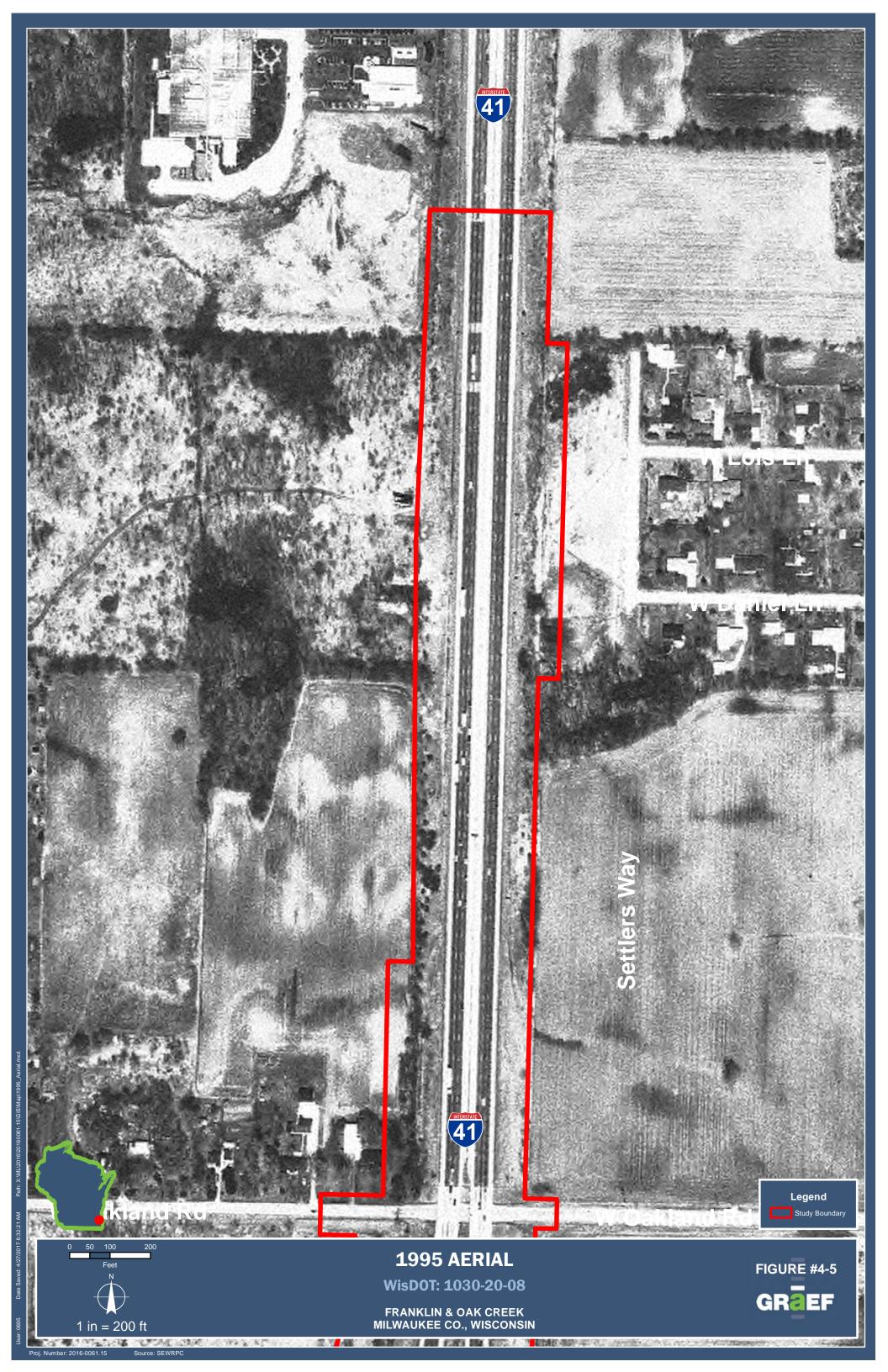


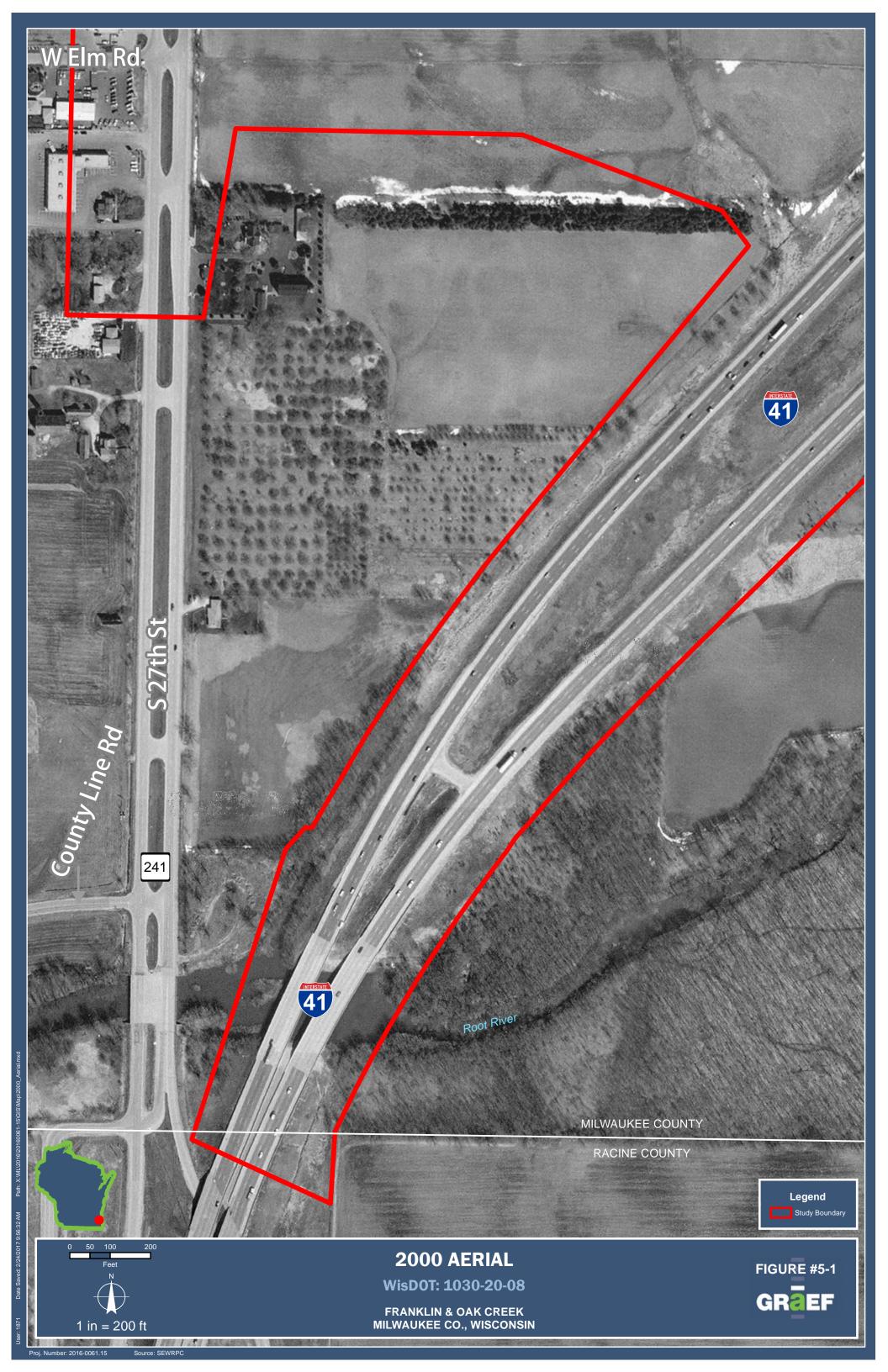




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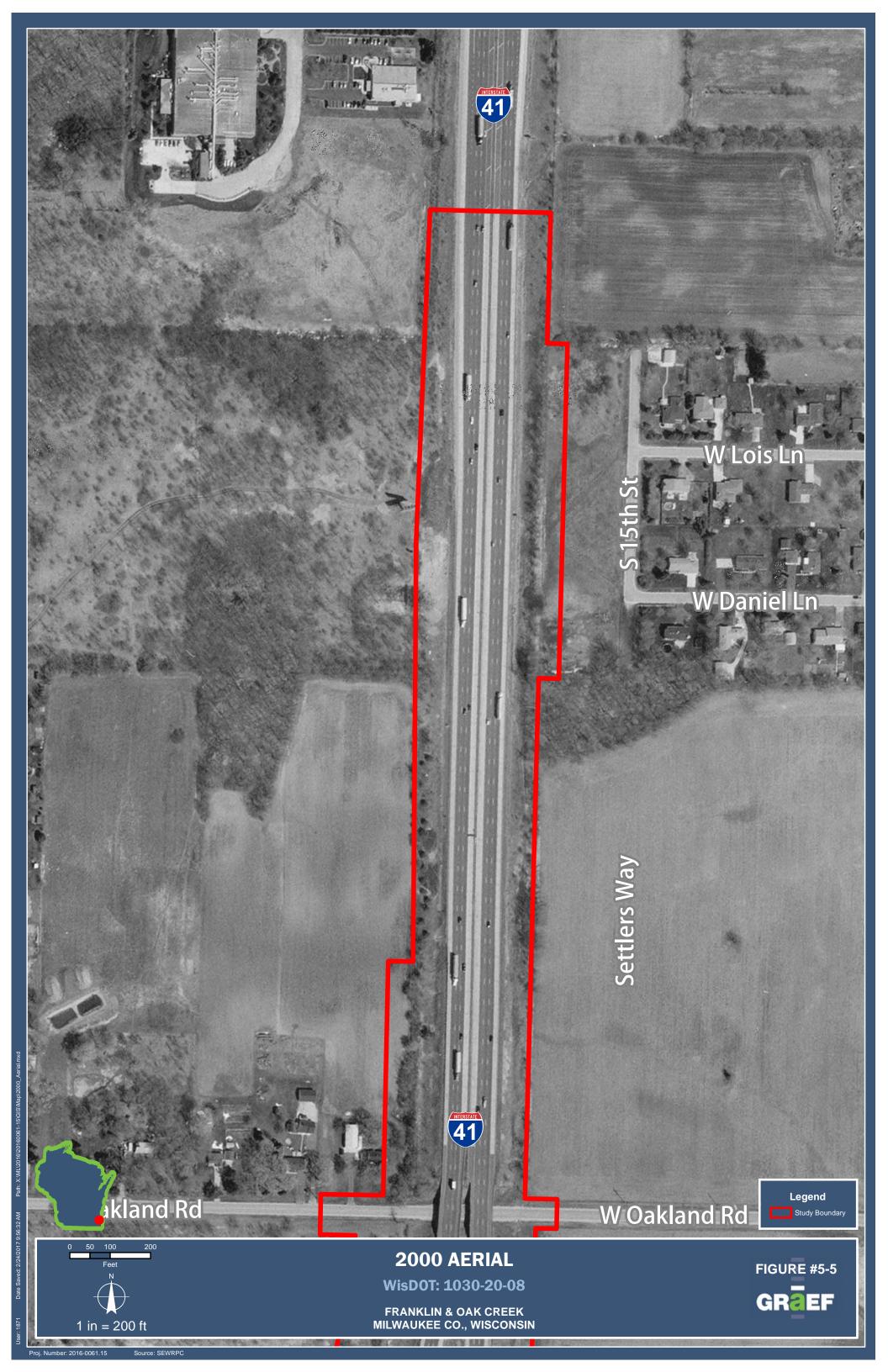
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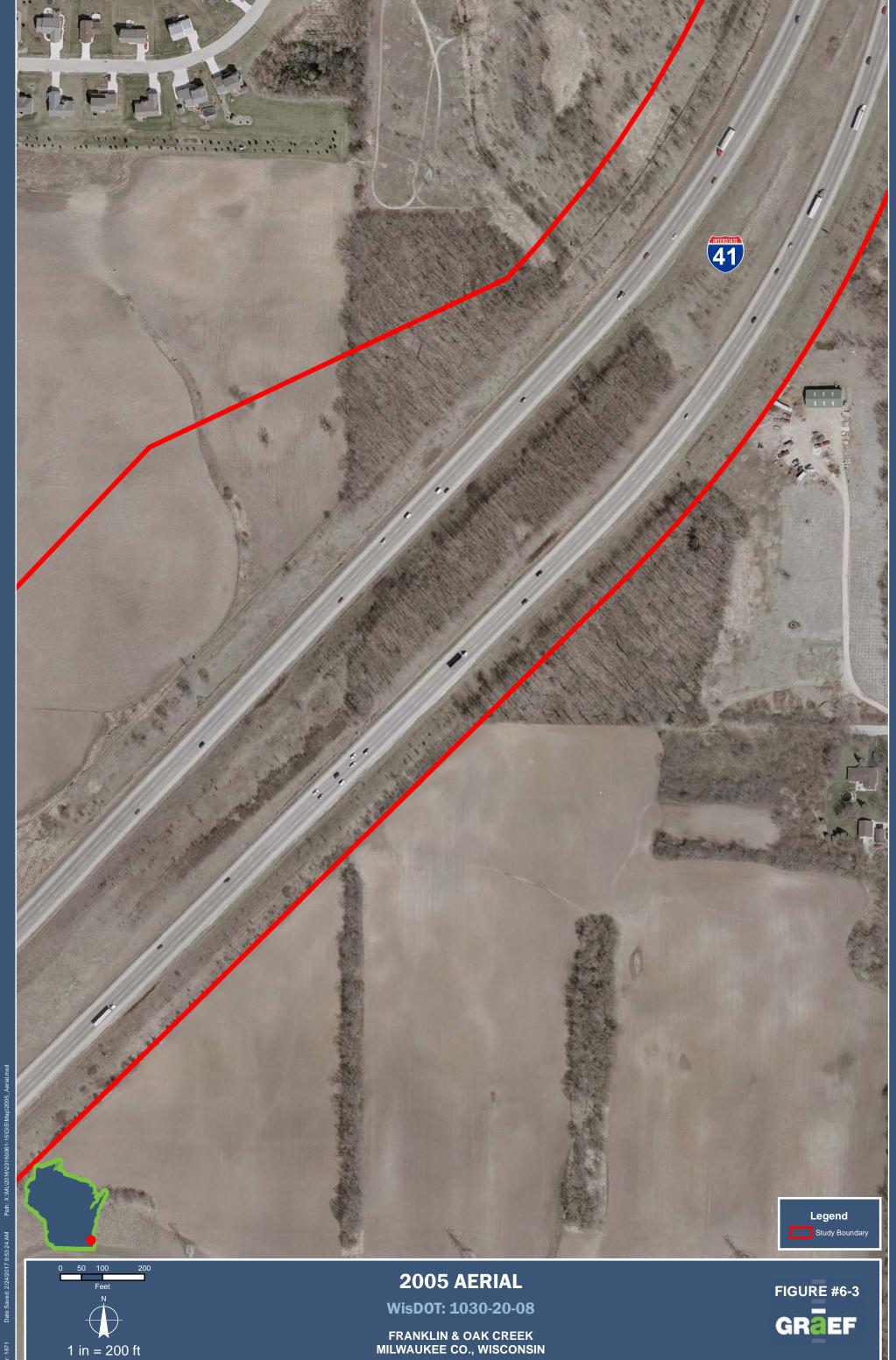
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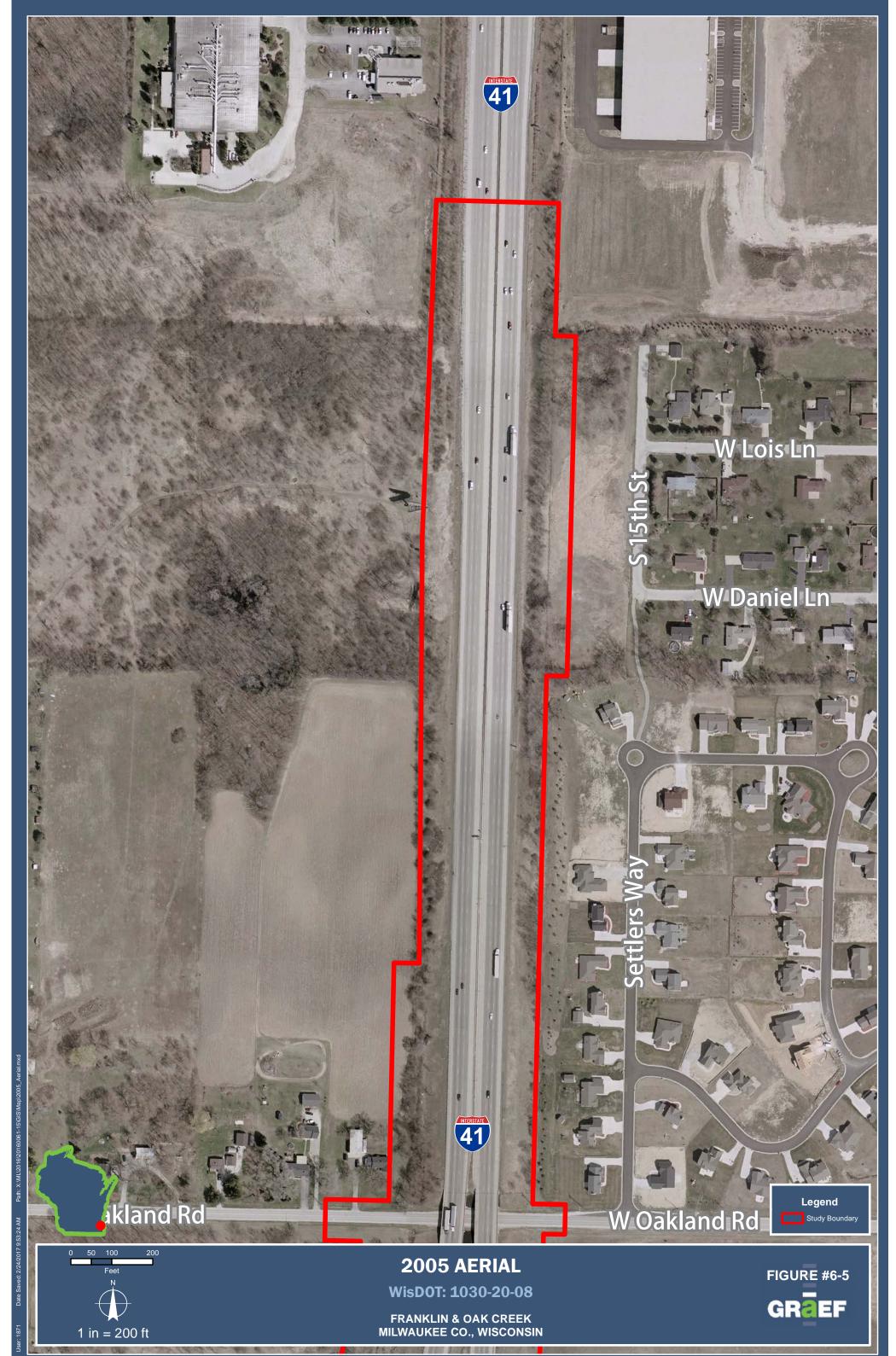






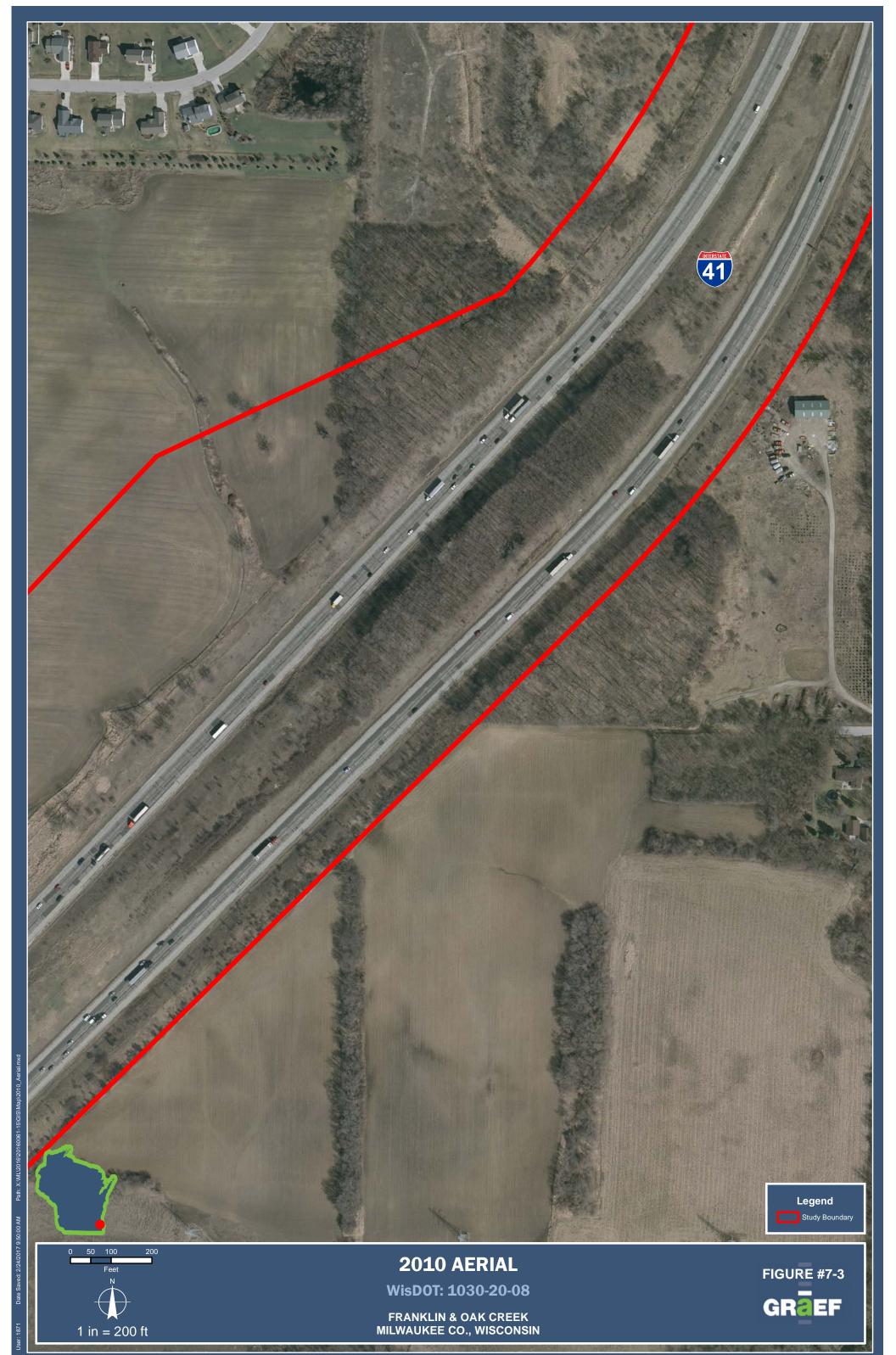


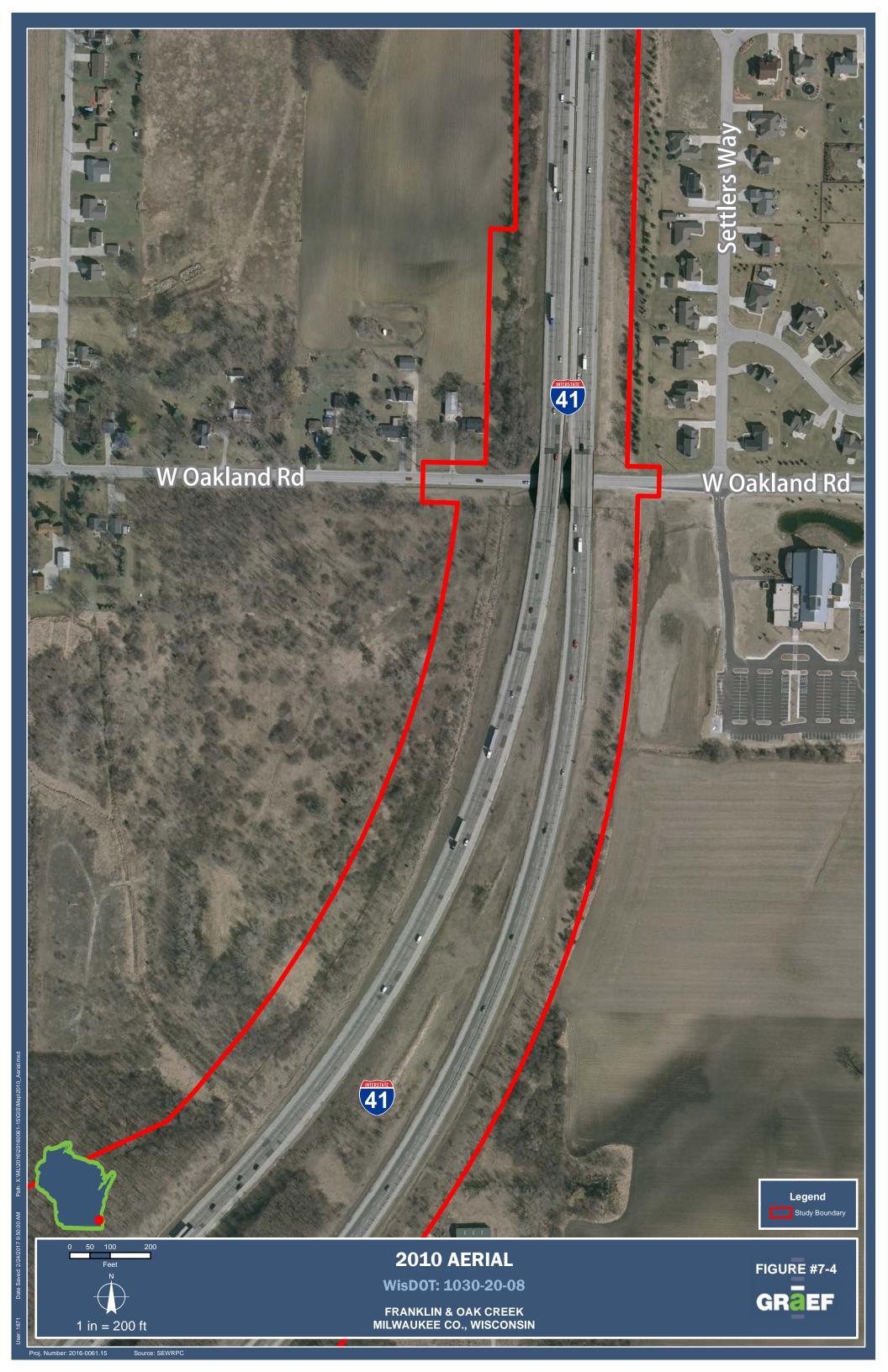


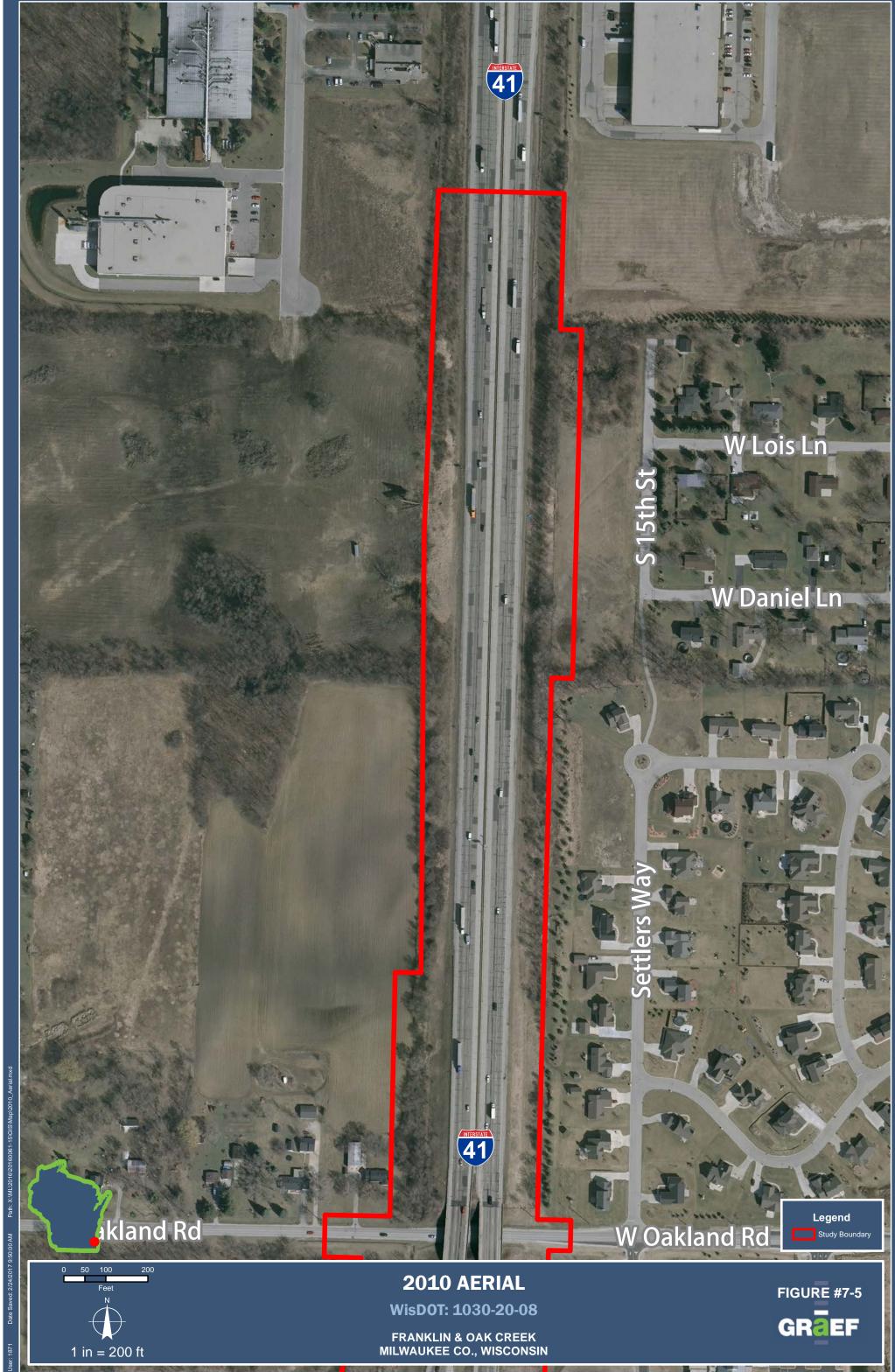




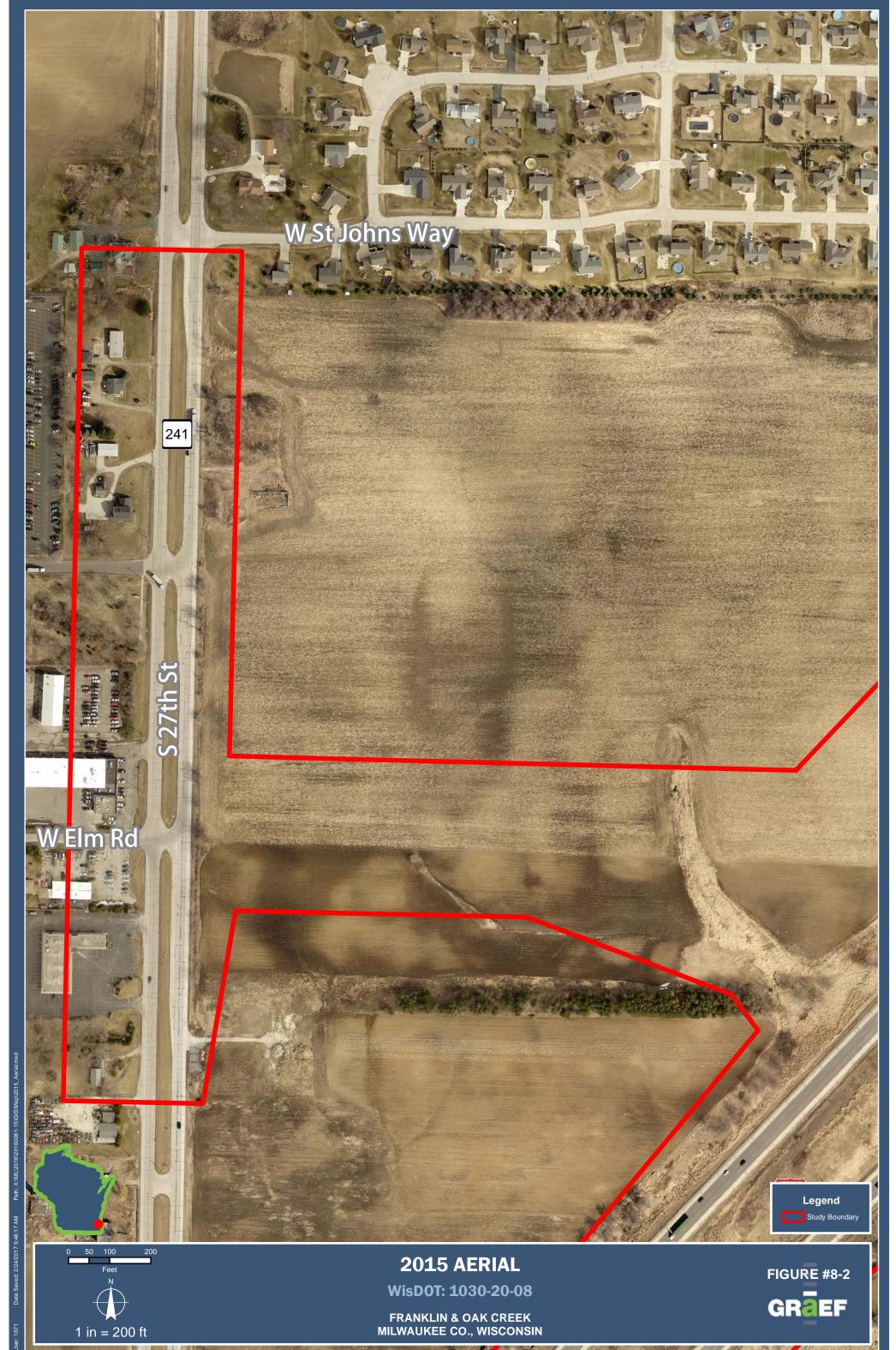




















APPENDIX B WETS Analysis

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)

		3 years in 10	Normal	3 years in 10
	Month	less than	INOIIIIai	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 determination									
	Site	Condition	Condition**	Month						
	Rainfall (in)	Dry/Normal*/Wet	Value	Weight	Product					
	3.56	wet	3	3	9					
	4.30	wet	3	2	6					
	3.59	normal	2	1	2					
=	11.45			Sum*** =	17					

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

Determination:

Wet

Condition value: *If sum is:

Dry Normal

Dry = 1 6 to 9 then period has been drier than normal

Normal = 2 10 to 14 then period has been normal

Wet = 3 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.



APPENDIX C FSA Crop Slide Review



Owner/Opera	itor:		WisDOT		County: Milwaukee State		State:	WI
Slide Review	er:		Mike Al-	wathqiui	Date: 11/15/2016			
Site Identifica	ition:			IH 94			Location:	Α
		<u> </u>	arm Service Ag	gency Aeria	l Color Slide Data			
Date (Yr)	Month	Normal Rainfall (in) 3 months prior	Dry, Normal, or Wet? (D/N/W)	Interpretat	tion - (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	<u>jul</u>	10.4	<u>N</u>	cr, 6a, y	7a			
1985 1986	jul	10.4 10.20	<u>D</u> W	cr, n cr, 6d, y	7a 7a			
1987	aug	11.17	N	cr, 6d, y	7a 7a			
1988	<u>sep</u> jul	10.4	D	cr, 6a, y	7a			
1989	jul	10.4	<u>D</u>	cr, 6d, y	7a			
1990	aug	10.20		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	<u>D</u>	cr, 6a, y	7a			
1998 1999	jun	9.43	N 	cr, 6a, y	7a			
2000	jun	9.43 9.43	N	cr, 6a, y cr, 6a, y	7a 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			
	licates wetnes d (row crop or	ss (+ = strong, - = tilled)	weak)		N = NO wetness sig NC = not cropped (•	e, idle, etc.)	
<u>Feature</u>		<u>c</u>	<u>olor</u>		Manipulation		<u>Other</u>	
1 = water			a = dark green		7a = ditched		write explanation	on
2 = mud flat			b = light green		7b = tiled			
3 = bare spot			c = yellow		7c = filled			
4 = drowned			d = brown		7d = tree/brush ren	noval		
5 = planted la			e = black		8 = plowed/tilled			
**Data not av		time from NRCS	01 0363					
		ndicate the site is	a wetland?		Yes	No	Indiscernible	
All Years: Normal Years	30 s: 19		30 years have w 19 years have w			ercentage = ercentage =	100% 100%	

Owner/Opera	ator:		WisDOT		County: Milwaukee		State:	WI
Slide Review	er:		Mike Al-	Mike Al-wathqiui Date: 11/15/				
Site Identifica	ation:			IH 94			Location:	В
		<u> </u>	arm Service A	gency Aeria	l Color Slide Da	<u>ta</u>		
Date (Yr)	Month	Normal Rainfall (in) 3 months prior	Dry, Normal, or Wet? (D/N/W)	Interpretat	tion - (codes liste	d 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	<u>N</u>	cr, n				
1988	jul	10.4	<u>D</u>	cr, n				
1989 1990	jul aug	10.4 10.20	— <u>D</u>	cr, n 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	<u>jun</u>	9.43	<u>N</u>	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 2005	jun aug	10.20	N	n, cr 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				
	dicates wetnes d (row crop or	ss (+ = strong, - = tilled)	weak)		N = NO wetnes NC = not cropp	s signature ed (hay, pasture	e, idle, etc.)	
Feature		С	olor		<u>Manipulation</u>		Other	
1 = water		6	a = dark green		7a = ditched		write explanation	on
2 = mud flat			b = light green		7b = tiled			
3 = bare spot			c = yellow		7c = filled			
4 = drowned	•		d = brown		7d = tree/brush			
5 = planted la			e = black		8 = plowed/tille	d		
		time from NRCS	or USGS					
	JSGS website r photo data ii	e ndicate the site is	a wetland?		Yes	No	Indiscernible	
All Years: Normal Years	6 s: 4		30 years have v 19 years have v			Percentage = Percentage =	20% 21%	
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Owner/Operat	or:		WisDOT		County:	Milwaukee	State:	WI
Slide Reviewe	r:		Mike Al-	Al-wathqiui Date: 11/15/201		11/15/2016		
Site Identificat	ion:			IH 94 Location:				С
		E	arm Service Ag	gency Aerial	Color Slide Data	<u>a</u>		
Date (Yr)	Month	Normal Rainfall (in) 3 months prior	Dry, Normal, or Wet? (D/N/W)	Interpretati	on - (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	<u>N</u>	cr, n				
1988 1989	jul jul	10.4 10.4	<u>D</u>	cr, n				
1990	aug	10.20	— <u>B</u>	cr, n 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 2011	<u>may</u> jul	8.02 10.4	<u>D</u>	cr, n cr, n				
2014	apr	6.09	D	cr, n				
2014	црі	0.00		01, 11				
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CR = cropped			weak)		NC = not croppe		, idle, etc.)	
Feature		c	olor		<u>Manipulation</u>		Other	
1 = water			a = dark green		7a = ditched		write explanation	on
2 = mud flat			b = light green		7b = tiled			
3 = bare spot			c = yellow		7c = filled			
4 = drowned c	rop	6	d = brown		7d = tree/brush r	emoval		
5 = planted lat	:e	6	e = black		8 = plowed/tilled			
		time from NRCS	or USGS					
**Data from U			41 10			N. 1.	Lauthanan 201	
Does slide/air	pnoto data ii	ndicate the site is	a wetland?		Yes	No	Indiscernible	
All Years: Normal Years:	1		30 years have v 19 years have v			Percentage = Percentage =	3% 5%	
	<u> </u>	,		() Signa				

Owner/Opera	tor:		WisDOT		County: N	Milwaukee	State:	WI
Slide Review	er:		Mike Al-	Al-wathqiui Date: <u>11/15/2016</u>				
Site Identifica	tion:			IH 94			Location:	D
		<u> </u>	arm Service Ag	gency Aerial	Color Slide Data			
Date (Yr)	Month	Normal Rainfall (in) 3 months prior	Dry, Normal, or Wet? (D/N/W)	Interpretati	on - (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	<u>jul</u>	10.4	<u>D</u>	cr, n				
1986	aug	10.20	W	cr, n				
1987 1988	<u>sep</u> jul	<u>11.17</u> 10.4	N	cr, 6b, y-				
1989	jul	10.4	<u>D</u>	cr, n cr, n				
1990	aug	10.20	<u>W</u>	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	<u>D</u>	cr, 6a, y				
1998 1999	jun	9.43 9.43	N W	cr, 6a, y				
2000	jun	9.43	N	cr, 6a, y 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	<u>jul</u>	10.4	N	cr, 6b, y				
2014	apr	6.09	<u>D</u>	cr, 6d, y				
	licates wetnes d (row crop or	ss (+ = strong, - = tilled)	: weak)		N = NO wetness s NC = not cropped	-	e, idle, etc.)	
<u>Feature</u>		_	olor		Manipulation		<u>Other</u>	
1 = water			a = dark green		7a = ditched		write explanation	on
2 = mud flat			b = light green c = vellow		7b = tiled			
3 = bare spot 4 = drowned			c = yellow d = brown		7c = filled 7d = tree/brush re	moval		
5 = planted la	•		e = black		8 = plowed/tilled	movai		
* Data not av	ailable at this	time from NRCS			- piowed/tilled			
	JSGS website photo data ir	ndicate the site is	a wetland?		Yes	No	Indiscernible	
All Years: Normal Years	15 : 11		30 years have w 19 years have w			Percentage = Percentage =	50% 58%	

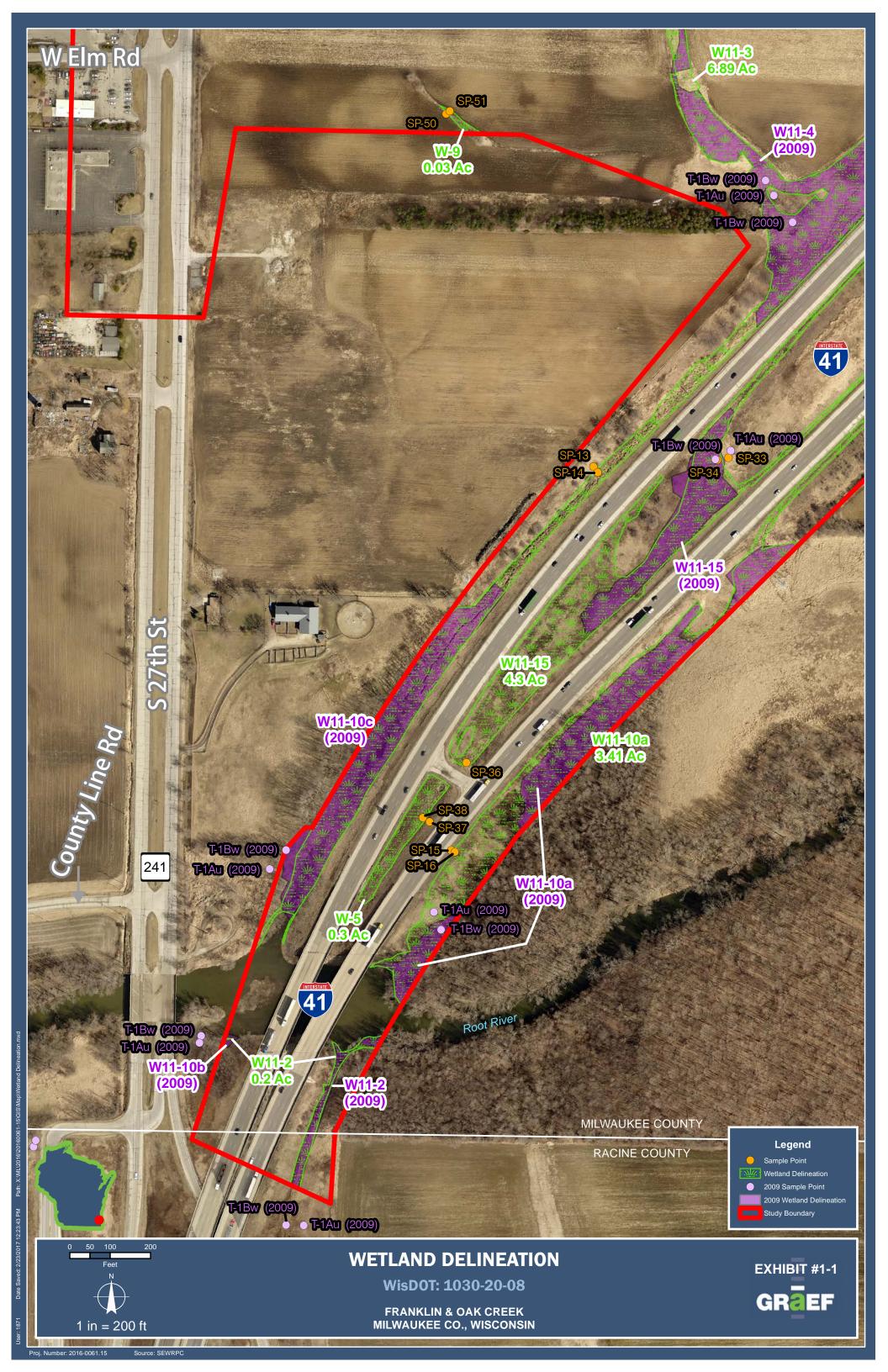
Owner/Opera	tor:		WisDOT		County:	Milwaukee	State:	WI
Slide Review	er:		Mike Al-	wathqiui Date: 11/15/2016				
Site Identifica	tion:			IH 94 Location:				E
		<u> </u>	arm Service Ag	gency Aerial	l Color Slide Dat	<u>a</u>		
Date (Yr)	Month	Normal Rainfall (in) 3 months prior	Dry, Normal, or Wet? (D/N/W)	Interpretat	ion - (codes listed	d 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	<u>jul</u>	10.4	<u>D</u>	cr, n				
1986	aug	10.20	W	cr, 6d, y-				
1987 1988	<u>sep</u> jul	<u>11.17</u> 10.4	N 	cr, n				
1989	jul	10.4	<u>D</u>	cr, 6a, y- cr, 6d, y-				
1990	aug	10.20	<u>W</u>	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	<u>D</u>	cr, n				
1998 1999	jun	9.43 9.43	N W	cr, n				
2000	jun	9.43	N	cr, 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	<u>jul</u>	10.4	<u>N</u>	cr, n				
2014	<u>apr</u>	6.09	<u>D</u>	cr, 6a, y-				
	licates wetnes d (row crop or	ss (+ = strong, - = tilled)	: weak)		N = NO wetness NC = not croppe	•	e, idle, etc.)	
<u>Feature</u>		<u>C</u>	olor_		Manipulation		<u>Other</u>	
1 = water			a = dark green		7a = ditched		write explanation	on
2 = mud flat			b = light green		7b = tiled			
3 = bare spot			c = yellow		7c = filled	**************************************		
4 = drowned	•		d = brown		7d = tree/brush			
5 = planted la		time from NRCS	e = black		8 = plowed/tilled	ı		
	allable at triis JSGS website		0.0000					
		ndicate the site is	a wetland?		Yes	No	Indiscernible	
All Years: Normal Years	10 s: 4		30 years have w 19 years have w			Percentage = Percentage =	33% 21%	

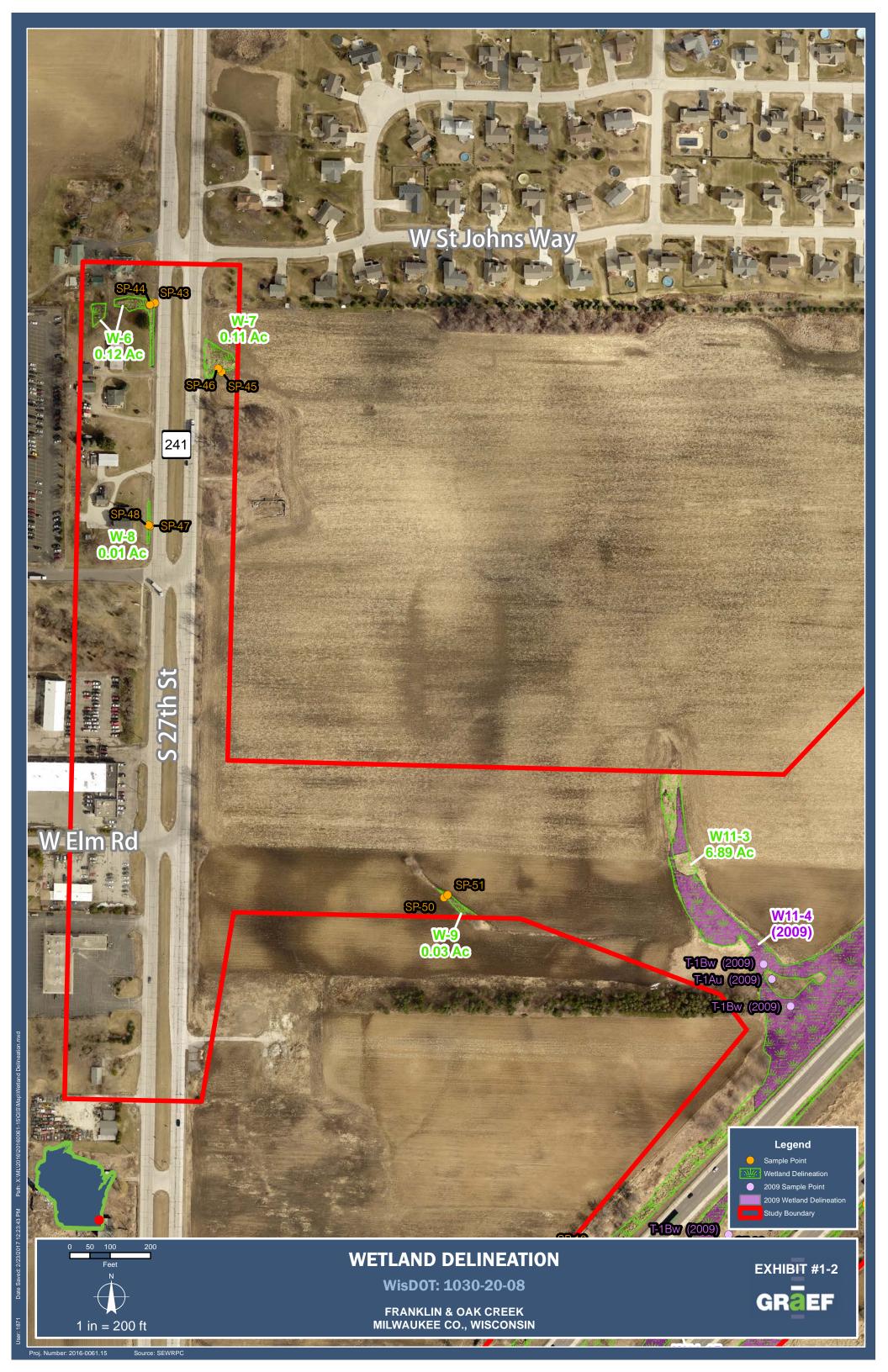
Owner/Operator	er/Operator: WisDOT County: Milwaukee		State:	WI				
Slide Reviewer:			Mike Al-	ke Al-wathqiui Date: 11/15/20			11/15/2016	
Site Identification	n:			IH 94			Location:	F
		E	arm Service Ac	gency Aerial	Color Slide Data			
Date (Yr)	Month	Normal Rainfall (in) 3 months prior	Dry, Normal, or Wet? (D/N/W)	Interpretati	ion - (codes listed in b	oox below)		
1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2005 2006 2007 2008	aug jul jul jul jul aug sep jul jul jul jul jul jul jul jun	10.20 10.4 10.4 10.4 10.4 10.20 11.17 10.4 10.20 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.1 10.4 10.4 10.4 10.4 10.4 10.5 10.4 10.4 10.4 10.5 10.4 10.4 10.5 10.4 10.4 10.5 10.4 10.5 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.5 10.4 10.5 10.6 10.7 10.7 10.8 10	N	cr, n cr, 6a, y- cr, n cr, 6a, y- cr,				
2010 2011 2014	may jul apr	8.02 10.4 6.09	D N D	cr, 6a, y- cr, n cr, 6b, y-				
Y = signal indica CR = cropped (i		ss (+ = strong, - = tilled)	weak)		N = NO wetness sign NC = not cropped (h		e, idle, etc.)	
Feature 1 = water 2 = mud flat 3 = bare spot 4 = drowned cro 5 = planted late		6 6 6 6 6	color a = dark green b = light green c = yellow d = brown e = black		Manipulation 7a = ditched 7b = tiled 7c = filled 7d = tree/brush remo 8 = plowed/tilled		<u>Other</u> write explanatio	on
**Data from US	GS website	ndicate the site is				No centage = centage =	Indiscernible 60% 68%	

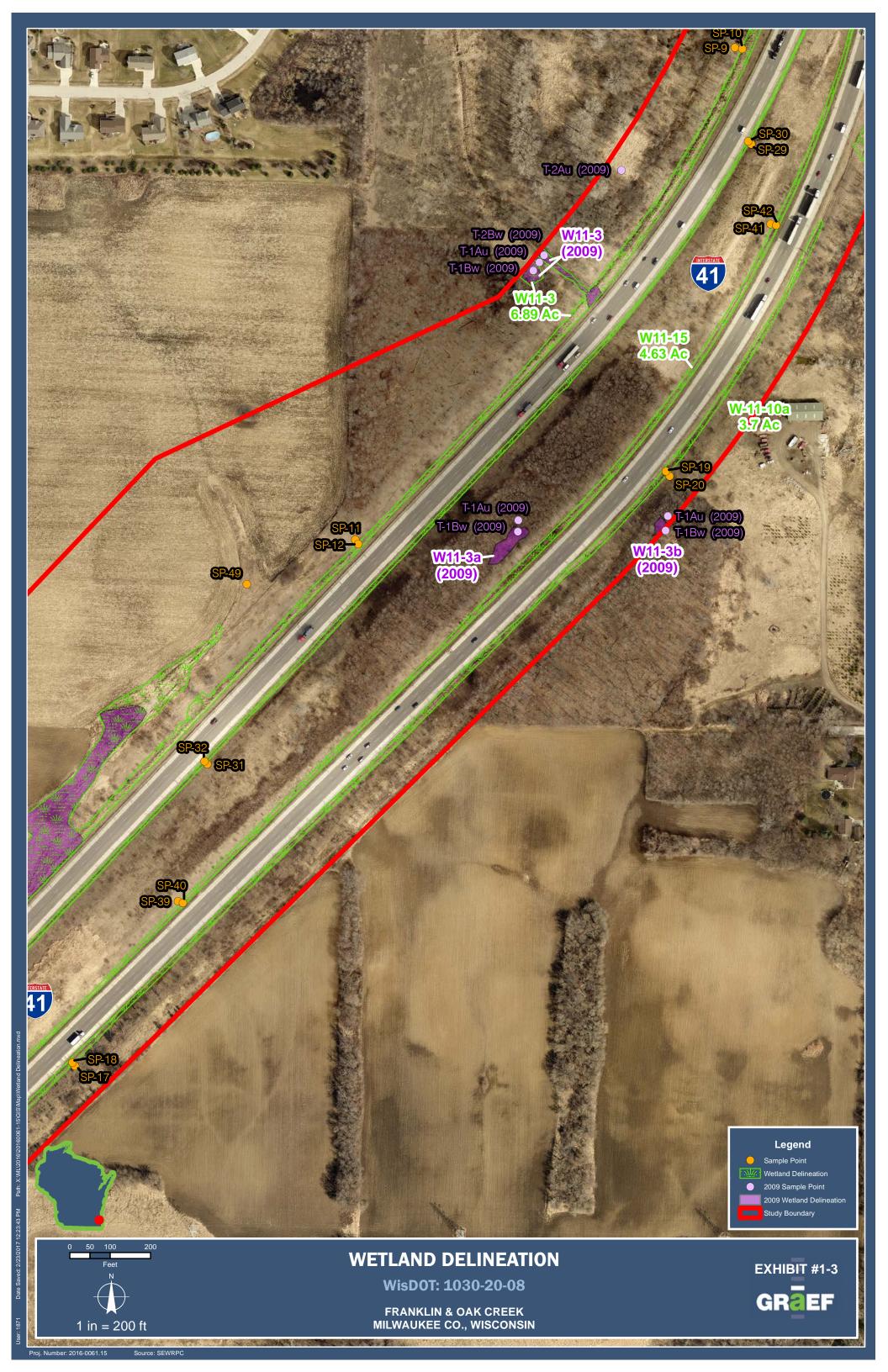


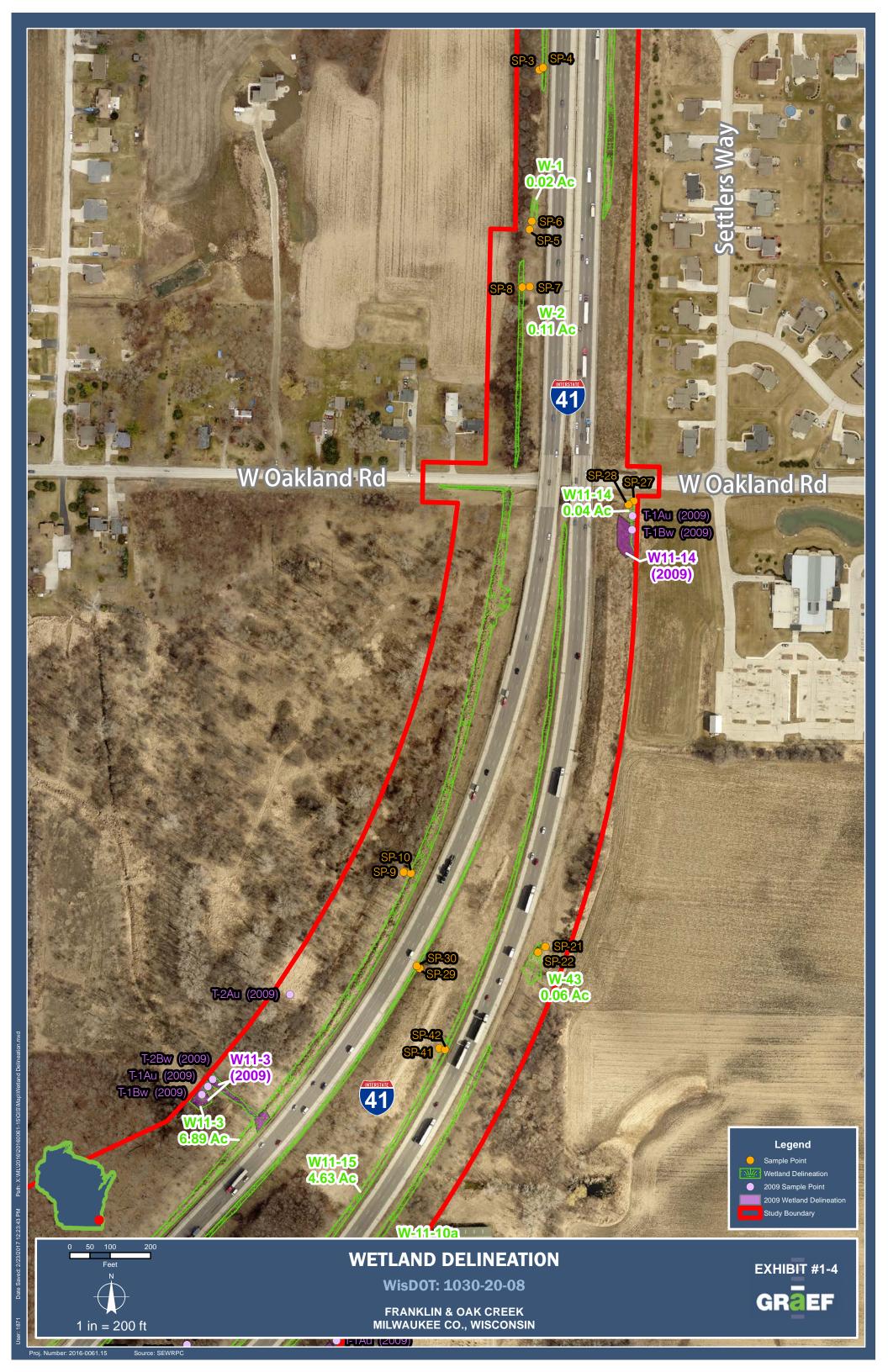
APPENDIX D

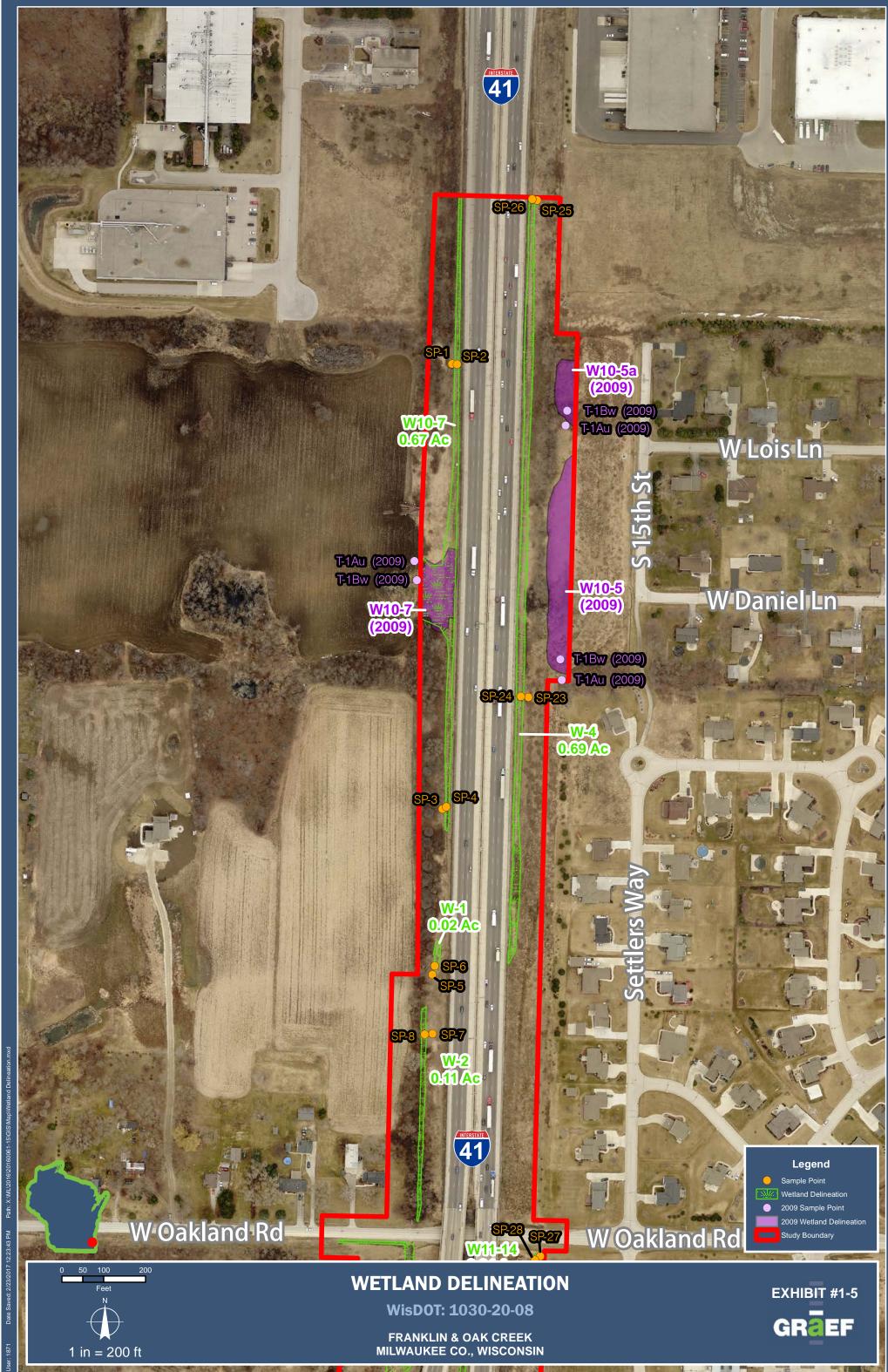
Wetland Delineation Maps













APPENDIX E 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.



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.



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.



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.



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.



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.



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.



IH 94 Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 10, 2016

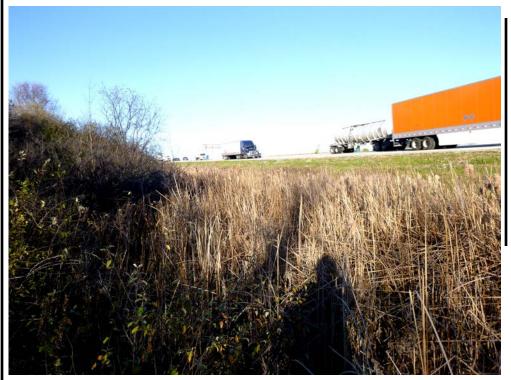


Photo #: 15

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.



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.



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.



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.



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.



IH 94
Milwaukee County, Wisconsin

Photos Taken by GRAEF on November 11, 2016

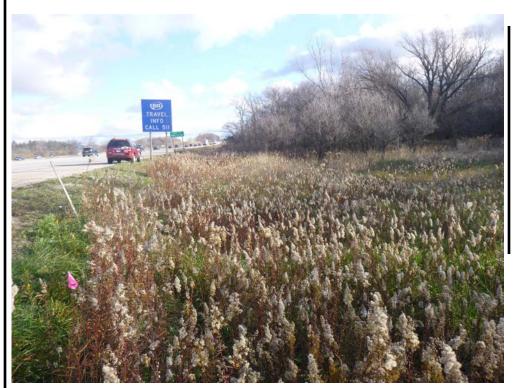


Photo #: 25

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.



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.



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.



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.



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.



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.



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.



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.



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.



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.



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.



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.



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.



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.



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.



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.



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.



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.



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.



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.



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.



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.



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.



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.



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.



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.



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.



APPENDIX F

Wetland Determination Data Forms 2009

WETLAND DETERMINATION DATA FORM - Midwest Region

Oak Creek/

City/County: Milwaukee IH-94 Mainline Sampling Date: 9/2/2009 Project/Site: 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 Lat: See Fig. 2 Slope (%): 20% 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? (if no, explain in Remarks) Soil _ or Hydrology Are "Normal Circumstances" present? Are Vegetation significantly disturbed? 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 Wetland Hydrology Present? within a Wetland? Yes No X Remarks: VEGETATION - Use scientific names for plants. Indicator Dominance Test Worksheet: Tree Stratum (Plot Size: 30 ft. radius) **Number of Dominant Species** Acer saccharum 60% Yes FACU That Are OBL, FACW, or FAC: 0 (A) 2. Tilia americana 10% No FACU 3. Populus tremuloides 10% No Total Number of Dominant FAC Species Across All Strata: 3 ___(B) 80% = Total Cover Percent of Dominant Species That Are OBL, FACW, or FAC: 0% __(A/B) Sapling/Shrub Stratum (Plot Size: 15 ft. radius) Prevalence Index Worksheet: Rhamnus cathartica Total % Cover of: Multiply by: OBL species FACW species x2= FAC species x3= **FACU** species x4= 20% = Total Cover UPL species x 5 = Column Totals: (A) Herb Stratum (Plot Size: 5 ft. radius Prevalence Index = B/A = 1. Solidago canadensis 30% Yes FACU 2. Vitis riparia 5% FACW Hydrophytic Vegetation Indicators: Dominance Test is >50% Prevalence Index is ≤ 3.01 Morphological Adaptations (Provide supporting 6 data in Remarks or on separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 8 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 0 35% = Total Cover Woody Vine Stratum (Plot Size: N/A Hydrophytic) Vegetation 1. N/A Present? No_X Yes = Total Cover 0% 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)

V	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Re	emarks	
0-8	10YR 3/3	100	None		***		Silt loam	155 155		
8-18	10YR 4/4	100	10YR 4/6	2%	С	М	Silty clay loam	5		
		-						100		
			6. 							
	*		-							_
Type: C=Concentra	tion, D=Depletion, RM=Reduc	ed Matrix, CS	S=Covered or Coat	ed Sand Gra	ains.		² Location: PL=Pore Linin			
Hydric Soil Indicato	rs:		Sandy Glovad Mate	iv (CA)		Indica	ators for Problematic Hyd	ric Soils ³ :		
Histosol (A1) Histic Epipedon	(42)		Sandy Gleyed Matr Sandy Redox (S5)	1 (34)			Coast Prairie Redox (A16	6)		
Black Histic (A3)			Stripped Matrix (S6	()		_	Iron-Manganese Masses			
Hydrogen Sulfid			Loamy Mucky Mine			-	Other (Explain in Remark			
Stratified Layers			Loamy Gleyed Mat					20.5		
2 cm Muck (A10)		Depleted Matrix (F:	3)						
	Dark Surface (A11)		Redox Dark Surface				ators of hydrophytic vegeta			
Thick Dark Surfa			Depleted Dark Surf	Acres and the second		-	drology must be present, ur	nless disturbed		
Sandy Mucky M 5 cm Mucky Pea			Redox Depressions	s (F8)		or	problematic.			
Restrictive Layer (if	observed):				Ú.					
Type: N/A Depth (inches):	N/A						Hydric Soil Present?	Yes	No_X_	
Remarks:		- 0								
Wetland Hydrology	Indicators:									
Primary Indicators (m Surface Water (A High Water Tabl Saturation (A3) Water Marks (B' Sediment Deposits (B Algal Mat or Cru- Iron Deposits (B Inundation Visib	ninimum of one is required; ch A1) e (A2) I) sits (B2) 3) st (B4)		water-Stained Lea Aquatic Fauna (B1 True Aquatic Plants Hydrogen Sulfide C Oxidized Rhizosph Presence of Reduc Recent Iron Reduc Thin Muck Surface Gauge or Well Dats Other (Explain in R	s (B14) Ddor (C1) eres on Livir ed Iron (C4) tion in Tilled (C7) a (D9)		3)	Si Si Si Si Si Si Si Si	ators (minimum of two urface Soil Cracks (B6 rainage Patterns (B10 ry-Season Water Tabl rayfish Burrows (C8) aturation Visible on Ac tunted or Stressed Pla eomorphic Position (D AC-Neutral Test (D5)	S))) le (C2) erial Imagery (C9) ants (D1)	
Primary Indicators (m Surface Water (A High Water Tabl Saturation (A3) Water Marks (B' Sediment Deposits (B Algal Mat or Cru- Iron Deposits (B Inundation Visib	ninimum of one is required; ch A1) e (A2) I) iits (B2) i3) st (B4) 5) le on Aerial Imagery (B7) ted Concave Surface (B8)		Water-Stained Lea Aquatic Fauna (B1: True Aquatic Plants Hydrogen Sulfide C Oxidized Rhizosph Presence of Reduc Recent Iron Reduc Thin Muck Surface Gauge or Well Data	s (B14) Ddor (C1) eres on Livir ed Iron (C4) tion in Tilled (C7) a (D9)		3)	Si Si Si Si Si Si Si Si	urface Soil Cracks (B6 rainage Patterns (B10 ry-Season Water Tabl rayfish Burrows (C8) aturation Visible on Ae tunted or Stressed Pla eomorphic Position (D	S))) le (C2) erial Imagery (C9) ants (D1)	
Primary Indicators (m Surface Water (a High Water Tabl Saturation (A3) Water Marks (B Sediment Depos Drift Deposits (B Algal Mat or Cru Iron Deposits (B Inundation Visib Sparsely Vegeta	ninimum of one is required; ch A1) e (A2) I) sits (B2) 3) st (B4) 5) le on Aerial Imagery (B7) sted Concave Surface (B8)	No_X	Water-Stained Lea Aquatic Fauna (B1: True Aquatic Plant: Hydrogen Sulfide Coxidized Rhizosph Presence of Reduc Recent Iron Reduc Thin Muck Surface Gauge or Well Data Other (Explain in R	3) s (B14) Odor (C1) eres on Livir eed Iron (C4) tion in Tilled (C7) a (D9) emarks)		33)	Si Si Si Si Si Si Si Si	urface Soil Cracks (B6 rainage Patterns (B10 ry-Season Water Tabl rayfish Burrows (C8) aturation Visible on Ae tunted or Stressed Pla eomorphic Position (D	S))) le (C2) erial Imagery (C9) ants (D1)	_
Primary Indicators (m Surface Water (a) High Water Tabl Saturation (A3) Water Marks (B: Sediment Deposits (B Algal Mat or Cru Iron Deposits (B Inundation Visib Sparsely Vegeta Field Observations: Surface Water Table Present Saturation Present? Sincludes capillary fris	ninimum of one is required; ch A1) e (A2) I) iits (B2) i3) st (B4) 5) le on Aerial Imagery (B7) teted Concave Surface (B8) int? Yes ? Yes	No X No X No X	Water-Stained Lea Aquatic Fauna (B1: True Aquatic Plant Hydrogen Sulfide C Oxidized Rhizosph Presence of Reduc Recent Iron Reduc Thin Muck Surface Gauge or Well Dat Other (Explain in R Depth (inches): Depth (inches):	3) s (B14) odor (C1) eres on Livir eved Iron (C4) tion in Tilled (C7) a (D9) emarks)	Soils (C6)	3)	Si Si Si Si Si Si Si Si	urface Soil Cracks (B6 rainage Patterns (B10 ry-Season Water Tabl rayfish Burrows (C8) aturation Visible on Ae tunted or Stressed Pla eomorphic Position (D AC-Neutral Test (D5)	S))) le (C2) erial Imagery (C9) ants (D1)	No

WETLAND DETERMINATION DATA FORM - Midwest Region

Oak Creek/

City/County: Milwaukee Sampling Date: 9/2/2009 IH-94 Mainline Project/Site: Applicant/Owner: WDOT State: WI Sampling Point: W10-5 T-1 B(w) Marcus S. Anderson / Tina M. Myers Section, Township, Range: Section 30, T5N R22E Investigator(s): 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? (if no, explain in Remarks) Soil _ or Hydrology Are "Normal Circumstances" present? Are Vegetation significantly disturbed? Yes X 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? X within a Wetland? Yes No Remarks: * This area experiences seasonal wetland hydrology. VEGETATION - Use scientific names for plants. Indicator Dominance Test Worksheet: ree Stratum (Plot Size: N/A **Number of Dominant Species** That Are OBL, FACW, or FAC: 3 (A) Total Number of Dominant Species Across All Strata: 3 (B) 0% = Total Cover Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B) Sapling/Shrub Stratum (Plot Size: 15 ft. radius) Prevalence Index Worksheet: 1. Fraxinus pennsylvanica Total % Cover of: **FACW** Multiply by: OBL species FACW species x2= FAC species x3= **FACU** species x4= 30% = Total Cover UPL species x 5 = Column Totals: (A) Herb Stratum (Plot Size: 5 ft. radius Prevalence Index = B/A = 1. Carex stricta 70% Yes OBL 2. Juncus torreyi 60% Yes FACW Hydrophytic Vegetation Indicators: 3. Euthamia graminifolia No Dominance Test is >50% 5% **FACW** 4. Rhamnus frangula Prevalence Index is ≤ 3.01 2% No FAC Morphological Adaptations (Provide supporting 5. Aster novae-angliae No FACW 2% No 6. Fragaria virginiana FAC data in Remarks or on separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 10 141% = Total Cover Woody Vine Stratum (Plot Size: N/A Hydrophytic) 1. N/A Vegetation Present? Yes X No = Total Cover 0% 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)

(inches)	Color (moist)	%	Color (moist)	Redox Fea	Type ¹	Loc ²	Texture		Remarks	
0-18	10YR 5/2	100	10YR 6/1	30%	D	М	Silty clay	C 22		
			10YR 5/6	20%	С	М				
-	-			2070				-		
	AV 22									
	-		7,					-		
	-		-					_		
			-					-		_
1 Type: C=Concentrat	tion, D=Depletion, RM=Redu	ced Matrix, CS	S=Covered or Coa	ited Sand Gr	ains.		² Location: PL=Pore L	ining, M=Matrix		
Hydric Soil Indicato	rs:					Indica	ators for Problematic H			
Histosol (A1)	0.000	:	Sandy Gleyed Mar	trix (S4)						
Histic Epipedon	(A2)		Sandy Redox (S5))			_Coast Prairie Redox ((A16)		
Black Histic (A3)			Stripped Matrix (S				_Iron-Manganese Mass			
Hydrogen Sulfide			Loamy Mucky Min				Other (Explain in Rem	narks)		
Stratified Layers 2 cm Muck (A10			Loamy Gleyed Ma Depleted Matrix (F							
	Dark Surface (A11)		Redox Dark Surfa			3 Indic	ators of hydrophytic veg	netation and wetland		
Thick Dark Surfa			Depleted Dark Sur				drology must be present			
Sandy Mucky Mi			Redox Depression			-	problematic.			
5 cm Mucky Pea	at or Peat (S3)									
Restrictive Layer (if	observed):									
	antial clay layer									
Depth (inches):	Throughout profile						Hydric Soil Present?	? Yes X	No	
90. 3850 KVE.	Se 38e 12a									
Remarks:										
торзоп аррес	ars to have been strippe	d. Only the	B HOHZOH IS P	resent.						
HADBUI GGA										
HYDROLOGY										
	Indicators:									
Wetland Hydrology	Indicators: ninimum of one is required; cl	neck all that ap	oply)				Secondary In	dicators (minimum of to	wo required)	
Wetland Hydrology	ninimum of one is required; cl		oply) Water-Stained Lea	aves (B9)			Secondary In	dicators (minimum of to	The state of the s	
Wetland Hydrology Primary Indicators (m	ninimum of one is required; ch						Secondary In		(B6)	
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table Saturation (A3)	ninimum of one is required; cl A1) e (A2)	\equiv	Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plan	13) ts (B14)			Secondary In	Surface Soil Cracks (Drainage Patterns (B Dry-Season Water Ta	(B6) (10) (able (C2)	
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Tabl Saturation (A3) Water Marks (B1	ninimum of one is required; cl A1) e (A2)	\equiv	Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plan Hydrogen Sulfide	13) ts (B14) Odor (C1)			Secondary In	Surface Soil Cracks (Drainage Patterns (B Dry-Season Water Ta Crayfish Burrows (C8	(B6) (10) (able (C2)	
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Tabl Saturation (A3) Water Marks (B1 Sediment Depos	ninimum of one is required; cl A1) e (A2) I) sits (B2)	\equiv	Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plan Hydrogen Sulfide Oxidized Rhizosph	13) its (B14) Odor (C1) heres on Livi		3)	Secondary In	Surface Soil Cracks (Drainage Patterns (B Dry-Season Water Ta Crayfish Burrows (C8 Saturation Visible on	(B6) (10) (able (C2) (3) Aerial Imagery (C9)	
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Tabl Saturation (A3) Water Marks (B1 Sediment Depos Drift Deposits (B	ninimum of one is required; cl A1) e (A2) i) sits (B2) 3)		Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plan Hydrogen Sulfide Oxidized Rhizosph Presence of Redu	13) its (B14) Odor (C1) heres on Livi iced Iron (C4	4)	C3)		Surface Soil Cracks (Drainage Patterns (B Dry-Season Water Ta Crayfish Burrows (C8 Saturation Visible on Stunted or Stressed I	(B6) (H0) (able (C2) B) Aerial Imagery (C9) Plants (D1)	
Wetland Hydrology Primary Indicators (m Surface Water (i High Water Tabl Saturation (A3) Water Marks (B1 Sediment Deposits (8 Algal Mat or Cru	ninimum of one is required; cl A1) e (A2) I) sits (B2) 3) st (B4)		Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plan Hydrogen Sulfide Oxidized Rhizosph Presence of Redu Recent Iron Reduc	tts (B14) Odor (C1) heres on Liviced Iron (C4 ction in Tilled	4)	23)	x	Surface Soil Cracks (Drainage Patterns (B Dry-Season Water Ti Crayfish Burrows (CE Saturation Visible on Stunted or Stressed I Geomorphic Position	(B6) (10) (able (C2) (3) Aerial Imagery (C9) Plants (D1) (D2)	
Wetland Hydrology Primary Indicators (m Surface Water (# High Water Tabil Saturation (A3) Water Marks (B1 Sediment Depos Drift Deposits (B Algal Mat or Cru_	ninimum of one is required; cl A1) e (A2) I) sits (B2) 3) st (B4) 5)		Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plan Hydrogen Sulfide Oxidized Rhizosph Presence of Redu Recent Iron Reduc Thin Muck Surface	tts (B14) Odor (C1) heres on Livi iced Iron (C4 ction in Tilled	4)	23)		Surface Soil Cracks (Drainage Patterns (B Dry-Season Water Ta Crayfish Burrows (C8 Saturation Visible on Stunted or Stressed I	(B6) (10) (able (C2) (3) Aerial Imagery (C9) Plants (D1) (D2)	
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Tabl Saturation (A3) Water Marks (B1 Sediment Depos Drift Deposits (B Algal Mat or Cru Iron Deposits (B	ninimum of one is required; cl A1) e (A2) I) sits (B2) 3) st (B4)		Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plan Hydrogen Sulfide Oxidized Rhizosph Presence of Redu Recent Iron Reduc	ts (B14) Odor (C1) heres on Livi iced Iron (C4 ction in Tilled e (C7) tta (D9)	4)	3)	x	Surface Soil Cracks (Drainage Patterns (B Dry-Season Water Ti Crayfish Burrows (CE Saturation Visible on Stunted or Stressed I Geomorphic Position	(B6) (10) (able (C2) (3) Aerial Imagery (C9) Plants (D1) (D2)	
Wetland Hydrology Primary Indicators (m Surface Water (i High Water Table Saturation (A3) Water Marks (B1 Sediment Deposits (B Algal Mat or Crulron Deposits (B) Inundation Visible Sparsely Vegeta	ninimum of one is required; cl A1) e (A2) I) sits (B2) s3) st (B4) 5) le on Aerial Imagery (B7) teted Concave Surface (B8)		Water-Stained Let Aquatic Fauna (B1 True Aquatic Plani Hydrogen Sulfide i Oxidized Rhizosph Presence of Redu Recent Iron Redud Thin Muck Surface Gauge or Well Dai	ts (B14) Odor (C1) heres on Livi iced Iron (C4 ction in Tilled e (C7) tta (D9)	4)	C3)	x	Surface Soil Cracks (Drainage Patterns (B Dry-Season Water Ti Crayfish Burrows (CE Saturation Visible on Stunted or Stressed I Geomorphic Position	(B6) (10) (able (C2) (3) Aerial Imagery (C9) Plants (D1) (D2)	
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table Saturation (A3) Water Marks (B1 Sediment Depos Drift Deposits (B Algal Mat or Cru- Iron Deposits (B Inundation Visible Sparsely Vegeta Field Observations:	ninimum of one is required; cl A1) e (A2) I) iits (B2) i3) st (B4) 5) le on Aerial Imagery (B7) ted Concave Surface (B8)		Water-Stained Let Aquatic Fauna (B1 True Aquatic Plan Hydrogen Sulfide Oxidized Rhizosph Presence of Redu Recent Iron Reduc Thin Muck Surface Gauge or Well Dar Other (Explain in F	nts (B14) Odor (C1) heres on Livi ced Iron (C4 ction in Tillec e (C7) ta (D9) Remarks)	4)	C3)	x	Surface Soil Cracks (Drainage Patterns (B Dry-Season Water Ti Crayfish Burrows (CE Saturation Visible on Stunted or Stressed I Geomorphic Position	(B6) (10) (able (C2) (3) Aerial Imagery (C9) Plants (D1) (D2)	
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table Saturation (A3) Water Marks (B1 Sediment Depos Drift Deposits (B Algal Mat or Crullron Deposits (B) Inundation Visible Sparsely Vegeta Field Observations: Surface Water Prese	ninimum of one is required; cl A1) e (A2) I) sits (B2) 3) st (B4) 5) le on Aerial Imagery (B7) sted Concave Surface (B8)	No_X	Water-Stained Let Aquatic Fauna (B1 True Aquatic Plani Hydrogen Sulfide Oxidized Rhizosph Presence of Redu Recent Iron Reduct Thin Muck Surface Gauge or Well Dat Other (Explain in find Depth (inches):	ts (B14) Odor (C1) heres on Liviced Iron (C4 ction in Tiller e (C7) tta (D9) Remarks)	4)	23)	x	Surface Soil Cracks (Drainage Patterns (B Dry-Season Water Ti Crayfish Burrows (CE Saturation Visible on Stunted or Stressed I Geomorphic Position	(B6) (10) (able (C2) (3) Aerial Imagery (C9) Plants (D1) (D2)	
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table) Saturation (A3) Water Marks (B1 Sediment Depos Drift Deposits (B Algal Mat or Cruu Iron Deposits (B) Inundation Visibl Sparsely Vegeta Field Observations: Surface Water Present'	ninimum of one is required; cl A1) e (A2) I) sits (B2) 3) st (B4) 5) le on Aerial Imagery (B7) ted Concave Surface (B8) Int? Yes ? Yes	No_X No_X	Water-Stained Let Aquatic Fauna (B1 True Aquatic Flam Hydrogen Sulfide Oxidized Rhizoste) Presence of Redu Recent Iron Reduct Thin Muck Surface Gauge or Well Dat Other (Explain in Fuel Inches): Depth (inches): Depth (inches):	ts (B14) Odor (C1) heres on Livi loced Iron (C4 ction in Tillec e (C7) ta (D9) Remarks)	4)	C3)	X X	Surface Soil Cracks (Drainage Patterns (B Dry-Season Water T: Crayfish Burrows (CE Saturation Visible on Stunted or Stressed I Geomorphic Position FAC-Neutral Test (DS	(B6) (10) able (C2) 3) Aerial Imagery (C9) Plants (D1) (D2)	No
Wetland Hydrology Primary Indicators (m Surface Water (A High Water Table Saturation (A3) Water Marks (B1 Sediment Depos Drift Deposits (B Algal Mat or Crullor Deposits (B) Inundation Visible Sparsely Vegeta Field Observations: Surface Water Presei	ninimum of one is required; cl A1) e (A2) (A2) (A3) e (A2) (A3) st (B4) (A4) (A4) (A5) (A5) (A6) (A6) (A6) (A6) (A6) (A6) (A6) (A6	No_X	Water-Stained Let Aquatic Fauna (B1 True Aquatic Plani Hydrogen Sulfide Oxidized Rhizosph Presence of Redu Recent Iron Reduct Thin Muck Surface Gauge or Well Dat Other (Explain in find Depth (inches):	ts (B14) Odor (C1) heres on Livi loced Iron (C4 ction in Tillec e (C7) ta (D9) Remarks)	4)	(3)	x	Surface Soil Cracks (Drainage Patterns (B Dry-Season Water T: Crayfish Burrows (CE Saturation Visible on Stunted or Stressed I Geomorphic Position FAC-Neutral Test (DS	(B6) (10) (able (C2) (3) Aerial Imagery (C9) Plants (D1) (D2)	No
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City/County: Milwaukee IH-94 Mainline Sampling Date: 9/2/2009 Project/Site: Applicant/Owner: WDOT State: WI Sampling Point: W10-5a T-1 A(u) Marcus S. Anderson / Tina M. Myers Section, Township, Range: Section 30, T5N R22E Investigator(s): 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? (if no, explain in Remarks) Soil _ or Hydrology _ Are "Normal Circumstances" present? Are Vegetation significantly disturbed? 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 Hydric Soil Present? Yes_ *X No Is the Sampled Area Wetland Hydrology Present? within a Wetland? Yes No * Soils are naturally problematic - appears to be a drained hydric soil. VEGETATION - Use scientific names for plants. **Dominance Test Worksheet:** ree Stratum (Plot Size: N/A **Number of Dominant Species** That Are OBL, FACW, or FAC: (A) Total Number of Dominant Species Across All Strata: __ (B) 0% = Total Cover Percent of Dominant Species That Are OBL, FACW, or FAC: 33% _(A/B) Sapling/Shrub Stratum (Plot Size: 15 ft. radius) Prevalence Index Worksheet: 1. Rhus typhina Yes UPL Total % Cover of: Multiply by: 2. Rosa multiflora OBL species 25% Yes FACU Yes FACW species 40% 80 3. Crataegus mollis 20% **FACW** x 2 = 4. Fraxinus pennsylvanica 5% No **FACW** FAC species 60% x3= 180 105% 420 **FACU** species 90% = Total Cover **UPL** species 45% x 5 : 225 Column Totals: 250% 905 lerb Stratum (Plot Size: 5 ft. radius Prevalence Index = B/A = 3.62 1. Solidago canadensis 80% FACU 2. Poa pratensis 60% Yes FAC Hydrophytic Vegetation Indicators: 3. Daucus carota No 5% Dominance Test is >50% UPL 4. Crataegus mollis 5% Prevalence Index is ≤ 3.01 No FACW Morphological Adaptations (Provide supporting Aster novae-angliae 10% FACW data in Remarks or on separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 160% = Total Cover Woody Vine Stratum (Plot Size: N/A Hydrophytic) 1. N/A Vegetation Present? No_X Yes = Total Cover 0% 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)

(inches) Color (moist) 0-7 10YR 3/2 7-18 10YR 4/2	100	Color (moist)	%	Type ¹	Loc2	Texture	Remarks	
7-18 10YR 4/2		None		9.0		Silt loam	52 52	
	100	10YR 4/4	5%	С	М	Silty clay loam		
								_
	:							
								
Type: C=Concentration, D=Depletion, RM=Rec	duced Matrix, CS=	Covered or Coate	ed Sand Gra	ains.		² Location: PL=Pore Linin	ng, M=Matrix	
Hydric Soil Indicators: Histosol (A1)	Ç.	ndy Gleyed Matr	iv (QA)		Indica	tors for Problematic Hyd	ric Soils ³ :	
Histic Epipedon (A2)		ndy Redox (S5)	1 (04)			Coast Prairie Redox (A1	6)	
Black Histic (A3)		ripped Matrix (S6	1			Iron-Manganese Masses		
Hydrogen Sulfide (A4)		amy Mucky Mine			-	Other (Explain in Remark		
Stratified Layers (A5)		amy Gleyed Mat			-		,	
2 cm Muck (A10)		pleted Matrix (F3						
Depleted Below Dark Surface (A11)	Re	dox Dark Surfac	e (F6)		3 Indica	ators of hydrophytic vegeta	ation and wetland	
Thick Dark Surface (A12)	De	pleted Dark Surf	ace (F7)		hyd	drology must be present, ur	nless disturbed	
Sandy Mucky Mineral (S1) 5 cm Mucky Peat or Peat (S3)	Re	dox Depressions	(F8)		or p	oroblematic.		
Restrictive Layer (if observed):								
Type: N/A						Hudria Sail Dragant?	V V N-	
Depth (inches): N/A						Hydric Soil Present?	Yes X No	
HYDROLOGY Wetland Hydrology Indicators:								
Primary Indicators (minimum of one is required; 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)	WWAGACA	y) ater-Stained Leavuatic Fauna (B1; ue Aquatic Plants ue Aquatic Plants drogen Sulfide C didized Rhizosphe esence of Reduct scent Iron Reduct in Muck Surface uge or Well Data	B) G (B14) Odor (C1) eres on Livir ed Iron (C4) ion in Tilled (C7)		3)	S D C S S	ators (minimum of two required) urface Soil Cracks (B6) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) tunted or Stressed Plants (D1) teomorphic Position (D2) AC-Neutral Test (D5)	
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)	William Willia	ater-Stained Lear uatic Fauna (B1; ue Aquatic Plants drogen Sulfide C idized Rhizosphi esence of Reduct cent Iron Reduct in Muck Surface	B) G (B14) Odor (C1) eres on Livir ed Iron (C4) tion in Tilled (C7) a (D9)		3)	S D C S S	urface Soil Cracks (B6) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) tunted or Stressed Plants (D1) teomorphic Position (D2)	
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)	W: Aq Tri Hy Ox Pri Re Th Ga	ater-Stained Leavuatic Fauna (B13 Je Aquatic Plants drogen Sulfide C idized Rhizosph essence of Reduct in Muck Surface tuge or Well Data	B) G (B14) Odor (C1) eres on Livir ed Iron (C4) tion in Tilled (C7) a (D9)		3)	S D C S S	urface Soil Cracks (B6) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) tunted or Stressed Plants (D1) teomorphic Position (D2)	

Oak Creek/

City/County: Milwaukee IH-94 Mainline Sampling Date: 9/2/2009 Project/Site: Applicant/Owner: WDOT State: WI Sampling Point: W10-5a T-1 B(w) Marcus S. Anderson / Tina M. Myers Section, Township, Range: Section 30, T5N R22E Investigator(s): 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? (if no, explain in Remarks) Are "Normal Circumstances" present? Soil ___ or Hydrology Are Vegetation significantly disturbed? Yes X No or Hydrology Are Vegetation Soil _ 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_ X Wetland Hydrology Present? Yes_ within a Wetland? No Remarks: VEGETATION - Use scientific names for plants. Indicator **Dominance Test Worksheet:** ree Stratum (Plot Size: 20 ft. radius) **Number of Dominant Species** Fraxinus pennsylvanica Yes **FACW** That Are OBL, FACW, or FAC: (A) 2. Crataegus mollis 5% No FACW Total Number of Dominant 3 2 (B) Species Across All Strata: 55% = Total Cover Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B) Sapling/Shrub Stratum (Plot Size: N/A Prevalence Index Worksheet: 1. N/A Total % Cover of: Multiply by: OBL species FACW species 3 x2= FAC species x3= **FACU** species x4= 0% = Total Cover **UPL** species x 5 = Column Totals: (A) Herb Stratum (Plot Size: 5 ft. radius Prevalence Index = B/A = 1. Phalaris arundinacea 80% Yes **FACW** 2. Carex vulpinoidea 10% No OBL Hydrophytic Vegetation Indicators: 3. Toxicodendron radicans No Dominance Test is >50% 3% FAC 4. Lycopus americana Prevalence Index is ≤ 3.01 3% No OBL Morphological Adaptations (Provide supporting 5. Solanum dulcamara No FAC 10% No 6. Vitis riparia FACW data in Remarks or on separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 10 109% = Total Cover Woody Vine Stratum (Plot Size: N/A Hydrophytic) 1. N/A Vegetation Present? Yes X No = Total Cover 0% 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)

(moist) % 100 100 100 100 In, RM=Reduced Matrix, C X X X X X X X X X X X X X	Sandy Gleyed Matrix (St. Loamy Mucky Min. Loamy Gleyed Ma Loamy Gleyed Matrix (St. Loamy Mucky Min. Loamy Gleyed Ma	trix (S4)) 6) eral (F1) trix (F2)	Type¹ C C C	3 Indica	Silty clay loam Silty clay Silty clay Silty clay 2 Location: PL=Pore Lining, Mators for Problematic Hydric Science (Argument of the Company	Soils ³ : 12) In and wetland
nn, RM=Reduced Matrix, C	Sandy Gleyed Mat Sandy Redox (S5) Stripped Matrix (Sf Loamy Mucky Min Loamy Gleyed Ma Depleted Matrix (F Redox Dark Surfa Depleted Dark Surfa Depleted Dark Surfa	trix (S4)) 6) eral (F1) trix (F2) ace (F6) rface (F7)	С	Indica Indica	2 Location: PL=Pore Lining, Mators for Problematic Hydric: Coast Prairie Redox (A16) Iron-Manganese Masses (F1 Other (Explain in Remarks) actors of hydrophytic vegetation drology must be present, unless problematic.	Soils ³ : 12) In and wetland as disturbed
nn, RM=Reduced Matrix, C	Sandy Gleyed Mat Sandy Redox (S5) Stripped Matrix (Sf Loamy Mucky Min Loamy Gleyed Ma Depleted Matrix (F Redox Dark Surfa Depleted Dark Surfa Depleted Dark Surfa	trix (S4)) 6) eral (F1) trix (F2) ace (F6) rface (F7)	С	Indica Indica	2 Location: PL=Pore Lining, Mators for Problematic Hydric: Coast Prairie Redox (A16) Iron-Manganese Masses (F1 Other (Explain in Remarks) actors of hydrophytic vegetation drology must be present, unless problematic.	Soils ³ : 12) In and wetland as disturbed
X11)	Sandy Gleyed Mat Sandy Redox (S5) Stripped Matrix (Sf Loamy Mucky Min Loamy Gleyed Ma Depleted Matrix (F Redox Dark Surfa Depleted Dark Surfa	trix (S4)) 6) leral (F1) trix (F2) F3 ace (F6) rface (F7)		Indica Indica Indica	² Location: PL=Pore Lining, Nators for Problematic Hydric: Coast Prairie Redox (A16) Iron-Manganese Masses (F1 Other (Explain in Remarks) actors of hydrophytic vegetation drology must be present, unless	Soils ³ : 12) In and wetland as disturbed
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X X X X X X X X X X X X X X X X X X X	Sandy Gleyed Mat Sandy Redox (S5) Stripped Matrix (Si Loamy Mucky Min Loamy Gleyed Ma Depleted Matrix (F Redox Dark Surfa Depleted Dark Surfa	trix (S4)) 6) eral (F1) trix (F2)	rains.	3 Indica	Coast Prairie Redox (A16) Iron-Manganese Masses (F1 Other (Explain in Remarks) actors of hydrophytic vegetation drology must be present, unless	Soils ³ : 12) In and wetland as disturbed
X X X X X X X X X X X X X X X X X X X	Sandy Gleyed Mat Sandy Redox (S5) Stripped Matrix (Si Loamy Mucky Min Loamy Gleyed Ma Depleted Matrix (F Redox Dark Surfa Depleted Dark Surfa	trix (S4)) 6) eral (F1) trix (F2)	all S.	3 Indica	Coast Prairie Redox (A16) Iron-Manganese Masses (F1 Other (Explain in Remarks) actors of hydrophytic vegetation drology must be present, unless	Soils ³ : 12) In and wetland as disturbed
M11)	Sandy Redox (S5) Stripped Matrix (SI Loamy Mucky Min- Loamy Gleyed Ma Depleted Matrix (F Redox Dark Surfa Depleted Dark Sur	6) eral (F1) etrix (F2) F3) ace (F6) rface (F7)		hyd	Iron-Manganese Masses (F1 Other (Explain in Remarks) ators of hydrophytic vegetation drology must be present, unless problematic.	n and wetland is disturbed
M11)	Stripped Matrix (Si Loamy Mucky Min- Loamy Gleyed Ma Depleted Matrix (F Redox Dark Surfa Depleted Dark Surfa	6) eral (F1) ttrix (F2) F3) ace (F6) rface (F7)		hyd	Iron-Manganese Masses (F1 Other (Explain in Remarks) ators of hydrophytic vegetation drology must be present, unless problematic.	n and wetland is disturbed
M11)	Loamy Mucky Min- Loamy Gleyed Ma Depleted Matrix (F Redox Dark Surfa Depleted Dark Sur	eral (F1) strix (F2) F3) ace (F6) rface (F7)		hyd	Other (Explain in Remarks) cators of hydrophytic vegetation drology must be present, unless problematic.	n and wetland is disturbed
M11)	Loamy Gleyed Ma Depleted Matrix (F Redox Dark Surfa Depleted Dark Sur	atrix (F2) F3) ace (F6) rface (F7)		hyd	cators of hydrophytic vegetation drology must be present, unless problematic.	is disturbed
M11)	Depleted Matrix (F Redox Dark Surfa Depleted Dark Sur	F3) ace (F6) rface (F7)		hyd	drology must be present, unless problematic.	is disturbed
M11)	Redox Dark Surfa Depleted Dark Sur	ace (F6) rface (F7)		hyd	drology must be present, unless problematic.	is disturbed
	Depleted Dark Sur	rface (F7)		hyd	drology must be present, unless problematic.	is disturbed
is required; check all that	The state of the s	A CONTRACTOR OF THE PARTY OF TH		-	problematic.	
is required; check all that	_ nedux Depression	IS (FO)		or £		YesX No
is required; check all that					Hydric Soil Present?	YesXNo
is required; check all that					Hydric Soil Present?	YesXNo
is required; check all that						
is required; check all that						
	Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plant Hydrogen Sulfide (13) ts (B14) Odor (C1)	ing Poots (C	D)	Surfa Drain Dry-S Crayf	rs (minimum of two required) uce Soil Cracks (B6) uage Patterns (B10) Season Water Table (C2) lish Burrows (C8) ration Visible on Aerial Imagery (C9)
				ted or Stressed Plants (D1)		
ic.			A STATE OF THE STA	morphic Position (D2)		
-	_					Neutral Test (D5)
gery (B7)						
	5. Non december 1980 19 6 19					
Yes No_X	Depth (inches):		-,6			
			-0			
YesNo_X	Depth (inches):				Wetland Hydrology Presen	nt? Yes X No
uge, monitoring well, aeria	al photos, previous ir	nspections),	if available:			
	Yes No X Yes No X Yes No X Yes No X	Hydrogen Sulfide Oxidized Rhizosph Presence of Redu Recent Iron Reduc Thin Muck Surface Gery (B7) Gauge or Well Dat Irface (B8) YES No X Depth (inches): Inches Depth (inches): De	Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Liv Presence of Reduced Iron (C4 Recent Iron Reduction in Tilled Thin Muck Surface (C7) Gauge or Well Data (D9) urface (B8) *X Other (Explain in Remarks) Yes No X Depth (inches): Yes No X Depth (inches): Yes No X Depth (inches): Yes No X Depth (inches):	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) urface (B8) *X Other (Explain in Remarks) Yes No X Depth (inches): Yes No X Depth (inches): Yes No X Depth (inches):	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) urface (B8) *X Other (Explain in Remarks) Yes No X Depth (inches): Yes No X Depth (inches): Yes No X Depth (inches):	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) Irface (B8) *X Other (Explain in Remarks) Yes No X Depth (inches): Yes No X Dep

Kilbournville/

Project/Site:	IH-94 Mainline				City/County: Racine 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, ter		Hillslope			Local relief (concave, convex, none): None
Slope (%): 45%		See Fig. 2		Long: See I	
Soil Map Unit Name:	Clayey land (_		WWI Classification: None
The state of the s	ic conditions on the site ty	pical for this time	of year?		Yes No*X (if no, explain in Remarks)
Are Vegetation	Soil	or Hydrology	significa	ntly disturbed?	Are "Normal Circumstances" present? Yes X No
Are Vegetation		or Hydrology		problematic?	(if needed, explain any answers in Remarks)
SUMMARY OF FINDIN	NGS Attach site map	showing samplin	a noint locatio	ns transects imr	portant features, etc.
Hydrophytic Vegetation		Yes	No	X	nportant router co, ctc.
Hydric Soil Present?		Yes		x	Is the Sampled Area YesNoX
Wetland Hydrology Pre	esent?	Yes		x	within a Wetland?
	nalysis indicates that		r conditions	have been drier	er than normal.
VEGETATION - Use so	cientific names for plants.				
Tree Stratum (Plot Siz	ze: N/A)	Absolute %	Dominant	Indicator	Dominance Test Worksheet:
1. N/A 2.	26	COVER	Species .	Status	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
3. 4. 5.					Total Number of Dominant Species Across All Strata:3(B)
		0%	Total Cover		Percent of Dominant Species That Are OBL, FACW, or FAC:
Sapling/Shrub Stratum 1. N/A 2		0% =	= Total Cover		Prevalence Index Worksheet:
Herb Stratum (Plot Siz		60%	Yes	UPL	Prevalence Index = B/A =
2. Coronilla varia 3. Daucus carota 4. Rudbeckia hirta 5. Solidago canade 6. Poa pratensis 7. Oenothera bienn 8. Aster novae-angi 9. 10.	nis	50% 20% 3% 5% 50% 2% 5%	Yes No No No No Yes No No Total Cover	UPL UPL FACU FACU FACU FACU FACU FACU	Hydrophytic Vegetation Indicators:
Woody Vine Stratum 1. N/A 2.	(Plot Size: N/A			- Ea	Hydrophytic Vegetation Present? YesNo_X_
		0% =	= Total Cover		
	oto numbers here or on a				

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

100	Coast if Iron-Ma Other (on: PL=Pore Lining, Problematic Hydric Prairie Redox (A16) anganese Masses (F Explain in Remarks) ydrophytic vegetatior ust be present, unles	Soils ³ :		
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S5) Sandy Redox (S5) Sandy Redox (S5) Sandy Gleyed Matrix (S6) Loamy Mucky Mineral (F1) Stratified Layers (A5) Loamy Gleyed Matrix (F2) 2 cm Muck (A10) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sem Mucky Peat or Peat (S3) Restrictive Layer (if observed):	2 Locati Indicators for Coast i Iron-Ma Other (Problematic Hydric Prairie Redox (A16) anganese Masses (F Explain in Remarks) ydrophytic vegetatior ust be present, unles	Soils ³ :		
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Stratified Layers (A5) Loamy Mucky Mineral (F1) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Festrictive Layer (if observed):	2 Locati Indicators for Coast i Iron-Ma Other (Problematic Hydric Prairie Redox (A16) anganese Masses (F Explain in Remarks) ydrophytic vegetatior ust be present, unles	Soils ³ :		
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Sandy Redox (S5) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Stratified Layers (A5) Loamy Mucky Mineral (F1) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Festrictive Layer (if observed):	² Locati Indicators for Coast I Iron-Ma Other (³ Indicators of h hydrology m	Problematic Hydric Prairie Redox (A16) anganese Masses (F Explain in Remarks) ydrophytic vegetatior ust be present, unles	Soils ³ :		=
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Sandy Redox (S5) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Stratified Layers (A5) Loamy Mucky Mineral (F1) Stratified Layers (A5) Community (F2) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sestrictive Layer (if observed):	Coast Is Iron-Ma Other (Problematic Hydric Prairie Redox (A16) anganese Masses (F Explain in Remarks) ydrophytic vegetatior ust be present, unles	Soils ³ :		_
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Sandy Redox (S5) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Stratified Layers (A5) Loamy Mucky Mineral (F1) Stratified Layers (A5) Community (F2) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sestrictive Layer (if observed):	Coast Is Iron-Ma Other (Problematic Hydric Prairie Redox (A16) anganese Masses (F Explain in Remarks) ydrophytic vegetatior ust be present, unles	Soils ³ :		_
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Sandy Redox (S5) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Stratified Layers (A5) Loamy Mucky Mineral (F1) Stratified Layers (A5) Community (F2) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sestrictive Layer (if observed):	Coast Is Iron-Ma Other (Problematic Hydric Prairie Redox (A16) anganese Masses (F Explain in Remarks) ydrophytic vegetatior ust be present, unles	Soils ³ :		_
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Sandy Redox (S5) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Loamy Mucky Mineral (F1) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Fedox Dark Surface (F7) Sandy Mucky Mineral (S1) Fedox Depressions (F8) Restrictive Layer (if observed):	Coast Is Iron-Ma Other (Problematic Hydric Prairie Redox (A16) anganese Masses (F Explain in Remarks) ydrophytic vegetatior ust be present, unles	Soils ³ :		
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sem Mucky Peat or Peat (S3) Sandy Gleyed Matrix (S4) Loamy Mucky Mineral (F1) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Pedox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8)	Coast I Iron-Ma Other (Prairie Redox (A16) anganese Masses (F Explain in Remarks) ydrophytic vegetation ust be present, unles	12)		
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) Restrictive Layer (if observed):	Iron-Ma Other (anganese Masses (F Explain in Remarks) ydrophytic vegetation ust be present, unles			
Black Histic (A3) Hydrogen Sulfide (A4) Stripped Matrix (S6) Loamy Mucky Mineral (F1) 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) Restrictive Layer (if observed):	Iron-Ma Other (anganese Masses (F Explain in Remarks) ydrophytic vegetation ust be present, unles			
Hydrogen Sulfide (A4) Stratified Layers (A5) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Loamy Gleyed Matrix (F2) Loamy Gleyed Matrix (F3) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Som Mucky Peat or Peat (S3) Restrictive Layer (if observed):	Other (Explain in Remarks) ydrophytic vegetatior ust be present, unles			
Stratified Layers (A5) 2 cm Muck (A10) Depleted Matrix (F2) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Pedox Dark Surface (F6) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Redox Depressions (F8) Restrictive Layer (if observed):	³ Indicators of h	ydrophytic vegetation ust be present, unles	and wetland		
2 cm Muck (A10) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) To m Mucky Peat or Peat (S3) Restrictive Layer (if observed):	hydrology m	ust be present, unles	and wetland		
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Some Mucky Peat or Peat (S3) Restrictive Layer (if observed): Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8)	hydrology m	ust be present, unles	and wetland		
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Som Mucky Peat or Peat (S3) Restrictive Layer (if observed):	hydrology m	ust be present, unles	i and wetland		
Sandy Mucky Mineral (S1) Redox Depressions (F8) 5 cm Mucky Peat or Peat (S3) Restrictive Layer (if observed):			e dieturbad		
5 cm Mucky Peat or Peat (S3) Restrictive Layer (if observed):	or problema	tic	a disturbed		
Restrictive Layer (if observed):					
1)po. 145					
Depth (inches): N/A	Hydric	Soil Present?	Yes	No_X_	
Depth (males).	11,4110	oon i roooni.		140 <u>X</u>	
HYDROLOGY Wetland Hydrology Indicators:		y			
Primary Indicators (minimum of one is required; check all that apply)			rs (minimum of two re	equired)	
Surface Water (A1) Water-Stained Leaves (B9)			ace Soil Cracks (B6)		
High Water Table (A2) Saturation (A3) ———————————————————————————————————			nage Patterns (B10) Season Water Table	(C2)	
Water Marks (B1) Hydrogen Sulfide Odor (C1)			fish Burrows (C8)	(02)	
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (6)	3)		ration Visible on Aeria	al Imagery (C9)	
Drift Deposits (B3) Presence of Reduced Iron (C4)	-,		ted or Stressed Plant	CONTRACTOR OF THE PROPERTY OF	
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6)			norphic Position (D2)		
Iron Deposits (B5) Thin Muck Surface (C7)		FAC-	Neutral Test (D5)		
Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9)					
Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Gauge or Well Data (D9) Other (Explain in Remarks)					
Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Gauge or Well Data (D9) Other (Explain in Remarks) Field Observations:					
Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Gauge or Well Data (D9) Other (Explain in Remarks) Field Observations:					

Project/Site:	IH-94 Mainline					City/0	County:	Racine	S	Sampling Dat	te: 8/	18/2009		
Applicant/Owner:	WDOT				68		State:			ampling Poi	_		B(w)	
Investigator(s):	Tina M. Myers				-			Section, Townsh			30 St			
Landform (hillslope, terra	·	v	Vetland depre	ession		Loc	al relief	(concave, conve		- C	ncave			
Slope (%): 0-1%		1974 of 1777 177	See Fig. 2		Long: See	Fig. 2		1 10 2000 2000 2000 2000 2000 2000 2000		Dat	tum: NA	A		
Soil Map Unit Name:	Clayey la					-			WWI Class	ification: No				
Are climatic / hydrologic	conditions on the si	te typica	for this time	of year?		Yes		No_ *X	x	(if no, expl	lain in R	Remarks)		
Are Vegetation	Soil	0	r Hydrology	signific	antly disturbed?	930533	Are "No	rmal Circumstan	Contract of the contract	ent?		Ye	s_X_	No
Are Vegetation	Soil	_	r Hydrology		ly problematic?			ed, explain any a					6 1	i di
CUMMARY OF FINIDING								2.2		NAMES OF STREET				
Hydrophytic Vegetation I		nap snov	Yes X		is, transects, imp	ortant 16	eatures	, etc.						
Hydric Soil Present?	rieseitt		Yes X	-		- 1	Ic tho S	ampled Area			Yes	X	No	
Wetland Hydrology Pres	ent?		Yes X	20000			S. 11987.65	Wetland?			163		_ ''0_	
Remarks: * The WETS Ana This is a wetland	alysis indicates t		ent weather	r conditions l	nave been drier	than no	ormal.	ž.	ited to the	e north.				
VEGETATION - Use scie	entific names for pla	ants.												
8 2 E	The same of the sa		Absolute %	Dominant	Indicator	- 1	8	Dominance Tes	st Worksh	eet:				
Tree Stratum (Plot Size	:: N/A) _	Cover	Species	Status			Number of Dom						
1. N/A								That Are OBL, F				1	(A)	
2.						- 1								
3.					-	- 1		Total Number of				121	7412000	
4						- 1	9	Species Across	All Strata:		-	1	(B)	
5			0%	= Total Cover			į	Percent of Domi That Are OBL, F			_	100%	_ (A/B)	
Sapling/Shrub Stratum	(Plot Size:	N/A)					Prevalence Ind	lex Worksl	neet:		ACS400 1994	70.0 mg 1.0 mg	
1. N/A	88.1					- 1			tal % Cover	r of:			iply by:	
2						- 1		OBL species		î		1		
3. 4.					2	- 1		FACW species FAC species				2 =		
5.						- 1		FACU species				4 =		
		1	0%	= Total Cover	5 	- 1		UPL species		g.		5 =		
		-				- 1	17,	Column Totals:			_ ((A)		(B)
H-+ 0 (8) - 0:	F 4 4"-									5.4				
Herb Stratum (Plot Size 1. Phragmites austra		<u>is</u>)	100%	Yes	FACW	- 1		Prevale	ence Index	= B/A =	_			
2. Solidago canaden		-	10%	No	FACU	- 1		Hydrophytic Ve	egetation I	ndicators:				
3. Parthenocissus qu		-	10%	No	FAC	- 1		X Domina						
4.						- 1	1		ence Index					
5						- 1	5			aptations ¹ (F			ng	
6. 7						- 1				or on separ ophytic Vege				
8.		-				- 1	1		natio riyare	priyac vege	station	(Explain)	,	
9.						- 1	3	1 Indicators of h	ydric soil a	and wetland	hydrolo	ogy must		
10					-	- 1		be present, un	less distur	ped or probl	lematic.			
		_	120%	= Total Cover										
Woody Vine Stratum 1. N/A	(Plot Size:	N/A)				- 1	Hydrophytic Vegetation			u			
2		-	0%	= Total Cover	-			Present?		Yes	^	N	lo	
		_	0.70	- 10101 00761										
Remarks: (Include photo This plant comn				retland ditch.	Phragmites au	ıstralis	and 7	ypha spp. are	e the don	ninate veg	jetatio	n within	this we	tland.

SOIL								Sampl	ing Point:	W11-2 T	Г-1 B(w)
Profile Description:	(Describe to the depth neede	d to docum	ent the indicator	or confirm	the absenc	of indi	cators.)				
Depth	Matrix	- to accum		Redox Feat			outoro.,				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks		
0-8	10YR 2/1	100	None		103000		Silt loam	50 50			
8-20	10YR 5/2	100	7.5YR 5/8	10%	С	м	Silty clay	1			
								11.			
- 10	0		100					0			
		-									
*	1	_						3 			
	()		W. C.				-	7			
¹ Type: C=Concentration	on, D=Depletion, RM=Reduced	Matrix, CS=	Covered or Coated	d Sand Grai	ins.		² Location: PL=Pore Lin	ing, M=Matrix			
Hydric Soil Indicators	s:				***************************************	Indica	tors for Problematic Hy	dric Soils ³ :			
Histosol (A1)	.		Sandy Gleyed Mate	rix (S4)		maioc	tors for 1 robicinatio rry	and dons .			
Histic Epipedon (A	A2)		Sandy Redox (S5)	(,			Coast Prairie Redox (A	16)			
Black Histic (A3)	T. A.		Stripped Matrix (S6	5)		Š.	Iron-Manganese Masse				
Hydrogen Sulfide	(A4)		Loamy Mucky Mine	eral (F1)			Other (Explain in Rema	rks)			
Stratified Layers ((A5)		Loamy Gleyed Mat								
2 cm Muck (A10)			Depleted Matrix (F			3					
	Dark Surface (A11)		Redox Dark Surface				ators of hydrophytic veget				
Thick Dark Surfact Sandy Mucky Min			Depleted Dark Surf Redox Depressions	1000			lrology must be present, i problematic.	uniess disturbed			
5 cm Mucky Peat		_	nedux Depressions	5 (1-0)		OI	orobiemano.				
Restrictive Layer (if on Type: Silty clay											
Depth (inches):	8						Hydric Soil Present?	Voc. V	No		
Depin (inches).							riyunc son Fresent?	Yes X	· NO		
HYDROLOGY											
Wetland Hydrology I	ndicators:										
70	nimum of one is required; chec	k all that ann	dv)				Secondary Indi	cators (minimum of tw	o required)		
Surface Water (A			Water-Stained Lea	voc (P0)				Surface Soil Cracks (I			
High Water Table	The same of the sa		Aquatic Fauna (B1:					Drainage Patterns (B1			
Saturation (A3)	(, =)		True Aquatic Plants					Dry-Season Water Ta			
Water Marks (B1)			Hydrogen Sulfide C					Crayfish Burrows (C8)			
Sediment Deposit	ts (B2)		Oxidized Rhizosph	eres on Livi	ing Roots (C	3)		Saturation Visible on	Aerial Image	y (C9)	
Drift Deposits (B3			Presence of Reduc					Stunted or Stressed P			
Algal Mat or Crus			Recent Iron Reduc		Soils (C6)			Geomorphic Position	7.00		
Iron Deposits (B5			Thin Muck Surface				X	FAC-Neutral Test (D5)		
	on Aerial Imagery (B7) ed Concave Surface (B8)		Gauge or Well Data Other (Explain in R	100							
Oparsery Vegetati	ed Concave Curiace (BO)		Other (Explain in the	omarks)							
Field Observations:						1					
Surface Water Presen		No_X	Depth (inches):_			1					
Saturation Present?	Yes	No X	Depth (inches):		-	1	Wetland Hydrology Pr	recent?	Voc	v	No
(includes capillary fring	ge) Yes	NO_X	Deptil (inches)		-		Wettand Hydrology Pi	esentr	res.	<u>X</u>	No
Describe Recorded Da	ata (stream gauge, monitoring v	well, aerial pl	notos, previous ins	pections), if	available:						
10 10 10 10	oint was located along th tions. This wetland featu	100000000000000000000000000000000000000		33.0		- 15		d are saturated de	espite the	current	t dry

					Oak Creek/	
Project/Site:	IH-94 Mainline				City/County: Milwaukee	Sampling Date: 9/2/2009
Applicant/Owner:	WDOT				State: WI	Sampling Point: W11-3a T-1 A(u)
Investigator(s):	Eric C. Parker / Ju					ge: Section 31, T5N R22E
Landform (hillslope, terr	1965 TO 1965 TO 1965	Slight hillslope	9	Larry See	Local relief (concave, convex, none)	Convex Datum: NA
Slope (%): 5-7% Soil Map Unit Name:		Lat: See Fig. 2 t Ioam (BIA)		Long: See	- X-40	ssification: None
Are climatic / hydrologic	VICE P		e of year?		Yes X No	(if no, explain in Remarks)
Are Vegetation	Soil	or Hydrology		antly disturbed?	Are "Normal Circumstances" pre	
Are Vegetation	Soil	or Hydrology		ly problematic?	(if needed, explain any answers	
Hydrophytic Vegetation		Yes	No	x X	portant features, etc.	
Hydric Soil Present?	1 10001111	Yes	_ No	x	Is the Sampled Area	Yes No X
Wetland Hydrology Pres	sent?	Yes	_ No	x	within a Wetland?	2011
Remarks:						
VEGETATION - Use sci	ientific names for plan	nts.				
Tree Stratum (Plot Size	20 ft radius	Absolute %	Dominant	Indicator	Dominance Test Works	sheet:
THOS CHAIGHT (FICE CIZE	so mindad	Cover	Species	Status	Number of Dominant Sp	ecies
1. Tilia americana		50%	Yes	FACU	That Are OBL, FACW, o	or FAC:(A)
2. Fraxinus pennsylv 3. Acer saccharum	vanica	15% 20%	No Yes	FACU	Total Number of Domina	ant
4.		20%		FACU	Species Across All Strat	
5.					11111	
		85%	= Total Cover		Percent of Dominant Spr That Are OBL, FACW, o	
Sapling/Shrub Stratum	(Plot Size: 15	5 ft. radius)			Prevalence Index Work	sheet:
1. Lonicera x bella	20 and 10	25%	Yes	FACU	Total % Cov	
2. Prunus virginiana	<u> </u>	10%	Yes	FAC	OBL species FACW species	21% x 1 = 42
4.	10	17			FAC species	45% x 3 = 135
5.					FACU species	100% x 4 = 400
550		35%	= Total Cover		UPL species	x 5 =
					Column Totals:	166%(A)577(B)
Herb Stratum (Plot Size		§) 2%	No	FACW	Prevalence Inde	ex = B/A = 3.48
2. Geum canadense		5%	Yes	FAC	Hydrophytic Vegetation	n Indicators:
3. Arisaema triphyllu	ım	2%	No	FACW	Dominance Test	1000 1000
4. Leersia virginica 5. Geranium macula	tum	5%	No Yes	FACU	Prevalence Inde	ex is ≤ 3.0° Adaptations¹ (Provide supporting
6.				FACO		ks or on separate sheet)
7.						drophytic Vegetation ¹ (Explain)
8					1	
9. 10.					be present, unless disti	I and wetland hydrology must
10	100	16%	= Total Cover		be present, unless dist	urbed of problematic.
Woody Vine Stratum 1. Parthenocissus q		5 ft. radius) 30%	Yes	FAC	Hydrophytic Vegetation	
2		30%	= Total Cover		Present?	Yes No_X
			= Total Cover			
Remarks: (Include phote Approximately !			oserved to be	bare ground du	ue to the dense tree canopy. This i	is a mesic woodland plant community.

OIL	Compling Point:	W11-3a T-1 A(u)
OIL	Sampling Point:	W11-3a I-1 A(u)

Depth Matrix	Redox Fi Color (moist)	eatures Type¹ Loc² C N		Remark	2				
0-4 2.5 Y 5/2 4-16 10YR 4/2 4-16 10YR 5/4 Type: C=Concentration, D=Depletion, RM=Reduced Marketing Contents of the contents o	100 10YR 4/6 2% 40 None			Remark					
4-16 10YR 4/2 4-16 10YR 5/4 1 Type: C=Concentration, D=Depletion, RM=Reduced Mar	40 None	C N			S				
10YR 5/4 Type: C=Concentration, D=Depletion, RM=Reduced Mar				<u> </u>					
¹ Type: C=Concentration, D=Depletion, RM=Reduced Ma			Silty clay loam						
			Silty clay loam						
	0			<u> </u>					
	_								
	_).					
Hydric Soil Indicators:	rix, CS=Covered or Coated Sand (Grains.	² Location: PL=Pore Lining	g, M=Matrix					
		Indi	cators for Problematic Hydr	ic Soils ³ :					
Histosol (A1)	Sandy Gleyed Matrix (S4)	0.000	•						
Histic Epipedon (A2)	Sandy Redox (S5)	<u> </u>	Coast Prairie Redox (A16)					
Black Histic (A3)	Stripped Matrix (S6)	<u> </u>	Iron-Manganese Masses	(F12)					
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1)		Other (Explain in Remarks)						
Stratified Layers (A5)	Loamy Gleyed Matrix (F2)	A Compress Sample and Tourish Assess Tourish Asses Tourish Asse							
2 cm Muck (A10)	Depleted Matrix (F3)	3.	3.						
Depleted Below Dark Surface (A11)	Redox Dark Surface (F6)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed						
Thick Dark Surface (A12) Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7) Redox Depressions (F8)		or problematic.	iess disturbed					
5 cm Mucky Peat or Peat (S3)	Tiedox Depressions (1 0)		or problematic.						
Restrictive Layer (if observed): Type: N/A									
Depth (inches): N/A	-		Hydric Soil Present?	Yes	No_X_				
Depin (inches).	-		nyunc son Fresent:	res	NOX_				
HYDROLOGY									
Wetland Hydrology Indicators:									
Primary Indicators (minimum of one is required; check all									
	that apply)		Secondary Indica	tors (minimum of two requir	red)				
Surface Water (A1)	that apply) Water-Stained Leaves (B9)		The second secon	tors (minimum of two requir	red)	_			
High Water Table (A2)	Water-Stained Leaves (B9) Aquatic Fauna (B13)		Su Dr	urface Soil Cracks (B6) ainage Patterns (B10)					
High Water Table (A2) Saturation (A3)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14)		Su Dr.	urface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2)		_			
High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1)		Su Dr. Dr.	urface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8)					
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on I	iving Roots (C3)	Su Dr Dr Cr Sa	urface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) uturation Visible on Aerial In	nagery (C9)				
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on I Presence of Reduced Iron (Living Roots (C3) C4)	Su Dr Dr Cr Sa	urface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) uturation Visible on Aerial In unted or Stressed Plants (D	nagery (C9)				
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on L Presence of Reduced Iron (Recent Iron Reduction in Til	Living Roots (C3) C4)	Su Ur Dr Cr Sa St	urface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) uturation Visible on Aerial In unted or Stressed Plants (D comorphic Position (D2)	nagery (C9)				
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on I Presence of Reduced Iron (Living Roots (C3) C4)	Su Ur Dr Cr Sa St	urface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) uturation Visible on Aerial In unted or Stressed Plants (D	nagery (C9)				
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on L Presence of Reduced Iron (Recent Iron Reduction in Til Thin Muck Surface (C7)	Living Roots (C3) C4)	Su Ur Dr Cr Sa St	urface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) uturation Visible on Aerial In unted or Stressed Plants (D comorphic Position (D2)	nagery (C9)				
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 I Presence of Reduced Iron (Recent Iron Reduction in Til Thin Muck Surface (C7) Gauge or Well Data (D9)	Living Roots (C3) C4)	Su Ur Dr Cr Sa St	urface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) uturation Visible on Aerial In unted or Stressed Plants (D comorphic Position (D2)	nagery (C9)				
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) Field Observations:	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on I Presence of Reduced Iron (Recent Iron Reduction in Tii Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks)	Living Roots (C3) C4)	Su Ur Dr Cr Sa St	urface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) uturation Visible on Aerial In unted or Stressed Plants (D comorphic Position (D2)	nagery (C9)	_			
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) Field Observations: Surface Water Present? Yes	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on L Presence of Reduced Iron (Recent Iron Reduction in Til Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks)	Living Roots (C3) C4)	Su Ur Dr Cr Sa St	urface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) uturation Visible on Aerial In unted or Stressed Plants (D comorphic Position (D2)	nagery (C9)	_			
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) Field Observations: Surface Water Present? Water Table Present? Yes No	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on L Presence of Reduced Iron (Recent Iron Reduction in Til Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks)	Living Roots (C3) C4)	Su Ur Dr Cr Sa St	urface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) atturation Visible on Aerial In unted or Stressed Plants (D comorphic Position (D2) aC-Neutral Test (D5)	nagery (C9)	No_X			

						Oak Creek/			
Project/Site:	IH-94 Mainline					Milwaukee	Sampling Date:		·
Applicant/Owner:	WDOT Eric C. Parker / J	ulio A Docebal			State		, Range: Section 31,	W11-3a T-1 B((w)
Investigator(s): Landform (hillslope, terra	-	Terrace			Local relie	f (concave, convex,			
Slope (%): 0-2%	ace, etc.).	Lat: See Fig. 2		Long: S	See Fig. 2	(concave, convex,		n: NA	
Soil Map Unit Name:	Ashkum	silty clay loam (A		Long.	occ rig. 2	w	WI Classification: None		
Are climatic / hydrologic	conditions on the si	ite typical for this ti	ime of year?		Yes X	No		n in Remarks)	
Are Vegetation	Soil	or Hydrolog	gy signific	antly disturbed?	? Are "N	ormal Circumstance	es" present?	Yes_	X No
Are Vegetation	Soil	or Hydrolog	gynatura	ly problematic?	(if need	ded, explain any an	swers in Remarks)		
SUMMARY OF FINDING	GS Attach site n	nap showing sam	pling point locatio	ns, transects, i	important features	s, etc.			
Hydrophytic Vegetation	Present?	Yes	X No	<u> </u>		***************************************			
Hydric Soil Present?		Yes	X No		Is the S	Sampled Area	Ye	esX	No
Wetland Hydrology Pres	sent?	Yes	X No		within a	a Wetland?			
Remarks:					•				
This is an epher	meral wooded sv	wamp wetland.							
VEGETATION - Use sci	ientific names for pla	ants.							
Tree Stratum (Plot Size	· 30 ft radius	Absolute 9		Indicator		Dominance Test	Worksheet:		
Troo onatom (Flot olec	. so iti idalido)	Cover	Species	Status		Number of Domina	ant Species		
1. Fraxinus pennsylv	vanica	50%	Yes	FACW		That Are OBL, FA	CW, or FAC:	3 ((A)
2		<u> </u>				Total Number of D	Ominant		
4.		-05	3:			Species Across Al		4 ((B)
5.									
		50%	= Total Cover			Percent of Domina That Are OBL, FA		75%((A/B)
Sapling/Shrub Stratum		15 ft. radius)				Prevalence Index	Worksheet:	79777 - 4574.144	100
1. Rhamnus cathartic		20%	Yes	FACU			% Cover of:	Multiply	
2		-				OBL species FACW species	·	x 1 =	
4.	22	20				FAC species	-	x3=	
5						FACU species		_ x 4 =	
		20%	= Total Cover			UPL species Column Totals:		x 5 =	(B)
						Column Totals.	\	_ (A)	(B)
Herb Stratum (Plot Size						Prevalenc	ce Index = B/A =	<u> </u>	
Phalaris arundinae Vitis riparia	cea	10%	Yes No	FACW		Undrankutia Vas	etation Indicators:		
3. Parthenocissus qu	uinguefolia	10%	No No	FAC		X Dominand			
4. Aster lateriflorus		5%	No	FACW			ce Index is ≤ 3.01		
5. Carex scoparia		40%	Yes	FACW			gical Adaptations ¹ (Pro		
6		-					Remarks or on separat		
8.		-				Problema	tic Hydrophytic Vegeta	tion (Explain)	
9.	6					1 Indicators of hyd	ric soil and wetland hy	drology must	
10						be present, unles	ss disturbed or probler	natic.	
		125%	= Total Cover						
Woody Vine Stratum	(Plot Size:	N/A)				Hydrophytic			
1. N/A		-				Vegetation			
2		0%	= Total Cover			Present?	Yes_X	_ No_	
			_ = Total Gover						
Remarks: (Include photo			t.)		•				
This is a woode	d swamp plant c	ommunity.							

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 Color (moist) Color (moist) (inches % 10YR 3/1 Silt loam 0-7 100 None 10YR 5/2 7-18 100 10YR 5/4 Silt loam Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils3: Histosol (A1) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Coast Prairie Redox (A16) Black Histic (A3) Stripped Matrix (S6) Iron-Manganese Masses (F12) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Other (Explain in Remarks) Stratified Layers (A5) Loamy Gleyed Matrix (F2) 2 cm Muck (A10) Depleted Matrix (F3) X Depleted Below Dark Surface (A11) Redox Dark Surface (F6) 3 Indicators of hydrophytic vegetation and wetland Thick Dark Surface (A12) Depleted Dark Surface (F7) hydrology must be present, unless disturbed Sandy Mucky Mineral (S1) Redox Depressions (F8) or problematic. 5 cm Mucky Peat or Peat (S3) Restrictive Layer (if observed): Type: N/A Hydric Soil Present? Depth (inches): N/A Yes X No_ Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) X Water-Stained Leaves (B9) Surface Soil Cracks (B6) High Water Table (A2) Drainage Patterns (B10) Aquatic Fauna (B13) True Aquatic Plants (B14) Dry-Season Water Table (C2) Saturation (A3) X Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) X Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) X Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes Depth (inches) Water Table Present? Yes No Depth (inches) Saturation Present? (includes capillary fringe) Yes No 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.

Project/Site:	IH-94 Mainline				City/County: 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, Ran	ige: Section 31, T5N R22E
Landform (hillslope, ten	No.	Hillslope			Local relief (concave, convex, none	77.51
Slope (%): 2-3%	AND THE PROPERTY OF THE PROPER	at: See Fig. 2		Long: See		Datum: NA
Soil Map Unit Name:	Blount silt lo					assification: None
Are climatic / hydrologic	conditions on the site ty	pical for this time of	year?		Yes X No	(if no, explain in Remarks)
Are Vegetation	Soil	or Hydrology	signific	antly disturbed?	Are "Normal Circumstances" pre	esent? Yes X No
Are Vegetation	Soil	or Hydrology	natural	ly problematic?	(if needed, explain any answers	in Remarks)
CHMMADY OF EINDIN	IGS Attach site map	chowing compling	noint location	e transacte imp	ortant features, etc	
Hydrophytic Vegetation		Yes	No.	X	ortant reatures, etc.	
Hydric Soil Present?	T TOOLIK I	Yes	•	x	Is the Sampled Area	Yes No X
Wetland Hydrology Pre	sent?	Yes			within a Wetland?	
Remarks:						
VEGETATION - Use so	cientific names for plants	9				
Tree Stratum (Plot Size	e: 30 ft. radius)	Absolute %	Dominant	Indicator	Dominance Test Work	sheet:
TIOO OILAIAM (TIOT OIL	c. ov mradiae	Cover	Species	Status	Number of Dominant Sp	pecies
1. Tilia americana		80%	Yes	FACU	That Are OBL, FACW, of	or FAC: (A)
2. Acer saccharum		50%	Yes	FACU	Total Number of Demis	
3					Total Number of Domini Species Across All Stra	
5.		-			Species / toloco / til olid	(5)
004	*	130%	= Total Cover		Percent of Dominant Sp That Are OBL, FACW, of	
Sapling/Shrub Stratum		t. radius)			Prevalence Index Wor	
1. Rhamnus cathart	ica	40%	Yes	FACU	Total % Co	
Lonicera x bella Ribes cynosbati		35% 5%	Yes No	UPL	OBL species FACW species	x 1 = x 2 =
4.					FAC species	x 3 =
5.					FACU species	x 4 =
		80%	= Total Cover		UPL species	x 5 =
					Column Totals:	(A) (B)
Herb Stratum (Plot Size) 40%	Yes	UPL	Prevalence Ind	ex = B/A =
2. Parthenocissus q		5%	No	FAC	Hydrophytic Vegetation	on Indicators:
3. Geranium macula		5%	No	FACU	Dominance Tes	
4. Arisaema triphyll	um	5%	No	FACW	Prevalence Ind	
6.						Adaptations ¹ (Provide supporting lrks or on separate sheet)
7.						rdrophytic Vegetation ¹ (Explain)
8.					SAMPLE CATCOL FROM SPACE OF A	
9					The state of the s	oil and wetland hydrology must
10		55%	= Total Cover	 -	be present, unless dis	turbed or problematic.
			- 10101 00101			
Woody Vine Stratum	(Plot Size: N/A)			Hydrophytic	
1. N/A					Vegetation	v u. v
2		0%	= Total Cover	-	Present?	Yes No_X
	o numbers here or on a				TO THE LOCAL PROPERTY OF	
This is a well to	moderately well dra	ained mesic fore	st dominated	by FACU spec	cies such as basswood and sugar	maple.

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

Profile Description:	(Describe to the depth neede	d to docume	ent the indicator o	r confirm	the absence	of indic	cators.)				
Depth	Matrix			Redox Fea							
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc2	Texture	R	lemarks		
0-4	10YR 3/2	100	None				Silt loam	73			
4-12	10YR 4/3	100	None				Silt loam				
12-20	10YR 5/3	100	10YR 4/6	2%	С	М	Silt loam	20			
12-20	101113/3	100	101114/0	2/0		IVI	Oilt Iodili	8			
		_						\$ 		_	
			9					8			
		-	AT								
Type: C=Concentration	on, D=Depletion, RM=Reduced	Matrix, CS=	Covered or Coated	Sand Gra	ins.		² Location: PL=Pore Linir	ng, M=Matrix			
Hydric Soil Indicator	s:					Indica	tors for Problematic Hyd	ric Soils ³ :			
Histosol (A1)			Sandy Gleyed Mati	rix (S4)			•				
Histic Epipedon (A	A2)		Sandy Redox (S5)				Coast Prairie Redox (A1	6)			
Black Histic (A3)			Stripped Matrix (Se	6)		57.	Iron-Manganese Masses				
Hydrogen Sulfide	(A4)		Loamy Mucky Mine	The state of the s		100	Other (Explain in Remark				
Stratified Layers (Loamy Gleyed Mat					20 1			
2 cm Muck (A10)			Depleted Matrix (F:								
Depleted Below D	Dark Surface (A11)		Redox Dark Surface	ce (F6)	³ Indicators of hydrophytic vegetation and wetland						
Thick Dark Surface	ce (A12)		Depleted Dark Surf				drology must be present, u				
Sandy Mucky Mir	neral (S1)	-	Redox Depressions	s (F8)		orp	problematic.				
5 cm Mucky Peat	or Peat (S3)		11.07	838 39		- 1					
Restrictive Layer (if	observed):										-
Type: N/A					1						
Depth (inches):	N/A				1		Hydric Soil Present?	Yes	No X		
Bepair (inches).					1		,		<u></u>		
Remarks:											
HYDROLOGY											
Wetland Hydrology I	ndicators:										
1.5	nimum of one is required; chec	k all that appl	v)				Secondary Indic	ators (minimum of two	required)		
Surface Water (A			Water-Stained Lea	voc (PO)				urface Soil Cracks (B			
High Water Table			Aquatic Fauna (B1					rainage Patterns (B10			
Saturation (A3)	(12)		True Aquatic Plants					ry-Season Water Tab	37		
Water Marks (B1)	V		Hydrogen Sulfide C					rayfish Burrows (C8)	(02)		
Sediment Deposit			Oxidized Rhizosph		ing Boots (C	3)		aturation Visible on A	erial Imagery (C9)		
Drift Deposits (B3			Presence of Reduc			0)		tunted or Stressed Pla			
Algal Mat or Crus	Total and	_	Recent Iron Reduc					eomorphic Position (I			
Iron Deposits (B5	(5) (1)		Thin Muck Surface		a 50115 (50)			AC-Neutral Test (D5)			
	on Aerial Imagery (B7)		Gauge or Well Data	Control of the contro				10 11001141 1001 (00)			
	ed Concave Surface (B8)		Other (Explain in R								
	,					T.					- 8
Field Observations:		200	SECTION AND INCOME AND INCOME.								
Surface Water Presen		No X	Depth (inches):_		_						
Water Table Present?		No X	Depth (inches):_		_						
Saturation Present? (includes capillary fring	Yes	No X	Depth (inches):_		_		Wetland Hydrology Pre	sent?	Yes	No_	Х
Remarks:	ata (stream gauge, monitoring v					ors obs	served.				

Oak Creek/

City/County: Milwaukee Sampling Date: 9/2/2009 IH-94 Mainline Project/Site: Sampling Point: W11-3b T-1 B(w) Applicant/Owner: WDOT State: WI Investigator(s): Marcus S. Anderson Section, Township, Range: Section 31, T5N R22E Wetland depression Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Concave Lat: See Fig. 2 Slope (%): 0-1% 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? (if no, explain in Remarks) Are "Normal Circumstances" present? Soil ______ or Hydrology _____ significantly disturbed? Are Vegetation Yes X No or Hydrology Are Vegetation Soil _ naturally problematic? (if needed, explain any answers in Remarks) SUMMARY OF FINDINGS --- Attach site map showing sampling point locations, transects, important features, etc. Yes X Hydrophytic Vegetation Present? No Hydric Soil Present? Yes X No _ Is the Sampled Area Yes X No_ Wetland Hydrology Present? X Yes_ within a Wetland? No Remarks: VEGETATION - Use scientific names for plants. **Dominance Test Worksheet:** ree Stratum (Plot Size: N/A **Number of Dominant Species** That Are OBL, FACW, or FAC: (A) Total Number of Dominant Species Across All Strata: 1 (B) 0% = Total Cover Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B) Sapling/Shrub Stratum (Plot Size: N/A Prevalence Index Worksheet: 1. N/A Total % Cover of: Multiply by: OBL species **FACW** species x2= FAC species x3= **FACU** species x 4 = 0% = Total Cover UPL species x 5 = Column Totals: (A) Herb Stratum (Plot Size: 5 ft. radius Prevalence Index = B/A = 1. Glyceria striata 60% OBL 2. Toxicodendron radicans 10% Hydrophytic Vegetation Indicators: FAC Dominance Test is >50% Prevalence Index is ≤ 3.01 Morphological Adaptations (Provide supporting 6 data in Remarks or on separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 8 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 0 70% = Total Cover Woody Vine Stratum (Plot Size: N/A Hydrophytic) Vegetation 1. N/A Present? Yes X No = Total Cover 0% Remarks: (Include photo numbers here or on a separate sheet.)

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

Depth (inches)	Matrix Color (moist)	%	Color (moist)	Redox Feat	Type ¹	Loc ²	Texture	Rei	marks	
0-6	10YR 2/1	100	None	70	Type	LUC	Silt loam	7101	mano	
6-13	10YR 4/1		10YR 4/4	100/	С					_
	-	100	CONTRACTOR OF THE PARTY OF THE	10%	(8/2)	M	Silty clay loam	-		
13-20	10YR 5/1	100	10YR 5/6	10%	С	M	Silty clay loam	100		_
		_								
			-					-		
¹ Type: C=Concentratio	n, D=Depletion, RM=Reduc	ed Matrix, CS	S=Covered or Coa	ted Sand Gr	ains.		² Location: PL=Pore Lining	ng, M=Matrix		
Hydric Soil Indicators	ĸ.					Indica	itors for Problematic Hyd	fric Soils ³ :		
Histosol (A1) Histic Epipedon (A	12)		Sandy Gleyed Mat Sandy Redox (S5)				Coast Prairie Redox (A1	6)		
Black Histic (A3)	(2)		Stripped Matrix (S				Iron-Manganese Masses			
Hydrogen Sulfide	(A4)		Loamy Mucky Min			_	Other (Explain in Remark			
Stratified Layers (A			Loamy Gleyed Ma					,		
2 cm Muck (A10)	/		Depleted Matrix (F							
Depleted Below Da	ark Surface (A11)	1	Redox Dark Surfa	ice (F6)		3 Indic	ators of hydrophytic vegeta	ation and wetland		
Thick Dark Surface			Depleted Dark Sur			hyd	drology must be present, u	nless disturbed		
Sandy Mucky Mine			Redox Depression	is (F8)		or	problematic.			
5 cm Mucky Peat of Restrictive Layer (if o	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0									
Type: N/A										
Depth (inches):	N/A						Hydric Soil Present?	Yes X	No	
HYDROLOGY										
Wetland Hydrology In	dicators:									
Primary Indicators (min	nimum of one is required; che	eck all that ap	oply)				Secondary Indic	ators (minimum of two r	required)	
Surface Water (A1			Water-Stained Lea					Surface Soil Cracks (B6)		
High Water Table	(A2)		Aquatic Fauna (B1	17.5				rainage Patterns (B10)	7.	
X Saturation (A3)			True Aquatic Plant					ry-Season Water Table	(C2)	
Water Marks (B1) Sediment Deposits	(P0)		Hydrogen Sulfide (Oxidized Rhizosph		na Ponto /C	2)		crayfish Burrows (C8) Saturation Visible on Aer	ial Imagan, (CO)	
Drift Deposits (B3)			Presence of Redu			3)		stunted or Stressed Plan		
Algal Mat or Crust		_	Recent Iron Reduc					Geomorphic Position (D2		
Iron Deposits (B5)	77 75		Thin Muck Surface		, , ,			AC-Neutral Test (D5)		
X Inundation Visible	on Aerial Imagery (B7)		Gauge or Well Dat	ta (D9)			· · · · · · · · · · · · · · · · · · ·			
X Sparsely Vegetate	ed Concave Surface (B8)		Other (Explain in F	Remarks)						
Field Observations:	20 2011	1000 1000	Service and the service							
Surface Water Present Water Table Present?		No X	Depth (inches):	18	•//					
Saturation Present?	Yes X Yes X	No —	Depth (inches):_ Depth (inches):_	14	•2		Wetland Hydrology Pre	esent?	Yes X	No
(includes capillary fring	e)				•0 50 50 550			APPENDED.		F-377
Describe Recorded Da	ta (stream gauge, monitoring	g well, aerial	photos, previous in	nspections),	if available:					
Remarks:										
nomarks.										
I										

Oak Creek/ City/County: Milwaukee Sampling Date: 8/19/2009 IH-94 Mainline Project/Site: Sampling Point: W11-10b T-1 A(u) Applicant/Owner: WDOT State: WI Marcus S. Anderson / Julie A. Paschal Section, Township, Range: Section 31, T5N R22E Investigator(s): Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 5-10% Datum: NA Lat: See Fig. 2 Long: See Fig. 2 Soil Map Unit Name: Fox loam (FtB) WWI Classification: None Are climatic / hydrologic conditions on the site typical for this time of year? No_ (if no, explain in Remarks) Soil _____ or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Are Vegetation Yes X No Soil _ Are Vegetation 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 Wetland Hydrology Present? No within a Wetland? Yes X Remarks: VEGETATION - Use scientific names for plants **Dominance Test Worksheet:** Tree Stratum (Plot Size: N/A Number of Dominant Species That Are OBL, FACW, or FAC: (A) **Total Number of Dominant** Species Across All Strata: _(B) 0% = Total Cover Percent of Dominant Species That Are OBL, FACW, or FAC: 50% _(A/B) Sapling/Shrub Stratum (Plot Size: 15 ft. radius) Prevalence Index Worksheet: 1. Crataegus crus-galli Total % Cover of: Multiply by: OBL species FACW species 10% 20 3 x2= FAC species 90% x 3 = 270 60% 240 **FACU** species x 4 = 70% = Total Cover **UPL** species x 5 = 160% 530 Column Totals: Herb Stratum (Plot Size: 5 ft. radius Prevalence Index = B/A = 3.31 1. Solidago canadensis 50% FACU 2. Glechoma hederacea 10% No FACU Hydrophytic Vegetation Indicators: 3. Phalaris arundinacea No 10% FACW Dominance Test is >50% 4. Parthenocissus quinquefolia No Prevalence Index is ≤ 3.01 10% FAC Morphological Adaptations¹ (Provide supporting 5. Geum aleppicum FAC 6 data in Remarks or on separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 8 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 10 90% = Total Cover Woody Vine Stratum (Plot Size: N/A Hydrophytic) 1. N/A Vegetation Present? No X 2. Yes = Total Cover 0%

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

This is an upland, shrub scrub plant community.

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

Profile Description: (Describe	to the death peeded to dee	umont the indicator or con	irm the absence	o of indicators			
				e of indicators	i.)		
Depth (inches)	Matrix color (moist) %	Redox F		Las ² Ta	di ina	Domark	
		Color (moist) %	Type¹		xture	Remark	5
0-18 <u>10YR</u>	3/3 100	None		Silt loa	<u>im</u> .		

	- 2	000					
		•					
	::	- CO					9
¹ Type: C=Concentration, D=Dep	pletion, RM=Reduced Matrix,	CS=Covered or Coated Sand	Grains.	² Locat	ion: PL=Pore Lining,	M=Matrix	
Hydric Soil Indicators:			11	Indicators for	Problematic Hydric	Soils3.	
Histosol (A1)		Sandy Gleyed Matrix (S4)	1.0	mulcators for	r roblematic riyunc	Jons .	
Histic Epipedon (A2)	·	Sandy Redox (S5)		Coast	Prairie Redox (A16)		
Black Histic (A3)		Stripped Matrix (S6)	-		anganese Masses (F	12)	
Hydrogen Sulfide (A4)	(c 	Loamy Mucky Mineral (F1)	-		Explain in Remarks)	12)	
Stratified Layers (A5)	Ø 	Loamy Gleyed Matrix (F2)	-	Other	Explain in Hemarks)		
2 cm Muck (A10)	-	Depleted Matrix (F3)					
Depleted Below Dark Surface	co (A11)	Redox Dark Surface (F6)	4	3 Indicators of h	ydrophytic vegetatio	n and wotland	
Thick Dark Surface (A12)		Depleted Dark Surface (F7)			nust be present, unle		
Sandy Mucky Mineral (S1)	(Redox Depressions (F8)		or problema		55 disturbed	
5 cm Mucky Peat or Peat (S	===	nedox Depressions (Fo)		or problema	uic.		
	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)						
Restrictive Layer (if observed)):						
Type: N/A							
Depth (inches): N/A				Hydric	Soil Present?	Yes	No_X_
1 1 1 1 1				-			_
Remarks:			1000				
The soils are very dry.							
HYDROLOGY							
	414						
Wetland Hydrology Indicators							
Wetland Hydrology Indicators		enals)			Canadani Indicata	so (minimum of two so suit	ro d)
Primary Indicators (minimum of						rs (minimum of two requi	red)
Primary Indicators (minimum of Surface Water (A1)		Water-Stained Leaves (B9)			Surfa	ace Soil Cracks (B6)	red)
Primary Indicators (minimum of a Surface Water (A1) High Water Table (A2)		Water-Stained Leaves (B9) Aquatic Fauna (B13)			Surfa Drain	ace Soil Cracks (B6) nage Patterns (B10)	
Primary Indicators (minimum of of Surface Water (A1) High Water Table (A2) Saturation (A3)		Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14)		_	Surfa Drain	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2)	
Primary Indicators (minimum of a Surface Water (A1) High Water Table (A2)		Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1)		_	Surfa Drain Dry- Cray	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8))
Primary Indicators (minimum of of Surface Water (A1) High Water Table (A2) Saturation (A3)		Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on I	iving Roots (C3)		Surfa Drail Dry- Cray Satu	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial In	nagery (C9)
Primary Indicators (minimum of of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)		Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1)	iving Roots (C3)		Surfa Drail Dry- Cray Satu	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8)	nagery (C9)
Primary Indicators (minimum of of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)		Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on I	iving Roots (C3) C4)		Surfa Drai Dry- Cray Satu Stun	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial In	nagery (C9)
Primary Indicators (minimum of of Surface Water (A1) High Water I able (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)		Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on I Presence of Reduced Iron (iving Roots (C3) C4)		Surfa Drai Dry- Cray Satu Stun Geo	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial In ted or Stressed Plants (D	nagery (C9)
Primary Indicators (minimum of of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	one is required; check all that	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on I Presence of Reduced Iron (Recent Iron Reduction in Til	iving Roots (C3) C4)		Surfa Drai Dry- Cray Satu Stun Geo	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial In ted or Stressed Plants (D morphic Position (D2)	nagery (C9)
Primary Indicators (minimum of of 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)	one is required; check all that	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on L Presence of Reduced Iron (Recent Iron Reduction in Til Thin Muck Surface (C7)	iving Roots (C3) C4)		Surfa Drai Dry- Cray Satu Stun Geo	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial In ted or Stressed Plants (D morphic Position (D2)	nagery (C9)
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Primary Indicators (minimum of of Surface Water (A1) High Water I able (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Sparsely Vegetated Concav Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (strean	one is required; check all that I Imagery (B7) ve Surface (B8) Yes NoX Yes NoX Yes NoX The surface of the surface	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on I Presence of Reduced Iron (Recent Iron Reduction in Til Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) Depth (inches): Depth (inches):	iving Roots (C3) C4) led Soils (C6)		Surfa Drain Drain Dry- Cray Satu Stun Geo FAC	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial In ted or Stressed Plants (D morphic Position (D2) -Neutral Test (D5)	nagery (C9)

Oak Creek/

IH-94 Mainline Sampling Date: 8/19/2009 Project/Site: City/County: Milwaukee Applicant/Owner: WDOT State: WI Sampling Point: W11-10b T-1 B(w) Marcus S. Anderson / Julie A. Paschal Section, Township, Range: Section 31, T5N R22E Investigator(s): 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? (if no, explain in Remarks) Soil _ Are "Normal Circumstances" present? Are Vegetation or Hydrology _____significantly disturbed? 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 within a Wetland? No Remarks: This sample point is within a floodplain forest along the Root River. VEGETATION - Use scientific names for plants. **Dominance Test Worksheet:** Tree Stratum (Plot Size: 30 ft. radius) **Number of Dominant Species** Populus deltoides 20% Yes FAC That Are OBL, FACW, or FAC: 6 (A) 2. Acer saccharinum 30% Yes FACW 3. Fraxinus pennsylvanica 25% Yes Total Number of Dominant FACW 4. Ulmus americana 20% No **FACW** Species Across All Strata: 6 (B) 95% = Total Cover Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B) Sapling/Shrub Stratum (Plot Size: N/A Prevalence Index Worksheet: 1. N/A Total % Cover of: Multiply by: OBL species FACW species 3 x2= FAC species x3= **FACU** species x4= 0% = Total Cover **UPL** species x 5 = Column Totals: (A) Herb Stratum (Plot Size: 5 ft. radius Prevalence Index = B/A = 1. Phalaris arundinacea 60% **FACW** 2. Polygonum virginianum 20% No Hydrophytic Vegetation Indicators: FAC Yes 30% 3. Aster lanceolatus Dominance Test is >50% FACW 4. Cyperus esculentus Prevalence Index is ≤ 3.01 20% FACW Morphological Adaptations (Provide supporting data in Remarks or on separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 0 130% = Total Cover Woody Vine Stratum (Plot Size: N/A Hydrophytic) 1. N/A Vegetation Present? Yes X No = Total Cover 0% 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 need	led to docur	ment the indicato	r or confirm	n the absen	ce of inc	dicators.)			
Depth	Matrix			Redox Fea	tures					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Re	emarks	
0-18	10YR 2/1	100	None		W.C.		Silt loam	22 02		
18-24	10YR 5/2	100	10YR 4/6	10%	С	М	Silty clay loam	8		
								-		
		_	2							
	-	-	-					_		
			-					-		
							2			
Type: C=Concentratio	on, D=Depletion, RM=Reduce	ed Matrix, CS	S=Covered or Coa	ted Sand Gr	ains.		² Location: PL=Pore Lini	ng, M=Matrix		
Hydric Soil Indicators	3:					Indica	tors for Problematic Hyd	fric Soils ³ :		
Histosol (A1)			Sandy Gleyed Mat	trix (S4)						
Histic Epipedon (A	N2)		Sandy Redox (S5)				Coast Prairie Redox (A1	\$995 C.2990		
Black Histic (A3)			Stripped Matrix (St				_Iron-Manganese Masses			
Hydrogen Sulfide			Loamy Mucky Min				Other (Explain in Remar	ks)		
Stratified Layers (A	A5)		Loamy Gleyed Ma							
2 cm Muck (A10) Depleted Below Da	ork Curton (A11)		Depleted Matrix (F Redox Dark Surfa			3 India	ators of hydrophytic vegeta	tion and watland		
X Thick Dark Surface			Depleted Dark Sur				drology must be present, u			
Sandy Mucky Mine			Redox Depression				problematic.	illess disturbed		
5 cm Mucky Peat			riedox Depressión	15 (1 0)		01 1	olobiematic.			
_	100000000000000000000000000000000000000									
Restrictive Layer (if o Type: N/A	observea):									
	NI/A						Hudria Cail Brosant?	V V		
Depth (inches):	N/A						Hydric Soil Present?	Yes X	No	
Remarks:										
HYDROLOGY										
Wetland Hydrology In							2			
	nimum of one is required; che			A. 100 () () () () () () () () () (- a	ators (minimum of two		
Surface Water (A1	A CONTRACTOR OF THE CONTRACTOR		Water-Stained Lea					urface Soil Cracks (B6		
High Water Table	(A2)		Aquatic Fauna (B1	10.5				Prainage Patterns (B10)		
Saturation (A3) X Water Marks (B1)			True Aquatic Plant Hydrogen Sulfide (ry-Season Water Table crayfish Burrows (C8)	3 (02)	
X Sediment Deposits	e (R2)		Oxidized Rhizosph		na Roote (C	3)		saturation Visible on Ae	rial Imageny (CQ)	
X Drift Deposits (B3)			Presence of Reduce		-	3)		stunted or Stressed Plan		
Algal Mat or Crust			Recent Iron Reduc					Geomorphic Position (D		
Iron Deposits (B5)	27. 15.		Thin Muck Surface		00110 (00)			AC-Neutral Test (D5)	-,	
	on Aerial Imagery (B7)		Gauge or Well Dat							
Sparsely Vegetate	ed Concave Surface (B8)		Other (Explain in F	Remarks)						
						1				
Field Observations:	2 22	1000								
Surface Water Present Water Table Present?		No X	Depth (inches):		•//					
	Yes	No X	Depth (inches):	10	•0		Wetland Hydrology Pre	eent?	Voc V	No
Saturation Present? (includes capillary fring	Yes X	No	Depth (inches):_	18	-00		welland riyurology Fre	sentr	Yes X	No
All some real and the second	ita (stream gauge, monitoring	well serial	nhotoe previous ir	nenactions)	if available:	illa.				
Describe Heddided Da	na (stream gauge, monitoring	, won, acriar	priotos, provious ii	ispections),	ii availabio.					
Remarks:										

Project/Site:	IH-94 Mainline				City/County:	Oak Creek/	Sampling Date:	9/15/2009	
Applicant/Owner:	WDOT				State:			W10-7 T-1 A(u)	
Investigator(s):	Julie A. Paschal						, Range: Section 30, T		
Landform (hillslope, terr		Slight hillslop	e		Local relief	f (concave, convex,	none): Conve	ex	
Slope (%): 5%	Lat	See Fig. 2		Long: See	Fig. 2	127 6 Charles 126 (196 - 197)	Datum	ı: NA	
Soil Map Unit Name:	Blount silt loa	am (BIA)		57.550 See	-	ww	WI Classification: None		
Are climatic / hydrologic	c conditions on the site ty	pical for this time	e of year?		Yes X	No	(if no, explain	in Remarks)	
Are Vegetation	*X Soil*X	-		5.1		ormal Circumstance		Yes	No_**X
Are Vegetation	Soil	or Hydrology	naturally	y problematic?	(if need	ded, explain any ans	swers in Remarks)		
	IGS Attach site map				nportant feature	es, etc.			
Hydrophytic Vegetation	Present?	Yes	_ No .	<u>x</u>		2000	4.1		34
Hydric Soil Present?	arang <u>a</u>	Yes		<u> </u>		Sampled Area	Yes	s No_	Х
Wetland Hydrology Pres	sent?	Yes	_ No .	X	within a	a Wetland?			
** Disturbed cor	ion,and hydrology ar	ue to apparen	7.70		51,00	or apparent dev	elopment.		
S 500 W	cientific names for plants.	Absolute %	Dominant	Indicator		Dominance Test \	Workshoot:		
Tree Stratum (Plot Size	e: 30 ft. radius)	Cover	Species	Status					
1. Populus deltoides 2.	<u>s</u>	15%	Yes	FAC		Number of Domina That Are OBL, FAC		(A)	
3.						Total Number of D	ominant		
4.						Species Across All	I Strata:	(B)	
5		15%	Total Cover	48		Daniel of Demine			
		15%	= Total Cover			Percent of Domina That Are OBL, FAC		(A/B)	
Sapling/Shrub Stratum 1. N/A 2. 3. 4. 5.	Statistics		= Total Cover			Prevalence Index Total s OBL species FACW species FAC species FACU species UPL species Column Totals:	## Worksheet: ## Cover of: 30%	Multiply by: x 1 = x 2 = x 3 = 90 x 4 = 32 x 5 = 10 (A) 132	(B)
Herb Stratum (Plot Size)				Prevalence	e Index = B/A =	3.30	isi
Barbarea vulgaris Taraxacum officin Viburnum lentago Daucus carota Cirsium arvense Melilotus alba Separation of the separation	nale	10% 5% 5% 2% 2% 1%	Yes Yes No No No	FACU FACU UPL FACU FACU	20	X Dominance Prevalence Morpholog data in F Problemati	etation Indicators: the Test is >50% the Index is ≤ 3.0¹ gical Adaptations¹ (Prover a separate the Hydrophytic Vegetation of the Hydrophytic Vegetation	e sheet) ion ¹ (Explain) drology must	
10		25%	= Total Cover		<u> </u>	De present, unico	is disturbed or problem	auc.	
Woody Vine Stratum 1. N/A 2.	(Plot Size: N/A	0%	= Total Cover	<u> </u>		Hydrophytic Vegetation Present?	Yes	No <u>X</u>	
Primarily bare g	to numbers here or on a s ground in this area d utral Test. In addition ty.	lue to recent o	grubbing and t	100 TO 10	The second secon				

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

Remarks: Soils are disturbed due to recent grubbing and tilling. HYDROLOGY	No_X_
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. 2 Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils ² : Histosol (A1) Sandy Redox (55) Coast Prairie Redox (A16) Slack Histic (A3) Stripped Matrix (S6) Iron-Manganese Masses (F12) Other (Explain in Remarks) Stratified Layers (A5) Loamy Micky Mineral (F1) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Redox Dark Surface (F7) Activate (A12) Depleted Matrix (F3) Depleted Matrix (F3) Redox Dark Surface (F7) Activate (F7) Activate (F7) Activate (F8) Activ	No_X_
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Stripped Matrix (S6) Black Histic (A3) Stratified Layers (A5) Loamy Mucky Mineral (F1) Stratified Below Dark Surface (A10) Depleted Below Dark Surface (F6) Thick Dark Surface (A12) Sondy Redox (A12) Seestrictive Layer (if observed): Type: N/A Depth (inches): N/A MYDROLOGY Indicators for Problematic Hydric Soils 3: Indicators for Problematic Hydric Soils 3: Coast Prairie Redox (A16) Loamy Mucky Mineral (F1) Loamy Mucky Mineral (F1) Loamy Mucky Mineral (F1) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Pedox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Redox Depressions (F8) Althory Hydric Soil Present? Yes No	No_X_
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Stripped Matrix (S6) Black Histic (A3) Stratified Layers (A5) Loamy Mucky Mineral (F1) Stratified Below Dark Surface (A10) Depleted Below Dark Surface (F6) Thick Dark Surface (A12) Sondy Redox (A12) Seestrictive Layer (if observed): Type: N/A Depth (inches): N/A MYDROLOGY Indicators for Problematic Hydric Soils 3: Indicators for Problematic Hydric Soils 3: Coast Prairie Redox (A16) Loamy Mucky Mineral (F1) Loamy Mucky Mineral (F1) Loamy Mucky Mineral (F1) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Pedox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Redox Depressions (F8) Althory Hydric Soil Present? Yes No	No <u>X</u>
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Stripped Matrix (S6) Black Histic (A3) Stratified Layers (A5) Loamy Mucky Mineral (F1) Stratified Layers (A5) Depleted Below Dark Surface (F6) Thick Dark Surface (A12) Sandy Redox (A16) Redox Dark Surface (F7) Sandy Mucky Mineral (S1) Stratified Layer (if observed): Type: N/A Depth (inches): N/A MYDROLOGY Indicators for Problematic Hydric Soils 3: Indicators for Problematic Hydric Soils 3: Loamy Gleyed Matrix (S4) Loamy Gleyed Matrix (S6) Loamy Mucky Mineral (F1) Loamy Mucky Mineral (F1) Loamy Mucky Mineral (F1) Loamy Mucky Mineral (F1) Depleted Matrix (F2) Depleted Matrix (F2) Depleted Dark Surface (F6) Nother (Explain in Remarks) 3 Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. 4 Hydric Soil Present? Yes Nother (A12) Nother (Explain in Remarks) 4 Hydric Soil Present? Yes Nother (A12) Problematic Hydric Soils - Coast Prairie Redox (A16) Loamy Mucky Mineral (F1) Other (Explain in Remarks) 3 Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. The problematic Hydric Soil Present? Yes Nother (A12) Nother (Explain in Remarks) A Hydric Soil Present? Yes Nother (A12) Nother (Explain in Remarks) A Hydric Soil Present? Yes Nother (A12) Nother (Explain in Remarks) A Hydric Soil Present? Yes Nother (A12) Nother (Explain in Remarks) A Hydric Soil Present? Nother (A12) Nother (Explain in Remarks) A Hydric Soil Present? Nother (A12) Nother (A15) Loamy Mucky Mineral (A15) Loamy Mucky Mineral (A15) Loamy Mucky Mineral (A15) Loamy Mucky Mineral (A15) Coast Prairie Redox (A16) Loamy Mucky Mineral (A15) Coast Prairie Redox (A16) Loamy Mucky Mineral (A15) Tother (Explain in Remarks) A Indicators of Problematic (A15) Tother (Explain in Remarks) A Indicators of Problematic (A15) Tother (A15) Tother (A15) Tother (A15) Tother (A15) Tother (A15) Tother (A15)	No_X_
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Stripped Matrix (S6) Black Histic (A3) Stripped Matrix (S6) El Iron-Manganese Masses (F12) Coast Prairie Redox (A16) Iron-Manganese Masses (F12) Other (Explain in Remarks) Stratified Layers (A5) Loamy Mucky Mineral (F1) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Seedox Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) Redox Depressions (F8) Restrictive Layer (if observed): Type: N/A Depth (inches): N/A Mydric Soil Present? Yes No	No_X_
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Stripped Matrix (S6) Black Histic (A3) Stratified Layers (A5) Loamy Mucky Mineral (F1) Stratified Below Dark Surface (A10) Depleted Below Dark Surface (F6) Thick Dark Surface (A12) Sondy Redox (A12) Seestrictive Layer (if observed): Type: N/A Depth (inches): N/A MYDROLOGY Indicators for Problematic Hydric Soils 3: Indicators for Problematic Hydric Soils 3: Coast Prairie Redox (A16) Loamy Mucky Mineral (F1) Loamy Mucky Mineral (F1) Loamy Mucky Mineral (F1) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Pedox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Redox Depressions (F8) Althory Hydric Soil Present? Yes No	No X
Histosol (A1) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Coast Prairie Redox (A16) Black Histic (A3) Stripped Matrix (S6) Iron-Manganese Masses (F12) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Stratified Layers (A5) Loamy Gleyed Matrix (F2) 2 cm Muck (A10) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) Restrictive Layer (if observed): Type: N/A Depth (inches): N/A Depth (inches): N/A Hydric Soil Present? Yes No Remarks: Soils are disturbed due to recent grubbing and tilling.	No <u>X</u>
Histic Epipedon (A2) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Stratified Layers (A5) 2 cm Muck (A10) Depleted Matrix (F2) 2 cm Muck (A10) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) 5 cm Mucky Peat or Peat (S3) Restrictive Layer (if observed): Type: N/A Depth (inches): N/A Remarks: Soils are disturbed due to recent grubbing and tilling.	No_X_
Black Histic (A3) Stripped Matrix (S6) Iron-Manganese Masses (F12) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Other (Explain in Remarks) Stratified Layers (A5) Loamy Gleyed Matrix (F2) 2 cm Muck (A10) Depleted Matrix (F3) Depleted Bellow Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) or problematic. Sestrictive Layer (if observed): Type: N/A Depth (inches): N/A Remarks: Soils are disturbed due to recent grubbing and tilling.	No <u>X</u>
Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) Depleted Matrix (F2) 2 cm Muck (A10) Depleted Below Dark Surface (A11) Fedox Dark Surface (F6) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sestrictive Layer (if observed): Type: N/A Depth (inches): N/A Remarks: Soils are disturbed due to recent grubbing and tilling.	No X
Stratified Layers (A5)	No <u>X</u>
2 cm Muck (A10) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) Sestrictive Layer (if observed): Type: N/A Depth (inches): N/A Remarks: Soils are disturbed due to recent grubbing and tilling. Depleted Matrix (F3) Redox Dark Surface (F6) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	No <u>X</u>
Depleted Below Dark Surface (A11)	No <u>X</u>
Thick Dark Surface (A12) Depleted Dark Surface (F7) hydrology must be present, unless disturbed or problematic. 5 cm Mucky Peat or Peat (S3) Restrictive Layer (if observed): Type: N/A Depth (inches): N/A Remarks: Soils are disturbed due to recent grubbing and tilling.	No <u>X</u>
Sandy Mucky Mineral (S1) Redox Depressions (F8) or problematic. Setrictive Layer (if observed): Type: N/A Depth (inches): N/A Hydric Soil Present? Yes Note the disturbed due to recent grubbing and tilling.	No X
5 cm Mucky Peat or Peat (S3) Restrictive Layer (if observed): Type: N/A Depth (inches): N/A Hydric Soil Present? Yes No Remarks: Soils are disturbed due to recent grubbing and tilling.	No X
Restrictive Layer (if observed): Type: N/A Depth (inches): N/A Remarks: Soils are disturbed due to recent grubbing and tilling.	No X
Type: N/A Depth (inches): N/A Hydric Soil Present? Yes No Remarks: Soils are disturbed due to recent grubbing and tilling.	No <u>X</u>
Remarks: Soils are disturbed due to recent grubbing and tilling.	No X
Soils are disturbed due to recent grubbing and tilling.	
Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required)	required)
Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6))
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10)	
Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2)	e (C2)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8)	
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Image	rial Imagery (C9)
Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1)	
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2)	2)
Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Test (D5)	
Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9)	
Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)	
Field Observations:	
Surface Water Present? Yes No_X_ Depth (inches):	
Water Table Present? Yes No_X Depth (inches):	
Water Table Fresent: Tes No_X Deptir (inches)	

- 12.1012					Oak Creek/
Project/Site:	IH-94 Mainline WDOT				City/County: Milwaukee Sampling Date: 9/15/2009 State: WI Sampling Point: W10-7 T-1 B(w)
Applicant/Owner: Investigator(s):	Julie A. Paschal				Section, Township, Range: Section 30, T5N R22E
Landform (hillslope, te		Depression			Local relief (concave, convex, none): Concave
Slope (%): 0-2 %	CONTROL OF THE PARTY OF THE PAR	t: See Fig. 2		Long: See	A CONTRACTOR OF THE CONTRACTOR
Soil Map Unit Name:	i i i i i i i i i i i i i i i i i i i			Long	WWI Classification: T3/E2K
	gic conditions on the site ty		e of year?		Yes X No (if no, explain in Remarks)
Are Vegetation	[[[] [[] [[] [] [] [] [] [] [] [] [] []		*X significa	antly disturbed?	
Are Vegetation	90 90 90 Per	7.0	naturall	5.1	(if needed, explain any answers in Remarks)
SUMMARY OF FINDS	INGS Attach site map	showing samp	ling point locati	ons, transects, in	important features, etc.
Hydrophytic Vegetatio		Yes X	No		
Hydric Soil Present?		Yes X	No		Is the Sampled Area Yes X No
Wetland Hydrology Pre	esent?	Yes X	No		within a Wetland?
The soils and		mple point, ho	owever, are mi	nimally disturb	velopment. The majority of this wetland is disturbed due to these activities. rbed - no tilling or grubbing here. velopment.
VEGETATION - Use s	scientific names for plants.	í.			
Tree Stratum (Plot Siz	izo: N/A	Absolute %	Dominant	Indicator	Dominance Test Worksheet:
1100 Onatom (110. 5	26. Iu.	Cover	Species	Status	Number of Dominant Species
1. N/A		(<u>"</u>	<u> 20 – 4</u> 0		That Are OBL, FACW, or FAC:1 (A)
2		-			Total Mumber of Bendand
		-	-		Total Number of Dominant Species Across All Strata: 1 (B)
5,		E 35			Species Across Air Strata.
		0%	= Total Cover		Percent of Dominant Species That Are OBL, FACW, or FAC:
Sapling/Shrub Stratum	n (Plot Size: N/A)			Prevalence Index Worksheet:
1. N/A	SS HILLING	Transaction (Inc.)			Total % Cover of: Multiply by:
		·	-	<u> </u>	OBL species x 1 =
3		3			FACW species x 2 = FAC species x 3 =
5.			-	$\overline{}$	FACU species X 4 =
0	Je Je	0%	= Total Cover	. 3	UPL species x 5 =
		1.0			Column Totals: (A) (B)
	E & radius				D. C.
Herb Stratum (Plot Si: 1. Phalaris arundin		100%	Yes	FACW	Prevalence Index = B/A =
2. Barbarea vulgari		5%	No	FAC	Hydrophytic Vegetation Indicators:
3. Carex atherodes		2%	No	OBL	X Dominance Test is >50%
4.		10			Prevalence Index is ≤ 3.0 ¹
5.	***	, — — — — — — — — — — — — — — — — — — —	7.000		Morphological Adaptations ¹ (Provide supporting
6					data in Remarks or on separate sheet)
7					Problematic Hydrophytic Vegetation ¹ (Explain)
8. 9.			-		1 Indicators of hydric soil and wetland hydrology must
10.		8 1 9	: 		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
10		107%	= Total Cover		be present, unless disturbed of productivation
Mark Mark Chrotism	(Dist Cine) N/A				
Woody Vine Stratum 1. N/A	(Plot Size: N/A)			Hydrophytic Vegetation
2.		A			Present? Yes X No
		0%	= Total Cover	:	
		20			
	oto numbers here or on a				
This is a Phala	aris arundinacea don	ninated wet m	eadow wetlan	d near a roads	dside ditch.
l					

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

Depth Matrix Foliar National Color (moist) Sc. Color (moist) Sc. Type Loc Texture Remarks	indicators.)	he absence of	r or confirm	nent the indicato	eded to docur	Description: (Describe to the depth nee	Profile Descrip
16-20 10VR 6/1 10VR 6/1 10VR 4/6 20% C M Silly clay loam Type: C-Concentration, D-Depletion, RM=Reduced Matrix, CS-Covered or Coated Sand Grains. Hydric Soll Indicators: Hydric Soll Indicators Indicators Hydric Soll Indicators Hydric		res	Redox Feat			Matrix	Depth
15-ype: C—Concentration, D—Depletion, RM—Reduced Matrix, CS—Covered or Coated Sand Grains. 15-ype: C—Concentration, D—Depletion, RM—Reduced Matrix, CS—Covered or Coated Sand Grains. 15-ype: C—Concentration, D—Depletion, RM—Reduced Matrix, CS—Covered or Coated Sand Grains. 15-ype: C—Concentration, D—Depletion, RM—Reduced Matrix, CS—Covered or Coated Sand Grains. 15-ype: C—Concentration, D—Depletion, RM—Reduced Matrix, CS—Covered or Coated Sand Grains. 15-ype: C—Concentration, D—Depletion, RM—Reduced Matrix, CS—Covered or Coated Sand Grains. 15-ype: C—Concentration, D—Depletion, RM—Reduced Matrix, CS—Covered or Coated Sand Grains. 16-ype: C—Concentration, D—Depletion, RM—Reduced Matrix, CS—Covered or Coated Sand Grains. 16-ype: C—Concentration, D—Depletic Matrix, CS—Covered or Coated Sand Grains. 16-ype: C—Concentration, D—Depletic Matrix, CS—Covered or Coated Sand Grains. 16-ype: C—Concentration, CA—Covered Sand Grains. 16-ype: C—Covered Matrix, CS—Covered Grains, CA—Covered Grains, CA—Covered Matrix, CS—Covered Matrix, CS—C	,2 Texture Remarks	Type ¹ Loc	%	Color (moist)	%) Color (moist)	(inches)
Type: C—Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. #ydric Soil Indicators: Histosoi (A1) Histic Epipedon (A2) Sandy Gleyed Matrix (S4) Black Histic (A3) Loary Mulcy Mineral (F1) Depleted Bedwork (A16) Sandy Medvork (A10) Depleted Bedwork (A16) Depleted Bedwork (A16) Depleted Bedwork Surface (A11) This Dark Surface (A12) Depleted Bedwork Surface (A12) Depleted Bedwork (A16) Sandy Mucky Mineral (F1) Sond Mucky Mineral (F1) Fedox Depleted Dark Surface (F6) Popeleted Dark Surface (F6) Popeleted Dark Surface (F7) Sond Mucky Mineral (S1) Surface Water (A1) Sond Mucky Mineral (S1) Sond Mucky Mineral (S	Silt loam			None	100	10YR 3/1	0-16
Hydric Soil Indicators:	M Silty clay loam	C	20%	10YR 4/6	100	10YR 6/1	16-20
Hydric Soil Indicators:							
Hydric Soil Indicators:	<u> </u>						
Hydric Soil Indicators:	3 3			00	- 10 - 10 - 10 - 10 - 10 - 10 - 10 - 10		
Hydric Soil Indicators:		,					
Hydric Soil Indicators:	-				_	_	
Histosol (A1) Sandy Gleyed Matrix (S4) Histosol (A2) Sandy Redox (S5) Black Histic (A3) Stripped Matrix (S6) Loamy Mixed Mineral (F1) Loamy Gleyed Matrix (F2) 2 cm Muck (A10) Depleted Glavers (A5) Loamy Gleyed Matrix (F2) 2 cm Muck (A10) Depleted Below Dark Surface (A11) Redox Dark Surface (A12) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (S1) Some Mucky	² Location: PL=Pore Lining, M=Matrix	ns.	ted Sand Gra	=Covered or Coa	ced Matrix, CS	C=Concentration, D=Depletion, RM=Redu	¹ Type: C=Conc
Histosol (A1) Histo Epipedon (A2) Sandy Redox (S5) Black Histic (A3) Stripped Matrix (S6) Loamy Mucky Mineral (F1) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Depleted Matrix (F2) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Nopleted Below Dark Surface (A12) Depleted Below Dark Surface (A12) Depleted Deark Surface (F7) Sandy Mucky Mineral (S1) Some Mu	icators for Problematic Hydric Soils ³ :	Ind				Soil Indicators:	Hydric Soil Ind
Histic Epipedon (A2)	•		trix (S4)	Sandy Gleyed Ma			
Hydrogen Sulfide (A4) Stratified Layers (A5) Loamy Mucky Mineral (F1) Depleted Below Dark Surface (A11) Pepleted Dark Surface (F6) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (S1) Semanty Surface (A12) Sandy Mucky Mineral (S1) Semanty Surface (A12) Sandy Mucky Mineral (S1) Semanty Surface (A12) Surface Water (A1) Surface (A12) Surface Water (A1) Surface Water (A1) Surface (A12) Surface (A1	Coast Prairie Redox (A16)					stic Epipedon (A2)	Histic Epipe
Stratified Layers (A5) 2 cm Muck (A10) Depleted Below Dark Surface (A11) Sandy Mucky Mineral (S1) 5 cm Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) For Mucky Mineral (S1) Depleted Dark Surface (F7) Redox Depressions (F8) Restrictive Layer (if observed): Type: NA Depth (inches): N/A Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) Surface Mater (A1) Surface Water (A2) Surface Water (A2) Surface Water (A2) Surface Water (A3) Surface Water (A3) Surface Water (A4) Surface (C2) Surface Water (A5) Surfa		_					
Depleted Below Dark Surface (A11) Depleted Below Dark Surface (F6) Depleted Below Dark Surface (F6) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Seminorary (S1) Seminorary (S1) Seminorary (S1) Seminorary (S1) Seminorary (S2) Seminorary (S2) Secondary Indicators (minimum of two required) Secondary Indicators (minimum of two required) Surface Water (A1) Surface Surface (B1) Surface Surface (B2) Surface Water (A1) Surface Water (A1) Surface Surface (B3) Surface Surface (B6) Surface Surface (B7) Surface Surface (B8) Surface Water Present?	Other (Explain in Remarks)	_		A CONTRACTOR OF THE PARTY OF TH			
Depleted Below Dark Surface (A11) X Tinko Dark Surface (A12) Sandy Mucky Mineral (S1) Sendy Mucky Mineral (S1) Secondary Indicators Secondary Indicators (minimum of two required) Surface Water (A1) Secondary Indicators (minimum of two required) Surface Water (A1) Secondary Indicators (minimum of two required) Surface Water (A1) Secondary Indicators (minimum of two required) Surface Water (A1) Secondary Indicators (minimum of two required) Surface Water (A1) Surface Water (A1) Surface Water (A1) Secondary Indicators (minimum of two required) Surface Water (A1) Secondary Indicators (minimum of two required) Surface Water (A1) Surface							
X Thick Dark Surface (A12)	dicators of hydrophytic vegetation and watland	3 10					
Sandy Mucky Mineral (S1)							
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 two required) Surface Water (A1) Surface (A1) Surface Water (A1) Surface (A1) Surface (A1) Surface (A1) Surface Water (A1) Surface (A1) Surface (A1) Surface (A1) Surface (A2) Surface Water (A1) Surface (A2) Surface Water (A1) Surface (A2) Surface (A3) Surface (A2) Surface (A3) Surf							
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 I able (A2) Sutrace (B4) Aquatic Fauna (B13) Aquatic Fauna (B13) Aguatic Fauna (B13) Aguatic Fauna (B13) Sutrace (B1) Sutrace (B2) Sutrace (B3) Sutrace (B3) Sutrace (B4) Sutrace (B4) Sutrace (B4) Sutrace (B5) Sutrace (B5) Sutrace (B6) Sutrace (B6) Sutrace (B7) Sutrace (B8) Sutrace (B9)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				-		
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) Hydrogen Sulface Water (A1) Saturation (A3) Saturation (A3) Water Adquatic Palants (B14) Water Adquatic Palants (B14) Water Marks (B1) Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Aquatic Fauna (B13) X Dranage Patterns (B10) Saturation (A3) Water Marks (B1) Seciment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Drift Deposits (B3) Presence of Reduced Iron (C4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No X Depth (inches):						tive Layer (if observed):	Restrictive Lay
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) Surface Water (A1) Sutrace Water (A1) Saturation (A3) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B2) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Inon Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Pick Indicators (minimum of two required) Secondary Indicators (minimum of two required) X Drainage Patterns (B10) X Drainage Patterns (B10) Dry-Season Water Table (C2) Craylish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Thin Muck Surface (C7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No X Depth (inches):						COLUMN TO THE PARTY OF THE PART	Type: N
Wetland Hydrology Indicators: Secondary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required)	Hydric Soil Present? Yes X No No					epth (inches): N/A	Depth (inch
Wetland Hydrology Indicators: Secondary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required)						ke.	Remarks:
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 (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Water Na Aguatic Flants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) 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 (C3) 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):						DLOGY	HYDROLOGY
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Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) X FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No X Depth (inches):						The control of the co	
Water Marks (B1)						, 30kg - 1 - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Squage or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) X FAC-Neutral Test (D5) Algal Mat or Crust (B4) Geomorphic Position (D2) X FAC-Neutral Test (D5) Other (Explain in Remarks)			The state of the s				
Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) X FAC-Neutral Test (D5) A gauge or Well Data (D9) Other (Explain in Remarks) Surface Water Present? Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Thin Muck Surface (C7) X FAC-Neutral Test (D5) Other (Explain in Remarks)		Roots (C3)	The state of the s	The second secon			
Iron Deposits (B5) Thin Muck Surface (C7) X FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No X Depth (inches):			ced Iron (C4)	Presence of Redu		ift Deposits (B3)	Drift Depos
Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? YesNoXDepth (inches):		Soils (C6)					
Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No_X Depth (inches):	X FAC-Neutral Test (D5)						
Field Observations: Surface Water Present? Yes No_X_ Depth (inches):							
Surface Water Present? Yes No_X Depth (inches):			Remarks)	other (Explain in F		arsely Vegetated Concave Surface (B8)	Sparsely Vi
						bservations:	Field Observat
				Depth (inches):	No X	U 200 (CO)	
Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes X (includes capillary fringe)	Wetland Hydrology Present? Yes X No			Depth (inches):	No X	ion Present? Yes	Saturation Prese
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:		available:	nspections), i	ohotos, previous ii	ng well, aerial		

Oak Creek/

City/County: Milwaukee **IH-94 Mainline** Sampling Date: 9/15/2009 Project/Site: Applicant/Owner: WDOT State: WI Sampling Point: W11-3 T-1 A(u) Julie A. Paschal Section, Township, Range: Section 31, T5N R22E Investigator(s): Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Lat: See Fig. 2 Slope (%): 10-15% 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? (if no, explain in Remarks) Are "Normal Circumstances" present? Are Vegetation Soil or Hydrology significantly disturbed? 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 Wetland Hydrology Present? No within a Wetland? Yes X Remarks: This is an upland, woodland area. VEGETATION - Use scientific names for plants. Absolute % Cover **Dominance Test Worksheet:** ree Stratum (Plot Size: 30 ft. radius Number of Dominant Species Juglans nigra 70% FACU That Are OBL, FACW, or FAC: (A) Total Number of Dominant Species Across All Strata: __ (B) 70% = Total Cover Percent of Dominant Species That Are OBL, FACW, or FAC: 25% _ (A/B) Sapling/Shrub Stratum (Plot Size: 15 ft. radius Prevalence Index Worksheet: 1. Rhamnus cathartica Total % Cover of: Multiply by: OBL species FACW species x 2 = **FAC** species x3= **FACU** species x4= x5= 50% = Total Cover **UPL** species Column Totals: (A) lerb Stratum (Plot Size: 5 ft. radius Prevalence Index = B/A = 1. Rhamnus cathartica 10% Hydrophytic Vegetation Indicators: Dominance Test is >50% Prevalence Index is ≤ 3.01 Morphological Adaptations¹ (Provide supporting data in Remarks or on separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 10% = Total Cover Woody Vine Stratum (Plot Size: 15 ft. radius Hydrophytic 1. Parthenocissus quinquefolia Yes Vegetation Present? No X 10% = Total Cover 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)

								V. S	500.501.001.001.001.00		
Profile Description: (Des	cribe to the depth needed	to document th	ne indicator or co	nfirm the ab	sence of i	ndicato	rs.)				
Depth	Matrix			Redox Feati	ures						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks		
	0YR 3/2	100	None				Silt loam				
										_	
7-16 2	2.5Y 5/3	100	10YR 5/4	5%	С	М	Silty clay			_	
							-				
	79		21.					7.0			
	- 25	_									
		-	38 2							_	
		-						_			
2							323				
¹ Type: C=Concentration, E	=Depletion, RM=Reduced	Matrix, CS=Cove	ered or Coated San	nd Grains.			2 Location: PL=Pore	Lining, M=Matrix			
Hydric Soil Indicators:						Indica	ators for Problematic	Hydric Soile3.			
Histosol (A1)			Sandy Gleyed Mate	riv (SA)		maice	ators for Problematic	riyunc sons .			
Histic Epipedon (A2)			Sandy Redox (S5)	111 (34)			Coast Prairie Redox	(116)			
				2)		-					
Black Histic (A3)			Stripped Matrix (Se			-	_ Iron-Manganese Mas				
Hydrogen Sulfide (A4)			Loamy Mucky Mine				Other (Explain in Rer	marks)			
Stratified Layers (A5)			Loamy Gleyed Mat								
2 cm Muck (A10)			Depleted Matrix (F			3					
Depleted Below Dark			Redox Dark Surfa				ators of hydrophytic ve		1		
Thick Dark Surface (A			Depleted Dark Surf			-	drology must be presen	nt, unless disturbed			
Sandy Mucky Mineral			Redox Depression:	s (F8)		or	problematic.				
5 cm Mucky Peat or P	eat (S3)										
Restrictive Layer (if obse	rved):			1							
Type: N/A	1100/.										
	1/8						hudeia Cail Deanant?	V	N. V		
Depth (inches):	I/A	-/-				н	lydric Soil Present?	Yes	No X		
Remarks:											
HYDROLOGY											
	TTP-17-17-12-13										
Wetland Hydrology Indic	ators:										
Primary Indicators (minimu	m of one is required; check	all that apply)					Secondary Ir	ndicators (minimum	of two required)		
Surface Water (A1)			Water-Stained Lea	ves (B9)			5	Surface Soil Cracks (B6)		
High Water Table (A2			Aquatic Fauna (B1					Drainage Patterns (B			
Saturation (A3)			True Aquatic Plants	0.70			_	Dry-Season Water Ta			
Water Marks (B1)			Hydrogen Sulfide C	607 C. 1805 C. 1				Crayfish Burrows (C8			
Sediment Deposits (B.	2)		Oxidized Rhizosph		na Roots (C	(3)		Saturation Visible on			
	-/					,0)					
	Y										
)				30113 (00)				17 10		
	Agrial Imagent (P7)							AC-Neutral Test (Da))		
Sparsely vegetated C	oncave Surface (B8)		Otner (Explain in H	temarks)							
Field Observations:						-					
	Von	No. V	Donth (inches):			1					
						1					
						1	Watland Hydrology	Drocont2	Voc	No	v
(includes capillary fringe)	res	NO	Deptil (inches)			1	welland riyurology	rieseitt	ies	NO_	^
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Sparsely Vegetated C Field Observations: Surface Water Present? Water Table Present?	Aerial Imagery (B7) oncave Surface (B8)	No <u>X</u>	Presence of Reduc Recent Iron Reduc Thin Muck Surface Gauge or Well Dat Other (Explain in R Depth (inches):_ Depth (inches):_	tion in Tilled (C7) a (D9) Remarks)			C	Stunted or Stressed R Geomorphic Position FAC-Neutral Test (DS	(D2) 5)		
Saturation Present?	Yes	No X	Depth (inches):			1	Wetland Hydrology	Present?	Yes	No	X
(includes capillary fringe)											
7.0 1	logy indicators observicea dominated wet me	The state of the s			100	9.5	A		The second secon		n a

Project/Site:	IH-94 Mair	inlina				City/Count	Oak Creek/ y: Milwaukee	Sampling Dat	e: 9/15/2009	
Applicant/Owner:	WDOT	mine					e: WI		nt: W11-3 T-1	B(w)
Investigator(s):	Julie A. P.	aschal				200 No. 201	Oliver to the second se	, Range: Section 31		_(,
Landform (hillslope, ten			Depression	î		Local reli	ief (concave, convex,	50.00	ncave	
Slope (%): 0-1%		Lat	See Fig. 2		Long: Se			270000000000	um: NA	
Soil Map Unit Name:	A	shkum silty	clay loam (A	sA)	10700		ww	WI Classification: T3	ζ	
Are climatic / hydrologic	ic conditions (on the site ty	pical for this ti	ime of year?		Yes X	No	(if no, expla	ain in Remarks)	
Are Vegetation		Soil	or Hydrology	ysignific	cantly disturbed?	Are "N	Normal Circumstance	es" present?	Y	es X No
Are Vegetation		Soil	or Hydrology	ynatura	ally problematic?	(if nee	eded, explain any ans	swers in Remarks)		
SUMMARY OF FINDIN	NGS Attac	h site map	showing sam	pling point locati	ions, transects, i	important featu	res, etc.			
Hydrophytic Vegetation	n Present?		Yes X			2000				
Hydric Soil Present?	1277 FOR (2004)		Yes X				Sampled Area		Yes X	No
Wetland Hydrology Pre	esent?		YesX	No No		within	a Wetland?			
Remarks: This is a wet me	neadow wet	tland adjac	cent to a dra	ainage swale.						
VEGETATION - Use so	cientific name	es for plants.	,							
S 908 0	5831	10 IOI piane.	Absolute %		Indicator		Dominance Test \	Worksheet:		
Tree Stratum (Plot Size			Cover	Species	Status		Number of Domina That Are OBL, FAC	ant Species	1	(A)
2. 3. 4.). (4.				Total Number of De Species Across All		1	(B)
5			0%	= Total Cover			Percent of Domina That Are OBL, FAC	ant Species	100%	(A/B)
Sapling/Shrub Stratum 1. N/A 2. 3. 4. 5.		_	0%	= Total Cover	\equiv		Prevalence Index Total S OBL species FACW species FAC species FACU species UPL species Column Totals:	% Cover of:	× 1 - × 2 = × 3 = × 4 = × 5 = (A)	
Herb Stratum (Plot Size		ft. radius	100%	Yes	FACW		Prevalence	ce Index = B/A =	ř <u> </u>	e
2. Solidago gigante. 3. Cirsium arvense 4.			15% 5%	No No	FACU		X Dominance Prevalence Morpholog data in F	etation Indicators: ce Test is >50% ce Index is ≤ 3.0 ¹ gical Adaptations ¹ (P Remarks or on separ- tic Hydrophytic Vege	ate sheet)	
9			120%	= Total Cover				fric soil and wetland has disturbed or proble		
Woody Vine Stratum 1. N/A 2.	(Plot Size:	: <u>N/A</u>)				Hydrophytic Vegetation Present?	Yes)	· ,	No
2			0%	= Total Cover	. 		Fresciit:	165		
Remarks: (Include phot This is a <i>Phala</i>				et.) meadow wetlar	nd adjacent to	a drainage sv	vale.			

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

(inches)	Matrix Color (moist)	%	Color (moist)	Redox Feat %	Type ¹	Loc ²	Texture		Remarks	
-12	10YR 3/1	100	None		8.0		Silt loam	iet Are		
2-18	7.5YR 5/2	100	7.5YR 5/8	20%	С	М	Silty clay loam	2		_
			-					-		
							7.			
								20		
-			-							
Type: C=Concentratio	n, D=Depletion, RM=Reduc	ed Matrix, CS	=Covered or Coat	ed Sand Gra	ains.		² Location: PL=Pore Linir	ng, M=Matrix		
Hydric Soil Indicators	:					Indica	tors for Problematic Hyd	Iric Soils ³ :		
Histosol (A1)		:	Sandy Gleyed Mat	rix (S4)						
Histic Epipedon (A	2)		Sandy Redox (S5)				Coast Prairie Redox (A1			
Black Histic (A3)			Stripped Matrix (Se				Iron-Manganese Masses			
Hydrogen Sulfide (oamy Mucky Mine				Other (Explain in Remark	ks)		
Stratified Layers (A	A5)		oamy Gleyed Mat							
2 cm Muck (A10)	and Confess (Add)		Depleted Matrix (F			3	-tf b. db. d' t	tion and wallend		
Depleted Below Da			Redox Dark Surfa				ators of hydrophytic vegeta			
X Thick Dark Surface Sandy Mucky Mine			Depleted Dark Suri Redox Depression:			-	drology must be present, u problematic.	niess disturbed		
5 cm Mucky Peat of			ledox Depression:	5 (1-0)		Or I	JONETHALIC.			
Restrictive Layer (if o	100000000000000000000000000000000000000									
Type: N/A	Sec 30 (000 - 000 Pd)									
Depth (inches):	N/A						Hydric Soil Present?	Yes X	No	
Remarks:										
	imum of one is required; ch		N. C. Carlotte and C. C. Carlotte and C. C. Carlotte and C. C. Carlotte and C.					ators (minimum of tw		
Surface Water (A1			Water-Stained Lea					urface Soil Cracks (E		
High Water Table Saturation (A3)	(AZ)		Aquatic Fauna (B1) True Aquatic Plants	7.5				rainage Patterns (B1 ry-Season Water Tal		
Water Marks (B1)			Hydrogen Sulfide C					rayfish Burrows (C8)		
Sediment Deposits	(R2)		Oxidized Rhizosph		na Boots (C	3)		aturation Visible on A		
Drift Deposits (B3)			Presence of Reduc			3)		tunted or Stressed P		
Algal Mat or Crust			Recent Iron Reduc					eomorphic Position (
	1-1/		Thin Muck Surface		(00)			AC-Neutral Test (D5		
Iron Deposits (B5)	on Aerial Imagery (B7)		Gauge or Well Data						,	
Iron Deposits (B5) Inundation Visible	d Concave Surface (B8)		Other (Explain in R	emarks)						
Inundation Visible										
Inundation Visible Sparsely Vegetate										
Inundation Visible Sparsely Vegetate Field Observations:	50 5257411	No X	Depth (inches):							
Inundation Visible Sparsely Vegetate	100 NOOT 1 1	No X	Depth (inches):_ Depth (inches):		•					
Inundation Visible Sparsely Vegetate Field Observations:	50 5257411	No X	Depth (inches):							

Oak Creek/

City/County: Milwaukee IH-94 Mainline Sampling Date: 9/2/2009 Project/Site: Applicant/Owner: WDOT State: WI Sampling Point: W11-4 T-1 A(u) Eric C. Parker / Julie A. Paschal Section, Township, Range: Section 31, T5N R22E Investigator(s): 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? (if no, explain in Remarks) Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Are Vegetation 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_ Hydric Soil Present? Yes_ No X Is the Sampled Area Wetland Hydrology Present? within a Wetland? Yes No X Remarks: VEGETATION - Use scientific names for plants. **Dominance Test Worksheet:** ree Stratum (Plot Size: 30 ft. radius) **Number of Dominant Species** Juglans nigra FACU That Are OBL, FACW, or FAC: (A) Total Number of Dominant Species Across All Strata: 50% = Total Cover Percent of Dominant Species That Are OBL, FACW, or FAC: _(A/B) Sapling/Shrub Stratum (Plot Size: 15 ft. radius) Prevalence Index Worksheet: 1. Rubus occidentalis Total % Cover of: Multiply by: OBL species **FACW** species x2= FAC species x3= **FACU** species x4= 5% = Total Cover UPL species x 5 = Column Totals: (A) Herb Stratum (Plot Size: 5 ft. radius Prevalence Index = B/A = 1. Bromus inermis 100% UPL 2. Glechoma hederacea FACU Hydrophytic Vegetation Indicators: Dominance Test is >50% Prevalence Index is ≤ 3.01 Morphological Adaptations (Provide supporting data in Remarks or on separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 102% = Total Cover Woody Vine Stratum (Plot Size: N/A Hydrophytic 1. N/A Vegetation Present? No X Yes = Total Cover 0% 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)

(inches) Color (moist) 0-12 10YR 3/2 12-18 10YR 5/3 18+ 10YR 4/6 Type: C=Concentration, D=Depletion, RM=Re 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) Restrictive Layer (if observed): Type: N/A Depth (inches): N/A	duced Matrix, CS=Cove Sandy Sandy Strippe Loamy Loamy Deplete Redox Deplete	e e	Si Si Si Si Si Indicators Indicators 3 Indicators	Texture It loam Ity clay loam Ity clay loam Ocation: PL=Pore Lining, Market for Problematic Hydric Separate Prairie Redox (A16) In-Manganese Masses (F12) In Her (Explain in Remarks) It of hydrophytic vegetation a gy must be present, unless	oils ³ :		
18+ 10YR 4/6 1 Type: C=Concentration, D=Depletion, RM=Re 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) Restrictive Layer (if observed): Type: N/A	Juced Matrix, CS=Cove Sandy Strippe Loamy Deplete Redox Deplete	e e e e e e e e e e e e e e e e e e e	ns. ² L Indicators Co Ot 3 Indicators	ocation: PL=Pore Lining, Market Prairie Redox (A16) n-Manganese Masses (F12 her (Explain in Remarks) s of hydrophytic vegetation a gy must be present, unless	oils ³ :		
18+ 10YR 4/6 Type: C=Concentration, D=Depletion, RM=Re 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) Restrictive Layer (if observed): Type: N/A	Juced Matrix, CS=Cove Sandy Strippe Loamy Loamy Deplete Redox Deplete	ered or Coated Sand Grai Gleyed Matrix (S4) Redox (S5) d Matrix (S6) Mucky Mineral (F1) Gleyed Matrix (F2) ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F7)	ns. ² L Indicators — Co Irc Ot	ocation: PL=Pore Lining, M- is for Problematic Hydric S past Prairie Redox (A16) in-Manganese Masses (F12 her (Explain in Remarks) is of hydrophytic vegetation a gy must be present, unless	oils ³ :		
Type: C=Concentration, D=Depletion, RM=Re 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) Restrictive Layer (if observed): Type: N/A	Sandy Strippe Loamy Loamy Deplete Redox Deplete	Gleyed Matrix (S4) Redox (S5) d Matrix (S6) Mucky Mineral (F1) Gleyed Matrix (F2) ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F7)	Indicators Indicators Column of the column	ocation: PL=Pore Lining, M- i for Problematic Hydric S past Prairie Redox (A16) n-Manganese Masses (F12 her (Explain in Remarks) s of hydrophytic vegetation a gy must be present, unless	oils ³ :		
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) Restrictive Layer (if observed): Type: N/A	Sandy Sandy Strippe Loamy Loamy Deplete Redox Deplete	Gleyed Matrix (S4) Redox (S5) d Matrix (S6) Mucky Mineral (F1) Gleyed Matrix (F2) ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F7)	Indicators CoIrcOt	past Prairie Redox (A16) n-Manganese Masses (F12 her (Explain in Remarks) s of hydrophytic vegetation a gy must be present, unless	oils ³ :		_
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) Restrictive Layer (if observed): Type: N/A	Sandy Sandy Strippe Loamy Loamy Deplete Redox Deplete	Gleyed Matrix (S4) Redox (S5) d Matrix (S6) Mucky Mineral (F1) Gleyed Matrix (F2) ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F7)	Indicators CoIrcOt	past Prairie Redox (A16) n-Manganese Masses (F12 her (Explain in Remarks) s of hydrophytic vegetation a gy must be present, unless	oils ³ :		_
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) Restrictive Layer (if observed): Type: N/A	Sandy Sandy Strippe Loamy Loamy Deplete Redox Deplete	Gleyed Matrix (S4) Redox (S5) d Matrix (S6) Mucky Mineral (F1) Gleyed Matrix (F2) ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F7)	Indicators CoIrcOt	past Prairie Redox (A16) n-Manganese Masses (F12 her (Explain in Remarks) s of hydrophytic vegetation a gy must be present, unless	?) and wetland		
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) Restrictive Layer (if observed): Type: N/A	Sandy Strippe Loamy Loamy Deplete Redox Deplete	Redox (S5) d Matrix (S6) Mucky Mineral (F1) Gleyed Matrix (F2) ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F7)	Indicators 3 Indicators hydrolo	n-Manganese Masses (F12 her (Explain in Remarks) s of hydrophytic vegetation a gy must be present, unless	and wetland		
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) Restrictive Layer (if observed): Type: N/A	Strippe Loamy Loamy Deplete Redox Deplete	d Matrix (S6) Mucky Mineral (F1) Gleyed Matrix (F2) ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F7)	Indicators 3 Indicators hydrolo	n-Manganese Masses (F12 her (Explain in Remarks) s of hydrophytic vegetation a gy must be present, unless	and wetland		
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) Restrictive Layer (if observed): Type: N/A	Loamy Loamy Deplete Redox Deplete	Mucky Mineral (F1) Gleyed Matrix (F2) ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F7)	Ot 3 Indicators hydrolo	her (Explain in Remarks) s of hydrophytic vegetation a gy must be present, unless	and wetland		
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) Restrictive Layer (if observed): Type: N/A	Loamy Deplete Redox Deplete	Gleyed Matrix (F2) ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F7)	³ Indicators hydrolo	s of hydrophytic vegetation a gy must be present, unless			
2 cm Muck (A10) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) 5 cm Mucky Peat or Peat (S3) Restrictive Layer (if observed): Type: N/A	Deplete Redox Deplete	ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F7)	hydrolo	gy must be present, unless			
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) 5 cm Mucky Peat or Peat (S3) Restrictive Layer (if observed): Type: N/A	Redox Deplete	Dark Surface (F6) ed Dark Surface (F7)	hydrolo	gy must be present, unless			
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) 5 cm Mucky Peat or Peat (S3) Restrictive Layer (if observed): Type: N/A	Deplete	ed Dark Surface (F7)	hydrolo	gy must be present, unless			
Sandy Mucky Mineral (S1) 5 cm Mucky Peat or Peat (S3) Restrictive Layer (if observed): Type: N/A	the second secon				disturbed		
5 cm Mucky Peat or Peat (S3) Restrictive Layer (if observed): Type: N/A		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		ematic.			
Type: N/A							
			Ну	dric Soil Present?	Yes	No_X	
HYDROLOGY							
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required	check all that apply)			Secondary Indicators	(minimum of two requ	uired)	
Surface Water (A1)	the second secon	Stained Leaves (B9)	_		e Soil Cracks (B6)		_
High Water Table (A2)		Fauna (B13)			ge Patterns (B10)		
Saturation (A3)	True A	quatic Plants (B14)		Dry-Se	ason Water Table (C	2)	
Water Marks (B1)	Hydrog	gen Sulfide Odor (C1)		Crayfis	h Burrows (C8)		
Sediment Deposits (B2)	Oxidize	ed Rhizospheres on Living	Roots (C3)	Satura	tion Visible on Aerial	Imagery (C9)	
Drift Deposits (B3)	Presen	ce of Reduced Iron (C4)			d or Stressed Plants ((D1)	
Algal Mat or Crust (B4)		Iron Reduction in Tilled S	Soils (C6)		orphic Position (D2)		
Iron Deposits (B5)		uck Surface (C7)		FAC-N	eutral Test (D5)		
Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)		or Well Data (D9)					
	Other (Explain in Remarks)					
Field Observations:	1000 200 2000						
	No X Dept	th (inches): 16					

Oak Creek/

City/County: Milwaukee IH-94 Mainline Sampling Date: 9/2/2009 Project/Site: Applicant/Owner: WDOT State: WI Sampling Point: W11-4 T-1 B(w) Eric C. Parker / Julie A. Paschal Section, Township, Range: Section 31, T5N R22E Investigator(s): 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? (if no, explain in Remarks) Soil _ or Hydrology _ significantly disturbed? Are "Normal Circumstances" present? Are Vegetation 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_ X Wetland Hydrology Present? Yes_ within a Wetland? No Remarks: VEGETATION - Use scientific names for plants. **Dominance Test Worksheet:** ree Stratum (Plot Size: 30 ft. radius) **Number of Dominant Species** Fraxinus pennsylvanica 20% Yes **FACW** That Are OBL, FACW, or FAC: (A) 2. Populus deltoides 15% Yes FAC Total Number of Dominant 3 Species Across All Strata: __ (B) 35% = Total Cover Percent of Dominant Species 100% (A/B) That Are OBL, FACW, or FAC: Sapling/Shrub Stratum (Plot Size: 15 ft. radius) Prevalence Index Worksheet: 1. Salix amygdaloides Total % Cover of: **FACW** Multiply by: OBL species FACW species 3 x2= FAC species x3= **FACU** species x4= 25% = Total Cover **UPL** species x 5 = Column Totals: (A) lerb Stratum (Plot Size: 5 ft. radius Prevalence Index = B/A = 1. Phalaris arundinacea 100% Yes **FACW** 2. Vitis riparia 10% No FACW Hydrophytic Vegetation Indicators: 3. Polygonum pensylvanicum No 8% Dominance Test is >50% **FACW** 4. Cirsium arvense 5% Prevalence Index is ≤ 3.01 No FACU 5. Solidago gigantea Morphological Adaptations (Provide supporting 10% FACW data in Remarks or on separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 0 133% = Total Cover Woody Vine Stratum (Plot Size: N/A Hydrophytic) 1. N/A Vegetation Present? Yes X No = Total Cover 0% 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: (I Depth	Matrix			Redox Fea	tures		_					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Re	emarks		
0-8	10YR 4/2	100	7.5YR 5/8	2%	С	PL	Silty clay loam	0.52				
8-18	10YR 4/2	100	10YR 4/3	5%	С	М	Silty clay loam					
												_
	-						*	-				_
	-							-				_
17							21					
Hydric Soil Indicators:	n, D=Depletion, RM=Redu	ced Matrix, CS	S=Covered or Coat	ed Sand G	rains.	Indian	² Location: PL=Pore Lin					
Histosol (A1)	:		Sandy Gleyed Mat	rix (S4)		indica	itors for Problematic Hy	dric Soils	:			
Histic Epipedon (A	2)		Sandy Redox (S5)				Coast Prairie Redox (A	16)				
Black Histic (A3)			Stripped Matrix (Se				Iron-Manganese Masse					
Hydrogen Sulfide ((A4)		Loamy Mucky Mine	eral (F1)		67	Other (Explain in Rema	arks)				
Stratified Layers (A			Loamy Gleyed Mat	trix (F2)								
2 cm Muck (A10)		X[Depleted Matrix (F	3)								
Depleted Below Da			Redox Dark Surfa	The state of the s			ators of hydrophytic vege					
Thick Dark Surface			Depleted Dark Sur			-	drology must be present,	unless dist	urbed			
Sandy Mucky Mine 5 cm Mucky Peat of		'	Redox Depression	s (F8)		or	problematic.					
	- 10 m 70 100											
Restrictive Layer (if of Type: N/A	bserveu).											
Depth (inches):	N/A						Hydric Soil Present?	Yes	sX	No_		
Remarks:					1							
	dicators:											
Wetland Hydrology Inc	dicators:	neck all that ap	oply)				Secondary Indi	icators (min	nimum of two	required)		
Wetland Hydrology Inc	imum of one is required; ch		oply) Water-Stained Lea	ves (B9)					nimum of two			
Wetland Hydrology Inc Primary Indicators (mini	imum of one is required; ch	\						Surface So		5)		
Wetland Hydrology Inc Primary Indicators (mini Surface Water (A1)	imum of one is required; ch	=	Water-Stained Lea	3)			x	Surface So Drainage P	il Cracks (B6	i))		
Wetland Hydrology Inc Primary Indicators (mini Surface Water (A1) High Water Table (Saturation (A3) Water Marks (B1)	imum of one is required; cf) (A2)	\equiv	Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plant Hydrogen Sulfide (3) s (B14) Odor (C1)			х	Surface So Drainage P Dry-Season Crayfish Bu	oil Cracks (B6 Patterns (B10) In Water Table Furrows (C8)	e (C2)		
Wetland Hydrology In- Primary Indicators (min Surface Water (A1) High Water I able (Saturation (A3) Water Marks (B1) Sediment Deposits	imum of one is required; cf) (A2) s (B2)		Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizosph	3) s (B14) Odor (C1) eres on Liv	-	23)	x	Surface So Drainage P Dry-Season Crayfish Bu Saturation	oil Cracks (B6 Patterns (B10) In Water Table Furrows (C8) Visible on Ae	rial Imager	y (C9)	
Wetland Hydrology In- Primary Indicators (mini Surface Water (A1) High Water Table (Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3)	imum of one is required; ct) (A2) s (B2)		Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizosph Presence of Reduc	3) s (B14) Odor (C1) eres on Liv ced Iron (C4	4)	C3)	x	Surface So Drainage P Dry-Seasor Crayfish Bu Saturation Stunted or	oil Cracks (B6 Patterns (B10) In Water Table Purrows (C8) Visible on Ae Stressed Pla	rial Imager	y (C9)	
Wetland Hydrology In Primary Indicators (mini Surface Water (A1) High Water Table (Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust	imum of one is required; ct) (A2) s (B2)	<u></u>	Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizosph Presence of Reduc Recent Iron Reduc	3) s (B14) Odor (C1) eres on Liv ced Iron (C4 tion in Tille	4)	C3)	x	Surface So Drainage P Dry-Season Crayfish Bu Saturation Stunted or Geomorphi	oil Cracks (B6 Patterns (B10) In Water Table urrows (C8) Visible on Ae Stressed Pla ic Position (D	rial Imager	y (C9)	_
Wetland Hydrology In Primary Indicators (min Surface Water (A1) High Water Table (Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust Iron Deposits (B5)	imum of one is required; cf) (A2) s (B2) (B4)	<u>x</u>	Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizosph Presence of Reduc Recent Iron Reduc Thin Muck Surface	3) s (B14) Odor (C1) eres on Liv ced Iron (C4 tion in Tiller	4)	C3)	x	Surface So Drainage P Dry-Season Crayfish Bu Saturation Stunted or Geomorphi	oil Cracks (B6 Patterns (B10) In Water Table Purrows (C8) Visible on Ae Stressed Pla	rial Imager	y (C9)	
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Wetland Hydrology In Primary Indicators (mini Surface Water (A1) High Water Table (Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible of Sparsely Vegetated Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Dat	imum of one is required; ct) (A2) s (B2) (B4) on Aerial Imagery (B7) d Concave Surface (B8) ? Yes Yes Yes e) ta (stream gauge, monitoring)	No X No X No X	Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizosph Presence of Reduc Recent Iron Reduc Thin Muck Surface Gauge or Well Dat Other (Explain in R Depth (inches): Depth (inches): Depth (inches):	3) s (B14) c) dor (C1) eres on Liv eres on Liv eres on Liv eres (C7) a (D9) temarks)	d Soils (C6)		x	Surface So Drainage P Dry-Seasoi Crayfish Bu Saturation Stunted or Geomorphi FAC-Neutra	oil Cracks (B6 Patterns (B10) In Water Table urrows (C8) Visible on Ae Stressed Pla ic Position (D	o)) orial Imager nts (D1) 2)		No
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Oak Creek/ IH-94 Mainline Sampling Date: 9/15/2009 Project/Site: City/County: Milwaukee Applicant/Owner: WDOT State: WI Sampling Point: W11-4 T-2 A(u) Eric C. Parker / Julie A. Paschal Section, Township, Range: Section 31, T5N R22E Investigator(s): Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 7-10% Lat: See Fig. 2 Long: See Fig. 2 Datum: NA Morley silt loam (MzdB2) WWI Classification: None Soil Map Unit Name: Are climatic / hydrologic conditions on the site typical for this time of year? (if no, explain in Remarks) *X Soil *X or Hydrology *X significantly disturbed? Are "Normal Circumstances" present? No_ Are Vegetation 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_ Hydric Soil Present? Yes_ No X Is the Sampled Area Wetland Hydrology Present? Yes No X within a Wetland? * 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 **Dominance Test Worksheet:** ree Stratum (Plot Size: N/A **Number of Dominant Species** That Are OBL, FACW, or FAC: (A) Total Number of Dominant Species Across All Strata: 0% = Total Cover Percent of Dominant Species That Are OBL, FACW, or FAC: _(A/B) Sapling/Shrub Stratum (Plot Size: N/A Prevalence Index Worksheet: 1. N/A Total % Cover of: Multiply by: OBL species **FACW** species x2= FAC species x3= **FACU** species x4= 0% = Total Cover **UPL** species x 5 : Column Totals: (A) Herb Stratum (Plot Size: 5 ft. radius Prevalence Index = B/A = 1. Glycine max (planted) 90% UPL Ambrosia artemisiifolia 10% FACU Hydrophytic Vegetation Indicators: Dominance Test is >50% Prevalence Index is ≤ 3.01 Morphological Adaptations (Provide supporting data in Remarks or on separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 100% = Total Cover Woody Vine Stratum (Plot Size: N/A Hydrophytic 1. N/A Vegetation Present? No X Yes = Total Cover 0% 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)

(inches) 0-8	Color (moist)	%	Color (moist)	Redox Feat	Type ¹	Loc ²	Texture		Remarks		
	10YR 3/2	100	None	70	.,,,,,	200	Silt loam	2		_	
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%	С	М	Silty clay loam	tilling	TE IIIOIIOO GGO TO		
12-18	10YR 3/1	100	10YR 5/8	2%	C	M	Silty clay loam	tilling		_	
12-10	101113/1	100	101113/0	270		IVI	Only clay loan	-		_	
		_						-		_	
17				10-10			21				
Hydric Soil Indicat	ation, D=Depletion, RM=Reduc	ed Matrix, CS	=Covered or Coate	ed Sand Gra	ains.	Indica	Location: PL=Pore Lini ators for Problematic Hyd				
Histosol (A1)	013.		Sandy Gleyed Matr	ix (S4)		maioc	nors for i robicinatio rije	inc cons .			
Histic Epipedor	n (A2)		Sandy Redox (S5)				Coast Prairie Redox (A1	6)			
Black Histic (A:	3)		Stripped Matrix (S6)			Iron-Manganese Masses	s (F12)			
Hydrogen Sulfi			Loamy Mucky Mine				Other (Explain in Remar	ks)			
Stratified Layer			Loamy Gleyed Mat								
2 cm Muck (A1	v Dark Surface (A11)		Depleted Matrix (F3 Redox Dark Surfac			3 India	ators of hydrophytic vegeta	ation and watland			
Thick Dark Sur			Depleted Dark Surf				drology must be present, u				
Sandy Mucky M			Redox Depressions			-	problematic.	mood diotarboa			
	eat or Peat (S3)						· · · · · · · · · · · · · · · · · · ·				
Restrictive Layer (if observed):										
Type: N/A Depth (inches)	N/A						Hydric Soil Present?	Yes	No_X_		
Remarks:											
00110 410 410	turbed due to annual tillii	.g.									
HYDROLOGY											
Wetland Hydrolog	/ Indicators:										
, ,	minimum of one is required; ch	eck all that ar	oply)				Secondary Indic	ators (minimum of t	wo required)		
Surface Water			Water-Stained Leav	ves (B9)			- a	urface Soil Cracks			
High Water Tal			Aquatic Fauna (B1					rainage Patterns (B			
Saturation (A3)			True Aquatic Plants	s (B14)				ry-Season Water Ta	able (C2)		
	31)		Hydrogen Sulfide C	Odor (C1)			C	rayfish Burrows (C8			
Water Marks (E									· · · · · · · · · · · · · · · · · · ·		
Water Marks (E Sediment Depo			Oxidized Rhizosphe		-	3)	s	aturation Visible on	Aerial Imagery (C9)		
Water Marks (E Sediment Depo Drift Deposits (B3)		Oxidized Rhizospho Presence of Reduc	ed Iron (C4))	3)	s	aturation Visible on tunted or Stressed	Aerial Imagery (C9) Plants (D1)		
Water Marks (E Sediment Depo Drift Deposits (Algal Mat or Cr	B3) ust (B4)	\equiv	Oxidized Rhizospho Presence of Reduc Recent Iron Reduct	ed Iron (C4) tion in Tilled)	3)	s s	aturation Visible on tunted or Stressed Geomorphic Position	Aerial Imagery (C9) Plants (D1) (D2)		
Water Marks (E Sediment Depo Drift Deposits (Algal Mat or Cr Iron Deposits (B3) ust (B4) B5)	\equiv	Oxidized Rhizosphoresence of Reduction Recent Iron Reduction Muck Surface	ed Iron (C4) tion in Tilled (C7))	3)	s s	aturation Visible on tunted or Stressed	Aerial Imagery (C9) Plants (D1) (D2)		
Water Marks (E Sediment Depo Drift Deposits (Algal Mat or Cr Iron Deposits (I Inundation Visi	B3) ust (B4)	\equiv	Oxidized Rhizospho Presence of Reduc Recent Iron Reduct	ed Iron (C4) tion in Tilled (C7) a (D9))	3)	s s	aturation Visible on tunted or Stressed Geomorphic Position	Aerial Imagery (C9) Plants (D1) (D2)		
Water Marks (E Sediment Depo Drift Deposits (Algal Mat or Cr Iron Deposits (I Inundation Visi	B3) ust (B4) B5) ble on Aerial Imagery (B7) ated Concave Surface (B8)	\equiv	Oxidized Rhizospho Presence of Reduct Recent Iron Reduct Thin Muck Surface Gauge or Well Data	ed Iron (C4) tion in Tilled (C7) a (D9))	3)	s s	aturation Visible on tunted or Stressed Geomorphic Position	Aerial Imagery (C9) Plants (D1) (D2)		
Water Marks (E Sediment Depo Drift Deposits (Algal Mat or Cr Iron Deposits (I Inundation Visi Sparsely Veget	B3) ust (B4) B5) ble on Aerial Imagery (B7) ated Concave Surface (B8)	\equiv	Oxidized Rhizosphi Presence of Reduc Recent Iron Reduct Thin Muck Surface Gauge or Well Data Other (Explain in R	ed Iron (C4) tion in Tilled (C7) a (D9) emarks))	3)	s s	aturation Visible on tunted or Stressed Geomorphic Position	Aerial Imagery (C9) Plants (D1) (D2)		
Water Marks (E Sediment Depo Drift Deposits (Algal Mat or Cr Iron Deposits (Inundation Visi Sparsely Veget Field Observations Surface Water Preser	B3) ust (B4) B5) ble on Aerial Imagery (B7) ated Concave Surface (B8) s: ent? Yes t? Yes	No X	Oxidized Rhizosph Presence of Reduc Recent Iron Reduct Thin Muck Surface Gauge or Well Data Other (Explain in R Depth (inches): Depth (inches):	ed Iron (C4) tion in Tilled (C7) a (D9) emarks))	3)		aturation Visible on tunted or Stressed seomorphic Position AC-Neutral Test (D	Aerial Imagery (C9) Plants (D1) (D2) 5)		
Water Marks (E Sediment Depc Drift Deposits (Algal Mat or Cr Iron Deposits (Inundation Visi Sparsely Veger Field Observations Surface Water Pres	B3) ust (B4) B5) ble on Aerial Imagery (B7) atted Concave Surface (B8) s: ent? Yes t? Yes Yes	No_X	Oxidized Rhizosphi Presence of Reduc Recent Iron Reduct Thin Muck Surface Gauge or Well Data Other (Explain in R	ed Iron (C4) tion in Tilled (C7) a (D9) emarks))	3)	s s	aturation Visible on tunted or Stressed seomorphic Position AC-Neutral Test (D	Aerial Imagery (C9) Plants (D1) (D2)	No_	x

Oak Creek/

City/County: Milwaukee IH-94 Mainline Sampling Date: 9/15/2009 Project/Site: Applicant/Owner: WDOT State: WI Sampling Point: W11-4 T-2 B(w) Eric C. Parker / Julie A. Paschal Section, Township, Range: Section 31, T5N R22E Investigator(s): 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? (if no, explain in Remarks) Are "Normal Circumstances" present? Soil _ or Hydrology Are Vegetation significantly disturbed? 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_ X Wetland Hydrology Present? Yes_ within a Wetland? No Remarks: This is a Phalaris arundinacea dominated drainage swale located within a farmed soybean field. VEGETATION - Use scientific names for plants. **Dominance Test Worksheet:** ree Stratum (Plot Size: N/A **Number of Dominant Species** That Are OBL, FACW, or FAC: (A) Total Number of Dominant Species Across All Strata: 1 (B) 0% = Total Cover Percent of Dominant Species 100% (A/B) That Are OBL, FACW, or FAC: Sapling/Shrub Stratum (Plot Size: N/A Prevalence Index Worksheet: 1. N/A Total % Cover of: Multiply by: OBL species **FACW** species x2= FAC species x3= **FACU** species x4= 0% = Total Cover UPL species x 5 = Column Totals: (A) Herb Stratum (Plot Size: 5 ft. radius Prevalence Index = B/A = 1. Phalaris arundinacea 100% **FACW** 2. Vitis riparia 5% Hydrophytic Vegetation Indicators: **FACW** Dominance Test is >50% Prevalence Index is ≤ 3.01 Morphological Adaptations (Provide supporting 6 data in Remarks or on separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 8 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 0 105% = Total Cover Woody Vine Stratum (Plot Size: N/A Hydrophytic) 1. N/A Vegetation Present? Yes X No = Total Cover 0% 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	
Color (moist)	
10	
5-7	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.	
10-20 10YR 3/1 100 10YR 5/8 8% C M Silty clay loam Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: Histosol (A1) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Coast Prairie Redox (A16) Black Histic (A3) Stripped Matrix (S6) Iron-Manganese Masses (F12) Hydrogen Sulfide (A4) Stratified Layers (A5) Loamy Gleyed Matrix (F2) 2 cm Muck (A10) Depleted Matrix (F3)	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: Histosol (A1) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Slardy Redox (S5) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Stratified Layers (A5) Zom Muck (A10) Depleted Matrix (F2) Depleted Matrix (F3)	
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Stratified Layers (A5) Loamy Gleyed Matrix (F2) 2 cm Muck (A10) Depleted Matrix (F3)	
2 cm Muck (A10) Depleted Matrix (F3)	
Depleted Below Dark Surface (A11) X Redox Dark Surface (F6) Indicators of hydrophytic vegetation and wetland	
Thick Dark Surface (A12) Depleted Dark Surface (F7) hydrology must be present, unless disturbed	
Sandy Mucky Mineral (S1) Redox Depressions (F8) or problematic.	
5 cm Mucky Peat or Peat (S3)	
Restrictive Layer (if observed):	
Type: N/A	
Depth (inches): N/A Hydric Soil Present? Yes_X No	
80 8000 8000	
HYDROLOGY	
Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required)	
Surface Water (A1)Water-Stained Leaves (B9)Surface Soil Cracks (B6)	
High Weley Toble (AD)	
High Water Table (A2) Aquatic Fauna (B13) X Drainage Patterns (B10)	_
Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2)	_
Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8)	_
Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) X Oxidized Rhizospheres on Living Roots (C3) X Saturation Visible on Aerial Imagery (C9)	_
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Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) X Oxidized Rhizospheres on Living Roots (C3) X Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) X FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No X Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes X No Depth (inches): Saturation Present? Yes X No Depth (inches): A drainage swale is visible on the aerial at this location. Light tones (Phalaris arundinacea) also visible. Remarks:	No

Oak Creek/

City/County: Milwaukee IH-94 Mainline Sampling Date: 8/19/2009 Project/Site: Applicant/Owner: WDOT State: WI Sampling Point: W11-10a T-1 A(u) Marcus S. Anderson/Julie A. Paschal Section, Township, Range: Section 31, T5N R22E Investigator(s): 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? (if no, explain in Remarks) Soil _ or Hydrology Are "Normal Circumstances" present? Are Vegetation significantly disturbed? 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 Wetland Hydrology Present? within a Wetland? Yes No X Remarks: VEGETATION - Use scientific names for plants. Indicator **Dominance Test Worksheet:** ree Stratum (Plot Size: N/A **Number of Dominant Species** That Are OBL, FACW, or FAC: (A) Total Number of Dominant Species Across All Strata: 3 ___(B) 0% = Total Cover Percent of Dominant Species That Are OBL, FACW, or FAC: 33% __(A/B) Sapling/Shrub Stratum (Plot Size: N/A Prevalence Index Worksheet: 1. N/A Total % Cover of: Multiply by: OBL species **FACW** species x2= FAC species x3= **FACU** species x4= 0% = Total Cover UPL species x 5 = Column Totals: (A) lerb Stratum (Plot Size: 5 ft. radius Prevalence Index = B/A = 1. Poa pratensis 50% Yes FAC 2. Cirsium arvense 40% Yes FACU Hydrophytic Vegetation Indicators: 3. Elytrigia repens 40% Yes Dominance Test is >50% **FACU** Prevalence Index is ≤ 3.01 4. Asclepias syriaca 10% No UPL Morphological Adaptations (Provide supporting 5. Sonchus oleraceus 15% No FACU 6. Solidago canadensis 5% No FACU data in Remarks or on separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 0 160% = Total Cover Woody Vine Stratum (Plot Size: N/A Hydrophytic) 1. N/A Vegetation Present? No_X Yes = Total Cover 0% 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)

10/18 22 100 None Sandy Joan	Depth (inches)	Matrix Color (moist)	%	Color (moist)	Redox Fea	Type ¹	Loc ²	Texture		Remarks	
Type: C-Concentration, D-Depletion, RM-Reduced Matrix, CS-Covered or Coated Sand Graine,	0-16								20 AC		
Hydric Soil Indicators: Histoscol (A1) Histoscoppotor (A2) Sandy Gleyed Matrix (S4) Sandy Fledox (S5) Suck Histor (A3) Suck Histor (A4) Suck Martin (F1) Suck Surface (A12) Sund Musch (A10) Suck Histor (A12) Sund Musch (A10) Suck Histor (A12) Sund Musch (A10) Suck Histor (A12) Sund Musch (A10) S								Sandy Ioam	2		
Hydric Soil Indicators: Histocol (A1)									-		
Hydric Soil Indicators: Historou (A1) Historou (A2) Historou (A2) Back Histor (A3) Back Histor (A3) Back Histor (A3) Back Histor (A3) Back Historou (A4) Back Historo		22	10 10					9	85		
Hydric Soil Indicators: Histocol (A1)	- 28	S. 3.	20 - 20 20 - 20	10				- 39	3		
Hydric Soil Indicators: Histocol (A1)											
Hydric Soil Indicators: Histoscol (A1) Histoscoppotor (A2) Sandy Gleyed Matrix (S4) Sandy Fledox (S5) Suck Histor (A3) Suck Histor (A4) Suck Martin (F1) Suck Surface (A12) Sund Musch (A10) Suck Histor (A12) Sund Musch (A10) Suck Histor (A12) Sund Musch (A10) Suck Histor (A12) Sund Musch (A10) S	·							2			
Histic Epipodro (A2) Black Histic (A3) Black Histic (A4) Black Mistic (A1) Depleted Below Dark Surface (A11) Beptow Dark Surface (A12) Boptow Musky Mineral (S1) Beneficiate (A12) Black Musky Mineral (S1) Beneficiate (A12) Bush Hydrology Indicators: HYDROLOGY Welland Hydrology Indicators: HYDROLOGY Welland Hydrology Indicators: HYDROLOGY Welland Hydrology Indicators: HYDROLOGY Welland Hydrology Indicators: HYDROLOGY Welland Hydrology Indicators: HYDROLOGY Welland Hydrology Indicators: HYDROLOGY Welland Hydrology Indicators: HYDROLOGY Welland Hydrology Indicators: HYDROLOGY Welland Hydrology Indicators: HYDROLOGY Welland Hydrology Indicators: HYDROLOGY Welland Hydrology Indicators: HYDROLOGY Welland Hydrology Indicators: HYDROLOGY Welland Hydrology Indicators: HYDROLOGY Welland Hydrology Indicators: HYDROLOGY Welland Hydrology Indicators: HYDROLOGY Welland Hydrolog			ed Matrix, CS	=Covered or Coa	ted Sand G	rains.					
Histic Epipedon (AZ) Black Histic (A3) Bripped Matrix (F2) Loamy Mucky Mineral (F1) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A12) Depleted Below Dark Surface (A12) Depleted Below Dark Surface (F6) Thick Oark Surface (A12) Doughted Dark Surface (F6) Sandy Mucky Mineral (S1) Sorm Mucky Peat or Peat (S3) Restrictive Layer (if observed): Type: NA Depth (inches): NIA Depth (inches): NI		S :					Indica	tors for Problematic Hy	dric Soils ³ :		
Bilack Histic (A3)		12)						Coast Prairie Redoy (At	16)		
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Deptied Before (F2) Loamy (Siegend Matrix (F2) Deptied Before Marks (F3) Deptied Dark Surface (F6) Thick Dark Surface (A12) Deptied Dark Surface (F6) Thick Dark Surface (F3) Redox Depressions (F8) Propriet (F3) Propr		(2)		The state of the s							
Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Redox Dark Surface (F3) Pedev Dark Surface (A11) Redox Dark Surface (F7) Pedev Dark Surface (A12) Pedev Dark Surface (F7) Pedev Dark Surface (F8) Pesent? Pesen		(A4)					-				
Depleted Below Dark Surface (A11)								-	•		
Thick Dark Surface (A12)							•				
Sandy Mucky Mineral (S1) Redox Depressions (F8) or problematic. S cm Mucky Peat or Peat (S3)											
							-		ınless disturbed		
Restrictive Layer (if observed): Type: N/A Depth (inches): N/A Hydric Soil Present? Yes NoX Hydric Soil Present? Yes NoX Hydric Soil Present? Yes NoX Becondary Indicators (minimum of two required) Secondary Indicators (minimum of two required) Secondary Indicators (minimum of two required) Surface Water (A1)			—'	redox Depression	is (F8)		or p	problematic.			
Type: N/A Depth (inches): 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) Drainage Patterns (B10) Drainage Patterns (B10) Drainage Patterns (B10) Dry-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Saduration (A3) Surface Water (A1) Surface Water (A2) Surface Water (A2) Surface Water (A2) Surface Water (A3) Surface Water (A3) Surface Water (A3) Surface (A4) Surface (A3) Surface (A4) Surface (A5)		E 560 E 58 E 58				T					
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) Surface Soil Cracks (B6) Dramage Patterns (B10) Surface Soil Cracks (B6) Dramage Patterns (B10) D		ibserved).									
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) Surface Water (A1) Mater-Stained Leaves (B9) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Phydrogen Sulfide Odor (C1) Sediment Deposits (B2) Orift Deposits (B3) Algal Mat or Crust (B4) Algal Mat or Crust (B4) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No X Depth (inches): Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Drannage Patterns (B10) Drannage Patterns (B10) Drannage Patterns (B10) Drannage Patterns (B10) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Saturation Visible on Aerial Imagery (C9) Sunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5) Thin Muck Surface (C7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Depth (inches):	N/A						Hydric Soil Present?	Yes	No X	
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) Surface Water (A1) Hydrogen Sulfide Aguatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Primary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Saturation (A3) True Aquatic Plants (B14) Pry-Season Water Table (C2) Water Marks (B1) Pry-Season Water Table (C2) Carylish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No Remarks:	W. M										
Surface Water (A1)	55		ock all that an	mh/)				Sacandani Indi	notore (minimum of the	uo roquirod)	
High Water Table (A2) Saturation (A3) Aquatic Fauna (B13) Drainage Patterns (B10) Saturation (A3) Dry-Season Water Table (C2) Water Marks (B1) Dry-Season Water Table (C2) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Drift Deposits (B3) Drift Deposits (B3) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Water Table Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No Remarks: Wetland Hydrology Present? Yes No Remarks:			The second secon		aves (RQ)					200000000000000000000000000000000000000	
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) I		A CONTRACTOR OF THE CONTRACTOR							Color of the second		
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Iron Deposits (B5) Saturation Visible on Aerial Imagery (C9) Iron Deposits (B5) Iron Deposits (B6) Sparsely Vegetated Concave Surface (B8) Surface Water Present? Water Table Present? Yes No X Depth (inches): Saturation Visible on Aerial Imagery (C9) Wetland Hydrology Present? Yes No X Depth (inches): Saturation Visible on Aerial Imagery (C9) Sparsely Vegetated Concave Surface (B8) Wetland Hydrology Present? Yes No No Source Water Present? Yes No No	Saturation (A3)	No. 20		rue Aquatic Plant	ts (B14)				Dry-Season Water Ta	able (C2)	
Drift Deposits (B3)										Charles and the same and the sa	
Algal Mat or Crust (B4)							3)				
Iron Deposits (B5)						The state of the s					
Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No Exploit (inches): Saturation Present? Yes No X Depth (inches): Seaturation Present? Yes		87. 35.				d Soils (C6)					
Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Other (Explain in Remarks) Field Observations: Surface Water Present?									-AC-Neutral Test (D	0)	
Field Observations: Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:											
Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No O X Depth (inches): Uncludes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:		eronomore (meno compresso e en empero e en esperar de la esperar de la espera en el en en el el espera el el e		700000000	, woon all a, " you to 1 € .						
Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Uncludes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:		? Yes	No X	Denth (inches):							
Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No Cincludes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:						- //					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Saturation Present?	Yes	No X					Wetland Hydrology Pr	esent?	Yes	No_)
Remarks:		P. S. 12	W 1000	2 25 22	5 50 5 80	00 00 XXX	24				
	Describe Recorded Da	ta (stream gauge, monitoring	well, aerial p	photos, previous in	nspections)	, if available:					
	Remarks:										
		drology indicators were	observed.								

					Oak Creek/	
Project/Site:	IH-94 Mainline WDOT				City/County: Milwaukee Sampling Date: 8/19/2009 State: WI Sampling Point: W11-10a T-1 B(w)	_
Applicant/Owner: Investigator(s):	Marcus S. Anderso	n/Julie A Paschal			Section, Township, Range: Section 31, T5N R22E	_
Landform (hillslope, ter		Terrace			Local relief (concave, convex, none): None	_
Slope (%): 0-1%	CONTRACTOR CONTRACTOR	Lat: See Fig. 2		Long: See	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	_
Soil Map Unit Name:	Fox loam (F				WWI Classification: T3K	
Are climatic / hydrologi	ic conditions on the site	typical for this time of	year?		Yes X No (if no, explain in Remarks)	
Are Vegetation	Soil	or Hydrology	signific	antly disturbed?	Are "Normal Circumstances" present? Yes X No_	
Are Vegetation	Soil	or Hydrology	*Xnatural	ly problematic?	(if needed, explain any answers in Remarks)	
SUMMARY OF FINDI	NGS Attach site ma	p showing sampling	point locations	transects, impo	ortant features, etc.	
Hydrophytic Vegetation	n Present?	Yes X		-		
Hydric Soil Present?		Yes X			Is the Sampled Area Yes X No No No	_
Wetland Hydrology Pre	esent?	YesX	_ No		within a Wetland?	
Remarks: * This area exp	periences seasonal v	wetland hydrology	<i>(</i> -			
VEGETATION - Use s	scientific names for plant	s.				
Tree Stratum (Plot Siz	ze: N/A	Absolute %	Dominant Species	Indicator	Dominance Test Worksheet:	
1. N/A	,	Lover	Sheries	Status	Number of Dominant Species That Are OBL, FACW, or FAC:3(A)	
3.				-	Total Number of Dominant	
4.				97	Species Across All Strata:3(B)	
5		0%	= Total Cover		Percent of Dominant Species That Are OBL, FACW, or FAC:(A/B)	
Sapling/Shrub Stratum 1. Salix interior	1 (Plot Size:	15 ft. radius) 20%	Yes	OBL	Prevalence Index Worksheet: Total % Cover of: Multiply by:	
2			XX	2	OBL species	
4.	72				FAC species x 3 =	
5					FACU species x 4 =	
		20%	= Total Cover		UPL species x 5 = Column Totals: (A) (B)	
					Column Totals.	
Herb Stratum (Plot Siz		100%	Yes	FACW	Prevalence Index = B/A =	
2. Impatiens capen		30%	Yes	FACW	Hydrophytic Vegetation Indicators:	_
3. Parthenocissus		5%	No	FAC	X Dominance Test is >50%	
4. Carex lacustris	-	5%	No	OBL	Prevalence Index is ≤ 3.0¹ Morphological Adaptations¹ (Provide supporting	
6.					data in Remarks or on separate sheet)	
7.					Problematic Hydrophytic Vegetation ¹ (Explain)	
8					1 lasticators of bushic call and contact bushicles contact	
9. 10.			25	7	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
100		140%	= Total Cover			
Woody Vine Stratum 1. N/A	(Plot Size:	N/A)			Hydrophytic Vegetation	
2		0%	= Total Cover	-	Present?	
			ž.			_
	oto numbers here or on a neadow plant comm		of a floodplair	n forest adjace	ent 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.) Matrix Redox Features % Color (moist)
100 10YR 4/4 Color (moist) (inches) Type¹ Texture 10YR 3/1 0-9 M Silt loam 9-18 10YR 4/1 100 10YR 4/6 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 No
Remarks:		
HYDROLOGY		
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all tha Surface Water (A1) High Water I able (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)	Mater-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roo Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Field Observations: Surface Water Present? Yes No Water Table Present? Yes No Saturation Present? Yes No (includes capillary fringe) No	X Depth (inches):	Wetland Hydrology Present? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aer	ial photos, previous inspections), if available:	
Remarks: This area experiences seasonal wetland hydro	ology.	

Oak Creek/

City/County: Milwaukee IH-94 Mainline Sampling Date: 8/19/2009 Project/Site: Sampling Point: W11-10a T-2 A(u) Applicant/Owner: WDOT State: WI Marcus S. Anderson / Julie A. Paschal Section, Township, Range: Section 31, T5N R22E Investigator(s): 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? (if no, explain in Remarks) Soil __ or Hydrology Are "Normal Circumstances" present? Are Vegetation significantly disturbed? 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 Wetland Hydrology Present? within a Wetland? Yes No X Remarks: VEGETATION - Use scientific names for plants. **Dominance Test Worksheet:** ree Stratum (Plot Size: N/A **Number of Dominant Species** That Are OBL, FACW, or FAC: (A) Total Number of Dominant Species Across All Strata: 3 ___(B) 0% = Total Cover Percent of Dominant Species 33% ___ (A/B) That Are OBL, FACW, or FAC: Sapling/Shrub Stratum (Plot Size: N/A Prevalence Index Worksheet: 1. N/A Total % Cover of: Multiply by: OBL species **FACW** species x2= FAC species x3= **FACU** species x4= 0% = Total Cover UPL species x 5 = Column Totals: (A) Herb Stratum (Plot Size: 5 ft. radius Prevalence Index = B/A = 1. Daucus carota 40% UPL 2. Poa pratensis 30% Yes FAC Hydrophytic Vegetation Indicators: 3. Solidago canadensis 30% Yes Dominance Test is >50% FACU 4. Sonchus oleraceus Prevalence Index is ≤ 3.01 5% No FACU Morphological Adaptations (Provide supporting 5. Cirsium arvense FACU data in Remarks or on separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 0 110% = Total Cover Woody Vine Stratum (Plot Size: N/A Hydrophytic) 1. N/A Vegetation Present? No_X Yes = Total Cover 0% 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)

Depth	Matrix			Redox Featu					22/4/11/04/04		
(inches)	Color (moist)	_%_	Color (moist)	%	Type ¹ L	.oc²	Texture	2	Remarks		-
0-13	10YR 3/2	100	None				Silt loam	32			-
13-18	10YR 4/3	100	None				Loam	-			-
-	0° 90							35			-
<u> </u>			10.				33				
		_						-			-
Type: C=Concentration	on, D=Depletion, RM=Reduc	ed Matrix. CS	=Covered or Coat	ed Sand Gra	ains.		² Location: PL=Pore Lini	ng. M=Matrix			
Hydric Soil Indicators						ndicate	ors for Problematic Hyd				
Histosol (A1)			Sandy Gleyed Mate	rix (S4)							
Histic Epipedon (A	A2)		Sandy Redox (S5)		_		Coast Prairie Redox (A1				
Black Histic (A3)			Stripped Matrix (Se	Control of the contro	_		Iron-Manganese Masses				
Hydrogen Sulfide			oamy Mucky Mine		_		Other (Explain in Remar	ks)			
Stratified Layers (A	A5)		oamy Gleyed Mat								
2 cm Muck (A10)	and Confess (Add)		Depleted Matrix (F		3	Indian	ors of hydrophytic veget	-1:			
Depleted Below D. Thick Dark Surface			Redox Dark Surface Depleted Dark Surface		1		ors of nyarophytic veget ology must be present, u				
Sandy Mucky Mine			Redox Depression:				ology must be present, u oblematic.	mess disturbed			
5 cm Mucky Peat			redux Depression.	5 (1 0)		or pr	obiematic.				
Restrictive Layer (if o	observed):										
Type: N/A Depth (inches):	N/A	a					Hydric Soil Present?	Yes	No_X		
Depin (inches).	N/A						riyunc son r resent.	Tes	. NO_X	'	
HYDROLOGY											
Wetland Hydrology In		ook all that an	mlu)				Sacandani India	notore (minimum of	(two required)		
Primary Indicators (min	nimum of one is required; ch			voc (PO)			and the same of th	cators (minimum of			-
Primary Indicators (min Surface Water (A1	nimum of one is required; ch		Water-Stained Lea					Surface Soil Cracks	s (B6)		-
Primary Indicators (min Surface Water (A1 High Water Table	nimum of one is required; ch		Water-Stained Lea Aquatic Fauna (B1	3)				Surface Soil Cracks Orainage Patterns (s (B6) (B10)		-
Primary Indicators (min Surface Water (A1 High Water Table Saturation (A3)	nimum of one is required; ch 1) (A2)	\equiv	Water-Stained Lea Aquatic Fauna (B1 Frue Aquatic Plant	3) s (B14)			S	Surface Soil Cracks Orainage Patterns (Ory-Season Water	s (B6) (B10) Table (C2)		-
Primary Indicators (min Surface Water (A1 High Water Table	nimum of one is required; ch 1) (A2)		Water-Stained Lea Aquatic Fauna (B1	3) s (B14) Odor (C1)	ng Roots (C3)			Surface Soil Cracks Drainage Patterns (Dry-Season Water Crayfish Burrows (C	s (B6) (B10) Table (C2))	-
Primary Indicators (min Surface Water (A1 High Water Table Saturation (A3) Water Marks (B1)	nimum of one is required; ch 1) (A2) s (B2)		Water-Stained Lea Aquatic Fauna (B1 Frue Aquatic Plant Hydrogen Sulfide C	3) s (B14) Odor (C1) eres on Livir				Surface Soil Cracks Drainage Patterns (Dry-Season Water Crayfish Burrows (C	s (B6) (B10) Table (C2) C8) on Aerial Imagery (CS)	-
Primary Indicators (min Surface Water (A1 High Water Table Saturation (A3) Water Marks (B1) Sediment Deposits	nimum of one is required; ch (A2) s (B2)		Water-Stained Lea Aquatic Fauna (B1 Frue Aquatic Plant Hydrogen Sulfide C Oxidized Rhizosph	3) s (B14) Odor (C1) eres on Livir ced Iron (C4)				Surface Soil Cracks Drainage Patterns (Dry-Season Water Crayfish Burrows (C Saturation Visible o	s (B6) (B10) Table (C2) C8) In Aerial Imagery (C9 d Plants (D1))	-
Primary Indicators (mir Surface Water (A1 High Water Table Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust Iron Deposits (B5)	nimum of one is required; ch (A2) s (B2)) ((B4)		Nater-Stained Lea Aquatic Fauna (B1 Frue Aquatic Plant Hydrogen Sulfide C Oxidized Rhizosph Presence of Reduc	3) s (B14) Odor (C1) eres on Livir ced Iron (C4) tion in Tilled				Surface Soil Cracks Drainage Patterns (Dry-Season Water Crayfish Burrows (C Saturation Visible o Stunted or Stressed	s (B6) (B10) Table (C2) C8) on Aerial Imagery (C9 d Plants (D1) on (D2))	-
Primary Indicators (min Surface Water (A1 High Water Table Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible	nimum of one is required; ch (A2) s (B2)) t (B4) on Aerial Imagery (B7)		Water-Stained Lea Aquatic Fauna (B1: Frue Aquatic Plant: Hydrogen Sulfide C Dxidized Rhizosph Presence of Reduc Recent Iron Reduc Fhin Muck Surface Gauge or Well Dat:	3) s (B14) Odor (C1) eres on Livir ced Iron (C4) tion in Tilled (C7) a (D9)				Surface Soil Cracks Drainage Patterns (Dry-Season Water Crayfish Burrows (Saturation Visible o Stunted or Stressed Geomorphic Positio	s (B6) (B10) Table (C2) C8) on Aerial Imagery (C9 d Plants (D1) on (D2))	-
Primary Indicators (min Surface Water (A1 High Water Table Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible	nimum of one is required; ch (A2) s (B2)) ((B4)		Water-Stained Lea Aquatic Fauna (B1) Frue Aquatic Plants Hydrogen Sulfide (Dxidized Rhizospheresence of Reduc Recent Iron Reduc Fhin Muck Surface	3) s (B14) Odor (C1) eres on Livir ced Iron (C4) tion in Tilled (C7) a (D9)				Surface Soil Cracks Drainage Patterns (Dry-Season Water Crayfish Burrows (Saturation Visible o Stunted or Stressed Geomorphic Positio	s (B6) (B10) Table (C2) C8) on Aerial Imagery (C9 d Plants (D1) on (D2))	-
Primary Indicators (min Surface Water (A1 High Water Table Saturation (A3) Water Marks (B1) Sediment Deposit Drift Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible Sparsely Vegetate Field Observations:	nimum of one is required; ch (A2) s (B2)) t (B4) on Aerial Imagery (B7) ed Concave Surface (B8)		Water-Stained Lea Aquatic Fauna (B1 Frue Aquatic Plant Hydrogen Sulfide C Dxidized Rhizosph Presence of Reduc Recent Iron Reduc Thin Muck Surface Gauge or Well Dat Dther (Explain in R	3) s (B14) Odor (C1) eres on Livir ced Iron (C4) tion in Tilled (C7) a (D9)				Surface Soil Cracks Drainage Patterns (Dry-Season Water Crayfish Burrows (Saturation Visible o Stunted or Stressed Geomorphic Positio	s (B6) (B10) Table (C2) C8) on Aerial Imagery (C9 d Plants (D1) on (D2))	
Primary Indicators (min Surface Water (A1 High Water Table Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible Sparsely Vegetate Field Observations: Surface Water Present	nimum of one is required; ch (A2) s (B2) t (B4) on Aerial Imagery (B7) ad Concave Surface (B8)		Water-Stained Lea Aquatic Fauna (B1: Frue Aquatic Plant Hydrogen Sulfide C Dixidized Rhizosph Presence of Reduc Recent Iron Reduc Fin Muck Surface Gauge or Well Data Dther (Explain in R	3) s (B14) Odor (C1) eres on Livir ced Iron (C4) tion in Tilled (C7) a (D9)				Surface Soil Cracks Drainage Patterns (Dry-Season Water Crayfish Burrows (Saturation Visible o Stunted or Stressed Geomorphic Positio	s (B6) (B10) Table (C2) C8) on Aerial Imagery (C9 d Plants (D1) on (D2))	-1
Primary Indicators (mir Surface Water (Af High Water Table Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible Sparsely Vegetate Field Observations: Surface Water Present Water Table Present?	nimum of one is required; ch (A2) s (B2) (B4) on Aerial Imagery (B7) ad Concave Surface (B8)	No <u>x</u>	Water-Stained Lea Aquatic Fauna (B1: True Aquatic Plant: Hydrogen Sulfide C Dxidized Rhizosph Presence of Reduct Recent Iron Reduct Thin Muck Surface Gauge or Well Dat: Dther (Explain in Recent) Depth (inches): Depth (inches):	3) s (B14) Odor (C1) eres on Livir eed Iron (C4) tion in Tilled (C7) a (D9) iemarks)				Surface Soil Cracks Drainage Patterns (Dry-Season Water i Crayfish Burrows ((Saturation Visible) Stunted or Stressed Geomorphic Positic FAC-Neutral Test (I	s (B6) (B10) Table (C2) C8) on Aerial Imagery (C9 d Plants (D1) on (D2) D5)		-
Primary Indicators (min Surface Water (A1 High Water Table Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible Sparsely Vegetate Field Observations: Surface Water Present	nimum of one is required; ch (A2) s (B2) t (B4) on Aerial Imagery (B7) ad Concave Surface (B8) t? Yes Yes Yes Yes		Water-Stained Lea Aquatic Fauna (B1: Frue Aquatic Plant Hydrogen Sulfide C Dixidized Rhizosph Presence of Reduc Recent Iron Reduc Fin Muck Surface Gauge or Well Data Dther (Explain in R	3) s (B14) Odor (C1) eres on Livir eed Iron (C4) tion in Tilled (C7) a (D9) iemarks)				Surface Soil Cracks Drainage Patterns (Dry-Season Water i Crayfish Burrows ((Saturation Visible) Stunted or Stressed Geomorphic Positic FAC-Neutral Test (I	s (B6) (B10) Table (C2) C8) on Aerial Imagery (C9 d Plants (D1) on (D2)		
Primary Indicators (min Surface Water (A1 High Water Table Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible Sparsely Vegetate Field Observations: Surface Water Present Water Table Present? (includes capillary fring Describe Recorded Da	nimum of one is required; ch (A2) s (B2) t (B4) on Aerial Imagery (B7) ad Concave Surface (B8) t? Yes Yes Yes Yes	No X No X No X	Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plant Hydrogen Sulfide (Dxidized Rhizosph Presence of Reduc Recent Iron Reduc Rhin Muck Surface Gauge or Well Dat Dther (Explain in R Depth (inches):	3) s (B14) Odor (C1) eres on Livir ed Iron (C4) tition in Tilled (C7) a (D9) emarks)	Soils (C6)			Surface Soil Cracks Drainage Patterns (Dry-Season Water i Crayfish Burrows ((Saturation Visible) Stunted or Stressed Geomorphic Positic FAC-Neutral Test (I	s (B6) (B10) Table (C2) C8) on Aerial Imagery (C9 d Plants (D1) on (D2) D5)		-

Oak Creek/ City/County: Milwaukee IH-94 Mainline Sampling Date: 8/19/2009 Project/Site: Applicant/Owner: WDOT State: WI Sampling Point: W11-10a T-2 B(w) Marcus S. Anderson / Julie A. Paschal Section, Township, Range: Section 31, T5N R22E Investigator(s): 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? (if no, explain in Remarks) Soil ___ Are "Normal Circumstances" present? or Hydrology Are Vegetation significantly disturbed? Yes X No or Hydrology Are Vegetation Soil _ *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? X within a Wetland? Yes No Remarks: * This area experiences seasonal wetland hydrology. VEGETATION - Use scientific names for plants. **Dominance Test Worksheet:** Tree Stratum (Plot Size: 30 ft. radius Number of Dominant Species 1. Fraxinus pennsylvanica FACW That Are OBL, FACW, or FAC: (A) Total Number of Dominant Species Across All Strata: 2 (B) 20% = Total Cover Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B) Sapling/Shrub Stratum (Plot Size: N/A Prevalence Index Worksheet:) 1. N/A Total % Cover of: Multiply by: OBL species FACW species x2= FAC species x3= **FACU** species x 4 = = Total Cover **UPL** species x 5 = Column Totals: (A) Herb Stratum (Plot Size: 5 ft. radius Prevalence Index = B/A = 1. Phalaris arundinacea 90% Yes **FACW** 2. Salix interior 20% No **Hydrophytic Vegetation Indicators:** OBL 5% No 3. Geum aleppicum Dominance Test is >50% FAC Prevalence Index is ≤ 3.01 10% No 4. Carex pellita OBL Morphological Adaptations¹ (Provide supporting 6. data in Remarks or on separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 8 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 10. 125% = Total Cover Woody Vine Stratum (Plot Size: N/A Hydrophytic) 1. N/A Vegetation Present? Yes X No = Total Cover 0% 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 Color (moist) Color (moist) inches % Silt loam 10YR 3/1)-5 100 None 5-18 10YR 4/2 100 10YR 4/6 20% C Silt loam Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils3: Histosol (A1) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Coast Prairie Redox (A16) Black Histic (A3) Stripped Matrix (S6) Iron-Manganese Masses (F12) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Other (Explain in Remarks) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) 2 cm Muck (A10) X Depleted Below Dark Surface (A11) Redox Dark Surface (F6) 3 Indicators of hydrophytic vegetation and wetland Thick Dark Surface (A12) Depleted Dark Surface (F7) hydrology must be present, unless disturbed Redox Depressions (F8) Sandy Mucky Mineral (S1) or problematic. 5 cm Mucky Peat or Peat (S3) estrictive Layer (if observed): Type: N/A Depth (inches): N/A Hydric Soil Present? Yes X Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6) High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10) True Aquatic Plants (B14) Saturation (A3) Dry-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Algal Mat or Crust (B4) Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? No Depth (inches): Water Table Present? Yes No Х Depth (inches) Saturation Present? (includes capillary fringe) No Depth (inches): Wetland Hydrology Present? 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.

Oak Creek/

City/County: Milwaukee IH-94 Mainline Sampling Date: 8/19/2009 Project/Site: Sampling Point: W11-10a T-3 A(u) Applicant/Owner: WDOT State: WI 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 Lat: See Fig. 2 Slope (%): 20% 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? (if no, explain in Remarks) Are "Normal Circumstances" present? Soil _ or Hydrology _ Are Vegetation significantly disturbed? 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 Wetland Hydrology Present? within a Wetland? Yes No X Remarks: VEGETATION - Use scientific names for plants. **Dominance Test Worksheet:** ree Stratum (Plot Size: N/A **Number of Dominant Species** That Are OBL, FACW, or FAC: 0 (A) Total Number of Dominant Species Across All Strata: ___(B) 0% = Total Cover Percent of Dominant Species That Are OBL, FACW, or FAC: 0% __(A/B) Sapling/Shrub Stratum (Plot Size: N/A Prevalence Index Worksheet: 1. N/A Total % Cover of: Multiply by: OBL species **FACW** species x2= FAC species x3= **FACU** species x4= 0% = Total Cover UPL species x 5 = Column Totals: (A) Herb Stratum (Plot Size: 5 ft. radius Prevalence Index = B/A = 1. Bromus inermis 60% Yes UPL 2. Solidago canadensis 30% Yes FACU Hydrophytic Vegetation Indicators: 3. Daucus carota 20% No Dominance Test is >50% UPL Prevalence Index is ≤ 3.01 Asclepias syriaca 10% UPL Morphological Adaptations (Provide supporting data in Remarks or on separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 120% = Total Cover Woody Vine Stratum (Plot Size: N/A Hydrophytic) Vegetation 1. N/A Present? No X Yes = Total Cover 0% 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)

Color (moist)	None None None CS=Covered or Coated Sand Grains. Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3)	Silt loam Silt loam Silt loam 2 Location: PL=Pore Lining Indicators for Problematic Hydri Coast Prairie Redox (A16) Iron-Manganese Masses (Other (Explain in Remarks	ic Soils ³ :	
8-18 10YR 4/3 100 Type: C=Concentration, D=Depletion, RM=Reduced 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)	CS=Covered or Coated Sand Grains. Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3)	2 Location: PL=Pore Lining Indicators for Problematic Hydri Coast Prairie Redox (A16) Iron-Manganese Masses (ic Soils ³ :	
¹ Type: C=Concentration, D=Depletion, RM=Reduced 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)	CS=Covered or Coated Sand Grains. Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3)	² Location: PL=Pore Lining Indicators for Problematic Hydri Coast Prairie Redox (A16)Iron-Manganese Masses (ic Soils ³ :	
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)	Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3)	Indicators for Problematic Hydri Coast Prairie Redox (A16) Iron-Manganese Masses (ic Soils ³ :	
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)	Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3)	Indicators for Problematic Hydri Coast Prairie Redox (A16) Iron-Manganese Masses (ic Soils ³ :	=
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)	Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3)	Indicators for Problematic Hydri Coast Prairie Redox (A16) Iron-Manganese Masses (ic Soils ³ :	
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)	Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3)	Indicators for Problematic Hydri Coast Prairie Redox (A16) Iron-Manganese Masses (ic Soils ³ :	
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)	Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3)	Indicators for Problematic Hydri Coast Prairie Redox (A16) Iron-Manganese Masses (ic Soils ³ :	
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)	Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3)	Coast Prairie Redox (A16) Iron-Manganese Masses (
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)	Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3)	Iron-Manganese Masses (
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)	Stripped Matrix (S6) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3)	Iron-Manganese Masses (
Stratified Layers (A5) 2 cm Muck (A10) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1)	Loamy Gleyed Matrix (F2) Depleted Matrix (F3)	Other (Explain in Remarks	F12)	
2 cm Muck (A10) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1)	Depleted Matrix (F3)		i)	
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1)				
Thick Dark Surface (A12) Sandy Mucky Mineral (S1)		9.11		
Sandy Mucky Mineral (S1)	_ Redox Dark Surface (F6)	3 Indicators of hydrophytic vegetation		
	Depleted Dark Surface (F7)	hydrology must be present, unle	ess disturbed	
Unit William Feat Of Feat (53)	_Redox Depressions (F8)	or problematic.		
Restrictive Layer (if observed):				
Type: N/A				
Depth (inches): N/A		Hydric Soil Present?	Yes No X	_
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that Surface Water (A1) High Water Table (A2) Saturation (A3)	apply) _ Water-Stained Leaves (B9) _ Aquatic Fauna (B13) True Aquatic Plants (B14)	Sur Dra	ors (minimum of two required) rface Soil Cracks (B6)	
Water Marks (B1)			ainage Patterns (B10)	
Sediment Deposits (B2)	 Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (Cra	ainage Patterns (B10) r-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C	;9)
Sediment Deposits (B2) Drift Deposits (B3)	Oxidized Rhizospheres on Living Roots (Presence of Reduced Iron (C4)	Cra	r-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C inted or Stressed Plants (D1)	>9)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Oxidized Rhizospheres on Living Roots (Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)	Cra	r-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C inted or Stressed Plants (D1) omorphic Position (D2)	> 9)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Oxidized Rhizospheres on Living Roots (continuous) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7)	Cra	r-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C inted or Stressed Plants (D1)	>9)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Oxidized Rhizospheres on Living Roots (Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)	Cra	r-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C inted or Stressed Plants (D1) omorphic Position (D2)	(9)
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)	Oxidized Rhizospheres on Living Roots (continuous) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Gauge or Well Data (D9)	Cra	r-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C inted or Stressed Plants (D1) omorphic Position (D2)	
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)	Oxidized Rhizospheres on Living Roots (in 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)	Cra	r-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C inted or Stressed Plants (D1) omorphic Position (D2)	D9)
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) Field Observations:	Oxidized Rhizospheres on Living Roots (in 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)	Cra	r-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C inted or Stressed Plants (D1) omorphic Position (D2)	

Oak Creek/

City/County: Milwaukee IH-94 Mainline Sampling Date: 8/19/2009 Project/Site: Applicant/Owner: WDOT State: WI Sampling Point: W11-10a T-3 B(w) Marcus S. Anderson / Julie A. Paschal Section, Township, Range: Section 31, T5N R22E Investigator(s): Landform (hillslope, terrace, etc.): Concave depression Local relief (concave, convex, none): Concave Lat: See Fig. 2 Slope (%): 0% 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? (if no, explain in Remarks) or Hydrology ____ significantly disturbed? Soil __ Are "Normal Circumstances" present? Are Vegetation 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? X within a Wetland? Yes No Remarks: * This area experiences seasonal wetland hydrology. VEGETATION - Use scientific names for plants. **Dominance Test Worksheet:** ree Stratum (Plot Size: N/A **Number of Dominant Species** That Are OBL, FACW, or FAC: (A) Total Number of Dominant Species Across All Strata: 3 ___(B) 0% = Total Cover Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B) Sapling/Shrub Stratum (Plot Size: 15 ft. radius) Prevalence Index Worksheet: 1. Salix interior Total % Cover of: Multiply by: OBL species 10 **FACW** species 90% 180 x2= FAC species 40% x3= 120 **FACU** species x4= x 5 : 10% = Total Cover UPL species Column Totals: 140% (A) 310 lerb Stratum (Plot Size: 5 ft. radius Prevalence Index = B/A = 2.21 1. Phalaris arundinacea 90% **FACW** 2. Rumex crispus 10% Hydrophytic Vegetation Indicators: FAC 3. Ambrosia trifida 30% Dominance Test is >50% FAC Prevalence Index is ≤ 3.01 Morphological Adaptations (Provide supporting data in Remarks or on separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 8 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 130% = Total Cover Woody Vine Stratum (Plot Size: N/A Hydrophytic) 1. N/A Vegetation Present? Yes X No = Total Cover 0% 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)

Depth (inches)	Matrix			Redox Fea	tures	ce of in	_				
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	-	Remarks		
0-8	10YR 2/1	100	None		520		Silt loam	02			
3-18	10YR 5/2	100	10YR 4/6	5%	С	М	Silty clay loam	3			_
	<u> </u>	30 50						8			
			2.								
								-			
Type: C=Concentration	n, D=Depletion, RM=Reduc	ed Matrix, CS	=Covered or Coat	ed Sand Gr	rains.		² Location: PL=Pore Linin	ng, M=Matrix			
Hydric Soil Indicators:						Indica	tors for Problematic Hyd	dric Soils ³ :			
Histosol (A1)			Sandy Gleyed Mate	rix (S4)							
Histic Epipedon (A2	2)		Sandy Redox (S5)				Coast Prairie Redox (A1	\$600 KG2000			
Black Histic (A3)			Stripped Matrix (Se	Contract of the contract of th			_ Iron-Manganese Masses				
Hydrogen Sulfide (/			oamy Mucky Mine				Other (Explain in Remark	ks)			
Stratified Layers (A	.5)		oamy Gleyed Mat								
2 cm Muck (A10)	urk Curtono (A11)		Depleted Matrix (F:			3 India	ators of hydrophytic vegeta	ation and watland			
X Depleted Below Da Thick Dark Surface			Redox Dark Surface Depleted Dark Surface				drology must be present, u				
Sandy Mucky Mine			Redox Depression:			-	problematic.	niess disturbed			
5 cm Mucky Peat o			redux Depression.	3 (1 0)		01 1	problematic.				
Restrictive Layer (if ob	oserved):										
Type: N/A Depth (inches):	N/A						Hydric Soil Present?	Yes X	_ No_		
Remarks:											
HYDROLOGY Wetland Hydrology Inc	dicators: mum of one is required; che	ack all that an	nh/)				Secondary Indio	ators (minimum o	f two required)		
				,,,,, (DO)				Surface Soil Crack			
Surface Water (A1) High Water Table (Water-Stained Lea Aquatic Fauna (B1:					Prainage Patterns			
Saturation (A3)	72)		True Aquatic Plant	100				ry-Season Water			
Water Marks (B1)			Hydrogen Sulfide C	1000				Crayfish Burrows (
Sediment Deposits	(B2)		Oxidized Rhizosph		ina Roots (C	(3)		Saturation Visible	STATE OF THE PARTY OF THE PARTY OF THE PARTY.	v (C9)	
Drift Deposits (B3)	()		Presence of Reduc		-	-/		Stunted or Stresse		, (00)	
Algal Mat or Crust ((B4)		Recent Iron Reduc		The state of the s			Seomorphic Position			
Iron Deposits (B5)			Thin Muck Surface	(C7)			XF	AC-Neutral Test ((D5)		
1 1 1 1 1 1 1 1 1	on Aerial Imagery (B7)		Gauge or Well Data	a (D9)			-				
Inundation Visible of	d Concave Surface (B8)		Other (Explain in R	temarks)							
Sparsely Vegetated											
Sparsely Vegetated Field Observations: Surface Water Present?		No_X	Depth (inches):_								
Sparsely Vegetated	YesYesYes	No X No X	Depth (inches):_ Depth (inches):_ Depth (inches):_		-3		Wetland Hydrology Pre		Yes	v	No
Sparsely Vegetated											

Oak Creek/

City/County: Milwaukee IH-94 Mainline Sampling Date: 8/19/2009 Project/Site: Applicant/Owner: WDOT State: WI Sampling Point: W11-10c T-1 A(u) Marcus S. Anderson / Julie A. Paschal Section, Township, Range: Section 31, T5N R22E Investigator(s): Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 5-10% Lat: See Fig. 2 Long: See Fig. 2 Datum: NA Fox loam (FoB) WWI Classification: None Soil Map Unit Name: Are climatic / hydrologic conditions on the site typical for this time of year? No_ (if no, explain in Remarks) Soil _ or Hydrology significantly disturbed? Are "Normal Circumstances" present? Are Vegetation 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 Is the Sampled Area Wetland Hydrology Present? within a Wetland? Yes No X Remarks: VEGETATION - Use scientific names for plants. **Dominance Test Worksheet:** Tree Stratum (Plot Size: 30 ft. radius Number of Dominant Species 1. Acer negundo FACW That Are OBL, FACW, or FAC: _(A) 2. **Total Number of Dominant** 3 Species Across All Strata: _(B) 30% = Total Cover Percent of Dominant Species That Are OBL, FACW, or FAC: 50% _(A/B) Sapling/Shrub Stratum (Plot Size: 15 ft. radius) Prevalence Index Worksheet: 1. Lonicera x bella 10% Total % Cover of: Multiply by: OBL species 90% 180 FACW species 3 x2= FAC species 10% x3= 30 30% 120 **FACU** species x 4 = 10% = Total Cover **UPL** species 10% x 5 50 Column Totals: 140% (A) 380 Herb Stratum (Plot Size: 5 ft. radius Prevalence Index = B/A = 2.71 1. Phalaris arundinacea 60% **FACW** 2. Glechoma hederacea 30% Yes FACU Hydrophytic Vegetation Indicators: 3. Parthenocissus quinquefolia No Dominance Test is >50% FAC 4. Geum aleppicum Prevalence Index is ≤ 3.01 5% No FAC Morphological Adaptations¹ (Provide supporting 6 data in Remarks or on separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 8 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 10 100% = Total Cover Woody Vine Stratum (Plot Size: N/A Hydrophytic) 1. N/A Vegetation Present? Yes X No = Total Cover 0% 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.

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

		ment the indicate			ice of in	and and and				
Depth Matrix		Calas (maiet)	Redox Feat		1 2	-		Damada		
(inches) Color (moist)	_%_	Color (moist)	%	Type ¹	Loc2	Texture	0	Remarks		
0-12 10YR 3/2	100	None				Silt loam	3		_	
12-18 <u>10YR 4/2</u>	100	None				Silt loam	80-			
		20					67			
							· ·			
		*** ***				404 6-4	8			85
		Q-5					8.			100
Type: C=Concentration, D=Depletion, RM=Reduc	ced Matrix, C	S=Covered or Coa	ted Sand Gr	ains.		² Location: PL=Pore Lin	ing, M=Matrix			-
Hydric Soil Indicators:					Indica	tors for Problematic Hy	dric Soils ³ :			
Histosol (A1)		Sandy Gleyed Mat								
Histic Epipedon (A2)		Sandy Redox (S5)			-	Coast Prairie Redox (A				
Black Histic (A3)		Stripped Matrix (SI			-	Iron-Manganese Masse	0.333.6			
Hydrogen Sulfide (A4)		Loamy Mucky Min			-	Other (Explain in Rema	rks)			
Stratified Layers (A5) 2 cm Muck (A10)		Loamy Gleyed Ma Depleted Matrix (F								
Depleted Below Dark Surface (A11)		Redox Dark Surfa			3 Indica	ators of hydrophytic veget	ation and wetland			
Thick Dark Surface (A12)		Depleted Dark Sur				frology must be present, a				
Sandy Mucky Mineral (S1)		Redox Depression				problematic.				
5 cm Mucky Peat or Peat (S3)			100							
Restrictive Layer (if observed):				8						- 1
Type: N/A										
Depth (inches): N/A						Hydric Soil Present?	Yes	No_X		
HYDROLOGY										
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; ch Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)		Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizosph Presence of Reduc Recent Iron Reduc	3) s (B14) Odor (C1) eres on Livi ced Iron (C4 tion in Tilled)	:3)		Stunted or Stressed Geomorphic Position	(B6) B10) Fable (C2) 8) A Aerial Imagery (C9 Plants (D1) n (D2)		C
Iron Deposits (B5)		Thin Muck Surface					FAC-Neutral Test (D	05)		
Inundation Visible on Aerial Imagery (B7)		Gauge or Well Dat								
Sparsely Vegetated Concave Surface (B8)		Other (Explain in F	(emarks)							
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	No X No X No X	Depth (inches): Depth (inches): Depth (inches):		•) •) •		Wetland Hydrology Pr	esent?	Yes	No	X
Describe Recorded Data (stream gauge, monitoring	g won, acriai	priotos, previous i	пэрссиона,	ii dvaliabie						
Remarks: No wetland hydrology indicators were	e observed	l. This area is l	ocated ap	oroximate	ely 5 fee	et higher in the topog	raphy than the a	adjacent wetland		

Oak Creek/

City/County: Milwaukee IH-94 Mainline Sampling Date: 8/19/2009 Project/Site: Applicant/Owner: WDOT State: WI Sampling Point: W11-10c T-1 B(w) Marcus S. Anderson / Julie A. Paschal Section, Township, Range: Section 31, T5N R22E Investigator(s): Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Lat: See Fig. 2 Slope (%): 0-1% 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? (if no, explain in Remarks) Soil _ or Hydrology Are "Normal Circumstances" present? Are Vegetation significantly disturbed? Yes X No or Hydrology _ Are Vegetation Soil _ 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_ X Wetland Hydrology Present? Yes_ within a Wetland? No Remarks: VEGETATION - Use scientific names for plants. **Dominance Test Worksheet:** Tree Stratum (Plot Size: 30 ft. radius) **Number of Dominant Species** Fraxinus pennsylvanica Yes **FACW** That Are OBL, FACW, or FAC: 3 (A) 2. Acer saccharinum 40% FACW Total Number of Dominant 3 Species Across All Strata: 3 (B) 90% = Total Cover Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B) Sapling/Shrub Stratum (Plot Size: N/A Prevalence Index Worksheet: 1. N/A Total % Cover of: Multiply by: OBL species FACW species 3 x2= FAC species x3= **FACU** species x4= 0% = Total Cover **UPL** species x 5 = Column Totals: (A) Herb Stratum (Plot Size: 5 ft. radius Prevalence Index = B/A = 1. Phalaris arundinacea 40% **FACW** 2. Ambrosia trifida 10% No FAC Hydrophytic Vegetation Indicators: 3. Aster lanceolatus 10% Dominance Test is >50% **FACW** Prevalence Index is ≤ 3.01 Morphological Adaptations (Provide supporting 6 data in Remarks or on separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 8 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 0 60% = Total Cover Woody Vine Stratum (Plot Size: N/A Hydrophytic) 1. N/A Vegetation Present? Yes X No = Total Cover 0% 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)

	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
6-20	10YR 2/1	100	None		***		Silt	26 AS		
	10YR 2/1	100	10YR 4/4	20%	С	М	Silt	5		
		_								
		-	-							
			-					-		
			-					-		
Type: C=Concentration,	D=Depletion, RM=Reduced	Matrix, CS	S=Covered or Coat	ed Sand Gra	ains.		² Location: PL=Pore Lini	ng, M=Matrix		
lydric Soil Indicators:						Indica	tors for Problematic Hyd	dric Soils ³ :		
Histosol (A1)			Sandy Gleyed Mate	rix (S4)						
Histic Epipedon (A2)			Sandy Redox (S5)				Coast Prairie Redox (A1			
Black Histic (A3)			Stripped Matrix (S6				_ Iron-Manganese Masses			
Hydrogen Sulfide (A4			Loamy Mucky Mine				Other (Explain in Remar	ks)		
Stratified Layers (A5) 2 cm Muck (A10)			Loamy Gleyed Mat Depleted Matrix (F:							
Depleted Below Dark	Surface (A11)		Redox Dark Surface			3 Indica	ators of hydrophytic vegeta	ation and wetland		
Thick Dark Surface (/			Depleted Dark Surla				drology must be present, u			
Sandy Mucky Minera			Redox Depressions			-	problematic.			
5 cm Mucky Peat or I			35.000			-				
Restrictive Layer (if obs	erved):									
Type: N/A										
Depth (inches):	N/A						Hydric Soil Present?	Yes X	No	
Remarks:										
HYDROLOGY Wetland Hydrology India	cators:						99			
Primary Indicators (minim	um of one is required; chec	k all that ap	pply)				Secondary Indic	ators (minimum of tw	vo required)	
Surface Water (A1)			Water-Stained Lea					Surface Soil Cracks (E		
High Water Table (A2	2)		Aquatic Fauna (B1:	100				Prainage Patterns (B1		
Saturation (A3)			True Aquatic Plants					Ory-Season Water Ta		
X Water Marks (B1) X Sediment Deposits (B	20)		Hydrogen Sulfide C Oxidized Rhizosph		na Poote /C	2)		Crayfish Burrows (C8) Saturation Visible on A		
X Drift Deposits (B3)	02)		Presence of Reduc)		Stunted or Stressed P		
Algal Mat or Crust (B	4)		Recent Iron Reduc					Reomorphic Position		
Iron Deposits (B5)	10		Thin Muck Surface		00.00 (00)			AC-Neutral Test (D5		
	Aerial Imagery (B7)		Gauge or Well Data							
Inundation Visible on	Concave Surface (B8)		Other (Explain in R	emarks)						
Inundation Visible on X Sparsely Vegetated 0 Field Observations:										
X Sparsely Vegetated 0	Yes	No X	Depth (inches):							
X Sparsely Vegetated (Field Observations: Surface Water Present?	YesYes	No X No X	Depth (inches):_ Depth (inches):_		<u>10</u>					
X Sparsely Vegetated (va e2		Wetland Hydrology Pre			

Oak Creek/ City/County: Milwaukee Sampling Date: 9/2/2009 IH-94 Mainline Project/Site: Applicant/Owner: WDOT State: WI Sampling Point: W11-14 T-1 A(u) Marcus S. Anderson / Tina M. Myers Section, Township, Range: Section 32, T5N R22E Investigator(s): 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? (if no, explain in Remarks) or Hydrology Soil significantly disturbed? Are "Normal Circumstances" present? Are Vegetation Yes 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 Hydric Soil Present? Yes X No Is the Sampled Area Wetland Hydrology Present? No within a Wetland? Yes Remarks: VEGETATION - Use scientific names for plants. **Dominance Test Worksheet:** Tree Stratum (Plot Size: N/A **Number of Dominant Species** That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: 0% = Total Cover Percent of Dominant Species 33% (A/B) That Are OBL, FACW, or FAC: Sapling/Shrub Stratum (Plot Size: N/A Prevalence Index Worksheet: 1. N/A Total % Cover of: Multiply by: OBL species FACW species x 2 = FAC species x3= **FACU** species x 4 = = Total Cover **UPL** species x5= Column Totals: (A) (B) Herb Stratum (Plot Size: 5 ft. radius Prevalence Index = B/A = 1. Poa pratensis 45% FAC 2. Elytrigia repens 50% Yes FACU Hydrophytic Vegetation Indicators: 3. Festuca elation 60% Yes Dominance Test is >50% FACU 4. Solidago canadensis Prevalence Index is ≤ 3.01 No 2% FACU Morphological Adaptations¹ (Provide supporting 5. Parthenocissus quinquefolia FAC data in Remarks or on separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 160% = Total Cover Woody Vine Stratum (Plot Size: N/A Hydrophytic 1. N/A Vegetation

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

This is an upland, old field plant community dominated by Eurasian grasses.

0%

= Total Cover

Present?

Yes

No X

SOIL Sampling Point: W11-14 T-1 A(u)

3012								Оштры	ig Foint. <u>W11-14</u>	1-1 A(u)
Profile Description: (I	Describe to the depth needed	to document	t the indicator or	confirm the	absence o	f indica	tors.)			
Depth (inches) 0-6	Matrix			Redox Featu			accepted.			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	F	Remarks	
0-6	10YR 3/1	100	None				Silty clay loam	307		
6-10	10YR 4/2	100	10YR 4/6	2%	С	М	Silty clay loam			
10-20	10YR 2/1	100	None				Silty clay loam			
10 20	10111211	100	110110				Only oldy loans			
								8		
· · · · · ·	2	<u> </u>	(C)					8		
	v 		100					S 		
Type: C-Concentration	n, D=Depletion, RM=Reduced	Matrix CS_Co	wared or Coated S	and Graine			² Location: PL=Pore Linin	a M_Matrix		
		Matrix, 05=00	overed or Coaled S	and Grains.						
Hydric Soil Indicators: Histosol (A1)	i.	3	Condu Claused Mat	riv (CA)		Indica	tors for Problematic Hyd	ric Soils":		
Histic Epipedon (A	2)		Sandy Gleyed Mat Sandy Redox (S5)	111 (34)			Coast Prairie Redox (A1	6)		
Black Histic (A3)	-/		Stripped Matrix (Se	6)		8	Iron-Manganese Masses			
Hydrogen Sulfide (A4)		Loamy Mucky Mine			19	Other (Explain in Remark			
Stratified Layers (A			Loamy Gleyed Mat			25		20.52		
2 cm Muck (A10)			Depleted Matrix (F							
Depleted Below Da			Redox Dark Surfa				ators of hydrophytic vegeta			
Thick Dark Surface			Depleted Dark Sur				drology must be present, ur	nless disturbed		
Sandy Mucky Mine		_	Redox Depression	S (F8)		or	problematic.			
5 cm Mucky Peat o										
Restrictive Layer (if of	oserved):									
Type: N/A	9230									
Depth (inches):	N/A						Hydric Soil Present?	Yes X	No	
Remarks:										
Control of the contro										
Soli is moist ire	om recent rains, but no sa	ituration or	water table pres	sent.						
HYDROLOGY										
Wetland Hydrology Inc										
Primary Indicators (mini	imum of one is required; check	all that apply)	E.				Secondary Indica	ators (minimum of two	required)	
Surface Water (A1)			Water-Stained Lea	ves (B9)			S	urface Soil Cracks (B	6)	
High Water Table (A2)		Aquatic Fauna (B1	3)			D	rainage Patterns (B10	0)	
Saturation (A3)			True Aquatic Plant					ry-Season Water Tab	le (C2)	
Water Marks (B1)			Hydrogen Sulfide (rayfish Burrows (C8)		
Sediment Deposits	(B2)		Oxidized Rhizosph			(3)		aturation Visible on A		
Drift Deposits (B3)	(0.4)		Presence of Reduc					tunted or Stressed Pl		
Algal Mat or Crust Iron Deposits (B5)	(64)		Recent Iron Reduc Thin Muck Surface		Solis (Cb)			eomorphic Position (I AC-Neutral Test (D5)	J2)	
	on Aerial Imagery (B7)		Gauge or Well Dat					AC-Neuliai Test (DS)		
	d Concave Surface (B8)		Other (Explain in F							
	0 00110010 0011000 (00)		outer (Emplean III)	tomatrio,						
Field Observations:										
Surface Water Present?	Yes	No_X	Depth (inches):_			1				
Water Table Present?	Yes	No X	Depth (inches):_			1				
Saturation Present? (includes capillary fringe	Yes	No X	Depth (inches):_			1	Wetland Hydrology Pre	sent?	Yes	No X
K	\$1	968 Etc. 91		St. (#50/5 1	Marconi	-				
Describe Recorded Dat	a (stream gauge, monitoring w	ell, aerial phot	os, previous inspec	ctions), if ava	ilable:					
Remarks:		en er								
No wetland hyd	rology indicators observ	ed.								

Oak Creek/

City/County: Milwaukee Sampling Date: 9/2/2009 IH-94 Mainline Project/Site: Sampling Point: W11-14 T-1 B(w) Applicant/Owner: WDOT State: WI Marcus S. Anderson / Tina M. Myers Section, Township, Range: Section 32, T5N R22E Investigator(s): 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? (if no, explain in Remarks) Soil _____ or Hydrology _ ____ significantly disturbed? Are "Normal Circumstances" present? Are Vegetation 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_ X Wetland Hydrology Present? Yes_ within a Wetland? No Remarks: * This area experiences seasonal hydrology. VEGETATION - Use scientific names for plants. **Dominance Test Worksheet:** ree Stratum (Plot Size: N/A **Number of Dominant Species** That Are OBL, FACW, or FAC: (A) Total Number of Dominant 2 (B) Species Across All Strata: 0% = Total Cover Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B) Sapling/Shrub Stratum (Plot Size: N/A Prevalence Index Worksheet: 1. N/A Total % Cover of: Multiply by: OBL species **FACW** species x2= FAC species x3= **FACU** species x4= 0% = Total Cover UPL species x 5 = Column Totals: (A) Herb Stratum (Plot Size: 5 ft. radius Prevalence Index = B/A = 1. Phalaris arundinacea 75% **FACW** 2. Poa pratensis 50% FAC Hydrophytic Vegetation Indicators: 3. Verbena hastata Dominance Test is >50% 3% **FACW** Prevalence Index is ≤ 3.01 Morphological Adaptations (Provide supporting data in Remarks or on separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 8 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 0 128% = Total Cover Woody Vine Stratum (Plot Size: N/A Hydrophytic) 1. N/A Vegetation Present? Yes X No = Total Cover 0% 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 nee	dod to docu	ment the indicate	r or confirm	n the absen	co of in	dicatore \				
	Matrix	ded to docui	ment the maicato	Redox Fea		ice of in	uicators.)				
Depth (inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Rom	arks		
		-	A 25					neii	diks		
0-6	10YR 3/2	100	10YR 4/6	5%	С	M	Silty clay loam			_	
6-20	10YR 2/1	100	10YR 5/6	5%	С	M	Silty clay loam				
L			10YR 4/6	10%	C	M					
	- N	20 20									
(3)	5. S	100	8							- 8	
	-									_	
	-		-					9			
Tuno: C. Concentratio	on, D=Depletion, RM=Reduc	and Matrix CC	Covered or Coe	ted Cond Co	reine		² Location: PL=Pore Linis	an M. Matrix			
		ed Matrix, Co	s=Covered or Coa	ilea Sana Gi	allis.						
Hydric Soil Indicators	::					Indica	tors for Problematic Hyd	dric Soils ³ :			
Histosol (A1)	22.7		Sandy Gleyed Ma					4.0			
Histic Epipedon (A	(2)		Sandy Redox (S5)			_	Coast Prairie Redox (A1	\$500 KG200			
Black Histic (A3)			Stripped Matrix (S			_	_Iron-Manganese Masses				
Hydrogen Sulfide			Loamy Mucky Min				Other (Explain in Remar	ks)			
Stratified Layers (A5)		Loamy Gleyed Ma								
2 cm Muck (A10)			Depleted Matrix (F			3					
Depleted Below D			Redox Dark Surfa				ators of hydrophytic vegeta				
Thick Dark Surface			Depleted Dark Su			hydrology must be present, unless disturbed or problematic.					
Sandy Mucky Mine			Redox Depression	ıs (F8)		or	problematic.				
5 cm Mucky Peat	or Peat (S3)										
Restrictive Layer (if o	bserved):										
Type: N/A											
Depth (inches):	N/A						Hydric Soil Present?	Yes X	No		
90 3055 7765											
HYDROLOGY											
Wetland Hydrology In	dicators:										
	nimum of one is required; ch	eck all that ar	only)				Secondary Indic	ators (minimum of two re	quired)		
				01400 (DO)			- a		quired)	_	
Surface Water (A1 High Water Table	A 1 () () () ()		Water-Stained Lea Aquatic Fauna (B					Surface Soil Cracks (B6) Prainage Patterns (B10)			
Saturation (A3)	(AZ)		True Aquatic Plan					Ory-Season Water Table (C2)		
Water Marks (B1)			Hydrogen Sulfide					Crayfish Burrows (C8)	02)		
Sediment Deposits	s (R2)		Oxidized Rhizospl	Section 1	ing Roots (C	(3)		Saturation Visible on Aeria	I Imagery (C9)		
Drift Deposits (B3)	and the second s		Presence of Redu			,0,		Stunted or Stressed Plant			
Algal Mat or Crust			Recent Iron Redu					Geomorphic Position (D2)	3 (5.)		
Iron Deposits (B5)	77 T		Thin Muck Surface		00.00			AC-Neutral Test (D5)			
	on Aerial Imagery (B7)		Gauge or Well Da								
	ed Concave Surface (B8)		Other (Explain in I								
Field Observations:	200 2001										
Surface Water Present		No X	Depth (inches):		-00						
Water Table Present?	Yes	No X	Depth (inches):		-0						
Saturation Present? (includes capillary fring	Yes	No X	Depth (inches):		-35		Wetland Hydrology Pre	esent?	Yes X	No	
	ta (stream gauge, monitorin	g well, aerial	photos, previous i	nspections),	if available:						
Demodes											
Remarks:											
IL											

Oak Creek/ IH-94 Mainline Sampling Date: 9/15/2009 Project/Site: City/County: Milwaukee Applicant/Owner: WDOT State: WI Sampling Point: W11-15 T-1 A(u) Eric C. Parker / Julie A. Paschal Section, Township, Range: Section 31, T5N R22E Investigator(s): 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? (if no, explain in Remarks) Soil __*X_ or Hydrology _ Are "Normal Circumstances" present? Are Vegetation significantly disturbed? 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_ Hydric Soil Present? Yes_ No X Is the Sampled Area Wetland Hydrology Present? within a Wetland? Yes No X * 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. **Dominance Test Worksheet:** ree Stratum (Plot Size: N/A **Number of Dominant Species** That Are OBL, FACW, or FAC: (A) Total Number of Dominant Species Across All Strata: __ (B) 0% = Total Cover Percent of Dominant Species That Are OBL, FACW, or FAC: 50% _(A/B) Sapling/Shrub Stratum (Plot Size: N/A Prevalence Index Worksheet: 1. N/A Total % Cover of: Multiply by: OBL species **FACW** species x 2 = FAC species 80% x3= 240 50% 200 **FACU** species 0% = Total Cover UPL species 10% x 5 50 Column Totals: 140% 490 lerb Stratum (Plot Size: 5 ft. radius Prevalence Index = B/A = 3.50 1. Eupatorium altissimum 30% FACU No 2. Asclepias syriaca 10% Hydrophytic Vegetation Indicators: UPL Yes 3. Poa pratensis 80% Dominance Test is >50% FAC 4. Solidago canadensis Prevalence Index is ≤ 3.01 20% FACU Morphological Adaptations (Provide supporting data in Remarks or on separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 140% = Total Cover Woody Vine Stratum (Plot Size: N/A Hydrophytic) 1. N/A Vegetation Present? No_X Yes = Total Cover 0% 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)

1 Type: C=Concentration, D=Depletion, RM=Reduced Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3)	100 None d Matrix, CS=Covered or Coated Sand Grains.	Silty clay loam	
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2)	J Matrix, CS=Covered or Coated Sand Grains.		
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2)	Matrix, CS=Covered or Coated Sand Grains.		
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2)	J Matrix, CS=Covered or Coated Sand Grains.		
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2)	Matrix, CS=Covered or Coated Sand Grains.		
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2)	d Matrix, CS=Covered or Coated Sand Grains.		*
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2)	d Matrix, CS=Covered or Coated Sand Grains.	2	
Histosol (A1) Histic Epipedon (A2)		² Location: PL=Pore Lining, M=Matrix	
Histic Epipedon (A2)	Sandy Gleyed Matrix (S4)	Indicators for Problematic Hydric Soils ³ :	
Plack Histo (A2)	Sandy Redox (S5)	Coast Prairie Redox (A16)	
	Stripped Matrix (S6)	Iron-Manganese Masses (F12)	
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1)	Other (Explain in Remarks)	
Stratified Layers (A5)	Loamy Gleyed Matrix (F2)		
2 cm Muck (A10) Depleted Below Dark Surface (A11)	Depleted Matrix (F3) Redox Dark Surface (F6)	3 Indicators of hydrophytic vegetation and wetl	and
Thick Dark Surface (A12)	Depleted Dark Surface (F7)	hydrology must be present, unless disturbe	
Sandy Mucky Mineral (S1)	Redox Depressions (F8)	or problematic.	
5 cm Mucky Peat or Peat (S3)		3. 16. 17. 16.	
Restrictive Layer (if observed):			
Type: N/A Depth (inches): N/A	 *	Hydric Soil Present? Yes	No. V
Depin (inches).	-	Hydric Soil Present? Yes	No_X
Wetland Hydrology Indicators:			
	to all the transport of	Occasion Indicators (minimum	
		Secondary Indicators (minimu	
Surface Water (A1)	Water-Stained Leaves (B9)	Surface Soil Co	acks (B6)
			racks (B6) rns (B10)
Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) Aquatic Fauna (B13)	Surface Soil Co	acks (B6) rns (B10) ater Table (C2)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots	Surface Soil C Drainage Patte Dry-Season W Crayfish Burror s (C3) Saturation Visi	acks (B6) rns (B10) ater Table (C2) ws (C8) ble on Aerial Imagery (C9)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4)	Surface Soil C Drainage Patte Dry-Season W Crayfish Burror s (C3) Saturation Visit	acks (B6) rns (B10) ater Table (C2) vs (C8) ble on Aerial Imagery (C9) ssed Plants (D1)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C	Surface Soil Ci Drainage Patte Dry-Season W Crayfish Burror S (C3) Saturation Visi Stunted or Stre Geomorphic Po	acks (B6) rns (B10) ater Table (C2) vs (C8) ble on Aerial Imagery (C9) ssed Plants (D1) bition (D2)
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)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Thin Muck Surface (C7)	Surface Soil C Drainage Patte Dry-Season W Crayfish Burror s (C3) Saturation Visit	acks (B6) rns (B10) ater Table (C2) vs (C8) ble on Aerial Imagery (C9) ssed Plants (D1) bition (D2)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C	Surface Soil Ci Drainage Patte Dry-Season W Crayfish Burror S (C3) Saturation Visi Stunted or Stre Geomorphic Po	acks (B6) rns (B10) ater Table (C2) vs (C8) ble on Aerial Imagery (C9) ssed Plants (D1) bition (D2)
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 Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Thin Muck Surface (C7) Gauge or Well Data (D9)	Surface Soil Ci Drainage Patte Dry-Season W Crayfish Burror S (C3) Saturation Visi Stunted or Stre Geomorphic Po	acks (B6) rns (B10) ater Table (C2) vs (C8) vle on Aerial Imagery (C9) ssed Plants (D1) osition (D2)
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)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Thin Muck Surface (C7) Gauge or Well Data (D9)	Surface Soil Ci Drainage Patte Dry-Season W Crayfish Burror S (C3) Saturation Visi Stunted or Stre Geomorphic Po	acks (B6) rns (B10) ater Table (C2) vs (C8) ble on Aerial Imagery (C9) ssed Plants (D1) bition (D2)
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) Field Observations:	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks)	Surface Soil Ci Drainage Patte Dry-Season W Crayfish Burror S (C3) Saturation Visi Stunted or Stre Geomorphic Po	acks (B6) rns (B10) ater Table (C2) vs (C8) ble on Aerial Imagery (C9) ssed Plants (D1) bition (D2)

Projection of the second control of the seco	Project/Site:	IH-94 Mainline				Oak Creek/ City/County: Milwaukee Sampling Date: 9/15/2009
Investigation 17		V-2-7-7-7-1				
Landsmill pillulope, terrace, etc.		-				
Sippe (No. 2-28)	- 10 to 10 t		Terrace			
Sol Map the Name		Control of the Contro	at: See Fig. 2		Long: See	
Are Vegetation	and the Start Star	- Commence of the Commence of				
SUMMARY OF FINDINGS — Attach site may aboving sampling point locations, transects, important features, etc.	Are climatic / hydrolog	gic conditions on the site	typical for this tim	e of year?		Yes X No (if no, explain in Remarks)
NA	Are Vegetation	Soil	or Hydrology	*X signific	antly disturbed?	Are "Normal Circumstances" present? Yes X No
Hydrocyline Vegetation Present?	Are Vegetation	Soil	or Hydrology	natural	y problematic?	(if needed, explain any answers in Remarks)
Hydrocyline Vegetation Present?	SUMMARY OF FIND	INGS Attach site mar	showing samp	ling point location	ons, transects, in	important features, etc.
Wetland Hydrology Present? Yes_X No Within a Wetland?			YesX	No		
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. **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. **VECETATION - Use scientific names for plants.** Ince Stratum (Pict Size: N/A			Yes X	_ No		Is the Sampled Area Yes X No
* 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.** Tines Stratum (Plot Size: N/A) Absolute % Dominant Indicator Stratum (Plot Size: N/A) Access Stratum (Plot Size: N/A) Access Stratum (Plot Size: N/A) Access Stratum (Plot Size: N/A) Total American Species That Are OBL, FACW, or FAC: 2 (A) **Total American Species That Are OBL, FACW, or FAC: 2 (B) **Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B) **Sapling/Strub_Stratum (Plot Size: N/A)	Wetland Hydrology P	resent?	Yes X	_ No		within a Wetland?
Absolute % Dominant Indicator Spacies Status Number of Dominant Spacies Status Number of Dominant Spacies Status Number of Dominant Spacies That Are OBL, FACW, or FAC: 2 (A)	* Hydrology h					is connected to the Root River via culverts beneath I-94.
Troe_Stratum (Plot Size: NIA)	VEGETATION - Use	scientific names for plant				
Number of Dominant Species That Are OBL, FACW, or FAC: 2	Tree Stratum (Plot S	ize: N/A				Dominance Test Worksheet:
2	III	.,	Limei		SIAIUS	Number of Dominant Species
3.	-					That Are OBL, FACW, or FAC:(A)
Species Across All Strata: 2 (B)	2	-				Total Number of Dominant
Sapling/Shrub Stratum (Plot Size: N/A)						
That Are OBL, FACW, or FAC: 100% (A/B)	5.					FMAN AN AN INC. 1971
1. N/A			0%	= Total Cover		
2.	Sapling/Shrub Stratur	m (Plot Size: N/A)			Prevalence Index Worksheet:
3.						
FAC species X 3 =						
FACU species X 4 = UPL species X 5 = Column Totals: (A) (B)	4.					
Column Totals:	5.					
Herb Stratum (Plot Size: 5 ft. radius 100% Yes FACW 2. Typha angustifolia 25% Yes OBL Hydrophytic Vegetation Indicators:		38	0%	= Total Cover		UPL species x 5 =
1. Phalaris arundinacea 2. Typha angustifolia 2. Typha angustifolia 2. Typha angustifolia 3.						Column Totals: (A) (B)
2. Typha angustifolia 2. Typha angustifolia 3.			100%	Van	FACW	Prevalence Index = B/A =
X Dominance Test is >50%						Hydrophytic Vegetation Indicators:
Morphological Adaptations						15/200 (AUST) 12 (157 170) 12/2000 (157 170)
6	4.					
7	5					
8	7					
10						
125%	9.	26		-		
Woody Vine Stratum	10		1050/	Total Course		be present, unless disturbed or problematic.
1. N/A			125%	= Total Cover		
2	Woody Vine Stratum	(Plot Size: N/A)			Hydrophytic
= Total Cover	- 10 A					
	2			- Total Cover		Present? Yes X No
Remarks: (Include photo numbers here or on a separate sheet.)				- Total Cover		
	Remarks: (Include ph	oto numbers here or on a	separate sheet.)			
	Visite P					
	l					

SOIL Sampling Point: W11-15 T-1 B(w)

inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
)-10	10YR 3/1.5	100	7.5YR 5/8	10%	C		Silt loam		Hemans	
10-18	10YR 3/1.5		5YR 4/6	15%	c	M	Silty clay loam	Gravel and	sand present. Bloc	
0-16	10TH 3/1.3	100	31h 4/6	15%	C	IVI	Silty clay loan	17 - 12 A 19 - 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		· ·
								soil structur	re.	
	+	-						-		
		300	-					-		
								-		
Tuno: C-Concentrati	ion, D=Depletion, RM=Redu	and Matrix CS	Covered or Coo	tod Sand Gr	raine		² Location: PL=Pore Lin	ing M.Matriy		
		ced Matrix, Go	s=Covered or Coa	ieu Sanu Gi	all is.					
Hydric Soil Indicator Histosol (A1)	rs:		Sandy Gleyed Mat	triv (CA)		Indicat	tors for Problematic Hy	dric Soils":		
Histic Epipedon ((42)		Sandy Redox (S5)				Coast Prairie Redox (A	16)		
Black Histic (A3)	(NL)		Stripped Matrix (Se			-	Iron-Manganese Masse	\$99500000		
Hydrogen Sulfide	e (A4)		Loamy Mucky Min	- Contract (10 mg			Other (Explain in Rema			
Stratified Layers			Loamy Gleyed Ma							
2 cm Muck (A10)			Depleted Matrix (F							
	Dark Surface (A11)		Redox Dark Surfa	Control of the Contro			tors of hydrophytic veget		d	
Thick Dark Surface			Depleted Dark Sur			-	rology must be present, i	unless disturbed		
Sandy Mucky Mir 5 cm Mucky Peat		'	Redox Depression	is (F8)		or p	roblematic.			
Restrictive Layer (if	observed):									
Type: N/A	NVA						Hudela Call DescentO	v v	4400	
Depth (inches):	N/A						Hydric Soil Present?	Yes X	No	_
HYDROLOGY Wetland Hydrology I	Indicators:	neck all that ap	oply)				Secondary Indi	cators (minimum	of two required)	
Wetland Hydrology I	inimum of one is required; cl		oply) Water-Stained Lea	aves (B9)			The second secon	cators (minimum Surface Soil Crac	Parties and the second second	
Netland Hydrology I Primary Indicators (mi	inimum of one is required; cl								cks (B6)	
Primary Indicators (mi Surface Water (A High Water Table Saturation (A3)	inimum of one is required; cl (1) e (A2)	\equiv	Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plant	13) ts (B14)			x	Surface Soil Crac Drainage Pattern Dry-Season Wate	cks (B6) s (B10) er Table (C2)	
Wetland Hydrology I Primary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1)	inimum of one is required; cl x1) e (A2))	\equiv	Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plant Hydrogen Sulfide (13) ts (B14) Odor (C1)			X	Surface Soil Crac Drainage Pattern Dry-Season Wate Crayfish Burrows	cks (B6) is (B10) er Table (C2) is (C8)	
Wetland Hydrology I Primary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1) Sediment Deposi	inimum of one is required; cl x1) e (A2)) its (B2)		Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizosph	ts (B14) Odor (C1) neres on Livi	-	3)	x x	Surface Soil Crac Drainage Pattern Dry-Season Wate Crayfish Burrows Saturation Visible	cks (B6) is (B10) er Table (C2) is (C8) e on Aerial Imagery (C	
Wetland Hydrology I Primary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1) Sediment Deposit Drift Deposits (B3)	inimum of one is required; cl (1) e (A2)) its (B2) 3)		Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizosph Presence of Reduc	ts (B14) Odor (C1) neres on Liviced Iron (C4	4)	3)	x	Surface Soil Crac Drainage Pattern Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress	cks (B6) s (B10) er Table (C2) s (C8) e on Aerial Imagery (Ced Plants (D1)	
Wetland Hydrology I Primary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1) Sediment Deposit Drift Deposits (B3 Algal Mat or Crus	inimum of one is required; cl (1) e (A2)) its (B2) st (B4)		Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizosph Presence of Reduc Recent Iron Reduc	ts (B14) Odor (C1) neres on Liviced Iron (C4 ction in Tilled	4)	(3)	x	Surface Soil Crac Drainage Pattern: Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi	cks (B6) s (B10) er Table (C2) s (C8) e on Aerial Imagery (Ced Plants (D1) ition (D2)	29)
Wetland Hydrology I Primary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1' Sediment Deposit (B5' Algal Mat or Crus Iron Deposits (B5'	inimum of one is required; cl (1) e (A2)) its (B2) 3) st (B4)	<u>x</u>	Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizosph Presence of Reduc Recent Iron Reduc Thin Muck Surface	ts (B14) Odor (C1) neres on Livi ced Iron (C4 ction in Tilled	4)	3)	x	Surface Soil Crac Drainage Pattern Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress	cks (B6) s (B10) er Table (C2) s (C8) e on Aerial Imagery (Ced Plants (D1) ition (D2)	(39)
Vetland Hydrology I Primary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1) Sediment Deposit Drift Deposits (B3 Algal Mat or Crus Iron Deposits (B5 Inundation Visible	inimum of one is required; cl (1) e (A2)) its (B2) st (B4)		Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizosph Presence of Reduc Recent Iron Reduc	ts (B14) Odor (C1) heres on Livi ced Iron (C4 ction in Tilled (C7) ta (D9)	4)	3)	x	Surface Soil Crac Drainage Pattern: Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi	cks (B6) s (B10) er Table (C2) s (C8) e on Aerial Imagery (Ced Plants (D1) ition (D2)	(9)
Wetland Hydrology I Primary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1) Sediment Deposits (B5 Algal Mat or Crus Iron Deposits (B5 Inundation Visible Sparsely Vegetat	inimum of one is required; cl (1) e (A2)) its (B2) 3) st (B4) 5) e on Aerial Imagery (B7)		Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizoze Presence of Redu Recent Iron Reduc Thin Muck Surface Gauge or Well Dat	ts (B14) Odor (C1) heres on Livi ced Iron (C4 ction in Tilled (C7) ta (D9)	4)	:3)	x	Surface Soil Crac Drainage Pattern: Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi	cks (B6) s (B10) er Table (C2) s (C8) e on Aerial Imagery (Ced Plants (D1) ition (D2)	(59)
Wetland Hydrology I Primary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1) Sediment Deposits (B5 Algal Mat or Crus Iron Deposits (B5 Inundation Visible Sparsely Vegetat Field Observations:	inimum of one is required; cl (1) e (A2)) its (B2) 3) st (B4) 5) e on Aerial Imagery (B7) ted Concave Surface (B8)		Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizosph Presence of Redu Recent Iron Reduc Thin Muck Surface Gauge or Well Dat Other (Explain in F	ts (B14) Odor (C1) heres on Livi ced Iron (C4 ction in Tilled (C7) ta (D9)	4)	:3)	x	Surface Soil Crac Drainage Pattern: Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi	cks (B6) s (B10) er Table (C2) s (C8) e on Aerial Imagery (Ced Plants (D1) ition (D2)	(39)
Wetland Hydrology I Primary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1' Sediment Deposit (B5 Algal Mat or Crus Iron Deposits (B5 Inundation Visible Sparsely Vegetat Field Observations: Surface Water Presen	inimum of one is required; cl (1) e (A2)) its (B2) (3) st (B4) (5) e on Aerial Imagery (B7) ted Concave Surface (B8)		Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizosph Presence of Reduc Recent Iron Reduc Thin Muck Surface Gauge or Well Dat Other (Explain in F	ts (B14) Odor (C1) neres on Livi ced Iron (C4 ction in Tiller e (C7) ta (D9) Remarks)	4)	:3)	x	Surface Soil Crac Drainage Pattern: Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi	cks (B6) s (B10) er Table (C2) s (C8) e on Aerial Imagery (Ced Plants (D1) ition (D2)	(9)
Wetland Hydrology I Primary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1) Sediment Deposit (B3 Algal Mat or Crus Iron Deposits (B5 Inundation Visible Sparsely Vegetat Field Observations: Surface Water Present Water Table Present?	inimum of one is required; cl (1) e (A2)) its (B2) 3) st (B4) 5) e on Aerial Imagery (B7) ted Concave Surface (B8)	X	Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plant Hydrogen Sulfide C Oxidized Rhizosph Presence of Reduc Recent Iron Reduc Thin Muck Surface Gauge or Well Dat Other (Explain in F Depth (inches): Depth (inches):	ts (B14) Odor (C1) neres on Livi ced Iron (C4 ction in Tiller e (C7) ta (D9) Remarks)	4)	3)	x x	Surface Soil Crac Drainage Pattern: Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi FAC-Neutral Test	cks (B6) is (B10) er Table (C2) i (C8) e on Aerial Imagery (C sed Plants (D1) ition (D2) t (D5)	
Wetland Hydrology I Primary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1) Sediment Deposits (B5 Algal Mat or Crus Iron Deposits (B5 Inundation Visible Sparsely Vegetat Field Observations:	inimum of one is required; cl (1) (a) (A2) (b) (its (B2) (b) (B4) (c) (b) (b) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c		Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizosph Presence of Reduc Recent Iron Reduc Thin Muck Surface Gauge or Well Dat Other (Explain in F	ts (B14) Odor (C1) neres on Livi ced Iron (C4 ction in Tiller e (C7) ta (D9) Remarks)	4)	3)	x	Surface Soil Crac Drainage Pattern: Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi FAC-Neutral Test	cks (B6) s (B10) er Table (C2) s (C8) e on Aerial Imagery (Ced Plants (D1) ition (D2)	
Wetland Hydrology I Primary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1) Sediment Deposits (B5) Algal Mat or Crus Iron Deposits (B5) Inundation Visible Sparsely Vegetat Field Observations: Surface Water Present Nater Table Present? Saturation Present? Sincludes capillary frind Describe Recorded Describe Recorded Describer Recorded Describer (Mater Table Present) Describe Recorded Describer Recorded Recorded Describer Recorded Describer Recorded Reco	inimum of one is required; cl (1) (a) (A2) (b) (its (B2) (b) (B4) (c) (b) (b) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	No X No X No X	Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizosph Presence of Reduc Recent Iron Reduc Thin Muck Surface Gauge or Well Dat Other (Explain in F Depth (inches): Depth (inches): photos, previous in	ts (B14) Odor (C1) neres on Livi ced Iron (C4 tition in Tilled e (C7) ta (D9) Remarks)	d Soils (C6)	33)	x x	Surface Soil Crac Drainage Pattern: Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi FAC-Neutral Test	cks (B6) is (B10) er Table (C2) i (C8) e on Aerial Imagery (C sed Plants (D1) ition (D2) t (D5)	
Vetland Hydrology I Primary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1) Sediment Deposit Iron Deposits (B5 Inundation Visible Sparsely Vegetat Field Observations: Surface Water Present Vater Table Present? Saturation Present? Includes capillary frin Describe Recorded Di Drainage patte	inimum of one is required; cl (1) (a) (A2) (b) (its (B2) (b) (B4) (c) (B4) (c) (B4) (c) (B4) (c) (B4) (d) (B4) (d) (B4) (d) (B4) (e) (A2) (e) (A2) (f) (f) (f) (f) (f) (f) (f) (f) (f) (f)	No X No X No X	Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizosph Presence of Reduc Recent Iron Reduc Thin Muck Surface Gauge or Well Dat Other (Explain in F Depth (inches): Depth (inches): Depth (inches):	ts (B14) Odor (C1) neres on Livi ced Iron (C4 ction in Tilled c (C7) ta (D9) Remarks)	d Soils (C6)		X X X X X X X X X X X X X X X X X X X	Surface Soil Crac Drainage Pattern: Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi FAC-Neutral Test	cks (B6) is (B10) er Table (C2) i (C8) e on Aerial Imagery (C sed Plants (D1) ition (D2) t (D5)	
Vetland Hydrology I Irimary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1) Sediment Deposit Is Deposits (B5 Algal Mat or Crus Iron Deposits (B5 Inundation Visible Sparsely Vegetat Vegetat Veter Table Present Vater Table Present	inimum of one is required; cl (1) (a) (A2) (b) (its (B2) (b) (B2) (c) (B4) (c) (B4) (c) (B4) (c) (B4) (c) (B4) (c) (B4) (c) (B4) (c) (B4) (c) (B4) (c) (C) (C) (C) (C) (C) (C) (C) (C) (C) (C	No X No X No X	Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizosph Presence of Reduc Recent Iron Reduc Thin Muck Surface Gauge or Well Dat Other (Explain in F Depth (inches): Depth (inches): Depth (inches):	ts (B14) Odor (C1) neres on Livi ced Iron (C4 ction in Tilled c (C7) ta (D9) Remarks)	d Soils (C6)		X X X X X X X X X X X X X X X X X X X	Surface Soil Crac Drainage Pattern: Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi FAC-Neutral Test	cks (B6) is (B10) er Table (C2) i (C8) e on Aerial Imagery (C sed Plants (D1) ition (D2) t (D5)	
Vetland Hydrology I Primary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1) Sediment Deposit Iron Deposits (B5 Inundation Visible Sparsely Vegetat Field Observations: Surface Water Present Vater Table Present? Saturation Present? Includes capillary frin Describe Recorded Di Drainage patte	inimum of one is required; cl (1) (a) (A2) (b) (its (B2) (b) (B2) (c) (B4) (c) (B4) (c) (B4) (c) (B4) (c) (B4) (c) (B4) (c) (B4) (c) (B4) (c) (B4) (c) (C) (C) (C) (C) (C) (C) (C) (C) (C) (C	No X No X No X	Water-Stained Lea Aquatic Fauna (B1 True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizosph Presence of Reduc Recent Iron Reduc Thin Muck Surface Gauge or Well Dat Other (Explain in F Depth (inches): Depth (inches): Depth (inches):	ts (B14) Odor (C1) neres on Livi ced Iron (C4 ction in Tilled c (C7) ta (D9) Remarks)	d Soils (C6)		X X X X X X X X X X X X X X X X X X X	Surface Soil Crac Drainage Pattern: Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi FAC-Neutral Test	cks (B6) is (B10) er Table (C2) i (C8) e on Aerial Imagery (C sed Plants (D1) ition (D2) t (D5)	



APPENDIX G

Wetland Determination Data Forms 2016

Project/Site: IH 94 Milwaukee County		Cit	y/County:	Oak Creek/N	1ilwaukee	Sampling Date:	10-Nov-16
Applicant/Owner: WisDOT				State:	WI S	Sampling Point:	SP-1 (u)
Investigator(s): Mike Al-wathiqui, Geof Parish			Section, Town	ship, Range:	s 30 T	5N R 22E	
Landform (hillslope, terrace, etc.): Hillside			ı	Local relief (c	oncave, convex, non	ne): convex	
Slope: 20.0% / 11.3 ° Lat.: 42.8636	5017		Long.: -	87.9378967	7	Datum: W	GS84
Soil Map Unit Name: Morley silt loam, 2 to 6					WWI clas	ssification: None	
Are climatic/hydrologic conditions on the site typica		Yes	O No O	(If no, ex	rplain in Remarks.)		
Are Vegetation , Soil , or Hyd	_ ′	ntly dis	turbed?	Are "No	rmal Circumstances"	' present? Yes	No ○
Are Vegetation , Soil , or Hyd	rology 🗌 naturally	proble	ematic?	(If need	ded, explain any ans	wers in Remarks.)	
SUMMARY OF FINDINGS - Attach s	ite map showing	samp	pling poin	t locatio	ns, transects, i	important feature	es, etc.
Hydrophytic Vegetation Present? Yes	No ●						
Hydric Soil Present? Yes	No ●			e Sampled A n a Wetland		. •	
Wetland Hydrology Present? Yes	No ●				·· res 🔾 140		
Remarks:			•				
Hydrological conditions were wetter than n		t comi	munity and	upland soils	were documente	d. There were no ind	icators of wetland
hydrology present. The sample point was	located in an upland.						
VEGETATION - Use scientific n	amos of plants		B !				
VEGETATION - Ose scientific in			Dominant - Species?				
Tree Stratum(Plot size:)		olute Cover	Rel.Strat. Cover	Indicator Status	Dominance Test	worksheet:	
1.		0	0.0%		Number of Domina That are OBL, FAC		1 (A)
2.		0	0.0%				1 (1)
3.		0	0.0%		Total Number of D Species Across All		4 (B)
4.		0	0.0%		Species Across Air	_	_ т (В)
5.		0	0.0%		Percent of domi		DE 00/ (A/P)
		0	= Total Cove	er	That Are OBL, F	ACW, or FAC:	25.0% (A/B)
_Sapling/Shrub Stratum (Plot size:)				Prevalence Index	x worksheet:	
1		0	0.0%		Total % C	over of: Multiply	by:
2		0	0.0%		OBL species	x 1 =	0
3		0	0.0%		FACW species	x 2 =	0
4		0	0.0%		FAC species	<u>10</u> x 3 =	30
5		0	0.0%		FACU species	x 4 =	200
<u>Herb Stratum</u> (Plot size: 5' radius)		0	= Total Cove	er	UPL species	x 5 =	0
1. Fragaria virginiana		20_	✓ 33.3%	FACU	Column Totals:	60(A)	230 (B)
2. Festuca arundinacea		10	✓ 16.7%	FACU	Prevalence	Index = B/A =	3.833_
3. Poa pratensis		10	✓ 16.7%	FAC		etation Indicators:	
4. Lonicera X bella	<u> </u>	10	16.7%	FACU		etation indicators. et for Hydrophytic Vege	etation
5. Plantago lanceolata		5	8.3%	FACU		ce Test is > 50%	station
6. Solidago canadensis		5	8.3%	FACU		e Index is ≤3.0 1	
7. 8.		0	0.0%			gical Adaptations 1 (P	rovide supporting
8. 9.		0	0.0%			irks or on a separate s	
10.		0	0.0%		Problematic	Hydrophytic Vegetatio	n ¹ (Explain)
10.		0	0.0%		¹ Indicators of h	nydric soil and wetland	l hydrology must
)6	50	= Total Cove	er		ss disturbed or proble	
1.		0	0.0%				
2.		0	0.0%		Hydrophytic Vegetation	-	
		0	= Total Cove	er	Present?	Yes O No •	
Remarks: (Include photo numbers here or	on a separate sheet.)						
An upland plant community was document	ed.						

SOIL Sampling Point: SP-1 (u)

Profile Desc	ription: (De	scribe to	the depth ne	eded to docun	nent the indi	cator or co	nfirm the	absence of indicators.)	
Depth		Matrix			Redox Feat	ıres		_	
(inches)	Color (moist)	<u>%</u>	Color (moist	<u>%</u>	Tvpe 1	Loc ²	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	
	-						-		
-	-						-		
		=Depletior	n, RM=Reduce	d Matrix, CS=Co	vered or Coat	ed Sand Gra	ins.	₽ PL=Pore Lining. M=	Matrix.
Hydric Soil								Indicators for Problem	atic Hydric Soils ³ :
Histosol (eyed Matrix (S	4)		Coast Prairie Redox (A	16)
Black His	pedon (A2)			Sandy Re				Dark Surface (S7)	
	n Sulfide (A4)				Matrix (S6)	-4\		☐ Iron Manganese Masse	es (F12)
Stratified	Layers (A5)				ucky Mineral (I	•		Very Shallow Dark Sur	face (TF12)
2 cm Mud	ck (A10)				eyed Matrix (F Matrix (F3)	(2)		Other (Explain in Rem	arks)
Depleted	Below Dark S	Surface (A1	.1)		ırk Surface (F6)			
☐ Thick Dar	rk Surface (A	12)			Dark Surface	•		Indicators of hydrophyt	to consider the second
Sandy Mu	uck Mineral (S	51)			pressions (F8)	` '		wetland hydrology m	
5 cm Mud	cky Peat or Pe	eat (S3)			, p. 222.21.2 (* 2)			unless disturbed or	problematic.
Restrictive L	ayer (if obs	erved):							
Туре:								Hydric Soil Present?	Yes O No •
Depth (inc	ches):							Hydric Soil Presents	Yes O No O
Remarks:									
Hydric soils v	were not ob	served.							
	ncv								
HYDROLO	JGT								
Wetland Hyd									
		ım of one	is required; ch	eck all that appl					s (minimum of two required)
	Vater (A1)				Stained Leaves	(B9)		Surface Soil Cra	
	er Table (A2)				Fauna (B13)			☐ Drainage Patterr	
Saturation					uatic Plants (F	-		Dry Season Wat	
Water Ma	t Deposits (B2))			en Sulfide Odo d Rhizosphere	. ,	Poots (C3)	Crayfish Burrows	e on Aerial Imagery (C9)
	osits (B3)	-)			ce of Reduced	_	(0013 (C3)	Stunted or Stres	
	or Crust (B4))			Iron Reduction		oils (C6)	Geomorphic Pos	` '
☐ Iron Dep	• •	,			uck Surface (C		()	FAC-Neutral Tes	
	on Visible on A	Aerial Imag	jery (B7)		or Well Data (I	•			- (- /
	Vegetated Co	_			Explain in Rem	•			
				_ `	•	,			
Field Observ	ations:								
Surface Water	r Present?	Yes	O No 💿	Depth	(inches):		_		
Water Table P	Present?	Yes	○ No ●	Depth	(inches):				
Saturation Pre	esent?	Yes			(inches):		Wet	land Hydrology Present?	Yes O No O
(includes capi				•			- L	a) if a valle!-!-	
Describe Red	corded Data	(stream	gauge, mon	itoring well, a	eriai pnotos,	previous ir	spections	s), if available:	
D !									
Remarks:									
No indicator	s or wetland	nydrolog	gy were obs	ervea.					

Project/Site: IH 94 Milwaukee County	Cit	y/County:	Oak Creek/N	Vilwaukee Sampling Date: 10-Nov-16
Applicant/Owner: WisDOT			State:	WI Sampling Point: SP-2 (W10-7)
Investigator(s): Mike Al-wathiqui, Geof Parish		Section, Town	ship, Range:	S 30 T 5N R 22E
Landform (hillslope, terrace, etc.): Toeslope		ı	Local relief (c	oncave, convex, none): concave
Slope: 2.0% / 1.1 ° Lat.: 42.8636017		Long: -	87.9378967	Datum: WGS84
		Long	07.3370307	
Soil Map Unit Name: Morley silt loam, 2 to 6 percent slopes	2 Vac	○ No ●	(If no ov	wWI classification: T3/E2K
Are climatic/hydrologic conditions on the site typical for this time of ye	ui .		• •	
	gnificantly dist			mind directifications present.
Are Vegetation	iturally proble		•	ded, explain any answers in Remarks.)
	,g			is, transcets, important reactives, etc.
		Is the	Sampled A	
		withi	n a Wetland	? Yes ● No ○
.,,				
Remarks: Hydrological conditions were wetter than normal. A wetland The data point was located in a wetland. VEGETATION - Use scientific names of plan		Dominant Species?		
	Absolute % Cover		Indicator Status	Dominance Test worksheet:
	0		Status	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
2.	0	0.0%		That are obt., FACW, of FAC.
3.	0	0.0%		Total Number of Dominant Species Across All Strata: 1 (B)
4.	0	0.0%		Species Across All Strata: (B)
5.	0	0.0%		Percent of dominant Species
	0	= Total Cove	er	That Are OBL, FACW, or FAC: 100.0% (A/B)
_Sapling/Shrub_Stratum_(Plot size:)				Prevalence Index worksheet:
1	0	0.0%		Total % Cover of: Multiply by:
2	0	0.0%		OBL species 90 x 1 = 90
3	0	0.0%		FACW species $10 x 2 = 20$
4	0	0.0%		FAC species <u>20</u> x 3 = <u>60</u>
5		0.0%		FACU species $10 \times 4 = 40$
Herb Stratum(Plot size: _5' radius)	0	= Total Cove	er	UPL species $0 \times 5 = 0$
1. Typha angustifolia	90	✓ 69.2%	OBL	Column Totals: <u>130</u> (A) <u>210</u> (B)
2. Poa pratensis	20	15.4%	FAC	Prevalence Index = B/A = 1.615
3. Solidago canadensis	10	7.7%	FACU	Hydrophytic Vegetation Indicators:
4. Symphyotrichum novae-angliae	10	7.7%	FACW	✓ 1 - Rapid Test for Hydrophytic Vegetation
5	0	0.0%		✓ 2 - Dominance Test is > 50%
6.	0	0.0%		✓ 3 - Prevalence Index is ≤3.0 ¹
7. 8.		0.0%		4 - Morphological Adaptations ¹ (Provide supporting
9.		0.0%		data in Remarks or on a separate sheet)
10.		0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
				$\frac{1}{2}$ Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:)	130	= Total Cove	er	be present, unless disturbed or problematic.
1	0	0.0%		
2	0	0.0%		Hydrophytic Vegetation
	0	= Total Cove	er	Present? Yes No
Remarks: (Include photo numbers here or on a separate sh A wetland plant community was documented by the Rapid ¹	•	ance Test a	and the Prev	ralence Index.

SOIL Sampling Point: SP-2 (W10-7)

Profile Description:	(Describe to Matrix			dox Feati	ures		•	
DepthCol	or (moist)	%	Color (moist)	<u>%</u>	Tvpe 1	Loc2	Texture	Remarks
0-4 10YI		100					Silty Clay Loam	
4-16 10Y	R 5/2	70	10YR 5/6	30	С	М	Silty Clay	
Type: C=Concentratio Hydric Soil Indicato Histosol (A1) Histic Epipedon (A	ors:	n, RM=Reduc	ed Matrix, CS=Cover	l Matrix (S		ins.	Pocation: PL=Pore Lining. Indicators for Problem Coast Prairie Redo	ematic Hydric Soils ³ :
☐ Black Histic (A3) ☐ Hydrogen Sulfide ☐ Stratified Layers (A10) ☑ 2 cm Muck (A10) ☑ Depleted Below D ☐ Thick Dark Surface	A5) ark Surface (A1	1)	Stripped Matri Loamy Mucky Loamy Gleye Depleted Mat	rix (S6) Mineral (I Matrix (F Mix (F3) Mix (F6)	57(5)		Dark Surface (S7) Iron Manganese M Very Shallow Dark Other (Explain in F	Surface (TF12)
Sandy Muck Miner 5 cm Mucky Peat Restrictive Layer (if	ral (S1) or Peat (S3)		☐ Depleted Dar		. ,		wetland hydrolog	phytic vegetation and y must be present, d or problematic.
Typo								
Type:	c soils was m	et by A11 [Depleted Below Da	rk Surfac	e and F3 D	epleted I	Hydric Soil Present? Matrix.	Yes No
Depth (inches): Remarks: The criteria for hydri	c soils was m	net by A11 [Depleted Below Da	rk Surfac	e and F3 D	epleted		Yes No
Depth (inches):	Indicators:			rk Surfac	e and F3 D	epleted I	Matrix.	
Depth (inches): Remarks: The criteria for hydri	Indicators: nimum of one) (A2) (B2) (B4) on Aerial Imag	is required; cl	heck all that apply) Water-Stair Aquatic Fau True Aquat Hydrogen S Oxidized RI Presence o	ned Leaves ina (B13) ic Plants (F iulfide Odc nizosphere F Reduced n Reduction Surface (C /ell Data (I	s (B9) B14) or (C1) s on Living R Iron (C4) n in Tilled So 7)	oots (C3)	Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation V Stunted or S	ators (minimum of two required) Cracks (B6) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery (C9) tressed Plants (D1) Position (D2)
Depth (inches): Remarks: The criteria for hydri HYDROLOGY Wetland Hydrology: Primary Indicators (mi Surface Water (AI High Water Table Saturation (A3) Water Marks (B1) Sediment Deposits: Drift Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible	Indicators: nimum of one) (A2) (B2) (B4) on Aerial Imaged Concave Surf	gery (B7) face (B8) No No No No No	heck all that apply) Water-Stair Aquatic Fau True Aquat Hydrogen S Oxidized Ri Presence o Recent Iror Thin Muck Gauge or V Other (Exp	ned Leaves ina (B13) ic Plants (I fulfide Odc nizosphere f Reduced n Reduction Surface (C /ell Data (I ain in Rem ches):	s (B9) 314) or (C1) s on Living R Iron (C4) n in Tilled So 7) D9) narks)	oots (C3) ils (C6) Wet	Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation V Stunted or S Geomorphic FAC-Neutral	ators (minimum of two required) Cracks (B6) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery (C9) tressed Plants (D1) Position (D2)
Depth (inches): Remarks: The criteria for hydri HYDROLOGY Wetland Hydrology Primary Indicators (mi Surface Water (A1 High Water Table Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible Sparsely Vegetate Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary frinc	Indicators: nimum of one) (A2) (B2) (B4) on Aerial Imaged Concave Surf	gery (B7) face (B8) No No No No No	heck all that apply) Water-Stair Aquatic Fau True Aquat Hydrogen S Oxidized Ri Presence o Recent Iror Thin Muck Gauge or V Other (Exp	ned Leaves ina (B13) ic Plants (I fulfide Odc nizosphere f Reduced n Reduction Surface (C /ell Data (I ain in Rem ches):	s (B9) 314) or (C1) s on Living R Iron (C4) n in Tilled So 7) D9) narks)	oots (C3) ils (C6) Wet	Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation V Stunted or S Geomorphic FAC-Neutral	ators (minimum of two required) Cracks (B6) tterns (B10) Water Table (C2) rows (C8) isible on Aerial Imagery (C9) tressed Plants (D1) Position (D2) Test (D5)

Project/Site: IH 94 Milwaukee County	City/County:	Oak Creek/Mil	lwaukee Sampling Date: 10-Nov-16
Applicant/Owner: WisDOT		State:	WI Sampling Point: SP-3 (u)
Investigator(s): Mike Al-wathiqui, Geof Parish	Section, Town	nship, Range: S	5 30 T 5N R 22E
Landform (hillslope, terrace, etc.): Hillside		Local relief (cor	ncave, convex, none): convex
Slope: 20.0% / 11.3 ° Lat.: 42.8606987		87.9380035	Datum: WGS84
Soil Map Unit Name: Morley silt loam, 2 to 6 percent slopes		07.5566655	WWI classification: None
Are climatic/hydrologic conditions on the site typical for this time of ye	_{ar?} Yes ○ No ●	(If no, expl	lain in Remarks.)
	anificantly disturbed?		mal Circumstances" present?
	aturally problematic?		ed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map show		`	,
Hydrophytic Vegetation Present? Yes • No •			
Hydric Soil Present? Yes No •		e Sampled Are n a Wetland?	
Wetland Hydrology Present? Yes No •		I a Heddina.	Yes ○ NO ⑤
Remarks:			
Hydrological conditions were wetter than normal. A wetland However, neither hydric soils nor indicators of wetland hydrodynamic was scientific names of plant	ology were observed.	The sample p	point was located in an upland.
	Absolute Rel.Strat. % Cover Cover	Indicator Status	Dominance Test worksheet:
	0 0.0%		Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
2.	0 0.0%	. —	Tildt die ODL, FACW, OFFAC.
3.	0 0.0%		Total Number of Dominant Species Across All Strata: 1 (B)
4.	0 0.0%		Species Across Air Strata.
5.	0 0.0%		Percent of dominant Species That Are ORL FACW or FAC: 100.0% (A/B)
	0 = Total Cove	er	That Are OBL, FACW, or FAC: 100.0% (A/B)
_Sapling/Shrub Stratum (Plot size:)	_	Ī	Prevalence Index worksheet:
1	00.0%		Total % Cover of: Multiply by:
2	00.0%		OBL species 0 x 1 = 0
3	0 0.0%		FACW species $0 \times 2 = 0$
4	0 0.0%		FAC species <u>92</u> x 3 = <u>276</u>
5	0 0.0%		FACU species $10 \times 4 = 40$
Herb Stratum(Plot size: _5' radius)	0 = Total Cove	er	UPL species <u>5</u> x 5 = <u>25</u>
1. Poa pratensis	90 🗹 84.1%	FAC	Column Totals: <u>107</u> (A) <u>341</u> (B)
2. Achillea millefolium	5 4.7%	FACU	Prevalence Index = B/A = 3.187
3. Daucus carota	5 4.7%	UPL	
4. Sonchus arvensis	5 4.7%	FACU	Hydrophytic Vegetation Indicators:
5. Toxicodendron radicans	2 1.9%	FAC	1 - Rapid Test for Hydrophytic Vegetation
6.	0 0.0%		2 - Dominance Test is > 50%
7.	0 0.0%	[3 - Prevalence Index is ≤3.0 ¹
8.	0 0.0%	[4 - Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)
9.	0 0.0%	[[Problematic Hydrophytic Vegetation ¹ (Explain)
10	0 0.0%	[-	
	107 = Total Cove		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1	0 0.0%		_ ·
2.	0 0.0%	. —	Hydrophytic
2:	0 = Total Cove		Vegetation Present? Yes No No
		<u></u>	
Remarks: (Include photo numbers here or on a separate sh The criteria for a wetland plant community was met by the	,	Blue Grass.	

SOIL Sampling Point: SP-3 (u)

Profile Descri	iption: (Des	cribe to t	he depth n	eeded to document	the indic	ator or co	nfirm the	absence of indicators.)	
Depth .		Matrix			ox Featu			_	
(inches)	Color (n	noist)	<u>%</u>	Color (moist)	<u>%</u>	Type 1	Loc ²	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=Conc	entration, D=	=Depletion	, RM=Reduc	ed Matrix, CS=Covere	d or Coate	d Sand Gra	ins.	Location: PL=Pore Lining. M=Matrix.	
Hydric Soil I	ndicators:							Indicators for Problematic Hydric Soils ³ :	
Histosol (A	\1)			Sandy Gleyed	Matrix (S4)			
Histic Epip				Sandy Redox	(S5)			Coast Prairie Redox (A16)	
Black Histi	. ,			Stripped Matri	x (S6)			☐ Dark Surface (S7) ☐ Iron Manganese Masses (F12)	
	Sulfide (A4)			Loamy Mucky	Mineral (F	1)			
Stratified L				Loamy Gleyed	Matrix (F2	2)		☐ Very Shallow Dark Surface (TF12)	
2 cm Muck	, ,			Depleted Matr	ix (F3)			Uther (Explain in Remarks)	
	Below Dark Su	`	1)	Redox Dark Su	urface (F6)				
	Surface (A12	•		Depleted Dark	Surface (I	- 7)		³ Indicators of hydrophytic vegetation and	
	ck Mineral (S1	,		Redox Depres	sions (F8)			wetland hydrology must be present,	
	y Peat or Pea	. ,						unless disturbed or problematic.	
Restrictive La	iyer (if obse	erved):							
Type:								Hydric Soil Present? Yes ○ No ●	
Depth (inch	ies):							163 0 110 0	
Remarks:									
Hydric soils we	ere not obs	erved.							
HYDROLO	GY								
Wetland Hydr	rology Indic	ators:							
Primary Indicat	tors (minimur	m of one is	required; c	heck all that apply)				Secondary Indicators (minimum of two required)	
Surface Wa	ater (A1)			Water-Stain	ed Leaves	(B9)		Surface Soil Cracks (B6)	
High Wate	r Table (A2)			Aquatic Fau	na (B13)			Drainage Patterns (B10)	
Saturation	(A3)			True Aquation	Plants (B	14)		Dry Season Water Table (C2)	
☐ Water Mar	ks (B1)			Hydrogen S	ılfide Odor	(C1)		Crayfish Burrows (C8)	
Sediment I	Deposits (B2)			Oxidized Rhi	zospheres	on Living R	loots (C3)	Saturation Visible on Aerial Imagery (C9)	
☐ Drift Depos	sits (B3)			Presence of	Reduced I	ron (C4)		Stunted or Stressed Plants (D1)	
Algal Mat o	or Crust (B4)			Recent Iron	Reduction	in Tilled So	ils (C6)	Geomorphic Position (D2)	
Iron Depos	sits (B5)			☐ Thin Muck S	urface (C7)		FAC-Neutral Test (D5)	
Inundation	n Visible on A	erial Image	ery (B7)	Gauge or W	ell Data (D	9)			
☐ Sparsely V	egetated Cor	ncave Surfa	ace (B8)	Other (Expla	in in Rema	arks)			
Field Observa	tions:	,	\sim						
Surface Water	Present?	Yes ⁽		Depth (inc	hes):		_		
Water Table Pr	esent?	Yes (⊃ _{No}	Depth (inc	hes):				
Saturation Pres	sent?	Yes(O No €	\	-		Wet	tland Hydrology Present? Yes O No 💿	
(includes capilla							- 1	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
Describe Reco	orded Data	(stream (gauge, mor	nitoring well, aerial	photos, p	revious in	spections	is), it available:	
Remarks:									
No indicators	of wetland	hydrolog	y were obs	served.					

Project/Site: IH 94 Milwaukee County	City/County:	: Oak Creek/I	/Milwaukee Sampling Date: 10-Nov-16
Applicant/Owner: WisDOT		State:	
Investigator(s): Mike Al-wathiqui, Geof Parish	Section, Te	ownship, Range:	
Landform (hillslope, terrace, etc.): Toeslope			concave, convex, none): concave
Slope: 1.0% / 0.6 ° Lat.: 42.8606987	Long	− .: -87.938003	
		07.330003	WWI classification: T3/E2K
Soil Map Unit Name: Morley silt loam, 2 to 6 percent slopes Are climatic/hydrologic conditions on the site typical for this time of y	_{rear?} Yes ○ No ④	(If no. e	explain in Remarks.)
	significantly disturbed?	, ,	
	,		F
Are Vegetation	naturally problematic? wing sampling po		eded, explain any answers in Remarks.) ons, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No			<u> </u>
Hydric Soil Present? Yes No		the Sampled A	
Wetland Hydrology Present? Yes No	w w	ithin a Wetland	d? Yes ◉ No ○
Remarks:			
Hydrological conditions were wetter than normal. A wetland The data point was located in a wetland. VEGETATION - Use scientific names of plant.		ant	d multiple indicators of wetland hydrology were present.
To Charles (Diet cize)	Absolute Rel.Str	at. Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:) 1.	% Cover Cove 0		Number of Dominant Species That are ORL FACW or FAC
2.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		That are OBL, FACW, or FAC: (A)
3.	0 0.09		Total Number of Dominant
4.	0 0.09		Species Across All Strata: (B)
5.	0 0.09		Percent of dominant Species
	0 = Total C	Cover	That Are OBL, FACW, or FAC: 100.0% (A/B)
_ <u>Sapling/Shrub Stratum (</u> Plot size:)	 _		Prevalence Index worksheet:
1	_ 0 _ 0.09	%	Total % Cover of: Multiply by:
2	0 0.09	%	OBL species <u>0</u> x 1 = <u>0</u>
3	0 0.09	%	FACW species <u>170</u> x 2 = <u>340</u>
4.	0 0 0.09	%	FAC species <u>20</u> x 3 = <u>60</u>
5	0 0.09	<u>%</u>	FACU species <u>0</u> x 4 = <u>0</u>
Herb Stratum (Plot size: 5' radius)	0 = Total 0	Cover	UPL species <u>0</u> x 5 = <u>0</u>
1. Phalaris arundinacea	90 🗹 47.4	% FACW	Column Totals: 190 (A) 400 (B)
2. Solidago sempervirens	80 🗹 42.1		Prevalence Index = B/A = 2.105
3. Poa pratensis	20 10.5		
4.	0 0.09		Hydrophytic Vegetation Indicators:
5.	0 0.09	%	1 - Rapid Test for Hydrophytic Vegetation
6.	0 0.09	%	2 - Dominance Test is > 50%
7.	0 0.09	%	✓ 3 - Prevalence Index is ≤3.0 ¹
8.	0 0.09	%	4 - Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)
9.	0 0.09	%	Problematic Hydrophytic Vegetation ¹ (Explain)
10.	0.09	%	
	= Total C	Cover	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	0 0.09	0/_	
1.			Hydrophytic
1 2	11 ()()	70	Vegetation
2	0 = Total C	OVE	
2	0 = Total C	Cover	Present? Yes No No
	= Total C	Cover	
Remarks: (Include photo numbers here or on a separate s	0 = Total C		Present? Yes ● No ○
	0 = Total C		Present? Yes ● No ○

SOIL Sampling Point: SP-4 (W10-7)

Profile Description: (Describe to the Depth Matrix			lox Featu			_	
2 Cpt	%	Color (moist)	%	Type ¹	Loc2	Texture	Remarks
0-2 10YR 3/1	90	10YR 4/6	10	С	М	Silty Clay Loam	
2-16 10YR 4/1	80	10YR 4/6	20	С	М	Silty Clay	
Type: C=Concentration, D=Depletion, RN	M=Reduced	1 Matrix CS=Covere	d or Coate	ed Sand Gra	ins	PL=Pore Lining	M=Matriy
lydric Soil Indicators:	- Neddece	Triduit, CS-COVERC	a or could	ca sana Gra			elematic Hydric Soils ³ :
Histosol (A1)		Sandy Gleyed	Matrix (S4	4)			•
Histic Epipedon (A2)		Sandy Redox ((S5)			Coast Prairie Red	` '
Black Histic (A3)		Stripped Matri	x (S6)			☐ Dark Surface (S7)	
Hydrogen Sulfide (A4)		Loamy Mucky	Mineral (F	=1)		☐ Iron Manganese I	* *
Stratified Layers (A5)		Loamy Gleyed				☐ Very Shallow Dar	k Surface (TF12)
2 cm Muck (A10)		✓ Depleted Matri	-	,		Other (Explain in	Remarks)
✓ Depleted Below Dark Surface (A11)		Redox Dark Su	. ,)			
Thick Dark Surface (A12)			•	•		3	
Sandy Muck Mineral (S1)		Depleted Dark	`	,		Indicators of hydro	phytic vegetation and gy must be present,
5 cm Mucky Peat or Peat (S3)		Redox Depress	sions (F8)				gy must be present, ed or problematic.
Restrictive Layer (if observed):							
Type:							
Depth (inches):						Hydric Soil Present?	Yes No
	by A11 De	epleted Below Dar	k Surface	e and F3 D	epleted i		
he criteria for hydric soils was met b	by A11 De	epleted Below Dar	k Surface	e and F3 D	epleted I		
he criteria for hydric soils was met b	by A11 De	epleted Below Dar	k Surface	e and F3 C	epleted I		
ne criteria for hydric soils was met b YDROLOGY Wetland Hydrology Indicators:	,		k Surface	e and F3 C	epleted (Matrix.	
IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is re-	,	eck all that apply)			epleted I	Matrix. Secondary Indi	cators (minimum of two required)
IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is reconstructed) Surface Water (A1)	,	eck all that apply)	ed Leaves		epleted I	Matrix. Secondary Indi	cators (minimum of two required)
IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is reconstructed by Surface Water (A1) High Water Table (A2)	,	eck all that apply) Water-Staine Aquatic Faur	ed Leaves na (B13)	(B9)	epleted I	Secondary India	cators (minimum of two required) I Cracks (B6) atterns (B10)
IYDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one is reconstructed) Surface Water (A1)	,	eck all that apply) Water-Staine Aquatic Faur True Aquatic	ed Leaves na (B13) c Plants (B	(B9) 314)	epleted I	Secondary India Surface Soi Drainage Pa	cators (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2)
NYDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one is reconstructed) Surface Water (A1) High Water Table (A2)	,	eck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen Su	ed Leaves na (B13) c Plants (B ulfide Odo	(B9) B14) or (C1)		Secondary India	cators (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2)
IYDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one is recognized by the company of the company indicators) Surface Water (A1) High Water Table (A2) Saturation (A3)	,	eck all that apply) Water-Staine Aquatic Faur True Aquatic	ed Leaves na (B13) c Plants (B ulfide Odo	(B9) B14) or (C1)		Secondary Indi Surface Soi Drainage Po Dry Season Crayfish Bu	cators (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2)
IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is recomply 1 and 1	,	eck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen Su	ed Leaves na (B13) c Plants (B ulfide Odo izospheres	(B9) 314) or (C1) s on Living F		Secondary Indi Surface Soi Drainage Po Dry Season Crayfish Bu Saturation	cators (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8)
IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	,	eck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi	ed Leaves na (B13) c Plants (B ulfide Odo izospheres Reduced I	(B9) 314) or (C1) s on Living F Iron (C4)	loots (C3)	Secondary Indi Surface Soi Drainage Po Dry Season Crayfish Bu Saturation V Stunted or	cators (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is recompleted by the second by the s	,	eck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen St Oxidized Rhi Presence of	ed Leaves na (B13) t Plants (B ulfide Odo izospheres Reduced I Reduction	(B9) B14) or (C1) s on Living F Iron (C4) n in Tilled Sc	loots (C3)	Secondary Indi Surface Soi Drainage Po Dry Season Crayfish Bu Saturation Stunted or	cators (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2)
IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is recomply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	equired; che	eck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen St Oxidized Rhi Presence of Recent Iron	ed Leaves na (B13) : Plants (B ulfide Odo izospheres Reduced I Reduction iurface (C7	(B9) B14) or (C1) s on Living F Iron (C4) n in Tilled Sc 7)	loots (C3)	Secondary Indi Surface Soi Drainage Po Dry Season Crayfish Bu Saturation Stunted or Geomorphi	cators (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2)
IYDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one is recognized by Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	equired; che	eck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen St Oxidized Rhi Presence of Recent Iron Thin Muck S	ed Leaves na (B13) c Plants (B ulfide Odo izospheres Reduction Reduction urface (C7	(B9) B14) or (C1) s on Living F Iron (C4) n in Tilled Sc 7) D9)	loots (C3)	Secondary Indi Surface Soi Drainage Po Dry Season Crayfish Bu Saturation Stunted or Geomorphi	cators (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2)
IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is red) 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 Sparsely Vegetated Concave Surface	equired; che	eck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or We	ed Leaves na (B13) c Plants (B ulfide Odo izospheres Reduction Reduction urface (C7	(B9) B14) or (C1) s on Living F Iron (C4) n in Tilled Sc 7) D9)	loots (C3)	Secondary Indi Surface Soi Drainage Po Dry Season Crayfish Bu Saturation Stunted or Geomorphi	cators (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) © Position (D2)
IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is recomply and incident of the content of the con	equired; che	eck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen St Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or We	ed Leaves na (B13) : Plants (B izospheres Reduced i Reduction urface (C7 ell Data (C	(B9) B14) or (C1) s on Living F Iron (C4) n in Tilled Sc 7) D9)	loots (C3)	Secondary Indi Surface Soi Drainage Po Dry Season Crayfish Bu Saturation Stunted or Geomorphi	cators (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) © Position (D2)
IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is recompleted by 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 Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes	equired; che	eck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen St Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or We Other (Expla	ed Leaves na (B13) c Plants (B ulfide Odo izospheres Reduced I Reduction urface (C7 ell Data (D in in Rem	(B9) B14) or (C1) s on Living F Iron (C4) n in Tilled Sc 7) D9)	loots (C3)	Secondary Indi Surface Soi Drainage Po Dry Season Crayfish Bu Saturation Stunted or Geomorphi	cators (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) © Position (D2)
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 Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Water Table Present? Yes	(B7) (B8) No •	eck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen St Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or We	ed Leaves na (B13) c Plants (B ulfide Odo izospheres Reduced I Reduction urface (C7 ell Data (D in in Rem	(B9) B14) or (C1) s on Living F Iron (C4) n in Tilled Sc 7) D9)	coots (C3)	Secondary India Surface Soi Drainage Pa Dry Season Crayfish Bu Saturation Stunted or Geomorphi FAC-Neutra	cators (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) C Position (D2) I Test (D5)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is red) 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 Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes	equired; che	eck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen St Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or We Other (Expla	ed Leaves na (B13) c Plants (B clifide Odo czospheres Reduced Reduction urface (C7 ell Data (E clinin in Rem hes): hes):	(B9) B14) or (C1) s on Living F Iron (C4) n in Tilled Sc 7) D9)	coots (C3)	Secondary Indi Surface Soi Drainage Po Dry Season Crayfish Bu Saturation Stunted or Geomorphi	cators (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2) I Test (D5)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is red) 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 Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Water Table Present? Yes Saturation Present?	(B7) (B8) No No No No No No No No	eck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen St Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or We Other (Expla	ed Leaves na (B13) c Plants (B ulfide Odo izospheres Reduced i Reduction urface (C7 ell Data (D in in Rem hes): hes):	(B9) 314) or (C1) s on Living F Iron (C4) on in Tilled Sc 7) D9) aarks)	ils (C6)	Secondary Indi Surface Soi Drainage Po Crayfish Bu Saturation V Stunted or V FAC-Neutra	cators (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2) I Test (D5)
IYDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one is recovered by 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 Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Ves Saturation Present? Ves Saturation Present? Ves Saturation Present? Second Surface Ves Saturation Present? Second Surface Mater Age of Saturation Present? Surface Mater Age of Saturation Present? Second Surface Mater Age of Saturation Present? Surface Mater Age of Saturation Present? Second Surface Mater Age of Saturation Present? Surface Mater Age of Saturation Present?	(B7) (B8) No No No No No No No No	eck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen St Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or We Other (Expla	ed Leaves na (B13) c Plants (B ulfide Odo izospheres Reduced i Reduction urface (C7 ell Data (D in in Rem hes): hes):	(B9) 314) or (C1) s on Living F Iron (C4) on in Tilled Sc 7) D9) aarks)	ils (C6)	Secondary Indi Surface Soi Drainage Po Crayfish Bu Saturation V Stunted or V FAC-Neutra	cators (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) C Position (D2) I Test (D5)
IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is red) 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 Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Water Table Present? Yes Saturation Present? (includes capillary fringe)	(B7) (B8) No No No uge, monit	eck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen St Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or We Other (Explained) Depth (inclination) Depth (inclination)	ed Leaves na (B13) c Plants (B ulfide Odo izospheres Reduction urface (C7 ell Data (E nin in Rem hes): hes): photos,	(B9) B14) or (C1) s on Living F Iron (C4) n in Tilled Sc 7) D9) harks)	wet	Secondary Indi Surface Soi Drainage Po Dry Season Crayfish Bu Saturation Stunted or FAC-Neutra FAC-Neutra Land Hydrology Present: S), if available:	cators (minimum of two required) I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2) I Test (D5) Yes No

Project/Site: IH 94 Milwaukee County	Cit	cy/County: C	Oak Creek/M	1ilwaukee	Sampling Date:	10-Nov-16
Applicant/Owner: WisDOT			State:	_WI	Sampling Point:	SP-5 (u)
Investigator(s): _Mike Al-wathiqui, Geof Parish		Section, Townsh	nip, Range:	s 30 T	5N R 22E	
Landform (hillslope, terrace, etc.): Hillside		Lo	cal relief (co	oncave, convex, nor	ne): convex	
Slope: 10.0% / 5.7 ° Lat.: 42.8596001		 Long.: -8			Datum: W	GS84
Soil Map Unit Name: Morley silt loam, 2 to 6 percen	t slopes			WWI cla	ssification: None	
Are climatic/hydrologic conditions on the site typical for this	(○ No ●	(If no, ex	plain in Remarks.)	<u> </u>	
Are Vegetation, Soil, or Hydrology	significantly dis	turbed?	Are "No	rmal Circumstances'	" present? Yes	No ○
Are Vegetation , Soil , or Hydrology	naturally proble	ematic?	(If need	ded, explain any ans	wers in Remarks.)	
SUMMARY OF FINDINGS - Attach site ma	ap showing sam	pling point	location	ns, transects,	important feature	es, etc.
Hydrophytic Vegetation Present? Yes No	, •					
,	\circ		Sampled A a Wetland		, •	
Wetland Hydrology Present? Yes O No	. •			res \odot rec	, 0	
Remarks:						
Hydrological conditions were wetter than normal.					resent and one second	ary hydrology
indicator was found probably because of proximity	y to the boundary. T	he data point	was locat	ed in an upland		
VEGETATION - Use scientific names	of plants	Dominant				
Ose scientific flames		- Species? -		B T		
_ <u>Tree Stratum</u> (Plot size:)	Absolute % Cover	Rel.Strat. I Cover	indicator Status	Dominance Test		
1		0.0%		Number of Domin That are OBL, FAC		0 (A)
2.		0.0%		,	_	
3.	0	0.0%		Total Number of E Species Across All		1 (B)
4.		0.0%		Species Across Air		(b)
5.	0	0.0%		Percent of domi		0.0% (A/B)
	0	= Total Cover		That Are OBL, F	-ACW, or FAC:	0.0% (A/B)
<u>Sapling/Shrub Stratum (Plot size:</u>)				Prevalence Inde	x worksheet:	
1		0.0%		Total % C	Cover of: Multiply	by:
2		0.0%		OBL species	x 1 =	0
3		0.0%		FACW species	0 x 2 =	0
4		0.0%		FAC species	x 3 =	0
5		0.0%		FACU species	<u>100</u> x 4 =	400
<u>Herb Stratum</u> (Plot size: 5' radius)	0	= Total Cover		UPL species	x 5 =	0
1. Bromus inermis	100	1 00.0%	FACU	Column Totals	: <u>100</u> (A)	400 (B)
2.	0	0.0%		Prevalence	Index = B/A =	4.000
3	0	0.0%				1.000
4		0.0%			etation Indicators: st for Hydrophytic Vege	
5		0.0%				etation
6		0.0%			ce Test is > 50%	
7		0.0%			ce Index is ≤3.0 1	
8.		0.0%			gical Adaptations 1 (Plarks or on a separate sl	
9. 10.				Problematic	Hydrophytic Vegetatio	n ¹ (Explain)
10.		0.0%		¹ Indicators of l	hydric soil and wetland	l bydrology must
Woody Vine Stratum (Plot size:)	100	= Total Cover			ess disturbed or problem	
1.	0	0.0%				
2.	0	0.0%		Hydrophytic		
		= Total Cover		Vegetation Present?	Yes O No •	
Remarks: (Include photo numbers here or on a se	eparate sheet.)					
An upland plant community was documented.						

SOIL Sampling Point: SP-5 (u)

Profile Descriptio	n: (Desci	ribe to th	ne depth ne	eded to	document	the indic	ator or co	onfirm the	absence of indicators.)	
Depth		atrix				ox Featu			_	
	Color (mo	oist)	<u>%</u>	Color	(moist)	<u>%</u>	Tvpe 1	Loc ²	<u>Texture</u>	Remarks
0-11 1	.0YR	3/1	90	10YR	4/6	10	C	M	Silty Clay Loam	
11-25 1	.0YR	4/1	70	10YR	_ 5/6	30	C	M	Silty Clay Loam	
								-		
						-		-		
¹ Type: C=Concentra	ation, D=D	Depletion,	RM=Reduce	ed Matrix	, CS=Covere	d or Coate	ed Sand Gra	ains.	Location: PL=Pore Lining. M=Mat	ix.
Hydric Soil Indica	ators:			_					Indicators for Problematic	Hydric Soils ³ :
Histosol (A1)				∐ S	andy Gleyed	Matrix (S4	+)		Coast Prairie Redox (A16)	
Histic Epipedon	. ,			_	andy Redox (. ,			Dark Surface (S7)	
Black Histic (A3	•			_	tripped Matri				☐ Iron Manganese Masses (F	-12)
Stratified Layer				_	oamy Mucky	•	,		☐ Very Shallow Dark Surface	•
2 cm Muck (A1	. ,				oamy Gleyed		2)		Other (Explain in Remarks	,
✓ Depleted Below	,	face (A11)	_	epleted Matr	• •			Outer (Explain in Remarks)	,
☐ Thick Dark Surf			.,		edox Dark Sı					
Sandy Muck Mi	, ,				epleted Dark	•	F7)		Indicators of hydrophytic ve wetland hydrology must	
5 cm Mucky Pe	. ,			∟ R	edox Depres	sions (F8)			unless disturbed or prol	
Restrictive Layer	(if observ	ved):								
Type:	•									
Depth (inches):									Hydric Soil Present? Yes	; ● No ○
Remarks:									1	
The criteria for hy	dric soils	was me	t by A11 C	epleted	Below Dar	k Surface	and F6 I	Redox Dar	rk Surface.	
HYDROLOGY	,									
Wetland Hydrolog	gy Indica	tors:								
Primary Indicators	(minimum	of one is	required; ch	neck all t	nat apply)				Secondary Indicators (m	inimum of two required)
Surface Water	(A1)				Water-Staine	ed Leaves	(B9)		Surface Soil Cracks (B6)
High Water Tal	ble (A2)				Aquatic Faur	na (B13)			☐ Drainage Patterns (E	310)
Saturation (A3))				True Aquation	Plants (B	14)		Dry Season Water T	able (C2)
Water Marks (E	31)				Hydrogen Su	ılfide Odor	(C1)		Crayfish Burrows (C	3)
Sediment Depo	osits (B2)				Oxidized Rhi	zospheres	on Living	Roots (C3)	Saturation Visible on	Aerial Imagery (C9)
Drift Deposits (Presence of				Stunted or Stressed	
Algal Mat or Cr	. ,				Recent Iron	Reduction	in Tilled S	oils (C6)	✓ Geomorphic Position	
Iron Deposits (Thin Muck S	•	•		☐ FAC-Neutral Test (D	5)
Inundation Visi		-	, , ,		Gauge or W	ell Data (D	9)			
Sparsely Veget	ated Conc	ave Surfa	ce (B8)		Other (Expla	in in Rema	arks)			
Field Observation		Yes (O No €)	Donth /ir-	hac).				
Surface Water Prese					Depth (inc			-		
Water Table Presen		Yes			Depth (inc	hes):		_	land Hydrology Present? Ye	es O No O
Saturation Present? (includes capillary fr		Yes) No ⊙	ı	Depth (inc	hes):		_ wet	ialia nyarology Presence	3 C 110 C
Describe Recorde		stream o	auge, mon	itorina	well, aerial	photos, r	previous i	nspections	s), if available:	
	(-	3	5 = 75	. 5	,	/ F		,		
Remarks:										
	rimary ind	dicators	of wetland	hydrolo	nav and only	v one sec	ondary ir	ndicator w	vas documented. Wetland hydro	ology was not
documented.	ar y mic		o. wedanu	.,, ai oic	and on	, 5.10 300		.a.cator W	as accumented. Wedana nyun	

Project/Site: IH 94 Milwaukee County			City	y/County:	Oak Creek/M	1ilwaukee	Sampling Date:	10-Nov-16
Applicant/Owner: WisDOT					State:	WI Sa		SP-6 (W-1)
Investigator(s): Mike Al-wathiqui, Geof P	arish		S	ection, Towr	nship, Range:			
Landform (hillslope, terrace, etc.): Swale				•		oncave, convex, none		_
Slope: 10.0% / 5.7 ° Lat.:					-87.938102			WGS84
Soil Map Unit Name: Morley silt loam		slopes					sification: None	
Are climatic/hydrologic conditions on the s			Yes	O No ⊙	(If no, ex	rplain in Remarks.)		
Are Vegetation, Soil	, or Hydrology		ficantly dist	urbed?	Are "No	· ormal Circumstances" p	present? Yes	● No ○
Are Vegetation , Soil .	, or Hydrology	natur	rally probler	matic?		ded, explain any answ	p	
SUMMARY OF FINDINGS - A	ttach site ma	p showir	ng samp	ling poir	nt locatio	ns, transects, ir	mportant featur	es, etc.
Hydrophytic Vegetation Present?	Yes No	0						
Hydric Soil Present?	Yes No	\circ			e Sampled A in a Wetland		\cap	
Wetland Hydrology Present?	Yes No	\circ				. 163 - 110		
Remarks:								
Hydrological conditions were wette The data point was located in a we VEGETATION - Use scien	etland.					d multiple indicators	s of wetland hydrolo	gy were present.
VEGETATION - Ose scien	TUIIC Harries			Dominant Species?		- torres Track		
<u>Tree Stratum</u> (Plot size:)		Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test v		
1		_	0 [0.0%	J	Number of Dominar That are OBL, FACW		1 (A)
2.			0 [0.0%		·	_	
3.			0	0.0%		Total Number of Do Species Across All S		1 (B)
4.			0 [0.0%		Species Acress A. S	_	(5)
5.			0	0.0%		Percent of domina		100.0% (A/B)
			0	= Total Cove	er	That Are OBL, FA	CW, or FAC:	100.070 (7/2)
_Sapling/Shrub Stratum (Plot size:)					Prevalence Index	worksheet:	
1			_0_[0.0%		Total % Co	over of: Multiply	/ by:
2			_0_[0.0%		OBL species	x 1 =	0
3			_0_[0.0%		FACW species	x 2 =	
4			_0[0.0%		FAC species	<u>20</u> x 3 =	60
5				0.0%		FACU species	x 4 =	0
Herb Stratum (Plot size: 5' radius)		0	= Total Cove	er	UPL species	x 5 =	0
1. Phalaris arundinacea			100	✓ 83.3%	FACW	Column Totals:	120 (A)	<u>260</u> (B)
2. Poa pratensis			20	16.7%	FAC	Brevalence II		2.167
3.			0	0.0%				2.10/
4.			0 [0.0%		Hydrophytic Veget		
5.			0 [0.0%			for Hydrophytic Veg	etation
6.			0	0.0%			e Test is > 50%	
7			0 [0.0%		3 - Prevalence		
8.			0	0.0%			ical Adaptations ¹ (P ks or on a separate s	
9.			0	0.0%			ks of off a separate s lydrophytic Vegetatio	•
10.			_0[0.0%				,
)		120	= Total Cove	er		ydric soil and wetland s disturbed or proble	
1.			0 [0.0%	ŀ	J	-	
2.			0 [Hydrophytic		
				= Total Cove		Vegetation Present?	Yes • No O	
				= 10(a) COV	er	Pieseiit:		
Remarks: (Include photo numbers	here or on a ser	arate shee	h+)					
` '			,	· - · Took •	d the Dues	l Tday		
A wetland plant community was do	cumented by the	е каріа тез	st, Domina	ance rest a	and the Prev	alence Index.		

SOIL Sampling Point: SP-6 (W-1)

Profile Descr	iption: (Describe	e to the depth n	eeded to document	the indi	cator or co	nfirm the	absence of indicators.)		
Depth <u>Matrix</u>				lox Featι					
(inches)	Color (moist	:) %	Color (moist)	<u>%</u>	Tvpe 1	Loc ²	<u>Texture</u>	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	_ <u>C</u>	M	Silty Clay		
						-			
						-			
				-					
¹ Type: C=Cond	centration, D=Dep	letion, RM=Reduc	ced Matrix, CS=Covere	d or Coate	ed Sand Gra	ins.	2ocation: PL=Pore Lining. M=Ma	atrix.	
Hydric Soil I	ndicators:						Indicators for Problemati	c Hydric Soils ³ :	
Histosol (•		Sandy Gleyed	Matrix (S	4)		Coast Prairie Redox (A16)	
	pedon (A2)		Sandy Redox	. ,			Dark Surface (S7)	,	
Black Hist	Sulfide (A4)		Stripped Matri	` ,			☐ Iron Manganese Masses	(F12)	
	Layers (A5)		Loamy Mucky	,	,		☐ Very Shallow Dark Surfac		
2 cm Muc	, , ,		Loamy Gleyed		2)		Other (Explain in Remark		
	Below Dark Surfac	e (A11)	✓ Depleted Matr	. ,			Outer (Explain in Remark	3)	
	k Surface (A12)	- (Redox Dark Si	•	•		2		
Sandy Mu	ck Mineral (S1)		Depleted Dark	`	,		Indicators of hydrophytic wetland hydrology mus		
5 cm Muc	ky Peat or Peat (S	3)	Redox Depres	SIONS (F8)	1		unless disturbed or pro		
Restrictive La	ayer (if observed	l):							
Туре:									
Depth (incl	nes):						Hydric Soil Present? Ye	es No	
Remarks:							I.		
The criteria fo	or hydric soils wa	as met hv A11	Denleted Relow Dar	k Surface	e F3 Denla	eted Mati	rix, and F6 Redox Dark Surface	2	
The chiena ic	or riyuric sons we	as met by AII	Depleted Delow Dai	K Juliaci	e, i o Depi	eteu mati	nix, and to Redox Dark Surface		
HYDROLO	GY								
Wetland Hvd	rology Indicator	s:							
_			check all that apply)				Secondary Indicators (minimum of two required)	
Surface W	•		Water-Stain	ed Leaves	(B9)		Surface Soil Cracks	·	
	er Table (A2)		Aquatic Fau		()		☐ Drainage Patterns	` '	
Saturation	` ,		True Aquatio	. ,	314)		Dry Season Water		
☐ Water Ma	rks (B1)		Hydrogen Sı	-	-		Crayfish Burrows (C8)	
Sediment	Deposits (B2)		Oxidized Rhi			Roots (C3)	Saturation Visible of	on Aerial Imagery (C9)	
Drift Depo	osits (B3)		Presence of	Reduced	Iron (C4)		Stunted or Stressed	d Plants (D1)	
Algal Mat	or Crust (B4)		Recent Iron	Reduction	n in Tilled So	oils (C6)	✓ Geomorphic Position	on (D2)	
☐ Iron Depo	osits (B5)		☐ Thin Muck S	urface (C	7)		✓ FAC-Neutral Test (I	D5)	
Inundatio	n Visible on Aerial	Imagery (B7)	☐ Gauge or W	ell Data (D	09)				
Sparsely \	egetated Concave	Surface (B8)	Other (Expla	ain in Rem	arks)				
Field Observ		, () (
Surface Water		res O No G		hes):		-			
Water Table P	resent?	res 🔾 No 🤆	Depth (inc	hes):		_		res ● No ○	
Saturation Pres		res O No 🤄	Depth (inc	hes):		Wet	land Hydrology Present?	res 🔍 No 🔾	
(includes capill	ary minge)		nitoring well, aerial		nrevious ir	nspection	s) if available:		
שלא שמו ושכי הפני	טימכט שממ (אול	ani gauge, iii0	incoming well, aerial	ριισισό,	Pi CVIOUS II	ispecuori:	oj, ii avaliabie.		
Remarks:									
	ne of watland by	drology were d	ocumented with tw	o second	lany indica	tore of w	etland hydrology, which were I	02 Geomorphic Position	
and D5 FAC-	,	arology were u	ocumented with tw	ن عحدد۱۱۵	iary iriulca	COLO UI WE	caana nyarology, willen wele t	22 Ocomorphic Fosition	

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, To	wnship, 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	- : -87.938102	Datum: WGS84
	Eorigi	. 07.930102	WWI classification: None
Soil Map Unit Name: <u>Grays silt loam, 2 to 6 percent slopes</u> Are climatic/hydrologic conditions on the site typical for this time of y	_{rear?} Yes ○ No ●	(If no. ex	xplain in Remarks.)
	significantly disturbed?	(-, -	
			ornar circumstances present.
Are Vegetation	naturally problematic? wing sampling po	•	ns, transects, important features, etc.
Hydrophytic Vegetation Present? Yes ○ No ●			
Hydric Soil Present? Yes ○ No ●		the Sampled A	Area
Wetland Hydrology Present? Yes ○ No ●	Wi	thin a Wetland	d? Yes ○ No •
Remarks:			
Hydrological conditions were wetter than normal. An uplar hydrology present. The sample point was located in an uplar vegetation. VEGETATION - Use scientific names of pla	oland.	nt	
	Absolute Rel.Stra	at. Indicator	Dominance Test worksheet:
	% Cover Cover 0 0.0%		Number of Dominant Species That are OBL, FACW, or FAC: (A)
2.	0 0.09		That are obt., FACW, of FAC.
3.	0 0.09		Total Number of Dominant Species Across All Strata: 1 (B)
4.	0 0.0%	6	Species Across All Strata
5.	0 0.09	6	Percent of dominant Species That Are ORL FACW or FAC: 0.0% (A/B)
	0 = Total C	Cover	That Are OBL, FACW, or FAC: 0.0% (A/B)
_ <u>Sapling/Shrub Stratum (</u> Plot size:)			Prevalence Index worksheet:
1	_ 0		Total % Cover of: Multiply by:
2	_ 0		OBL species 0 x 1 = 0
3. 4.	0 0.09		FACW species 0 x 2 = 0
5.	_ 0		FAC species $0 \times 3 = 0$
<u> </u>	0		FACU species 100 x 4 = 400
Herb Stratum (Plot size: 5' radius)			UPL species <u>0</u> x 5 = <u>0</u>
1. Bromus inermis	100100.0	% FACU	Column Totals: <u>100</u> (A) <u>400</u> (B)
2	_ 0		Prevalence Index = B/A = <u>4.000</u>
3	_ 0		Hydrophytic Vegetation Indicators:
5.	_ 0		1 - Rapid Test for Hydrophytic Vegetation
6.	$\begin{array}{cccc} & & \underline{} & & \underline{} & 0.0\% \\ \hline & 0 & & \boxed{} & 0.0\% \end{array}$		2 - Dominance Test is > 50%
7.	0 0.09		3 - Prevalence Index is ≤3.0 ¹
8.	0 0.09		4 - Morphological Adaptations 1 (Provide supporting
9.	0 0.0%	6	data in Remarks or on a separate sheet)
10.	0 0.0%	6	Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)	100 = Total C	Cover	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1	0	L	To proceed a second of proceduration
2.	0 0.09		Hydrophytic
	00.09		Vegetation Present? Yes No •
Remarks: (Include photo numbers here or on a separate s An upland plant community was observed.	sheet.)		

SOIL Sampling Point: SP-7 (u)

Profile Description: (Describe to the depth needed to do	cument the indicator or confirm the	absence of indicators.)
Depth Matrix	Redox Features	_
(inches) Color (moist) % Color (mo	oist) <u>% Type ¹ Loc²</u>	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.	Location: PL=Pore Lining. M=Matrix.
Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :
	Gleyed Matrix (S4)	Coast Prairie Redox (A16)
Display Care	Redox (S5)	☐ Dark Surface (S7)
Hudrogon Sulfido (A4)	ed Matrix (S6)	☐ Iron Manganese Masses (F12)
Stratified Layers (A5)	/ Mucky Mineral (F1)	☐ Very Shallow Dark Surface (TF12)
2 cm Muck (Δ10)	/ Gleyed Matrix (F2) ted Matrix (F3)	Other (Explain in Remarks)
Depleted Relow Dark Surface (A11)	E Dark Surface (F6)	
Thick Dark Surface (A12)	ted Dark Surface (F7)	Indicators of hydrophytic vegetation and
Sandy Muck Mineral (S1)	Depressions (F8)	wetland hydrology must be present,
5 cm Mucky Peat or Peat (S3)	(0)	unless disturbed or problematic.
Restrictive Layer (if observed):		
Туре:		
Depth (inches):		Hydric Soil Present? Yes ○ No •
Remarks:		
There were no indicators of hydric conditions. Hydric so	ls were not observed.	
HYDROLOGY		
Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that a	pply)	Secondary Indicators (minimum of two required)
Surface Water (A1)	er-Stained Leaves (B9)	Surface Soil Cracks (B6)
High Water Table (A2)	atic Fauna (B13)	Drainage Patterns (B10)
Saturation (A3)	e Aquatic Plants (B14)	Dry Season Water Table (C2)
Water Marks (B1)	rogen Sulfide Odor (C1)	Crayfish Burrows (C8)
	lized Rhizospheres on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
	sence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
	ent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)
	Muck Surface (C7)	☐ FAC-Neutral Test (D5)
	ge or Well Data (D9)	
Sparsely Vegetated Concave Surface (B8)	er (Explain in Remarks)	
Field Observations:		
	epth (inches):	
	epth (inches): Wet	and Hydrology Present? Yes O No 🗨
Saturation Present? Yes No De	epth (inches):	
Describe Recorded Data (stream gauge, monitoring well	, aerial photos, previous inspections	s), if available:
Remarks:		
No indicators of wetland hydrology were observed.		

Project/Site: IH 94 Milwaukee County	City/County:	Oak Creek/M	ilwaukee Sampling Date: 10-Nov-16
Applicant/Owner: WisDOT		State:	WI Sampling Point: SP-8 (W-2)
Investigator(s): Mike Al-wathiqui, Geof Parish	Section, Towr	nship, Range:	
Landform (hillslope, terrace, etc.): Toeslope		Local relief (co	oncave, convex, none): concave
Slope: 5.0% / 2.9 ° Lat.: 42.8591995		-87.9382019	- WCC04
		-07.9302013	WWI classification: T3K
Soil Map Unit Name: <u>Grays silt loam, 2 to 6 percent slope</u>	v	/If no eyr	blain in Remarks.)
Are climatic/hydrologic conditions on the site typical for this time Are Vegetation , Soil , or Hydrology	significantly disturbed?		
	· .		mai circumstances present.
Are Vegetation	naturally problematic? howing sampling poir	-	ed, explain any answers in Remarks.) ns, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No			<u>, ' </u>
Hydric Soil Present? Yes No		e Sampled Ar	
Wetland Hydrology Present? Yes No	Withi	in a Wetland?	? Yes
Remarks:			
	plants. Dominant Species?	: 	d multiple indicators of wetland hydrology were present.
	Absolute Rel.Strat. % Cover Cover	Indicator Status	Dominance Test worksheet:
1.	0 0.0%		Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
2	0 0000		
3.	0 0.0%		Total Number of Dominant Species Across All Strata: 1 (B)
4.	0 0.0%		Species Across All Strata.
5.	0 0.0%		Percent of dominant Species That are OBL FACW or FAC: 100.0% (A/B)
	0 = Total Cov	er	That Are OBL, FACW, or FAC: 100.0% (A/B)
			Prevalence Index worksheet:
1	00.0%_		Total % Cover of: Multiply by:
2	0		OBL species <u>90</u> x 1 = <u>90</u>
3	0		FACW species $20 \times 2 = 40$
4. 5.	0		FAC species 10 x 3 = 30
j	0		FACU species $0 \times 4 = 0$
<u>Herb Stratum</u> (Plot size: 5' radius)	0 = Total Cov	er	UPL species $0 \times 5 = 0$
1 Typha angustifolia	90 🗸 75.0%	OBL	Column Totals: <u>120</u> (A) <u>160</u> (B)
2. Phalaris arundinacea	20 16.7%	FACW	Prevalence Index = B/A =1.333_
3. Poa pratensis	108.3%_	FAC	Hydrophytic Vegetation Indicators:
4	0		1 - Rapid Test for Hydrophytic Vegetation
5	0		✓ 2 - Dominance Test is > 50%
6.	0		✓ 3 - Prevalence Index is ≤3.0 ¹
7. 8.	0 0.0%		4 - Morphological Adaptations ¹ (Provide supporting
8. 9.	0		data in Remarks or on a separate sheet)
10.	0		Problematic Hydrophytic Vegetation ¹ (Explain)
10.	0		$\frac{1}{2}$ Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:)	120 = Total Cov	er	be present, unless disturbed or problematic.
1	0 0.0%		
2.	0 0.0%		Hydrophytic Vegetation
	0 = Total Cov	er	Present? Yes No
Remarks: (Include photo numbers here or on a separal A wetland plant community was documented by the Ra	,	and the Preva	alence Index.

Sampling Point: SP-8 (W-2)

SOIL Decom	!!							-h	
Profile Descr			ne depth ne	eded to docum			nfirm the	absence of indicators.)	
Depth (inches)	Color (m	Matrix	%	Color (moist	Redox Feati	ures _Tvpe ¹	Loc ²	Texture	Remarks
	10YR		90			C	<u>LOC-</u> M	Silty Clay Loam	Remarks
0-10		4/1							
10-17	10YR	5/1		10YR 5/	6 20	C	M	Silty Clay Loam	
¹ Type: C=Cond	centration, D=	Depletion,	RM=Reduce	d Matrix, CS=Co	vered or Coat	ed Sand Gra	ins.	Location: PL=Pore Lining. N	Ч=Matrix.
Hydric Soil I	ndicators:							Indicators for Proble	ematic Hydric Soils ³ :
Histosol (A	A1)			Sandy Gle	yed Matrix (S	4)			•
Histic Epip	pedon (A2)			Sandy Re	dox (S5)			Coast Prairie Redox	(A16)
Black Hist	ic (A3)			Stripped I	Matrix (S6)			☐ Dark Surface (S7)	
☐ Hydrogen	Sulfide (A4)			I oamy Mi	ucky Mineral (F1)		☐ Iron Manganese Ma	sses (F12)
Stratified	Layers (A5)				eyed Matrix (F	-		☐ Very Shallow Dark S	Surface (TF12)
2 cm Muc	k (A10)				Matrix (F3)	2)		Other (Explain in Re	emarks)
☐ Depleted	Below Dark Su	ırface (A11	1)		, ,	- \			-
Thick Darl	k Surface (A12	2)			rk Surface (F6	•		2	
Sandy Mu	ck Mineral (S1	.)			Dark Surface	` '		3 Indicators of hydroph	
	ky Peat or Pea	-		☐ Redox De	pressions (F8))		wettand nydrology unless disturbed	must be present, or problematic.
Restrictive La	•								
Type:	ayer (ii obse	iveu).							
	200):							Hydric Soil Present?	Yes No
Depth (incl	les):							•	
Remarks:									
The criteria fo	or hydric soil	s was me	et by F3 Dep	oleted Matrix.					
HYDROLO	GY								
Wetland Hyd	rology Indic	ators:							
Primary Indica	ntors (minimur	n of one is	required; ch	eck all that apply	/)			Secondary Indicate	tors (minimum of two required)_
Surface W	ater (A1)			Water-9	Stained Leaves	s (B9)		Surface Soil C	racks (B6)
✓ High Wate	er Table (A2)			Aquatic	Fauna (B13)			☐ Drainage Patt	erns (B10)
✓ Saturation	ı (A3)			True Ac	uatic Plants (E	B14)		☐ Dry Season W	/ater Table (C2)
☐ Water Ma	rks (B1)			Hydroge	en Sulfide Odo	or (C1)		Crayfish Burro	ows (C8)
Sediment	Deposits (B2)			Oxidize	d Rhizosphere	s on Living F	Roots (C3)	Saturation Vis	sible on Aerial Imagery (C9)
Drift Depo					e of Reduced	_	,		ressed Plants (D1)
	or Crust (B4)				Iron Reduction		nils (C6)	✓ Geomorphic F	` '
☐ Iron Depo)II3 (CO)	FAC-Neutral 7	
		orial Image	m, (D7)		ick Surface (C	-		▼ TAC-Neutidi I	est (D3)
	n Visible on A	_		_	or Well Data (I	-			
☐ Sparsely V	egetated Con	icave Surfa	ice (B8)	☐ Other (I	Explain in Rem	narks)			
Field Observa		v. () N. A	= .	<i>(</i> : 1)				
Surface Water	Present?	Yes		Depth	(inches):		-		
Water Table Pr	resent?	Yes(● No ○	Depth	(inches):	11	_		v • • •
Saturation Pres		Yes (No O	Depth	(inches):	0	Wet	land Hydrology Present?	Yes ● No O
(includes capill							nsnection:	s), if available:	
הפיכווהב עבנו	orucu Dala	(su caili (juuye, IIIUIII	wing well, de	παι μποιος,	PI CVIOUS II	ispection!	o,, ii avaliabic.	
Remarks:									
				er table at 11	inches, satu	uration at 0) inches a	and two secondary indicate	ors, which were D2 Geomorphic
Position and	טס FAC-neu	ıraı rest.							

Project/Site: IH 94 Milwaukee County	Cit	y/County:	Oak Creek/N	Milwaukee Sampling Date: 10-Nov-16
Applicant/Owner: WisDOT			State:	WI Sampling Point: SP-9 (up)
Investigator(s): Mike Al-wathiqui, Geof Parish	S	Section, Town	nship, Range:	
Landform (hillslope, terrace, etc.): Hillside			Local relief (c	concave, convex, none): convex
Slope: 20.0% / 11.3 ° Lat.: 42.8553009			-87.939201	
Soil Map Unit Name: Morley silt loam, 2 to 6 percent slopes			07.939201	WWI classification: None
Are climatic/hydrologic conditions on the site typical for this time of ye.	ora Yes	○ No ○	(If no ex	cplain in Remarks.)
	nificantly dis			ormal Circumstances" present?
	turally proble			ded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map show			•	
Hydrophytic Vegetation Present? Yes No No				
Hydric Soil Present? Yes No •	Sampled A			
Wetland Hydrology Present? Yes No •		Withi	n a Wetland	i? Yes ○ No •
Remarks:				
Hydrological conditions were wetter than normal. An upland hydrology present. The sample point was located in an upland VEGETATION - Use scientific names of plant	and.	Dominant		ls were documented. There were no indicators of wetland
	Absolute % Cover		Indicator Status	Dominance Test worksheet:
1.	0	0.0%	Status	Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)
2.	0	0.0%		That are obe, then, of the.
3.	0	0.0%		Total Number of Dominant Species Across All Strata: 4 (B)
4.	0	0.0%		Species Across All Strate.
5.	0	0.0%		Percent of dominant Species That Are OBL, FACW, or FAC:50.0% (A/B)
(5)	0	= Total Cove	er	That Are ODL, FACW, OF FAC.
Sapling/Shrub Stratum (Plot size: 15' rad)				Prevalence Index worksheet:
1. Rhamnus cathartica		83.3%	FAC	Total % Cover of: Multiply by:
Rubus occidentalis Lonicera tatarica		8.3%	UPL	OBL species $0 \times 1 = 0$
4.			FACU	FACW species 0 $\times 2 = 0$ FAC species 80 $\times 3 = 240$
5.	0	0.0%		
	60	= Total Cove		
Herb Stratum (Plot size: 5' radius)				· —— ——
1_ Bromus inermis		40.0%	FACU	Column Totals: 210 (A) 765 (B)
2. Festuca arundinacea		40.0%	FACU	Prevalence Index = B/A = 3.643
3. Poa pratensis 4.		✓ 20.0% 0.0%	FAC	Hydrophytic Vegetation Indicators:
5.	0	0.0%		1 - Rapid Test for Hydrophytic Vegetation
6.	0	0.0%		2 - Dominance Test is > 50%
7.	0	0.0%		3 - Prevalence Index is ≤3.0 ¹
8.	0	0.0%		4 - Morphological Adaptations 1 (Provide supporting
9.	0	0.0%		data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)
10	0	0.0%		
Woody Vine Stratum_ (Plot size:)	150	= Total Cove	er	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	0	0.0%		
2.	0	0.0%		Hydrophytic
_ -	0	= Total Cove	 er	Vegetation Present? Yes ○ No ●
Remarks: (Include photo numbers here or on a separate sh An upland plant community was observed.	eet.)			

SOIL Sampling Point: SP-9 (up)

Profile Description: (Describe to the depth needed to document the indicator or co	onfirm the absence of indicators.)
Depth Matrix Redox Features	
(inches) Color (moist) % Color (moist) % Type 1	Loc ² 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 Gr	ains. Location: PL=Pore Lining. M=Matrix.
Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
Histosol (A1) Sandy Gleyed Matrix (S4)	Coast Prairie Redox (A16)
Histic Epipedon (A2) Black Histic (A3) Stripped Matrix (S6)	Dark Surface (S7)
Hydrogon Sulfido (A4)	☐ Iron Manganese Masses (F12)
Coarry Mucky Milneral (F1)	Very Shallow Dark Surface (TF12)
Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Depleted Matrix (F3) Depleted Below Dark Surface (A11) Depleted Matrix (F3)	
Redox Dark Surface (F6) Redox Dark Surface (F6) Depleted Dark Surface (F7)	3
Sandy Muck Mineral (S1) Redox Depressions (F8)	Indicators of hydrophytic vegetation and wetland hydrology must be present,
5 cm Mucky Peat or Peat (S3)	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)	Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9)	Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13)	Drainage Patterns (B10)
Saturation (A3) True Aquatic Plants (B14)	Dry Season Water Table (C2)
☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizospheres on Living	Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled S	
☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7)	FAC-Neutral Test (D5)
☐ Inundation Visible on Aerial Imagery (B7) ☐ Gauge or Well Data (D9)	
Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)	
Field Observations	1
Field Observations: Surface Water Present? Yes No Depth (inches):	
	-
	─ Wetland Hydrology Present? Yes ○ No ●
Saturation Present? (includes capillary fringe) Yes No Depth (inches):	_
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous i	nspections), if available:
Remarks:	
No indicators of wetland hydrology were observed.	

Project/Site: IH 94 Milwaukee County		City/County	y: Oak Creek/N	Milwaukee Sampling Date	e: 10-Nov-16
Applicant/Owner: WisDOT			State:		SP-10 (W11-3)
Investigator(s): Mike Al-wathiqui, Geof P	arish	Section,	Township, Range:		
Landform (hillslope, terrace, etc.): Toeslo			•	concave, convex, none): concave	
Slope: 5.0% / 2.9 ° Lat.:	- P -	Lon	— g.: -87.939201⁴		WGS84
Soil Map Unit Name: _Morley silt loam			J	WWI classification: None	
Are climatic/hydrologic conditions on the s		((If no, e)	kplain in Remarks.)	
Are Vegetation, Soil	, or Hydrology	significantly disturbed?	,	,	s • No O
Are Vegetation , Soil	, or Hydrology	naturally problematic?		ded, explain any answers in Remarks.)	1.0
,	, , , , ,		•	ns, transects, important featu	res, etc.
Hydrophytic Vegetation Present?	Yes No				
Hydric Soil Present?	Yes ● No ○		s the Sampled A		
Wetland Hydrology Present?	Yes ● No ○	-	Admir a Treatment	" TES © NO O	
Remarks:					
Hydrological conditions were wetted. The data point was located in a wew VEGETATION - Use scient	etland.	ants. Dom in	nant	nd multiple indicators of wetland hydro	logy were present.
		Absolute Rel.St		Dominance Test worksheet:	
Tree Stratum (Plot size:)	% Cover Cove		Number of Dominant Species	
1			0%	That are OBL, FACW, or FAC:	(A)
2			<u> </u>	Total Number of Dominant	
3			0%	Species Across All Strata:	2(B)
4. 5.			<u> </u>	Percent of dominant Species	
J			0%	That Are OBL, FACW, or FAC:	100.0% (A/B)
_Sapling/Shrub Stratum (Plot size:)		Covei	Prevalence Index worksheet:	
1.		0 🗌 0.0	0%	Total % Cover of: Multip	dy by:
2.)%	OBL species 100 x 1 =	
3.)%	FACW species $20 \times 2 =$	
4.			0%	FAC species $30 \times 3 =$	
5.			0%	FACU species $0 \times 4 =$	
/Dist size. El radius		0 = Total		UPL species $0 \times 5 =$	
Herb Stratum (Plot size: 5' radius)				
1. Typha angustifolia			7% OBL	Column Totals: 150 (A)	
2. Poa pratensis		30 <u>✓</u> 20.		Prevalence Index = B/A =	1.533
3. Phalaris arundinacea 4.			3% FACW	Hydrophytic Vegetation Indicators:	
5.			0% 0%	✓ 1 - Rapid Test for Hydrophytic Ve	getation
6.)%)%	✓ 2 - Dominance Test is > 50%	
7.)% 	✓ 3 - Prevalence Index is \leq 3.0 ¹	
8.)% 	$\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	
9.			0%	data in Remarks or on a separate	•
10.			0%	Problematic Hydrophytic Vegetati	ion ¹ (Explain)
		150 = Total		1 Indicators of hydric soil and wetlar	
Woody Vine Stratum (Plot size:)			be present, unless disturbed or probl	ematic.
1			0%	Hydrophytic	
2			0%	Vegetation V A	
		0 = Total	Cover	Present? Yes No	
Demandar /Instrude photo numbers	Large of an a constants				
Remarks: (Include photo numbers	·	•			
A wetland plant community was do	ocumented by the Rap	id Test, Dominance Te	est and the Prev	/alence Index.	

SOIL Sampling Point: SP-10 (W11-3)

Profile Desc	ription: (Des	cribe to t	the depth ne	eded to docum	ent the indi	cator or cor	nfirm the	absence of indicators.)	
Depth		Matrix			Redox Feat				
(inches)	Color (n		<u>%</u>	Color (moist)	<u>%</u>	Tvpe 1	Loc ²	Texture	Remarks
0-5	10YR	3/1						Silty Clay Loam	
5-17	10YR	5/1		10YR 5/6	5 30	_ <u>C</u>	М	Silty Clay Loam	
								-	
		Depletion	, RM=Reduce	d Matrix, CS=Cov	ered or Coat	ed Sand Grai	ns.	2ºocation: PL=Pore Lining. M	=Matrix.
Hydric Soil								Indicators for Problem	natic Hydric Soils ³ :
Histosol (_ '	yed Matrix (S	4)		Coast Prairie Redox (A16)
Black Hist	pedon (A2)			☐ Sandy Rec	` '			Dark Surface (S7)	•
	Sulfide (A4)			Stripped M	. ,			☐ Iron Manganese Mas	ses (F12)
	Layers (A5)				cky Mineral (•		☐ Very Shallow Dark Su	* *
2 cm Muc	, , ,			_ ′	eyed Matrix (F	-2)		Other (Explain in Ren	` '
	Below Dark Su	urface (A1	1)	✓ Depleted I				outer (Explain in Net	
	k Surface (A12	•	,		k Surface (F6	•		2	
	uck Mineral (S1	•			Dark Surface	. ,		Indicators of hydrophy	
	cky Peat or Pea	•		□ Redox Dep	oressions (F8))		wetland hydrology unless disturbed o	
Restrictive L									
Type:	, ,								
Depth (inc	:hes):							Hydric Soil Present?	Yes No
Remarks:									
HYDROLO	OGY								
Wetland Hyd		ators							
_			s required: che	eck all that apply)			Secondary Indicato	rs (minimum of two required)
	Vater (A1)				tained Leaves	: (B9)		Surface Soil Cra	· · · · ·
	er Table (A2)				Fauna (B13)	, (55)		Drainage Patte	
✓ Saturation	` ,				uatic Plants (I	B14)		Dry Season Wa	` ,
☐ Water Ma	` ,				n Sulfide Odd			Crayfish Burrov	
	: Deposits (B2)					s on Living R	oots (C3)		ple on Aerial Imagery (C9)
Drift Dep					e of Reduced		,		essed Plants (D1)
	or Crust (B4)					n in Tilled So	ils (C6)	Geomorphic Po	
☐ Iron Depo					ck Surface (C		. ,	FAC-Neutral Te	
Inundatio	n Visible on A	erial Imag	ery (B7)		r Well Data (I	-			
Sparsely '	Vegetated Cor	ncave Surf	ace (B8)		xplain in Rem	-			
Field Observ	ations:		O O						
Surface Water	Present?	Yes		Depth	(inches):		-		
Water Table P	resent?	Yes	● No ○	Depth	(inches):	10	_		v
Saturation Pre		Yes (● No ○	Depth	(inches):	4	Wet	tland Hydrology Present?	Yes ● No O
(includes capil							spection	s), if available:	
Describe Rec	coraca Data	(Scream)	gaage, mon	toring wen, ac	nai priocos,	previous iii	эрссион	s), ii available.	
Remarks:									
	Irology was a	documen	ted by a wat	or table at 10	inches satu	iration at 4	inches s	and two secondary indicator	rs, which were D2 Geomorphic
Position and				כי ומחוב פו 10	iriciics, sall	arauon at 4	111111111111111111111111111111111111111	and two securidary mulcator	3, WITHOUT WELL DE GEOTHOLDING

Project/Site: IH 94 Milwaukee County		_ City/Co	ounty:	Oak Creek/N	Milwaukee Sampling Date: 10-Nov-16
Applicant/Owner: WisDOT				State:	WI Sampling Point: SP-11 (u)
Investigator(s): Mike Al-wathiqui, Geof Parish		Secti	on, Town	ship, Range:	
Landform (hillslope, terrace, etc.): Hillside				-	concave, convex, none): convex
Slope: 25.0% / 14.0 ° Lat.: 42.85189	ວາ			87.942703	
			Long	-67.942703	
Soil Map Unit Name: Ashkum silty clay loam, 0		′es 🔘 i	No ((If no ov	WWI classification: None which is Remarks.)
Are climatic/hydrologic conditions on the site typical for	Tallo time of year.			, ,	
Are Vegetation, Soil, or Hydrold					mar circumstances present.
Are Vegetation , Soil , or Hydrok SUMMARY OF FINDINGS - Attach site				•	ded, explain any answers in Remarks.) ns, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	No 💿	-	T		,
(2)	No O		Is the	Sampled A	
	No •		withir	n a Wetland	1? Yes ○ No •
Wetland Hydrology Present? Yes Remarks:	110 😊				
	le point is in an upla	nd. Do	ominant	igh an upla	and plant community was documented and no indicators of
Tree Stratum (Plot size:)	Abso % Co	lute Re		Indicator Status	Dominance Test worksheet:
1			0.0%	Status	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
2.	_		0.0%		
3.	0		0.0%		Total Number of Dominant Species Across All Strata: 2 (B)
4.	0		0.0%		
5	0	_ □	0.0%		Percent of dominant Species That Are OBL, FACW, or FAC:50.0% (A/B)
	0	= T	Total Cove	r	That Are Obl., FACW, OF FAC.
_Sapling/Shrub Stratum (Plot size:	_)				Prevalence Index worksheet:
1	0		0.0%		Total % Cover of: Multiply by:
2. 3.			0.0%		OBL species $0 \times 1 = 0$
4.	0		0.0%		FACW species $0 \times 2 = 0$
5.			0.0%		FAC species 80 x 3 = 240 FACU species 180 x 4 = 720
-			Total Cove		
Herb Stratum (Plot size: 5' radius)					
1. Bromus inermis			37.7%	FACU	Column Totals: <u>265</u> (A) <u>985</u> (B)
2. Poa pratensis			30.2%	FAC	Prevalence Index = B/A = 3.717
Solidago canadensis Festuca arundinacea			18.9% 11.3%	FACU FACU	Hydrophytic Vegetation Indicators:
5. Daucus carota			1.9%	UPL	1 - Rapid Test for Hydrophytic Vegetation
6.	0		0.0%	<u> </u>	2 - Dominance Test is > 50%
7.			0.0%		3 - Prevalence Index is ≤3.0 1
8.	0		0.0%		4 - Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)
9.	0		0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
10.	0	_ □	0.0%		
Woody Vine Stratum (Plot size:	265	<u> </u>	Total Cove	er	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	0		0.0%		
2.	0		0.0%		Hydrophytic
_ .			Total Cove		Vegetation Present? Yes No No
Remarks: (Include photo numbers here or on An upland plant community was observed.	a separate sheet.)				

SOIL Sampling Point: SP-11 (u)

Profile Descr	ription: (De	scribe to	the depth n	eeded to docur	nent the indi	cator or co	nfirm the	absence of indicators.)	
Depth		Matrix			Redox Feat			_	
(inches)	Color (<u>%</u>	Color (moist	:) %	Type 1	Loc ²	Texture	Remarks
0-9	10YR	3/2	100					Silty Clay Loam	
9-19	10YR	4/2	98	10YR 4,	/6 2	_ <u>C</u>	M	Silty Clay Loam	
	-	-		•			-	-	
		-					-		
1								2 2	
		=Depletior	n, RM=Reduc	ed Matrix, CS=Co	overed or Coat	ed Sand Gra	ins.	₽ PL=Pore Lining. M=	
Hydric Soil 1				Candy Cl	avad Matrix (C	·4\		Indicators for Problem	natic Hydric Soils ³ :
Histosol (pedon (A2)				eyed Matrix (S	14)		Coast Prairie Redox (A16)
Black Hist					Matrix (S6)			Dark Surface (S7)	
Hydrogen	Sulfide (A4)			=	ucky Mineral (F1)		☐ Iron Manganese Mass	ses (F12)
Stratified	Layers (A5)			_ `	leyed Matrix (F	•			rface (TF12)
2 cm Muc	k (A10)			_ `	Matrix (F3)	-,		Other (Explain in Rem	narks)
✓ Depleted	Below Dark S	Surface (A1	11)		ark Surface (F6	5)			
	k Surface (A	•		Depleted	Dark Surface	(F7)		³ Indicators of hydrophy	tic vegetation and
	ıck Mineral (S	•		Redox De	epressions (F8)		wetland hydrology r	nust be present,
	ky Peat or Pe	. ,						unless disturbed o	r problematic.
Restrictive L	ayer (if obs	erved):							
Type:	h \.							Hydric Soil Present?	Yes No
Depth (inc	nes):							,	100 - 110 -
HYDROLO				Depleted Below					
Wetland Hyd		catorci							
-	•		is required: c	heck all that appl	v)			Secondary Indicato	rs (minimum of two required)
	Vater (A1)	ann or one	is required, e		Stained Leaves	s (B9)		Surface Soil Cra	
	er Table (A2))			Fauna (B13)	, (25)		☐ Drainage Patter	
Saturation					quatic Plants (I	B14)		☐ Dry Season Wa	
Water Ma	rks (B1)			Hydrog	en Sulfide Odo	or (C1)		Crayfish Burrow	us (C8)
Sediment	Deposits (B2	2)		Oxidize	d Rhizosphere	s on Living F	Roots (C3)	Saturation Visib	le on Aerial Imagery (C9)
Drift Depo	osits (B3)			Presen	ce of Reduced	Iron (C4)		Stunted or Stre	ssed Plants (D1)
Algal Mat	or Crust (B4))		Recent	Iron Reductio	n in Tilled So	oils (C6)	Geomorphic Po	sition (D2)
☐ Iron Depo	` '				uck Surface (C	-		☐ FAC-Neutral Te	st (D5)
	n Visible on A	_			or Well Data (•			
☐ Sparsely \	Vegetated Co	ncave Sur	face (B8)	U Other (Explain in Ren	narks)			
Fig. 14 Of							ı		
Field Observ		Yes	O No @	Dont	(inches):				
Surface Water					ı (inches):		-		
Water Table P		Yes		Depth	(inches):		_ Wet	tland Hydrology Present?	Yes ○ No •
Saturation Pre (includes capil		Yes	O No 🖲	Depth	(inches):		_ ""	dana riyarology i resent:	100 - 110 -
		(stream	gauge, mor	nitoring well, a	erial photos,	previous ir	spection	s), if available:	
Remarks:									
No indicators	s of wetland	d hydrolo	gy were obs	served.					

Project/Site: IH 94 Milwaukee County	Cit	cy/County:	Oak Creek/N	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, Town	nship, Range:	S 31 T 5N R 22E
Landform (hillslope, terrace, etc.): Toeslope				concave, convex, none): concave
Slope: 1.0% / 0.6 ° Lat.: 42.8518982			-87.942703	
Soil Map Unit Name: Ashkum silty clay loam, 0 to 2 percent sl	lones		-0/.3TZ/03	WWI classification: None
Are climatic/hydrologic conditions on the site typical for this time of ye	(○ No ●	(If no, ex	(plain in Remarks.)
	gnificantly dis		,	ormal Circumstances" present?
	aturally proble			ded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map show			•	
Hydrophytic Vegetation Present? Yes • No •		<u> </u>		
Hydric Soil Present? Yes No			e Sampled A n a Wetland	
Wetland Hydrology Present? Yes No			II a # Cua	··· Yes © NO C
Remarks:				
Hydrological conditions were wetter than normal. A wetland. The data point was located in a wetland. VEGETATION - Use scientific names of plant		nmunity, hyd Dominant	dric soils and	d multiple indicators of wetland hydrology were present.
		- Species? - Rel.Strat.		Dominance Test worksheet:
_ <u>Tree Stratum_</u> (Plot size:)	% Cover	Cover	Status	Number of Dominant Species
1	0	0.0%		That are OBL, FACW, or FAC:1 (A)
2		0.0%		Total Number of Dominant
3		0.0%		Species Across All Strata:1(B)
4		0.0%		Descent of dominant Charles
5				Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
_Sapling/Shrub Stratum (Plot size:)		= Total Cove	er	-
Sabind/Shrub Stratum \(1 \text{ for 312e.} \)	0	0.0%		Prevalence Index worksheet:
2.		0.0%		Total % Cover of: Multiply by: OBL species 100 x 1 = 100
3.		0.0%		
4.	0	0.0%		
5.	0	0.0%		
	0	= Total Cove		
Herb Stratum (Plot size: 5' radius)				
1. Typha angustifolia		71.4%	OBL	Column Totals: 140 (A) 250 (B)
2. Festuca arundinacea		14.3%	FACU	Prevalence Index = B/A = <u>1.786</u>
3. Solidago canadensis	10	7.1%	FACU	Hydrophytic Vegetation Indicators:
4. Poa pratensis 5.		7.1%	FAC	✓ 1 - Rapid Test for Hydrophytic Vegetation
5 6.		0.0%		✓ 2 - Dominance Test is > 50%
7.		0.0%		✓ 3 - Prevalence Index is ≤3.0 ¹
8.		0.0%		4 - Morphological Adaptations ¹ (Provide supporting
9.		0.0%		data in Remarks or on a separate sheet)
10.		0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
	140			$\frac{1}{2}$ Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:)	140	= Total Cove	er	be present, unless disturbed or problematic.
1	0	0.0%		
2	0	0.0%		Hydrophytic Vegetation
	0	= Total Cove	er	Present? Yes No No
				<u> </u>
Remarks: (Include photo numbers here or on a separate sh A wetland plant community was documented by the Rapid ¹	•	iance Test a	and the Prev	valence Index.

SOIL Sampling Point: SP-12 (W11-3)

Profile Description	: (Describe to Matrix	the depth ne				nfirm the	absence of indicators.)		
Depth		ox Featı		1 2		Barranta			
	olor (moist)	<u>%</u> _	Color (moist)	<u>%</u>	Tvpe 1	Loc ²	Ciltu Clay Leam	Remarks	
	YR 3/1	100					Silty Clay Loam		
	YR 5/1		10YR 5/6	20	C	M	Sandy Clay		
	- a-								
						-			
			N-	-		-			
Type: C=Concentrat	tion, D=Depletion	n, RM=Reduce	ed Matrix, CS=Covere	d or Coat	ed Sand Grai	ns.	2 Cocation: PL=Pore Lining. M=Matrix		
Hydric Soil Indica	tors:						Indicators for Problematic H	ydric Soils ³ :	
Histosol (A1)	(42)		Sandy Gleyed	-	4)		Coast Prairie Redox (A16)		
Histic Epipedon Black Histic (A3)	. ,		Sandy Redox (•			Dark Surface (S7)		
Hydrogen Sulfide			Stripped Matri:	. ,			☐ Iron Manganese Masses (F12	2)	
Stratified Layers			Loamy Mucky	•	•		☐ Very Shallow Dark Surface (1	•	
2 cm Muck (A10	` '		Loamy Gleyed		2)		Other (Explain in Remarks)	/	
✓ Depleted Below	•	11)	✓ Depleted Matri	. ,			<u> </u>		
Thick Dark Surfa	•	11)	Redox Dark Su	•	,				
	, ,		Depleted Dark		. ,		³ Indicators of hydrophytic vege		
Sandy Muck Mineral (S1) September 1							wetland hydrology must be present, unless disturbed or problematic.		
Restrictive Layer (
Туре:									
Depth (inches):_							Hydric Soil Present? Yes	No 🔾	
HYDROLOGY									
Wetland Hydrolog	•								
Primary Indicators (is required; cr					Secondary Indicators (mini	<u> </u>	
Surface Water (-		☐ Water-Staine		(B9)		Surface Soil Cracks (B6	•	
✓ High Water Tabl	e (A2)		Aquatic Faur	, ,			Drainage Patterns (B10	•	
Saturation (A3)			☐ True Aquatio	•	•		☐ Dry Season Water Tab	e (C2)	
Water Marks (B1	,		☐ Hydrogen Su				Crayfish Burrows (C8)		
Sediment Depos	. ,		Oxidized Rhi		-	oots (C3)		• , . ,	
Drift Deposits (B	•		Presence of		٠,		Stunted or Stressed Pla		
Algal Mat or Cru			Recent Iron	Reduction	n in Tilled So	ils (C6)	✓ Geomorphic Position (I	02)	
☐ Iron Deposits (B			☐ Thin Muck S	urface (C	7)		✓ FAC-Neutral Test (D5)		
Inundation Visib	_		☐ Gauge or We	ell Data (I	09)				
Sparsely Vegeta	ted Concave Sur	face (B8)	Other (Expla	in in Rem	narks)				
Field Observations		_				T			
Surface Water Preser	nt? Yes	○ No ●	Depth (inc	nes):					
Water Table Present		● No C		_	0				
Saturation Present?	Vec				<u> </u>	Wet	tland Hydrology Present? Yes	● No ○	
(includes capillary fried Describe Recorded	ilge)				nrevious in	- cnection	c) if available:		
Pescribe Recorded	Data (Sticaill	gaage, mon	icoming well, aelial	priotos,	PICVIOUS III	opecu011	oj, ir avaliabie.		
Remarks:									
, ,,	was documer	nted by a wa	ter table at 0 inche	es and tw	wo seconda	ıry indica	ators, which were D2 Geomorphic	Position and D5 FAC-	
neutral Test.									

Project/Site: IH 94 Milwaukee County	City	y/County:	Oak Creek/N	Milwaukee Sampling Date:11-Nov-16
Applicant/Owner: WisDOT			State:	WI Sampling Point: SP-13 (up)
Investigator(s): _Mike Al-wathiqui, Geof Parish	S	Section, Tow	nship, Range:	s 31 T 5N R 22E
Landform (hillslope, terrace, etc.): Hillside			Local relief (c	concave, convex, none): convex
Slope: 25.0% / 14.0 ° Lat.: 42.8480988		Long:	-87.947898	Datum: WGS84
	aradad		07.517050	WWI classification: None
Soil Map Unit Name: Morley silt loam, 6 to 12 percent slopes, Are climatic/hydrologic conditions on the site typical for this time of ye	(○ No ●	(If no. ex	(plain in Remarks.)
	gnificantly dist		, ,	ormal Circumstances" present? Yes No
	,			milar circumstances presents
Are Vegetation	aturally proble		-	ded, explain any answers in Remarks.) ns, transects, important features, etc.
Hydrophytic Vegetation Present? Yes ○ No •				
Hydric Soil Present? Yes ○ No •			e Sampled A	Area
Wetland Hydrology Present? Yes ○ No ●		with	in a Wetland	1? Yes ○ No •
Remarks:				
Hydrological conditions were wetter than normal. An uplan hydrology present. The sample point was located in an uplan VEGETATION - Use scientific names of plan	and.	Dominant	· :	Is were documented. There were no indicators of wetland
Trans Charles (Plot size:	Absolute	Rel.Strat.	Indicator	Dominance Test worksheet:
	% Cover	Cover 0.0%	Status	Number of Dominant Species
	0	0.0%		That are OBL, FACW, or FAC: (A)
3.	0	0.0%		Total Number of Dominant
4.	0	0.0%		Species Across All Strata: 2 (B)
5.	0	0.0%		Percent of dominant Species
	0	= Total Cov	ver	That Are OBL, FACW, or FAC: 0.0% (A/B)
_Sapling/Shrub Stratum (Plot size:)				Prevalence Index worksheet:
1		0.0%		Total % Cover of: Multiply by:
2		0.0%		OBL species <u>0</u> x 1 = <u>0</u>
3		0.0%		FACW species $0 \times 2 = 0$
4. 5.		0.0%_		FAC species <u>25</u> x 3 = <u>75</u>
J		0.0%		FACU species <u>150</u> x 4 = <u>600</u>
Herb Stratum (Plot size: 5' radius)		= Total Cov	ver	UPL species <u>20</u> x 5 = <u>100</u>
1. Bromus inermis	100	51.3%	FACU	Column Totals: <u>195</u> (A) <u>775</u> (B)
2. Festuca arundinacea	_50_	✓ 25.6%	FACU	Prevalence Index = B/A = 3.974
3. Poa pratensis	25	12.8%	FAC	Hydrophytic Vegetation Indicators:
4. Daucus carota	20	10.3%	UPL	1 - Rapid Test for Hydrophytic Vegetation
5	0	0.0%		2 - Dominance Test is > 50%
6. 7.		0.0%		☐ 3 - Prevalence Index is ≤3.0 ¹
8.		0.0%		4 - Morphological Adaptations 1 (Provide supporting
9.	0 0	0.0%		data in Remarks or on a separate sheet)
10.	0	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
	195	= Total Cov	er	$\frac{1}{2}$ Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:)		_		be present, unless disturbed or problematic.
1		0.0%		Hydrophytic
2		0.0%		Vegetation
	0	= Total Cov	ver	Present? Yes No •
Remarks: (Include photo numbers here or on a separate sh An upland plant community was observed.	neet.)			

SOIL Sampling Point: SP-13 (up)

Profile Description: (Describe to the depth needed to document the indicate	r or confirm the absence of indicators.)
Depth Matrix Redox Features	
(inches) Color (moist) % Color (moist) %	vpe 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	
$^{ m 1}$ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated S	and Grains.
Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
Histosol (A1) Sandy Gleyed Matrix (S4)	Coast Prairie Redox (A16)
Histic Epipedon (A2) Sandy Redox (S5)	Dark Surface (S7)
☐ Black Histic (A3) ☐ Stripped Matrix (S6) ☐ Hydrogen Sulfide (A4) ☐ Learny Made Microst (51)	Iron Manganese Masses (F12)
Stratified Layers (A5)	☐ Very Shallow Dark Surface (TF12)
Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	other (Explain in remains)
Thick Dark Surface (A12)	2
Depleted Dark Surface (F7) Sandy Muck Mineral (S1) Depleted Dark Surface (F7)	Indicators of hydrophytic vegetation and wetland hydrology must be present,
Redox Depressions (F8) 5 cm Mucky Peat or Peat (S3)	unless disturbed or problematic.
Restrictive Layer (if observed):	
Туре:	
Depth (inches):	Hydric Soil Present? Yes ○ No •
Remarks:	
Hydric soils were not observed.	
11,4110 0010 11010 1101 00001 11001	
HYDROLOGY	
Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9	
High Water Table (A2) Aquatic Fauna (B13)	Drainage Patterns (B10)
Saturation (A3) True Aquatic Plants (B14)	Dry Season Water Table (C2)
☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C	
Sediment Deposits (B2) Oxidized Rhizospheres on	
☐ Drift Deposits (B3) ☐ Presence of Reduced Iron	(C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction in	Tilled Soils (C6) Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7)	FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9)	
Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks	5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes O No O Depth (inches):	
Saturation Present? (includes capillary frings) Yes No Depth (inches):	Wetland Hydrology Present? Yes No No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections) if available:
presence recorded batta (stream gauge, monitoring well, aeriai priotos, pre	riodo inspections), il divulidole.
Remarks:	
No indicators of wetland hydrology were observed.	

	Project/Site: IH 94 Milwaukee County		City/	/County:	Oak Creek/M	Milwaukee Sampling Date: 11-Nov-16				
	Applicant/Owner: _WisDOT				State:					
London (hillstope, terrace, etc.): Toeslope		Parish	Se	ction, Town	nship, Range:					
Solid May Unit Name: Mode										
Soil Nay buth Name: Morley sitt loam. 5 to 12 percent slopes, eroded were charactery designation who can be set bycotor to this time of year? Yes \ No \ (*)		•								
New Vegetation , so			eroded		-07.5 17050					
Average Soil				No 💿	(If no, ex					
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 Is the Sampled Area within a Wetland? Yes No No No Is the Sampled Area within a Wetland? Yes No No No Is the Sampled Area within a Wetland? Yes No No No Is the Sampled Area within a Wetland? Yes No No No Is the Sampled Area within a Wetland? Yes No No No No No No No No No N			· ·							
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Wettand hydrology Present? Yes No No Wettand Hydrology Present? Yes No No Wettand Hydrology Present? Yes No No No Wettand Hydrology Present? Yes No		. , ,, _	,			F				
Is the Sampled Area within a Wetland? Yes No w	,				-					
###orkson / Present2	Hydrophytic Vegetation Present?	Yes No								
Wetland Hydrology Present? Yes ● No	Hydric Soil Present?	Yes No								
Remarks: Hydrological conditions were wetter than normal. A wetland plant community, hydric soils and multiple indicators of wetland hydrology were present.	Wetland Hydrology Present?	Yes No			II a Weddii.a	Tes S No C				
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. Dominant Species Spec	, 3,									
Absolute	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. Dominant									
1.	To Charles (Diot cize)		Absolute	Rel.Strat.	Indicator	Dominance Test worksheet:				
2.					Status					
3.	·					That are OBL, FACW, OF FAC: Z (A)				
4.										
Sabilina/Shrub Stratum (Plot size: 1. 0 0.0% 0.						Species Across All Strata:				
Sabiling/Shrub Stratum	5.			_						
1.			0 =	= Total Cove	er	That Are OBL, FACW, or FAC:UU.U% (A/D)				
2.	_Sapling/Shrub Stratum (Plot size:)				Prevalence Index worksheet:				
3.	1			0.0%		Total % Cover of: Multiply by:				
4.	-		_ 0	0.0%		OBL species <u>150</u> x 1 = <u>150</u>				
5.			_ 0	0.0%		FACW species <u>50</u> x 2 = <u>100</u>				
Herb Stratum (Plot size: 5' radius 0			0	0.0%		FAC species <u>0</u> x 3 = <u>0</u>				
1_ Typha angustifolia	5		0	0.0%		FACU species <u>0</u> x 4 = <u>0</u>				
1. Typha angustifolia 90 ✓ 45.0% OBL Column Totals: 200 (A) 250 (B) 2. Lythrum salicaria 40 ✓ 20.0% OBL Prevalence Index = B/A = 1.250 3. Phalaris arundinacea 30 15.0% FACW Hydrophytic Vegetation Indicators: 4. Carex lacustris 20 10.0% GBL Hydrophytic Vegetation Indicators: 5. Solidago gigantea 20 10.0% FACW ✓ 1 - Rapid Test for Hydrophytic Vegetation 7. 0 0.0% ✓ 3 - Prevalence Index is ≤ 3.0 ¹ 8. 0 0.0% ✓ 3 - Prevalence Index is ≤ 3.0 ¹ 9. 0 0.0% ✓ 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. 0 0.0% 2. 0 0.0% 2. 0 0.0% 4. Yerror Yes • No ○ Remarks: (Include photo numbers here or on a separate sheet.)	Herb Stratum (Plot size: 5' radius)	=	= Total Cove	er	UPL species <u>0</u> x 5 = <u>0</u>				
2. Lythrum salicaria 3. Phalaris arundinacea 3. Phalaris arundinacea 3. Phalaris arundinacea 3. Phalaris arundinacea 4. Carex lacustris 20		<i>·</i>	90	45.0%	OBL	Column Totals: 200 (A) 250 (B)				
3. Phalaris arundinacea 4. Carex lacustris 20	±1, //			_						
4. Carex lacustris 5. Solidago gigantea 6. 0 0 0.0% 7. 0 0 0.0% 8. 0 0 0.0% 9. 0 0.0% 10. 0 0.0% 10. 0 0.0% 11. 0 0 0.0% 200 = Total Cover Mydrophytic 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. 0 0.0% 2. 0 0.0% Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes ● No ○										
S. Solidago gigantea 6. 7. 8. 9. 10. Woody Vine Stratum (Plot size: 1. 2. 0	4. Carex lacustris		20		OBL					
6. 7. 8. 9. 10. Woody Vine Stratum (Plot size: 1. 2. 0	5. Solidago gigantea		20	10.0%	FACW					
8. 0 0.0% 9. 10.	6.		0	0.0%						
9. 10. Woody Vine Stratum (Plot size: 1. 2. 0 0.0% 200 = Total Cover 0 0.0% 200 = Total Cover 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Yes No Remarks: (Include photo numbers here or on a separate sheet.)			0	0.0%						
9. 10. Woody Vine Stratum (Plot size:) 0 0.0%			0	0.0%						
10.			0	0.0%		1				
Woody Vine Stratum (Plot size:) 200	10		0	0.0%		_				
1. 0 0.0% 2. 0 0.0% Use Statum (1.00) The properties of the statum of t	Moody Vino Stratum (Plot size:)	=	= Total Cove	er					
2			n [۰۰۰%	ŀ					
0 = Total Cover Present? Yes No No Remarks: (Include photo numbers here or on a separate sheet.)										
Remarks: (Include photo numbers here or on a separate sheet.)	۷									
				- Total Cove	21	Present:				
	Remarks: (Include photo numbers	here or on a separate s	heet)							
A wedand plant community was documented by the Rapid Test, Dominance Test and the Prevalence Index.	` '	•	,	-co Tost s	and the Draw	unlanca Indov				
	A Welland plant community was ut	эситтептей ру пте карти	Test, Domina	nce rest a	ina tile riev	valence muex.				

SOIL Sampling Point: SP-14 (W11-3)

Depth _	Matr	•		lox Features		absence of indicators.)		
(inches)	Color (moist		Color (moist)	<u>% Tvn</u>	e ¹ Loc²	Texture	Remarks	
0-16	10YR 4/	2 90	10YR 4/6	10 C	M	Silty Clay Loam		
-					-			
Type: C=Conce	entration, D=Depl	etion, RM=Redu	ced Matrix, CS=Covere	d or Coated San	d Grains.	Location: PL=Pore Lining. M:	=Matrix.	
Hydric Soil In		· ·	·			Indicators for Problem		
Histosol (A:	1)		Sandy Gleyed	Matrix (S4)			-	
Histic Epipe			Sandy Redox	(S5)		Coast Prairie Redox (Dark Surface (S7)	410)	
Black HisticHydrogen S	. ,		Stripped Matri	. ,		☐ Iron Manganese Mass	es (F12)	
Stratified La			Loamy Mucky			☐ Very Shallow Dark Su		
2 cm Muck			Loamy Gleyed	` '		Other (Explain in Ren	,	
	elow Dark Surface	e (A11)	✓ Depleted Matr	. ,			idi K3)	
_ ·	Surface (A12)	· · ·/	Redox Dark S	` ,		3		
_	k Mineral (S1)		Depleted Dark Redox Depres	` ,		Indicators of hydrophytic vegetation and		
_ ´	y Peat or Peat (S3	5)		wetland hydrology must be present, unless disturbed or problematic.				
Restrictive La	yer (if observed):						
Туре:								
Depth (inche	es):					Hydric Soil Present?	Yes No	
IYDROLO(GY							
	ology Indicator							
-	<i>-</i> .		check all that apply)			Secondary Indicato	rs (minimum of two required)	
Surface Wa	ater (A1)		☐ Water-Stain	ed Leaves (B9)		Surface Soil Cra	cks (B6)	
✓ High Water	Table (A2)		Aquatic Fau	na (B13)		☐ Drainage Patter	ns (B10)	
Saturation ((A3)		True Aquati	Plants (B14)		Dry Season Wa	ter Table (C2)	
Water Mark			Hydrogen S	ulfide Odor (C1)		Crayfish Burrov	rs (C8)	
	Deposits (B2)			izospheres on Liv			le on Aerial Imagery (C9)	
Drift Depos				Reduced Iron (C	-		ssed Plants (D1)	
	or Crust (B4)		☐ Recent Iron	Reduction in Till	ed Soils (C6)	✓ Geomorphic Po ✓ FAC-Neutral Te		
Algal Mat o								
Iron Depos	sits (B5)	magam, (P7)	Thin Muck S			▼ TAC-Neutidi Te	St (D3)	
Iron Depos Inundation	iits (B5) Visible on Aerial I		Gauge or W	ell Data (D9)		▼ TAC-Neutral Te	st (D3)	
Iron Depos Inundation	sits (B5)		Gauge or W			▼ TAC-Neutral Te	s. (D3)	
Iron Depos Inundation Sparsely Ve	visible on Aerial legetated Concave	Surface (B8)	Gauge or W Other (Expla	ell Data (D9)	<u> </u>	▼ TAC-Neutral Te	st (<i>D3)</i>	
Iron Depos Inundation Sparsely Ve	its (B5) Visible on Aerial 1 egetated Concave tions:		Gauge or W Other (Expla	ell Data (D9) ain in Remarks)		▼ TAC-Neutral Te	st (<i>D3)</i>	
Iron Depos Inundation Sparsely Ve	visible on Aerial in the present?	Surface (B8)	Gauge or W Other (Expla	ell Data (D9) ain in Remarks) hes):				
Iron Depos Inundation Sparsely Ve Field Observat Surface Water P Water Table Pre Saturation Prese	visible on Aerial 1 egetated Concave tions: Present? esent?	Surface (B8) Yes No (Yes No (No (No (No (No (No (No (No (No (No	Gauge or W Other (Expla	ell Data (D9) nin in Remarks) hes):		land Hydrology Present?	Yes No	
Iron Depos Inundation Sparsely Ve Field Observat Surface Water P Water Table Pre Saturation Prese (includes capilla	visible on Aerial 1 visible on Aerial 1 egetated Concave tions: Present? esent? ent? yry fringe)	Surface (B8) Yes No (Yes No (No (No (No (No (No (No (No (No (No	Gauge or W Other (Explain Depth (inc	hes): 10	Wet	land Hydrology Present?		
Iron Depos Inundation Sparsely Ve Field Observat Surface Water P Water Table Pre Saturation Prese (includes capilla	visible on Aerial 1 visible on Aerial 1 egetated Concave tions: Present? esent? ent? yry fringe)	Surface (B8) Yes No (Yes No (No (No (No (No (No (No (No (No (No	Gauge or W Other (Expla	hes): 10	Wet	land Hydrology Present?		
Iron Depos Inundation Sparsely Ve Field Observat Surface Water P Water Table Pre Saturation Press (includes capilla Describe Reco	visible on Aerial 1 visible on Aerial 1 egetated Concave tions: Present? esent? ent? yry fringe)	Surface (B8) Yes No (Yes No (No (No (No (No (No (No (No (No (No	Gauge or W Other (Explain Depth (inc	hes): 10	Wet	land Hydrology Present?		
Iron Depos Inundation Sparsely Ve Field Observat Surface Water P Water Table Pre Saturation Prese (includes capilla Describe Reco	visible on Aerial I Visible on Aerial I egetated Concave tions: Present? esent? ent? yry fringe)	Yes No (Yes No	Gauge or W Other (Explain Depth (incomplete Conitoring well, aerial	hes): 10 hes): 7 photos, previo	us inspections	land Hydrology Present? s), if available:	Yes ● No ○	
Iron Depos Inundation Sparsely Ve Field Observar Fi	visible on Aerial I Visible on Aerial I egetated Concave tions: Present? esent? ent? yry fringe)	Yes No (Yes No	Gauge or W Other (Explain Depth (incomplete Conitoring well, aerial	hes): 10 hes): 7 photos, previo	us inspections	land Hydrology Present?	Yes No	

Project/Site: IH 94 Milwaukee County	Cit	y/County:	Oak Creek/N	Ailwaukee Sampling Date: 11-Nov-16
Applicant/Owner: WisDOT			State:	WI Sampling Point: SP-15 (up)
Investigator(s): _Mike Al-wathiqui, Geof Parish		Section, Town	ship, Range:	S 31 T 5N R 22E
Landform (hillslope, terrace, etc.): Hillside		ļ	Local relief (c	oncave, convex, none): convex
Slope: 20.0% / 11.3 ° Lat.: 42.8454018		Long.:	-87.949203	5 Datum: WGS84
Soil Map Unit Name: Fox loam, 2 to 6 percent slopes			07.15.15200	WWI classification: None
Are climatic/hydrologic conditions on the site typical for this time of ye.	ar? Yes	O No O	(If no, ex	pplain in Remarks.)
	un: Inificantly dist	turbed?	, ,	ormal Circumstances" present?
Are Vegetation . , Soil . , or Hydrology . na	turally proble	matic?		ded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map show	ing samp	oling poin	nt locatio	ns, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No •				
Hydric Soil Present? Yes No •			e Sampled A n a Wetland	
Wetland Hydrology Present? Yes No •		Wich	ii a wedanc	res U NO U
Remarks:		<u> </u>		
Hydrological conditions were wetter than normal. An uplant hydrology present. The sample point was located in an uplant VEGETATION - Use scientific names of plant	and.			s were documented. There were no indicators of wetland
VEGETATION - Use scientific flames of plant		Dominant - Species?		Dominance Test weeksheet
Tree Stratum(Plot size:)	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
1	0	0.0%		Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
2	0	0.0%		
3	0	0.0%		Total Number of Dominant Species Across All Strata: 3 (B)
4	0	0.0%		
5	0	0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)
	0	= Total Cove	er	That Are ODE, FACW, OF FAC.
Sapling/Shrub Stratum (Plot size:)				Prevalence Index worksheet:
1		0.0%		Total % Cover of: Multiply by:
2		0.0%		OBL species $0 \times 1 = 0$
3. 4.		0.0%		FACW species $0 \times 2 = 0$
5.		0.0%		FAC species $30 \times 3 = 90$
				FACU species $50 \times 4 = 200$
Herb Stratum (Plot size: 5' radius)			- 1	UPL species <u>30</u> x 5 = <u>150</u>
1_ Festuca arundinacea		36.4%	FACU	Column Totals: 110 (A) 440 (B)
2. Artemisia absinthium		27.3%	UPL	Prevalence Index = $B/A = 4.000$
3. Poa pratensis		27.3%	FAC	Hydrophytic Vegetation Indicators:
4. Taraxacum officinale 5.		9.1%	FACU	☐ 1 - Rapid Test for Hydrophytic Vegetation
6.	0			☐ 2 - Dominance Test is > 50%
7.	0	0.0%		\Box 3 - Prevalence Index is ≤3.0 1
8.		0.0%		$oxed{\ }$ 4 - Morphological Adaptations 1 (Provide supporting
9.	0	0.0%		data in Remarks or on a separate sheet)
10.	0	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
	110	= Total Cove	er	1 Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:)				be present, unless disturbed or problematic.
1		0.0%		Hydrophytic
2		0.0%		Vegetation
	0	= Total Cove	er 	Present? Yes Violet No Violet
Remarks: (Include photo numbers here or on a separate sh An upland plant community was observed.	eet.)			

SOIL Sampling Point: SP-15 (up)

Profile Descr	ription: (Des	scribe to	the depth ne	eded to document	the indi	cator or co	nfirm the	absence of indicators	s.)		
Profile Description: (Describe to the depth needed to document the indicator or confirm the al								_			
(inches)	Color (ı		%	Color (moist)	<u>%</u>	Tvpe 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=Con	centration. D	 =Depletion		ed Matrix, CS=Covere	d or Coate	ed Sand Gra	ns.		ing. M=Matrix.		
Hydric Soil 1			,,	,							
Histosol (Sandy Gleyed	Matrix (S	4)			oblematic Hydric Soils ³ :		
	pedon (A2)			Sandy Redox	-	-,		Coast Prairie R	` '		
Black Hist	tic (A3)			Stripped Matri				☐ Dark Surface (•		
	Sulfide (A4)			Loamy Mucky	Mineral (F	=1)		_	se Masses (F12)		
	Layers (A5)			Loamy Gleyed	Matrix (F	2)			ark Surface (TF12)		
2 cm Muc	. ,			Depleted Matr	ix (F3)			Uther (Explain	in Remarks)		
	Below Dark S	`	.1)	Redox Dark Si	urface (F6)					
	k Surface (A1	•		Depleted Dark	Surface ((F7)		³ Indicators of hy	drophytic vegetation and		
	ıck Mineral (S	•		Redox Depres	sions (F8)			wetland hydrology must be present, unless disturbed or problematic.			
	cky Peat or Pe	. ,						uniess distu	Theu of problematic.		
Restrictive L	ayer (IT obs	ervea):									
Type:	hos).							Hydric Soil Presen	t? Yes O No 💿		
Depth (inc	nes):							1 '			
Remarks:											
Hydric soils v	vere not obs	served.									
HYDROLO)CV										
Wetland Hyd											
		ım of one i	is required; ch	eck all that apply)					ndicators (minimum of two requir	red)	
	Vater (A1)			Water-Stain		(B9)		Surface Soil Cracks (B6)			
	er Table (A2)			Aquatic Fau	. ,			Drainage Patterns (B10)			
Saturation				☐ True Aquatio	-	-		☐ Dry Season Water Table (C2)☐ Crayfish Burrows (C8)☐			
Water Ma	Deposits (B2	1		☐ Hydrogen Si☐ Oxidized Rhi		. ,	oots (C3)		on Visible on Aerial Imagery (C9)		
Drift Depo		.)		Presence of	-	_	.0013 (C3)		or Stressed Plants (D1)		
	or Crust (B4)	١		Recent Iron			ils (C6)		ohic Position (D2)		
☐ Iron Depo	. ,	,		☐ Thin Muck S			113 (CO)		tral Test (D5)		
	n Visible on A	Aerial Imag	ierv (B7)	Gauge or W	•	•			trai rest (BS)		
	Vegetated Co	-		Other (Expla	•	•					
	9		()	Outer (Expire	iiii iii ixciii	idi K3)					
Field Observ	ations:										
Surface Water		Yes	O No ●	Depth (inc	hes):						
Water Table P		Yes									
Saturation Pre				-1 (,		Wet	land Hydrology Prese	nt? Yes O No 💿		
(includes capil		Yes	O No 💿	Depth (inc	hes):		-				
Describe Rec	orded Data	(stream	gauge, mon	itoring well, aerial	photos,	previous in	spection	s), if available:			
Remarks:											
No indicators	s of wetland	d hydrolog	gy were obs	erved.							

Project/Site: IH 94 Milwaukee County	Ci	ty/County:	Oak Creek/N	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, Town	 nship, Range:	
Landform (hillslope, terrace, etc.): Footslope			., -	concave, convex, none): concave
Slope: 3.0% / 1.7 ° Lat.: 42.8454018			-87.949203	
		Long	-87.343203	
Soil Map Unit Name: Fox loam, 2 to 6 percent slopes	- Yes	○ No ●	/If no ex	WWI classification: None plain in Remarks.)
Are climatic/hydrologic conditions on the site typical for this time of year. Are Vegetation , Soil , or Hydrology , si	ear?			
	,			ornar circumstances present.
Are Vegetation	aturally proble		•	ded, explain any answers in Remarks.) ns, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No No		huna harr	it iocasic.	ns, transcess, important reactions, etc.
			e Sampled A	
		withi	n a Wetland	1? Yes No
,				
Remarks: Hydrological conditions were wetter than normal. A wetla	nd nlant cor	mmunity, hy	dric soils ar	ad multiple indicators of wetland hydrology were present.
The data point was located in a wetland.	nu pianic coi	illinumicy, my	uric sons ai	in multiple indicators of wedana rivarology were present.
VEGETATION - Use scientific names of plan	ıts.	Dominant - Species?		
/Districe		Rel.Strat.		Dominance Test worksheet:
	% Cover		Status	Number of Dominant Species
1 2.	0 0	0.0%		That are OBL, FACW, or FAC: (A)
3.	0	0.0%		Total Number of Dominant
4.	0	0.0%		Species Across All Strata: (B)
5.	0	0.0%		Percent of dominant Species
	0	= Total Cove	er	That Are OBL, FACW, or FAC: 100.0% (A/B)
				Prevalence Index worksheet:
1.	0	0.0%		Total % Cover of: Multiply by:
2.	0	0.0%		OBL species 0 x 1 = 0
3.	0	0.0%		FACW species 100 x 2 = 200
4.	0	0.0%		FAC species 30 x 3 = 90
5	0	0.0%		FACU species <u>10</u> x 4 = <u>40</u>
Herb Stratum(Plot size: 5' radius)	0	= Total Cove	er	UPL species <u>0</u> x 5 = <u>0</u>
1. Solidago sempervirens	100	✓ 71.4%	FACW	Column Totals: <u>140</u> (A) <u>330</u> (B)
2. Poa pratensis	30	21.4%	FAC	Prevalence Index = B/A = 2.357
3. Festuca arundinacea	10	7.1%	FACU	Hydrophytic Vegetation Indicators:
4	0	0.0%		1 - Rapid Test for Hydrophytic Vegetation
5	0	0.0%		2 - Dominance Test is > 50%
6.		0.0%		✓ 3 - Prevalence Index is ≤ 3.0 ¹
7	0	0.0%		4 - Morphological Adaptations ¹ (Provide supporting
8. 9.		0.0%		data in Remarks or on a separate sheet)
10.		0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
	140			$\frac{1}{2}$ Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:)	140	= Total Cove	er	be present, unless disturbed or problematic.
1	0	0.0%		
2		0.0%		Hydrophytic Vegetation
	0	= Total Cove	er	Present? Yes No
Remarks: (Include photo numbers here or on a separate sl	neet.)			
A wetland plant community was documented by the Domin	ance Test a	and the Preva	alence Inde	ex.

SOIL Sampling Point: SP-16 (W11-10a)

Profile Descr	iption: (Descri	e to the de	pth neede	ed to document	the indic	cator or co	nfirm the	absence of in	ndicators.)		
Depth Matrix Redox Features											
(inches)	Color (moi:			olor (moist)	<u>%</u>	Tvpe 1	Loc ²		ture	R	emarks
0-15	10YR 4	1/1 80		OYR 4/6	20	C	M	Silty Clay			
									_		
		-	-				-				
		pletion, RM=	Reduced M	atrix, CS=Covere	d or Coate	ed Sand Gra	ins.	L'ocation: PL	=Pore Lining. N	1=Matrix.	
Hydric Soil I			Г	¬				Indicato	rs for Proble	matic Hydric	Soils ³ :
Histosol (A	•		L	Sandy Gleyed	-	1)		Coast	Prairie Redox	(A16)	
Black Hist	pedon (A2) ic (A3)		L	Sandy Redox	` ,			☐ Dark	Surface (S7)		
	Sulfide (A4)		L	☐ Stripped Matri ☐ Leaves Meale	. ,	-4\		Iron	Manganese Ma	sses (F12)	
	Layers (A5)		L	Loamy Mucky		-		☐ Very	Shallow Dark S	urface (TF12)	
2 cm Muc	k (A10)		[Loamy Gleyed✓ Depleted Matr		2)		Othe	r (Explain in Re	marks)	
Depleted	Below Dark Surfa	ce (A11)	[Redox Dark S	` ,	`				,	
☐ Thick Darl	k Surface (A12)		[Depleted Dark	•	•		3 Indicat	61 1 1		
Sandy Mu	ck Mineral (S1)		٦	Redox Depres	`	. ,		ITIUICAI	tors of hydroph land hydrology		
5 cm Muc	ky Peat or Peat (S3)		Redox Depres	310113 (10)				less disturbed		
Restrictive La	ayer (if observe	ed):									
Type:											
Depth (incl	nes):			_				Hydric So	il Present?	Yes 💿	No O
Remarks:											
The criteria fo	or hydric soils v	vas met by	F3 Deplet	ed Matrix.							
1	·	·	·								
HYDROLO	GY										
Wetland Hyd	rology Indicato	rs:									
Primary Indica	ators (minimum o	f one is requ	ired; check	all that apply)				Sec	condary Indicat	ors (minimum	of two required)
Surface W	/ater (A1)			Water-Stain	ed Leaves	(B9)			Surface Soil C	racks (B6)	
High Wate	er Table (A2)			Aquatic Fau	na (B13)				Drainage Patte	erns (B10)	
Saturation	n (A3)			True Aquation	c Plants (B	314)			Dry Season W	ater Table (C2)
Water Ma	rks (B1)			Hydrogen S	ulfide Odo	r (C1)			Crayfish Burro	ws (C8)	
Sediment	Deposits (B2)			Oxidized Rh	-	-	Roots (C3)		Saturation Vis	ble on Aerial 1	magery (C9)
☐ Drift Depo	sits (B3)			Presence of	Reduced :	Iron (C4)			Stunted or Str	-	D1)
	or Crust (B4)			Recent Iron	Reduction	n in Tilled So	oils (C6)	✓	Geomorphic P		
☐ Iron Depo	. ,			Thin Muck S	Surface (C7	7)		✓	FAC-Neutral T	est (D5)	
	n Visible on Aeria	- , ,	•	Gauge or W	ell Data (E	09)					
☐ Sparsely \	egetated Conca	e Surface (B	8)	U Other (Expla	in in Rem	arks)					
							ı				
Field Observa		Yes O	No •	Double Co.	I > -						
Surface Water	Present?		_	Depth (inc	nes):		-				
Water Table Pr		Yes 🔾	No 💿	Depth (inc	hes):		_	land Herbert	m. Ducce	Yes	No O
Saturation Pres		Yes 🔾	No 💿	Depth (inc	hes):		wet	land Hydrolog	gy Present?	res 🕓	NO C
(includes capill Describe Rec				ing well, aerial		previous in	spection	s), if available	 2:		
_ COSTIDO NOO	Data (3t	Jann gauge	-,	J cii, aciiai	p500)	r. 5.1645 II		-,,			
Remarks:											
	ns of wetland h	vdrology w	ere docur	nented with tw	n second	lary indicat	tore of we	atland hydrol	nav which w	ere D2 Geon	norphic Position
and D5 FAC-		, ar ology W	Ci C docui	nencu willi tw	o second	ary mulcal	LOIS OF WE	Jaana nyunuk	ogy, willell W	C.C DZ GC011	iorpriic i osidori

Project/Site: IH 94 Milwaukee County	Ci	ty/County:	Oak Creek/N	Milwaukee Sampling Date: 11-Nov-16			
Applicant/Owner: WisDOT			State:	WI Sampling Point: SP-17 (up)			
Investigator(s): Mike Al-wathiqui, Geof Parish		Section, Towr	nship, Range:				
Landform (hillslope, terrace, etc.): Hillside			Local relief (c	concave, convex, none): convex			
Slope: 25.0% / 14.0 ° Lat.: 42.8483009			-87.945297				
Soil Map Unit Name: Morley silt loam, 6 to 12 percent slopes,	orodod		07.543237	WWI classification: None			
Are climatic/hydrologic conditions on the site typical for this time of ye		○ No ●	(If no ex	cplain in Remarks.)			
	ar:		, ,				
	turally proble			ormal Circumstances" present? Yes ● No ○ ded, explain any answers in Remarks.)			
SUMMARY OF FINDINGS - Attach site map show							
Hydrophytic Vegetation Present? Yes No •							
Hydric Soil Present? Yes No		Is the Sampled Area					
Wetland Hydrology Present? Yes No •		Withi	n a Wetland	i? Yes ○ No •			
Remarks:							
Hydrological conditions were wetter than normal. An uplan the boundary. The data point was located in an upland. VEGETATION - Use scientific names of plan		Dominant					
	Absolute % Cover	Rel.Strat.	Indicator Status	Dominance Test worksheet:			
1.	0	0.0%	Status	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)			
2.	0	0.0%		That are obe, then, of the.			
3.	0	0.0%		Total Number of Dominant Species Across All Strata: 3 (B)			
4.	0	0.0%		Species Across All Strata			
5.	0	0.0%		Percent of dominant Species			
	0	= Total Cove	er	That Are OBL, FACW, or FAC: 33.3% (A/B)			
_Sapling/Shrub Stratum (Plot size:)				Prevalence Index worksheet:			
1	0	0.0%		Total % Cover of: Multiply by:			
2	0	0.0%		OBL species <u>0</u> x 1 = <u>0</u>			
3	0	0.0%		FACW species $0 \times 2 = 0$			
4		0.0%		FAC species <u>30</u> x 3 = <u>90</u>			
5		0.0%		FACU species <u>110</u> x 4 = <u>440</u>			
Herb Stratum (Plot size: 5' radius)	0	= Total Cove	er	UPL species <u>0</u> x 5 = <u>0</u>			
1 Festuca arundinacea	60	✓ 42.9%	FACU	Column Totals: <u>140</u> (A) <u>530</u> (B)			
2. Solidago canadensis	40	28.6%	FACU	Prevalence Index = B/A = 3.786			
3. Poa pratensis	30	✓ 21.4%	FAC				
4. Taraxacum officinale	10	7.1%	FACU	Hydrophytic Vegetation Indicators:			
5	0	0.0%		1 - Rapid Test for Hydrophytic Vegetation			
6.	0	0.0%		2 - Dominance Test is > 50%			
7	0	0.0%		3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting			
8.		0.0%		data in Remarks or on a separate sheet)			
9. 10.	0	0.0%		Problematic Hydrophytic Vegetation 1 (Explain)			
10		0.0%		$\frac{1}{2}$ Indicators of hydric soil and wetland hydrology must			
Woody Vine Stratum (Plot size:	140	= Total Cove	er	be present, unless disturbed or problematic.			
1.	0	0.0%					
2.	0	0.0%		Hydrophytic			
	0	= Total Cove	er	Present? Yes ○ No ●			
Remarks: (Include photo numbers here or on a separate sh An upland plant community was observed.	eet.)						

SOIL Sampling Point: SP-17 (up)

Profile Descrip	otion: (Describe to	the depth n	eeded to document	the indic	cator or co	nfirm the	absence of indicators.)	
Depth _	Matrix	Red	ox Featu			_		
(inches)	Color (moist)	%	Color (moist)	%	Tvpe 1	Loc ²	<u>Texture</u>	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=Conce	entration, D=Depletion	n, RM=Reduc	ed Matrix, CS=Covere	d or Coate	ed Sand Gra	ins.	Leocation: PL=Pore Lining. M=Matr	x.
Hydric Soil In	dicators:						Indicators for Problematic	Hydric Soils ³ :
Histosol (A	•		Sandy Gleyed	-	1)		Coast Prairie Redox (A16)	
Histic Epipe	` '		Sandy Redox (Dark Surface (S7)	
Black Histic Hydrogen S	` '		Stripped Matri:	. ,			☐ Iron Manganese Masses (F	12)
Stratified La			Loamy Mucky	•	•		☐ Very Shallow Dark Surface	-
2 cm Muck	, , ,		Loamy Gleyed		2)		Other (Explain in Remarks)	(==)
	elow Dark Surface (Al	11)	✓ Depleted Matri	. ,				
I — ·	Surface (A12)	,	Redox Dark Su	•	•		2	
Depleted Dark Surface (F7) Sandy Muck Mineral (S1) Redox Depressions (F8)							Indicators of hydrophytic very wetland hydrology must be	getation and
5 cm Muck	y Peat or Peat (S3)		☐ Redox Depres	SIONS (F8)			unless disturbed or prob	
Restrictive La	yer (if observed):							
Туре:								
Depth (inche	es):						Hydric Soil Present? Yes	● No ○
Remarks:							·L	
The criteria for	hvdric soils was m	net by A11 F	Depleted Below Dar	k Surface	and F3 C	enleted I	Matrix	
The chema for	nyane sons was n	ice by Mil L	repleted below but	K Surruck	c ana i s c	repieted i	Tidd IX.	
HYDROLO	GY							
Wetland Hydro	ology Indicators:							
· ·	ors (minimum of one	is required: c	neck all that apply)				Secondary Indicators (mi	nimum of two required)
Surface Wa	•		Water-Staine	ed Leaves	(B9)		Surface Soil Cracks (
High Water			Aquatic Faur		(55)		Drainage Patterns (B	,
Saturation			True Aquatio		314)		Dry Season Water Ta	•
Water Mark	• •		Hydrogen Su	•	•		Crayfish Burrows (C8	` '
Sediment D	eposits (B2)		Oxidized Rhi			Roots (C3)		-
☐ Drift Depos	its (B3)		Presence of	Reduced 1	Iron (C4)		Stunted or Stressed I	Plants (D1)
Algal Mat o	r Crust (B4)		Recent Iron	Reduction	in Tilled Sc	ils (C6)	Geomorphic Position	(D2)
☐ Iron Depos	its (B5)		☐ Thin Muck S	urface (C7	7)		FAC-Neutral Test (D5)
Inundation	Visible on Aerial Imag	gery (B7)	☐ Gauge or We	ell Data (D	9)			
Sparsely Ve	egetated Concave Sur	face (B8)	Other (Expla	in in Rem	arks)			
Field Observa			`					
Surface Water P	resent? Yes	O No @	Depth (inc	hes):		_		
Water Table Pre	esent? Yes	O No @	Depth (inc	hes):				
Saturation Prese		O No @	Depth (inc	hec).		Wet	land Hydrology Present? Ye	s O No 💿
(includes capilla	ry milige)						-) if -, -: ! - - -	
Describe Reco	ruea vata (stream	gauge, mor	nitoring well, aerial	pnotos,	previous ir	spections	s), II avallable:	
DameI								
Remarks:								
No indicators	of wetland hydrolo	gy were obs	served.					

Project/Site: IH 94 Milwaukee County		City	y/County:	Oak Creek/M	1ilwaukee Sam _l	pling Date: 11-Nov-16			
Applicant/Owner: WisDOT				State:	WI Sampling Point				
Investigator(s): Mike Al-wathiqui, Geof Parish		S	Section, Town	nship, Range:		22E			
Landform (hillslope, terrace, etc.): Toeslope			•		oncave, convex, none): concave				
Slope: 5.0% / 2.9 ° Lat.: 42.84	<u></u>			-87.945396		atum: WGS84			
Soil Map Unit Name: Morley silt loam, 6 to 1				-07.373350	WWI classification: No				
Are climatic/hydrologic conditions on the site typic			○ No ●	(If no, ex	plain in Remarks.)	ліе			
		ificantly dist			rmal Circumstances" present?	Yes ● No ○			
		urally proble			rmai circumstances present? led, explain any answers in Remar				
SUMMARY OF FINDINGS - Attach						•			
Hydrophytic Vegetation Present? Yes	No ○		$\overline{}$						
Hydric Soil Present? Yes				e Sampled A n a Wetland					
Wetland Hydrology Present? Yes	No ○		Within	II d VVCLiana	r 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. Dominant									
(2)			Species? Rel.Strat.		Dominance Test worksheet:				
		% Cover	Cover	Status	Number of Dominant Species				
1		0 [0.0%		That are OBL, FACW, or FAC:	3(A)			
2		0 [Total Number of Dominant	5 (2)			
4.		0 [Species Across All Strata:	3(B)			
5.		0 [Percent of dominant Species	3			
			= Total Cove	 er	That Are OBL, FACW, or FAC				
_Sapling/Shrub Stratum (Plot size:)		- 1000	-1	Prevalence Index worksheet:	<u> </u>			
1.		0 [0.0%		Total % Cover of:	Multiply by:			
2.		0 [0.0%	-	OBL species 60	x 1 = 60			
3.		0 [0.0%		FACW species 80	x 2 = 160			
4.		0 [0.0%		FAC species 50	x 3 = 150			
5.		0 [0.0%		FACU species 0	x = 4 = 0			
(District El radius			= Total Cove	 er	UPL species 0	$x = \frac{0}{0}$			
Herb Stratum (Plot size: 5' radius)									
1. Typha angustifolia			31.6%	OBL	Column Totals: 190	(A) <u>370</u> (B)			
2. Phalaris arundinacea			36.8%	FACW	Prevalence Index = B/A	1.947			
3. Poa pratensis			26.3%	FAC	Hydrophytic Vegetation Indic	cators:			
4. Juncus torreyi 5.			5.3%	FACW	✓ 1 - Rapid Test for Hydrop	hytic Vegetation			
6.		0 [0.0%		✓ 2 - Dominance Test is > 5	i 0 %			
7.		0 [0.0%		✓ 3 - Prevalence Index is ≤	3.0 ¹			
8.		0 [0.0%			tions ¹ (Provide supporting			
9.		0 [0.0%	- —	data in Remarks or on a s				
10.				- —	Problematic Hydrophytic	Vegetation 1 (Explain)			
		0l			$\frac{1}{2}$ Indicators of hydric soil an	d wetland hydrology must			
Woody Vine Stratum (Plot size:)	190	= Total Cove	3F	be present, unless disturbed				
1		0[0.0%						
2		0[0.0%		Hydrophytic Vegetation				
		0	= Total Cove	er	Present? Yes • N	lo O			
Remarks: (Include photo numbers here of A wetland plant community was document	·	,	ance Test a	and the Prev	alence Index.				
A Weddid plant community True accument	ited by the respicant		unce rest	illu uice.	dichec Indexi				

SOIL Sampling Point: SP-18 (W11-10a)

Depth — (inches) —	Matrix		Red	ox Features		e absence of indicators.)	
(IIICIICS)	Color (moist)	%	Color (moist)		vpe 1 Loc2	Texture	Remarks
0-15	10YR 4/1	80	10YR 4/6		C M	Silty Clay	
	-						
Tyne: C=Concer	ntration D=Depletion	n RM=Reduce	d Matrix, CS=Covered	d or Coated S	and Grains		∕I=Matrix
Hydric Soil Ind		, rair ricadee	2			Indicators for Proble	
Histosol (A1)			Sandy Gleyed I	Matrix (S4)		Coast Prairie Redox	•
Histic EpipedBlack Histic (Sandy Redox (•		Dark Surface (S7)	(A10)
Hydrogen Su	. ,		Stripped Matrix	. ,		☐ Iron Manganese Ma	sses (F12)
Stratified Lay			Loamy Mucky I			Very Shallow Dark S	
2 cm Muck (Loamy Gleyed	` '		Other (Explain in Re	,
	low Dark Surface (A	.11)	Depleted Matri	` '		Care (Explain III No	
Thick Dark S	•	•	Redox Dark Su	. ,		3 Indicators of hydroph	
Sandy Muck	Mineral (S1)		☐ Depleted Dark ☐ Redox Depress	` '		Indicators of hydroph wetland hydrology	
5 cm Mucky	Peat or Peat (S3)		Redux Depress	NOID (FO)		unless disturbed	
Type:	er (if observed):						
Depth (inches	s):					Hydric Soil Present?	Yes No
Remarks:						•	
IYDROLOG	iY						
IYDROLOG	i Y logy Indicators:						
Wetland Hydrol		is required; che	eck all that apply)			_Secondary Indicat	ors (minimum of two required
Wetland Hydrol	logy Indicators: rs (minimum of one	is required; che	eck all that apply) Water-Staine	ed Leaves (B9)	Secondary Indicat	
Wetland Hydrol Primary Indicator Surface Water ✓ High Water	logy Indicators: rs (minimum of one er (A1) Table (A2)	is required; che	Water-Staine Aquatic Faun	na (B13))	Surface Soil C	racks (B6) erns (B10)
Wetland Hydrol Primary Indicator Surface Wate High Water	logy Indicators: rs (minimum of one er (A1) Table (A2)	is required; che	Water-Staine Aquatic Faun True Aquatic	na (B13) Plants (B14)		Surface Soil C Drainage Patt Dry Season W	racks (B6) erns (B10) later Table (C2)
Wetland Hydrol Primary Indicator Surface Wate ✓ High Water ✓ Saturation (A Water Marks	logy Indicators: rs (minimum of one er (A1) Table (A2) A3) s (B1)	is required; che	Water-Staine Aquatic Faun True Aquatic Hydrogen Su	na (B13) Plants (B14) Ilfide Odor (C	1)	Surface Soil C Drainage Patt Dry Season W Crayfish Burro	racks (B6) erns (B10) later Table (C2) ws (C8)
Wetland Hydrol Primary Indicator Surface Wate ✓ High Water ✓ Saturation (A Water Marks Sediment De	logy Indicators: rs (minimum of one er (A1) Table (A2) A3) s (B1) eposits (B2)	is required; che	Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz	na (B13) Plants (B14) Ilfide Odor (C zospheres on	1) Living Roots (C3	Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis	racks (B6) erns (B10) later Table (C2) ws (C8) ible on Aerial Imagery (C9)
Wetland Hydrol Primary Indicator Surface Wate ✓ High Water ✓ Saturation (A Water Marks Sediment De Drift Deposit	logy Indicators: rs (minimum of one er (A1) Table (A2) A3) s (B1) eposits (B2) ss (B3)	is required; che	Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz	na (B13) Plants (B14) Ilfide Odor (C zospheres on Reduced Iron	1) Living Roots (C3 (C4)	Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or Str	racks (B6) erns (B10) later Table (C2) lows (C8) lible on Aerial Imagery (C9) lessed Plants (D1)
Wetland Hydrol Primary Indicator Surface Wate High Water ✓ Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or	logy Indicators: rs (minimum of one er (A1) Table (A2) A3) s (B1) eposits (B2) rs (B3) Crust (B4)	is required; che	Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz Presence of I	na (B13) Plants (B14) Ilfide Odor (C zospheres on Reduced Iron Reduction in	1) Living Roots (C3	Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or Str	racks (B6) erns (B10) fater Table (C2) ews (C8) fible on Aerial Imagery (C9) essed Plants (D1) osition (D2)
Wetland Hydrol Primary Indicator Surface Wate High Water Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposit	logy Indicators: rs (minimum of one er (A1) Table (A2) A3) s (B1) exposits (B2) ss (B3) Crust (B4) ss (B5)		Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz Presence of I Recent Iron I	a (B13) Plants (B14) Iffide Odor (C Zospheres on Reduced Iron Reduction in urface (C7)	1) Living Roots (C3 (C4)	Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or Str	racks (B6) erns (B10) fater Table (C2) ews (C8) fible on Aerial Imagery (C9) essed Plants (D1) osition (D2)
Wetland Hydrol Primary Indicator Surface Wate High Water Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposit Inundation V	logy Indicators: rs (minimum of one er (A1) Table (A2) A3) s (B1) eposits (B2) rs (B3) Crust (B4) s (B5) //sible on Aerial Ima	gery (B7)	Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz Presence of I Recent Iron Thin Muck Su Gauge or We	a (B13) Plants (B14) Iffide Odor (C zospheres on Reduced Iron Reduction in urface (C7)	1) Living Roots (C3 (C4) Filled Soils (C6)	Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or Str	racks (B6) erns (B10) fater Table (C2) ews (C8) fible on Aerial Imagery (C9) essed Plants (D1) osition (D2)
Wetland Hydrol Primary Indicator Surface Wate High Water Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposit Inundation V	logy Indicators: rs (minimum of one er (A1) Table (A2) A3) s (B1) exposits (B2) ss (B3) Crust (B4) ss (B5)	gery (B7)	Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz Presence of I Recent Iron Thin Muck Su Gauge or We	a (B13) Plants (B14) Iffide Odor (C Zospheres on Reduced Iron Reduction in urface (C7)	1) Living Roots (C3 (C4) Filled Soils (C6)	Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or Str	racks (B6) erns (B10) fater Table (C2) ews (C8) fible on Aerial Imagery (C9) essed Plants (D1) osition (D2)
Wetland Hydrol Primary Indicator Surface Wate High Water Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposit Inundation V Sparsely Veg	logy Indicators: rs (minimum of one er (A1) Table (A2) A3) s (B1) eposits (B2) ss (B3) Crust (B4) ss (B5) //isible on Aerial Ima getated Concave Sur	gery (B7) rface (B8)	Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz Presence of I Recent Iron Thin Muck Su Gauge or We Other (Explain	a (B13) Plants (B14) Iffide Odor (C zospheres on Reduced Iron Reduction in urface (C7) Ell Data (D9) in in Remarks	1) Living Roots (C3 (C4) Filled Soils (C6)	Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or Str	racks (B6) erns (B10) fater Table (C2) ews (C8) fible on Aerial Imagery (C9) essed Plants (D1) osition (D2)
Wetland Hydrol Primary Indicator Surface Wate High Water Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposit Inundation V Sparsely Veg Field Observati	logy Indicators: rs (minimum of one er (A1) Table (A2) A3) 6 (B1) exposits (B2) rs (B3) Crust (B4) rs (B5) Visible on Aerial Imagetated Concave Sur	gery (B7) rface (B8)	Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz Presence of I Recent Iron Thin Muck Su Gauge or We	a (B13) Plants (B14) Iffide Odor (C zospheres on Reduced Iron Reduction in urface (C7) Ell Data (D9) in in Remarks	1) Living Roots (C3 (C4) Filled Soils (C6)	Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or Str	racks (B6) erns (B10) fater Table (C2) ews (C8) fible on Aerial Imagery (C9) essed Plants (D1) osition (D2)
Wetland Hydrol Primary Indicator Surface Water High Water Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposit Inundation V Sparsely Veg Field Observati Surface Water Pres	logy Indicators: rs (minimum of one er (A1) Table (A2) A3) rs (B1) reposits (B2) rs (B3) Crust (B4) rs (B5) risible on Aerial Ima repetated Concave Sur rons: esent? Yes	gery (B7) rface (B8) No No No	Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz Presence of I Recent Iron Thin Muck Su Gauge or We Other (Explain	a (B13) Plants (B14) Ilfide Odor (C zospheres on Reduced Iron Reduction in urface (C7) Ell Data (D9) in in Remarks	1) Living Roots (C3 (C4) Filled Soils (C6)	Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P FAC-Neutral T	racks (B6) erns (B10) fater Table (C2) ws (C8) ible on Aerial Imagery (C9) ressed Plants (D1) rosition (D2) rest (D5)
Wetland Hydrol Primary Indicator Surface Wate High Water Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposit Inundation V Sparsely Veg Field Observati	logy Indicators: rs (minimum of one er (A1) Table (A2) A3) s (B1) eposits (B2) rs (B3) Crust (B4) s (B5) //isible on Aerial Ima getated Concave Sur lons: esent? Yes ent? Yes	gery (B7) rface (B8) No No No	Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz Presence of I Recent Iron Thin Muck Su Gauge or We Other (Explai	a (B13) Plants (B14) Iffide Odor (Coospheres on Reduced Iron Reduction in urface (C7) Ell Data (D9) in in Remarks mes): mes):	1) Living Roots (C3 (C4) Filled Soils (C6)	Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or Str	racks (B6) erns (B10) fater Table (C2) ews (C8) fible on Aerial Imagery (C9) essed Plants (D1) osition (D2)
Wetland Hydrol Primary Indicator Surface Water High Water Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposit Inundation V Sparsely Veg Field Observati Surface Water Preser Water Table Preser Saturation Preser includes capillary	logy Indicators: rs (minimum of one er (A1) Table (A2) A3) s (B1) eposits (B2) rs (B3) Crust (B4) s (B5) //isible on Aerial Ima getated Concave Sur fons: esent? Yes ent? Yes y fringe) Yes	gery (B7) rface (B8) No No No No No	Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz Presence of I Recent Iron Thin Muck St Gauge or We Other (Explai	a (B13) Plants (B14) Iffide Odor (C zospheres on Reduced Iron Reduction in urface (C7) Ell Data (D9) in in Remarks mes): mes):	1) Living Roots (C3 (C4) Filled Soils (C6) 9 7	Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P FAC-Neutral T	racks (B6) erns (B10) fater Table (C2) ws (C8) ible on Aerial Imagery (C9) ressed Plants (D1) rosition (D2) rest (D5)
Wetland Hydrol Primary Indicator Surface Water High Water Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposit Inundation V Sparsely Veg Field Observati Surface Water Preser Water Table Preser includes capillary Describe Record	logy Indicators: rs (minimum of one er (A1) Table (A2) A3) s (B1) eposits (B2) rs (B3) Crust (B4) s (B5) //isible on Aerial Ima getated Concave Sur fons: esent? Yes ent? Yes y fringe) Yes	gery (B7) rface (B8) No No No No No	Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz Presence of I Recent Iron Thin Muck Su Gauge or We Other (Explai	a (B13) Plants (B14) Iffide Odor (C zospheres on Reduced Iron Reduction in urface (C7) Ell Data (D9) in in Remarks mes): mes):	1) Living Roots (C3 (C4) Filled Soils (C6) 9 7	Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P FAC-Neutral T	racks (B6) erns (B10) fater Table (C2) ws (C8) ible on Aerial Imagery (C9) ressed Plants (D1) rosition (D2) rest (D5)
Wetland Hydrol Primary Indicator Surface Water High Water Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposit Inundation V Sparsely Veg Field Observati Surface Water Preservation Preservincludes capillary Describe Record	logy Indicators: rs (minimum of one er (A1) Table (A2) A3) s (B1) eposits (B2) rs (B3) Crust (B4) s (B5) //isible on Aerial Ima getated Concave Sur fons: esent? Yes ent? Yes of ringe) Yes ded Data (stream	gery (B7) rface (B8) No No No No a gauge, moni	Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz Presence of I Recent Iron Thin Muck Si Gauge or We Other (Explai	a (B13) Plants (B14) Iffide Odor (C zospheres on Reduced Iron Reduction in urface (C7) Ell Data (D9) in in Remarks mes): mes): photos, pre	1) Living Roots (C3 (C4) Filled Soils (C6) 9 7 We vious inspectio	Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P FAC-Neutral T	racks (B6) erns (B10) fater Table (C2) lows (C8) lible on Aerial Imagery (C9) lessed Plants (D1) losition (D2) lest (D5) Yes No
Primary Indicator Surface Water High Water Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposit Inundation V Sparsely Veg Field Observati Surface Water Press Saturation Preser includes capillary Describe Record	logy Indicators: rs (minimum of one er (A1) Table (A2) A3) s (B1) eposits (B2) rs (B3) Crust (B4) s (B5) //isible on Aerial Ima getated Concave Sur fons: esent? Yes ent? Yes of ringe) Yes ded Data (stream	gery (B7) rface (B8) No No No gauge, moni	Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz Presence of I Recent Iron Thin Muck Si Gauge or We Other (Explai	na (B13) Plants (B14) Ilfide Odor (C zospheres on Reduced Iron Reduction in urface (C7) Ell Data (D9) in in Remarks mes): mes): photos, pre	1) Living Roots (C3 (C4) Filled Soils (C6) 9 7 We vious inspectio	Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P FAC-Neutral T	racks (B6) erns (B10) fater Table (C2) lows (C8) lible on Aerial Imagery (C9) lessed Plants (D1) losition (D2) lest (D5) Yes No

Project/Site: IH 94 Milwaukee County	Cit	y/County:	Oak Creek/N	Milwaukee Sampling Date: 11-Nov-16
Applicant/Owner: WisDOT			State:	WI Sampling Point: SP-19 (up)
Investigator(s): Mike Al-wathiqui, Geof Parish	S	Section, Towr	nship, Range:	
Landform (hillslope, terrace, etc.): Hillside			Local relief (c	concave, convex, none): convex
Slope: 20.0% / 11.3 ° Lat.: 42.8524017			-87.939796	W0004
Soil Map Unit Name: Ashkum silty clay loam, 0 to 2 percent sle	onos		07.939790	WWI classification: None
Are climatic/hydrologic conditions on the site typical for this time of year	(○ No ○	(If no ex	cplain in Remarks.)
	nificantly dis		, ,	
	turally proble			ormal Circumstances" present? Yes ● No ○ ded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map show				
Hydrophytic Vegetation Present? Yes No •				
Hydric Soil Present? Yes ○ No •			e Sampled A	
Wetland Hydrology Present? Yes No •		Withi	n a Wetland	i? Yes ○ No •
Remarks:				
Hydrological conditions were wetter than normal. An uplant hydrology present. The sample point was located in an uplant VEGETATION - Use scientific names of plant	and.	Dominant		ls were documented. There were no indicators of wetland
	Absolute % Cover		Indicator Status	Dominance Test worksheet:
	0	0.0%	Status	Number of Dominant Species That are OBL, FACW, or FAC: (A)
2.	0	0.0%		That are obt, thew, of the.
3.	0	0.0%		Total Number of Dominant Species Across All Strata: 2 (B)
4.	0	0.0%		Species Across All Strata
5.	0	0.0%		Percent of dominant Species That Are OBL FACW or FAC: 0.0% (A/B)
	0	= Total Cove	er	That Are OBL, FACW, or FAC: 0.0% (A/B)
_Sapling/Shrub Stratum (Plot size:)		_		Prevalence Index worksheet:
1		0.0%		Total % Cover of: Multiply by:
2		0.0%		OBL species
3		0.0%		FACW species $5 \times 2 = 10$
4. 5.		0.0%		FAC species $0 \times 3 = 0$
				FACU species 90 x 4 = 360
Herb Stratum (Plot size: 5' radius)			CI	UPL species <u>30</u> x 5 = <u>150</u>
1 _. Festuca arundinacea	50	40.0%	FACU	Column Totals: <u>125</u> (A) <u>520</u> (B)
2. Daucus carota	30	24.0%	UPL	Prevalence Index = B/A = 4.160
3. Bromus inermis	20	16.0%	FACU	Hydrophytic Vegetation Indicators:
4. Sonchus arvensis		8.0%	FACU	1 - Rapid Test for Hydrophytic Vegetation
Fragaria virginiana Phalaris arundinacea		4.0%	FACU	2 - Dominance Test is > 50%
7. Solidago canadensis	<u>5</u> 5	4.0%	FACU FACU	\Box 3 - Prevalence Index is ≤3.0 1
8.	0	0.0%	TACO	$\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $
9.	0	0.0%		data in Remarks or on a separate sheet)
10.	0	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
421.1	125	= Total Cove	er	1 Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:)				be present, unless disturbed or problematic.
1		0.0%		Hydrophytic
2		0.0%		Vegetation V
	0	= Total Cove	er 	Present? Yes Vino Vino Vino Vino Vino Vino Vino Vino
Remarks: (Include photo numbers here or on a separate sho An upland plant community was observed.	eet.)			

SOIL Sampling Point: SP-19 (up)

Matrix Baday Factories	absence of indicators.)
Depth Matrix Redox Features	-
(inches) Color (moist) % 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.	Location: PL=Pore Lining. M=Matrix.
Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
Histosol (A1) Sandy Gleyed Matrix (S4)	Coast Prairie Redox (A16)
Histic Epipedon (A2) Black Histic (A3) Stripped Matrix (S6)	Dark Surface (S7)
Hydrogen Sulfide (A4)	☐ Iron Manganese Masses (F12)
Chartified Layers (AS)	Very Shallow Dark Surface (TF12)
Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Depleted Matrix (F3) Depleted Below Dark Surface (A11) Depleted Surface (F5)	
Redox Dark Surface (F6) Depleted Dark Surface (F7)	3
Sandy Muck Mineral (S1) Redox Depressions (F8)	Indicators of hydrophytic vegetation and wetland hydrology must be present,
5 cm Mucky Peat or Peat (S3)	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)	Secondary Indicators (minimum of two required)
	Secondary Indicators (minimum or two required)
Surface Water (A1) Water-Stained Leaves (B9)	Surface Soil Cracks (B6)
☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13)	
	Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13)	Surface Soil Cracks (B6) Drainage Patterns (B10)
High Water Table (A2) Saturation (A3) Aquatic Fauna (B13) True Aquatic Plants (B14)	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2)
High Water Table (A2) Saturation (A3) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1)	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8)
☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ True Aquatic Plants (B14) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Drift Deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6)	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)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) In 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)	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)
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) 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)	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)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) In 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)	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)
High Water Table (A2) Saturation (A3) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Prift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Iron Deposits (B5) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Aquatic Fauna (B13) True Aquatic Fauna (B13) True Aquatic Fauna (B13) Presence of Reduced Concave (C1) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks)	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)
High Water Table (A2) Saturation (A3) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Prift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Iron Deposits (B5) Sparsely Vegetated Concave Surface (B8) Aquatic Fauna (B13) True Aquatic Plants (B14) Pydrogen 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)	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)
High Water Table (A2) Saturation (A3) Hydrogen Sulfide Odor (C1) 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) 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) Field Observations: Surface Water Present? Yes No Depth (inches):	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)
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) Field Observations: Surface Water Present? Water Table Present? 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) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Water Marks (B1) Depth (inches): Marks (B14) Depth (inches): Marks (B14) Depth (inches): Depth (inches): Marks (B14) Depth (inches): Depth (inches)	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)
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) 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) Field Observations: Surface Water Present? Yes No Depth (inches): Wet! Wet!	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)
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) Field Observations: Surface Water Present? Water Table Present? 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) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Water Marks (B13) True Aquatic Fauna (B13) Sufface Value Plants (B14) Depth (inches): Water Table Present?	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) and Hydrology Present? Yes No ●
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Water Table Present? Yes No 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) Field Observations: Surface Water Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wett	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) and Hydrology Present? Yes No ●
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Water Table Present? Yes No 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) Field Observations: Surface Water Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wett	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) and Hydrology Present? Yes No ●
High Water Table (A2) Saturation (A3) True Aquatic Fauna (B13) True Aquatic Plants (B14) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Weti Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections	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) and Hydrology Present? Yes No ●

Project/Site: IH 94 Milwaukee County	Cit	y/County:	Oak Creek/N	Milwaukee Sampling Date: 11-Nov-16
Applicant/Owner: WisDOT			State:	WI Sampling Point: SP-20 (W11-10a)
Investigator(s): Mike Al-wathiqui, Geof Parish	5	Section, Town	ship, Range:	S 31 T 5N R 22E
Landform (hillslope, terrace, etc.): Toeslope		ı	Local relief (c	concave, convex, none): concave
Slope: 5.0% / 2.9 ° Lat.: 42.8524017		Long: -	87.9399033	B Datum: WGS84
		Long	07.9399033	
Soil Map Unit Name: Ashkum silty clay loam, 0 to 2 percent sl	., (○ No ●	/If no ev	wWI classification: None plain in Remarks.)
Are climatic/hydrologic conditions on the site typical for this time of ye Are Vegetation , Soil , or Hydrology sid	ar? Tes		. ,	
	,			Annal circumstances present.
Are Vegetation	iturally proble		•	ded, explain any answers in Remarks.) ns, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No				-,
Hydric Soil Present? Yes No			Sampled A	
		withi	n a Wetland	I? Yes ● No ○
Wetland Hydrology Present? Yes • No ·				
Hydrological conditions were wetter than normal. A wetland The data point was located in a wetland. VEGETATION - Use scientific names of plant	ts.	Dominant - Species?		
	Absolute % Cover		Indicator Status	Dominance Test worksheet:
	98 COVEI		Status	Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)
1. 2.	0	0.0%	. ——	That are obt, FACW, of FAC.
3.	0	0.0%		Total Number of Dominant Species Across All Strata: 2 (B)
4.	0	0.0%		Species Across Air Strata
5.	0	0.0%		Percent of dominant Species That Are OBL FACW or FAC: 100.0% (A/B)
	0	= Total Cove	er	That Are OBL, FACW, or FAC:100.0% (A/B)
_Sapling/Shrub Stratum (Plot size:)		_		Prevalence Index worksheet:
1		0.0%		Total % Cover of: Multiply by:
2	0	0.0%		OBL species <u>80</u> x 1 = <u>80</u>
3		0.0%		FACW species $70 \times 2 = 140$
4. 5.		0.0%	. ———	FAC species 35 x 3 = 105
3		0.0%		FACU species <u>0</u> x 4 = <u>0</u>
<u>Herb Stratum</u> (Plot size: 5' radius)		= Total Cove	er.	UPL species <u>0</u> x 5 = <u>0</u>
1. Typha angustifolia	80	✓ 43.2%	OBL	Column Totals: <u>185</u> (A) <u>325</u> (B)
2. Phalaris arundinacea	_50_	27.0%	FACW	Prevalence Index = $B/A = 1.757$
3. Poa pratensis	30	16.2%	FAC	Hydrophytic Vegetation Indicators:
4. Juncus torreyi	10	<u>5.4%</u>	FACW_	✓ 1 - Rapid Test for Hydrophytic Vegetation
5. Agrostis gigantea	5	2.7%	FACW	✓ 2 - Dominance Test is > 50%
6. Juncus tenuis 7. Solidago sempervirens	<u>5</u> 5		FAC FACW	✓ 3 - Prevalence Index is \leq 3.0 ¹
8.	0	0.0%	. FACW	$\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $
9.	0	0.0%		data in Remarks or on a separate sheet)
10.	0	0.0%	. ——	Problematic Hydrophytic Vegetation ¹ (Explain)
	185	= Total Cove	 er	1 Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:)				be present, unless disturbed or problematic.
1		0.0%		Hydrophytic
2		0.0%		Vegetation V
	0	= Total Cove	ar ar	Present? Yes VO
Daniel / Tarkida akata awaka kana kana ayara a	+>			
Remarks: (Include photo numbers here or on a separate sh	•	- .	5	
A wetland plant community was documented by the Rapid	lest, Domin	ance Test a	and the Prev	/alence Index.

SOIL Sampling Point: SP-20 (W11-10a)

Profile Description: (I	escribe to th	e depth nee	ded to documen	t the indi	cator or co	nfirm the	absence of indicators.)	
Depth ————————————————————————————————————	Matrix (moist)	0/-	Re Color (moist)	dox Feati	res Type ¹	Laa?	- Tourbure	Domayle
		%		<u>%</u>	C	<u>Loc²</u> M		Remarks
9-15 10YR		70	10YR 5/6	30	_ <u>C</u>	M	Silty Clay	
						-		
Type: C=Concentration,		RM=Reduced	Matrix, CS=Cover	ed or Coat	ed Sand Gra	ns.	Legation: PL=Pore Lining. N	1=Matrix.
Hydric Soil Indicators	5 :		Cont. Class	d Matrice (C	4)		Indicators for Proble	matic Hydric Soils ³ :
Histosol (A1) Histic Epipedon (A2)			Sandy Gleyer		4)		Coast Prairie Redox	(A16)
Black Histic (A3)	1		Sandy Redox	. ,			Dark Surface (S7)	
Hydrogen Sulfide (A	4)		Stripped Mat	. ,	F1\		☐ Iron Manganese Ma	sses (F12)
Stratified Layers (A5	5)		Loamy Muck				☐ Very Shallow Dark S	Jurface (TF12)
2 cm Muck (A10)			Loamy Gleye✓ Depleted Mat		2)		Other (Explain in Re	marks)
Depleted Below Dar	k Surface (A11)	Redox Dark S		:\			,
Thick Dark Surface ((A12)		Depleted Dark	•	•		3 Indicators of hydroph	
Sandy Muck Mineral	(S1)		Redox Depre		` '		Indicators of hydroph wetland hydrology	
5 cm Mucky Peat or	Peat (S3)		Redox Depre	:5510115 (1 0)	,		unless disturbed	
Restrictive Layer (if o	bserved):							
Туре:								
Depth (inches):							Hydric Soil Present?	Yes No
Remarks:								
HADBOLOCA								
HYDROLOGY								
Wetland Hydrology In								
Primary Indicators (mini	mum of one is	required; che						ors (minimum of two required)
Surface Water (A1)			Water-Stair		s (B9)		☐ Surface Soil C	` '
✓ High Water Table (A	12)		Aquatic Fa		24.4		☐ Drainage Patte	
Saturation (A3)			☐ True Aquat		-			ater Table (C2)
Water Marks (B1)	D2)		Hydrogen S		. ,	t- (C2)	Crayfish Burro	ible on Aerial Imagery (C9)
Sediment Deposits (Drift Deposits (B3)	DZ)		Presence o	-	s on Living R	.0015 (C3)		ressed Plants (D1)
Algal Mat or Crust (I	24)				n in Tilled So	ile (CE)	✓ Geomorphic P	
Iron Deposits (B5)) 		Thin Muck			iis (CO)	FAC-Neutral T	
Inundation Visible o	n Δerial Image	rv (B7)	Gauge or V	-	-		TAC Neutral 1	CSC (D3)
Sparsely Vegetated	_		Other (Exp					
oparaciy vegetatea	concave surra	cc (D0)	□ Otilei (Exp	iaiii iii Keii	idi KS)			
Field Observations:								
Surface Water Present?	Yes	No ●	Depth (in	iches):				
Water Table Present?	Yes (10	-		
Saturation Present?		_	Depth (in	· -	10	Wet	land Hydrology Present?	Yes No
(includes capillary fringe)	Yes 🤄	No O	Depth (in	iches):	7			
Describe Recorded Da	ta (stream g	auge, monit	oring well, aeria	l photos,	previous in	spections	s), if available:	
Remarks:								
Netland hydrology wa	as documente	ed by a wate	er table at 10 inc	ches, satu	ration at 7	inches a	nd two secondary indicate	ors, which were D2 Geomorphic
Position and D5 FAC-1		•		•			,	·

Project/Site: IH 94 Milwaukee County	Cit	ty/County:	Oak Creek/I	Milwaukee Sampling Date: 11-Nov-16
Applicant/Owner: WisDOT			State:	WI Sampling Point: SP-21 (up)
Investigator(s): _Mike Al-wathiqui, Geof Parish		Section, Town	ship, Range:	S 31 T 5N R 22E
Landform (hillslope, terrace, etc.): Footslope		L	ocal relief (c	concave, convex, none): concave
Slope: 2.0% / 1.1 ° Lat.: 42.8548012			87.937896	Wood 4
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	/	○ No ●	(If no, ex	rplain in Remarks.)
	significantly dis	sturbed?	Are "No	ormal Circumstances" present? Yes No
Are Vegetation . , Soil . , or Hydrology .	naturally proble	ematic?	(If nee	ded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map sho	wing sam	pling poin	t locatio	ns, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No •				
Hydric Soil Present? Yes No			Sampled A a Wetland	
Wetland Hydrology Present? Yes No				165 O NO O
Remarks:				
Hydrological conditions were wetter than normal. Hydric wetland hydrology were observed. The sample point is in		esent, althou	igh an upla	and plant community was documented and no indicators of
VEGETATION - Use scientific names of pla	nts.	Dominant		
	Absolute	- Species? -	Indicator	Dominance Test worksheet:
_ <u>Tree Stratum</u> (Plot size:)	% Cover		Status	Number of Dominant Species
1	0	0.0%		That are OBL, FACW, or FAC:
2	0	0.0%		Total Number of Deminant
3	0	0.0%		Total Number of Dominant Species Across All Strata: (B)
4	0	0.0%		
5		0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)
Continue (Charles Charles (Plot size)	0	= Total Cove	r	
Sapling/Shrub Stratum (Plot size:)	0			Prevalence Index worksheet:
1		0.0%		Total % Cover of: Multiply by:
3.		0.0%	-	OBL species $0 \times 1 = 0$
4.		0.0%		FACW species 30 x 2 = 60
5.		0.0%		FAC species 100 x 3 = 300 FACU species 40 x 4 = 160
		= Total Cove	r	
Herb Stratum (Plot size: 5' radius)				
1. Poa pratensis		58.8%	FAC	Column Totals: <u>170</u> (A) <u>520</u> (B)
Cirsium arvense Symphyotrichum novae-angliae	40	✓ 23.5%	FACW	Prevalence Index = B/A = 3.059
4.		0.0%	FACW	Hydrophytic Vegetation Indicators:
5.		0.0%		1 - Rapid Test for Hydrophytic Vegetation
6.	0	0.0%		2 - Dominance Test is > 50%
7.		0.0%		\Box 3 - Prevalence Index is ≤3.0 1
8.		0.0%		4 - Morphological Adaptations 1 (Provide supporting
9.		0.0%		data in Remarks or on a separate sheet)
10.	0	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
(0)	170	= Total Cove	r	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)		□ a ca:		be present, unless disturbed of problematic.
		0.0%		Hydrophytic
1		0.0%		Vogetation
1. 2.		T		
B-		= Total Cove	r 	Present? Yes No No
2	0	= Total Cove	r	
2. Remarks: (Include photo numbers here or on a separate	0	= Total Cove	r	
2	0	= Total Cove	r	

SOIL Sampling Point: SP-21 (up)

Profile Descrip	ption: (Describe to	the depth n	eeded to document	the indic	ator or co	nfirm the	absence of indicators.)	
Depth _	Matrix		Red	ox Featu			_	
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Tvpe 1	Loc ²	Texture	Remarks
0-12	10YR 3/2	100					Silt Loam	
12-23	10YR 4/1	80	10YR 5/6	20	С	М	Silty Clay	
				-				
1 7	and the D. Dendekte	- DM D-d	- I Matrix CC Carres		1010		Occasione Di Dene Linius M. Mari	
.		n, RM=Reduc	ed Matrix, CS=Covere	d or Coate	ed Sand Gra	ins.	Location: PL=Pore Lining. M=Ma	TIX.
Hydric Soil In							Indicators for Problemation	: Hydric Soils ³ :
Histosol (A	•		Sandy Gleyed	-	ł)		Coast Prairie Redox (A16)	
Histic Epipe Black Histic	• •		Sandy Redox (Dark Surface (S7)	
Hydrogen S	. ,		Stripped Matrix	` '			☐ Iron Manganese Masses (F12)
Stratified La			Loamy Mucky	•	•		Very Shallow Dark Surface	-
2 cm Muck	, , ,		Loamy Gleyed		2)		Other (Explain in Remarks	
	elow Dark Surface (A	11)	Depleted Matri	` ,			Other (Explain in Remarks	o)
	Surface (A12)	11)	Redox Dark Su		•			
	k Mineral (S1)		Depleted Dark	•	•		³ Indicators of hydrophytic v	egetation and
	y Peat or Peat (S3)		Redox Depress	sions (F8)			wetland hydrology must unless disturbed or pro	
	yer (if observed):						The state of the s	bicinada
1								
Type:	`						Hydric Soil Present? Ye	s • No O
Depth (inche	es):						1.,	3 0 110 0
Remarks:								
The criteria for	hydric soils was n	net by A11 D	Depleted Below Dar	k Surface	е.			
HYDROLO	GY							
Wetland Hydro	ology Indicators:							
-	ors (minimum of one	is required; cl	neck all that apply)				Secondary Indicators (n	ninimum of two required)
Surface Wa	•		Water-Staine	ed Leaves	(B9)		Surface Soil Cracks	
High Water			Aquatic Faur		(23)		Drainage Patterns (` '
Saturation			True Aquatio		14)		Dry Season Water 1	,
Water Mark			Hydrogen Su	•	•		Crayfish Burrows (C	` '
	Deposits (B2)		Oxidized Rhi			Roots (C3)		n Aerial Imagery (C9)
☐ Drift Depos			Presence of	-	_	()	Stunted or Stressed	
	r Crust (B4)		Recent Iron			ils (C6)	Geomorphic Position	
☐ Iron Depos	. ,		☐ Thin Muck S			(55)	FAC-Neutral Test (D	
	Visible on Aerial Ima	gery (B7)	Gauge or We	•	•			
	egetated Concave Sur		Other (Expla	-	-			
	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	.000 (20)	☐ Otrlei (Expla	IIII III Kein	aiks)			
Field Observa	tions:							
Surface Water P		○ No	Depth (incl	hes):				
			, ,			_		
Water Table Pre				nes):		Wet	land Hydrology Present? Y	es O No 💿
Saturation Prese (includes capilla		O No 💿	Depth (incl	hes):		_ ""	iana rryarology r resent:	CG - 110 -
		gauge, mor	nitoring well, aerial	photos, i	previous in	spections	s), if available:	
	(23.23	5 5 ,	3 - 7 - 2 - 2 - 2 - 2					
Remarks:								
	indicators of	and budget-	G) /					
There were no	o indicators of wetl	anu nyarolo	yy.					
1								

Project/Site: IH 94 Milwaukee County		City/County:	Oak Creek/N	Milwaukee Sampling Date: 11-Nov-16
Applicant/Owner: WisDOT			State:	WI Sampling Point: SP-22 (W-3)
Investigator(s): Mike Al-wathiqui, Geof F	Parish	Section, Tow	vnship, Range:	
Landform (hillslope, terrace, etc.): Toesl			•	concave, convex, none): concave
Slope: 2.0% / 1.1 ° Lat.:		Long:	-87.938003	
			-8/.330003	
Soil Map Unit Name: Ashkum silty class		0 0	(If no ex	WWI classification: None
Are climatic/hydrologic conditions on the		. ,	• •	
Are Vegetation , Soil ,	, or Hydrology	significantly disturbed?		F
Are Vegetation, Soil SUMMARY OF FINDINGS - A	, or Hydrology \square	naturally problematic?	-	eded, explain any answers in Remarks.) ons, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes No			,
Hydric Soil Present?	Yes No		ne Sampled A	
Wetland Hydrology Present?	Yes No	with	nin a Wetland	d? Yes ● No ○
Remarks:	165 0 110 0			
	etland.		t	nd multiple indicators of wetland hydrology were present.
- c. /Dist size.	,	Absolute Rel.Strat	. Indicator	Dominance Test worksheet:
_ <u>Tree Stratum</u> (Plot size:		% Cover Cover	Status	Number of Dominant Species
1 2.		0		That are OBL, FACW, or FAC: (A)
3.		0 0.0%		Total Number of Dominant
4.		0 0.0%		Species Across All Strata: (B)
5.		0 0.0%		Percent of dominant Species
		0 = Total Cov	ver	That Are OBL, FACW, or FAC: 100.0% (A/B)
<u>Sapling/Shrub Stratum</u> (Plot size:)			Prevalence Index worksheet:
1		0 0.0%		Total % Cover of: Multiply by:
2.		0 0.0%		OBL species 0 x 1 = 0
3.		0 0.0%		FACW species 100 x 2 = 200
4.		0 0.0%		FAC species $0 \times 3 = 0$
5.		0 0.0%		FACU species $0 \times 4 = 0$
Herb Stratum (Plot size: 5' radius	1	0 = Total Cov	ver	UPL species 0 x 5 = 0
1. Phalaris arundinacea	/	100 🗹 100.0%	6 FACW	Column Totals: 100 (A) 200 (B)
1, Phalans arundinacea 2.) FACVV	
3.		0 U 0.0% 0 0.0%		Prevalence Index = B/A = 2.000
4.				Hydrophytic Vegetation Indicators:
5.		0		✓ 1 - Rapid Test for Hydrophytic Vegetation
6.		0 0.0%		✓ 2 - Dominance Test is > 50%
7.		0 0.0%		✓ 3 - Prevalence Index is ≤3.0 ¹
8.		0 0.0%		4 - Morphological Adaptations 1 (Provide supporting
9.		0 0.0%		data in Remarks or on a separate sheet)
10.		0 0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
(-1		100 = Total Cov	ver	1 Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:)			be present, unless disturbed or problematic.
1		0		Hydrophytic
2		0		Vegetation V
		0 = Total Cov	ver	Present? Yes No No
5 / 7 / da ubata usumbasa				
Remarks: (Include photo numbers	•	,		
A wetland plant community was do	ocumented by the Rap	pid Test, Dominance Test	and the Prev	valence Index.

SOIL Sampling Point: SP-22 (W-3)

Depth		Matrix	-			Featur			absence of indicato	-
(inches)	Color (moist)	%	Color (moi			Tvpe 1	Loc ²	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	
Hydric Soil 1 Histosol (Histic Epi Black Hist Hydroger Stratified 2 cm Muc Depleted Thick Dar Sandy Mu 5 cm Muc	Indicators: A1) pedon (A2) tic (A3) a Sulfide (A4) Layers (A5)	Surface (A1 12) 51) eat (S3)		Sandy I Strippe Loamy Loamy Deplete Redox Deplete	Gleyed Mat Redox (S5) d Matrix (S Mucky Min Gleyed Ma ed Matrix (F	trix (S4)) S6) heral (F1 atrix (F2) F3) hice (F6)	.)	ins.	Coast Prairie Dark Surface Iron Mangan Very Shallow Other (Explai	Problematic Hydric Soils ³ : Redox (A16)
Depth (inc Remarks:	hes):								Hydric Soil Prese	ent? Yes • No ·
Remarks: he criteria fo	or hydric so	ils was m	et by F6 Re	dox Dark Sui	face.				Hydric Soil Prese	ent? Yes • No ·
Remarks: he criteria fo	or hydric so OGY Irology Indi	cators:	,							
Remarks: he criteria fo	OGY Irology Indiators (minimum	cators:	,	neck all that ap	ply)				Secondary	Indicators (minimum of two required)
Remarks: he criteria for the criteria fo	OGY Irology Indiators (minimulvater (A1)	cators: um of one i	,	neck all that ap	ply) r-Stained L	•	B9)		Secondary Surface	Indicators (minimum of two required) e Soil Cracks (B6)
Remarks: he criteria for the criteria fo	OGY Irology Indiators (minimulvater (A1) er Table (A2)	cators: um of one i	,	neck all that ap	ply) r-Stained L tic Fauna ((B13)	•		Secondary Surface Draina	Indicators (minimum of two required) e Soil Cracks (B6) ge Patterns (B10)
Remarks: he criteria for the criteria fo	OGY Irology Indiators (minimulators (M1) er Table (A2) n (A3)	cators: um of one i	,	neck all that ap	ply) r-Stained L tic Fauna (Aquatic Pla	(B13) ants (B1	.4)		Secondary Surface Drainae Dry Se	Indicators (minimum of two required) e Soil Cracks (B6) ge Patterns (B10) ason Water Table (C2)
Remarks: he criteria for the criteria fo	OGY Irology Indiators (minimulators (Minimulators (A1)) er Table (A2) n (A3) urks (B1)	cators: um of one i	,	neck all that ap Wate Aqua True Hydro	ply) r-Stained L tic Fauna (Aquatic Pla ogen Sulfid	(B13) ants (B1 de Odor	.4) (C1)		Secondary Surface Drainae Dry Se Crayfis	Indicators (minimum of two required) e Soil Cracks (B6) ge Patterns (B10) ason Water Table (C2) h Burrows (C8)
Remarks: he criteria for the criteria fo	OGY Irology Indiators (minimulvater (A1) er Table (A2) n (A3) urks (B1) Deposits (B2	cators: um of one i	,	neck all that ap Wate Aqua True Hydro	ply) r-Stained L tic Fauna (Aquatic Pla ogen Sulfid zed Rhizos	(B13) ants (B1 de Odor spheres (.4) (C1) on Living F	coots (C3)	Secondary Surface Draina Dry Se Crayfis Satura	Indicators (minimum of two required) e Soil Cracks (B6) ge Patterns (B10) ason Water Table (C2) h Burrows (C8) tion Visible on Aerial Imagery (C9)
Remarks: he criteria for the criteria fo	DGY Irology Indiators (minimulvater (A1) er Table (A2) in (A3) irks (B1) Deposits (B2) osits (B3)	cators: um of one is	,	neck all that ap Wate Aqua True Hydro	ply) r-Stained L tic Fauna (Aquatic Pla ogen Sulfid zed Rhizos nce of Rec	(B13) ants (B1 de Odor spheres o	.4) (C1) on Living F ron (C4)		Secondary Surface Drainae Dry Se Crayfis Saturae Stunte	Indicators (minimum of two required) e Soil Cracks (B6) ge Patterns (B10) ason Water Table (C2) h Burrows (C8) tion Visible on Aerial Imagery (C9) d or Stressed Plants (D1)
Remarks: he criteria for the criteria fo	DGY Irology Indiators (minimulators (minimulators (A1) er Table (A2) in (A3) irks (B1) ir Deposits (B2) osits (B3) or Crust (B4)	cators: um of one is	,	neck all that ap Wate Aqua True Hydre Oxidia	ply) r-Stained L tic Fauna (Aquatic Pla ogen Sulfid zed Rhizos ince of Rec nt Iron Rec	(B13) ants (B1 de Odor spheres o duced Ir duction i	4) (C1) on Living F on (C4) in Tilled Sc		Secondary Surface Drainae Dry Se Crayfis Saturae Stuntee	Indicators (minimum of two required) e Soil Cracks (B6) ge Patterns (B10) ason Water Table (C2) h Burrows (C8) tion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2)
Remarks: he criteria for the criteria fo	DGY Irology Indi ators (minimulators (minimulators (minimulators (A1)) er Table (A2) in (A3) inks (B1) in Deposits (B2) posits (B3) or Crust (B4) posits (B5)	cators: um of one i	s required; cl	neck all that ap Wate Aqua True Hydro Oxidi: Prese Recei	ply) r-Stained L tic Fauna (Aquatic Pla ogen Sulfid zed Rhizos nce of Rec Muck Surfa	(B13) ants (B1 de Odor spheres of duced Ir duction if	.4) (C1) on Living Fon (C4) in Tilled Sc		Secondary Surface Drainae Dry Se Crayfis Saturae Stuntee	Indicators (minimum of two required) e Soil Cracks (B6) ge Patterns (B10) ason Water Table (C2) h Burrows (C8) tion Visible on Aerial Imagery (C9) d or Stressed Plants (D1)
Remarks: he criteria for the criteria fo	DGY Irology Indiators (minimulators (minimulators (A1) er Table (A2) in (A3) irks (B1) ir Deposits (B2) osits (B3) or Crust (B4)	cators: um of one is 2) Aerial Imag	s required; cl	neck all that ap Wate Aqua True Hydro Oxidi: Prese Receo	ply) r-Stained L tic Fauna (Aquatic Pla ogen Sulfid zed Rhizos ince of Rec nt Iron Rec	(B13) ants (B1 de Odor spheres o duced Ir duction i ace (C7) Data (D9	.4) (C1) on Living F on (C4) in Tilled Sc		Secondary Surface Drainae Dry Se Crayfis Saturae Stuntee	Indicators (minimum of two required) e Soil Cracks (B6) ge Patterns (B10) ason Water Table (C2) h Burrows (C8) tion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2)
Remarks: he criteria for the criteria fo	DGY Irology Indiators (minimulators (minimulators (M2) in (A3)	cators: um of one is 2) Aerial Imagoncave Surfa	s required; cl ery (B7) ace (B8)	neck all that ap Wate Aqua True Hydro Oxidi: Prese Recee Thin Gaug	ply) r-Stained L tic Fauna (Aquatic Pla ogen Sulfid zed Rhizos nce of Rec nt Iron Rec Muck Surfa e or Well I	(B13) ants (B1 de Odor spheres o duced Ir duction i ace (C7) Data (D9	.4) (C1) on Living F on (C4) in Tilled Sc		Secondary Surface Drainae Dry Se Crayfis Saturae Stuntee	Indicators (minimum of two required) e Soil Cracks (B6) ge Patterns (B10) ason Water Table (C2) h Burrows (C8) tion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2)
Remarks: he criteria for the criteria fo	DGY Irology Indi ators (minimul Vater (A1) er Table (A2) in (A3) irks (B1) ir Deposits (B2) osits (B3) or Crust (B4) osits (B5) in Visible on A Vegetated Co	cators: um of one is 2) Aerial Imag	s required; cl ery (B7) ace (B8)	neck all that ap Wate Aqua True Hydro Oxidia Prese Recel Thin Gaug	ply) r-Stained L tic Fauna (Aquatic Pla ogen Sulfid zed Rhizos nce of Rec nt Iron Rec Muck Surfa e or Well I	(B13) ants (B1 de Odor spheres of duced Ir duction i ace (C7) Data (D9 in Remai	.4) (C1) on Living F on (C4) in Tilled Sc		Secondary Surface Drainae Dry Se Crayfis Saturae Stuntee	Indicators (minimum of two required) e Soil Cracks (B6) ge Patterns (B10) ason Water Table (C2) h Burrows (C8) tion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2)
Remarks: he criteria for the criteria fo	OGY Irology Indiators (minimum Vater (A1) er Table (A2) in (A3) inks (B1) Deposits (B3) or Crust (B4) osits (B5) in Visible on Aid Vegetated Co	cators: um of one is 2) Aerial Imagoncave Surfa	ery (B7) ace (B8)	neck all that ap Wate Aqua True Hydro Oxidi: Prese Recee Thin Gaug Other	ply) r-Stained L tic Fauna (Aquatic Pla ogen Sulfid zed Rhizos nce of Rec nt Iron Rec Muck Surfa e or Well E	(B13) ants (B1 de Odor spheres of duced Ir duction i ace (C7) Data (D9 in Remai	.4) (C1) on Living F on (C4) in Tilled Sc	bils (C6)	Secondary Surface Drainae Dry Se Crayfis Saturae Stuntee FAC-Ne	Indicators (minimum of two required) e Soil Cracks (B6) ge Patterns (B10) ason Water Table (C2) h Burrows (C8) tion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2) eutral Test (D5)
Remarks: he criteria for the criteria fo	OGY Irology Indiators (minimum Vater (A1) er Table (A2) in (A3) in (A3) in (A3) or Crust (B4) or Crust (B4) or Crust (B5) in Visible on A Vegetated Co rations: Present?	cators: um of one is 2) Aerial Imagoncave Surf	ery (B7) ace (B8) No No	neck all that ap Wate Aqua True Hydro Oxidi: Prese Recee Thin Gaug Other	ply) r-Stained L tic Fauna (Aquatic Pla ogen Sulfid zed Rhizos nce of Rec nt Iron Rec Muck Surfa e or Well E (Explain in	(B13) ants (B1 de Odor spheres o duced Ir duction i ace (C7) Data (D9 in Remai	.4) (C1) on Living F on (C4) in Tilled Sc	bils (C6)	Secondary Surface Drainae Dry Se Crayfis Saturae Stuntee	Indicators (minimum of two required) e Soil Cracks (B6) ge Patterns (B10) ason Water Table (C2) h Burrows (C8) tion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2) eutral Test (D5)
Remarks: he criteria for the criteria fo	OGY Irology Indiators (minimum Vater (A1) er Table (A2) in (A3) in (A3) in (A3) or Crust (B4) or Crust (B4) or Crust (B5) in Visible on A Vegetated Co rations: Present? iresent? iresent?	cators: um of one is 2) Aerial Imag oncave Surfi Yes Yes Yes	ery (B7) ace (B8) No No No	neck all that ap Wate Aqua True Hydro Oxidi: Prese Recee Thin Gaug Other	ply) r-Stained L tic Fauna (Aquatic Pla ogen Sulfid zed Rhizos nce of Rec nt Iron Rec Muck Surfa e or Well E (Explain in oth (inches)	(B13) ants (B1 de Odor spheres of duced Ir duction i ace (C7) Data (D9 in Remai	(C1) on Living Fron (C4) in Tilled Sc) rks)	wet	Secondary Surface Drainae Dry Se Crayfis Saturae Stuntee FAC-Ne	Indicators (minimum of two required) e Soil Cracks (B6) ge Patterns (B10) ason Water Table (C2) h Burrows (C8) tion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2) eutral Test (D5)
Remarks: he criteria for the criteria fo	OGY Irology Indiators (minimum Vater (A1) er Table (A2) in (A3) in (A3) in (A3) or Crust (B4) or Crust (B4) or Crust (B5) in Visible on A Vegetated Co rations: Present? iresent? iresent?	cators: um of one is 2) Aerial Imag oncave Surfi Yes Yes Yes	ery (B7) ace (B8) No No No	neck all that ap Wate Aqua True Hydro Oxidi: Prese Recee Thin Gaug Other	ply) r-Stained L tic Fauna (Aquatic Pla ogen Sulfid zed Rhizos nce of Rec nt Iron Rec Muck Surfa e or Well E (Explain in oth (inches)	(B13) ants (B1 de Odor spheres of duced Ir duction i ace (C7) Data (D9 in Remai	(C1) on Living Fron (C4) in Tilled Sc) rks)	wet	Secondary Surface Drainae Dry Se Crayfis Saturae Stuntee FAC-Ne	Indicators (minimum of two required) e Soil Cracks (B6) ge Patterns (B10) ason Water Table (C2) h Burrows (C8) tion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2) eutral Test (D5)
Remarks: he criteria for the criteria fo	OGY Irology Indiators (minimum Vater (A1) er Table (A2) in (A3) in (A3) in (A3) or Crust (B4) or Crust (B4) or Crust (B5) in Visible on A Vegetated Co rations: Present? iresent? iresent?	cators: um of one is 2) Aerial Imag oncave Surfi Yes Yes Yes	ery (B7) ace (B8) No No No	neck all that ap Wate Aqua True Hydro Oxidi: Prese Recee Thin Gaug Other	ply) r-Stained L tic Fauna (Aquatic Pla ogen Sulfid zed Rhizos nce of Rec nt Iron Rec Muck Surfa e or Well E (Explain in oth (inches)	(B13) ants (B1 de Odor spheres of duced Ir duction i ace (C7) Data (D9 in Remai	(C1) on Living Fron (C4) in Tilled Sc) rks)	wet	Secondary Surface Drainae Dry Se Crayfis Saturae Stuntee FAC-Ne	Indicators (minimum of two required) e Soil Cracks (B6) ge Patterns (B10) ason Water Table (C2) h Burrows (C8) tion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2) eutral Test (D5)

Project/Site: IH 94 Milwaukee County	Cit	y/County:	Oak Creek/N	Milwaukee Sampling Date: 11-Nov-16
Applicant/Owner: WisDOT			State:	WI Sampling Point: SP-23 (up)
Investigator(s): _Mike Al-wathiqui, Geof Parish	9	Section, Towr	ship, Range:	S 30 T 5N R 22E
Landform (hillslope, terrace, etc.): Hillside			Local relief (c	concave, convex, none): convex
Slope: 10.0% / 5.7 ° Lat.: 42.8614998			-87.937202	
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 ye	ar? Yes	○ No ⊙	(If no, ex	xplain in Remarks.)
	gnificantly dis	turbed?	Are "No	ormal Circumstances" present? Yes No
Are Vegetation . , Soil . , or Hydrology . na	aturally proble	ematic?	(If nee	ded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map show	ving samı	oling poir	nt locatio	ns, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No •				
Hydric Soil Present? Yes O No •			e Sampled A n a Wetland	
Wetland Hydrology Present? Yes O No •				·· 165 © 110 ©
Remarks: Hydrological conditions were wetter than normal. An uplan hydrology present. The sample point was located in an uplan VEGETATION - Use scientific names of plan	land.	nmunity and	upland soil	Is were documented. There were no indicators of wetland
	Absolute	- Species?	Indicator	Dominance Test worksheet:
_ <u>Tree Stratum</u> (Plot size:)	% Cover	Cover	Status	Number of Dominant Species
1	0	0.0%		That are OBL, FACW, or FAC:1(A)
2		0.0%		Total Number of Dominant
3		0.0%		Species Across All Strata:
4	0	0.0%		
5	0	0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)
C. I. (OL. L.C (Diet cize)	0	= Total Cove	er	
Sapling/Shrub Stratum (Plot size:)				Prevalence Index worksheet:
1		0.0%		Total % Cover of: Multiply by:
2. 3.		0.0%		OBL species $0 \times 1 = 0$
4.		0.0%		FACW species $8 \times 2 = 16$
5.		0.0%		FAC species $30 \times 3 = 90$
J				FACU species $0 \times 4 = 0$
<u>Herb Stratum</u> (Plot size: <u>5' radius</u>)	0	= Total Cove	er	UPL species <u>60</u> x 5 = <u>300</u>
1. Coronilla varia	60	✓ 61.2%	UPL	Column Totals: <u>98</u> (A) <u>406</u> (B)
2. Poa pratensis	30	30.6%	FAC	Prevalence Index = B/A = 4.143
3. Solidago sempervirens	5	5.1%	FACW	Hydrophytic Vegetation Indicators:
4. Symphyotrichum novae-angliae	3	3.1%	FACW	1 - Rapid Test for Hydrophytic Vegetation
5	0	0.0%		2 - Dominance Test is > 50%
6. 7.	0	0.0%		☐ 3 - Prevalence Index is ≤3.0 ¹
8.		0.0%		4 - Morphological Adaptations ¹ (Provide supporting
9.		0.0%		data in Remarks or on a separate sheet)
10.		0.0%		$\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $
10.		0.0%		$\frac{1}{2}$ Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:)	98	= Total Cove	er	be present, unless disturbed or problematic.
1.	0	0.0%		
2.	0	0.0%		Hydrophytic Vegetation
	0	= Total Cove	er	Present? Yes No •
Remarks: (Include photo numbers here or on a separate shan upland plant community was observed.	neet.)			

SOIL Sampling Point: SP-23 (up)

Profile Descr	iption: (Des	cribe to t	the depth ne	eded to document	the indic	cator or co	onfirm the	absence of indicators.)	
Depth		Matrix			lox Featu			_	
(inches)	Color (1	noist)	<u>%</u>	Color (moist)	%	Tvpe 1	Loc ²	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=Cond	centration, D	=Depletion	, RM=Reduce	ed Matrix, CS=Covere	ed or Coate	ed Sand Gra	ains.	Leocation: PL=Pore Lining. M=Matrix.	
Hydric Soil I	ndicators:							Indicators for Problematic Hydric Soils 3:	
Histosol (A				Sandy Gleyed	Matrix (S4	1)		Coast Prairie Redox (A16)	
	pedon (A2)			Sandy Redox				Dark Surface (S7)	
Black Histi	Sulfide (A4)			Stripped Matr	. ,			☐ Iron Manganese Masses (F12)	
	Layers (A5)			Loamy Mucky				☐ Very Shallow Dark Surface (TF12)	
2 cm Mucl	, , ,			Loamy Gleyed	-	2)		Other (Explain in Remarks)	
	Below Dark S	urface (A1	1)	Depleted Mati	` ,			Other (Explain in Remarks)	
	k Surface (A1	•	-,	Redox Dark S		•		2	
Sandy Muc	ck Mineral (S	1)		Depleted Dark	•	•		Indicators of hydrophytic vegetation and wetland hydrology must be present,	
5 cm Mucl	ky Peat or Pe	at (S3)		☐ Redox Depres	Sions (F8)			unless disturbed or problematic.	
Restrictive La	ayer (if obs	erved):							
Type:		-							
Depth (inch	nes):							Hydric Soil Present? Yes No •	
Remarks:	,								
Hydric soils w	ere not obs	served.							
HYDROLO	GY								
Wetland Hyd									
		ım of one i	s required; cl	neck all that apply)				Secondary Indicators (minimum of two required)	
Surface W	ater (A1)			☐ Water-Stain		(B9)		Surface Soil Cracks (B6)	
	er Table (A2)			Aquatic Fau				☐ Drainage Patterns (B10)	
Saturation				☐ True Aquati	-	-		Dry Season Water Table (C2)	
Water Mar	` '			☐ Hydrogen S			D . (62)	Crayfish Burrows (C8)	
	Deposits (B2)		Oxidized Rh	•	-	Roots (C3)		
☐ Drift Depo	or Crust (B4)			Presence of			oila (CE)	Stunted or Stressed Plants (D1)Geomorphic Position (D2)	
Iron Depo				Recent Iron			olis (Co)	FAC-Neutral Test (D5)	
	n Visible on A	erial Imag	en/ (B7)	☐ Thin Muck S☐ Gauge or W	•	•		TAC-Neutral Test (D3)	
	egetated Co	-	, , ,		•	•			
Sparsery v	regetated co	ricave Sari	acc (Bo)	☐ Other (Expl	alli ili Kelli	arks)			
Field Observa	ations:								
Surface Water		Yes	O No 🤄	Depth (inc	thes):				
Water Table Pr		Yes		\			_		
Saturation Pres				(-		_ Wet	tland Hydrology Present? Yes O No •	
(includes capill		Yes	O No 🖲	Depth (inc	thes):		_	,	
Describe Reco	orded Data	(stream	gauge, mor	itoring well, aerial	photos, p	previous i	nspections	ns), if available:	
Remarks:									
No indicators	of wetland	l hydrolog	gy were obs	erved.					

Project/Site: IH 94 Milwaukee County		Cit	y/County:	Oak Creek/N	Milwaukee Sampling Date: 11-Nov-16
Applicant/Owner: WisDOT			-	State:	WI Sampling Point: SP-24 (W-4)
Investigator(s): Mike Al-wathiqui, Geof Parish		9	Section, Town	ship, Range:	
Landform (hillslope, terrace, etc.): Toeslope			·	Local relief (c	concave, convex, none): concave
Slope: 2.0% / 1.1 ° Lat.: 42.8	261/1008			-87.937301	
			Long	-07.937301	
Soil Map Unit Name: Morley silt loam, 2 to		yes (○ No ●	(If no ex	WWI classification: None gplain in Remarks.)
Are climatic/hydrologic conditions on the site ty Are Vegetation , Soil , or I		nificantly dis		, ,	
		,			mile circumstances process.
-		urally proble		•	ded, explain any answers in Remarks.) ns, transects, important features, etc.
	s • No •				,
	\bullet No \bigcirc		Is the	Sampled A	
,	\bullet No \bigcirc		withi	n a Wetland	I? Yes ● No ○
Wetland Hydrology Present? Yes Remarks:	S © 100 C				
	l.		Dominant	lric soils and	d multiple indicators of wetland hydrology were present.
Tree Stratum(Plot size:	1	Absolute % Cover	Rel.Strat.	Indicator Status	Dominance Test worksheet:
		0	Cover	Status	Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)
2.		0	0.0%		That are obt., Thew, of the.
3.		0	0.0%		Total Number of Dominant Species Across All Strata: 3 (B)
4.		0	0.0%		Species Across All Strata
5		0	0.0%		Percent of dominant Species That Are OBL FACW or FAC: 100.0% (A/B)
		0	= Total Cove	er	That Are OBL, FACW, or FAC: 100.0% (A/B)
<u>Sapling/Shrub Stratum</u> (Plot size: 15' radiu)				Prevalence Index worksheet:
1. Cornus alba var. alba			100.0%	FACW	Total % Cover of: Multiply by:
2. 3.			0.0%		OBL species $70 \times 1 = 70$
4.			0.0%		FACW species 25 x 2 = 50
5.		0	0.0%		FAC species $90 \times 3 = 270$ FACU species $5 \times 4 = 20$
		10	= Total Cove		FACU species $\underline{5}$ $\times 4 = \underline{20}$ UPL species 0 $\times 5 = 0$
Herb Stratum (Plot size: 5' radius					
1. Typha angustifolia			38.9%	OBL	Column Totals: <u>190</u> (A) <u>410</u> (B)
3 Demoles deltaides			33.3%	FAC	Prevalence Index = B/A = <u>2.158</u>
Populus deitoides Solidago sempervirens			16.7% 5.6%	FAC FACW	Hydrophytic Vegetation Indicators:
5. Euthamia graminifolia		5	2.8%	FACW	1 - Rapid Test for Hydrophytic Vegetation
6. Solidago canadensis		5	2.8%	FACU	✓ 2 - Dominance Test is > 50%
7.		0	0.0%		✓ 3 - Prevalence Index is ≤3.0 ¹
8.		0	0.0%		4 - Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)
9.		0	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
10		0	0.0%		
_Woody Vine Stratum (Plot size:)	180	= Total Cove	er	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.		0	0.0%		
2.		0	0.0%		Hydrophytic
		0	= Total Cove	er	Vegetation Present? Yes No
Remarks: (Include photo numbers here The criteria for a wetland plant commun	•	eet.)			

SOIL Sampling Point: SP-24 (W-4)

Profile Descri	iption: (Des	cribe to t	he depth ne	eded to docum	ent the indi	cator or co	nfirm the	e absence of indicators.)	
Depth		Matrix			Redox Feati				
(inches)	Color (n		<u>%</u>	Color (moist)	<u>%</u>	Type 1	Loc ²	Texture	Remarks
0-7	10YR	3/2						Silty Clay Loam	
7-14	10YR	6/1		10YR 4/6	5 40	C	M	Silty Clay	
							-		
-							-		
							-		
								<u> </u>	
¹ Type: C=Conc	centration, D=	=Depletion	, RM=Reduce	d Matrix, CS=Cov	ered or Coat	ed Sand Grai	ns.	Leocation: PL=Pore Lining. M	=Matrix.
Hydric Soil I								Indicators for Probler	matic Hydric Soils ³ :
Histosol (A	•				yed Matrix (S	4)		Coast Prairie Redox	(A16)
Histic Epip Black Histi	, ,			Sandy Red	` ,			Dark Surface (S7)	
	Sulfide (A4)			Stripped M	. ,			☐ Iron Manganese Mas	sses (F12)
	Layers (A5)				cky Mineral (•		Very Shallow Dark S	urface (TF12)
2 cm Muck				_ ′	yed Matrix (F	-2)		Other (Explain in Re	, ,
	Below Dark S	urface (A1	1)	✓ Depleted N				Jane. (Explain in Not	· - /
	c Surface (A1	•	,		k Surface (F6	•		3	
Sandy Muc	ck Mineral (S:	1)			Dark Surface (Dressions (F8)	. ,		Indicators of hydrophywetland hydrology	
5 cm Muck	ky Peat or Pe	at (S3)		☐ Redox Dep	oressions (F8))		unless disturbed of	
Restrictive La	ayer (if obse	erved):							
Туре:									
Depth (inch	nes):							Hydric Soil Present?	Yes No
Remarks:								•	
	,						•		
HYDROLO	GY								
Wetland Hydi									
Primary Indica	tors (minimu	m of one i	s required; che	eck all that apply)			Secondary Indicate	ors (minimum of two required)
Surface W	` ,			☐ Water-St	tained Leaves	s (B9)		Surface Soil Cr	
	er Table (A2)				Fauna (B13)			☐ Drainage Patte	• •
✓ Saturation	` '				uatic Plants (E				ater Table (C2)
Water Mar					n Sulfide Odo			Crayfish Burro	
	Deposits (B2))			Rhizosphere	-	oots (C3)		ble on Aerial Imagery (C9)
Drift Depo	` ,				of Reduced		:1- (CC)		essed Plants (D1)
	or Crust (B4)				ron Reduction		ils (C6)	✓ Geomorphic Po	
☐ Iron Depos	. ,	auial Tuana	a (DZ)		ck Surface (C	-		✓ FAC-Neutral Te	est (D5)
	n Visible on A	-			r Well Data (I	-			
Sparsely v	egetated Cor	icave Suri	ace (Do)	☐ Other (E	xplain in Rem	narks)			
Field Observa	ations:								
Surface Water		Yes	O No ●	Depth	(inches):				
Water Table Pr		Yes		•		12	_		
Saturation Pres				Deptn	(inches):		Wet	tland Hydrology Present?	Yes No
(includes capilla		Yes ⁽	● No ○	Depth	(inches):	11	_	, ,,	
Describe Reco	orded Data	(stream	gauge, moni	toring well, ae	rial photos,	previous in	spection	s), if available:	
Remarks:									
					inches, satu	ıration at 1	1 inches	and two secondary indicat	ors, which were D2
Geomorphic F	Position and	D5 FAC	-neutral Test	•					

Investigator(s): Mike Al-wathiqui, Geof Parish Section, Township, Range: S 30 T 5N R 22E 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 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 (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.	Project/Site: IH 94 Milwaukee County	Cit	cy/County:	Oak Creek/N	1ilwaukee	Sampling D	ate: 11-Nov-16
andom (nilistope, terrace, etc.): Hillside	Applicant/Owner: WisDOT			State:	WI	Sampling Point:	SP-25 (up)
Sept 20,0% 11.3	Investigator(s): Mike Al-wathiqui, Geof Parish	9	Section, Towns	ship, Range:	s 30 T	5N R 22E	
Sept 20,0% 11.3 No. Late: 42,8647003 Long: 467,9372025 Detum: WMC classification: Mode Mod			L	ocal relief (c	oncave, convex, nor	ne): convex	
Many Unit Name Moriev sit Joan 2 to 6 percent slopes, erroded Will classification None Work classification None Will classification None Wi							WGS84
ver elimination (in the control on the site typical for this time of year)				07.557202			
ver Vegetation		(○ No ●	(If no. ex		THORIC	
SumMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Indicaphytic Vegetation Present? Yes No which a Wetand? Yes No within a Wetand? Yes No		The circumstance of year.		, ,		" present?	res ● No ○
Hydrophytic Vegetation Present? Yes No Wetten Hydrology Present? Yes No Wetten 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.	Are Vegetation , Soil , or Hydrology	naturally proble	ematic?	(If need	ded, explain any ans	wers in Remarks.)	
Is the Sampled Area within a Wetland? Ves No (a) within a Wetland? Ves No	SUMMARY OF FINDINGS - Attach site r	map showing sam	pling poin	t locatio	ns, transects,	important feat	ures, etc.
Wettland Yes No Westland Yes No Wettland Yes	Hydrophytic Vegetation Present? Yes O	No 💿					
Remarks: Remark	Hydric Soil Present? Yes Yes	No O					
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. Tree Stratum_(Plot size:	Wetland Hydrology Present? Yes O	No 💿			ies © No	,	
VEGETATION - Use scientific names of plants.	Remarks:						
Tree Stratum (Plot size:						ndicators of wetlar	nd hydrology. A hydric
Tree Stratum (Plot size:	VEGETATION - Use scientific name	es of plants.	Dominant				
Number of Dominant Species 1			- Species? -	Indicator	Dominance Test	worksheet:	
1.	_ <u>Tree Stratum</u> (Plot size:)						
3.	1	0	0.0%				1(A)
9.	-		0.0%		Total Number of F	Ominant	
5. 0 0.0% Percent of dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B) Sabilina/Shrub Stratum (Plot size:)) - Total Cover Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x1 = 0 - Total % Cover of: Multiply by: OBL species 0 x1 = 0 - Total % Cover of: Multiply by: OBL species 0 x1 = 0 - FACW species 10 x2 = 20 - FACW species 10 x2 = 20 - FACW species 10 x2 = 20 - FACW species 90 x3 = 270 - FACU species 70 x4 = 280 - FACU species 70 x4 = 280 - FACU species 70 x4 = 280 - FACU species 10 x5 = 50 - FACU species 10 x5 = 50 - FACU species 10 x5 = 50 - FACU species 70 x4 = 280 - FACU species 10 x5 = 50 - FACU species 70 x4 = 280 - FACU species 70 x4 = 280 - FACU species 10 x5 = 50 - FACU species 70 x4 = 280 - FACU species 70 x	3		0.0%				(B)
That Are OBL, FACW, or FAC: S0.0% (A/B)			0.0%				
Sabilino/Shrub Stratum (Plot size:	5						50.0% (A/B)
1.	Carling/Church Churchura (Plot size:	0	= Total Cove	r			
2.							
3.	-						
4.	-				·		
5.							
Herb Stratum (Plot size: 5' radius)					-		
1. Poa pratensis 90 ✓ 50.0% FAC 2. Festuca arundinacea 70 ✓ 38.9% FACU 2. Festuca arundinacea 10 5.6% UPL 4. Symphyotrichum novae-angliae 10 5.6% FACW 5 6 0 0.0% 6 1. Rapid Test for Hydrophytic Vegetation 1. Rapid Test for	<u> </u>						
2. Festuca arundinacea 3. Daucus carota 4. Symphyotrichum novae-angliae 5. 0 0 0.0% 6. 0 0.0% 7. 0 0 0.0% 8. 0 0 0.0% 9. 0 0.0% 9. 0 0.0% 10. 0 0.0% 11. 0 0 0.0% 12. 0 0 0.0% 13. 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) 10. 0 0.0% 11. 0 0.0% 12. 0 0.0% 13. Total Cover 14. Mydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 1	Herb Stratum (Plot size: 5' radius)				·		
3. Daucus carota 4. Symphyotrichum novae-angliae 5. 6. 0 0 0.0% 6. 0 0.0% 7. 0 0.0% 8. 0 0.0% 9. 10. 0.0% 10.	-				Column Totals	: <u>180</u> (A)	<u>620</u> (B)
4. Symphyotrichum novae-angliae 5. 0 0 0.0% 6. 0 0.0% 7. 0 0 0.0% 8. 0 0 0.0% 9. 0 0.0% 10. 0 0.0% 10. 0 0.0% 10. 0 0.0% 10. 0 0.0% 10. 0 0.0% 10. 0 0.0% 10. 0 0.0% 180 = Total Cover 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 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 1 Hydrophytic Vegetation 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 1 Indicators of hydric soil and wetland hydrology must be present? 1 Indicators of hydric soil and wetland hydrology must be present? 1 Indicators of hydric soil and wetland hydrology must be present? 1 Indicators of hydric soil and wetland hydrology must be present? 1 Indicators of hydric soil and wetland hydrology must be present? 1 Indicators of hydric soil and wetland hydrology must be present? 2 Indicators of hydric soil and wetland hydrology must be present?					Prevalence	Index = B/A =	3.444
5.			\neg		Hydrophytic Veg	etation Indicators	
6.			$\overline{}$	FACW	1 - Rapid Tes	st for Hydrophytic	/egetation
7.			\neg		2 - Dominano	ce Test is > 50%	
8.					3 - Prevalenc	ce Index is \leq 3.0 ¹	
9.					4 - Morpholo	gical Adaptations	(Provide supporting
10.						-	•
180 = Total Cover 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 1					Problematic	Hydrophytic Veget	ation ¹ (Explain)
Noody Vine Stratum (Plot size:) 1.							
2. O O.0% Hydrophytic Vegetation Present? Yes No • No •				•	be present, unle	ess disturbed or pro	blematic.
Remarks: (Include photo numbers here or on a separate sheet.)	B-		0.0%		Uhadasa ta ata		
	2		0.0%				
		0	= Total Cove	r		Yes ∪ No •	
An upland plant community was observed.	, ,	separate sheet.)					
	An upland plant community was observed.						

SOIL Sampling Point: SP-25 (up)

Profile Descrip	otion: (Describe to	the depth n	eeded to document	the indic	ator or co	nfirm the	absence of indicators.)	
Depth _	Matrix		Red	ox Featu			_	
(inches)	Color (moist)	%	Color (moist)	%	Tvpe 1	Loc ²	<u>Texture</u>	Remarks
0-7	10YR 3/2						Silty Clay Loam	
7-21	10YR 4/1	90	10YR 5/6	10	C	M	Silty Clay	
				-		-		
				-				
-				-				
¹ Type: C=Conce	entration, D=Depletion	n, RM=Reduc	ed Matrix, CS=Covere	d or Coate	ed Sand Gra	ins.	Leocation: PL=Pore Lining. M=Matrix.	
Hydric Soil In	dicators:						Indicators for Problematic Hy	dric Soils ³ :
Histosol (A:	•		Sandy Gleyed	-	ł)		Coast Prairie Redox (A16)	
Histic Epipe	. ,		Sandy Redox (. ,			Dark Surface (S7)	
Black Histic Hydrogen S	` '		Stripped Matri:	. ,			☐ Iron Manganese Masses (F12)	
Stratified La			Loamy Mucky	•	•		☐ Very Shallow Dark Surface (TF	
2 cm Muck	, , ,		Loamy Gleyed		2)		Other (Explain in Remarks)	,
	elow Dark Surface (A1	11)	✓ Depleted Matri	. ,			Guier (Explain in recinario)	
	Surface (A12)	/	Redox Dark Su	•	•		2	
	k Mineral (S1)		Depleted Dark	•	•		Indicators of hydrophytic veget wetland hydrology must be	ation and
5 cm Mucky	y Peat or Peat (S3)		☐ Redox Depres	SIONS (F8)			unless disturbed or problem	
Restrictive Lay	yer (if observed):							
Type:								
Depth (inche	es):						Hydric Soil Present? Yes	No O
Remarks:								
The criteria for	hydric soils was m	et by F3 De	epleted Matrix.					
	,	.00 57 . 0 50	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
HYDROLO	GY							
Wetland Hydro	ology Indicators:							
_	ors (minimum of one	is required; cl	neck all that apply)				Secondary Indicators (minin	num of two required)
Surface Wa	•		Water-Staine	ed Leaves	(B9)		Surface Soil Cracks (B6)	<u> </u>
High Water			Aquatic Faur	na (B13)	` ,		Drainage Patterns (B10)	
Saturation			True Aquatio		14)		Dry Season Water Table	e (C2)
☐ Water Mark	s (B1)		Hydrogen Su	ılfide Odo	r (C1)		Crayfish Burrows (C8)	
Sediment D	eposits (B2)		Oxidized Rhi	zospheres	on Living F	Roots (C3)	Saturation Visible on Ae	rial Imagery (C9)
☐ Drift Depos	its (B3)		Presence of	Reduced 1	Iron (C4)		Stunted or Stressed Plan	nts (D1)
Algal Mat o	r Crust (B4)		Recent Iron	Reduction	in Tilled So	oils (C6)	Geomorphic Position (D	2)
Iron Depos	its (B5)		☐ Thin Muck S	urface (C7	7)		FAC-Neutral Test (D5)	
	Visible on Aerial Imag		Gauge or We	ell Data (D	9)			
Sparsely Ve	egetated Concave Surf	face (B8)	Other (Expla	in in Rem	arks)			
,						•		
Field Observa	.,	O No @	0 5 11 (1)					
Surface Water P				nes):		_		
Water Table Pre		O No @	Depth (incl	hes):		_ ,,,	land Hydrology Present? Yes	○ No ●
Saturation Prese (includes capilla		O No €	Depth (incl	hes):		wet	land Hydrology Present? Yes	
	ry milige)		nitoring well, aerial	photos, i	orevious ir	spections	s), if available:	
		J. 2. 3. 3,01				- F = 200110	-//	
Remarks:								
	of wetland hydrolo	nv were obs	served					
140 maicators	o. Wedana nyarolo	9, 11010 003						
I								

Project/Site: IH 94 Milwaukee County		City	y/County:	Oak Creek/M	1ilwaukee	Sampling Date:	11-Nov-16
Applicant/Owner: WisDOT				State:	San	mpling Point: S	SP-26 (W-4)
Investigator(s): Mike Al-wathiqui, Geof Par	rish	S	ection, Tow	nship, Range:	s 30 T 5N	N R 22E	
Landform (hillslope, terrace, etc.): Toeslop	pe			Local relief (c	oncave, convex, none):	: concave	
Slope: 2.0% / 1.1 ° Lat.: 4			Long.:	-87.937202	5	Datum: W	/GS84
Soil Map Unit Name: Morley silt loam,		eroded	_ `-	0 ,		fication: None	
Are climatic/hydrologic conditions on the sit		(○ No ●	(If no, ex	plain in Remarks.)	THE	
	or Hydrology	significantly dist	urbed?	, ,	· ormal Circumstances" pr	resent? Yes	● No ○
		naturally probler			ded, explain any answer		
SUMMARY OF FINDINGS - Att	, 3,					•	es, etc.
Hydrophytic Vegetation Present?	Yes No				-	-	-
Hydric Soil Present?	Yes No			ne Sampled A nin a Wetland)	
Wetland Hydrology Present?	Yes ● No ○				. 163 ~ 110 ~		
Remarks: Hydrological conditions were wetter The data point was located in a wetl VEGETATION - Use scient	land.		munity, hy		1 multiple indicators	of wetland hydrolog	y were present.
	- Inchames 5. p.s.	Absolute	Species?	·	Dominance Test we	orksheet:	
Tree Stratum(Plot size:)	% Cover	Cover	. Indicator Status	Number of Dominant		
1			0.0%		That are OBL, FACW,		(A)
2		0_ [0.0%		Total Number of Dom	ninant	
3		0 [0.0%		Species Across All Str		(B)
4		0	0.0%		Dawa at domina	! Consider	
5		0 _	0.0%		Percent of domina That Are OBL, FAC		00.0% (A/B)
_Sapling/Shrub Stratum (Plot size:	١	0	= Total Cov	/er			
		o [0.0%		Prevalence Index w		L.,,
2.		[0.0%		Total % Cove OBL species	rer of: Multiply 80 x 1 =	80
3.		[0.0%		FACW species	0 x 2 =	0
4.		[0.0%		FAC species	20 x 3 =	60
5.		$ \frac{0}{0}$	0.0%		FACU species	10 x 4 =	40
/Plot size, 5' radius			= Total Cov	_	UPL species	0 x 5 =	0
Herb Stratum (Plot size: 5' radius	,				·		
1 Typha angustifolia			72.7%		Column Totals:		180 (B)
Poa pratensis Solidago canadensis			18.2%	FAC FACU	Prevalence Inc	dex = B/A =	1.636_
4.		$ \frac{10}{0}$ [9.1%	_ FACU	Hydrophytic Vegeta	ation Indicators:	
5.		0 [0.0%		✓ 1 - Rapid Test f	or Hydrophytic Vege	tation
6.			0.0%		✓ 2 - Dominance	Test is > 50%	
7.		[0.0%		✓ 3 - Prevalence I	lndex is ≤3.0 1	
8.		$ \frac{0}{0}$	0.0%			cal Adaptations ¹ (Pr	
9.		0	0.0%			s or on a separate sh	•
10.		0 [0.0%		_	drophytic Vegetation	• • •
··· No Company (Plot size)	1	110	= Total Cov	ver		dric soil and wetland disturbed or probler	
Woody Vine Stratum (Plot size:)			ļ	De present, amess	distuibed of proble	Ilduc.
1 2.		0 [0.0%		Hydrophytic		
		0			Vogetation	es • No O	
			= 10tal Cov	/er	Present		
Remarks: (Include photo numbers he A wetland plant community was door	•	•	ance Test	and the Prev	alence Index.	_	_

SOIL Sampling Point: SP-26 (W-4)

	Matrix		Rec	lox Featu	ires		_			
	(moist)	%	Color (moist)	%	Tvpe 1	Loc2	Texture		R	emarks
0-6 10YR	3/2	100					Silty Clay Loam			
6-13 10YR	5/1	70	10YR 5/6	30	С	М	Silty Clay Loam			
				-						
							-			
						-				
Type: C=Concentration,	D=Depletion	RM=Reduce	ed Matrix, CS=Covere	d or Coate	ed Sand Grai	ns.	2ocation: PL=Pore L	inina. M:	=Matrix.	
lydric Soil Indicators		,	,				Indicators for			Soils 3.
Histosol (A1)			Sandy Gleyed	Matrix (S4	1)				-	Solis ":
Histic Epipedon (A2)			Sandy Redox		•		Coast Prairie	•	A16)	
Black Histic (A3)			Stripped Matri	x (S6)			☐ Dark Surface			
Hydrogen Sulfide (A	-		Loamy Mucky	Mineral (F	-1)		☐ Iron Mangan		` ,	
Stratified Layers (A5)		Loamy Gleyed				☐ Very Shallow		` '	
2 cm Muck (A10)			✓ Depleted Matr	ix (F3)			U Other (Expla	in in Rem	narks)	
Depleted Below Dar	•	1)	Redox Dark S	urface (F6)					
Thick Dark Surface (•		Depleted Dark	Surface (F7)		3 Indicators of h	nvdrophv	tic vegetation	n and
Sandy Muck Mineral	` '		Redox Depres	sions (F8)			wetland hy	drology r	nust be prese	ent,
5 cm Mucky Peat or							unless dis	turbed o	problematio	
estrictive Layer (if o	oserved):									
Туре:							Hydric Soil Prese	ant?	Yes •	No O
Depth (inches):							1174116 55111165		163	110 0
	soils was m	et by A11 D	epleted Below Dar	k Surfac	e and F3 D	epleted I	I Matrix.			
ne criteria for hydric	soils was m	et by A11 D	epleted Below Dar	k Surfac	e and F3 D	epleted (Matrix.			
ne criteria for hydric YDROLOGY		et by A11 D	epleted Below Dar	k Surfac	e and F3 D	epleted i	Matrix.			
YDROLOGY Vetland Hydrology In	dicators:	,		k Surfac	e and F3 D	epleted I		To disaste		
YDROLOGY Vetland Hydrology In	dicators:	,	neck all that apply)			epleted I	Secondary			of two required)
YDROLOGY /etland Hydrology Indicators (mini Surface Water (A1)	dicators: mum of one is	,	neck all that apply) Water-Stain	ed Leaves		epleted I	Secondary	e Soil Cra	icks (B6)	of two required)
YDROLOGY Vetland Hydrology In Primary Indicators (mini Surface Water (A1) High Water Table (A	dicators: mum of one is	,	neck all that apply) Water-Stain	ed Leaves na (B13)	(B9)	epleted I	Secondary Surface	e Soil Cra ge Patter	ncks (B6) ns (B10)	
YDROLOGY Vetland Hydrology In Primary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3)	dicators: mum of one is	,	neck all that apply) Water-Stain Aquatic Fau	ed Leaves na (B13) c Plants (E	(B9)	epleted I	Secondary Surfac Draina Dry Se	e Soil Cra ge Patter ason Wa	ncks (B6) ns (B10) ter Table (C2	
YDROLOGY Vetland Hydrology In Primary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1)	dicators: mum of one is	,	neck all that apply) Water-Stain Aquatic Faul True Aquati	ed Leaves na (B13) c Plants (E ulfide Odo	(B9) 314) r (C1)		Secondary Surface Draina Dry Se	e Soil Cra ge Patter ason Wa sh Burrow	ncks (B6) ns (B10) ter Table (C2 ns (C8))
YDROLOGY Vetland Hydrology In Primary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (dicators: mum of one is	,	neck all that apply) Water-Stain Aquatic Faur True Aquatic Hydrogen St	ed Leaves na (B13) c Plants (E ulfide Odo izospheres	(B9) :14) r (C1) s on Living R		Secondary Surface Draina Dry Se Crayfis Satura	e Soil Cra ge Patter ason Wa sh Burrow tion Visib	ncks (B6) ns (B10) ter Table (C2 ns (C8) le on Aerial I	magery (C9)
YDROLOGY Vetland Hydrology In Primary Indicators (mini Surface Water (A1) ✓ High Water Table (A ✓ Saturation (A3) Water Marks (B1) Sediment Deposits (B3)	dicators: mum of one is 2) B2)	,	neck all that apply) Water-Stain Aquatic Faur True Aquatic Hydrogen Stain Oxidized Rh	ed Leaves na (B13) c Plants (E ulfide Odo izospheres Reduced	(B9) s14) r (C1) s on Living R Iron (C4)	oots (C3)	Secondary Surface Draina Dry Se Crayfis Satura Stunte	e Soil Cra ge Patter ason Wa sh Burrow tion Visib d or Stre	ncks (B6) ns (B10) ter Table (C2 s (C8) le on Aerial I ssed Plants (magery (C9)
NYDROLOGY Vetland Hydrology In Primary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Drift Deposits (B3) Algal Mat or Crust (I	dicators: mum of one is 2) B2)	,	weck all that apply) Water-Stain Aquatic Faur True Aquatic Hydrogen So Oxidized Rh Presence of Recent Iron	ed Leaves na (B13) c Plants (E ulfide Odo izospheres Reduced Reductior	(B9) s14) r (C1) s on Living R Iron (C4) n in Tilled So	oots (C3)	Secondary Surfac Draina Dry Se Crayfis Satura Stunte	e Soil Cra ge Patter eason Wa sh Burrow tion Visib d or Stre orphic Po	ncks (B6) ns (B10) ter Table (C2 vs (C8) le on Aerial I ssed Plants (sition (D2)	magery (C9)
YDROLOGY Vetland Hydrology In Primary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (II Iron Deposits (B5)	dicators: mum of one is 2) B2)	s required; ch	water-Stain Aquatic Faul True Aquatic Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck S	ed Leaves na (B13) c Plants (E ulfide Odo izospheres Reduced Reductior rurface (Ci	(B9) r (C1) s on Living R Iron (C4) n in Tilled So	oots (C3)	Secondary Surfac Draina Dry Se Crayfis Satura Stunte	e Soil Cra ge Patter ason Wa sh Burrow tion Visib d or Stre	ncks (B6) ns (B10) ter Table (C2 vs (C8) le on Aerial I ssed Plants (sition (D2)	magery (C9)
YDROLOGY Vetland Hydrology In Primary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (I Iron Deposits (B5) Inundation Visible o	dicators: mum of one is 2) B2) B34) n Aerial Imag	s required; ch	meck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck S	ed Leaves na (B13) : Plants (E ulfide Odo izospheres Reduced Reductior urface (Ci	(B9) si14) r (C1) s on Living R Iron (C4) n in Tilled So 7)	oots (C3)	Secondary Surfac Draina Dry Se Crayfis Satura Stunte	e Soil Cra ge Patter eason Wa sh Burrow tion Visib d or Stre orphic Po	ncks (B6) ns (B10) ter Table (C2 vs (C8) le on Aerial I ssed Plants (sition (D2)	magery (C9)
YDROLOGY Vetland Hydrology In Primary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (II Iron Deposits (B5)	dicators: mum of one is 2) B2) B34) n Aerial Imag	s required; ch	water-Stain Aquatic Faul True Aquatic Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck S	ed Leaves na (B13) : Plants (E ulfide Odo izospheres Reduced Reductior urface (Ci	(B9) si14) r (C1) s on Living R Iron (C4) n in Tilled So 7)	oots (C3)	Secondary Surfac Draina Dry Se Crayfis Satura Stunte	e Soil Cra ge Patter eason Wa sh Burrow tion Visib d or Stre orphic Po	ncks (B6) ns (B10) ter Table (C2 vs (C8) le on Aerial I ssed Plants (sition (D2)	magery (C9)
Wetland Hydrology In Primary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (I Iron Deposits (B5) Inundation Visible o Sparsely Vegetated	dicators: mum of one is 2) B2) B34) n Aerial Imag	s required; ch	meck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck S	ed Leaves na (B13) : Plants (E ulfide Odo izospheres Reduced Reductior urface (Ci	(B9) si14) r (C1) s on Living R Iron (C4) n in Tilled So 7)	oots (C3)	Secondary Surfac Draina Dry Se Crayfis Satura Stunte	e Soil Cra ge Patter eason Wa sh Burrow tion Visib d or Stre orphic Po	ncks (B6) ns (B10) ter Table (C2 vs (C8) le on Aerial I ssed Plants (sition (D2)	magery (C9)
YDROLOGY Vetland Hydrology In Primary Indicators (mini Surface Water (A1) ✓ High Water Table (A ✓ Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (I Iron Deposits (B5) Inundation Visible o Sparsely Vegetated	dicators: mum of one is 2) B2) B2) an Aerial Imag Concave Surfa	s required; ch ery (B7) ace (B8)	water-Staine Aquatic Faur True Aquatic Hydrogen Staine Oxidized Rh Presence of Recent Iron Thin Muck Staine Gauge or W Other (Explain	ed Leaves na (B13) : Plants (E ulfide Odo izospheres Reduced Reductior urface (C: ell Data (I sin in Rem	(B9) si14) r (C1) s on Living R Iron (C4) n in Tilled So 7)	oots (C3)	Secondary Surfac Draina Dry Se Crayfis Satura Stunte	e Soil Cra ge Patter eason Wa sh Burrow tion Visib d or Stre orphic Po	ncks (B6) ns (B10) ter Table (C2 vs (C8) le on Aerial I ssed Plants (sition (D2)	magery (C9)
Wetland Hydrology In Primary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (I Iron Deposits (B5) Inundation Visible o Sparsely Vegetated Field Observations: Surface Water Present?	dicators: mum of one is 2) B2) B4) n Aerial Imag Concave Surfa	ery (B7) ace (B8)	meck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	ed Leaves na (B13) c Plants (E ulfide Odo izospheres Reduced Reductior urface (C ell Data (E nin in Rem	(B9) si14) r (C1) s on Living R Iron (C4) n in Tilled So (7) (29) arks)	oots (C3)	Secondary Surfac Draina Dry Se Crayfis Satura Stunte	e Soil Cra ge Patter eason Wa sh Burrow tion Visib d or Stre orphic Po	ncks (B6) ns (B10) ter Table (C2 vs (C8) le on Aerial I ssed Plants (sition (D2)	magery (C9)
Wetland Hydrology In Primary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (I Iron Deposits (B5) Inundation Visible o Sparsely Vegetated Field Observations: Surface Water Present? Water Table Present?	dicators: mum of one is 2) B2) B4) n Aerial Imag Concave Surfa Yes Yes	ery (B7) ace (B8) No No	meck all that apply) Water-Stain Aquatic Faul True Aquatic Hydrogen So Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	ed Leaves na (B13) c Plants (E ulfide Odo izospheres Reduced Reductior urface (C ell Data (E nin in Rem	(B9) si14) r (C1) s on Living R Iron (C4) n in Tilled So 7)	oots (C3)	Secondary Surface Draina Dry Se Crayfis Satura Stunte FAC-No	e Soil Cra ge Patter ason Wa sh Burrow tion Visib d or Stre porphic Po eutral Te	icks (B6) ins (B10) ter Table (C2 is (C8) ile on Aerial I ssed Plants (sition (D2) st (D5)	(C9) D1)
High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (I Iron Deposits (B5) Inundation Visible o Sparsely Vegetated Field Observations: Surface Water Present? Water Table Present? Saturation Present?	dicators: mum of one is 2) B2) B4) n Aerial Imag Concave Surfa	ery (B7) ace (B8) No No	meck all that apply) Water-Stain Aquatic Faul True Aquatic Hydrogen So Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	ed Leaves na (B13) c Plants (E ulfide Odo izospheres Reduced Reductior urface (C ell Data (I sin in Rem hes): hes):	(B9) si14) r (C1) s on Living R Iron (C4) n in Tilled So (7) (29) arks)	oots (C3)	Secondary Surfac Draina Dry Se Crayfis Satura Stunte	e Soil Cra ge Patter ason Wa sh Burrow tion Visib d or Stre porphic Po eutral Te	ncks (B6) ns (B10) ter Table (C2 vs (C8) le on Aerial I ssed Plants (sition (D2)	magery (C9)
IYDROLOGY Vetland Hydrology In Primary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (I Iron Deposits (B5) Inundation Visible o Sparsely Vegetated Field Observations: Surface Water Present? Water Table Present? Saturation Present? includes capillary fringe	dicators: mum of one is 2) B2) B4) n Aerial Imag Concave Surfa Yes Yes Yes	ery (B7) ace (B8) No No No	meck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	ed Leaves na (B13) c Plants (E ulfide Odo izospheres Reduced Reductior urface (C ell Data (E nin in Rem hes): hes):	(B9) s14) r (C1) s on Living R Iron (C4) n in Tilled So 7) D9) arks)	oots (C3)	Secondary Surface Draina Dry Se Crayfis Satura Stunte FAC-No	e Soil Cra ge Patter ason Wa sh Burrow tion Visib d or Stre porphic Po eutral Te	icks (B6) ins (B10) ter Table (C2 is (C8) ile on Aerial I ssed Plants (sition (D2) st (D5)	magery (C9)
YDROLOGY Vetland Hydrology In Primary Indicators (mini Surface Water (A1) ✓ High Water Table (A ✓ Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (I Iron Deposits (B5) Inundation Visible o Sparsely Vegetated Field Observations: Furface Water Present? Field Upperson (A3)	dicators: mum of one is 2) B2) B4) n Aerial Imag Concave Surfa Yes Yes Yes	ery (B7) ace (B8) No No No No	meck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	ed Leaves na (B13) c Plants (E ulfide Odo izospheres Reduced Reductior urface (C ell Data (E nin in Rem hes): hes):	(B9) s14) r (C1) s on Living R Iron (C4) n in Tilled So 7) D9) arks)	oots (C3)	Secondary Surface Draina Dry Se Crayfis Satura Stunte FAC-No	e Soil Cra ge Patter ason Wa sh Burrow tion Visib d or Stre porphic Po eutral Te	icks (B6) ins (B10) ter Table (C2 is (C8) ile on Aerial I ssed Plants (sition (D2) st (D5)	magery (C9)

Project/Site: IH 94 Milwaukee County	City/County:	Oak Creek/I	Milwaukee Sampling Date:11-Nov-16
Applicant/Owner: WisDOT		State:	WI Sampling Point: SP-27 (up)
Investigator(s): Mike Al-wathiqui, Geof Parish	Section, T	ownship, Range:	S 31 T 5N R 22E
Landform (hillslope, terrace, etc.): Footslope		Local relief (d	concave, convex, none): convex
Slope: 2.0% / 1.1 ° Lat.: 42.8577995	Long	− .: -87.937103	Datum: WGS84
		07.557105	WWI classification: None
Soil Map Unit Name: Blount silt loam, 1 to 3 percent slopes Are climatic/hydrologic conditions on the site typical for this time of your state of your stat	ear? Yes O No	(If no. ex	xplain in Remarks.)
	gnificantly disturbed?	(-, -	
	- ,		or control process.
Are Vegetation, Soil, or Hydrology n SUMMARY OF FINDINGS - Attach site map show	aturally problematic? ving sampling p	•	ded, explain any answers in Remarks.) ns, transects, important features, etc.
Hydrophytic Vegetation Present? Yes ○ No ●			
Hydric Soil Present? Yes No		the Sampled A	Area
Wetland Hydrology Present? Yes ○ No ●	W	ithin a Wetland	d? Yes ○ No •
Remarks:			
Hydrological conditions were wetter than normal. An uplar soil was present probably due to the proximity to the boun VEGETATION - Use scientific names of plan	dary. The data poin	t was located i	· · · · · · · · · · · · · · · · · · ·
<u>Tree Stratum</u> (Plot size:	Absolute Rel.Str	at. Indicator	Dominance Test worksheet:
	<u>% Cover Cove</u> 0 □ 0.0	•	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
2.	0 0.0		That are ODL, FACW, OF FAC.
3.			Total Number of Dominant Species Across All Strata: 2 (B)
4.	0 0.00	%	Species Across All Strata
5.	0 0.0	%	Percent of dominant Species That Are OBL, FACW, or FAC:50.0% (A/B)
	0 = Total 0	Cover	That Are OBL, FACW, or FAC: 50.0% (A/B)
)			Prevalence Index worksheet:
1	0		Total % Cover of: Multiply by:
2	0 0.09		OBL species 0 x 1 = 0
3. 4.	0 0.09		FACW species $0 \times 2 = 0$
5.	0		FAC species $\underline{60}$ $\times 3 = \underline{180}$
	$\begin{array}{ccc} 0 & & & & 0.09 \\ 0 & & & & & & & & & & & & & & & & & & &$		FACU species 105 x 4 = 420
Herb Stratum (Plot size: 5' radius)		COVCI	UPL species <u>10</u> x 5 = <u>50</u>
1_Festuca arundinacea	80 45.7		Column Totals: <u>175</u> (A) <u>650</u> (B)
2. Poa pratensis	60 💆 34.3		Prevalence Index = B/A = <u>3.714</u>
3. Lotus corniculatus	2011.4		Hydrophytic Vegetation Indicators:
4. Daucus carota 5. Sonchus arvensis			1 - Rapid Test for Hydrophytic Vegetation
6.	$ \begin{array}{c cccc} & 5 & $		2 - Dominance Test is > 50%
7.	0 0.0		3 - Prevalence Index is ≤3.0 ¹
8.	0 0.0		4 - Morphological Adaptations 1 (Provide supporting
9.	0 0.00	<u> </u>	data in Remarks or on a separate sheet)
10.	0.0	%	Problematic Hydrophytic Vegetation ¹ (Explain)
	175 = Total (Cover	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1	0 0.0	0/4	To product, among another or production
2.	0 0.0		Hydrophytic
<u></u>	0 = Total (Vegetation Present? Yes ○ No ●
		JU V CI	
Remarks: (Include photo numbers here or on a separate sl An upland plant community was observed.	neet.)		

SOIL Sampling Point: SP-27 (up)

Profile Descript	ion: (Describe to t	he depth ne	eded to document	the indic	cator or co	nfirm the	absence of indicators.)	
Depth	Matrix		Red	ox Featu			_	
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Tvpe 1	Loc ²	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=Concen	tration, D=Depletion	, RM=Reduce	ed Matrix, CS=Covere	d or Coate	ed Sand Gra	ins.	2ºocation: PL=Pore Lining. M=Ma	rix.
Hydric Soil Indi	icators:						Indicators for Problematic	: Hydric Soils ³ :
Histosol (A1)			Sandy Gleyed	-	1)		Coast Prairie Redox (A16)	
Histic Epiped	` '		Sandy Redox (Dark Surface (S7)	
Black Histic (A	•		Stripped Matri:	. ,			☐ Iron Manganese Masses (F12)
Stratified Lay			Loamy Mucky	•	•		Very Shallow Dark Surface	· ·
2 cm Muck (A	` '		Loamy Gleyed		2)		Other (Explain in Remarks	
`	ow Dark Surface (A1	1)	✓ Depleted Matri	. ,			Outer (Explain in Nemark	"
☐ Thick Dark Su	•	-,	Redox Dark Su	•	•		2	
Sandy Muck I	Mineral (S1)		☐ Depleted Dark	•	•		Indicators of hydrophytic v wetland hydrology must	egetation and
5 cm Mucky I	Peat or Peat (S3)		Redox Depres	SIONS (F8)			unless disturbed or pro	
Restrictive Laye	er (if observed):							
Type:								
Depth (inches):						Hydric Soil Present? Ye	s • No O
Remarks:							<u>I</u>	
The criteria for h	nydric soils was me	et by A11 C	epleted Below Dar	k Surface	and F3 C	enleted I	Matrix	
The checha for t	Tydric 30113 Wd3 Til	ct by MII b	repleted Below Bul	K Surruck	c ana i s c	repieted i	Tutini	
HYDROLOG	Υ							
Wetland Hydrol	ogy Indicators:							
I -	s (minimum of one is	s required: ch	neck all that apply)				Secondary Indicators (r	ninimum of two required)
Surface Water	-		Water-Staine	ed Leaves	(B9)		Surface Soil Cracks	
High Water T			Aquatic Faur		(55)		Drainage Patterns (` '
Saturation (A			☐ True Aquatio		314)		Dry Season Water 1	•
☐ Water Marks	•		Hydrogen Su	•	•		Crayfish Burrows (C	,
Sediment De	posits (B2)		Oxidized Rhi			Roots (C3)		n Aerial Imagery (C9)
☐ Drift Deposits	s (B3)		Presence of	Reduced 1	Iron (C4)		Stunted or Stressed	Plants (D1)
Algal Mat or 0	Crust (B4)		Recent Iron	Reduction	in Tilled Sc	oils (C6)	Geomorphic Positio	n (D2)
☐ Iron Deposits	s (B5)		☐ Thin Muck S	urface (C7	7)		FAC-Neutral Test (E	95)
☐ Inundation V	isible on Aerial Image	ery (B7)	☐ Gauge or We	ell Data (D	9)			
Sparsely Veg	etated Concave Surfa	ace (B8)	Other (Expla	in in Rem	arks)			
Field Observation								
Surface Water Pre	esent? Yes (○ No	Depth (inc	hes):		_		
Water Table Prese	ent? Yes (O No 🖲	Depth (incl	hes):		_		O O
Saturation Presen		○ No ⊙	Depth (inc	hes).		Wet	land Hydrology Present? Y	es O No 🖲
(includes capillary	milige)		' '				-) '6 '1-1-1-	
Describe Record	ieu Data (stream (yauge, mor	itoring well, aerial	priotos,	previous ir	spections	s), ii avallable:	
Danie I								
Remarks:		_						
No indicators of	f wetland hydrolog	y were obs	erved.					

Project/Site: IH 94 Milwaukee County	City/County: Oak C	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, R	
Landform (hillslope, terrace, etc.): Toeslope		elief (concave, convex, none): concave
Slope: 2.0% / 1.1 ° Lat.: 42.8577995	Long.: -87.93	
		WWI classification: None
Soil Map Unit Name: <u>Blount silt loam, 1 to 3 percent slope</u> Are climatic/hydrologic conditions on the site typical for this time of		no, explain in Remarks.)
Are Vegetation	or year.	
	, ,	
Are Vegetation		If needed, explain any answers in Remarks.) cations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No O	<u> </u>	· · · · · · · · · · · · · · · · · · ·
Hydric Soil Present? Yes No	Is the Samp	
Wetland Hydrology Present? Yes No	within a We	etland? Yes No
Remarks:		
		ils and multiple indicators of wetland hydrology were present.
To a Completion (Diot cizo:	Absolute Rel.Strat. Indic	
<u>Tree Stratum</u> (Plot size:) 1.	<u>% Cover Cover State</u> 0 □ 0.0%	Number of Dominant Species
2.	0 0.0%	That are OBL, FACW, or FAC:1(A)
3.	0 0.0%	Total Number of Dominant
4.	0 0.0%	Species Across All Strata: (B)
5.	0 0.0%	Percent of dominant Species
	0 = Total Cover	That Are OBL, FACW, or FAC: 100.0% (A/B)
_Sapling/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
1	0	Total % Cover of: Multiply by:
2	0	OBL species <u>3</u> x 1 = <u>3</u>
3	0	FACW species 103 x 2 = 206
4.	0	FAC species <u>1</u> x 3 = <u>3</u>
5	0	FACU species 0 x 4 = 0
Herb Stratum (Plot size:	0 = Total Cover	UPL species $0 \times 5 = 0$
1 Phalaris arundinacea	100 ✓ 93.5% FAC\	W Column Totals: 107 (A) 212 (B)
2. Typha angustifolia	3 2.8% OBL	
3. Solidago sempervirens	3 00/ 540	W Prevalence index = B/A = 1.961
4. Rumex crispus	1 0.9% FAC	Hydrophytic Vegetation Indicators:
5.	0 0.0%	1 - Rapid Test for Hydrophytic Vegetation
6.	0 0.0%	2 - Dominance Test is > 50%
7.	0 0.0%	3 - Prevalence Index is ≤3.0 ¹
8.	0 0.0%	4 - Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)
9.	0 0.0%	Problematic Hydrophytic Vegetation ¹ (Explain)
10.	0 0.0%	
	107 = Total Cover	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	0	be present amos distance of presentation
12.		Hydrophytic
۷-	0 0.0%	─ Vegetation
	0 = Total Cover	Present? Yes W NO
Remarks: (Include photo numbers here or on a separate	e sheet.)	
A wetland plant community was documented by the Raj	,	e Prevalence Index
A Wetiana plant community was accumented by the rap	Ju Test, Dominance Test and an	5 Flevalence index.

SOIL Sampling Point: SP-28 (W11-14)

Profile Descrip	tion: (Desc	ribe to the	depth need	led to c	locument	the indic	ator or co	nfirm the	absence of i	indicators.)		
Depth _		latrix				ox Featu			_			
(inches)	Color (m			Color (%	Type 1	Loc ²		cture	R	emarks
<u>0-11</u> _	10YR		80 1	10YR	4/6	20	C	M	Silty Clay			
11-14	10YR	2/1	90 1	10YR	4/6	10	C	M	Silty Clay			
	-	-	-									
					-	-						
						-						
¹ Type: C=Conce	ntration, D=I	Depletion, RM	1=Reduced	Matrix, (CS=Covere	d or Coate	d Sand Gra	ains.	L²ocation: PL	L=Pore Lining.	M=Matrix.	
Hydric Soil Inc	dicators:								Indicat	ors for Proble	ematic Hydric	Soils ³ :
Histosol (A1				San	idy Gleyed	Matrix (S4	-)		Coas	st Prairie Redox	(A16)	
Histic Epipe					idy Redox (Surface (S7)	. ()	
Black Histic Hydrogen S	. ,				pped Matrix	. ,			_	Manganese M	asses (F12)	
Stratified La					my Mucky	-	•		Uery	/ Shallow Dark	Surface (TF12)	
2 cm Muck (, , ,			_	my Gleyed	-	2)			er (Explain in R		
	elow Dark Sui	face (A11)		= '	oleted Matri	` ,				er (Explain in re	cinario	
	Surface (A12)	, ,		_	dox Dark Su				2			
Sandy Muck	Mineral (S1)				oleted Dark	,	F/)				hytic vegetation y must be prese	
5 cm Mucky	Peat or Peat	: (S3)		∟ кес	dox Depress	sions (F8)					or problematic	
Restrictive Lay	er (if obser	ved):										
Type:	•											
Depth (inche	es):								Hydric So	oil Present?	Yes 💿	No O
Remarks:									1			
The criteria for	nyanc soils	s was met t	у го кеас	X Dark	Surface.							
HYDROLOG	GY											
Wetland Hydro	ology Indica	tors:										
Primary Indicato			quired; chec	k all tha	t apply)				Se	econdary Indica	ntors (minimum	of two required)
Surface Wat					/ater-Staine	ed Leaves	(B9)			Surface Soil	`	<u> </u>
High Water	` ,				quatic Faur		(-)			Drainage Pat	` ,	
Saturation (rue Aquatio		14)			Dry Season V	Vater Table (C2)
Water Marks	s (B1)				ydrogen Su					Crayfish Burr		
Sediment De	eposits (B2)			□ o	xidized Rhi	zospheres	on Living I	Roots (C3)		Saturation Vi	sible on Aerial I	magery (C9)
Drift Deposi	its (B3)			P	resence of	Reduced I	ron (C4)			Stunted or St	tressed Plants (01)
Algal Mat or	r Crust (B4)			□ R	ecent Iron	Reduction	in Tilled So	oils (C6)	✓	Geomorphic	Position (D2)	
Iron Deposit	ts (B5)			□ T	hin Muck S	urface (C7	')		✓	FAC-Neutral	Test (D5)	
Inundation \	Visible on Ae	rial Imagery	(B7)	□ G	auge or We	ell Data (D	9)					
Sparsely Ve	getated Cond	ave Surface	(B8)	□ o	ther (Expla	in in Rema	arks)					
								-				
Field Observat		V ()	N- (a)									
Surface Water Pr	resent?	Yes O	No •		Depth (incl	nes):		- [
Water Table Pres	sent?	Yes 🔾	No 💿		Depth (incl	nes):		_		n :-	Yes •	No O
Saturation Prese		Yes	No \bigcirc		Depth (incl	nes):	14	Wet	land Hydrolo	ogy Present?	res 🙂	NO U
(includes capillar Describe Recor							previous in	nspections	s), if availahl	le:		
2227.20 110001	2000 (yuu	J-,Jiiile		, acriai			2000110	- ,, a.a.iabi			
Remarks:												
	of wetland	hydrology	were doc	ımente	d with tw	n second	ary indica	tors which	h were D2 (Geomorphic E	Position and D	5 FAC-neutral Test.
THE CONTRIBUTIONS	, or wedard	.,, ar ology	4000	an icitic	***********************************	Jecond	ary muica	coro, write	WOIC DZ (ocomorpine i	Coldon and D	5 The fleatian rest.

Project/Site: IH 94 Milwaukee County		Cit	y/County:	Oak Creek/N	Milwaukee	Sampling Date	e: 11-Nov-16
Applicant/Owner: WisDOT				State:	WI	Sampling Point:	SP-29 (up)
Investigator(s): Mike Al-wathiqui, Geof Paris	ih	9	Section, Town	ship, Range:	S 31 T	5N R 22E	
Landform (hillslope, terrace, etc.): Hillside			L	_ocal relief (c	concave, convex, nor	ne): convex	
Slope: 20.0% / 11.3 ° Lat.: 42	2.854599			-87.939102			WGS84
Soil Map Unit Name: Hebron loam, 0 to					WWI cla	assification: None	
Are climatic/hydrologic conditions on the site		ear? Yes	○ No ⊙	(If no, ex	rplain in Remarks.)		
		ignificantly dis	turbed?	Are "No	ormal Circumstances	" present? Ye	s • No O
Are Vegetation , Soil , , o	r Hydrology 🔲 n	aturally proble	matic?	(If nee	ded, explain any ans	swers in Remarks.)	
SUMMARY OF FINDINGS - Atta	ch site map show	wing samp	oling poin	t locatio	ns, transects,	important featu	res, etc.
Hydrophytic Vegetation Present?	′es ○ No •						
Hydric Soil Present? Y	′es O No 💿			Sampled A		•	
Wetland Hydrology Present?	′es 🔾 No 💿				ies © inc		
Remarks:	aan narmal . An unlar	ad plant com	umunitu and	unland soil	la wara dagumant	and Thora ware no i	ndicators of watland
Hydrological conditions were wetter the hydrology present. The sample point			imunity and	upianu soii	is were document	ea. There were no i	ndicators of wedand
VECETATION	fic manage of mlan						
VEGETATION - Use scienti	nc names or piar	115.	Dominant - Species? -		<u> </u>		
<u>Tree Stratum</u> (Plot size:)	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test		
1		0	0.0%		Number of Domin That are OBL, FAG		1 (A)
2.		0	0.0%				()
3.		0	0.0%		Total Number of I Species Across All		2 (B)
4.		0	0.0%		Species 7 to 655 7 to	· Sudda	
5		0	0.0%		Percent of dom		50.0% (A/B)
		0	= Total Cove	er	That Are OBL, F	FACW, OF FAC:	30.070 (145)
Sapling/Shrub Stratum (Plot size:)				Prevalence Inde	ex worksheet:	
1			0.0%		Total % C	Cover of: Multip	ly by:
2			0.0%		OBL species	0 x 1 =	
3			0.0%		FACW species		
4. 5.			0.0%		FAC species		
J			0.0%		FACU species	<u>25</u> x 4 =	
Herb Stratum (Plot size: 5' radius	_)	0	= Total Cove	er	UPL species	x 5 =	
1. Poa pratensis		_70_	✓ 73.7%	FAC	Column Totals	:: <u>95</u> (A)	310 (B)
		20	21.1%	FACU	Prevalence	Index = B/A =	3.263
3. Sonchus arvensis		5	5.3%	FACU	Hydrophytic Veg	getation Indicators:	
4			0.0%		l <u> </u>	st for Hydrophytic Ve	getation
5			0.0%		_	ce Test is > 50%	3
6. 7.			0.0%			ce Index is \leq 3.0 ¹	
8.			0.0%			ogical Adaptations 1 (Provide supporting
9.			0.0%			arks or on a separate	
10.			0.0%		☐ Problematic	Hydrophytic Vegetat	ion ¹ (Explain)
			0.0%		$\frac{1}{2}$ Indicators of	hydric soil and wetla	nd hydrology must
Woody Vine Stratum (Plot size:)	95	= Total Cove	er	be present, unle	ess disturbed or prob	lematic.
1		0	0.0%		_		
2		0	0.0%		Hydrophytic Vegetation		
		0	= Total Cove	er	Present?	Yes O No O	
Remarks: (Include photo numbers he	re or on a separate s	neet.)					
An upland plant community was obse	rved.						
1							

SOIL Sampling Point: SP-29 (up)

Profile Description: (Describe to the depth need	ed to document th	e indic	ator or con	firm the	absence of indicators.)	
Depth Matrix		Featu			_	
	olor (moist)	%	Tvpe 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 M	latrix, CS=Covered o	r Coate	d Sand Grai	ns.	Leocation: PL=Pore Lining. M=1	Matrix.
Hydric Soil Indicators:	_				Indicators for Problema	tic Hydric Soils ³ :
Histosol (A1)	Sandy Gleyed Ma	-)		Coast Prairie Redox (A	16)
Histic Epipedon (A2) Black Histic (A3)	Sandy Redox (S5	-			Dark Surface (S7)	,
Hydrogen Sulfide (A4)	Stripped Matrix (•			☐ Iron Manganese Masse	s (F12)
Stratified Layers (A5)	Loamy Mucky Min	•	•		Very Shallow Dark Surf	ace (TF12)
2 cm Muck (A10)	Loamy Gleyed Ma		!)		Other (Explain in Rema	
Depleted Below Dark Surface (A11)	Depleted Matrix (. ,			Other (Explain in Reme	
☐ Thick Dark Surface (A12)	Redox Dark Surfa	٠,			2	
Sandy Muck Mineral (S1)	Depleted Dark Su	•	-/)		Indicators of hydrophytic wetland hydrology m	
5 cm Mucky Peat or Peat (S3)	Redox Depression	ns (F8)			unless disturbed or	
Restrictive Layer (if observed):						
Type:						
Depth (inches):	_				Hydric Soil Present?	Yes O No 💿
Remarks:						
Hydric soils were not observed.						
,						
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of one is required; check	all that apply)				Secondary Indicators	(minimum of two required)
Surface Water (A1)	Water-Stained	Leaves	(B9)		Surface Soil Crac	ks (B6)
High Water Table (A2)	Aquatic Fauna		(- /		☐ Drainage Pattern	
Saturation (A3)	True Aquatic Pl	lants (B	14)		☐ Dry Season Wate	
Water Marks (B1)	Hydrogen Sulfic	de Odor	(C1)		Crayfish Burrows	(C8)
Sediment Deposits (B2)	Oxidized Rhizos	spheres	on Living R	oots (C3)	Saturation Visible	e on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Re	duced I	ron (C4)		Stunted or Stress	sed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Re	duction	in Tilled Soi	ls (C6)	Geomorphic Posi	tion (D2)
☐ Iron Deposits (B5)	☐ Thin Muck Surf	ace (C7)		FAC-Neutral Test	(D5)
☐ Inundation Visible on Aerial Imagery (B7)	☐ Gauge or Well	Data (D	9)			
Sparsely Vegetated Concave Surface (B8)	Other (Explain	in Rema	arks)			
Field Observations:						
Surface Water Present? Yes No	Depth (inches	s):				
Water Table Present? Yes O No •	Depth (inches	s):				
Saturation Present? (includes capillary frings) Yes No No	Depth (inches	s):		Wet	land Hydrology Present?	Yes ○ No •
(includes capillary fringe) Describe Recorded Data (stream gauge, monitor			revious in	nections	s) if available:	
Describe Recorded Data (Sciedili gauge, illollitol	ing well, aellai pil	ισισο, μ	n EVIOUS III	pecuons	o,, ii avaliabic.	
Remarks:						
Remarks: No indicators of wetland hydrology were observed.	ed					

Project/Site: IH 94 Milwaukee County		City/C	County: (Oak Creek/M	Milwaukee Sampling Date: 11-Nov-16
Applicant/Owner: WisDOT				State:	
Investigator(s): Mike Al-wathiqui, Geof Pa	arish	Sec	ction, Towns	mship, Range:	
Landform (hillslope, terrace, etc.): Toeslo			•		concave, convex, none): concave
Slope: 2.0% / 1.1 ° Lat.:	<u>. </u>			87.939102	
Soil Map Unit Name: _Hebron loam, 0				37.935102.	WWI classification: None
Are climatic/hydrologic conditions on the s		rear? Yes	No •	/If no. ex	cplain in Remarks.)
Are Vegetation , Soil		significantly disturl		, ,	ormal Circumstances" present? Yes No No
Are Vegetation , Soil		naturally problema			ded, explain any answers in Remarks.)
,				•	ns, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes No				
Hydric Soil Present?	Yes ● No ○			Sampled A a Wetland	
Wetland Hydrology Present?	Yes ● No ○		VVICIII.	a wenana	Yes • No ·
Remarks:					
Hydrological conditions were wetter. The data point was located in a we VEGETATION - Use scient	etland.	nts. o	Dominant	ic soils and	d multiple indicators of wetland hydrology were present.
		Absolute R	Species? – Rel.Strat.		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)	% Cover	Cover	Status	Number of Dominant Species
1			0.0%		That are OBL, FACW, or FAC:2(A)
2			0.0%		Total Number of Dominant
4.			0.0%		Species Across All Strata: (B)
5.			0.0%		Percent of dominant Species
·			Total Cover		That Are OBL, FACW, or FAC: 100.0% (A/B)
_Sapling/Shrub Stratum (Plot size:)		Tutai Cuvci		Prevalence Index worksheet:
1.		0	0.0%		Total % Cover of: Multiply by:
2.		0 [0.0%		OBL species 80 x 1 = 80
3.		0 [0.0%		FACW species 90 x 2 = 180
4.		0 [0.0%		FAC species 10 x 3 = 30
5.		0 [0.0%		FACU species 0 x 4 = 0
/DL			: Total Cover		UPL species 0 x 5 = 0
Herb Stratum (Plot size: 5' radius)		_		
1. Phalaris arundinacea		90		FACW_	Column Totals: 180 (A) 290 (B)
2. Typha angustifolia		80		OBL	Prevalence Index = B/A = <u>1.611</u>
3. Poa pratensis			5.6%	FAC	Hydrophytic Vegetation Indicators:
4 5.			0.0%		1 - Rapid Test for Hydrophytic Vegetation
6.		0 _	0.0%		✓ 2 - Dominance Test is > 50%
7.			0.0%		✓ 3 - Prevalence Index is ≤3.0 ¹
8.		0 _	0.0%		4 - Morphological Adaptations ¹ (Provide supporting
9.			0.0%		data in Remarks or on a separate sheet)
10.			0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
			0.0%		$\frac{1}{2}$ Indicators of hydric soil and wetland hydrology must
)	=	: Total Cover		be present, unless disturbed or problematic.
1		_ 0	0.0%		
2			0.0%		Hydrophytic Vegetation
		=	Total Cover		Present? Yes No
Remarks: (Include photo numbers A wetland plant community was do	•	•	nce Test an	nd the Prev	valence Index.

SOIL Sampling Point: SP-30 (W11-15)

	ption: (Describe to Matrix	o cne aeptn ne		tne indic ox Featu		ıırm tne	absence of indicators.)	
Depth (inches)	Color (moist)	%	Color (moist)	ox reatu _%_	Tvpe 1	Loc2	Texture	Remarks
0-12	10YR 4/1	80	10YR 5/6	20	С		Silty Clay Loam	
		on, RM=Reduce	d Matrix, CS=Covered	l or Coate	ed Sand Grain	ns.	PL=Pore Lining. M=Ma	trix.
lydric Soil II				M-1-1 (C.	13		Indicators for Problemati	c Hydric Soils ³ :
Stratified L 2 cm Muck Depleted E Thick Dark Sandy Muck 5 cm Muck estrictive La	edon (A2) c (A3) Sulfide (A4) .ayers (A5) c (A10) Selow Dark Surface (A2) ck Mineral (S1) sy Peat or Peat (S3) syer (if observed):	A11)	Sandy Gleyed I Sandy Redox (Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark Su Depleted Dark Redox Depress	S5) ((S6) Mineral (F Matrix (F2 x (F3) rface (F6) Surface ((1) (2) (1) (1)		Coast Prairie Redox (A16 Dark Surface (S7) Iron Manganese Masses Very Shallow Dark Surface Other (Explain in Remark Indicators of hydrophytic very wetland hydrology musunless disturbed or pro	(F12) e (TF12) s) regetation and the present,
Depth (inch	es):						Hydric Soil Present? Ye	is S NO
Primary Indicat	rology Indicators: tors (minimum of one ater (A1) r Table (A2) (A3)	e is required; ch	eck all that apply) Water-Staine Aquatic Faun True Aquatic Hydrogen Su	a (B13) Plants (B	14)		Secondary Indicators (i Surface Soil Cracks Drainage Patterns (i Dry Season Water Crayfish Burrows (i	(B10) Table (C2)
Sediment I Drift Depo: Algal Mat o Iron Depo: Inundation	Deposits (B2) sits (B3) or Crust (B4)		Oxidized Rhiz Presence of Recent Iron Thin Muck St Gauge or We Other (Expla	zospheres Reduced 1 Reduction urface (C7 ell Data (D	s on Living Ro Iron (C4) I in Tilled Soi (7)	, ,	= ' `	n Aerial Imagery (C9) I Plants (D1) n (D2)
ield Observa urface Water I Vater Table Pro aturation Pres includes capilla escribe Recc	Present? Yes esent? Yes ent? Yes ary fringe)	No No No No No ngauge, moni	Depth (inch Depth (inch Depth (inch itoring well, aerial	nes):	11 9 previous ins			'es ● No ○
Remarks:								
Vetland hydr	ology was docume	ented by a wat	ter table at 11 inch	es, satu	ration at 9	inches a	nd two secondary indicators, v	vhich were D2 Geomorph
Wetland hydr	ology was docume D5 FAC-neutral Te	,	ter table at 11 inch	es, satu	ration at 9	inches a	nd two seco	ndary indicators, v

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, Towns	ship, Range: S 31 T 5N R 22E
Landform (hillslope, terrace, etc.): Hillside	L	ocal relief (concave, convex, none): convex
Slope: 25.0% / 14.0 ° Lat.: 42.850399		-87.9440994 Datum: WGS84
		WWI classification: None
Soil Map Unit Name: Morley silt loam, 2 to 6 percent slop Are climatic/hydrologic conditions on the site typical for this time	0 0	(If no, explain in Remarks.)
Are Vegetation	significantly disturbed?	, , , , , , , , , , , , , , , , , , ,
	,	The Horman circumstances present.
Are Vegetation	naturally problematic? howing sampling poin	(If needed, explain any answers in Remarks.) t locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No		
Hydric Soil Present? Yes ○ No •		: Sampled Area n a Wetland? Yes ○ No ●
Wetland Hydrology Present? Yes No No	Within	n a Wetland? Yes ○ No •
Remarks:		
Hydrological conditions were wetter than normal. A we However, neither hydric soils nor indicators of wetland VEGETATION - Use scientific names of p	hydrology were observed. Tolants. Dominant Species?	
	Absolute Rel.Strat. % Cover Cover	Status
1	0 0.0%	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
2.	0 0000	
3.	0 0.0%	Total Number of Dominant Species Across All Strata: 1 (B)
4.	0 0.0%	
5.	0 0.0%	Percent of dominant Species That Are OBL FACW or FAC: 100.0% (A/B)
	0 = Total Cove	That Are OBL, FACW, or FAC: 100.0% (A/B)
		Prevalence Index worksheet:
1	00.0%	Total % Cover of: Multiply by:
2	0	OBL species x 1 =
3	0	FACW species 0 x 2 = 0
4. 5.	0	FAC species <u>100</u> x 3 = <u>300</u>
j	0	FACU species 53 x 4 = 212
<u>Herb Stratum</u> (Plot size: 5' radius)	0 = Total Cove	UPL species <u>5</u> x 5 = <u>25</u>
1. Poa pratensis	100 🗹 63.3%	FAC Column Totals: <u>158</u> (A) <u>537</u> (B)
2. Solidago canadensis		FACU Prevalence Index = B/A = 3.399
3. Festuca arundinacea		FACU Hydrophytic Vegetation Indicators:
4. Leucanthemum vulgare	5	UPL 1 - Rapid Test for Hydrophytic Vegetation
5. Lotus corniculatus	3	FACU 2 - Dominance Test is > 50%
6	0	3 - Prevalence Index is ≤3.0 ¹
7.	00.0%	4 - Morphological Adaptations ¹ (Provide supporting
8. 9.	0	data in Remarks or on a separate sheet)
10.	0	Problematic Hydrophytic Vegetation ¹ (Explain)
10	0 0.0%	$\frac{1}{2}$ Indicators of hydric soil and wetland hydrology must
	158 = Total Cove	be present, unless disturbed or problematic.
1,	0 0.0%	
2.	0 0.0%	Hydrophytic
	0 = Total Cove	Vegetation Present? Yes No O
Remarks: (Include photo numbers here or on a separated A wetland plant community was documented because of	ŕ	Blue Grass.

SOIL Sampling Point: SP-31 (up)

	absence of indicators.)
Depth Matrix Redox Features	_
(inches) Color (moist) % 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.	Location: PL=Pore Lining. M=Matrix.
Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
Histosol (A1) Sandy Gleyed Matrix (S4)	Coast Prairie Redox (A16)
Histic Epipedon (A2) Black Histic (A3) Stripped Matrix (S6)	Dark Surface (S7)
Hydrogen Sulfide (A4)	Iron Manganese Masses (F12)
Stratified Layers (A5)	Very Shallow Dark Surface (TF12)
Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Depleted Matrix (F3) Depleted Below Dark Surface (A11) Depleted Surface (F5)	
Redox Dark Surface (F6) Depleted Dark Surface (F7)	3
Sandy Muck Mineral (S1) Redox Depressions (F8)	Indicators of hydrophytic vegetation and wetland hydrology must be present,
5 cm Mucky Peat or Peat (S3)	unless disturbed or problematic.
Restrictive Layer (if observed):	
Туре:	
Depth (inches):	Hydric Soil Present? Yes ○ No •
Remarks:	
Hydric soils were not observed.	
HYDROLOGY	
Wetland Hydrology Indicators:	
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
· · · · · · · · · · · · · · · · · · ·	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6)
Primary Indicators (minimum of one is required; check all that apply)	
Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9)	Surface Soil Cracks (B6)
Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13)	Surface Soil Cracks (B6) Drainage Patterns (B10)
Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14)	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2)
Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Drift Deposits (B3) Presence of Reduced Iron (C4)	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)
Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1)	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)
Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1)	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)
Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1)	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)
Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1)	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)
Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1)	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)
Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1)	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)
Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1)	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)
Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1)	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)
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) Iron Deposits (B5) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Pepth (inches): Water Table Present? Ves No Depth (inches): Weti	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)
Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1)	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)
Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1)	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)
Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1)	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)
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) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Saturation Present? Yes No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections)	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)

Project/Site: IH 94 Milwaukee County	City/County: Oak Creel	k/Milwaukee Sampling Date: 11-Nov-16
Applicant/Owner: WisDOT	Stat	te: WI Sampling Point: SP-32 (W11-15)
Investigator(s): Mike Al-wathiqui, Geof Parish	Section, Township, Rang	
Landform (hillslope, terrace, etc.): Toeslope		f (concave, convex, none): concave
	Long.: -87.9440	551
Soil Map Unit Name: Morley silt loam, 2 to 6 percent slop	· O · O	WWI classification: None explain in Remarks.)
Are Vegetation Soil Or Hydrology		
Are Vegetation, Soil, or Hydrology	7	F
Are Vegetation		eeded, explain any answers in Remarks.) ions, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No		.,
Hydric Soil Present? Yes No	Is the Sampled	
	within a Wetla	nd? Yes ● No ○
Wetland Hydrology Present? Yes • No ·		
		and multiple indicators of wetland hydrology were present.
- C. (District	Absolute Rel.Strat. Indicato	
Tree Stratum (Plot size:)	% Cover Cover Status	Number of Dominant Species
1 2.	0 0.0%	That are OBL, FACW, or FAC: (A)
3.	0 0.0%	Total Number of Dominant
4.	0 0.0%	Species Across All Strata: (B)
5.	0 0.0%	Percent of dominant Species
	0 = Total Cover	That Are OBL, FACW, or FAC: 100.0% (A/B)
_Saplina/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
1	0 0.0%	Total % Cover of: Multiply by:
2.	0 0.0%	OBL species 80 x 1 = 80
3.	0 0.0%	FACW species $10 \times 2 = 20$
4.	0 0.0%	FAC species 30 x 3 = 90
5.	0 0.0%	FACU species <u>5</u> x 4 = <u>20</u>
	0 = Total Cover	UPL species 0 x 5 = 0
1 Typha angustifolia	80 ✓ 64.0% OBL	Column Totals: 125 (A) 210 (B)
2. Poa pratensis	30 ✓ 24.0% FAC	
Z. Poa pratensis 3. Euthamia graminifolia		Prevalence Index = B/A = 1.680
4. Phalaris arundinacea	5 4.0% FACW	Hydrophytic Vegetation Indicators:
5. Solidago canadensis	5 4.0% FACU	1 - Rapid Test for Hydrophytic Vegetation
6.	0 0.0%	2 - Dominance Test is > 50%
7.	0 0.0%	\checkmark 3 - Prevalence Index is ≤3.0 ¹
8.	0 0.0%	4 - Morphological Adaptations 1 (Provide supporting
9.	0 0.0%	data in Remarks or on a separate sheet)
10.	0 0.0%	Problematic Hydrophytic Vegetation ¹ (Explain)
(5)	125 = Total Cover	1 Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:)		be present, unless disturbed or problematic.
1	0	Hydrophytic
2	0 .0%	Vegetation
	= Total Cover	Present? Yes No V
Remarks: (Include photo numbers here or on a separa A wetland plant community was documented by the D	,	dex.

SOIL Sampling Point: SP-32 (W11-15)

Profile Descri		tuis.		P = 4	ov East	roc					
Depth (inches)	Mar	trix st) º	/o	Color (moist)	ox Featu %	res Tvpe 1	Loc2	_ Tex	ture	R	emarks
0-15				10YR 4/6	20	C	M	Silty Clay	curc	.,	omano
		,									
					-						
					-						
	-										
Type: C=Cond	centration D=De	nletion RM	=Reduced	Matrix, CS=Covere	d or Coate	ed Sand Grai	าร	l2ocation: PI	.=Pore Lining. N	1=Matrix	
Hydric Soil I		piccion, ra i	reduced	ridany es coveres	u 01 COUR	ca Saria Grai	101				6-11- 3-
Histosol (A				Sandy Gleyed	Matrix (S4	1)		Indicate	ors for Proble	matic Hydric	Soils 3:
	pedon (A2)			Sandy Redox (•,			st Prairie Redox	(A16)	
Black Histi				Stripped Matrix					Surface (S7)		
Hydrogen	Sulfide (A4)			Loamy Mucky	` '	-1)			Manganese Ma	, ,	
Stratified I	Layers (A5)			Loamy Gleyed				☐ Very	Shallow Dark S	urface (TF12)	
2 cm Mucl	• •			✓ Depleted Matri				U Othe	er (Explain in Re	marks)	
	Below Dark Surfa	ace (A11)		Redox Dark Su)					
	k Surface (A12)			Depleted Dark	Surface (F7)		³ Indica	itors of hydroph	vtic vegetation	and
_ ′	ck Mineral (S1)			Redox Depress	sions (F8)			we	tland hydrology	must be prese	ent,
	ky Peat or Peat (uı	nless disturbed	or problematic	•
	ayer (if observe	ed):									
Type:								Hydric Sc	ail Drocont?	Vac 🜘	No O
Depth (inch	hes):			_				Hydric So	oil Present?	Yes •	No O
	hes):			_				Hydric So	oil Present?	Yes •	No O
Depth (inch	hes): or hydric soils v	was met by	y F3 Depl	eted Matrix.				Hydric So	oil Present?	Yes •	No O
Depth (inch		was met by	y F3 Depl	eted Matrix.				Hydric So	oil Present?	Yes •	No O
Depth (inch		was met by	y F3 Deplo	eted Matrix.				Hydric Sc	oil Present?	Yes	No O
Depth (inch Remarks: The criteria fo	or hydric soils v	was met b	y F3 Depl	eted Matrix.				Hydric So	oil Present?	Yes	No O
Depth (inch Remarks: he criteria fo	or hydric soils v	was met by	y F3 Deplo	eted Matrix.				Hydric So	oil Present?	Yes	No O
Depth (inch Remarks: he criteria fo	or hydric soils v		y F3 Deplo	eted Matrix.				Hydric So	oil Present?	Yes •	No O
Depth (inch Remarks: The criteria for IYDROLO	or hydric soils v	ors:									No O
Depth (inches per	or hydric soils v OGY rology Indicato ators (minimum o	ors:			ed Leaves	(B9)				ors (minimum	
Depth (inch Remarks: ne criteria for YDROLO Vetland Hydica Surface W	or hydric soils v OGY rology Indicato ators (minimum o	ors:		ck all that apply)		(B9)			condary Indicat	ors (minimum racks (B6)	
Depth (inch Remarks: The criteria for YDROLO Vetland Hydr Grimary Indica	OGY rology Indicate ators (minimum o /ater (A1) er Table (A2)	ors:		ck all that apply)	na (B13)	. ,			condary Indicat	ors (minimum racks (B6) erns (B10)	of two required)
Depth (inch Remarks: The criteria for YDROLO Vetland Hydr Grimary Indica	OGY rology Indicate ators (minimum o /ater (A1) er Table (A2) n (A3)	ors:		ck all that apply) Water-Staine Aquatic Faur	na (B13) : Plants (B	14)			condary Indicat Surface Soil C Drainage Patto	ors (minimum racks (B6) erns (B10) ater Table (C2	of two required)
Depth (inches Primary Indicators Surface W Saturation Water Mark)	OGY rology Indicate ators (minimum o /ater (A1) er Table (A2) n (A3)	ors:		k all that apply) Water-Staine Aquatic Faur	na (B13) : Plants (B ılfide Odo	s14) r (C1)	pots (C3)		condary Indicat Surface Soil C Drainage Patto Dry Season W	ors (minimum racks (B6) erns (B10) ater Table (C2 ws (C8)	of two required)
Depth (inches Perinary Indicase Water Manus Sediment Depth (inches Perinary Indicase Water Manus Sediment Drift Depo	or hydric soils v OGY rology Indicate stors (minimum o /ater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) osits (B3)	ors:		ck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of	na (B13) : Plants (B ulfide Odo zospheres Reduced :	i14) r (C1) s on Living R Iron (C4)			condary Indicat Surface Soil C Drainage Patte Dry Season W Crayfish Burro Saturation Vis Stunted or Str	ors (minimum racks (B6) erns (B10) later Table (C2 ws (C8) ible on Aerial I essed Plants (of two required)) magery (C9)
Depth (inche Remarks: he criteria for the criteria for th	or hydric soils v rology Indicate ators (minimum o /ater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) osits (B3) or Crust (B4)	ors:		k all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi	na (B13) : Plants (B ulfide Odo zospheres Reduced :	i14) r (C1) s on Living R Iron (C4)			condary Indicat Surface Soil C Drainage Patte Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P	ors (minimum racks (B6) erns (B10) ater Table (C2 ws (C8) ible on Aerial I essed Plants (i osition (D2)	of two required)) magery (C9)
Depth (inche Remarks: he criteria for support of the crite	por hydric soils varieties of hydric soils varieties (A1) For Table (A2) For Table (A2) For Table (A3) For Table (B1) Deposits (B2) Soits (B3) Or Crust (B4) Soits (B5)	ors: If one is req	uired; chec	ck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of	na (B13) : Plants (B ulfide Odo zospheres Reduced : Reduction	i14) r (C1) s on Living R Iron (C4) n in Tilled So			condary Indicat Surface Soil C Drainage Patte Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P	ors (minimum racks (B6) erns (B10) ater Table (C2 ws (C8) ible on Aerial I essed Plants (i osition (D2)	of two required)) magery (C9)
Depth (inche Remarks: he criteria for the criteria for th	or hydric soils v rology Indicate ators (minimum o /ater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) n Visible on Aeria	ors: If one is required in the second in th	uired; chec	ck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of Recent Iron	na (B13) : Plants (B : Plants (B : Plants (B : Reduced : Reduction urface (C)	s14) r (C1) s on Living R Iron (C4) n in Tilled So			condary Indicat Surface Soil C Drainage Patte Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P	ors (minimum racks (B6) erns (B10) ater Table (C2 ws (C8) ible on Aerial I essed Plants (i osition (D2)	of two required)) magery (C9)
Depth (inche Remarks: the criteria for t	por hydric soils varieties of hydric soils varieties (A1) For Table (A2) For Table (A2) For Table (A3) For Table (B1) Deposits (B2) Soits (B3) Or Crust (B4) Soits (B5)	ors: If one is required in the second in th	uired; chec	ck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of Recent Iron Thin Muck S	na (B13) Plants (Bulfide Odo Plants (Bulfide O	s14) r (C1) s on Living R Iron (C4) n in Tilled So 7)			condary Indicat Surface Soil C Drainage Patte Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P	ors (minimum racks (B6) erns (B10) ater Table (C2 ws (C8) ible on Aerial I essed Plants (i osition (D2)	of two required)) magery (C9)
Depth (inche Remarks: he criteria for the criteria for th	property of the property of th	ors: If one is required in the second in th	uired; chec	ck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of Recent Iron Thin Muck St Gauge or We	na (B13) Plants (Bulfide Odo Plants (Bulfide O	s14) r (C1) s on Living R Iron (C4) n in Tilled So 7)			condary Indicat Surface Soil C Drainage Patte Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P	ors (minimum racks (B6) erns (B10) ater Table (C2 ws (C8) ible on Aerial I essed Plants (i osition (D2)	of two required)) magery (C9)
Depth (inche Remarks: he criteria for the criteria for th	property of the property of th	ors: of one is required in the second in the	uired; chec	ck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen St Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or We	na (B13) : Plants (Bulfide Odo zospheres Reduced : Reductior urface (Ci ell Data (Di in in Rem	s14) r (C1) s on Living R Iron (C4) n in Tilled So 7)			condary Indicat Surface Soil C Drainage Patte Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P	ors (minimum racks (B6) erns (B10) ater Table (C2 ws (C8) ible on Aerial I essed Plants (i osition (D2)	of two required)) magery (C9)
Depth (inche Remarks: he criteria for the criteria for th	property of the property of th	ors: of one is required in the second of the	uired; chec	ck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of Recent Iron Thin Muck St Gauge or We	na (B13) : Plants (Bulfide Odo zospheres Reduced : Reductior urface (Ci ell Data (Di in in Rem	s14) r (C1) s on Living R Iron (C4) n in Tilled So 7)			condary Indicat Surface Soil C Drainage Patte Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P	ors (minimum racks (B6) erns (B10) ater Table (C2 ws (C8) ible on Aerial I essed Plants (i osition (D2)	of two required)) magery (C9)
Depth (inches Remarks: The criteria for	property of hydric soils variety of hydric soils variety of hydric soils variety of hydric soils variety of hydric soils (A2) of (A3) or Crust (B4) or Crust (B4) or Crust (B5) or Visible on Aeria degetated Concavariety of hydric soils (B5) or Visible on Aeria degetated Concavariety or Visible on Aeria degetated Concavariety or Visible on Aeria degetated (B5) or Visible on Aeria d	ors: of one is required in the second in the	uired; chec	ck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen St Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or We	na (B13) Plants (Bulfide Odo Zospheres Reduced Reduction urface (Country in in Rem The country The cou	s14) r (C1) s on Living R Iron (C4) n in Tilled So 7)	ls (C6)		condary Indicat Surface Soil C Drainage Patte Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P FAC-Neutral T	ors (minimum racks (B6) erns (B10) fater Table (C2 ws (C8) fible on Aerial I essed Plants (i osition (D2) est (D5)	of two required)) magery (C9) O1)
Depth (inches Remarks: The criteria for	property of hydric soils variety of hydric soils variety of hydric soils variety of hydric soils variety of hydric soils (A2) of (A3) or Crust (B4) or Crust	ors: of one is required in the second of the	uired; chec	ck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or We Other (Expla	na (B13) : Plants (B : Plants (B : Ilfide Odo zospheres Reduced : Reductior urface (C : Ill Data (B : In Rem :	s14) r (C1) s on Living R Iron (C4) n in Tilled So 7) D9)	ls (C6)		condary Indicat Surface Soil C Drainage Patte Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P FAC-Neutral T	ors (minimum racks (B6) erns (B10) ater Table (C2 ws (C8) ible on Aerial I essed Plants (i osition (D2)	of two required)) magery (C9)
Depth (inches Remarks: The criteria for	property of hydric soils variety of hydric soils variety of hydric soils variety of hydric soils variety of hydric soils (A2) of (A3) or Crust (B4) or Crust	ors: of one is required in the second of the	B7) B8) No O No O	ck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of Recent Iron Thin Muck Si Gauge or We Other (Expla	na (B13) Plants (Bulfide Odo Zospheres Reduced Reduction urface (Cr ell Data (Di in in Rem es): enes): enes):	s14) r (C1) s on Living R Iron (C4) n in Tilled So 7) 09) arks)	Wet	Se	condary Indicat Surface Soil C Drainage Patte Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P FAC-Neutral T	ors (minimum racks (B6) erns (B10) fater Table (C2 ws (C8) fible on Aerial I essed Plants (i osition (D2) est (D5)	of two required)) magery (C9) O1)
Depth (inches Remarks: The criteria for	property of hydric soils variety of hydric soils variety of hydric soils variety of hydric soils variety of hydric soils (A2) of (A3) or Crust (B4) or Crust	ors: of one is required in the second of the	B7) B8) No O No O	ck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen St Oxidized Rhi Presence of Recent Iron Thin Muck St Gauge or We Other (Expla	na (B13) Plants (Bulfide Odo Zospheres Reduced Reduction urface (Cr ell Data (Di in in Rem es): enes): enes):	s14) r (C1) s on Living R Iron (C4) n in Tilled So 7) 09) arks)	Wet	Se	condary Indicat Surface Soil C Drainage Patte Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P FAC-Neutral T	ors (minimum racks (B6) erns (B10) fater Table (C2 ws (C8) fible on Aerial I essed Plants (i osition (D2) est (D5)	of two required)) magery (C9) O1)
Depth (inche Remarks: he criteria for the criteria for th	property of hydric soils variety of hydric soils variety of hydric soils variety of hydric soils variety of hydric soils (A2) of (A3) or Crust (B4) or Crust	ors: of one is required in the second of the	B7) B8) No O No O	ck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of Recent Iron Thin Muck Si Gauge or We Other (Expla	na (B13) Plants (Bulfide Odo Zospheres Reduced Reduction urface (Cr ell Data (Di in in Rem es): enes): enes):	s14) r (C1) s on Living R Iron (C4) n in Tilled So 7) 09) arks)	Wet	Se	condary Indicat Surface Soil C Drainage Patte Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P FAC-Neutral T	ors (minimum racks (B6) erns (B10) fater Table (C2 ws (C8) fible on Aerial I essed Plants (i osition (D2) est (D5)	of two required)) magery (C9) O1)
Depth (inche Remarks: he criteria for the criteria for th	or hydric soils v rology Indicate ators (minimum o /ater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) n Visible on Aeria /egetated Concav ations: Present? resent? sent? lary fringe) orded Data (sti	ors: of one is required in the second of the	uired; checo	Ek all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or We Other (Expla	na (B13) Plants (B Plants (B Ilfide Odo Zospheres Reduced : Reductior urface (C Ell Data (D in in Rem nes): nes): photos,	s14) r (C1) s on Living R Iron (C4) n in Tilled So 7) p9) arks) 5 0 previous in	Wet	Se	condary Indicat Surface Soil C Drainage Patte Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P FAC-Neutral T	ors (minimum racks (B6) erns (B10) ater Table (C2 ws (C8) ible on Aerial I essed Plants (iosition (D2) est (D5)	of two required)) magery (C9) D1)

Project/Site: IH 94 Milwaukee County		City/	County:	Oak Creek/N	Milwaukee Sampling Date: 11-Nov-16
Applicant/Owner: WisDOT				State:	WI Sampling Point: SP-33 (up)
Investigator(s): Mike Al-wathiqui, Geof F	Parish	See	ction, Tow	vnship, Range:	S 31 T 5N R 22E
Landform (hillslope, terrace, etc.): Foots	slope			Local relief (c	concave, convex, none): convex
Slope: 10.0% / 5.7 ° Lat.:	<u> </u>		Long.:	-87.946701	Datum: WGS84
Soil Map Unit Name: Fox silt loam, 2				0/15 10. 0	WWI classification: None
Are climatic/hydrologic conditions on the		aar? Yes O	No 💿	(If no, ex	xplain in Remarks.)
Are Vegetation, Soil		ignificantly distur			ormal Circumstances" present? Yes No
Are Vegetation , Soil		aturally problem			eded, explain any answers in Remarks.)
,				-	ons, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes ● No ○	_	<u> </u>		
Hydric Soil Present?	Yes O No •			ne Sampled A nin a Wetland	
Wetland Hydrology Present?	Yes O No •				Tes O NO O
Remarks:					
Hydrological conditions were wette However, neither hydric soils nor i VEGETATION - Use scie	indicators of wetland hyd	rology were ol		The sample	
Tree Stratum(Plot size:)			. Indicator Status	Dominance Test worksheet:
1		0	0.0%	56465	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
2.		0 [0.0%		That are obly mony or men
3.		0	0.0%		Total Number of Dominant Species Across All Strata: 1 (B)
4.		0	0.0%		Species Across Air Strata.
5.		0	0.0%		Percent of dominant Species That Are OBL FACW or FAC: 100.0% (A/B)
		0 =	Total Cov	ver	That Are OBL, FACW, or FAC: 100.0% (A/B)
<u>Sapling/Shrub Stratum</u> (Plot size:)	_			Prevalence Index worksheet:
1		0 [0.0%		Total % Cover of: Multiply by:
2		0 [0.0%		OBL species 0 x 1 = 0
3			0.0%		FACW species <u>105</u> x 2 = <u>210</u>
4.			0.0%		FAC species 0 x 3 = 0
5		_ 0 _	0.0%		FACU species <u>20</u> x 4 = <u>80</u>
<u>Herb Stratum</u> (Plot size: 5' radius)	=	= Total Cov	ver	UPL species
1. Phalaris arundinacea		100	80.0%	FACW	Column Totals: <u>125</u> (A) <u>290</u> (B)
2. Solidago canadensis		20	16.0%	FACU	Prevalence Index = B/A = 2.320
3. Persicaria pensylvanica		5	4.0%	FACW	'
4.		0	0.0%		Hydrophytic Vegetation Indicators:
5.		0	0.0%		1 - Rapid Test for Hydrophytic Vegetation
6.		0	0.0%		2 - Dominance Test is > 50%
7.		0	0.0%		У 3 - Prevalence Index is ≤3.0 ¹
8.		0	0.0%		4 - Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)
9.		_ 0	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
10		0	0.0%		
Woody Vine Stratum (Plot size:)	125 =	= Total Cov	ver	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
		0 [0.0%		
2.		0 [0.0%		Hydrophytic
۷			= Total Cov		Vegetation Present? Yes No
			1000100	761	Present:
Remarks: (Include photo numbers A wetland plant community was de	•	•	[:] Reed Ca	anary Grass.	

SOIL Sampling Point: SP-33 (up)

•	•	Matrix	acptii ile			x Featu			absence of indicators.)	
Depth	Color (n		%	Color (mo		<u>%</u>	<u>Tvpe ¹</u>	Loc ²	Texture	Remarks
0-12	10YR	2/3	100						Silty Clay Loam	
12-24	10YR	3/2	90	10YR	4/6	10	С	М	Silty Clay Loam	
								-		
Type: C=Concer Hydric Soil Ind		=Depletion	, RM=Reduce	d Matrix, CS=	=Covered	or Coate	ed Sand Gra	ins.	2ocation: PL=Pore Lining. N Indicators for Proble	
Histosol (A1)				Sandy	Gleyed M	1atrix (S4	ł)			-
Histic Epiped				′	Redox (S	•	,		Coast Prairie Redox	(A16)
Black Histic (. ,			Strippe	ed Matrix	(S6)			☐ Dark Surface (S7)	(=)
☐ Hydrogen Su				Loamy	Mucky N	1ineral (F	1)		☐ Iron Manganese Ma	
Stratified Lay				Loamy	Gleyed I	Matrix (F	2)		☐ Very Shallow Dark S	• •
2 cm Muck (,			Deplet	ted Matrix	(F3)			Other (Explain in Re	marks)
Depleted Bel		•	1)	Redox	Dark Sur	face (F6)			
☐ Thick Dark S	•	,		Deplet	ted Dark S	Surface (F7)		Indicators of hydroph	ytic vegetation and
Sandy Muck 5 cm Mucky	`	,		Redox	Depressi	ions (F8)			wetland hydrology unless disturbed	. ,
Restrictive Lay		. ,							diffees distarbed	or problemater
Type:	ei (ii 0b3e	avea).								
Depth (inches	z)·								Hydric Soil Present?	Yes O No 💿
Remarks:	-)·			_						
HYDROLOG	ìΥ									
Wetland Hydro	logy Indic	ators:								
Primary Indicator	rs (minimu	m of one is	s required; ch	eck all that a	pply)				Secondary Indicat	ors (minimum of two required)
Surface Water					er-Staine		(B9)		Surface Soil C	
High Water					atic Fauna				☐ Drainage Patte	
Saturation (A	-				Aquatic	-				ater Table (C2)
Water Marks					rogen Sul			(00)	Crayfish Burro	
Sediment De)					on Living R	Roots (C3)		ible on Aerial Imagery (C9)
Drift Deposit	. ,				ence of R			:: - (CC)		essed Plants (D1)
☐ Algal Mat or☐ Iron Deposit							in Tilled So	olis (Cb)	☐ Geomorphic P ✓ FAC-Neutral T	, ,
Inundation V	. ,	orial Imag	en. (R7)		Muck Su	-	-		▼ FAC-Neutral I	est (D5)
Sparsely Veg		_			ge or Wel er (Explaiı	-	-			
Spursery veg	jetatea eoi	icave Surie	acc (50)	□ Oute	er (Expiaii	ii iii keiii	arks)			
Field Observati	ons:	(<u> </u>							
Surface Water Pr	esent?	Yes (pth (inch	es):		-		
Water Table Pres	ent?	Yes ⁽	○ No ●	De	pth (inch	es):		_		Yes ○ No •
Saturation Preser (includes capillary		Yes(O No O	De	pth (inch	es):		Wet	land Hydrology Present?	Yes ○ No •
Describe Record		(stream o	gauge, mon	itorina well.	aerial n	hotos, i	orevious in	spections	s), if available:	
		,;	J = ,	J,		/		,		
Remarks:										
Only one secon	dary indi	cator of w	vetland hvdi	ology was	observe	d. D5 F4	C-neutral	Test. Th	ne sample point location di	id not meet the minimum

Project/Site: IH 94 Milwaukee County			City	y/County:	Oak Creek/M	1ilwaukee	Sampling Date: 11-Nov-16
Applicant/Owner: WisDOT				-	State:	WI Sampling	g Point: SP-34 (W11-15)
Investigator(s): Mike Al-wathiqui, Geof Pa	rish		S	ection, Towr	nship, Range:	S 31 T 5N	R 22E
Landform (hillslope, terrace, etc.): Toeslo				·		oncave, convex, none): CO	
Slope: 1.0% / 0.6 ° Lat.:					-87.946800		Datum: WGS84
				LUIIG	-8/.9 1 0000.	Z WWI classificatio	
Soil Map Unit Name: Fox silt loam, 2 t			Yes(○ No ●	/If no ex	wwi classificatio	n: FIK
Are climatic/hydrologic conditions on the si					, ,		t? Yes • No ·
	, or Hydrology		nificantly dist			rmal Circumstances" present	
Are Vegetation	, or Hydrology tach site ma		turally probler v ing samp		-	ded, explain any answers in I ns, transects, impor	
Hydrophytic Vegetation Present?		0		,y F :		,	
Hydric Soil Present?	_	0			e Sampled A		
Wetland Hydrology Present?		0		withi	n a Wetland	? Yes • No O	
Remarks:	165 0 140						
Hydrological conditions were wetter The data point was located in a wet VEGETATION - Use scien	land.			Dominant		d multiple indicators of w	retland hydrology were present.
- a. (Diataira)	``			Rel.Strat.	Indicator	Dominance Test works	heet:
(Plot size:			% Cover	Cover	Status	Number of Dominant Spec	
1. 2.			0 [- —	That are OBL, FACW, or FA	AC: <u>2</u> (A)
3.			0 [Total Number of Dominant	
4.			0 [Species Across All Strata:	(B)
5.			0 [0.0%		Percent of dominant Sp	
				= Total Cove	er	That Are OBL, FACW, o	or FAC: <u>100.0%</u> (A/B)
_Sapling/Shrub Stratum (Plot size:)				ı	Prevalence Index works	sheet:
1			_0[0.0%		Total % Cover of	
2.			0 [0.0%			60 x 1 = 60
3.			0 [0.0%		FACW species 12	20 x 2 = 240
4.			0 [0.0%		FAC species (0 x 3 = 0
5.			0 [0.0%			0 x 4 = 0
Herb Stratum (Plot size: 5' radius			0	= Total Cove	er	UPL species (0 x 5 = 0
1 Phalaris arundinacea	—′		100	✓ 55.6%	FACW	Column Totals: 18	80 (A) 300 (B)
2. Typha angustifolia				✓ 33.0% ✓ 33.3%	OBL		
3. Solidago sempervirens			20	11.1%	FACW	Prevalence Index =	<u> </u>
4.			0 [0.0%	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Hydrophytic Vegetation	
5.			0 [0.0%		✓ 1 - Rapid Test for Hy	
6.			0	0.0%		✓ 2 - Dominance Test	
7.			0 [0.0%		✓ 3 - Prevalence Index	
8.			0	0.0%			daptations ¹ (Provide supporting on a separate sheet)
9.			0	0.0%			on a separate sneet) hytic Vegetation 1 (Explain)
10.			0 [0.0%		_ , ,	, , ,
I No Charles (Plot size)			180	= Total Cove	er	$\frac{1}{2}$ Indicators of hydric s be present, unless dist	soil and wetland hydrology must urbed or problematic.
Woody Vine Stratum (Plot size:			_	0.00/	-	De present, amess alon	indea or problematici
1			0 [0.0%		Hydrophytic	
2			0	0.0%		Vegetation	No O
				= Total Cove	er 	Present? Yes	
Remarks: (Include photo numbers h	nere or on a se	eparate she	eet.)				
A wetland plant community was doo	cumented by the	he Rapid T	est, Domin	ance Test a	and the Prev	alence Index.	

SOIL Sampling Point: SP-34 (W11-15)

Profile Descr	iption: (Descr	ibe to the o	lepth need	led to document	the indic	cator or co	nfirm the	absence of inc	dicators.)		
Depth		atrix			ox Featu			- <u>-</u> .		_	
(inches)	Color (mo			Color (moist)	<u>%</u>	Tvpe 1	Loc ²	Cilty Clay Lea		R	emarks
0-13	10YR	3/1	70 1	LOYR 5/6	30	C	M	Silty Clay Loa	1111		
					-						
					-		-				
					-		-				
¹ Type: C=Cond	centration, D=D	epletion, RM	I=Reduced	Matrix, CS=Covere	d or Coate	ed Sand Grai	ns.	Location: PL=I	Pore Lining. M	=Matrix.	
Hydric Soil I	ndicators:							Indicator	s for Problen	natic Hydric	Soils ³ :
Histosol (A	•			Sandy Gleyed	-	1)		Coast F	Prairie Redox (A16)	
	pedon (A2)			Sandy Redox ((S5)				urface (S7)		
Black Histi	Sulfide (A4)			Stripped Matrix	. ,			_	anganese Mas	ses (F12)	
	Layers (A5)			Loamy Mucky	-	-			hallow Dark Su	` '	
2 cm Mucl	, , ,			Loamy Gleyed	-	2)			(Explain in Rer		
	Below Dark Surf	ace (A11)		Depleted Matri	. ,			Other ((LXPIAIII III KEI	ilai K5)	
= .	k Surface (A12)	ucc (//11/		Redox Dark Su	•	•		2			
	ck Mineral (S1)			Depleted Dark	,	F7)			rs of hydrophy		
	ky Peat or Peat	(S3)		☐ Redox Depres	sions (F8)				ind hydrology ess disturbed o		
	ayer (if observ	` '									
Type:	., (,-									
Depth (inch	nes):							Hydric Soil	Present?	Yes 💿	No O
Remarks:				_				L			
The criteria fo	or hydric soils	was met b	y F6 Redo	x Dark Surface.							
HYDROLO)GY										
Wetland Hyd	rology Indicat	ors:									
Primary Indica	ators (minimum	of one is rec	uired; chec	k all that apply)				Seco	ndary Indicato	rs (minimum	of two required)
Surface W	/ater (A1)			☐ Water-Staine	ed Leaves	(B9)			Surface Soil Cr	acks (B6)	
✓ High Wate	er Table (A2)			Aquatic Faur	na (B13)				Orainage Patte	rns (B10)	
✓ Saturation	n (A3)			True Aquation	: Plants (B	314)			Ory Season Wa	iter Table (C2)
Water Mai	rks (B1)			Hydrogen Su	ılfide Odo	r (C1)			Crayfish Burrov	vs (C8)	
Sediment	Deposits (B2)			Oxidized Rhi	zospheres	on Living R	oots (C3)		Saturation Visil	ole on Aerial I	magery (C9)
☐ Drift Depo	sits (B3)			Presence of	Reduced 1	Iron (C4)			Stunted or Stre	ssed Plants (I	D1)
Algal Mat	or Crust (B4)			Recent Iron	Reduction	in Tilled So	ils (C6)	✓ (Geomorphic Po	sition (D2)	
Iron Depo	sits (B5)			☐ Thin Muck S	urface (C7	7)		✓ F	AC-Neutral Te	st (D5)	
Inundation	n Visible on Aeri	al Imagery ((B7)	Gauge or We	ell Data (D	9)					
Sparsely V	egetated Conca	ive Surface	(B8)	Other (Expla	in in Rem	arks)					
Field Observa		v	🔘								
Surface Water	Present?	Yes O	No •	Depth (inc	hes):		-				
Water Table Pr	resent?	Yes 💿	No O	Depth (inc	hes):	10	_			v (a)	
Saturation Pres		Yes	No O	Depth (inc	hes):	9	Wet	land Hydrology	y Present?	Yes 💿	No O
(includes capill							cnoction	c) if available			
הבפתוחה אפט	orucu Dala (S	u cam yau	عد, ۱۱۱۱۱۱۱۱۱	oring well, aerial	μποιος,	previous III	specuons	o), ii available:			
Domester											
Remarks:		aa.at !	المستحدد والمسا		1			ا منظامت	ا الحمار محا	نا-ئايىر مى	D3 Co'
,	rology was do D5 FAC-neutr		by a wate	i table at 10 inch	ies, satu	rauon at 9	inches a	iiiu two second	iary indicato	s, which we	ere D2 Geomorphic
. Join and	_ 3 3										

Investigator(s): Mike Al-wathiqui, Geof Parish Section, Township, Range: S 31 T 5N R 22E andform (hillslope, terrace, etc.): Hillside Local relief (concave, convex, none): convex Slope: 15.0% / 8.5 ° Lat.: 42.846015 Long.: -87.949057 Datum: WGS84 WWI classification: None are climatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) Are "Normal Circumstances" present? Yes No (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 Hydrology Is the Sampled Area within a Wetland? Yes No (If no Wetland? Yes No (If no Wetland? Yes No (If no Wetland? Yes No (If needed, explain any answers in Remarks.)	Project/Site: IH 94 Milwaukee County	City/County:	Oak Creek/I	Milwaukee Sampling Date: 11-Nov-16
andorm (nillislope, terrace, etc.): hillislofe	Applicant/Owner: WisDOT		State:	WI Sampling Point: SP-35 (up)
Support 15,0% 8.5	Investigator(s): _Mike Al-wathiqui, Geof Parish	Section, Tow	nship, Range:	S 31 T 5N R 22E
Wild classification None Wild classific	Landform (hillslope, terrace, etc.): Hillside		Local relief (d	concave, convex, none): convex
Will classification None Alluvial land Will classification None None Will classification None None None None	Slope: 15.0% / 8.5 ° Lat.: 42.846015	Long.:	-87.949057	Datum: WGS84
re climatic/hydrologic conditions on the stet typical for this time of year? Yes ○ No ● re Vegetation │ , soi │ , or hydrology │ significantly disturbed? Are "Normal Circumstraces" present? Yes ○ No ○ reductions, transects, importants Features, etc. #Well problematic				WWI classification: None
re Vegetation Soi or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No O atturnly problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophyte: Vegetation Present? Yes No O Wellow Is the Sampled Area within a Welland? Yes No O Wellow Is the Sampled Area within a Welland? Yes No O Wellow Is the Sampled Area within a Welland? Yes No O Wellow Is the Sampled Area within a Welland? Yes No O Wellow Is the Sampled Area within a Welland? Yes No O Welland Hydrology present. The sample point was located in an upland. VEGETATION - Use scientific names of plants. The Stratum (Plot size:) Absolute Rel Strat. Indicator Species? Indicator Species Indicator Sp		ar? Yes O No 💿	(If no, ex	
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No If the Sampled Area within a Westand? Yes No Remarks: Hydrology Present? Yes No Remarks: Hydrology present? Yes No Remarks: 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.			Are "No	ormal Circumstances" present? Yes No
Hydrophytic Vegetation Present? Yes No	Are Vegetation . , Soil . , or Hydrology . na	turally problematic?	(If nee	ded, explain any answers in Remarks.)
Is the Sampled Area Yes No No Wetland Hydrology Present? Yes No No Wetland Hydrology Present. The sample point was located in an upland. No No No No No No No N	SUMMARY OF FINDINGS - Attach site map show	ing sampling poi	nt locatio	ns, transects, important features, etc.
Wettand Hydrology Present? Yes No	Hydrophytic Vegetation Present? Yes No •			
Remarks: 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.	Hydric Soil Present? Yes O No •			
Pydrological 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. Tree Stratum_(Plot size:	Wetland Hydrology Present? Yes No •			les O NO O
VEGETATION - Use scientific names of plants.	Remarks:	•		
Tree Stratum_(Plot size:			d upland soi	Is were documented. There were no indicators of wetland
Absolute	., a. e. e.g., p. e. e.a e ea p. e pe e a e e e e e e e e e e e e e e			
Absolute Reistratum (Plot size:	VEGETATION - Use scientific names of plan			
1.	(5)	Absolute Rel.Strat	. Indicator	Dominance Test worksheet:
2.			Status	
3.				That are OBL, FACW, or FAC:1(A)
4.				
Description				Species Across All Strata: (B)
Sabilina/Shrub Stratum (Plot size:				Percent of dominant Species
Prevalence Index worksheet: 1.	J			
1.	Sanling/Shruh Stratum (Plot size:		VCI	Prevalence Index worksheet
2.		0		
3.				
4.				
5.				
Herb Stratum (Plot size: 5' radius)	5.			
1. Poa pratensis 2. Festuca arundinacea 3. Artemisia absinthium 5. 3.7% UPL 4. 0 0 0.0% 66. 0 0 0.0% 7. 0 0 0.0% 7. 0 0 0.0% 8. 0 0 0.0% 9. 0 0 0.0% 10. 0 0 0.0% 11. 0 0 0.0% 12. 0 0 0.0% 13. 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) Noody Vine Stratum (Plot size:) 1. 0 0 0.0% 2. 0 0.0% 1. 135 = Total Cover Droblematic Hydrophytic Vegetation 1 (Explain) 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or 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 ●		0 = Total Cov	ver	
2. Festuca arundinacea 3. Artemisia absinthium 5		00 2 66 70/	FAC	
3. Artemisia absinthium 4.				
4.				Prevalence Index = B/A = 3.370
5.			0.2	
6.				1 - Rapid Test for Hydrophytic Vegetation
8. 0 0.0% 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 10. 0 0.0% Problematic Hydrophytic Vegetation ¹ (Explain) 1. 0 0.0% 1. 0 0.0% 2. 0 0.0% 2. 0 0.0% 0 0.0% 0 0.0% 135 = Total Cover 0 0.0% 0 0.0% 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Yes No •	6.			
9. 10. Woody Vine Stratum (Plot size: 1. 2. O O O.0% 135 = Total Cover O O.0% 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation The problematic Hydrophytic Vegetation 1 (Explain) 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Yes No No Remarks: (Include photo numbers here or on a separate sheet.)	7.	0 0.0%		☐ 3 - Prevalence Index is ≤3.0 1
9. 10. O O.0% O O.0%		0 0.0%		
Noody Vine Stratum (Plot size:) 135 = Total Cover be present, unless disturbed or problematic. 1. 0 0.0% be present, unless disturbed or problematic. 1. 0 0.0% Cygetation Present? Yes No ●		0 0.0%		I
Woody Vine Stratum (Plot size:)	10.	0 0.0%		Problematic Hydrophytic Vegetation (Explain)
1. 0 0.0% 2. 0 0.0% Hydrophytic Vegetation Present? Yes No Remarks: (Include photo numbers here or on a separate sheet.)	(Diet size)	135 = Total Cov	ver	
2.				be present, unless disturbed of problematic.
Remarks: (Include photo numbers here or on a separate sheet.)	-			Hydrophytic
Remarks: (Include photo numbers here or on a separate sheet.)				Vegetation V
		= Total Cov	ver	Present? ICS UNU S
	Domarket (Include photo numbers have as a constitute of	oot)		
An upiand plant community was observed.		eet.)		
	An upland plant community was observed.			

SOIL Sampling Point: SP-35 (up)

Depth	ription: (Desc I	4atrix			Redox F	eatur	es					
(inches)	Color (m		%	Color (mois			Tvpe 1	Loc2	Texture		F	Remarks
0-22	10YR	3/2	60						Silty Clay Loam			
	10YR	4/6	40									
ype: C=Con	centration, D=	Depletion,	, RM=Redu	ced Matrix, CS=0	overed or (Coated	Sand Grai	ns.	Location: PL=Pore L	_ining. M=	=Matrix.	
ydric Soil 1	Indicators:								Indicators for	Problem	atic Hydri	c Soils ³ :
Histosol (Sandy G	leyed Matri	ix (S4)			Coast Prairie	Redox (Δ16)	
_ ` '	pedon (A2)			Sandy R	edox (S5)				Dark Surface	•	110)	
Black Hist	. ,			Stripped	Matrix (S6)			☐ Iron Mangar	. ,	es (F12)	
	Sulfide (A4)			Loamy I	1ucky Mine	ral (F1	.)		☐ Very Shallow		, ,	
_	Layers (A5)			Loamy (Gleyed Matr	ix (F2))					,
☐ 2 cm Muc	` '	urface / ^ 1	1)	Deplete	d Matrix (F3	3)			U Other (Expla	ıın in Kem	iarks)	
¬ '	Below Dark Su	•	L)		ark Surface	, ,						
_	rk Surface (A12	•		Deplete	d Dark Surfa	ace (F	7)		³ Indicators of I	hydrophy	tic vegetatio	n and
_ ′	uck Mineral (S1 cky Peat or Pea	•		☐ Redox [epressions	(F8)					nust be pres r problemati	
	ayer (if obse	,							unicss dis	sturbeu or	probleman	С.
estrictive L	ayei (ii obse	veu).										
Type:												
Type:	hec).								Hydric Soil Pres	ent?	Yes 🔾	No •
Depth (inc	rhes):vere not obse	erved.							Hydric Soil Pres	ent?	Yes O	No •
Depth (inc Remarks: ydric soils v	were not obse	erved.							Hydric Soil Pres	ent?	Yes O	No •
Depth (inc Remarks: ydric soils w	vere not obse								Hydric Soil Pres	ent?	Yes O	No •
Depth (inc Remarks: ydric soils w	vere not obse	ators:	s required;	check all that app	oly)							
Depth (inc Remarks: ydric soils v YDROLO Yetland Hyd Primary Indica	OGY drology Indicators (minimur	ators:	required;	check all that ap		aves (B9)		Secondary	['] Indicato	rs (minimum	No •
Depth (inc emarks: /dric soils v YDROLO /etland Hyd rimary Indica Surface V	OGY Irology Indicators (minimum	ators:	s required;	Water	-Stained Le	•	B9)		Secondary Surface	· Indicato ·e Soil Cra	rs (minimum	
Depth (inclemarks: /dric soils w YDROLC /etland Hyde rimary Indica Surface W High Wate	DGY trology Indicators (minimum Vater (A1) er Table (A2)	ators:	required;	Water Aquat	-Stained Le c Fauna (B	13)	•		Secondary Surfac	' Indicato se Soil Cra	rs (minimum acks (B6) ms (B10)	n of two required)_
Depth (included included inclu	OGY drology Indicators (minimum Vater (A1) er Table (A2) n (A3)	ators:	s required;	Water Aquat	-Stained Le c Fauna (B: Aquatic Plan	13) nts (B1	4)		Secondary Surfac Draina Dry Se	r Indicato e Soil Cra nge Patter eason Wa	rs (minimum acks (B6) rns (B10) ter Table (C	n of two required)_
Depth (inc. Remarks: ydric soils v YDROLC /etland Hyd rimary Indica Surface V High Wate Saturation Water Ma	vere not observere not observe	ators: n of one is	s required;	Water Aquat True A	-Stained Lea c Fauna (B. Aquatic Plan gen Sulfide	13) nts (B1: Odor	4) (C1)	oots (C3)	Secondary Surfac Draina Dry Se	r Indicato e Soil Cra ige Patter eason Wa sh Burrow	rs (minimum acks (B6) rns (B10) ter Table (C vs (C8)	n of two required)_
Depth (inc. Lemarks: Adric soils w YDROLO Action Hydrimary Indic. Surface W High Wate Saturation Water Ma Sediment	DGY drology Indicators (minimum Vater (A1) der Table (A2) dr (A3) dr (A3) dr (A3) dr (B1) dr (B2)	ators: n of one is	s required;	Water Aquat True A Hydro	-Stained Lea c Fauna (Bi Aquatic Plan gen Sulfide ed Rhizospl	13) hts (B1 Odor heres o	4) (C1) on Living R	oots (C3)	Secondary Surfac Draina Dry Se Crayfis Satura	r Indicato e Soil Cra ige Patter eason Wa sh Burrow ation Visib	rs (minimum acks (B6) rns (B10) ter Table (C vs (C8) le on Aerial	n of two required)
Depth (inc. emarks: /dric soils v YDROLC /etland Hyd rimary Indica Surface V High Wate Saturation Water Ma Sediment Drift Depo	DGY drology Indicators (minimum Vater (A1) der Table (A2) dr (A3) dr (A3) dr (A3) dr (B1) dr (B2)	ators: n of one is	s required;	Water Aquat True / Hydro Oxidiz Presei	-Stained Lea c Fauna (B. Aquatic Plan gen Sulfide	13) nts (B1) Odor (heres o	4) (C1) on Living R on (C4)		Secondary Surfac Draina Dry Se Crayfis Satura Stunte	r Indicato de Soil Cra de Patter desson Wa sh Burrow dion Visib ded or Stre	rs (minimum ncks (B6) rns (B10) ter Table (C vs (C8) ele on Aerial ssed Plants	n of two required)
Depth (inc.) Remarks: ydric soils v YDROLO Yetland Hyd Primary Indica Surface V High Wate Saturation Water Ma Sediment Drift Depx Algal Mat	DGY Irology Indicators (minimum Vater (A1) Irology Trable (A2) Irology Indicators (minimum Vater (B1) Irology Indicators (Minimum Vater (B1) Irology Indicators (B2) Irology Indicators (B2) Irology Indicators (B3) Irology I	ators: n of one is	required;	Water Aquat True A Hydro Oxidiz Presei Recer	-Stained Lector Fauna (Biographic Plan gen Sulfide ed Rhizosphace of Reduction Reducti	13) nts (B1) Odor heres of the control of the co	4) (C1) on Living R on (C4) in Tilled So		Secondary Surfac Draina Dry Se Crayfis Satura Stunte Geome	r Indicato ee Soil Cra age Patter eason Wa sh Burrow ation Visib ed or Stre orphic Po	rs (minimum acks (B6) rns (B10) ter Table (C as (C8) ale on Aerial ssed Plants sition (D2)	n of two required)
Depth (inc. Remarks: ydric soils was a soil was	DGY Irology Indicators (minimum Vater (A1) Irology Trable (A2) Irology Indicators (minimum Vater (B1) Irology Indicators (Minimum Vater (B1) Irology Indicators (B2) Irology Indicators (B2) Irology Indicators (B3) Irology I	ators: n of one is		Water Aquat True A Hydro Oxidiz Presei Recen	-Stained Le. c Fauna (B: Aquatic Plan gen Sulfide ed Rhizosph nce of Redu	13) Odor heres conced Iron interest (C7)	4) (C1) on Living R on (C4) in Tilled So		Secondary Surfac Draina Dry Se Crayfis Satura Stunte Geome	r Indicato de Soil Cra de Patter desson Wa sh Burrow dion Visib ded or Stre	rs (minimum acks (B6) rns (B10) ter Table (C as (C8) ale on Aerial ssed Plants sition (D2)	n of two required)
Pepth (included in part of the	DGY drology Indicators (minimum Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) or Crust (B4) osits (B5)	ators: n of one is	ery (B7)	Water Aquat True / Hydro Oxidiz Presei Recen Thin M	-Stained Lector Fauna (B: Aquatic Plan gen Sulfide ed Rhizosphace of Reduttron Reduttr	13) Odor heres cuced Iruction in the (C7) ata (D9)	4) (C1) on Living R on (C4) in Tilled So		Secondary Surfac Draina Dry Se Crayfis Satura Stunte Geome	r Indicato ee Soil Cra age Patter eason Wa sh Burrow ation Visib ed or Stre orphic Po	rs (minimum acks (B6) rns (B10) ter Table (C as (C8) ale on Aerial ssed Plants sition (D2)	n of two required)
Pepth (inc. Remarks: ydric soils was a color of the pepth	Pogy Irology Indicators (minimum Vater (A1) Poer Table (A2) Poer (A3) Poer (B1) Poer (B2) Poer (B2) Poer (B2) Poer (B2) Poer (B2) Poer (B4) Poer (B4) Poer (B4) Poer (B4) Poer (B5) Poer (ators: n of one is	ery (B7)	Water Aquat True / Hydro Oxidiz Presei Recen Thin M	-Stained Lea c Fauna (B: Aquatic Plan gen Sulfide ed Rhizosph nce of Redu t Iron Redu fluck Surface or Well Da	13) Odor heres cuced Iruction in the (C7) ata (D9)	4) (C1) on Living R on (C4) in Tilled So		Secondary Surfac Draina Dry Se Crayfis Satura Stunte Geome	r Indicato ee Soil Cra age Patter eason Wa sh Burrow ation Visib ed or Stre orphic Po	rs (minimum acks (B6) rns (B10) ter Table (C as (C8) ale on Aerial ssed Plants sition (D2)	n of two required)
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Depth (inc.) Remarks: ydric soils v YDROLO Vetland Hyd Primary Indica Surface V High Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatio Sparsely V	DGY Irology Indicators (minimum Vater (A1) Iromorer Table (A2) In (A3) Iromorer (B1) Iromorer (B4) I	ators: n of one is erial Image cave Surfa	ery (B7) ace (B8)	Water Aquat True A Hydro Oxidiz Presei Recen Thin N Gauge	-Stained Lea c Fauna (B: Aquatic Plan gen Sulfide ed Rhizosph nce of Redu t Iron Redu fluck Surface or Well Da	13) nts (B1) Odor heres conced Irruction in the (C7) ata (D9) Remai	4) (C1) on Living R on (C4) in Tilled So		Secondary Surfac Draina Dry Se Crayfis Satura Stunte Geome	r Indicato ee Soil Cra age Patter eason Wa sh Burrow ation Visib ed or Stre orphic Po	rs (minimum acks (B6) rns (B10) ter Table (C as (C8) ale on Aerial ssed Plants sition (D2)	n of two required)
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Depth (inc Remarks: ydric soils w IYDROLO Wetland Hyd Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depx Inundatio Sparsely w Field Observ Surface Water Water Table P Saturation Pre	Present?	ators: n of one is erial Image cave Surfa Yes Yes	ery (B7) ace (B8) No (Water Aquat True A Hydro Oxidiz Preser Recer Thin N Gauge Other	-Stained Leace Fauna (B: Aquatic Plan gen Sulfide ed Rhizosphoce of Redute Iron Redufuck Surface or Well Da (Explain in the (inches):	13) ots (B1- Odor heres of iced Irolation in the (C7) Remai	4) (C1) on Living R on (C4) in Tilled So	ils (C6)	Secondary Surfac Draina Dry Se Crayfis Satura Stunte Geome	r Indicato ee Soil Cra ige Patter eason Wa sh Burrow ition Visib ed or Stre orphic Po leutral Te	rs (minimum acks (B6) rns (B10) ter Table (C as (C8) ale on Aerial ssed Plants sition (D2)	n of two required)
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Depth (inc. emarks: /dric soils v YDROLC /etland Hyd rimary Indica Surface V High Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundation Sparsely v ield Observ /ater Table P encludes capill escribe Rec	DGY Irology Indicators (minimum Vater (A1) Per Table (A2) In (A3) Per (B1) Per (B4)	erial Image cave Surfa Yes Yes	ery (B7) ace (B8) No (No (No (agauge, mo	Water Aquat Aquat Hydro Oxidiz Prese Recen Thin N Gauge Other Dep Dep	-Stained Leace Fauna (B: Aquatic Plan gen Sulfide ed Rhizosplance of Redut Iron Redut Iron Redut General (Explain in the (inches):	13) Odor cheres control contr	4) (C1) on Living R on (C4) in Tilled So)) rks)	Wet	Secondary Surfac Draina Dry Se Crayfis Satura Stunte Geom FAC-N	r Indicato ee Soil Cra ige Patter eason Wa sh Burrow ition Visib ed or Stre orphic Po leutral Te	rs (minimum acks (B6) rns (B10) ter Table (C ss (C8) ele on Aerial ssed Plants sition (D2) st (D5)	n of two required)

Project/Site: IH 94 Milwaukee County		City/C	County: Oak Creek	k/Milwaukee Sampling Date: 11-Nov-16
Applicant/Owner: WisDOT			State	re: WI Sampling Point: SP-36 (W11-15)
Investigator(s): Mike Al-wathiqui, Geof P	arish	Sect	tion, Township, Range	
Landform (hillslope, terrace, etc.): Toeslo				(concave, convex, none): concave
	<u>'</u>		Long.: -87.94909	
	42.8400036			
Soil Map Unit Name: Alluvial land		_{rear?} Yes	Ma (If no	WWI classification: None
Are climatic/hydrologic conditions on the s			, ,	explain in Remarks.) Normal Circumstances" present? Yes No
Are Vegetation, Soil	. , , , _	significantly disturb	7	F
Are Vegetation, Soil		naturally problema	•	eeded, explain any answers in Remarks.)
		wing sampin	ng pomit iocatio	ions, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes • No O		Is the Sampled	i Area
Hydric Soil Present?	Yes • No ·		within a Wetlar	
Wetland Hydrology Present?	Yes ● No ○			
Remarks:				
Hydrological conditions were wette The data point was located in a we		nd plant commu	ınity, hydric soils a	and multiple indicators of wetland hydrology were present.
VECETATION - Use scien	ntific names of plac			
VEGETATION - Use scien	Alliic Hairies or Piar	s	ominant Species? ————	
<u>Tree Stratum</u> (Plot size:)		el.Strat. Indicator Cover Status	
1		0	0.0%	Number of Dominant Species That are OBL, FACW, or FAC:
2.		0 🗀	0.0%	That are obt, they, of the
3.		0 [0.0%	Total Number of Dominant Species Across All Strata: 2 (B)
4.		0 🗆	0.0%	Species Across All Strata.
5.		0 🗆	0.0%	Percent of dominant Species
			Total Cover	That Are OBL, FACW, or FAC: 100.0% (A/B)
_Sapling/Shrub Stratum (Plot size:)			Prevalence Index worksheet:
1.		_ 0	0.0%	Total % Cover of: Multiply by:
2.		0 🗆	0.0%	OBL species 90 x 1 = 90
3.		0 🗆	0.0%	FACW species 80 x 2 = 160
4.		0	0.0%	FAC species 0 x 3 = 0
5.		0	0.0%	FACU species 0 x 4 = 0
Herb Stratum(Plot size: 5' radius	١	0 =	Total Cover	UPL species $0 \times 5 = 0$
1. Typha angustifolia	/	90	52.9% OBL	Column Totals: <u>170</u> (A) <u>250</u> (B)
1. Typna angustirolla 2. Solidago sempervirens		80		
2. Solidago sempervirens 3.		0	0.0%	Prevalence Index = B/A = 1.471
4.		0 🗆	0.0%	Hydrophytic Vegetation Indicators:
5.		0 🗆	0.0%	1 - Rapid Test for Hydrophytic Vegetation
6.		0 🗆	0.0%	2 - Dominance Test is > 50%
7.		0 🗆	0.0%	\checkmark 3 - Prevalence Index is ≤3.0 ¹
8.			0.0%	4 - Morphological Adaptations 1 (Provide supporting
9.		0 🗆	0.0%	data in Remarks or on a separate sheet)
10.		0 🗆	0.0%	Problematic Hydrophytic Vegetation ¹ (Explain)
			Total Cover	1 Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:)			be present, unless disturbed or problematic.
1			0.0%	- Marting at a
2		_ 0	0.0%	Hydrophytic Vegetation
		= -	Total Cover	Present? Yes No
				_
Remarks: (Include photo numbers	here or on a separate s	heet.)		
A wetland plant community was do	ocumented by the Rapid	Test, Dominan	ce Test and the Pre	evalence Index.

SOIL Sampling Point: SP-36 (W11-15)

Color (moleta)	Profile Descr	ription: (Descri	ibe to the c	lepth need	led to document	the indic	ator or co	nfirm the	absence of i	ndicators.)		
Trype: C-Concentration, D-Depletion, RM-Reduced Matrix, CS-Covered or Coaled Sand Grains. Recotors Recot	•							14-3	- <u>-</u>	.	_	
Tippe: C=Concentration, D=Depleton, RM=Reduced Matrix, CS=Covered or Coased Sand Grains. Recotton: PL=Pone Lining, M=Matrix.										ture	R	emarks
Hydric Soil Indicators	0-14	101K	4/1		101K 3/0			1*1	Jilly Clay			
Hydric Soil Indicators						-		-				
Hydric Soil Indicators						-						
Hydric Soil Indicators										_		
Hydric Soil Indicators												
Hydric Soil Indicators								-				
Hydric Soil Indicators								-				
Hydric Soil Indicators												
Hydric Soil Indicators												
Histocal (A1)	- ''	· · · · · · · · · · · · · · · · · · ·	epletion, RM	=Reduced	Matrix, CS=Covere	d or Coate	ed Sand Grai	ns.	L'ocation: PL	.=Pore Lining. N	1=Matrix.	
Histic Epipedion (A2)					Const. Classed	Matrix (C)	13		Indicate	ors for Proble	matic Hydric	Soils ³ :
Black Histic (A3)		•				-	!)		Coas	t Prairie Redox	(A16)	
Hydrogen Sulfide (Aya)					_ ′				Dark	Surface (S7)		
□ Straffied Layers (A5) □ 2 cm Muck (A10) □ Depleted Matrix (F2) □ Depleted Below Dark Surface (A11) □ Depleted Below Dark Surface (A12) □ Depleted Dark Surface (F5) □ Sandy Muck Mineral (S1) □ So m Mucky Peat or Peat (S3) □ Redox Depressions (F8) □ Type: □ Depth (inches): □ Surface Water (A1) □ Secondary Indicators (minimum of two required) □ Surface Soil Cracks (B6) □ Drainage Patterns (B10) □ Drainage Pat		. ,				. ,	-1\		☐ Iron	Manganese Ma	sses (F12)	
□ 2 cm Muck (A10) □ Depleted Matrix (F3) □ D	Stratified	Layers (A5)					-		Very	Shallow Dark S	urface (TF12)	
Depleted Below Dark Surface (A11)	2 cm Muc	k (A10)				-	-)		Othe	r (Explain in Re	marks)	
Tinkic Dark Surface (A12)	Depleted	Below Dark Surf	ace (A11)		= '	` ,	١					
Sandy Muck Mineral (S1)	☐ Thick Darl	k Surface (A12)				•	•		3	***** ** b d * al		
Restrictive Layer (if observed):	Sandy Mu	ick Mineral (S1)			= .	,	. , ,		Illuica			
Type:	5 cm Muc	ky Peat or Peat	(S3)		reach pepres	3.0.10 (. 0)			ur	nless disturbed	or problematio	•
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) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Primary Indicators (B2) Primary Indicators (minimum of two required) Hydrogen Sulfide Odor (C1) Sediment Deposits (B3) Presence of Reduced Iron (C4) Sulface Water (B2) Hydrogen Sulfide Odor (C1) Gauge or Well Data (D5) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No Depth (inches): Surface Water Present? Yes No Depth (inches): Sufface Water Present? Yes No Pepth (inches): Sufface Water Vater	Restrictive La	ayer (if observ	ed):									
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) Water-Stained Leaves (B9) Surface Soil Cracks (B6) High Water Table (A2) Saturation (A3) True Aquatic Plants (B14) Saturation (A3) True Aquatic Plants (B14) Sediment Deposits (B2) Sediment Deposits (B2) Sediment Deposits (B3) Persence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) In no Deposits (B5) In huck Surface (C7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Wetland Hydrology Indicators: Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Pepth (inches): Saturation Present? Yes	Type:											0
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) Aquatic Fauna (B13) Saturation (A3) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Sediment Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Wetland Hydrology Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Depth (incl	hes):			_				Hydric So	oil Present?	Yes •	No \bigcirc
### Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)	Remarks:											
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Water Marks (B1) Sediment Deposits (B2) Drilange Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Algal Water Water (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No Depth (inches): Unequal of the position of the posi	The criteria fo	or hydric soils	was met b	y F3 Deple	eted Matrix.							
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Water Marks (B1) Sediment Deposits (B2) Drilange Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Algal Water Water (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No Depth (inches): Unequal of the position of the posi												
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Water Marks (B1) Sediment Deposits (B2) Drilange Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Algal Water Water (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No Depth (inches): Unequal of the position of the posi												
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Water Marks (B1) Sediment Deposits (B2) Drilange Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Algal Water Water (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No Depth (inches): Unequal of the position of the posi												
Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6) High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10) Saturation (A3) True Aquatic Plants (B14) Dry Season Water Table (C2) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Presence of Reduced Iron (C4) Agal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	HYDROLO)GY										
Surface Water (A1)	Wetland Hyd	rology Indicat	ors:									
High Water Table (A2)	Primary Indica	ators (minimum	of one is req	uired; chec	k all that apply)				Se	condary Indicat	ors (minimum	of two required)
Saturation (A3)	Surface W	/ater (A1)			Water-Staine	ed Leaves	(B9)			Surface Soil C	racks (B6)	
Water Marks (B1)	High Wate	er Table (A2)			Aquatic Faur	na (B13)				Drainage Patt	erns (B10)	
Sediment Deposits (B2)	Saturation	n (A3)			True Aquation	: Plants (B	14)			Dry Season W	ater Table (C2)
□ Drift Deposits (B3) □ Presence of Reduced Iron (C4) □ Stunted or Stressed Plants (D1) □ Algal Mat or Crust (B4) □ Recent Iron Reduction in Tilled Soils (C6) ☑ Geomorphic Position (D2) □ Iron Deposits (B5) □ Thin Muck Surface (C7) ☑ FAC-Neutral Test (D5) □ Inundation Visible on Aerial Imagery (B7) □ Gauge or Well Data (D9) □ Sparsely Vegetated Concave Surface (B8) □ Other (Explain in Remarks) □ Other (Explain in Remarks) □ Depth (inches): □ User Table Present? Yes □ No □ Depth (inches): □ User Table Present? Yes □ No □ Depth (inches): □ User (includes capillary fringe) □ Depth (inches): □ User (includes capillary fringe) □ Depth (inches): □ User (includes capillary fringe) □ Depth (inches): □ User (inches): □	☐ Water Ma	rks (B1)			Hydrogen Su	ılfide Odo	r (C1)			Crayfish Burro	ws (C8)	
Algal Mat or Crust (B4)	Sediment	Deposits (B2)			Oxidized Rhi	zospheres	on Living R	oots (C3)		Saturation Vis	ible on Aerial I	magery (C9)
☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Gauge or Well Data (D9) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No Depth (inches): ☐ Water Table Present? Yes No Depth (inches): ☐ Saturation Present? Yes No Depth (inches): ☐ Wetland Hydrology Present? Yes No Depth (inches): ☐ Hydrology Present? Yes No Depth (inches): ☐ Hydrology Present? Yes No	Drift Depo	osits (B3)			Presence of	Reduced 1	Iron (C4)			Stunted or Str	essed Plants (D1)
☐ Inundation Visible on Aerial Imagery (B7) ☐ Gauge or Well Data (D9) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Other (Explain in Remarks) Field Observations: Surface Water Present? Yes ○ No ● Depth (inches): Water Table Present? Yes ○ No ● Depth (inches): Saturation Present? Yes ○ No ○ Depth (inches): Uncludes capillary fringe) Yes ○ No ○ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Algal Mat	or Crust (B4)			Recent Iron	Reduction	in Tilled So	ils (C6)	_			
Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Id Wetland Hydrology Present? Yes No No Depth (inches): Includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Iron Depo	osits (B5)			Thin Muck S	urface (C7	')		✓	FAC-Neutral T	est (D5)	
Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:			- , ,	•	Gauge or W	ell Data (D	9)					
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Present? (includes capillary fringe) Present? Yes No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	☐ Sparsely \	Vegetated Conca	ive Surface ((B8)	Other (Expla	in in Rem	arks)					
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Present? (includes capillary fringe) Present? Yes No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:												
Water Table Present? Saturation Present? (includes capillary fringe) Pescribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland Hydrology Present? Yes No No Depth (inches): 14 Wetland Hydrology Present? Yes No			v (N. O	6							
Saturation Present? (includes capillary fringe) Pescribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Surface Water	Present?		_	Depth (inc	nes):		- [
Cincludes capillary fringe) Pescribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Water Table Pr	resent?	Yes \bigcirc	No 🖭	Depth (inc	hes):		-			V (a)	No O
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:			Yes	No \bigcirc	Depth (inc	hes):	14	wet	iana Hydrolo	gy Present?	res 😇	MO ~
Remarks:							previous in	spections	s), if available	e:		
	2 2231150 1100	(3	cam gad	, , , , , , , , , , , , , , , , , , , ,	gc.i, acriai	F5057	5.1045 111		-,, a taliabl			
	Remarks											
The conditions of mediand hydrology were documented with two secondary indicators, which were D2 decimorphic rosition and D3 FAC-heutar rest.		ns of wetland	hvdrology	were doci	imented with two	n second	arv indicat	ors which	h were D2 G	Geomorphic D	osition and D	5 FAC-neutral Tect
	The condition	or Wedana	, α. οιοσγ		CITCO WILL CVV	. Jeconiu	ar, maicat	SIS, WITH		.comorphic i	Joine D	2 . A. G. Head at 103ti

Project/Site: IH 94 Milwaukee County	City/County: Oak Cre	reek/Milwaukee Sampling Date: 11-Nov-16
Applicant/Owner: WisDOT	Si	State: WI Sampling Point: SP-37 (up)
Investigator(s): Mike Al-wathiqui, Geof Parish	Section, Township, Ra	ange: S 31 T 5N R 22E
Landform (hillslope, terrace, etc.): Hillside	Local rel	lief (concave, convex, none): convex
Slope: 15.0% / 8.5 ° Lat.: 42.8456001	Long.: -87.949	94019 Datum: WGS84
Soil Map Unit Name: Alluvial land		WWI classification: E1K
Are climatic/hydrologic conditions on the site typical for this time o	_{f vear?} Yes ○ No ● (If n	no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology	. ,	re "Normal Circumstances" present? Yes No No
Are Vegetation , Soil , or Hydrology		·
SUMMARY OF FINDINGS - Attach site map sh		if needed, explain any answers in Remarks.) ations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No		<u> </u>
Hydric Soil Present? Yes ○ No •	Is the Sampl	
Wetland Hydrology Present? Yes ○ No ●	within a Wet	tland? Yes ○ No •
Remarks:		
	ants. Dominant Species?	· · · · · · · · · · · · · · · · · · ·
Tree Stratum(Plot size:)	Absolute Rel.Strat. Indica % Cover Cover State	rus
1		Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
2.		
3.	0	Total Number of Dominant Species Across All Strata: 1 (B)
4.	0	
5	0	Percent of dominant Species That Are OBL, FACW, or FAC:100.0% (A/B)
(State)	0 = Total Cover	
Sapling/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
1.	0	Total % Cover of: Multiply by:
2. 3.	0	OBL species 0 x 1 = 0
4.	0	FACW species 0 x 2 = 0
5.	0	FAC species $100 \times 3 = 300$ FACU species $0 \times 4 = 0$
	0	
Herb Stratum (Plot size: 5' radius)		
1. Poa pratensis	100_	Column Totals: (A) (B)
2		Prevalence Index = B/A = 3.000
34.		Hydrophytic Vegetation Indicators:
5.	0	1 - Rapid Test for Hydrophytic Vegetation
6.		✓ 2 - Dominance Test is > 50%
7.		✓ 3 - Prevalence Index is \leq 3.0 ¹
8.	0 0.0%	4 - Morphological Adaptations ¹ (Provide supporting
9.	0 0.0%	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)
10.	0 0.0%	
··· Lur or (Diot cire)	100 = Total Cover	$\frac{1}{2}$ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)	0	De present united alocaroes of presentation
12.	0 0.0%	Hydrophytic
Z	0	Vegetation Present? Yes No No
		Present:
Remarks: (Include photo numbers here or on a separate	sheet)	
The criteria for a wetland plant community was met by t	•	Grace
The criteria for a wedand plant community was met by t	the dominance of Kentucky blue G	JI d55.

SOIL Sampling Point: SP-37 (up)

Profile Descrip	otion: (Desc	ribe to t	he depth i	needed to document	the indic	ator or co	nfirm the	absence of indicators.)	
Depth _	M	latrix		Red	ox Featu			_	
(inches)	Color (m	oist)	%	Color (moist)	%	Tvpe 1	Loc ²	<u>Texture</u>	Remarks
0-15	10YR	3/3	60	10YR 5/6	10	C	М	Silty Clay Loam	
	10YR	3/2	30				-		
							-	•	
					-		-		
- ` · · · · · · · · · · · · · · · · · · 		Depletion	, RM=Redu	ced Matrix, CS=Covere	d or Coate	ed Sand Gra	ins.	20cation: PL=Pore Lining. M=M	atrix.
Hydric Soil Inc								Indicators for Problemat	ic Hydric Soils ³ :
Histosol (A1	•			Sandy Gleyed	-	ł)		Coast Prairie Redox (A16	5)
Histic Epipe Black Histic				Sandy Redox (Dark Surface (S7)	
Hydrogen S	. ,			Stripped Matri	. ,			☐ Iron Manganese Masses	(F12)
Stratified La				Loamy Mucky	•	•		Very Shallow Dark Surface	ce (TF12)
2 cm Muck	(A10)			Loamy Gleyed Depleted Matr	•	2)		Other (Explain in Remarl	(S)
☐ Depleted Be	elow Dark Sui	face (A1	1)	Redox Dark Su	` ,	١			
☐ Thick Dark S	Surface (A12))		Depleted Dark	•	•		³ Indicators of hydrophytic	d
Sandy Muck	k Mineral (S1)			Redox Depres	•	•		wetland hydrology mus	
5 cm Mucky	y Peat or Peat	: (S3)		Redox Depres	3.0.10 (. 0)			unless disturbed or pr	oblematic.
Restrictive Lay	yer (if obser	ved):							
Туре:									O O
Depth (inche	es):							Hydric Soil Present? You	es O No O
Remarks:									
Hydric soils we	ere not obse	rved.							
HYDROLOG	GY								
Wetland Hydro	ology Indica	tors:							
Primary Indicato	ors (minimum	of one is	s required;	check all that apply)				Secondary Indicators (minimum of two required)
Surface Wat	ter (A1)			Water-Staine	ed Leaves	(B9)		Surface Soil Cracks	s (B6)
High Water	Table (A2)			Aquatic Faur	na (B13)			☐ Drainage Patterns	(B10)
Saturation ((A3)			True Aquatio	•	•		Dry Season Water	
Water Mark	` '			☐ Hydrogen St				Crayfish Burrows (•
	eposits (B2)			Oxidized Rhi		_	Roots (C3)		on Aerial Imagery (C9)
Drift Deposi				Presence of			(55)	Stunted or Stresse	` '
Algal Mat or				Recent Iron			olls (C6)	Geomorphic Position	
Iron Deposi		rial Imaa	om. (D7)	☐ Thin Muck S	-	-		FAC-Neutral Test (D5)
	Visible on Ae egetated Cond	_		Gauge or W	-	-			
Sparsely ve	getated conc	ave Julie	acc (bo)	U Other (Expla	ıın ın kem	arks)			
Field Observat	tions:								
Surface Water P		Yes (O No	Depth (inc	hes):				
Water Table Pres		Yes (, ,			_		
Saturation Prese					·		Wet	land Hydrology Present?	Yes O No 💿
(includes capillar		Yes ⁽	O No	Depth (inc	hes):		-		
Describe Recor	rded Data (stream	gauge, mo	nitoring well, aerial	photos, ¡	previous in	spections	s), if available:	
Remarks:									
No indicators of	of wetland h	nydrolog	y were ob	served.					

Project/Site: IH 94 Milwaukee County	City/Count	y: 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:/	Lor	— ng.: -87.949501	Datum: WGS84
		907.37330.	
Soil Map Unit Name: Alluvial land	ar? Yes O No	(If no. e)	WWI classification: <u>E1K</u> xplain in Remarks.)
Are climatic/hydrologic conditions on the site typical for this time of ye Are Vegetation , Soil , or Hydrology , si	ui.	(-, -	
	gnificantly disturbed?		ormal circumstances present.
Are Vegetation	aturally problematic?	•	eded, explain any answers in Remarks.)
Hydrophytic Vegetation Present? Yes No			
Hydric Soil Present? Yes No		Is the Sampled A	
	'	within a Wetland	d? Yes No
Wetland Hydrology Present? Yes • No ·			
Hydrological conditions were wetter than normal. A wetland The data point was located in a wetland. VEGETATION - Use scientific names of plan		nant	
Tree Stratum(Plot size:		trat. Indicator	Dominance Test worksheet:
		0%	Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)
1 2		0%	That are obt, FACW, of FAC.
3.	0	0%	Total Number of Dominant Species Across All Strata: 2 (B)
4.	0 0.	0%	Species Across Air Strata.
5.	0 🗆 0.	0%	Percent of dominant Species That Are OBL_FACW_or_FAC: 100.0% (A/B)
	0 = Tota	l Cover	That Are OBL, FACW, or FAC: 100.0% (A/B)
_Sapling/Shrub Stratum (Plot size:)			Prevalence Index worksheet:
1	0 0.	0%	Total % Cover of: Multiply by:
2		0%	OBL species <u>90</u> x 1 = <u>90</u>
3		0%	FACW species 80 x 2 = 160
4. 5.		0%	FAC species 0 x 3 = 0
<u> </u>		0% L Cover	FACU species 0 x 4 = 0
Herb Stratum (Plot size: 5' radius)	0 = Tota	Cover	UPL species $0 \times 5 = 0$
1. Typha angustifolia	90 🗸 52	.9% OBL	Column Totals: <u>170</u> (A) <u>250</u> (B)
2. Solidago sempervirens	80 47	.1% FACW	Prevalence Index = B/A = 1.471
3		0%	Hydrophytic Vegetation Indicators:
4 5.		0%	✓ 1 - Rapid Test for Hydrophytic Vegetation
6.		0%	✓ 2 - Dominance Test is > 50%
7.		0%	✓ 3 - Prevalence Index is ≤3.0 ¹
8.		0%	\square 4 - Morphological Adaptations 1 (Provide supporting
9.		0%	data in Remarks or on a separate sheet)
10.		0%	Problematic Hydrophytic Vegetation ¹ (Explain)
		l Cover	1 Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:)			be present, unless disturbed or problematic.
1		0%	Hydrophytic
2		0%	Vegetation
	0 = Tota	l Cover	Present? Yes No C
Domarka (Include photo numbers have as an account of	unot)		
Remarks: (Include photo numbers here or on a separate sh	•		onless Taday
A wetland plant community was documented by the Rapid	i est, Dominance T	est and the Pre	valence Index.

SOIL Sampling Point: SP-38 (W-5)

rofile Desc Depth		Matrix			Redox Featu	ıres					
(inches)	Color (%	Color (mois		Tvpe 1	Loc2	Tex	ture	F	Remarks
0-6	10YR	4/2	60	10YR 5	/6 20	С	М	Silty Clay			
	10YR	3/2	20								
6-16	10YR		90	10YR 4	/6 10	_ <u>C</u>	M	Silty Clay			
							-				
	-										
Гуре: С=Со	ncentration, D	=Depletion	RM=Reduc	ed Matrix, CS=C	overed or Coat	ed Sand Gra	ns.	₽ocation: Pl	_=Pore Lining.	M=Matrix.	
lydric Soil	Indicators:							Indicat	ors for Proble	ematic Hydric	: Soils ³ :
Histosol	(A1)			Sandy G	eyed Matrix (S	4)				-	. 50113
Histic Ep	ipedon (A2)			_	edox (S5)	•			st Prairie Redox	(A16)	
Black His	stic (A3)			Stripped	Matrix (S6)			_	Surface (S7)		
Hydroge	n Sulfide (A4)				ucky Mineral (I	=1)		_	Manganese Ma	` '	
Stratified	l Layers (A5)				leyed Matrix (F			∐ Very	Shallow Dark	Surface (TF12)	
2 cm Mu	ck (A10)				Matrix (F3)	•		Othe	er (Explain in R	emarks)	
Depleted	Below Dark S	Surface (A1	.)		ark Surface (F6)					
Thick Da	ırk Surface (A	12)			Dark Surface (•		3 Indica	ators of hydrop	hutic vocatati-	n and
Sandy M	uck Mineral (S	51)			epressions (F8)	. ,		THUICE	tland hydrolog		
5 cm Mu	cky Peat or Pe	eat (S3)		Redox D	cpressions (10)				nless disturbed		
estrictive l	Layer (if obs	erved):									
Type: _											
										_	
Depth (in	ches):							Hydric So	oil Present?	Yes •	No O
Remarks:		ils was me	et by F3 De	epleted Matrix	and F6 Redo	x Dark Suri	āce.	Hydric So	oil Present?	Yes •	No O
Remarks: ne criteria i	for hydric so	ils was me	et by F3 De	epleted Matrix	and F6 Redo:	x Dark Suri	āce.	Hydric So	oil Present?	Yes •	No O
Remarks: ne criteria i	for hydric so	ils was me	et by F3 De	epleted Matrix	and F6 Redo:	x Dark Suri	āce.	Hydric So	oil Present?	Yes •	No O
Remarks: ne criteria i YDROLO Vetland Hy	for hydric so OGY drology Indi	cators:	,			x Dark Suri	āce.				
Remarks: the criteria to the c	for hydric so OGY drology Indi	cators:	,	epleted Matrix		x Dark Suri	āce.				No O
Remarks: ne criteria i YDROLO Vetland Hy	for hydric so OGY drology Indi	cators:	,	heck all that app			ace.			itors (minimum	
YDROLO Vetland Hy Primary India Surface	for hydric so OGY drology Indi cators (minimum	cators: um of one is	,	heck all that app	у)		ace.		econdary Indica Surface Soil (Drainage Pat	otors (minimum Cracks (B6) terns (B10)	of two required)
Remarks: the criteria to the c	OGY drology Indicators (minimum) Water (A1) ter Table (A2)	cators: um of one is	,	heck all that app	y) Stained Leaves	(B9)	ace.		econdary Indica Surface Soil (Drainage Pat	utors (minimum Cracks (B6)	of two required)
YDROL YDROL Yetland Hy Primary India Surface V High Wa Saturatio	OGY drology Indicators (minimum) Water (A1) ter Table (A2)	cators: um of one is	,	heck all that app Water- Aquati	y) Stained Leaves : Fauna (B13)	(B9) 314)	äce.		econdary Indica Surface Soil (Drainage Pat	ntors (minimum Cracks (B6) terns (B10) Vater Table (C:	of two required)
YDROLO Vetland Hy Primary India Surface V High Wa Saturatio Water M	OGY drology Indicators (minimum Water (A1) ter Table (A2) on (A3)	cators: um of one is	,	heck all that app Water- Aquati	y) Stained Leaves : Fauna (B13) quatic Plants (E	(B9) B14) or (C1)			econdary Indica Surface Soil (Drainage Pat Dry Season V Crayfish Burr	ntors (minimum Cracks (B6) terns (B10) Vater Table (C:	of two required)
Remarks: the criteria to the c	OGY drology Indicators (minimum Water (A1) ter Table (A2) on (A3) arks (B1)	cators: um of one is	,	heck all that app Water- Aquati True A Hydrog	y) Stained Leaves : Fauna (B13) quatic Plants (E ien Sulfide Odo	(B9) 314) or (C1) s on Living F			econdary Indica	ntors (minimum Cracks (B6) terns (B10) Vater Table (Ci ows (C8)	of two required) 2) Imagery (C9)
YDROLO Vetland Hy Primary Indio Surface Water M Water M Sedimen Drift Dep	OGY drology Indicators (minimum (A2) on (A3) arks (B1) arks (B2) on (B2) on (B2) on (B2) on (B3) arks (B1) arks (B1) on (B2) on (B3) arks (B1) on (B2)	cators: um of one is	,	heck all that app Water- Aquati True A Hydrog Oxidize	y) Stained Leaves : Fauna (B13) quatic Plants (E en Sulfide Odo ed Rhizosphere	(B9) 314) or (C1) s on Living F Iron (C4)	oots (C3)		econdary Indica Surface Soil (Drainage Pat Dry Season V Crayfish Burr Saturation Vi Stunted or St	ntors (minimum Cracks (B6) terns (B10) Vater Table (C: ows (C8) sible on Aerial cressed Plants (of two required) 2) Imagery (C9)
Remarks: the criteria to the c	or hydric so drology Indicators (minimum water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) posits (B3)	cators: um of one is	,	heck all that app Water- Aquatic True A Hydrog Oxidize Presen	y) Stained Leaves : Fauna (B13) quatic Plants (E len Sulfide Odo dd Rhizosphere ce of Reduced	(B9) B14) or (C1) s on Living F Iron (C4) n in Tilled Sc	oots (C3)	Se	econdary Indica Surface Soil (Drainage Pat Dry Season V Crayfish Burr Saturation Vi Stunted or St Geomorphic	otors (minimum Cracks (B6) terns (B10) Vater Table (Ci ows (C8) sible on Aerial cressed Plants (Position (D2)	of two required) 2) Imagery (C9)
YDROLO Vetland Hy Primary India Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep	or hydric so drology Indicators (minimum water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) oosits (B3) t or Crust (B4)	cators: um of one is	required; c	heck all that app Water- Aquation True A Hydrog Oxidize Presen Recent	y) Stained Leaves : Fauna (B13) quatic Plants (E len Sulfide Odc d Rhizosphere ce of Reduced Iron Reduction	(B9) B14) or (C1) s on Living F Iron (C4) n in Tilled Sc 7)	oots (C3)	Se	econdary Indica Surface Soil (Drainage Pat Dry Season V Crayfish Burr Saturation Vi Stunted or St Geomorphic	otors (minimum Cracks (B6) terns (B10) Vater Table (Ci ows (C8) sible on Aerial cressed Plants (Position (D2)	of two required) 2) Imagery (C9)
YDROL Yetland Hy Primary India High Wa Saturatic Water M Sedimen Drift Dep Algal Ma Iron Dep Inundati	OGY drology Indicators (minimum (Mater (A1))) ter Table (A2) on (A3) arks (B1) t Deposits (B2) cosits (B3) t or Crust (B4) cosits (B5)	cators: um of one is 2)	required; c	heck all that app Water- Aquatic True A Hydrog Oxidize Presen Recent Thin M Gauge	Stained Leaves Fauna (B13) quatic Plants (E en Sulfide Odo d Rhizosphere ce of Reduced Iron Reduction uck Surface (C or Well Data (I	(B9) B14) or (C1) s on Living F Iron (C4) on in Tilled Sc 7) D9)	oots (C3)	Se	econdary Indica Surface Soil (Drainage Pat Dry Season V Crayfish Burr Saturation Vi Stunted or St Geomorphic	otors (minimum Cracks (B6) terns (B10) Vater Table (Ci ows (C8) sible on Aerial cressed Plants (Position (D2)	of two required) 2) Imagery (C9)
Nemarks: The criteria is the	OGY drology Indicators (minimum Water (A1)) ter Table (A2) on (A3) arks (B1) t Deposits (B2) cosits (B3) t or Crust (B4) cosits (B5) on Visible on A	cators: um of one is 2)	required; c	heck all that app Water- Aquatic True A Hydrog Oxidize Presen Recent Thin M Gauge	y) Stained Leaves Fauna (B13) quatic Plants (E en Sulfide Odo ed Rhizosphere ce of Reduced Iron Reduction uck Surface (C	(B9) B14) or (C1) s on Living F Iron (C4) on in Tilled Sc 7) D9)	oots (C3)	Se	econdary Indica Surface Soil (Drainage Pat Dry Season V Crayfish Burr Saturation Vi Stunted or St Geomorphic	otors (minimum Cracks (B6) terns (B10) Vater Table (Ci ows (C8) sible on Aerial cressed Plants (Position (D2)	of two required) 2) Imagery (C9)
Nemarks: The criteria is the	or hydric so drology Indicators (minimum water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) posits (B3) t or Crust (B4) posits (B5) on Visible on A	cators: um of one is 2) Aerial Image	required; c	heck all that app Water- Aquatic True A Hydrog Oxidize Presen Recent Thin M Gauge	Stained Leaves Fauna (B13) quatic Plants (E en Sulfide Odo d Rhizosphere ce of Reduced Iron Reduction uck Surface (C or Well Data (I	(B9) B14) or (C1) s on Living F Iron (C4) on in Tilled Sc 7) D9)	oots (C3)	Se	econdary Indica Surface Soil (Drainage Pat Dry Season V Crayfish Burr Saturation Vi Stunted or St Geomorphic	otors (minimum Cracks (B6) terns (B10) Vater Table (Ci ows (C8) sible on Aerial cressed Plants (Position (D2)	of two required) 2) Imagery (C9)
Remarks: the criteria to the c	oGY drology Indicators (minimum Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B3) t or Crust (B4) cosits (B5) on Visible on Vegetated Covations:	cators: um of one is 2)	required; c	heck all that app Water- Aquatic True A Hydrog Oxidize Presen Recent Thin M Gauge	Stained Leaves Fauna (B13) quatic Plants (E en Sulfide Odo d Rhizosphere ce of Reduced Iron Reduction uck Surface (C or Well Data (I	(B9) B14) or (C1) s on Living F Iron (C4) on in Tilled Sc 7) D9)	oots (C3)	Se	econdary Indica Surface Soil (Drainage Pat Dry Season V Crayfish Burr Saturation Vi Stunted or St Geomorphic	otors (minimum Cracks (B6) terns (B10) Vater Table (Ci ows (C8) sible on Aerial cressed Plants (Position (D2)	of two required) 2) Imagery (C9)
Remarks: the criteria to the c	OGY drology Indicators (minimum Water (A1)) ter Table (A2) on (A3) arks (B1) t Deposits (B2) cosits (B3) t or Crust (B4) cosits (B5) on Visible on A Vegetated Co	cators: um of one is 2) Aerial Image	required; co	heck all that app Water- Aquati True A Hydrog Oxidize Presen Recent Gauge Other	Stained Leaves Fauna (B13) quatic Plants (Ean Sulfide Odo Ad Rhizosphere Ce of Reduced Iron Reduction Cuck Surface (Coor Well Data (Interpolate Interpolate Interpola	(B9) B14) or (C1) s on Living F Iron (C4) on in Tilled Sc 7) D9)	oots (C3)	Se	econdary Indica Surface Soil (Drainage Pat Dry Season V Crayfish Burr Saturation Vi Stunted or St Geomorphic	otors (minimum Cracks (B6) terns (B10) Vater Table (Ci ows (C8) sible on Aerial cressed Plants (Position (D2)	of two required) 2) Imagery (C9)
Remarks: the criteria to the c	OGY drology Indicators (minimum Water (A1)) ter Table (A2) on (A3) arks (B1) t Deposits (B3) t or Crust (B4) cosits (B5) on Visible on A Vegetated Co vations: er Present?	cators: um of one is 2) Aerial Image incave Surfa Yes Yes	required; cery (B7) ce (B8)	heck all that app Water- Aquatic True A Hydrog Oxidize Presen Recent Gauge Other Dept	y) Stained Leaves Fauna (B13) quatic Plants (E len Sulfide Odo d Rhizosphere ce of Reduced Iron Reduction uck Surface (C or Well Data (E	(B9) B14) or (C1) s on Living F Iron (C4) on in Tilled Sc 7) D9)	oots (C3)	Se C	econdary Indica Surface Soil (Drainage Pat Dry Season V Crayfish Burr Saturation Vi Stunted or St Geomorphic FAC-Neutral	otors (minimum Cracks (B6) terns (B10) Vater Table (Ci ows (C8) sible on Aerial cressed Plants (Position (D2) Test (D5)	of two required) 2) Imagery (C9) (D1)
Remarks: the criteria to the c	oGY drology Indicators (minimum Water (A1)) ter Table (A2) on (A3) arks (B1) t Deposits (B2) cosits (B3) t or Crust (B4) cosits (B5) on Visible on A Vegetated Co vations: er Present? Present?	cators: um of one is 2) Aerial Image	required; cery (B7) ce (B8)	heck all that app Water- Aquatic True A Hydrog Oxidize Presen Recent Gauge Other Dept	Stained Leaves Fauna (B13) quatic Plants (Ean Sulfide Odo Ad Rhizosphere Ce of Reduced Iron Reduction Cuck Surface (Coor Well Data (Interpolate Interpolate Interpola	(B9) B14) or (C1) s on Living F Iron (C4) on in Tilled Sc 7) D9)	oots (C3)	Se C	econdary Indica Surface Soil (Drainage Pat Dry Season V Crayfish Burr Saturation Vi Stunted or St Geomorphic	otors (minimum Cracks (B6) terns (B10) Vater Table (Ci ows (C8) sible on Aerial cressed Plants (Position (D2)	of two required) 2) Imagery (C9) (D1)
Remarks: the criteria to the c	oGY drology Indicators (minimum Water (A1)) ter Table (A2) on (A3) arks (B1) t Deposits (B2) cosits (B3) t or Crust (B4) cosits (B5) on Visible on A Vegetated Co vations: er Present? Present? esent? elsent?	cators: um of one is e. Aerial Image ncave Surfa Yes Yes Yes	required; co	heck all that app Water- Aquati True A Hydrog Oxidize Presen Recent Gauge Other Dept Dept	Stained Leaves Fauna (B13) quatic Plants (Euen Sulfide Odo Red Rhizosphere Reduced Iron Reduction Reductio	(B9) 314) or (C1) os on Living F Iron (C4) on in Tilled Sc 7) D9) aarks)	oots (C3) ils (C6) Wet	Se	condary Indical Surface Soil (Drainage Pat Dry Season V Crayfish Burr Saturation Vi Stunted or St Geomorphic FAC-Neutral	otors (minimum Cracks (B6) terns (B10) Vater Table (Ci ows (C8) sible on Aerial cressed Plants (Position (D2) Test (D5)	of two required) 2) Imagery (C9) (D1)
Remarks: the criteria to the c	oGY drology Indicators (minimum Water (A1)) ter Table (A2) on (A3) arks (B1) t Deposits (B2) cosits (B3) t or Crust (B4) cosits (B5) on Visible on A Vegetated Co vations: er Present? Present? esent? elsent?	cators: um of one is e. Aerial Image ncave Surfa Yes Yes Yes	required; co	heck all that app Water- Aquatic True A Hydrog Oxidize Presen Recent Gauge Other Dept	Stained Leaves Fauna (B13) quatic Plants (Euen Sulfide Odo Red Rhizosphere Reduced Iron Reduction Reductio	(B9) 314) or (C1) os on Living F Iron (C4) on in Tilled Sc 7) D9) aarks)	oots (C3) ils (C6) Wet	Se	condary Indical Surface Soil (Drainage Pat Dry Season V Crayfish Burr Saturation Vi Stunted or St Geomorphic FAC-Neutral	otors (minimum Cracks (B6) terns (B10) Vater Table (Ci ows (C8) sible on Aerial cressed Plants (Position (D2) Test (D5)	of two required) 2) Imagery (C9) (D1)
Remarks: the criteria to the c	oGY drology Indicators (minimum Water (A1)) ter Table (A2) on (A3) arks (B1) t Deposits (B2) cosits (B3) t or Crust (B4) cosits (B5) on Visible on A Vegetated Co vations: er Present? Present? esent? elsent?	cators: um of one is e. Aerial Image ncave Surfa Yes Yes Yes	required; co	heck all that app Water- Aquati True A Hydrog Oxidize Presen Recent Gauge Other Dept Dept	Stained Leaves Fauna (B13) quatic Plants (Euen Sulfide Odo Red Rhizosphere Reduced Iron Reduction Reductio	(B9) 314) or (C1) os on Living F Iron (C4) on in Tilled Sc 7) D9) aarks)	oots (C3) ils (C6) Wet	Se	condary Indical Surface Soil (Drainage Pat Dry Season V Crayfish Burr Saturation Vi Stunted or St Geomorphic FAC-Neutral	otors (minimum Cracks (B6) terns (B10) Vater Table (Ci ows (C8) sible on Aerial cressed Plants (Position (D2) Test (D5)	of two required) 2) Imagery (C9) (D1)
Remarks: the criteria to the c	oGY drology Indicators (minimum Water (A1)) ter Table (A2) on (A3) arks (B1) t Deposits (B2) cosits (B3) t or Crust (B4) cosits (B5) on Visible on A Vegetated Co vations: er Present? Present? esent? elilary fringe) corded Data	cators: um of one is 2) Aerial Image ncave Surfa Yes Yes Yes (stream of	required; co	heck all that app Water- Aquatic True A Hydrog Oxidize Presen Recent Thin M Gauge Other Dept Dept Dept	yy) Stained Leaves Fauna (B13) quatic Plants (E gen Sulfide Odo d Rhizosphere ce of Reduced Iron Reductior uck Surface (C or Well Data (I Explain in Rem n (inches): n (inches):	(B9) B14) or (C1) s on Living F Iron (C4) n in Tilled Sc (7) (29) harks) 16 previous in	oots (C3) ils (C6) Wet	Se	econdary Indical Surface Soil (Drainage Pat Dry Season V Crayfish Burr Saturation Vi Stunted or St Geomorphic FAC-Neutral	Ators (minimum Cracks (B6) terns (B10) Vater Table (Crows (C8) sible on Aerial cressed Plants (Position (D2) Test (D5)	of two required) 2) Imagery (C9) (D1)

Project/Site: IH 94 Milwaukee County	City/	County:	Oak Creek/N	Vilwaukee Sampling Date: 11-Nov-16
Applicant/Owner: _WisDOT			State:	WI Sampling Point: SP-39 (up)
Investigator(s): _Mike Al-wathiqui, Geof Parish	Se	ction, Town	ship, Range:	S 31 T 5N R 22E
Landform (hillslope, terrace, etc.): Hillside		L	ocal relief (c	oncave, convex, none): convex
Slope: 25.0% / 14.0 ° Lat.: 42.8494987		Long: -	87.944397	 Datum: WGS84
			07.511357	WWI classification: None
Soil Map Unit Name: Morley silt loam, 2 to 6 percent slopes Are climatic/hydrologic conditions on the site typical for this time of y	_{rear?} Yes	No (•)	(If no ex	plain in Remarks.)
	significantly distu			
				man directine presenti
Are Vegetation, Soil, or Hydrology r SUMMARY OF FINDINGS - Attach site map sho	naturally problem wing sampl		•	ded, explain any answers in Remarks.) ns, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No No				
Hydric Soil Present? Yes No			Sampled A	urea
Wetland Hydrology Present? Yes ○ No ●		withir	n a Wetland	l? Yes ○ No •
Remarks:				
Hydrological conditions were wetter than normal. Hydric swetland hydrology were observed. The sample point is in VEGETATION - Use scientific names of plan	an upland.	Dominant	ıgh an upla	nd plant community was documented and no indicators of
			Indicator Status	Dominance Test worksheet:
	0	0.0%	Status	Number of Dominant Species That are OBL, FACW, or FAC: (A)
2.	0 [0.0%		That are obe, then, of the
3.	0	0.0%		Total Number of Dominant Species Across All Strata: 2 (B)
4.	0	0.0%		
5.	0	0.0%		Percent of dominant Species That Are OBL FACW or FAC: 0.0% (A/B)
	=	Total Cove	er	That Are OBL, FACW, or FAC: 0.0% (A/B)
_ <u>Sapling/Shrub Stratum (</u> Plot size:)		_		Prevalence Index worksheet:
1	0	0.0%		Total % Cover of: Multiply by:
2. 3.	0 _	0.0%		OBL species $0 \times 1 = 0$
4.	0 _	0.0%		FACW species $0 \times 2 = 0$
5.	0	0.0%		FAC species $0 \times 3 = 0$ FACU species $140 \times 4 = 560$
		Total Cove		
Herb Stratum (Plot size: 5' radius)		_		
1. Festuca arundinacea			FACU	Column Totals: 140 (A) 560 (B)
2. Bromus inermis			FACU	Prevalence Index = B/A = 4.000
3. Solidago canadensis 4.	0	14.3%	FACU	Hydrophytic Vegetation Indicators:
5.	0 [0.0%		1 - Rapid Test for Hydrophytic Vegetation
6.	0 [0.0%		2 - Dominance Test is > 50%
7.	0 [0.0%		\Box 3 - Prevalence Index is ≤3.0 1
8.	0	0.0%		4 - Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)
9.	0	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
10.	0	0.0%		
	140 =	Total Cove	er	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1	0	0.0%		
2.	0	0.0%		Hydrophytic
;		: Total Cove	er	Vegetation Present? Yes ○ No ●
Remarks: (Include photo numbers here or on a separate s An upland soil was documented.	heet.)			

SOIL Sampling Point: SP-39 (up)

Profile Descri	ption: (Describe to	the depth n	eeded to document	the indic	cator or co	nfirm the	absence of indicators.)	
Depth	Matrix		Red	ox Featu			_	
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Tvpe 1	Loc ²	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=Conc	entration, D=Depletion	n, RM=Reduc	ed Matrix, CS=Covere	d or Coate	ed Sand Gra	ins.	20cation: PL=Pore Lining. M=M	atrix.
Hydric Soil I	ndicators:						Indicators for Problemat	ic Hydric Soils ³ :
Histosol (A	1)		Sandy Gleyed	Matrix (S4	1)		Coast Prairie Redox (A1	-
Histic Epip	` ,		Sandy Redox (S5)			Dark Surface (S7)	J)
Black Histi	` '		Stripped Matri	k (S6)			☐ Iron Manganese Masses	(F12)
Stratified L	Sulfide (A4)		Loamy Mucky	Mineral (F	1)		Very Shallow Dark Surfa	• •
2 cm Muck	, , ,		Loamy Gleyed	Matrix (F	2)			
	R (A10) Below Dark Surface (A	11\	✓ Depleted Matr	ix (F3)			U Other (Explain in Remar	KS)
I — ·	Surface (A12)	111)	Redox Dark Su	•	•			
	ck Mineral (S1)		Depleted Dark	•	•		Indicators of hydrophytic	vegetation and
_ ′	xy Peat or Peat (S3)		Redox Depres	sions (F8)			wetland hydrology mu unless disturbed or p	
	yer (if observed):						unicos distarbed or p	roblemadel
Type:								
							Hydric Soil Present? Y	es No
Depth (inch	les):							
Remarks:								
The criteria fo	r hydric soils was r	net by A11 [Depleted Below Dar	k Surface	e and F3 D	Depleted I	Matrix.	
LIVPR010								
HYDROLO	GY							
Wetland Hydi	rology Indicators:							
Primary Indica	tors (minimum of one	is required; c	heck all that apply)				Secondary Indicators	(minimum of two required)
Surface W	ater (A1)		Water-Staine	ed Leaves	(B9)		Surface Soil Crack	s (B6)
High Wate	r Table (A2)		Aquatic Faur	na (B13)			Drainage Patterns	(B10)
Saturation	(A3)		True Aquatio	Plants (B	314)		Dry Season Water	Table (C2)
Water Mar	. ,		☐ Hydrogen Su				Crayfish Burrows	• •
	Deposits (B2)		Oxidized Rhi	-	-	Roots (C3)		on Aerial Imagery (C9)
Drift Depo			Presence of				Stunted or Stresse	` '
	or Crust (B4)		Recent Iron			oils (C6)	Geomorphic Positi	* *
Iron Depos			☐ Thin Muck S	-	-		FAC-Neutral Test	(D5)
	Visible on Aerial Ima		☐ Gauge or We	-	-			
Sparsely V	egetated Concave Su	rface (B8)	U Other (Expla	in in Rem	arks)			
Field Observed								
Field Observa		O No @) Donth (incl					
Surface Water				ies):		-		
Water Table Pr		O No @	Depth (incl	nes):		_ ,,,,,	land Hydrology Present?	Yes O No 💿
Saturation Pres (includes capilla		○ No	Depth (incl	nes):		_ wet	ianu nyurology Present?	ies 🔾 NO 🔾
		gauge, mor	nitoring well, aerial	photos.	previous ir	spection	s), if available:	
	(50.5311	J	. J, acdi			,	n	
Remarks:								
	of wetland hydrolo	av were ob	carved					
INO INUICATORS	or wedand hydroic	yy were obs	oci veu.					

Project/Site: IH 94 Milwaukee County		Cit	y/County:	Oak Creek/N	Milwaukee	Samp	ling Date:	11-Nov-16
Applicant/Owner: WisDOT				State:	WI	Sampling Point:	SP-40	(W11-15)
Investigator(s): Mike Al-wathiqui, Geof F	arish		Section, Towr	nship, Range:	S 31 T	5N R	22E	
Landform (hillslope, terrace, etc.): Toesl	ope			Local relief (c	concave, convex, n	none): concave		
Slope: 2.0% / 1.1 ° Lat.:	42.8494987		Long.: -	-87.9442978	3	Da	itum: WGS	84
Soil Map Unit Name: Morley silt loam				0,1311237	-	classification: No		
Are climatic/hydrologic conditions on the		ear? Yes	○ No ●	(If no, ex	cplain in Remarks.)		iic .	
Are Vegetation, Soil		gnificantly dis		. ,	ormal Circumstance	,	Yes	No O
Are Vegetation, Soil	. , ., _	aturally proble			ded, explain any a	•		
SUMMARY OF FINDINGS - A				•	, , ,		•	etc.
Hydrophytic Vegetation Present?	Yes ● No ○							
Hydric Soil Present?	Yes No			e Sampled A in a Wetland		No O		
Wetland Hydrology Present?	Yes No			a vredane	·· ies 🙂 i	NO C		
Hydrological conditions were wette However, neither hydric soils nor in VEGETATION - Use scie	ndicators of wetland hyd	rology were	Dominant - Species?	The sample	e point was locat		(entucky Blu	e Grass.
<u>Tree Stratum</u> (Plot size:)	Absolute % Cover	Rel.Strat. Cover	Indicator Status				
1		0	0.0%		Number of Dom That are OBL, F		2	<u>!</u>
2		0	0.0%		Tatal Number o	.f Daminant		
3			0.0%		Total Number o Species Across		2	(B)
4. 5.			0.0%		Daysant of day	minant Cassiss		
J		0 0	0.0%			minant Species , FACW, or FAC		0% (A/B)
_Sapling/Shrub Stratum (Plot size:)		= Total Cove	er	Drovalence Inc	dex worksheet:		
1.		0	0.0%			Cover of:	Multiply by:	
2.		0	0.0%		OBL species		x 1 =	90
3.		0	0.0%		FACW specie		x 2 =	60
4.		0	0.0%		FAC species	20	x 3 =	60
5			0.0%		FACU species	s <u>10</u>	x 4 =	40
Herb Stratum (Plot size: 5' radius)	0	= Total Cove	er	UPL species	0	x 5 =	0
1. Typha angustifolia		90	✓ 60.0%	OBL	Column Tota	als: <u>150</u>	(A)	250 (B)
2. Phalaris arundinacea		30	20.0%	FACW	Prevalenc	ce Index = B/A	= 1.6	67
3. Poa pratensis		20	13.3%	FAC	Hydrophytic V	egetation Indica	ators:	
4. Festuca arundinacea 5.			6.7%	FACU		Test for Hydroph		ion
6.			0.0%		✓ 2 - Domina	ance Test is > 50)%	
7.		0 0	0.0%		✓ 3 - Prevale	ence Index is ≤3	.0 ¹	
8.		0	0.0%			ological Adaptat		
9.		0	0.0%		l	marks or on a se ic Hydrophytic V	•	•
10.		0	0.0%		_	, , ,	_	,
Woody Vine Stratum (Plot size:)	150	= Total Cove	er		of hydric soil and nless disturbed o		
		0	0.0%					-
2.		0	0.0%		Hydrophytic			
		0	= Total Cove	er	Vegetation Present?	Yes • No	\circ	
Remarks: (Include photo numbers	here or on a separate sh	neet.)						
A wetland plant community was do	ocumented by the Rapid	Test, Domin	ance Test a	and the Prev	valence Index.			

SOIL Sampling Point: SP-40 (W11-15)

Profile Description: (I	Matrix			lox Featur	rec			
Depth Colo	matrix (moist)	%	Color (moist)	ox reatur	_Tvpe ¹	Loc2	Texture	Remarks
0-13 10YR	4/2	80	10YR 5/6	20	С		Silty Clay	
Type: C=Concentration Hydric Soil Indicator: Histosol (A1) Histic Epipedon (A2 Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A5 2 cm Muck (A10) Depleted Below Dar Thick Dark Surface Sandy Muck Mineral 5 cm Mucky Peat or	4) (A) (A) (A) (A) (A) (A)		ed Matrix, CS=Covere Sandy Gleyed Sandy Redox Stripped Matri Loamy Mucky Loamy Gleyed Depleted Matr Redox Dark Si Depleted Dark Redox Depres	Matrix (S4) (S5) x (S6) Mineral (F1 I Matrix (F2 ix (F3) urface (F6) s Surface (F6)) 1))	5.	Coast Prairie Redo Dark Surface (S7) Iron Manganese N Very Shallow Dark Other (Explain in I	lematic Hydric Soils ³ : ox (A16) Masses (F12) c Surface (TF12)
Restrictive Layer (if o Type:							Hisdwig Coil Discount?	V (A) N- (
Type: Depth (inches): Remarks: The criteria for hydric	bserved):	et by F3 De	epleted Matrix.				Hydric Soil Present?	Yes No
Depth (inches):	soils was mo	et by F3 De	epleted Matrix.				Hydric Soil Present?	Yes No
Type:	dicators: mum of one is B2) A Aerial Image	s required; ch	neck all that apply) Water-Stain Aquatic Fau True Aquatic Hydrogen So Oxidized Rh Presence of	na (B13) c Plants (B1 ulfide Odor izospheres Reduced In Reduction iurface (C7) ell Data (D9)	(C1) on Living Ro ron (C4) in Tilled Soils)		Secondary Indic Surface Soil Drainage Pa Dry Season Crayfish Bur Saturation V	cators (minimum of two required) Cracks (B6) Atterns (B10) Water Table (C2) Trows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) E Position (D2)

Project/Site: IH 94 Milwaukee County	Cit	y/County:	Oak Creek/I	Milwaukee Sampling Date: 11-Nov-16
Applicant/Owner: _WisDOT			State:	WI Sampling Point: SP-41 (up)
Investigator(s): Mike Al-wathiqui, Geof Parish		Section, Town	ship, Range:	S 31 T 5N R 22E
Landform (hillslope, terrace, etc.): Hillside		ı	Local relief (c	concave, convex, none): concave
Slope: 15.0% / 8.5 ° Lat.: 42.8540993			87.938903	
Soil Map Unit Name: Ashkum silty clay loam, 0 to 2 percent s	slones		07.1300300	WWI classification: None
Are climatic/hydrologic conditions on the site typical for this time of ye		O No O	(If no, ex	cplain in Remarks.)
	ignificantly dis	turbed?	Are "No	ormal Circumstances" present?
Are Vegetation . , Soil . , or Hydrology . n	aturally proble	ematic?	(If nee	ded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map show	wing sam _l	pling poin	t locatio	ns, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No •				
Hydric Soil Present? Yes ○ No ●			Sampled A	
Wetland Hydrology Present? Yes O No •				·· (es) NO ()
Remarks: Hydrological conditions were wetter than normal. An uplar	nd plant com	nmunity and	unland soi	ls were documented. There were no indicators of wetland
hydrology present. The sample point was located in an up		initiality unit	apiaria sor	is were decarrenced. There were no indicators of wedard
VEGETATION - Use scientific names of plar	ntc.			
Ose scientific fiames of piar		Dominant - Species?		Parities Televisia
_ <u>Tree Stratum_(Plot size:)</u>	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
1	0	0.0%		Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
2	0	0.0%		
3.	0	0.0%		Total Number of Dominant Species Across All Strata: 2 (B)
4.	0	0.0%		(0)
5.	0	0.0%		Percent of dominant Species That Are OBL FACW or FAC: 50.0% (A/B)
	0	= Total Cove	er	That Are OBL, FACW, or FAC: 50.0% (A/B)
_ <u>Sapling/Shrub Stratum (</u> Plot size:)		_		Prevalence Index worksheet:
1		0.0%		Total % Cover of: Multiply by:
2		0.0%		OBL species <u>0</u> x 1 = <u>0</u>
3		0.0%		FACW species $0 \times 2 = 0$
4		0.0%		FAC species <u>30</u> x 3 = <u>90</u>
5		0.0%		FACU species <u>95</u> x 4 = <u>380</u>
<u>Herb Stratum</u> (Plot size: 5' radius)	0	= Total Cove	er	UPL species <u>5</u> x 5 = <u>25</u>
1 _. Festuca arundinacea	80	61.5%	FACU	Column Totals: <u>130</u> (A) <u>495</u> (B)
2. Poa pratensis	30	23.1%	FAC	Prevalence Index = B/A = <u>3.808</u>
3. Bromus inermis		3.8%	FACU	Hydrophytic Vegetation Indicators:
4. Daucus carota		3.8%	UPL	1 - Rapid Test for Hydrophytic Vegetation
5. Lotus corniculatus		3.8%	FACU	2 - Dominance Test is > 50%
6. Solidago canadensis 7.		3.8%	FACU	3 - Prevalence Index is ≤3.0 1
8.		0.0%		4 - Morphological Adaptations ¹ (Provide supporting
9.		0.0%		data in Remarks or on a separate sheet)
10.		0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
	130			$\frac{1}{2}$ Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:)		- Total Cove	31	be present, unless disturbed or problematic.
1,	0	0.0%		
2	0	0.0%		Hydrophytic Vegetation
	0	= Total Cove	er	Present? Yes No •
Remarks: (Include photo numbers here or on a separate si	heet.)			
An upland plant community was observed.				

SOIL Sampling Point: SP-41 (up)

Profile Descrip	otion: (Des	cribe to t	he depth ne	eded to document	the indic	ator or co	nfirm the	absence of indicators.)	
Depth _		Matrix			ox Featu			_	
(inches)	Color (n	noist)	<u>%</u>	Color (moist)	%	Type 1	Loc ²	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=Conce	entration, D=	Depletion	, RM=Reduce	ed Matrix, CS=Covere	d or Coate	d Sand Gra	ains.	2ocation: PL=Pore Lining. M=Matrix.	
Hydric Soil Inc	dicators:							Indicators for Problematic Hydric Soils 3 :	
Histosol (A1				Sandy Gleyed	Matrix (S4)		Coast Prairie Redox (A16)	
Histic Epipe				Sandy Redox (Dark Surface (S7)	
Black Histic Hydrogen S	. ,			Stripped Matri:	. ,			Iron Manganese Masses (F12)	
Stratified La				Loamy Mucky				☐ Very Shallow Dark Surface (TF12)	
2 cm Muck	, , ,			Loamy Gleyed		2)		Other (Explain in Remarks)	
Depleted Be	` '	urface (A1	1)	Depleted Matri	. ,			Other (Explain in Remains)	
☐ Thick Dark S		•	-,	Redox Dark Su				2	
Sandy Muck	k Mineral (S1) L)		☐ Depleted Dark	•	-/)		Indicators of hydrophytic vegetation and wetland hydrology must be present,	
5 cm Mucky	y Peat or Pea	at (S3)		Redox Depres	sions (F8)			unless disturbed or problematic.	
Restrictive Lay	er (if obse	rved):							
Type:									
Depth (inche	es):							Hydric Soil Present? Yes ○ No ●	
Remarks:								•	
Hydric soils we	ere not obs	erved.							
HYDROLOG	GY								
Wetland Hydro									
		m of one is	required; cl	neck all that apply)				Secondary Indicators (minimum of two required)	<u>) </u>
Surface Wat	ter (A1)			☐ Water-Staine		(B9)		Surface Soil Cracks (B6)	
High Water				Aquatic Faur				Drainage Patterns (B10)	
Saturation (☐ True Aquatio	-	•		Dry Season Water Table (C2)	
Water Mark	. ,			☐ Hydrogen Su			(62)	Crayfish Burrows (C8)	
Sediment D				Oxidized Rhi	•	-	Roots (C3)		
☐ Drift Deposi☐ Algal Mat or				Presence of Recent Iron			oile (CE)	Stunted or Stressed Plants (D1) Geomorphic Position (D2)	
Iron Deposi	` '						olis (Co)	FAC-Neutral Test (D5)	
Inundation		erial Imag	erv (R7)	☐ Thin Muck S☐ Gauge or We	-	-		The Neutral Test (B3)	
	getated Cor	-	, , ,	Other (Expla	-	-			
spansely re	gotatou oo.		(20)	☐ Otrier (Expla	III III Keilie	11 K5)			
Field Observat	tions:								
Surface Water P		Yes (⊃ _{No}	Depth (inc	nes):				
Water Table Pre		Yes ⁽					_		
Saturation Prese					ies):		Wet	cland Hydrology Present? Yes O No •	
(includes capillar		Yes(⊃ No	Depth (incl	nes):		_		
Describe Recor	rded Data	(stream	gauge, mor	itoring well, aerial	photos, p	revious in	nspections	s), if available:	
Remarks:									
No indicators of	of wetland	hydrolog	y were obs	erved.					
		_							

Project/Site: IH 94 Milwaukee County		Cit	y/County:	Oak Creek/N	Milwaukee Sampling Date: 11-Nov-16
Applicant/Owner: WisDOT				State:	WI Sampling Point: SP-42 (W11-15)
Investigator(s): Mike Al-wathiqui, Geof	Parish	S	Section, Towr	nship, Range:	S 31 T 5N R 22E
Landform (hillslope, terrace, etc.): Toes					concave, convex, none): concave
Slope: 2.0% / 1.1 ° Lat.:	<u> </u>			-87.9389038	- MCC04
			Long	-67.9369030	
Soil Map Unit Name: Ashkum silty cl		(○ No ●	(If no or	WWI classification: None
Are climatic/hydrologic conditions on the		cui.			xplain in Remarks.)
Are Vegetation, Soil		ignificantly dis		Are "No	ormal Circumstances" present? Yes No
Are Vegetation, Soil	, or Hydrology n	aturally proble	matic?	(If nee	ded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - A	Attach site map show	wing sam	oling poir	nt locatio	ns, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes ● No ○				
Hydric Soil Present?	Yes No			e Sampled A	
Wetland Hydrology Present?	Yes No		withi	n a Wetland	^{1?} Yes ● No ○
	163 0 110 0				
Remarks: Hydrological conditions were wett	er than normal A wetlar	nd plant com	munity was	document	ed because of the presence of Kentucky Blue Grass.
However, neither hydric soils nor					
<u> </u>					<u>. ·</u>
VEGETATION - Use scie	entific names of plan	its.	Dominant		
			Species?Rel.Strat.		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:		% Cover	Cover	Status	Number of Dominant Species
1			0.0%		That are OBL, FACW, or FAC:
2		•	0.0%		Total Number of Dominant
3			0.0%		Species Across All Strata: (B)
5.		0 0	0.0%		Percent of dominant Species
		0	= Total Cove	er	That Are OBL, FACW, or FAC: 100.0% (A/B)
_Sapling/Shrub Stratum (Plot size:)		10141 601	Ci	Prevalence Index worksheet:
1.		0	0.0%		Total % Cover of: Multiply by:
2.		0	0.0%		OBL species 80 x 1 = 80
3.		0	0.0%		FACW species $13 \times 2 = 26$
4.		0	0.0%		FAC species 35 x 3 = 105
5		0	0.0%		FACU species 0 x 4 = 0
Herb Stratum(Plot size: 5' radius)	0	= Total Cove	er	UPL species <u>0</u> x 5 = <u>0</u>
1. Typha angustifolia		80	✓ 62.5%	OBL	Column Totals: <u>128</u> (A) <u>211</u> (B)
2 2			✓ 23.4%	FAC	
2 Distanta annualitarea		10	7.8%	FACW	· —
4. Juncus tenuis		5	3.9%	FAC	Hydrophytic Vegetation Indicators:
5. Euthamia graminifolia		3	2.3%	FACW	1 - Rapid Test for Hydrophytic Vegetation
6		0	0.0%		2 - Dominance Test is > 50%
7.		0	0.0%		3 - Prevalence Index is ≤3.0 ¹
8. 9.			0.0%		4 - Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)
10.			0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
10.			0.0%		$\frac{1}{2}$ Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:)	128	= Total Cove	er	be present, unless disturbed or problematic.
1		0	0.0%		
2.		0	0.0%		Hydrophytic Vegetation
		0	= Total Cove	er	Present? Yes No
Remarks: (Include photo numbers	s here or on a separate sl	neet.)			
A wetland plant community was d	ocumented by the Domin	ance Test a	nd the Prev	alence Inde	ex.

SOIL Sampling Point: SP-42 (W11-15)

Profile Descr	iption: (Descril	e to the depti	needed to document	the indi	cator or co	nfirm the	absence of indicators.)	
Depth	Ma	trix	Rec	lox Featı			_	
(inches)	Color (mois	st) <u>%</u>	Color (moist)	%	Tvpe 1	Loc ²	Texture	Remarks
0-7	10YR 2	2/1 100					Silty Clay	
7-12	10YR5	5/2 70	10YR 5/6	30	C	M	Silty Clay	
						-		
				-				
¹ Type: C=Cond	centration, D=De	pletion, RM=Red	duced Matrix, CS=Covere	d or Coate	ed Sand Gra	ins.	Location: PL=Pore Lining. M	=Matrix.
Hydric Soil I	ndicators:						Indicators for Probler	natic Hydric Soils ³ :
Histosol (A	A1)		Sandy Gleyed	Matrix (S	4)			•
	pedon (A2)		Sandy Redox	(S5)			Coast Prairie Redox	(A16)
Black Hist	. ,		Stripped Matr	x (S6)			Iron Manganese Mas	coc (E12)
	Sulfide (A4)		Loamy Mucky	Mineral (F	F1)			` '
	Layers (A5)		Loamy Gleyed	Matrix (F	2)		☐ Very Shallow Dark S	
2 cm Muc	• •		✓ Depleted Matr	ix (F3)			Other (Explain in Re	marks)
	Below Dark Surfa	ce (A11)	Redox Dark S	urface (F6)			
	k Surface (A12)		Depleted Dark	Surface ((F7)		³ Indicators of hydroph	tic vegetation and
_ ′	ck Mineral (S1)		Redox Depres	sions (F8))		wetland hydrology	must be present,
	ky Peat or Peat (<u> </u>					unless disturbed o	or problematic.
	ayer (if observe	ed):						
Type:							Hydric Soil Present?	Yes No
Depth (incl	nes):						Tryune son Fresence	165 0 110 0
Remarks:								
The Citeria ic	or flydric solls v	ras met by AI	1 Depleted Below Dai	K Surrac	e and 13 b	repleted	ridu ix.	
HYDROLO)GY							
-	rology Indicato		; check all that apply)				Cocondany Indicate	ors (minimum of two required)
	•	one is required			(DO)			<u> </u>
Surface W			Water-Stain		(B9)		Surface Soil Cr	• •
	er Table (A2)		Aquatic Fau	. ,	21.4\		☐ Drainage Patte	
✓ Saturation	. ,		☐ True Aquati ☐ Hydrogen S	•	•		☐ Dry Season Wa	,
Water Mai	Deposits (B2)				s on Living R	looto (C2)		ble on Aerial Imagery (C9)
Drift Depo			Presence of			100ts (C3)		essed Plants (D1)
	or Crust (B4)				n in Tilled So	ile (C6)	Geomorphic Po	,
Iron Depo	` ,					ilis (CO)	FAC-Neutral Te	` '
	n Visible on Aeria	l Imageny (R7)	☐ Thin Muck S☐ Gauge or W	-	-		TAC Neddal N	231 (03)
	egetated Concav			•	•			
эригэсгу	regetated contect	e surface (bo)	U Other (Expl	alli ili Kelli	iai KS)			
Field Observa	ations:							
Surface Water		Yes O No	Depth (incl.)	hes):				
Water Table Pr		Yes No	O Depth (inc		11	_		
Saturation Pres			-1 (,		Wet	land Hydrology Present?	Yes 💿 No 🔾
(includes capill		Yes No	O Depth (inc	hes):	0	_		
Describe Rec	orded Data (st	eam gauge, n	nonitoring well, aerial	photos,	previous in	spection	s), if available:	
Remarks:								
				hes, satu	ration at 0	inches a	and with two secondary ind	icators, which were D2
Geomorphic	Position and D	FAC-neutral	Test.					

Applicant/Owner: WisDOT Investigator(s): Mike Al-wathiqui, Geof Parish Section,	y: Oak Creek/Milwaukee Sampling Date: 11-Nov-16
Investigator(s): Mike Al-wathiqui, Geof Parish Section,	State: WI Sampling Point: SP-43 (up)
	Township, Range: S 36 T 5N R 21E
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): convex
	g.: -87.9518967 Datum: WGS84
	9
Soil Map Unit Name: Blount silt loam, 1 to 3 percent slopes Are climatic/hydrologic conditions on the site typical for this time of year? Yes No	WWI classification: None (If no, explain in Remarks.)
The climate hydrologic contations on the site typical for this time of year.	
Are Vegetation, Soil, or Hydrology significantly disturbed?	F. C.
Are Vegetation	(If needed, explain any answers in Remarks.)
	Joint locations, transects, important reatures, etc.
Hydrophytic Vegetation Present? Yes No	s the Sampled Area
Hydric Soil Present? Yes No	vithin a Wetland? Yes ○ No ●
Wetland Hydrology Present? Yes O 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.	
VECETATION Use scientific names of plants	
VEGETATION - Use scientific names of plants. Domin Speci	es? —
Absolute Rel.St <u>Tree Stratum (Plot size:</u>)	trat. Indicator Dominance Test worksheet:
	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
	0% I Hat die Obt, FACW, 01 FAC:
	Total Number of Dominant
	O% Species Across All Strata: (B)
	Percent of dominant Species
0 = Total	That Are OBL FACW or FAC: 100.0% (A/B)
= Focus Sapling/Shrub Stratum (Plot size:)	Prevalence Index worksheet:
	70% Total % Cover of: Multiply by:
	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
	$ \begin{array}{c ccccc} \hline 00\% & & & & & & & & & & & & & & & & & & $
0 - Tata	17.00 Species 25 x 1 32
Herb Stratum (Plot size: 5 radius)	012 500005
1. Poa pratensis 100 81.	.3% <u>FAC</u> Column Totals: <u>123</u> (A) <u>392</u> (B)
	$\frac{A3\%}{A} = \frac{ACU}{A} = AC$
	4% FACU Hydrophytic Vegetation Indicators:
	0% 1 - Rapid Test for Hydrophytic Vegetation
	0% 2 - Dominance Test is > 50%
7	0% 3 - Prevalence Index is <3.0 1
	U%
	data in Remarks or on a separate sheet)
	Problematic Hydrophytic Vegetation ¹ (Explain)
1 111	$\frac{0\%}{1000}$ 1 Indicators of hydric soil and wetland hydrology must
	be present, unless disturbed or problematic.
10	0%
Woody Vine Stratum (Plot size:)	
Woody Vine Stratum (Plot size:) 123 = Total 1. 0 □ 0.	0% Hydrophytic
	Vegetation
	Vegetation
Woody Vine Stratum (Plot size:) 123 = Total 1	Vegetation
Moody Vine Stratum (Plot size:) 123	Vegetation Present? Yes No
Woody Vine Stratum (Plot size:) 123	Vegetation Present? Yes No

SOIL Sampling Point: SP-43 (up)

Profile Description: (Describe to the depth ne	eeded to document the ind	licator or conf	irm the	absence of indicators.)	
Depth <u>Matrix</u>	Redox Fea			_	
(inches) Color (moist) %	Color (moist) %	Type 1	Loc ²	Texture	Remarks
0-9 10YR 3/2 100				Silt Loam	
9-21 10YR 4/1 80	10YR 5/6 20	C	М	Silty Clay	
					
¹ Type: C=Concentration, D=Depletion, RM=Reduc	ed Matrix, CS=Covered or Coa	ted Sand Grain	5.	Location: PL=Pore Lining. M=Matrix	
Hydric Soil Indicators:				Indicators for Problematic H	ydric Soils ³ :
Histosol (A1)	Sandy Gleyed Matrix (S4)		Coast Prairie Redox (A16)	
Histic Epipedon (A2)	Sandy Redox (S5)			Dark Surface (S7)	
Black Histic (A3)	Stripped Matrix (S6)			☐ Iron Manganese Masses (F12	1
Hydrogen Sulfide (A4) Stratified Layers (A5)	Loamy Mucky Mineral	(F1)		Very Shallow Dark Surface (1	•
2 cm Muck (A10)	Loamy Gleyed Matrix ((F2)			112)
✓ Depleted Below Dark Surface (A11)	Depleted Matrix (F3)			U Other (Explain in Remarks)	
Thick Dark Surface (A12)	Redox Dark Surface (F	•		_	
Sandy Muck Mineral (S1)	Depleted Dark Surface	. ,		Indicators of hydrophytic vege	tation and
5 cm Mucky Peat or Peat (S3)	Redox Depressions (F	3)		wetland hydrology must be unless disturbed or proble	
Restrictive Layer (if observed):				1	
Type:					
Depth (inches):				Hydric Soil Present? Yes	● No ○
Remarks:		1 F2 D			
The criteria for hydric soils was met by A11 [Depleted Below Dark Surfa	ce and F3 De	oleted i	Matrix.	
HYDROLOGY					
Wetland Hydrology Indicators:					
Primary Indicators (minimum of one is required; c				Secondary Indicators (mini	· · · ·
Surface Water (A1)	☐ Water-Stained Leave	,		Surface Soil Cracks (B6	<i>'</i>
High Water Table (A2)	Aquatic Fauna (B13)			Drainage Patterns (B10	*
Saturation (A3)	True Aquatic Plants			Dry Season Water Tab	e (C2)
Water Marks (B1)	Hydrogen Sulfide Oc		· (C2)	Crayfish Burrows (C8)	orial Torra con (CO)
Sediment Deposits (B2)	Oxidized Rhizospher	_	ots (C3)	Saturation Visible on A	
Drift Deposits (B3) Algal Mat or Crust (B4)	Presence of Reduced Recent Iron Reduction		(C6)	Stunted or Stressed Pla Geomorphic Position (I	` '
Iron Deposits (B5)			(C0)	FAC-Neutral Test (D5)	J2)
Inundation Visible on Aerial Imagery (B7)	☐ Thin Muck Surface (☐ Gauge or Well Data	-		TAC-Neutral Test (D3)	
Sparsely Vegetated Concave Surface (B8)	Other (Explain in Re	-			
Sparsery regulated conteave surface (50)	U Otilei (Expiaiii iii Ke	iliaiks)			
Field Observations:			1		
Surface Water Present? Yes No	Depth (inches):				
Water Table Present? Yes No					
	(Wet	land Hydrology Present? Yes	O No ●
Saturation Present? (includes capillary fringe) Yes No	Depth (inches):				
Describe Recorded Data (stream gauge, mor	nitoring well, aerial photos	, previous ins	pections	s), if available:	
Remarks:					
No indicators of wetland hydrology were obs	served.				

Project/Site: IH 94 Milwaukee County		City	//County:	Oak Creek/N	Milwaukee Sampling Date: 11-Nov-16
Applicant/Owner: _WisDOT				State:	
Investigator(s): Mike Al-wathiqui, Geof P	Parish	Se	ection, Towr	nship, Range:	
Landform (hillslope, terrace, etc.): Toesl			•		concave, convex, none): concave
Slope: 1.0% / 0.6 ° Lat.:				-87.952003	Wood 4
Soil Map Unit Name: Morley silt loam				-07.332003	WWI classification: None
Are climatic/hydrologic conditions on the		Yes C	No ●	(If no. ex	xplain in Remarks.)
Are Vegetation \square , Soil \square		ear?		, ,	ormal Circumstances" present? Yes No No
Are Vegetation , Soil		aturally problen			ded, explain any answers in Remarks.)
,	. , 3,			-	ns, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes No				
Hydric Soil Present?	Yes ● No ○			e Sampled A in a Wetland	
Wetland Hydrology Present?	Yes ● No ○		***************************************	III a vveuana	" Yes ♥ No ∪
Remarks:					
Hydrological conditions were wetter The data point was located in a wester VEGETATION - Use scie	etland.	nts.	Dominant Species?	:	d multiple indicators of wetland hydrology were present.
Tree Stratum(Plot size:	<u> </u>		Rel.Strat.	Indicator	Dominance Test worksheet:
		0 Cover	Cover 0.0%	Status	Number of Dominant Species
2.		0 [0.0%		That are OBL, FACW, or FAC:(A)
3.		0	0.0%		Total Number of Dominant
4.		0	0.0%		Species Across All Strata: (B)
5.		0	0.0%		Percent of dominant Species
		0 =	= Total Cove	er	That Are OBL, FACW, or FAC: 100.0% (A/B)
_Sapling/Shrub Stratum (Plot size:)				Prevalence Index worksheet:
1		_ 0_ [0.0%		Total % Cover of: Multiply by:
2.		0	0.0%		OBL species x 1 =100
3		0 [0.0%		FACW species $10 \times 2 = 20$
4.		_ 0_ [0.0%		FAC species <u>5</u> x 3 = <u>15</u>
5			0.0%		FACU species <u>5</u> x 4 = <u>20</u>
Herb Stratum(Plot size: 5' radius)	=	= Total Cove	er	UPL species <u>0</u> x 5 = <u>0</u>
1 Typha angustifolia		100	✓ 83.3%	OBL	Column Totals: 120 (A) 155 (B)
Solidago sempervirens		10	8.3%	FACW	
3. Cirsium arvense		5	4.2%	FACU	Prevalence Index = B/A = 1.292
4. Panicum capillare		5	4.2%	FAC	Hydrophytic Vegetation Indicators:
5.		0	0.0%		1 - Rapid Test for Hydrophytic Vegetation
6.		0	0.0%		2 - Dominance Test is > 50%
7.		0	0.0%		✓ 3 - Prevalence Index is ≤3.0 ¹
8.		0	0.0%		4 - Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)
9.		0	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
10.		0	0.0%		
L. V. Charles (Plot size:		120 =	= Total Cove	er	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:		م ٦	7 0.00/-		be presently unless disturbed or prosteriode.
1 2.		0 _	0.0%		Hydrophytic
		0 _	0.0%		Vegetation V A N
			= Total Cove	er 	Present? Yes No
Remarks: (Include photo numbers	here or on a senarate sl	hoot)			
` '	·	,	Took	Lub - Duo	* .
A wetland plant community was do	ocumented by the Kapiu	Test, Domina	ince Test a	and the Prev	/alence Index.

SOIL Sampling Point: SP-44 (W-6)

Profile Description: (De		he depth n				firm the	absence of indicators.)	
Depth Color (Matrix moist)	%	Red Color (moist)	ox Featu _%_	res Tvpe ¹	Loc ²	Texture	Remarks
0-15 10YR	4/1	<u>96</u> 80	10YR 4/6	20	C	<u>гос-</u> М	Silty Clay	Remarks
Type: C=Concentration, D Hydric Soil Indicators:	=Depletion,	RM=Reduc				ns.	©ccation: PL=Pore Lining. M=N	
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) Depleted Below Dark		l)	Sandy Gleyed I Sandy Redox (Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark Su	S5) (S6) Mineral (F Matrix (F. x (F3)			Coast Prairie Redox (Al Dark Surface (S7) Iron Manganese Masse Very Shallow Dark Surf	s (F12) ace (TF12)
☐ Thick Dark Surface (A☐ Sandy Muck Mineral (5☐ 5 cm Mucky Peat or Po	51)		Depleted Dark Redox Depress	•	•		³ Indicators of hydrophytic wetland hydrology mu unless disturbed or p	ust be present,
Restrictive Layer (if obs Type: Depth (inches): Remarks: The criteria for hydric so							Hydric Soil Present?	res ● No ○
IYDROLOGY								
Wetland Hydrology Indi Primary Indicators (minim Surface Water (A1) ✓ High Water Table (A2) ✓ Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on a Sparsely Vegetated Co	um of one is 2) Aerial Image	ery (B7)	check all that apply) Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhi: Presence of Recent Iron Thin Muck Si Gauge or We	a (B13) Plants (B Ifide Odo cospheres Reduced I Reduction urface (C7	s14) r (C1) s on Living Ro Iron (C4) n in Tilled Soi 7)		Surface Soil Craci Drainage Pattern Dry Season Wate Crayfish Burrows	s (B10) or Table (C2) (C8) on Aerial Imagery (C9) ed Plants (D1) tion (D2)
Field Observations: Surface Water Present? Water Table Present? Saturation Present? includes capillary fringe)	Yes (Yes (• No	Depth (inch	nes):	11 10		land Hydrology Present?	Yes ● No ○
Describe Recorded Data	ı (stream g	gauge, mo	nitoring well, aerial	ohotos, ¡	previous ins	spections	s), if available:	

Project/Site: IH 94 Milwaukee County			Cit	y/County:	Oak Creek/N	Milwaukee Sampling Date: 11-Nov-16
Applicant/Owner: WisDOT					State:	WI Sampling Point: SP-45 (up)
Investigator(s): Mike Al-wathiqui, Geof Pa	nrish		Ç	Section, Towr	nship, Range:	S 31 T 5N R 22E
Landform (hillslope, terrace, etc.): Hillside	e				Local relief (c	concave, convex, none): convex
Slope: 5.0% / 2.9 ° Lat.:)1			-87.951301	
Soil Map Unit Name: Morley silt loam,					07.931301	WWI classification: E2K
Are climatic/hydrologic conditions on the si			Yes (○ No ○	(If no. ex	xplain in Remarks.)
	, or Hydrolo	′	gnificantly dis		, ,	ormal Circumstances" present? Yes No No
	, or Hydrolo		aturally proble			eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - At	tach site				-	ns, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes O	No •				
Hydric Soil Present?	Yes 〇	No •			Sampled A	
Wetland Hydrology Present?	Yes 🔾	No •		Withi	n a Wetland	d? Yes ○ No •
Remarks:						
Hydrological conditions were wetter wetland hydrology was observed. VEGETATION - Use scien	The sample	e point was lo	cated in an		upland soil	Is were documented. Only one secondary indicator of
Tree Stratum(Plot size:)		Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
1.			0	0.0%	Jeacus	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
2.			0	0.0%		That are obe, thew, of the
3.			0	0.0%		Total Number of Dominant Species Across All Strata: 2 (B)
4.			0	0.0%		Species Across Air Strata.
5.			0	0.0%		Percent of dominant Species That Are ORL FACW or FAC: 50.0% (A/B)
			0	= Total Cove	er	That Are OBL, FACW, or FAC: 50.0% (A/B)
<u>Sapling/Shrub Stratum</u> (Plot size:		_)				Prevalence Index worksheet:
1				0.0%		Total % Cover of: Multiply by:
2				0.0%		OBL species <u>0</u> x 1 = <u>0</u>
3				0.0%		FACW species 80 x 2 = 160
5.				0.0%		FAC species 0 x 3 = 0
						FACU species 0 x 4 = 0
Herb Stratum (Plot size: 5' radius)				5 1	UPL species
1. Solidago sempervirens				53.3%	FACW	Column Totals: <u>150</u> (A) <u>510</u> (B)
2. Daucus carota				46.7%	UPL	Prevalence Index = B/A = <u>3.400</u>
3				0.0%		Hydrophytic Vegetation Indicators:
4 5.				0.0%		1 - Rapid Test for Hydrophytic Vegetation
6.			0 0	0.0%		2 - Dominance Test is > 50%
7.			0	0.0%		3 - Prevalence Index is ≤3.0 ¹
8.			0	0.0%		4 - Morphological Adaptations 1 (Provide supporting
9.			0	0.0%		data in Remarks or on a separate sheet)
10.			0	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
(Plot size)		`	150	= Total Cove	er	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)	0	0.00/		be present, unless distarbed of problematic
1 2.			0			Hydrophytic
<u> </u>			0	= Total Cove		Vegetation Present? Yes ○ No ●
				- 10tal COVE	JI	Tresent:
Remarks: (Include photo numbers I	here or on	a separate sh	neet.)			
An upland plant community was ob		•	-			

SOIL Sampling Point: SP-45 (up)

Depth _		Matrix			Red	ox Featu	ires			,		
(inches)	Color (r		%	Color (me		<u>%</u>	Tvpe 1	Loc2	Te	exture		Remarks
0-12	10YR	3/2	100						Silty Clay			
12-18	10YR	3/2	90	10YR	4/6	10	С	М	Silty Clay			
Type: C=Conce Hydric Soil In Histosol (A: Histic Epipe Black Histic Hydrogen S Stratified La 2 cm Muck Depleted Ba Thick Dark Sandy Muck Som Muck Som Muck Som Muck Type:	dicators: 1) edon (A2) (A3) Sulfide (A4) ayers (A5) (A10) elow Dark S Surface (A1 k Mineral (S y Peat or Pe	urface (A1 2) 1) at (S3)		Sandy Sandy Stripp Loam Loam Deple Redoo	i=Covered y Gleyed I y Redox (:) bed Matrix y Mucky I y Gleyed eted Matri: x Dark Su eted Dark x Depress	Matrix (S4 S5) ((S6) Mineral (F Matrix (F3 x (F3) rface (F6) Surface (1) 2)) F7)	ins.	Indica Coa Da Iro Ver	PL=Pore Lining ators for Prot ast Prairie Red rk Surface (S7, in Manganese ry Shallow Dar ner (Explain in cators of hydro vetland hydrolo unless disturbe	Dlematic H fox (A16)) Masses (F1: k Surface (' Remarks)	lydric Soils ³ : 2) TF12) etation and expresent,
турс												
Depth (inche Remarks: ydric soils we	ere not obs								Hydric S	Soil Present?	Yes ⁽	○ No •
Remarks: ydric soils we	GY Ology India	cators:	a required to	angle all that	annik ()							
Remarks: ydric soils we IYDROLOG Wetland Hydro Primary Indicato Surface Wa	GY ology India ors (minimu ater (A1)	cators:	s required; cl	☐ Wat	ter-Staine		(B9)			Secondary Indi	cators (min	imum of two requir 6)
Remarks: ydric soils we IYDROLOG Wetland Hydro Primary Indicato Surface Wa High Water	GY ology India ors (minimu ater (A1) Table (A2)	cators:	s required; cl	☐ Wat	ter-Staine Jatic Faun	a (B13)	` ,			Secondary Indi Surface Soi Drainage P	cators (min il Cracks (Br atterns (B1	imum of two requir 6) 0)
Remarks: ydric soils we IYDROLOG Wetland Hydro Primary Indicato Surface Wa High Water Saturation (GY ology India ors (minimu oter (A1) Table (A2) (A3)	cators:	s required; cl	☐ Wat	ter-Staine Jatic Faun e Aquatic	a (B13) Plants (B	14)			Secondary Indi Surface Soi Drainage P Dry Seasor	cators (min il Cracks (Bu atterns (B1) n Water Tab	imum of two requir 6) 0) ole (C2)
Remarks: ydric soils we IYDROLOG Wetland Hydro Primary Indicato Surface Wa High Water Saturation (Water Mark	GY ology Indicors (minimulater (A1) Table (A2) (A3) (A3) (A5) (A5)	c ators: m of one is	s required; cl	☐ Wat	ter-Staine uatic Faun e Aquatic drogen Su	a (B13) Plants (B Ifide Odo	s14) r (C1)			Secondary Indi Surface Soi Drainage P Dry Seasor Crayfish Bu	icators (min il Cracks (Br atterns (B1 n Water Tab urrows (C8)	imum of two requir 6) 0) ole (C2)
Remarks: ydric soils we IYDROLOG Wetland Hydro Primary Indicate Surface Wa High Water Saturation (Water Mark Sediment D	GY ology Indicors (minimulater (A1) Table (A2) (A3) (A3) Opposits (B2)	c ators: m of one is	s required; cl	Wat Aqu Trui Hyd	ter-Staine uatic Faun e Aquatic drogen Su dized Rhiz	a (B13) Plants (B Ifide Odo zospheres	s14) r (C1) s on Living F	Roots (C3)		Secondary Indi Surface Soi Drainage P Dry Seasor Crayfish Bu Saturation	cators (min il Cracks (Bi atterns (B1 n Water Tab irrows (C8) Visible on A	imum of two requir 6) 0) ole (C2) verial Imagery (C9)
Remarks: ydric soils we IYDROLOG Wetland Hydro Primary Indicate Surface Wa High Water Saturation (Water Mark Sediment D Drift Depos	GY ology India ors (minimu ater (A1) Table (A2) (A3) (A3) (A5) Opposits (B2) its (B3)	cators: m of one is	s required; cl	Wat Aqu Tru Hyd Oxid	ter-Staine Jatic Faun e Aquatic drogen Su dized Rhiz sence of I	a (B13) Plants (B Ifide Odo zospheres Reduced 1	i14) r (C1) s on Living F Iron (C4)			Secondary Indi Surface Soi Drainage P Dry Seasor Crayfish Bu Saturation Stunted or	cators (min il Cracks (Bi atterns (B1 n Water Tab irrows (C8) Visible on A Stressed Pl	imum of two requir 6) 0) ole (C2) herial Imagery (C9) ants (D1)
Remarks: ydric soils we IYDROLOG Wetland Hydro Primary Indicate Surface Wa High Water Saturation (Water Mark Sediment D Drift Depos Algal Mat o	GY ology India ors (minimu ater (A1) Table (A2) (A3) cs (B1) Deposits (B2) cits (B3) or Crust (B4)	cators: m of one is	s required; cl	Wat Aqu True Hyd Oxid Pres	ter-Staine uatic Faun e Aquatic drogen Su dized Rhiz sence of F	a (B13) Plants (B Ifide Odo zospheres Reduced I Reduction	i14) r (C1) s on Living F Iron (C4) n in Tilled Sc			Secondary Indi Surface Soi Drainage P Dry Seasor Crayfish Bu Saturation Stunted or Geomorphi	icators (min il Cracks (Bi atterns (B1 n Water Tab irrows (C8) Visible on A Stressed Pl c Position (nimum of two requir 6) 0) ole (C2) verial Imagery (C9) ants (D1)
Remarks: ydric soils we IYDROLOG Wetland Hydro Primary Indicate Surface Wa High Water Saturation (Water Mark Sediment D Drift Depos Algal Mat o Iron Depos	GY ology India ors (minimu ater (A1) Table (A2) (A3) as (B1) Deposits (B2) cits (B3) or Crust (B4) its (B5)	cators: m of one is		Wat Aqu Tru Hyd Oxid Pres	ter-Staine uatic Faun e Aquatic drogen Su dized Rhiz sence of F tent Iron I	a (B13) Plants (B Ifide Odo zospheres Reduced I Reduction urface (C7	s14) r (C1) s on Living F Iron (C4) n in Tilled So			Secondary Indi Surface Soi Drainage P Dry Seasor Crayfish Bu Saturation Stunted or	icators (min il Cracks (Bi atterns (B1 n Water Tab irrows (C8) Visible on A Stressed Pl c Position (nimum of two requir 6) 0) ole (C2) verial Imagery (C9) ants (D1)
Remarks: ydric soils we IYDROLOG Wetland Hydro Primary Indicate Surface Wa High Water Saturation (Water Mark Sediment D Drift Depos Algal Mat o	GY ology Indicors (minimulater (A1) Table (A2) (A3) (A3) (A5 (B1) Deposits (B2) (B4) (B7 (Crust (B4)) (B8) (B9) (B9) (B1) (B2) (B3) (B1) (B3) (B1) (B4) (B5) (B3) (B4) (B4) (B5) (B5) (B5)	cators: m of one is	ery (B7)	Wat Aqu Tru Hyd Oxic Pree Rec Thin	ter-Staine uatic Faun e Aquatic drogen Su dized Rhiz sence of F	a (B13) Plants (B Ifide Odo cospheres Reduced I Reduction urface (C7	s14) r (C1) s on Living F Iron (C4) n in Tilled Sc 7)			Secondary Indi Surface Soi Drainage P Dry Seasor Crayfish Bu Saturation Stunted or Geomorphi	icators (min il Cracks (Bi atterns (B1 n Water Tab irrows (C8) Visible on A Stressed Pl c Position (nimum of two requir 6) 0) ole (C2) verial Imagery (C9) ants (D1)
Remarks: ydric soils we IYDROLOG Wetland Hydro Primary Indicate Surface Wa High Water Saturation (Water Mark Sediment D Drift Depos Algal Mat o Iron Deposi Inundation Sparsely Ve	ology India ors (minimu ater (A1) Table (A2) (A3) (A3) (A3) (A3) (A3) (A3) (A3) (A3	cators: m of one is) herial Imago	ery (B7) ace (B8)	Wat Aqu Aqu Tru Hyd Oxic Pres Rec Thin Gau	ter-Staine uatic Faun e Aquatic drogen Su dized Rhiz sence of I cent Iron I n Muck Su uge or We ler (Explai	a (B13) Plants (B Ifide Odo cospheres Reduced I Reduction urface (C7 ill Data (E	s14) r (C1) s on Living F Iron (C4) n in Tilled Sc 7)			Secondary Indi Surface Soi Drainage P Dry Seasor Crayfish Bu Saturation Stunted or Geomorphi	icators (min il Cracks (Bi atterns (B1 n Water Tab irrows (C8) Visible on A Stressed Pl c Position (nimum of two requir 6) 0) ole (C2) verial Imagery (C9) ants (D1)
Remarks: ydric soils we IYDROLOG Wetland Hydro Primary Indicator Surface Wa High Water Saturation (Water Mark Sediment D Drift Depos Algal Mat or Iron Deposi Inundation Sparsely Ve	ology India ors (minimu ater (A1) Table (A2) (A3) (A3) (A3) (A3) (A3) (A3) (A3) (A3	cators: m of one is merial Imagencave Surfa	ery (B7) ace (B8)	Wat Aqu Aqu Tru Hyd Oxid Pres Rec Thir	ter-Staine uatic Faun e Aquatic drogen Su dized Rhiz sence of F cent Iron I n Muck Su uge or We	a (B13) Plants (B Ifide Odo cospheres Reduced I Reduction urface (C7 ill Data (E	s14) r (C1) s on Living F Iron (C4) n in Tilled Sc 7)			Secondary Indi Surface Soi Drainage P Dry Seasor Crayfish Bu Saturation Stunted or Geomorphi	icators (min il Cracks (Bi atterns (B1 n Water Tab irrows (C8) Visible on A Stressed Pl c Position (nimum of two requir 6) 0) ole (C2) verial Imagery (C9) ants (D1)
Remarks: ydric soils we IYDROLOG Wetland Hydro Primary Indicate Surface Wa High Water Saturation (Water Mark Sediment D Drift Depos Algal Mat o Iron Deposi Inundation Sparsely Ve	GY ology Indicors (minimulater (A1) Table (A2) (A3) (A5 (B1) Deposits (B2) dits (B3) or Crust (B4) dits (B5) Visible on Alegetated Continues tions:	cators: m of one is) herial Imago	ery (B7) ace (B8)	Wat Aqu Aqu Tru Hyd Oxic Pree Rec Thir Gau Oth	ter-Staine uatic Faun e Aquatic drogen Su dized Rhiz sence of I cent Iron I n Muck Su uge or We ler (Explai	a (B13) Plants (B Ifide Odo zospheres Reduced I Reduction urface (C7 III Data (D in in Rem	s14) r (C1) s on Living F Iron (C4) n in Tilled Sc 7)	oils (C6)		Secondary Indi Surface Soi Drainage P Dry Seasor Crayfish Bu Saturation Stunted or Geomorphi FAC-Neutra	icators (min il Cracks (Bi atterns (Bi n Water Tab irrows (C8) Visible on A Stressed Pl ic Position (al Test (D5)	nimum of two requir 6) 0) ole (C2) nerial Imagery (C9) ants (D1) D2)
Remarks: ydric soils we IYDROLOG Wetland Hydro Primary Indicate Surface Wa High Water Saturation (Water Mark Sediment D Drift Depos Algal Mat or Iron Deposi Inundation Sparsely Ve Field Observat Surface Water P Water Table Prese Saturation Prese includes capilla	GY ology Indicors (minimulater (A1) Table (A2) (A3) (A3) (A5 (B1) Deposits (B2) (its (B3) or Crust (B4) (its (B5) Visible on A egetated Continue Continue certain continue certain continue continue certai	cators: m of one is merial Image ncave Surfa Yes Yes Yes	ery (B7) ace (B8) No No No No No	Wat Aqu Aqu Tru Hyd Oxic Pres Rec Thin Gau Oth De	ter-Staine uatic Faun e Aquatic drogen Su dized Rhiz sence of F cent Iron I n Muck Su uge or We uer (Explai	a (B13) Plants (B Ifide Odo zospheres Reduced I Reduction urface (C7 III Data (D in in Rem nes): nes):	s14) r (C1) s on Living F Iron (C4) n in Tilled Sc 7) 09) arks)	oils (C6)	and Hydro	Secondary Indi Surface Soi Drainage P Dry Seasor Crayfish Bu Saturation Stunted or Geomorphi FAC-Neutra	icators (min il Cracks (Bi atterns (Bi n Water Tab irrows (C8) Visible on A Stressed Pl ic Position (al Test (D5)	nimum of two requir 6) 0) ole (C2) verial Imagery (C9) ants (D1)
Remarks: ydric soils we IYDROLOG Wetland Hydro Primary Indicate Surface Wa High Water Saturation (Water Mark Sediment D Drift Depos Algal Mat or Iron Deposi Inundation Sparsely Ve Field Observat Surface Water P Water Table Prese Saturation Preses	GY ology Indicors (minimulater (A1) Table (A2) (A3) (A3) (A5 (B1) Deposits (B2) (its (B3) or Crust (B4) (its (B5) Visible on A egetated Continue Continue certain continue certain continue continue certai	cators: m of one is merial Image ncave Surfa Yes Yes Yes	ery (B7) ace (B8) No No No No No	Wat Aqu Aqu Tru Hyd Oxic Pres Rec Thin Gau Oth De	ter-Staine uatic Faun e Aquatic drogen Su dized Rhiz sence of F cent Iron I n Muck Su uge or We uer (Explai	a (B13) Plants (B Ifide Odo zospheres Reduced I Reduction urface (C7 III Data (D in in Rem nes): nes):	s14) r (C1) s on Living F Iron (C4) n in Tilled Sc 7) 09) arks)	oils (C6)	and Hydro	Secondary Indi Surface Soi Drainage P Dry Seasor Crayfish Bu Saturation Stunted or Geomorphi FAC-Neutra	icators (min il Cracks (Bi atterns (Bi n Water Tab irrows (C8) Visible on A Stressed Pl ic Position (al Test (D5)	nimum of two requir 6) 0) ole (C2) nerial Imagery (C9) ants (D1) D2)
Remarks: ydric soils we IYDROLOG Wetland Hydro Primary Indicate Surface Wa High Water Saturation (Water Mark Sediment D Drift Depos Algal Mat or Iron Deposi Inundation Sparsely Ve Field Observat Surface Water P Water Table Prese Saturation Prese includes capilla	GY ology Indicors (minimulater (A1) Table (A2) (A3) (A3) (A5 (B1) Deposits (B2) (its (B3) or Crust (B4) (its (B5) Visible on A egetated Continue Continue certain continue certain continue continue certai	cators: m of one is merial Image ncave Surfa Yes Yes Yes	ery (B7) ace (B8) No No No No No	Wat Aqu Aqu Tru Hyd Oxic Pres Rec Thin Gau Oth De	ter-Staine uatic Faun e Aquatic drogen Su dized Rhiz sence of F cent Iron I n Muck Su uge or We uer (Explai	a (B13) Plants (B Ifide Odo zospheres Reduced I Reduction urface (C7 III Data (D in in Rem nes): nes):	s14) r (C1) s on Living F Iron (C4) n in Tilled Sc 7) 09) arks)	oils (C6)	and Hydro	Secondary Indi Surface Soi Drainage P Dry Seasor Crayfish Bu Saturation Stunted or Geomorphi FAC-Neutra	icators (min il Cracks (Bi atterns (Bi n Water Tab irrows (C8) Visible on A Stressed Pl ic Position (al Test (D5)	nimum of two requir 6) 0) ole (C2) nerial Imagery (C9) ants (D1) D2)

Project/Site: IH 94 Milwaukee County		City/	/County:	Oak Creek/M	Milwaukee Sampling Date: 11-Nov-16
Applicant/Owner: _WisDOT				State:	
Investigator(s): Mike Al-wathiqui, Geof P	Parish	Se	ection, Tow	nship, Range:	
Landform (hillslope, terrace, etc.): Toesl					concave, convex, none): concave
Slope: 1.0% / 0.6 ° Lat.:				-87.951400	Wood 4
Soil Map Unit Name: Morley silt loam				-07.931 100	WWI classification: E2K
Are climatic/hydrologic conditions on the		Yes C	No •	(If no. ex	xplain in Remarks.)
Are Vegetation		gnificantly distu		, ,	ormal Circumstances" present? Yes No No
Are Vegetation , Soil		aturally problem			ded, explain any answers in Remarks.)
,	. , 3,			-	ns, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes No				
Hydric Soil Present?	Yes No			e Sampled A in a Wetland	
Wetland Hydrology Present?	Yes ● No ○		W.C	III a Weliana	Yes • No ·
Remarks:					
Hydrological conditions were wetted. The data point was located in a wear vegetation - Use scient	etland.	its.	Dominant Species?	t	d multiple indicators of wetland hydrology were present.
Tree Stratum(Plot size:	``		Rel.Strat.	Indicator Status	Dominance Test worksheet:
		% Cover	Cover 0.0%	Status	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
2.		0 [0.0%		That are OBL, FACW, or FAC:(A)
3.		0 [0.0%		Total Number of Dominant
4.		0 [0.0%		Species Across All Strata: (B)
5.		0	0.0%		Percent of dominant Species
		0 =	= Total Cov	/er	That Are OBL, FACW, or FAC:100.0% (A/B)
_Sapling/Shrub Stratum (Plot size:)				Prevalence Index worksheet:
1		0	0.0%		Total % Cover of: Multiply by:
2			0.0%		OBL species <u>20</u> x 1 = <u>20</u>
3			0.0%		FACW species 100 x 2 = 200
4.			0.0%		FAC species $0 \times 3 = 0$
5		_ 0 _	0.0%		FACU species <u>5</u> x 4 = <u>20</u>
Herb Stratum(Plot size: 5' radius)	=	= Total Cov	/er	UPL species <u>5</u> x 5 = <u>25</u>
1. Phalaris arundinacea		100	76.9%	FACW	Column Totals: <u>130</u> (A) <u>265</u> (B)
Typha angustifolia		20	15.4%	OBL	
3. Daucus carota		5	3.8%	UPL	Prevalence Index = B/A = 2.038
4. Cirsium arvense		3	2.3%	FACU	Hydrophytic Vegetation Indicators:
5. Sonchus arvensis		2	1.5%	FACU	1 - Rapid Test for Hydrophytic Vegetation
6.		0	0.0%		2 - Dominance Test is > 50%
7		0	0.0%		✓ 3 - Prevalence Index is ≤3.0 ¹
8.		0	0.0%		4 - Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)
9.		0	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
10.		_0	0.0%		
Woody Vine Stratum (Plot size:	١	130=	= Total Cov	/er	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
woody vine Stratum (Fiot size.		0 [0.0%	ŀ	be present among the present of the
2.		0 [0.0%		Hydrophytic
			-		Vegetation Present? Yes No
			= Total Cov	er	Present? 103 0 110 0
Remarks: (Include photo numbers	here or on a senarate sh	neet)			
` '	•	,	Took .	Lub - Duo	* .
A wetland plant community was do	ocumented by the Kapiu	Test, Domina	nce Test a	and the Prev	/alence Index.

SOIL Sampling Point: SP-46 (W-7)

			absence of indicators.)	
Depth Matrix	Redox Feature		- Toolson Bound	_
(inches) Color (moist) %		Type Loc²		<u>s</u>
0-13 10YR 3/1 90		M	Silty Clay Loam	
			·	
Type: C=Concentration, D=Depletion, RM=R	educed Matrix, CS=Covered or Coated	Sand Grains.	Location: PL=Pore Lining. M=Matrix.	
Hydric Soil Indicators:			Indicators for Problematic Hydric Soils ³	³ :
Histosol (A1)	Sandy Gleyed Matrix (S4)		Coast Prairie Redox (A16)	
Histic Epipedon (A2) Black Histic (A3)	Sandy Redox (S5)		Dark Surface (S7)	
Hydrogen Sulfide (A4)	Stripped Matrix (S6)		☐ Iron Manganese Masses (F12)	
Stratified Layers (A5)	Loamy Mucky Mineral (F1)	•	☐ Very Shallow Dark Surface (TF12)	
2 cm Muck (A10)	Loamy Gleyed Matrix (F2)		Other (Explain in Remarks)	
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)		🗀 Ошег (схрівін ін кенівгкі)	
_ ` ` ` `	Redox Dark Surface (F6)			
Thick Dark Surface (A12)	Depleted Dark Surface (F7	')	³ Indicators of hydrophytic vegetation and	
Sandy Muck Mineral (S1) 5 cm Mucky Peat or Peat (S3)	Redox Depressions (F8)		wetland hydrology must be present, unless disturbed or problematic.	
Restrictive Layer (if observed):	_			
Туре:				
Depth (inches):			Hydric Soil Present? Yes No	
HYDROLOGY				
I DROLOGI				
Wetland Hydrology Indicators:	di de al allahat and N		Consider Advisor Color	
Wetland Hydrology Indicators: Primary Indicators (minimum of one is require			Secondary Indicators (minimum of two	required)_
Wetland Hydrology Indicators: Primary Indicators (minimum of one is require Surface Water (A1)	Water-Stained Leaves (F	39)	Surface Soil Cracks (B6)	required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is require Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (I	,	Surface Soil Cracks (B6) Drainage Patterns (B10)	required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is require Surface Water (A1) High Water Table (A2) Saturation (A3)	☐ Water-Stained Leaves (I☐ Aquatic Fauna (B13)☐ True Aquatic Plants (B14	4)	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2)	required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	☐ Water-Stained Leaves (I☐ Aquatic Fauna (B13)☐ True Aquatic Plants (B14☐ Hydrogen Sulfide Odor (4) (C1)	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8)	
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves (I Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (Oxidized Rhizospheres o	4) (C1) on Living Roots (C3)	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery	
Wetland Hydrology Indicators: Primary Indicators (minimum of one is require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Water-Stained Leaves (I Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (Oxidized Rhizospheres of Presence of Reduced Iro	4) (C1) on Living Roots (C3) on (C4)	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery Stunted or Stressed Plants (D1)	
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Water-Stained Leaves (I Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (Oxidized Rhizospheres o	4) (C1) on Living Roots (C3) on (C4)	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery Stunted or Stressed Plants (D1) Geomorphic Position (D2)	
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required 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)	Water-Stained Leaves (I Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (Oxidized Rhizospheres of Presence of Reduced Iron Recent Iron Reduction in Thin Muck Surface (C7)	4) (C1) on Living Roots (C3) on (C4)	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery Stunted or Stressed Plants (D1)	
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required 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)	Water-Stained Leaves (I Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (Oxidized Rhizospheres of Presence of Reduced Iru Recent Iron Reduction in Thin Muck Surface (C7) Gauge or Well Data (D9)	4) (C1) on Living Roots (C3) on (C4) n Tilled Soils (C6)	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery Stunted or Stressed Plants (D1) Geomorphic Position (D2)	
Wetland Hydrology Indicators: Primary Indicators (minimum of one is require 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)	Water-Stained Leaves (I Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (Oxidized Rhizospheres of Presence of Reduced Iru Recent Iron Reduction in Thin Muck Surface (C7) Gauge or Well Data (D9)	(C1) on Living Roots (C3) on (C4) n Tilled Soils (C6)	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery Stunted or Stressed Plants (D1) Geomorphic Position (D2)	
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required 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) Field Observations:	Water-Stained Leaves (I Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (Oxidized Rhizospheres of Presence of Reduced Iro Recent Iron Reduction ii Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remar	(C1) on Living Roots (C3) on (C4) n Tilled Soils (C6)	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery Stunted or Stressed Plants (D1) Geomorphic Position (D2)	
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required 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) Field Observations:	Water-Stained Leaves (I Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (Oxidized Rhizospheres of Presence of Reduced Iru Recent Iron Reduction in Thin Muck Surface (C7) Gauge or Well Data (D9)	(C1) on Living Roots (C3) on (C4) n Tilled Soils (C6)	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery Stunted or Stressed Plants (D1) Geomorphic Position (D2)	
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required 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) Field Observations: Surface Water Present? Yes	Water-Stained Leaves (I Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (Oxidized Rhizospheres of Presence of Reduced Iro Recent Iron Reduction in Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Reman	(C1) on Living Roots (C3) on (C4) n Tilled Soils (C6)	Surface Soil Cracks (B6) □ Drainage Patterns (B10) □ Dry Season Water Table (C2) □ Crayfish Burrows (C8) □ Saturation Visible on Aerial Imagery □ Stunted or Stressed Plants (D1) ☑ Geomorphic Position (D2) ☑ FAC-Neutral Test (D5)	(C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required 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) Field Observations: Surface Water Present? Water Table Present? Yes No	Water-Stained Leaves (I Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (Oxidized Rhizospheres of Reduced Iro Recent Iron Reduction in Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remar	(C1) on Living Roots (C3) on (C4) on Tilled Soils (C6)) rks)	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery Stunted or Stressed Plants (D1) Geomorphic Position (D2)	(C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required 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) Field Observations: Surface Water Present? Water Table Present? Yes N	Water-Stained Leaves (I Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (Oxidized Rhizospheres of Presence of Reduced Iru Recent Iron Reduction in Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Reman	(C1) on Living Roots (C3) on (C4) on Tilled Soils (C6)) cks) Weti	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)	(C9)
Primary Indicators (minimum of one is required 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) Field Observations: Surface Water Present? Water Table Present? Yes N Saturation Present? Yes N Saturation Present? Yes N Concave Surface Mater Present? Yes N Saturation Present? Yes N Shaturation Present? Yes N Shaturation Present? Yes N Shaturation Present? Secribe Recorded Data (stream gauge,	Water-Stained Leaves (I Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (Oxidized Rhizospheres of Presence of Reduced Iru Recent Iron Reduction in Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Reman	(C1) on Living Roots (C3) on (C4) on Tilled Soils (C6)) cks) Weti	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)	(C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required 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) Field Observations: Surface Water Present? Water Table Present? Yes Note The Saturation Present? Yes Note Table Present? Second Present Stream gauge, Remarks:	Water-Stained Leaves (I Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (Oxidized Rhizospheres of Reduced Iru Recent Iron Reduction in Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Reman	(C1) on Living Roots (C3) on (C4) on Tilled Soils (C6)) rks) wet	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)	(C9)

Project/Site: IH 94 Milwaukee County		Cit	ty/County:	Oak Creek/N	1ilwaukee	Sampling Da	te: 11-Nov-16
Applicant/Owner: WisDOT				State:	WI	Sampling Point:	SP-47 (up)
Investigator(s): Mike Al-wathiqui, Geof Parish			Section, Town	ship, Range:	s 36 T	5N R 21E	
Landform (hillslope, terrace, etc.): Footslope			ı	Local relief (c	oncave, convex, nor	ne): convex	
Slope: 10.0% / 5.7 ° Lat.: 42.	8530006			-87.952003			WGS84
Soil Map Unit Name: Morley silt loam, 2 t		oded				ssification: None	
Are climatic/hydrologic conditions on the site ty		(O No •	(If no, ex	rplain in Remarks.)		
		ificantly dis			ormal Circumstances	" present? Y	es No
Are Vegetation , Soil , or	Hydrology 🗌 natu	rally proble	ematic?	(If need	ded, explain any ans	wers in Remarks.)	
SUMMARY OF FINDINGS - Attac	h site map showi	ng sam _l	pling poin	t locatio	ns, transects,	important feat	ıres, etc.
Hydrophytic Vegetation Present? Ye	s O No 💿						
Hydric Soil Present? Ye	s O No 💿			Sampled A			
Wetland Hydrology Present? Ye	s O No 💿			a woulding	·· res \bigcirc inc	,	
Remarks:			I.				
Hydrological conditions were wetter the hydrology present. The sample point v			munity and	upland soils	s were documente	ed. There were no i	ndicators of wetland
VEGETATION - Use scientifi	c names of plants	3.	Dominant				
	· · · · · · · · · · · · · · · · · · ·	Absolute	- Species? Rel.Strat.	Indicator	Dominance Test	worksheet:	
Tree Stratum(Plot size:)	% Cover	Cover	Status	Number of Domin		
1		0	0.0%		That are OBL, FAC		1(A)
2		0	0.0%		Total Number of D	Oominant	
3		0	0.0%		Species Across All		2 (B)
4		0	0.0%				
5			0.0%		Percent of domi That Are OBL, F		50.0% (A/B)
a transport (Plat size)	,	0	= Total Cove	er			
_Sapling/Shrub Stratum (Plot size:)	_			Prevalence Inde		
1			0.0%		Total % C		ply by:
2. 3.			0.0%		OBL species	x 1	
4.			0.0%		FACW species		
5.			0.0%		FAC species	x 3	
				·	FACU species	x 4	
Herb Stratum (Plot size: 5' radius)		- Total Cove	:1	UPL species	<u>10</u> x 5	
1. Poa pratensis			65.4%	FAC	Column Totals	: <u>153</u> (A)	<u>522</u> (B)
2. Festuca arundinacea		40	✓ 26.1%	FACU	Prevalence	Index = B/A =	3.412
3. Daucus carota		10	6.5%	UPL	Hydrophytic Veg	etation Indicators:	
4. Sonchus arvensis		3	2.0%	FACU		st for Hydrophytic V	egetation
5		0	0.0%			ce Test is > 50%	
6. 7.			0.0%			ce Index is ≤3.0 ¹	
8.			0.0%				(Provide supporting
9.			0.0%			arks or on a separat	
10.			0.0%		Problematic	Hydrophytic Vegeta	tion ¹ (Explain)
		152			$\frac{1}{2}$ Indicators of I	hydric soil and wetla	and hydrology must
Woody Vine Stratum (Plot size:)	153	= Total Cove	:1		ess disturbed or prol	
1		0	0.0%				
2		0	0.0%		Hydrophytic Vegetation		
		0	= Total Cove	er	Present?	Yes O No •	
					<u> </u>		
Remarks: (Include photo numbers here	e or on a separate she	et.)					
An upland plant community was observed	red.						

SOIL Sampling Point: SP-47 (up)

Profile Description: (Describe to the depth needed to document the indic	ator or confirm the absence of indicators.)
Depth Matrix Redox Featu	
(inches) Color (moist) % 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 Coate	d Sand Grains. Leocation: PL=Pore Lining. M=Matrix.
Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
Histosol (A1) Sandy Gleyed Matrix (S4	Coast Prairie Redox (A16)
Histic Epipedon (A2) Sandy Redox (S5)	Dark Surface (S7)
☐ Black Histic (A3) ☐ Stripped Matrix (S6) ☐ Hydrogen Sulfide (A4) ☐ Learny Mude Miseral (S	Iron Manganese Masses (F12)
Stratified Layers (A5)	1) Very Shallow Dark Surface (TE12)
Loamy Gleyed Matrix (F2	Other (Explain in Remarks)
Depleted Matrix (F3)	, ,
Thick Dark Surface (A12)	_
Depleted Dark Surface (III) Sandy Muck Mineral (S1) Depleted Dark Surface (III) Depleted Dark Surface (III)	Indicators of hydrophytic vegetation and wetland hydrology must be present,
Redox Depressions (F8) 5 cm Mucky Peat or Peat (S3)	unless disturbed or problematic.
Restrictive Layer (if observed):	
Туре:	
Depth (inches):	Hydric Soil Present? Yes ○ No •
Remarks:	
Hydric soils were not observed.	
11,4110 0010 11010 1101 00001 11001	
HYDROLOGY	
Wetland Hydrology Indicators:	1
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves	
High Water Table (A2) Aquatic Fauna (B13)	Drainage Patterns (B10)
Saturation (A3) True Aquatic Plants (B	
☐ Water Marks (B1) ☐ Hydrogen Sulfide Odoi	
Sediment Deposits (B2) Oxidized Rhizospheres	on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
☐ Drift Deposits (B3) ☐ Presence of Reduced I	ron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction	in Tilled Soils (C6) Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7)	9)
Sparsely Vegetated Concave Surface (B8) Other (Explain in Rema	arks)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes ○ No ● Depth (inches):	
Saturation Present? (includes capillary frings) Yes No Depth (inches):	Wetland Hydrology Present? Yes ○ No •
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, page 1975)	previous inspections) if available:
2 3 3 3 1 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 3 1 2 3 3 1 2 3 3 3 3	
Remarks:	
No indicators of wetland hydrology were observed.	
The malcators of wedama mydrology were observed.	

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)	
	Section, Towns	ship, Range: S 36 T 5N R 21E	
Landform (hillslope, terrace, etc.): Toeslope		ocal relief (concave, convex, none): concave	
Slope: 2.0% / 1.1 ° Lat.: 42.8530006		-87.9520035 Datum: WGS84	
		WWI classification: None	_
Soil Map Unit Name: Morley silt loam, 2 to 6 percent slop		(If no, explain in Remarks.)	—
Are climatic/hydrologic conditions on the site typical for this time	o. year.		
Are Vegetation	significantly disturbed?	The Hornar circumstances present.	
Are Vegetation	naturally problematic? howing sampling poin	(If needed, explain any answers in Remarks.) t locations, transects, important features, etc.	
Hydrophytic Vegetation Present? Yes No			
Hydric Soil Present? Yes No		Sampled Area	
Wetland Hydrology Present? Yes No	Witnin	n a Wetland? Yes No	
Remarks:	L		
	plants. Dominant Species? -	dric soils and multiple indicators of wetland hydrology were present.	
Tree Stratum(Plot size:)	Absolute Rel.Strat. % Cover Cover	Status	
1	0 0.0%	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)	
2.	0 0.0%		
3.	0 0.0%	Total Number of Dominant Species Across All Strata: 1 (B)	
4.	0 0.0%		
5.	0 0.0%	Percent of dominant Species That Are OBL FACW or FAC: 100.0% (A/B)	1
	0 = Total Cover	That Are OBL, FACW, or FAC: 100.0% (A/B)	
		Prevalence Index worksheet:	_
1	0	Total % Cover of: Multiply by:	
2	0	OBL species 80 x 1 = 80	
3	0	FACW species x 2 =	
4.	0	FAC species x 3 =	
5	0 0.0%	FACU species <u>10</u> x 4 = <u>40</u>	
Herb Stratum (Plot size: 5' radius)	0 = Total Cove	UPL species $0 \times 5 = 0$	
1. Typha angustifolia	80 🗷 88.9%	OBL Column Totals: 90 (A) 120 (B)	
2. Cirsium arvense	10 11.1%	FACU Prevalence Index = B/A = 1.333	
3.	0 0.0%		
4.	0 0.0%	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation	
5	0 0.0%		
6.	0 0.0%		
7.	0	✓ 3 - Prevalence Index is ≤3.0 ¹	
8.	00.0%	4 - Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)	g
9.	0	Problematic Hydrophytic Vegetation ¹ (Explain)	
10	0		
	90 = Total Cove	$\frac{1}{2}$ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	:
1.	0		
2.	0 0.0%	Hydrophytic	
2	0 = Total Cove	Vegetation Present? Yes No	
Remarks: (Include photo numbers here or on a separal A wetland plant community was documented by the Ra	, and the second	nd the Prevalence Index.	

SOIL Sampling Point: SP-48 (W-8)

9-15 10YR 5/1 80 10YR 5/6 20 C M Sili Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ### Property	Texture Remarks Loam y Clay Loam ion: PL=Pore Lining. M=Matrix. ndicators 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) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. dric Soil Present? Yes No
9-15 10YR 5/1 80 10YR 5/6 20 C M Sili Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ### Hydric Soil Indicators: ### Histosoi (A1) Histo Epipedon (A2) Black Histic (A3) Stripped Matrix (S4) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (F1) Stratified Layers (A5) Depleted Matrix (F2) Depleted Below Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Muck Mineral (S1) S cm Mucky Peat or Peat (S3) #### Redox Depressions (F8) #### Redox Depressions (F8) #### Redox Dark Surface and F3 Depleted Matrix #### Page 10 Peat (F3) #### Redox Depressions (F8) #### Page 10 Peat (F3) #### Page 10 Peat (F	ion: PL=Pore Lining. M=Matrix. 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) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. # Hydric Soil Indicators: Histosol (A1)	ion: PL=Pore Lining. M=Matrix. 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) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Stratified Layers (A5) Loamy Mucky Mineral (F1) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Pelpeted Below Dark Surface (A11) Sandy Muck Mineral (S1) Sandy Muck Mineral (S1) Some Muck Mineral (S1) Some Muck Peat or Peat (S3) Restrictive Layer (if observed): Type: Depth (inches): Hermarks: The criteria for hydric soils was met by A11 Depleted Below Dark Surface and F3 Depleted Matrix PyDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Sandy Redox (S5) Sardy Redox (S5) Sandy Redox (S5) Sardy Redox (S6) Sardy Redox (Sex) Sardy Redox Dependentic (F1) Sardy Redox Dependentic (F2) Sardy Redox Dependentic (F2) Sardy Redox Dependentic (F1) Sardy Redox Dependentic (F1) Sardy Redox Dependentic (F1) Sardy Redox Dependentic (F	ndicators 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) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Stratified Layers (A5) Loamy Mucky Mineral (F1) Stratified Layers (A5) Loamy Gleyed Matrix (F2) 2 cm Muck (A10) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Some Mucky Peat or Peat (S3) estrictive Layer (if observed): Type: Depth (inches): Hemarks: Type: Depth (inches): Depth (inc	ndicators 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) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Stratified Layers (A5) Loamy Mucky Mineral (F1) Stratified Layers (A5) Loamy Gleyed Matrix (F2) 2 cm Muck (A10) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Some Mucky Peat or Peat (S3) estrictive Layer (if observed): Type: Depth (inches): Hemarks: Type: Depth (inches): Depth (inc	ndicators 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) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Stratified Layers (A5) Loamy Mucky Mineral (F1) Stratified Layers (A5) Loamy Gleyed Matrix (F2) 2 cm Muck (A10) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Some Mucky Peat or Peat (S3) estrictive Layer (if observed): Type: Depth (inches): Heararks: Type: Depth (inches): Depth (inches): Type: Depth (inches): Dep	ndicators 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) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (F1) Sandy Muck Mineral (F2) Depleted Dark Surface (F7) Sandy Muck Mineral (S1) Scm Mucky Peat or Peat (S3) Redox Dark Surface (A12) Depth (inches): Remarks: Type: Depth (inches): Remarks: The criteria for hydric soils was met by A11 Depleted Below Dark Surface and F3 Depleted Matrix PYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4)	ndicators 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) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (F1) Sandy Muck Mineral (F2) Depleted Dark Surface (F7) Sandy Muck Mineral (S1) Scm Mucky Peat or Peat (S3) Redox Dark Surface (A12) Depth (inches): Remarks: Type: Depth (inches): Remarks: The criteria for hydric soils was met by A11 Depleted Below Dark Surface and F3 Depleted Matrix PYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4)	ndicators 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) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Histosol (A1) Sandy Gleyed Matrix (54) Histic Epipedon (A2) Sandy Redox (S5) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Stratified Layers (A5) Loamy Gleyed Matrix (F2) 2 cm Muck (A10) Pepleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Muck Mineral (S1) Redox Depressions (F8) Type: Depth (inches): Remarks: Type: Depth (inches): Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6)	Coast Prairie Redox (A16) Dark Surface (S7) Iron Manganese Masses (F12) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Loamy Mucky Mineral (F1) Stratified Layers (A5) Loamy Gleyed Matrix (F2) 2 cm Muck (A10) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) 5 cm Mucky Peat or Peat (S3) Redox Depressions (F8) Redox Depressions (F8) Redox Depressions (F8) Remarks: Type: Depth (inches): Remarks: The criteria for hydric soils was met by A11 Depleted Below Dark Surface and F3 Depleted Matrix Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Drift Deposits (B3) Presence of Reduced Iron (C4) Rada Matrix (S6) Loamy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1) Loamy Mucky Mineral (F1) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Thick Dark Surface (F6) Thick Dark Surface and F3 Depleted Matrix Hydrogen Sulfide Odor (C1) Sediment Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4)	Dark Surface (S7) Iron Manganese Masses (F12) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Stratified Layers (A5) Loamy Mucky Mineral (F1) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Muck Mineral (S1) Redox Depressions (F8) Stratitive Layer (if observed): Type:	Iron Manganese Masses (F12) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Hydrogen Sulfide (A4) Stratified Layers (A5) □ comy Mucky Mineral (F1) □ stratified Layers (A5) □ comy Mucky Mineral (F2) □ comy Muck (A10) □ pepleted Below Dark Surface (A11) □ Redox Dark Surface (F6) □ Thick Dark Surface (A12) □ Sandy Muck Mineral (S1) □ Sandy Muck Mineral (S1) □ Som Mucky Peat or Peat (S3) Restrictive Layer (if observed): □ Type: □ Depth (inches): □ Pepth (inches): □ Primary Indicators (minimum of one is required; check all that apply) □ Surface Water (A1) □ High Water Table (A2) □ Aquatic Fauna (B13) □ Saturation (A3) □ True Aquatic Plants (B14) □ Water Marks (B1) □ Water Marks (B1) □ Presence of Reduced Iron (C4) □ Algal Mat or Crust (B4) □ Recent Iron Reduction in Tilled Soils (C6)	Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Stratified Layers (A5) 2 cm Muck (A10) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Redox Depressions (F8) Redox Derressions (F8)	Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
2 cm Muck (A10) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Sandy Muck Mineral (S1) Som Mucky Peat or Peat (S3) Restrictive Layer (if observed): Type: Depth (inches): Remarks: The criteria for hydric soils was met by A11 Depleted Below Dark Surface and F3 Depleted Matrix 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) Presence of Reduced Iron (C4) Redox Dark Surface (F6) Redox Dark Surface (F7) Redox Depressions (F8) Pelleted Dark Surface (F7) Redox Dark Surface (F7) Redox Dark Surface (F6) Pelleted Dark Surface (F6) Pelleted Dark Surface (F6) Pelleted Dark Surface (F6) Redox Dark	Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Muck Mineral (S1) Redox Depressions (F8) Restrictive Layer (if observed): Type: Depth (inches): Popel	Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Thick Dark Surface (A12) Sandy Muck Mineral (S1) Some Mucky Peat or Peat (S3) Restrictive Layer (if observed): Type: Depth (inches): Remarks: The criteria for hydric soils was met by A11 Depleted Below Dark Surface and F3 Depleted Matrix Remarks: Type: Depth (inches): Remarks: Type: Depth (inches): Remarks: Type: Depth (inches): Remarks: Type: Depth (inches): Remarks: Type: Depth (inches): Depth (inches): Remarks: Type: Depth (inches): Depth (inches)	wetland hydrology must be present, unless disturbed or problematic.
Sandy Muck Mineral (S1)	wetland hydrology must be present, unless disturbed or problematic.
S cm Mucky Peat or Peat (S3) Redox Depressions (F8) Redox Depressions (F8) Restrictive Layer (if observed): Type:	unless disturbed or problematic.
Restrictive Layer (if observed): Type: Depth (inches): Remarks: he criteria for hydric soils was met by A11 Depleted Below Dark Surface and F3 Depleted Matrix IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6)	·
Depth (inches):	dric Soil Present? Yes No
Remarks: The criteria for hydric soils was met by A11 Depleted Below Dark Surface and F3 Depleted Matrix TYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Water Marks (B1) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)	dric Soil Present? Yes ● No U
Name of the criteria for hydric soils was met by A11 Depleted Below Dark Surface and F3 Depleted Matrix Name of the criteria for hydric soils was met by A11 Depleted Below Dark Surface and F3 Depleted Matrix Name of the criteria for hydric soils was met by A11 Depleted Below Dark Surface and F3 Depleted Matrix Name of the criteria for hydric soils was met by A11 Depleted Below Dark Surface and F3 Depleted Matrix Name of the criteria for hydric soils was met by A11 Depleted Below Dark Surface and F3 Depleted Matrix Name of the criteria for hydric soils was met by A11 Depleted Below Dark Surface and F3 Depleted Matrix Name of the criteria for hydric soils was met by A11 Depleted Below Dark Surface and F3 Depleted Matrix Name of the criteria for hydric soils was met by A11 Depleted Below Dark Surface and F3 Depleted Matrix Name of the criteria for hydrology Indicators: Name o	
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1)	
Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1)	
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) 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)	Secondary Indicators (minimum of two required)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) 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)	Surface Soil Cracks (B6)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) 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)	
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)	Drainage Patterns (B10)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)	Dry Season Water Table (C2)
Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	✓ Geomorphic Position (D2)
	FAC-Neutral Test (D5)
☐ Inundation Visible on Aerial Imagery (B7) ☐ Gauge or Well Data (D9)	
Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)	
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	
Wotland	lydrology Present? Yes No
Saturation Present? Yes No Depth (inches):	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if	
Remarks:	
The conditions of wetland hydrology were documented with two secondary indicators of wetland	

Project/Site: IH 94 Milwaukee County		Cit	cy/County:	Oak Creek/I	Milwaukee	Sampl	ing Date:	18-Nov-16
Applicant/Owner: WisDOT				State:	WI	Sampling Point:	SP-49	(FSA Area)
Investigator(s): Mike Al-wathiqui, Geof P	arish		Section, Towns	hip, Range:	s 31 T	5N R	22E	
Landform (hillslope, terrace, etc.): Foots	lope		L	ocal relief (d	concave, convex, no	one): concave		
Slope: 10.0% / 5.7 ° Lat.:	42.8516006			87.943702			tum: WGS8	84
Soil Map Unit Name: Morley silt loam		pes, eroded			WWI cl	lassification: Nor	ne	
Are climatic/hydrologic conditions on the		(○ No ⊙	(If no, ex	cplain in Remarks.)			
Are Vegetation , Soil .	, or Hydrology	significantly dis	turbed?	Are "No	ormal Circumstance	s" present?	Yes	No \bigcirc
Are Vegetation , Soil	, or Hydrology	naturally proble	ematic?	(If nee	ded, explain any an	swers in Remark	s.)	
SUMMARY OF FINDINGS - A	ttach site map :	showing sam	pling point	t locatio	ns, transects,	, important	features,	etc.
Hydrophytic Vegetation Present?	Yes O No 💿							
Hydric Soil Present?	Yes O No •			Sampled A a Wetland		In (•)		
Wetland Hydrology Present?	Yes O No •				·· res \bigcirc iv	IU		
Remarks:			•					
Hydrological conditions were wette			nmunity and	upland soi	ls were documen	ited. There we	re no indicat	ors of wetland
hydrology present. The sample po	int was located in a	an upland.						
VECETATION Lisa said	ntific names of	nlants						
VEGETATION - Use scie	nunc names or	piants.	Dominant - Species? -		·			
Tree Stratum(Plot size:)	Absolute % Cover		Indicator Status	Dominance Tes	st worksheet:		
1		0	Cover	Status	Number of Domi That are OBL, FA		0	(4)
2.			0.0%		That are Obt, FA	ACW, OF FAC:		(A)
3.			0.0%		Total Number of			(=)
4.			0.0%		Species Across A	III Strata:	2	(B)
5.			0.0%		Percent of don	ninant Species		
			= Total Cover			FACW, or FAC:	. 0.00	% (A/B)
_Sapling/Shrub Stratum (Plot size:)		10001 00101		Prevalence Ind	ev worksheet:		
1.	,	0	0.0%			Cover of:	Multiply by:	
2.			0.0%		OBL species	0	x 1 =	0
3.			0.0%		FACW species		x 2 =	0
4.			0.0%		FAC species	0	x 3 =	0
5.		0	0.0%		FACU species			568
(State of Flooring	,	0	= Total Cover		UPL species	0	x 5 =	0
Herb Stratum (Plot size: 5' radius)				•			
1 Festuca arundinacea			70.4%	FACU	Column Total	s: <u>142</u>	(A)	568 (B)
			21.1%	FACU	Prevalence	e Index = B/A :	= _4.00	<u> </u>
3. Bromus inermis			7.0%	FACU	Hydrophytic Ve	getation Indica	itors:	
4. <u>Cirsium arvense</u> 5.		2	1.4%	FACU	1 - Rapid Te	est for Hydroph	ytic Vegetati	ion
6.		0	0.0%		2 - Dominai	nce Test is > 50	1%	
7.			0.0%		3 - Prevaler	nce Index is ≤3	.0 ¹	
8.			0.0%			ogical Adaptati		
9.			0.0%			narks or on a se	•	•
10.		0	0.0%		☐ Problemation	Hydrophytic V	egetation 1	(Explain)
		142	= Total Cover			hydric soil and		
Woody Vine Stratum (Plot size:)		. 500, 6046		be present, uni	less disturbed o	r problemati	ic.
1			0.0%		11			
2			0.0%		Hydrophytic Vegetation			
		0	= Total Cover	•	Present?	Yes O No	, •	
Remarks: (Include photo numbers	here or on a separa	ate sheet.)						
An upland plant community was ob	oserved.							
ĺ								

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 (in aboa)	Matr			ox Featu		12	- Tautuus	Damada
(inches) 0-14	Color (moist		Color (moist)	<u>%</u>	Tvpe 1	Loc ²	Texture Silt Loam	Remarks
0-14	10YR 3/	2 100					Siit Loaiii	
	-			-				
- ''		letion, RM=Reduce	d Matrix, CS=Covered	d or Coate	d Sand Grai	ns.	Location: PL=Pore Lining. M=	Matrix.
Hydric Soil I			Const. Classed	M-1-1-104			Indicators for Problema	atic Hydric Soils ³ :
Histosol (A	A1) pedon (A2)		Sandy Gleyed)		Coast Prairie Redox (A	16)
Black Hist			Sandy Redox (Dark Surface (S7)	
	Sulfide (A4)		Stripped Matrix	` '	1)		☐ Iron Manganese Masse	es (F12)
Stratified	Layers (A5)		Loamy Mucky				Very Shallow Dark Sur	face (TF12)
2 cm Muc	k (A10)		Loamy Gleyed Depleted Matri		.)		Other (Explain in Rema	arks)
Depleted	Below Dark Surfac	e (A11)	Redox Dark Su	. ,				•
☐ Thick Darl	k Surface (A12)		Depleted Dark	` ,			3 Indicators of hydrophyt	
Sandy Mu	ck Mineral (S1)		Redox Depress	•	7)		³ Indicators of hydrophyti wetland hydrology m	c vegetation and just he present.
5 cm Muc	ky Peat or Peat (S	3)	Redox Depress	10113 (10)			unless disturbed or	problematic.
Restrictive La	ayer (if observed	I):						
Type:								
Depth (inch	hes):						Hydric Soil Present?	Yes O No 💿
Remarks:								
Hydric soils w	ere not observe	d.						
HYDROLO)GY							
Wetland Hyd	rology Indicator	s:						
Primary Indica	ators (minimum of	one is required; ch	eck all that apply)				Secondary Indicator	s (minimum of two required)
Surface W	/ater (A1)		Water-Staine	d Leaves	(B9)		Surface Soil Crac	cks (B6)
High Wate	er Table (A2)		Aquatic Faur	a (B13)			Drainage Patterr	ns (B10)
Saturation	n (A3)		True Aquatio	Plants (B	14)		Dry Season Wat	er Table (C2)
Water Ma	rks (B1)		Hydrogen Su	lfide Odor	(C1)		Crayfish Burrows	s (C8)
	Deposits (B2)		Oxidized Rhi	zospheres	on Living R	oots (C3)	Saturation Visible	e on Aerial Imagery (C9)
☐ Drift Depo	osits (B3)		Presence of				Stunted or Stres	sed Plants (D1)
	or Crust (B4)		Recent Iron	Reduction	in Tilled So	ils (C6)	Geomorphic Pos	
☐ Iron Depo			Thin Muck So	urface (C7)		☐ FAC-Neutral Tes	t (D5)
	n Visible on Aerial		Gauge or We	ell Data (D	9)			
☐ Sparsely \	egetated Concave	Surface (B8)	U Other (Expla	in in Rema	arks)			
						-		
Field Observa		res O No 💿	Double Cont					
Surface Water			' '			-		
Water Table Pr	resent?	∕es ○ No •	Depth (inch	nes):		-		Yes O No •
Saturation Pres	1	∕es ○ No ⊙	Depth (incl	nes):		Wet	land Hydrology Present?	res Uno U
(includes capill Describe Rec	iary iringe)		itoring well, aerial		revious in	spection	s), if available:	
_ COSTIDO NOO	(501)	gaage, 1110111	Tron, acriai			- p ======	-,,	
Remarks:								
	of wetland had	rology were obse	arved					
INO ITIUICALOIS	o or wedanu nyu	ology were obse	a veu.					

Project/Site: IH 94 Milwaukee County	Cit	y/County:	Oak Creek/N	Milwaukee Sampling Date: 11-Nov-16
Applicant/Owner: WisDOT			State:	WI Sampling Point: SP-50 (up)
Investigator(s): Mike Al-wathiqui, Geof Parish	9	Section, Towr	nship, Range:	
Landform (hillslope, terrace, etc.): Footslope			Local relief (c	concave, convex, none): convex
Slope: 5.0% / 2.9 ° Lat.: 42.8504982			-87.949302	Wood 4
		Long	-67.949302	
Soil Map Unit Name: Morley silt loam, 2 to 6 percent slopes, e	(○ No ●	(If no ou	WWI classification: None gplain in Remarks.)
Are Vigoratrian	ui .		, ,	
	gnificantly dist			mile of certification process.
Are Vegetation, Soil, or Hydrology na SUMMARY OF FINDINGS - Attach site map show	iturally proble		•	ded, explain any answers in Remarks.)
Hydrophytic Vegetation Present? Yes No •	9	J9 Po		,
0 0		Is the	e Sampled A	
·		withi	n a Wetland	1? Yes ○ No •
Remarks: Hydrological conditions were wetter than normal. An uplan- hydrology present. The sample point was located in an uplan- VEGETATION - Use scientific names of plant	and.	Dominant	·	s were documented. There were no indicators of wetland
Troo Charles (Diot ciza:	Absolute	Rel.Strat.	Indicator	Dominance Test worksheet:
	% Cover	Cover 0.0%	Status	Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
2.	0	0.0%		That are OBL, FACW, or FAC:
3.	0	0.0%		Total Number of Dominant Species Across All Strata: 2 (B)
4.	0	0.0%		Species Across Air Strata
5.	0	0.0%		Percent of dominant Species That Are ORL FACW or FAC: 0.0% (A/B)
	0	= Total Cove	er	That Are OBL, FACW, or FAC: 0.0% (A/B)
				Prevalence Index worksheet:
1		0.0%		Total % Cover of: Multiply by:
2		0.0%		OBL species $0 \times 1 = 0$
3. 4.		0.0%		FACW species $0 \times 2 = 0$
5.		0.0%		FAC species $0 \times 3 = 0$
		0.0% = Total Cove		FACU species 35 x 4 = 140 UPL species 40 x 5 = 200
Herb Stratum (Plot size: 5' radius)				
1. Glycine max		53.3%	UPL	Column Totals: <u>75</u> (A) <u>340</u> (B)
2. Cirsium arvense		26.7%	FACU	Prevalence Index = B/A = 4.533
3. Taraxacum officinale		13.3%	FACU	Hydrophytic Vegetation Indicators:
4. Sonchus arvensis 5.	<u>5</u> 	□ <u>6.7%</u> □ 0.0%	FACU	1 - Rapid Test for Hydrophytic Vegetation
6.	0			2 - Dominance Test is > 50%
7.	0	0.0%		\Box 3 - Prevalence Index is ≤3.0 1
8.	0	0.0%		4 - Morphological Adaptations 1 (Provide supporting
9.	0	0.0%		data in Remarks or on a separate sheet)
10.	0	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
West Visa Chaham (Plot size:	75	= Total Cove	er	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)	0	0.0%		be presently amoss alstarbed or presidentation
1				Hydrophytic
<u></u>	0	= Total Cove		Vegetation Present? Yes ○ No ●
		. 5001 0010	. .	
Remarks: (Include photo numbers here or on a separate sh An upland plant community was observed.	eet.)			

SOIL Sampling Point: SP-50 (up)

Profile Description: (Describe to the Depth Matrix			ox Featu			_	
(inches) Color (moist)	%	Color (moist)	<u>%</u>	Tvpe 1	Loc2	Texture	Remarks
0-18 10YR 3/2	60					Silty Clay Loam	
10YR 3/3	40						
		-	-				
			-		-		
					-		
		-					
Type: C=Concentration, D=Depletion,	RM=Reduced	Matrix. CS=Covere	d or Coate	ed Sand Gra	ns.	2ocation: PL=Pore Lining	ı. M=Matrix.
Hydric Soil Indicators:							olematic Hydric Soils ³ :
Histosol (A1)		Sandy Gleyed	Matrix (S4	1)			•
Histic Epipedon (A2)		Sandy Redox (-	,		Coast Prairie Red	` '
Black Histic (A3)		Stripped Matrix	` '			☐ Dark Surface (S7)	
Hydrogen Sulfide (A4)		Loamy Mucky	Mineral (F	1)		☐ Iron Manganese I	• •
Stratified Layers (A5)		Loamy Gleyed				☐ Very Shallow Darl	
2 cm Muck (A10)		Depleted Matri				Other (Explain in	Remarks)
Depleted Below Dark Surface (A11)	Redox Dark Su)			
Thick Dark Surface (A12)		Depleted Dark	Surface (F7)		³ Indicators of hydro	phytic vegetation and
Sandy Muck Mineral (S1)		Redox Depress	sions (F8)			wetland hydrolo	gy must be present,
5 cm Mucky Peat or Peat (S3)						unless disturbe	ed or problematic.
Restrictive Layer (if observed):							
Type:							
.,						Hydric Soil Present?	Vec O No 💿
Depth (inches):	soils. An up	oland soil was doc	cumented	i.		Hydric Soil Present?	Yes ○ No •
Depth (inches):	soils. An up	oland soil was doc	cumented	i.		Hydric Soil Present?	Yes ○ No •
Depth (inches):Remarks:	soils. An up	oland soil was doc	cumented	1.		Hydric Soil Present?	Yes ○ No ●
Depth (inches):	soils. An up	oland soil was doc	cumented	1.		Hydric Soil Present?	Yes ○ No ●
Depth (inches):			cumentec	i.			Yes ○ No ●
Depth (inches):						Secondary India	
Depth (inches):		ck all that apply)	ed Leaves			Secondary India	cators (minimum of two required
Depth (inches): Remarks: here were no indicators of hydric IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is Surface Water (A1)		ck all that apply) Water-Staine Aquatic Faur	ed Leaves na (B13) c Plants (B	(B9)		Secondary India Surface Soi Drainage Pa	cators (minimum of two required I Cracks (B6) atterns (B10) Water Table (C2)
Depth (inches):		ck all that apply) Water-Staine Aquatic Faur	ed Leaves na (B13) c Plants (B	(B9)		Secondary India Surface Soi Drainage Pa	cators (minimum of two required I Cracks (B6) atterns (B10) Water Table (C2)
Depth (inches):		ck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen Su	ed Leaves na (B13) : Plants (B ulfide Odor izospheres	(B9) :14) r (C1) s on Living R	oots (C3)	Secondary India Surface Soi Drainage Pa Dry Season Crayfish Bu Saturation	cators (minimum of two required I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9)
Depth (inches): Remarks: here were no indicators of hydric IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)		ck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen St Oxidized Rhi Presence of	ed Leaves na (B13) : Plants (B ulfide Odol izospheres Reduced I	(B9) s14) r (C1) s on Living R Iron (C4)		Secondary India Surface Soi Drainage Pa Dry Season Crayfish Bu Saturation V Stunted or	cators (minimum of two required I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1)
Depth (inches): Remarks: here were no indicators of hydric IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)		ck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen Su	ed Leaves na (B13) : Plants (B ulfide Odol izospheres Reduced I	(B9) s14) r (C1) s on Living R Iron (C4)		Secondary India Surface Soi Drainage Pa Dry Season Crayfish Bu Saturation V Stunted or Geomorphic	cators (minimum of two required I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2)
Depth (inches): Remarks: here were no indicators of hydric IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is 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)	required; che	ck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of Recent Iron Thin Muck S	ed Leaves na (B13) : Plants (B ulfide Odol zospheres Reduced I Reduction urface (C7	(B9) r (C1) s on Living R Iron (C4) n in Tilled Sc		Secondary India Surface Soi Drainage Pa Dry Season Crayfish Bu Saturation V Stunted or	cators (minimum of two required I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2)
Depth (inches):	required; che	ck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of Recent Iron Thin Muck St Gauge or We	ed Leaves na (B13) : Plants (B ulfide Odoi zospheres Reduction urface (C7 ell Data (D	(B9) si14) r (C1) s on Living R Iron (C4) n in Tilled Sc 7)		Secondary India Surface Soi Drainage Pa Dry Season Crayfish Bu Saturation V Stunted or Geomorphic	cators (minimum of two required I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2)
Depth (inches): Remarks: here were no indicators of hydric IYDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one is 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)	required; che	ck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of Recent Iron Thin Muck S	ed Leaves na (B13) : Plants (B ulfide Odoi zospheres Reduction urface (C7 ell Data (D	(B9) si14) r (C1) s on Living R Iron (C4) n in Tilled Sc 7)		Secondary India Surface Soi Drainage Pa Dry Season Crayfish Bu Saturation V Stunted or Geomorphic	cators (minimum of two required I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2)
Depth (inches):	required; che	ck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of Recent Iron Thin Muck St Gauge or We	ed Leaves na (B13) : Plants (B ulfide Odoi zospheres Reduction urface (C7 ell Data (D	(B9) si14) r (C1) s on Living R Iron (C4) n in Tilled Sc 7)		Secondary India Surface Soi Drainage Pa Dry Season Crayfish Bu Saturation V Stunted or Geomorphic	cators (minimum of two required I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2)
Depth (inches): Remarks: here were no indicators of hydric IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is 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 Image Sparsely Vegetated Concave Surface	required; che ery (B7) ce (B8)	with a second control of the control	ed Leaves na (B13) : Plants (B ulfide Odor zospheres Reduced I Reduction urface (C7 ell Data (C	(B9) si14) r (C1) s on Living R Iron (C4) n in Tilled Sc 7)		Secondary India Surface Soi Drainage Pa Dry Season Crayfish Bu Saturation V Stunted or Geomorphic	cators (minimum of two required I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2)
Depth (inches): Remarks: here were no indicators of hydric IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is 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 Image Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes	required; che ery (B7) ce (B8)	with a display with a	ed Leaves na (B13) : Plants (B ulfide Odor izospheres Reduced I Reduction urface (C7 ell Data (D in in Rem	(B9) si14) r (C1) s on Living R Iron (C4) n in Tilled Sc 7)		Secondary India Surface Soi Drainage Pa Dry Season Crayfish Bu Saturation V Stunted or Geomorphic	cators (minimum of two required I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2)
Depth (inches): Remarks: here were no indicators of hydric IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is 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 Image Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Water Table Present? Yes	required; che	with a second control of the control	ed Leaves na (B13) : Plants (B ulfide Odor izospheres Reduced I Reduction urface (C7 ell Data (D in in Rem	(B9) si14) r (C1) s on Living R Iron (C4) n in Tilled Sc 7)	ils (C6)	Secondary India Surface Soi Drainage Pa Dry Season Crayfish Bu Saturation v Stunted or Geomorphic FAC-Neutra	cators (minimum of two required I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2) Il Test (D5)
Depth (inches): Remarks: here were no indicators of hydric IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is 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 Image Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Water Table Present? Yes Saturation Present?	required; che	wick all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or We Other (Expla	ed Leaves na (B13) : Plants (B ulfide Odoi zospheres Reduced I Reduction urface (C7 ell Data (D in in Rem hes):	(B9) si14) r (C1) s on Living R Iron (C4) n in Tilled Sc 7)	ils (C6)	Secondary India Surface Soi Drainage Pa Dry Season Crayfish Bu Saturation V Stunted or Geomorphic	cators (minimum of two required I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2) Il Test (D5)
Depth (inches): Remarks: here were no indicators of hydric IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is 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 Image Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Water Table Present? Yes	required; che	ck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or We Other (Expla	ed Leaves na (B13) : Plants (B ulfide Odor izospheres Reduced I Reduction urface (C7 ell Data (D in in Rem hes): hes):	(B9) si14) r (C1) s on Living R Iron (C4) n in Tilled Sc 7) D9) arks)	- Wet	Secondary India Surface Soi Drainage Pa Dry Season Crayfish Bu Saturation V Stunted or Geomorphi FAC-Neutra	cators (minimum of two required I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2) Il Test (D5)
Depth (inches): Remarks: here were no indicators of hydric IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is 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 Image Sparsely Vegetated Concave Surface Water Table Present? Water Table Present? Yes Saturation Present? includes capillary fringe)	required; che	ck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or We Other (Expla	ed Leaves na (B13) : Plants (B ulfide Odor izospheres Reduced I Reduction urface (C7 ell Data (D in in Rem hes): hes):	(B9) si14) r (C1) s on Living R Iron (C4) n in Tilled Sc 7) D9) arks)	- Wet	Secondary India Surface Soi Drainage Pa Dry Season Crayfish Bu Saturation V Stunted or Geomorphi FAC-Neutra	cators (minimum of two required I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2) Il Test (D5)
Depth (inches): Remarks: here were no indicators of hydric IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is 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 Image Sparsely Vegetated Concave Surface Water Table Present? Water Table Present? Yes Saturation Present? includes capillary fringe)	required; che	ck all that apply) Water-Staine Aquatic Faur True Aquatic Hydrogen Su Oxidized Rhi Presence of Recent Iron Thin Muck S Gauge or We Other (Expla	ed Leaves na (B13) : Plants (B ulfide Odor izospheres Reduced I Reduction urface (C7 ell Data (D in in Rem hes): hes):	(B9) si14) r (C1) s on Living R Iron (C4) n in Tilled Sc 7) D9) arks)	- Wet	Secondary India Surface Soi Drainage Pa Dry Season Crayfish Bu Saturation V Stunted or Geomorphi FAC-Neutra	cators (minimum of two required I Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2) Il Test (D5)

	Project/Site: IH 94 Milwaukee County		City/	/County:	Oak Creek/M	Milwaukee Sampling Date: 11-Nov-16
Interestinguistor(s): Make Ar-wettingui, Geof Persish Section, Townships, Ranger: S 31	Applicant/Owner: _WisDOT				State:	
Local relief (concave, convex, cone) Concave		Parish	Se	ction, Towr	nship, Range:	
Soil Map Unit Nere: Morievaliti Joans 2 to 6 percent slopes, eroded Will classification None More climate/hydrologic conditions on the site hydrology significantly disturbed? (If no, explain in Remarks.) Are "Normal Circumstances" present? Yes						
Assoluto Stratum (Plot size: Commandation Soi Or Hydrology aganticately disturbed? Are 'Negreation Are 'Negreation Soi Or Hydrology aganticately disturbed? Are 'Negreation Are 'Negree Are 'Negree			eroded		-07.9-19203	
Are Vegetation , Soil , or hydrology significantly disturbed? 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				No •	(If no. ex	
Are Vegetation	., .		sui .		, ,	
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Solutions were wettern an ormal. A wetland plant community, hydric solls and multiple indicators of wetland hydrology were present. The data point was located in a wetland. VEGETATION - Use scientific names of plants.			- ,			
It the Sampled Area within a Wetland? Yes No No Wetland Hydrology Present? Yes No Wetland Hydrology Present. Yes Yes No Wetland Hydrology Were present. Yes Ye	,				-	
Wetshard Hydrological conditions were wetter than normal. A wetland plant community, hydric soils and multiple indicators of wetland hydrology were present.	Hydrophytic Vegetation Present?	Yes ● No ○				
No No No No No No No No	Hydric Soil Present?	Yes No				
Remarks:	•	Yes No		VVICI	II a vvetiana	r Yes • No U
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. Tree Stratum (Plot size:)	, 3,					
Absolute Rel. Strat. Indicator Normance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)	The data point was located in a we	etland.	its.	Dominant	:	d multiple indicators of wetland hydrology were present.
1.	Tues Churching (Diot cize)		Absolute	Rel.Strat.	Indicator	Dominance Test worksheet:
2.					Status	
3.	·					That are ode, facty, or fac
4.						
Saolino/Shrub Stratum (Plot size:)						Species across all strata:
Saniling/Shrub Stratum (Plot size:)	5.		0	0.0%		
1. 0 0.0% Total % Cover of: Multiply by: 2. 0 0.0% OBL species 130 x 1 = 130 3. 0 0.0% FACW species 0 x 2 = 0 4. 0 0.0% FACW species 0 x 2 = 0 5. 0 0.0% FACU species 0 x 2 = 0 Herb Stratum (Plot size: 5' radius) 0 = Total Cover UPL species 5 x 4 = 20 UPL species 0 x 5 = 0 UPL species 0 x 5 = 0 Column Totals: 145 (A) 180 (B) 2. Typha angustifolia 3. Poa pratensis 10 6.9% FAC FACU 4.3% OBL 5.9% Prevalence Index = B/A = 1.241 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > 50% 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) 1 - Angular tensor of hydric soil and wettand hydrology must be present, unless disturbed or problematic. 1. 0 0.0% 0.0% 1 Indicators of hydric soil and wettand hydrology must be pr			0 =	= Total Cove	er	That Are OBL, FACW, or FAC:
2.	_Sapling/Shrub Stratum (Plot size:)				Prevalence Index worksheet:
3.	1			0.0%		Total % Cover of: Multiply by:
4.	-		_ 0	0.0%		OBL species <u>130</u> x 1 = <u>130</u>
5.			_0	0.0%		FACW species <u>0</u> x 2 = <u>0</u>
Herb Stratum (Plot size: 5' radius)			_0 _	0.0%		FAC species <u>10</u> x 3 = <u>30</u>
Herb Stratum (Plot size: 5 radius 1 1 2 1 2 2 2 2 2 2	5					FACU species <u>5</u> x 4 = <u>20</u>
1. Epilobium coloratum 70 ✓ 48.3% OBL Column Totals: 145 (A) 180 (B) 2. Typha angustifolia 60 ✓ 41.4% OBL Prevalence Index = B/A = 1.241 3. Poa pratensis 10 6.9% FAC 4. Sonchus arvensis 5 3.4% FACU 5. 0 0.0% Hydrophytic Vegetation Indicators: 6. 0 0.0% ✓ 1 - Rapid Test for Hydrophytic Vegetation 7. 0 0.0% ✓ 3 - Prevalence Index is ≤ 3.0 ¹ 8. 0 0.0% ✓ 3 - Prevalence Index is ≤ 3.0 ¹ 9. 0 0.0% ✓ 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) 1 145 = Total Cover Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes ● No ○	Herb Stratum (Plot size: 5' radius)	=	= Total Cove	er	UPL species 0 x 5 = 0
2. Typha angustifolia 3. Poa pratensis 4. Sonchus arvensis 5.			70	48.3%	OBL	Column Totals: <u>145</u> (A) <u>180</u> (B)
3. Poa pratensis 4. Sonchus arvensis 5.				_		
4. Sonchus arvensis 5.					FAC	
Solution Stratum Plot size: Stratum Plot size: Stratum Problematic Stratum Problematic Stratum Problematic Stratum Problematic Stratum Problematic Stratum Problematic Stratum Stratum Problematic Stratum	4. Sonchus arvensis			3.4%	FACU	1
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9.			_0	0.0%		
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Woody Vine Stratum (Plot size:)	10			0.0%		_ , , , , , , , ,
1	Woody Vine Stratum (Plot size:)	145 =	= Total Cove	er	
2		·	0 [0.0%		
0 = Total Cover Present? Yes No Remarks: (Include photo numbers here or on a separate sheet.)				_		
Remarks: (Include photo numbers here or on a separate sheet.)					er	
	· ·	•	,	nce Test a	and the Prev	valence Index.

SOIL Sampling Point: SP-51 (W-9)

	Matrix	e uepui ile		ent the maio Redox Featt		ue	absence of indicators.)	
Depth Color	matrix r (moist)	%	Color (moist)		_Tvpe ¹	Loc2	- Texture	Remarks
0-15 10YR	3/2	90	10YR 4/6		С	M	Silty Clay Loam	
Type: C=Concentration,		, RM=Reduce	ed Matrix, CS=Cov	ered or Coate	ed Sand Grain	ns.	2ºocation: PL=Pore Lining. I	
Hydric Soil Indicators Histosol (A1)	5:		Sandy Clay	/ed Matrix (S4	1)		Indicators for Proble	matic Hydric Soils ³ :
Histic Epipedon (A2))		Sandy Red	· ·	1)		Coast Prairie Redox	(A16)
Black Histic (A3)	,		Stripped M	` '			Dark Surface (S7)	
Hydrogen Sulfide (A	4)			cky Mineral (F	=1)		☐ Iron Manganese Ma	isses (F12)
Stratified Layers (A5	5)			yed Matrix (F			☐ Very Shallow Dark S	Surface (TF12)
2 cm Muck (A10)			Depleted M		-,		Other (Explain in Re	emarks)
Depleted Below Dar	•	1)		k Surface (F6)			
Thick Dark Surface	(A12)		_	Oark Surface (•		³ Indicators of hydroph	ovtic vegetation and
Sandy Muck Mineral	. ,		Redox Dep	ressions (F8)			wetland hydrology	must be present,
5 cm Mucky Peat or	. ,						unless disturbed	or problematic.
Restrictive Layer (if o	bserved):							
Type:								
Depth (inches):							Hvdric Soil Present?	Yes (*) No ()
Remarks:	soils was m	et by F6 Re	dox Dark Surfac	ce.			Hydric Soil Present?	Yes ● No ○
Remarks: he criteria for hydric	soils was m	et by F6 Re	dox Dark Surfac	ce.			Hydric Soil Present?	Yes ♥ No ∪
Remarks: he criteria for hydric		et by F6 Re	dox Dark Surfac	ce.			Hydric Soil Present?	Yes ♥ No ∪
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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 Valu
	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 = C	TOTAL = 37	
	Where: FQI = Flori	Since a consequence of a consequence of	N = 12
	C = Mean		C = 3.1
	N = Numbe	er of native taxa	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 = C N TOTAL = 152

Where: FQI = Floristic Quality Index
C = Mean C Value
N = Number of native taxa

TOTAL = 152

C = 40

C = 3.8

FQI = 24.0

GRAEF

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)

<u>Dominant</u>	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 = C	TOTAL =	24	
	Where: FQI = FI	N =	8	
	C = Mea	n C Value	C =	3.0
	N = Nun	FQI =	8.5	

GRaEF

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 = C N TOTAL = 48

Where: FQI = Floristic Quality Index C = 13

C = Mean C Value C = 3.7

N = Number of native taxa

FQI = 13.3

GRaEF

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) V	VI 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 = C N			59
	Where: FQI = Floristic Quality Index			22
	\overline{C} = Mean C \		<u> </u>	2.7
	N = Number	of native taxa	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) W	I 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 = C	N N	TOTAL =	40
		oristic Quality Index	N =	15
		n C Value	<u>c</u> =	2.7
	N = Nun	nber of native taxa	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)

Wetlan	

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 = C	N	TOTAL =	31
	F10740WLA 1884 17		1	10/14/28

FQI = C N	TOTAL =	31
Where: FQI = Floristic Quality Index	N =	13
C = Mean C Value	<u>c</u> =	2.4
N = Number of native taxa	FQI =	8.6

GRāEF

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 = C N TOTAL = 71

Where: FQI = Floristic Quality Index
C = Mean C Value
N = Number of native taxa

TOTAL = 71

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	= C VN	TOTAL = 8
	Where: FQI	= Floristic Quality Index	N = 3

C =

FQI =

2.7

4.6

C = Mean C Value

N = Number of native taxa

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 = C	TOTAL = 14	
	Where: FQI = Flor	N = 6	
	¯C = Mean	C Value	C = 2.3
	N = Numb	er of native taxa	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
	$FQI = \overline{C} \sqrt{N}$			57
	Where: FQI = F	N =	17	
	C = Me	an C Value	<u>c</u> =	3.4
	N = Nu	mber of native taxa	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	= C N	TOTAL =	25
		= Floristic Quality Index	N =	14
		Mean C Value	<u> </u>	1.8
	N = 1	Number of native taxa	FQI =	6.7



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:

WisD	OT Shallow Marsh			
Eggers	and Reed Shallow Marsh			
Dominant	Scientific Name Artemisia absinthium	<u>Common Name</u> absinth sage-wort	Ind. Status	WI C Value
	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 =	E C N N	TOTAL =	13
		Floristic Quality Index	<u>N</u> =	5
		lean C Value	C =	2.6
	N = Number of native taxa		FQI =	5.8

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

	Coloratific Norse		land Other	WI O V-I
Dominant	Scientific Name Agrostis gigantea	<u>Common Name</u> redtop	<u>Ind. Status</u> FACW	WI C Value
	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



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 = C N	TOTAL =	32
Where: FQI = Floristic Quality Index	N =	15
C = Mean C Value	<u>C</u> =	2.1
N = Number of native taxa	FQI =	8.3



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:

00	ily olacomouncin			
WisD	OT 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	
\checkmark	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:	= C V N	TOTAL =	7
		Floristic Quality Index	N =	3
	$\overline{\mathbf{C}} = \mathbf{M}$	lean C Value	C =	2.3
	N = N	umber of native taxa	FQI =	4.0

4.0



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:

<u>WisDOT</u> Shallow Marsh <u>Eggers and Reed</u> Shallow Marsh

Lggcisi	Challow Warsh			
<u>Dominant</u>	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



IH 94 Milwaukee County

WisDOT Project ID 1030-20-08

11-14-2016

Plant Community ID: W11-15 (2016) Observer

Observer(s): Geof Parish & Mike Al-wathiqui

Community Classification:

WisDOT Shallow Marsh

Eggers and Reed Shallow Marsh

FQI = C N	TOTAL =	21
Where: FQI = Floristic Quality Index	N =	9
C = Mean C Value	<u>C</u> =	2.3
N = Number of native taxa	FQI =	7.0



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:

Eggers and Reed

WisDOT Shrub Scrub & Shallow Marsh

Shrub Carr & Shallow Marsh

Dominant	Scientific Name	Common Name	Ind. Status	WI C Value
	Agrostis gigantea	redtop	FACW	wi C value
	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	



IH 94 Milwaukee County

WisDOT Project ID 1030-20-08

11-14-2016

Plant Con	nmunity ID	: W11-3 (2016)	Observer(s):	Geof Parish & Mike A	N-wathiqui	
Commun	ity Classific	cation:				
WisD	OT	Shrub Scrub & Shallow Marsh				
Eggers	and Reed	Shrub Carr & Shallow Marsh				
	Salix fragili	s	brittle willo	ow	FAC	
\checkmark	Salix interio	or	Sandbar V	Villow	FACW	2
	Schoenople	ectus fluviatilis	River Club	o-Rush	OBL	
	Solanum d	ulcamara	bitterswee	et nightshade	FAC	
	Solidago ca	anadensis	Canadian	goldenrod	FACU	1
	Solidago gi	gantea	giant gold	enrod	FACW	3
	Solidago se	empervirens	seaside g	oldenrod	FACW	
	Sonchus a	rvensis	field sow-t	thistle	FACU	
	Spartina pe	ectinata	prairie cor	d grass	FACW	5
	Symphyotr	ichum novae-angliae	New Engla	and aster	FACW	3
	Symphyotr	ichum puniceum	Purple-Ste	em American-Aster	OBL	
\checkmark	Typha angi	ustifolia	narrow-lea	aved cat-tail	OBL	
	Typha X gla	auca	hybrid cat-	-tail	OBL	
	Vitis riparia	ı	river-bank	grape	FACW	2
		FQI = C	V N		TOTAL =	49
			oristic Quality In n C Value nber of native ta		N = C = FQI =	19 2.6 11.2



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:

<u>WisD0</u>	OT Wet Meadow			
Eggers a	and Reed Fresh (Wet) Meadow			
Dominant	Scientific Name Artemisia absinthium	<u>Common Name</u> absinth sage-wort	Ind. Status	WI C Value
	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 = C N Where: FQI = Floristic Quality Index C = Mean C Value		<u>-</u>	TOTAL =	6 3
			C =	2.0
	N = N	umber of native taxa	FQI =	3.5



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

$FQI = \overline{C} \boxed{N}$	TOTAL =	20
Where: FQI = Floristic Quality Index	<u>N</u> =	7
C = Mean C Value	C =	2.9
N = Number of native taxa	FOL -	76



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:

WisDe	OT Wet Meadow			
Eggers	and Reed Fresh (Wet) Meadow			
Dominant	Scientific Name Cirsium arvense	Common Name Canada thistle	Ind. Status FACU	WI C Value
	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	= C VN	TOTAL =	10
		Floristic Quality Index	<u>N</u> =	5
		flean C Value Number of native taxa	C =	2.0
	14 = 1	Tallibor of Hativo taxa	FQI =	4.5



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:

<u>WisDOT</u> Shallow Marsh <u>Eggers and Reed</u> 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
\checkmark	Typha angustifolia	narrow-leaved cat-tail	OBL	
\checkmark	Typha X glauca	hybrid cat-tail	OBL	

FQI = C N TOTAL = 19

Where: FQI = Floristic Quality Index
C = Mean C Value
C = Number of native taxa

C = N = Number of native taxa

TOTAL = 19

TOTAL = 19

TOTAL = 19



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:

<u>WisDOT</u> Shallow Marsh <u>Eggers and Reed</u> 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 = C N TOTAL = 7

Where: FQI = Floristic Quality Index
C = Mean C Value
N = Number of native taxa

TOTAL = 7

N = 2

C = 3.5

FQI = 4.9



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:

<u>WisDOT</u> Shallow Marsh <u>Eggers and Reed</u> Shallow Marsh

<u>Dominant</u>	Scientific Name	<u>Common Name</u>	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	
\checkmark	Typha X glauca	hybrid cat-tail	OBL	

FQI = C N	TOTAL =	5
Where: FQI = Floristic Quality Index	N =	2
C = Mean C Value	<u>C</u> =	2.5
N = Number of native taxa	FQI =	3.5



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:

<u>WisDOT</u> Shallow Marsh <u>Eggers and Reed</u> 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	

$FQI = \overline{C} \boxed{N}$	TOTAL =	2
Where: FQI = Floristic Quality Index	N =	2
\overline{C} = Mean C Value	<u>C</u> =	1.0
N = Number of native taxa	FQI =	1.4

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 **FACW** reed canary grass Poa pratensis FAC Kentucky bluegrass Solanum dulcamara bittersweet nightshade FAC Solidago sempervirens **FACW** seaside goldenrod **V** Typha angustifolia narrow-leaved cat-tail OBL FQI = C N TOTAL = N = 0 Where: FQI = Floristic Quality Index C = Mean C Value C = N = Number of native taxa FQI =



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 = C	N	TOTAL =	17	
	Where: <u>F</u> QI = Florist	<u>N</u> =	7		
	C = Mean C \	C = FQI =	2.4 6.4		
	in = Number	N = Number of native taxa			



APPENDIX J Wetland Summary Table

Table 3. Wetland Summary Table



Wetland ID	Size (Acres)	Value FQI Value	_	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 D	elineated ir	2008 - Bound	aries Confirmed in 2016													
W10-5	0.61	3.1 10.7 2009) (2009	I W10-5 T-1 R(w) (2009) W10-5 T-1 A(u) (2009)	Wetland smaller than 2 acres	Wet Meadow	Tussock Sedge <i>(Carex stricta),</i> Torrey's Rush <i>(Juncus torreyi)</i> & Green Ash <i>(Fraxinus pennsylvanica)</i>	Canada Goldenrod (<i>Solidago canadensis</i>) , Common Buckthorn (<i>Rhamnus cathartica</i>) & Silver Maple (<i>Acer saccharum</i>)	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 10.7 2009) (2009	I \\\/10_52 T_1 R(\(\dagger\) /2000	9) W10-5a T-1 A(u) (2009)	S3/E2K	Shallow Marsh & Hardwood Swamp	I Canary Grace (Dhalaric arundinacea) & Green Ach	Staghorn Sumac (<i>Rhus typhina</i>), Multiflora Rose (<i>Rosa multiflora</i>), Downy Hawthorn (<i>Crataegus mollis</i>), Canada Goldenrod (<i>Solidago canadensis</i>) & Kentucky Bluegrass (<i>Poa pratensis</i>)	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 24.0 2009) (2009	I W11-2 T-1 R(w) (2009) W11-2 T-1 A(u) (2009)	ТЗК	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 1	3.0 8.5 2009) (2009	1 W 11-32 1-1 A(II) (2009	9) W11-3a T-1 B(w) (2009)	None	Wet Meadow	Reed Canary Grass (<i>Phalaris arundinacea</i>)	American Basswood (<i>Tilia americana</i>), Bell's Honeysuckle (<i>Lonicera x bella</i>), White Avens (<i>Geum canadense</i>) & Virginia Creeper (<i>Parthenocissus quinquefolia</i>)	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		Non ADID	The 2009 boundaries were verified in 2016.
W11-3b	0.02	3.7 13.3 2009) (2009) W11-3b T-1 A(u) (2009	9) W11-3b T-1 B(w) (2009)	T3/E2K	Wet Meadow	Porcupine Sedge (<i>Carex hystericina</i>) & Fowl Mannagrass (<i>Glyceria striata</i>)	Pennsylvania sedge (<i>Carex pennsylvanica</i>), Common buckthorn (<i>Rhamnus cathartica</i>), Bell's Honeysuckle (<i>Lonicera x bella</i>), American Basswood (<i>Tilia americana</i>) & Sugar Maple (<i>Acer saccharum</i>)	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 12.6 2009) (2009) W11-10b T-1 A(u) (2009	9) W11-10b T-1 B(w) (2009)	None	Riparian Wooded Wetland	Green Ash (Fraxinus pennsylvanica) Reed Canary Grass (Phalaris arundinacea)	Canada Goldenrod (<i>Solidago canadensis</i>) & Cockspur Hawthorn (<i>Crataegus crus-galli</i>)	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 De	elineated ir	2008 - Bound	aries Revised in 2016													
W10-7	0.67	2.6 5.8	SP-2, SP-4 & W10-7 T-: B(w) (2009)	1 SP-1, SP-3 & W10-7 T-1 A(u) (2009)	T3/E2K	Shallow Marsh, Shrub Scrub & Wet Meadow	Green Ash (<i>Fraxinus pennsylvanica</i>), Narrowleaf Cattail (<i>Typha angustifolia</i>), Reed Canary Grass (<i>Phalaris arundinacea</i>) & Seaside Goldenrod (<i>Solidago sempervirens</i>)	Eastern Cottonwood (<i>Populus deltoides</i>), Bell's Honeysuckle (<i>Lonicera X bella</i>), Kentucky Bluegrass (<i>Poa pratensis</i>), Tall Fescue (<i>Festuca arundinacea</i>), Wild Strawberry (<i>Fragaria virginiana</i>) & Yellow Rocket (<i>Barbarea vulgaris</i>)	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 delineate in 2009 were added to wetland W10-7.
W11-3	6.89	2.6 11.2	W11-3 T-1 A(u) (2009) W11-4 T-1 B(w) (2009)	& 2 A(u) (2009) & W11-10c	T3K, E1Ka,	Wet Meadow, Shallow Marsh & Shrub Scrub	Kentucky Bluegrass (<i>Poa pratensis</i>), Narrowleaf Cattail (Typha angustifolia), Purple Loosestrife (Lythrum salicaria), Reed Canary Grass (<i>Phalaris</i> arundinacea), Softstem Bulrush (<i>Schoenoplectus</i> tabernaemontani) & Sandbar Willow (<i>Salix</i> interior)	Black Walnut (<i>Juglans nigra</i>), Canada Goldenrod (<i>Solidago canadensis</i>), Common Buckthorn (<i>Rhamnus cathartica</i>), Kentucky Bluegrass (<i>Poa pratensis</i>), Smooth Brome (<i>Bromus inermis</i>) & Tall Fescue (<i>Festuca arundinacea</i>)	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, 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; (2009) B10 Drainage Patterns, 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.	approximately the first 50 feet north	Wetlands delineated in 2009, W11-3, W1 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-15, SP-17, SP-19, W11-10a T-1 A(u) (2009), W11-10a T-2 a A(u) (2009) & W11-10a T 3 A(u) (2009)	E2Ka & T3K	Wet Meadow, Shallow Marsh, Riparian Emergent & Riparian Wooded Wetlands		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.	the wetland are	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 als added to the delineated area.

Wetl		I C Vali	ue 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	4 2.3	4.0	SP-28 & W11-14 T-1 B(w) (2009)	SP-27	None	Wet Meadow	Kentucky Bluegrass (<i>Poa pratensis</i>) & Reed Canary Grass (<i>Phalaris arundinacea</i>)	Kentucky Bluegrass (<i>Poa pratensis</i>), Queen Anne's Lace (<i>Daucus carota</i>) & Tall Fescue (<i>Festuca</i> arundinacea)	Blount silt loam	Aeric Epiaqualfs	Hydric Inclusions	(2016) F6 Redox Dark Surface; (2009) F6 Redox Dark Surface		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	0 2.3	7.0		- SP-29, SP-31, SP-33, SP- - 35, SP-39, SP-41 & W11- 15 T-1 A(u) (2009)	- E1K	Shallow Marsh	Common Reed (<i>Phragmites australis</i>), Narrowleaf Cattail (<i>Typha angustifolia</i>), Reed Canary Grass (<i>Phalaris arundinacea</i>) & Seaside Goldenrod (<i>Solidago sempervirens</i>)	Birdsfoot trefoil (<i>Lotus corniculatus</i>), Canada Goldenrod (<i>Solidago canadensis</i>), Kentucky Bluegrass (<i>Poa pratensis</i>), Reed Canary Grass (<i>Phalaris arundinacea</i>), Smooth Brome (<i>Bromus inermis</i>) & Tall Fescue (<i>Festuca arundinacea</i>)	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; 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	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.
Wetla	nds Delineat	ted in 2016															
W	1 0.02	2 2.0	3.5	SP-6	SP-5	None	Wet Meadow	Reed Canary Grass (<i>Phalaris arundinacea</i>)	Smooth Brome (<i>Bromus inermis</i>)	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 0.12	1 2.9	7.6	SP-8	SP-7	ТЗК	Wet Meadow, Shallow Marsh & Hardwood Swamp	Common Buckthorn (<i>Rhamnus cathartica</i>), Reed Canary Grass (<i>Phalaris arundinacea</i>), Narrowleaf Cattail (<i>Typha angustifolia</i>) & American Elm (<i>Ulmus americana</i>)	Smooth Brome (<i>Bromus inermis</i>)	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	5 2.0	4.5	SP-22	SP-21	None	Wet Meadow	Reed Canary Grass (<i>Phalaris arundinacea</i>)	Canada thistle (<i>Cirsium arvense</i>) & Kentucky Bluegrass (<i>Poa pratensis</i>)	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	9 3.2	7.8	SP-24 & SP-26	SP-23 & SP-25	None	Shallow Marsh	Narrowleaf Cattail (<i>Typha angustifolia</i>), Hybrid Cattail (<i>Typha X glauca</i>) & Seaside Goldenrod (<i>Solidago sempervirens</i>)	Crown Vetch (<i>Coronilla varia</i>), Kentucky Bluegrass (<i>Poa pratensis</i>) & Tall Fescue (<i>Festuca</i> 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	0 3.5	4.9	SP-38	SP-37	E1K	Shallow Marsh	Narrowleaf Cattail (<i>Typha angustifolia</i>), Hybrid Cattail (<i>Typha X glauca</i>) & Seaside Goldenrod (<i>Solidago sempervirens</i>)	Kentucky Bluegrass (<i>Poa pratensis</i>)	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 2.5	3.5	SP-44	SP-43	Wetland smaller than 2 acres	Shallow Marsh	Reed Canary Grass (<i>Phalaris arundinacea</i>) & Hybrid Cattail (<i>Typha X glauca</i>)	Kentucky Bluegrass (<i>Poa pratensis</i>)	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 0.13	1 1.0	1.4	SP-46	SP-45	E2K	Shallow Marsh	Reed Canary Grass (<i>Phalaris arundinacea</i>) & Hybrid Cattail (<i>Typha X glauca</i>)	Queen Anne's Lace (<i>Daucus carota</i>) & Seaside Goldenrod (<i>Solidago sempervirens</i>)	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 0.03	1 0.0	0.0	SP-48	SP-47	None	Shallow Marsh	Narrowleaf Cattail (<i>Typha angustifolia</i>)	Kentucky Bluegrass (<i>Poa pratensis</i>) & Tall Fescue (<i>Festuca arundinacea</i>)	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	3 2.4	6.4	SP-51	SP-50	None	Wet Meadow	Cinnamon Willow Herb (<i>Epilobium coloratum</i>)	Canada thistle (<i>Cirsium arvense</i>) & Soybeans (<i>Glycine max</i>)	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 wisit 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.

‡ 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



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.