

**PREPARED FOR:** 

PREPARED BY:

Westwood

Door County Cherryland Airport, SUE

3538 Park Drive, Sturgeon Bay, WI 54235

# Westwood

# Wetland Delineation Report

AIP 3-55-0082-11 / SUE1002 Runway 2/20 Reconstruction

Door County Cherryland Airport Door County, Wisconsin

#### **Prepared For:**

Door County Cherryland Airport, SUE 3538 Park Drive Sturgeon Bay, WI 54235 Door County

#### **Prepared By:**

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Westwood Project Number: R3001498.00

Date: November 10, 2022

# Westwood

# **Table of Contents**

1.0	Project Description and Purpose	-
2.0	Methodology1	L
3.0	Results and Discussion	<u>:</u>
4.0	Conclusion4	Ļ
Tab	les	
	1 – NRCS Soil Survey of Door County, Wisconsin	
Table	2 – Summary of Wetlands Identified within the Survey Area	2

# **Appendices**

Appendix A: Mapping

- Site Location and Topographic Map
- Wisconsin Wetland Inventory and NRCS Soil Survey Map
- Wetland Boundaries Map

Appendix B: Field Photographs

Appendix C: Wetland Determination Data Forms – NC/NE Region

Appendix D: Antecedent Precipitation Analysis

# 1.0 Project Description and Purpose

Westwood Infrastructure, Inc. (Westwood) conducted a wetland delineation for Door County Cherryland Airport Runway 2/20 Reconstruction project (Project). The legal location for the Project is the NE 1/4 of Section 2, Township 27 North, Range 25 East, Door County, Wisconsin. (See site location and topographic map, Appendix A). The lead Federal agency for the Project is the Bureau of Aeronautics (BOA).

The purpose of the wetland delineation was to identify the proximity and extent of wetlands within the Project area to minimize wetland impacts to the maximum extent practicable.

#### 1.1 Wetland Delineation

The field work and report narrative for the project were completed by Westwood Wetland Delineator Kimberly Kennedy. Field work was conducted on October 10, 2022. The field sheets and corresponding delineation map can be found in Appendices C and A, respectively.

# 2.0 Methodology

The wetland delineation consisted of a review of available maps and information followed by a site visit to document field conditions. The determination of wetland boundaries at the site was based upon the guidance and procedures provided in the USACE 1987 Wetland Delineation Manual, Regional Supplement to the 1987 Manual: Northcentral and Northeast Region (USACE ERDC, 2012), and Guidance for Submittal of Delineation Reports to the St. Paul District USACE and the WDNR (2015).

### 2.1 Field Survey Methods

On-site wetland determinations involved a detailed examination of vegetation, soils, and hydrologic indicators present. Wetland boundaries were established by transects, which included upland and wetland locations. Upland points are indicated by a last letter "U" in the point name, wetland points by a last letter "W", and non-wetland points by a last letter "N". The wetland boundaries and sample points were located with a Trimble Geo7x GPS unit with submeter or better accuracy.

#### 2.2 Desktop Review

Historical aerial photography, topographic maps, WWI mapping, and soil survey mapping were reviewed for the survey area. (See mapping, Appendix A). Information from resources such as Door County Geographic Information Systems, Surface Water Data Viewer (SWDV), Google Earth, and the Natural Resource Conservation Service (NRCS) Web Soil Survey were used to gain understanding of the site's wetland history, topography, and soils. Wisconsin Wetland Inventory (WWI) map indicates emergent/wet meadow classified wetlands and several wetlands too small to delineate within the Survey Area.

# 3.0 Results and Discussion

#### 3.1 Antecedent precipitation

The wetland delineation was conducted in the middle of October. Based on the WETS Analysis Worksheet, overall precipitation was "normal" using the Sturgeon Bay Exp Farm, WI station. (See Antecedent Precipitation Analysis in Appendix D.)

#### 3.2 NRCS Mapped soils

According to the Door County, Wisconsin, Soil Survey, the soils in the survey area consist of well drained Onaway, Kolberg, Longrie, and Summerville soils, somewhat poorly drained Bonduel and Solona soils, and poorly drained Bonduel soil. A list of the mapped soils can be found in Table 1.

Table 1 – NRCS Soil Survey of Door County, Wisconsin

Soil Unit Name (Map Symbol)	Hydric Status
Onaway fine sandy loam, moraine, 6 to 12 percent slopes, eroded (7201)	Non-hydric
Bonduel variant fine sandy loam, shallow (Bo)	Predominantly non-hydric
Bonduel variant loam, wet (Bp)	Predominantly hydric
Kolberg silt loam, 2 to 6 percent slopes (KoB)	Non-hydric
Kolberg variant loam, 1 to 6 percent slopes (KvB)	Non-hydric
Longrie loam, 0 to 2 percent slopes (LoA)	Non-hydric
Solona loam, 0 to 3 percent slopes (SoA)	Predominantly non-hydric
Summerville loam, 0 to 2 percent slopes (SvA)	Predominantly non-hydric
Summerville loam, 2 to 6 percent slopes (SvB)	Non-hydric

#### 3.3 Field Investigation

All areas exhibiting wetland characteristics, within the survey area, were assessed. Four areas were delineated as wetlands. See view of wetland boundaries and survey points in Appendix A, as well as field photos in Appendix B. Corresponding field sheets are located in Appendix C. The wetlands are summarized in Table 2, followed by detailed descriptions of the delineated wetlands.

Table 2 – Summary of Wetlands Identified within the Survey Area

Wetland ID	Wetland Plant Community	Wisconsin Wetland Inventory (WWI)	Acreage within Survey Area
C01	Meadow (M)	E1Ka/E1Kv	4.471 acres
C02	Scrub/Shrub (SS)	Wetland too small to delin.	0.005 acre
C03	Meadow (M)	Wetland too small to delin.	0.167 acre
C05	Meadow (M)	E1Kv	1.635 acres

#### 3.3.1 Wetland C01

Wetland Co1 is a large wetland located in a mown lawn east of Runway 20. This wetland flows north toward Potawatomi State Park located at the north side of the airport property, is

dominated by Reed Canary grass, and is classified degraded meadow (M). (See Figure 3, Appendix A, and photos, Appendix B).

Secondary field indicators of hydrology included drainage patterns, geomorphic position, and FAC-neutral test.

According to the Door County Soil Survey, the soil in the wetland area consists of the well drained Onaway fine sandy loam, moraine, 6 to 12 percent slopes, eroded (7201), the poorly drained Bonduel variant loam, wet (Bp), and the well drained Kolberg variant loam, 1 to 6 percent slopes (KvB). Hydric soil indicators observed were depleted below dark surface (A11), depleted matrix (F3), and redox depressions (F8). No hydric soil indicators were observed in the surrounding upland areas.

#### 3.3.2 Wetland C02

Wetland Co2 is a located in a depression on the edge of a wooded area and a mown field. This wetland is dominated by Reed Canary grass, sandbar willow, and peachleaf willow, and is classified scrub/shrub (SS). (See Figure 3, Appendix A, and photos, Appendix B).

Secondary field indicators of hydrology included drainage patterns, geomorphic position, and FAC-neutral test.

According to the Soil Survey, the soil in the area of the ditch consists of the well drained Onaway fine sandy loam, moraine, 6 to 12 percent slopes, eroded (7201). Hydric soil indicator observed was depleted below dark surface (A11). No hydric soil indicators were observed in the surrounding upland areas.

#### 3.3.3 Wetland C03

Wetland Co<sub>3</sub> is located in a mown lawn east of Runway 20 and southeast of Wetland Co<sub>1</sub>. This area is relatively flat, is dominated by almond willow, Reed Canary grass, and Kentucky bluegrass, and is classified degraded meadow (M). (See Figure 3, Appendix A, and photos, Appendix B).

Secondary field indicators of hydrology included drainage patterns, geomorphic position, and FAC-neutral test.

According to the Soil Survey, the soil in the wetland area consists of the poorly drained Bonduel variant loam, wet (Bp). Hydric soil indicators observed were redox dark surface (F6) and redox depressions (F8). No hydric soil indicators were observed in the surrounding upland areas.

#### 3.3.4 Wetland C05

Wetland Co<sub>5</sub> is located in a mown field northwest of Runway 20. This area is relatively flat, is dominated by lesser panicled sedge, Kentucky bluegrass, sandbar willow and almond willow, and is classified degraded meadow (M). (See Figure 3, Appendix A, and photos, Appendix B).

Primary wetland hydrology indicators observed were high water table and saturation. Secondary field indicators of hydrology included drainage patterns and FAC-neutral test.

According to the Soil Survey, the soil in the wetland area consists of Longrie loam, o to 2 percent slopes (LoA), the somewhat poorly drained Solona loam, o to 3 percent slopes (SoA), and the well drained Summerville loam, o to 2 percent slopes (SvA). Hydric soil indicator observed was

redox dark surface (F6). No hydric soil indicators were observed in the surrounding upland areas.

# 4.0 Conclusion

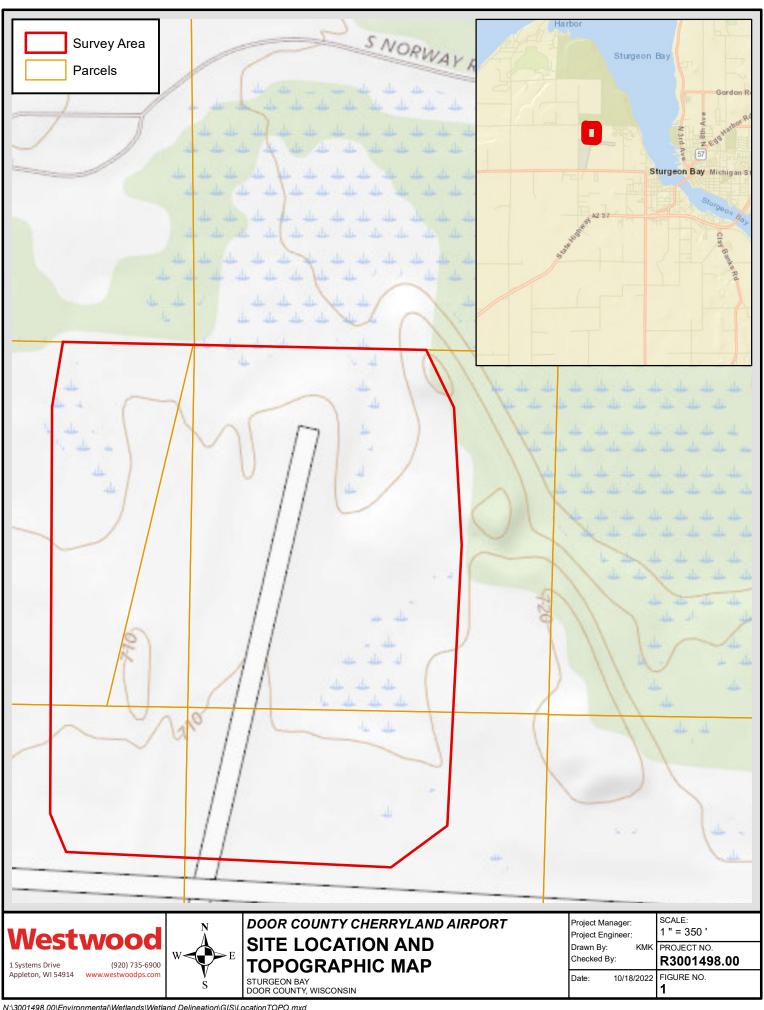
Westwood completed a wetland delineation of an approximate 62.6-acre survey area at Door County Cherryland Airport as part of the Runway 2/20 Reconstruction project. The purpose and objective of the wetland delineation was to identify the extent and spatial arrangement of wetlands within the survey area.

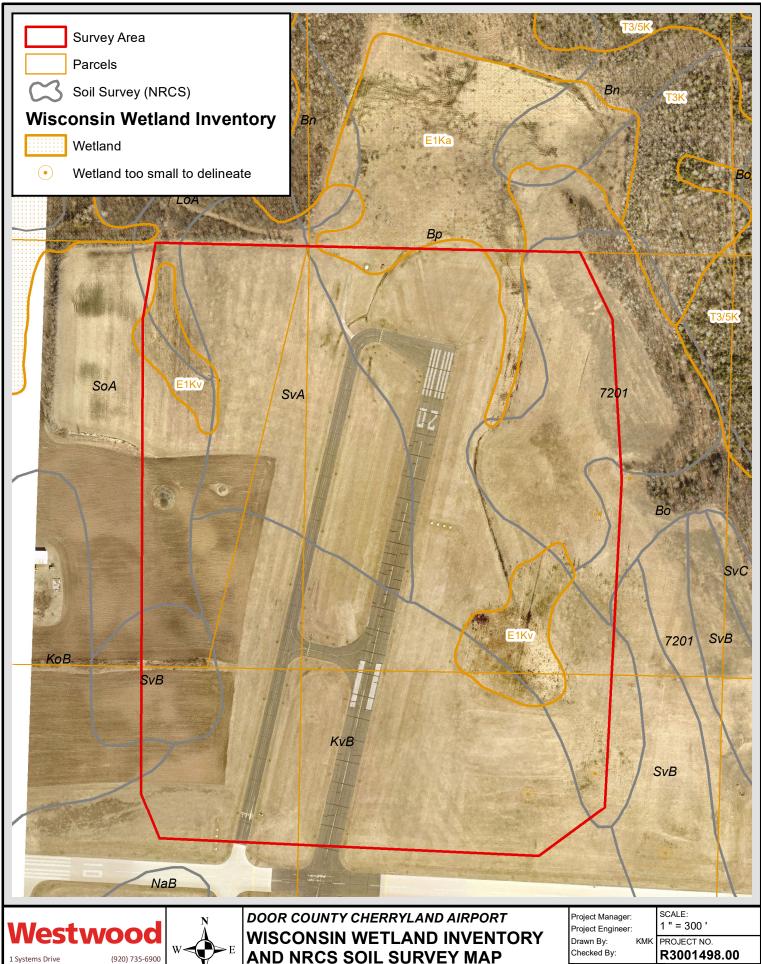
Based on Westwood's completed wetland assessment, four wetlands were identified and delineated within the survey area in accordance with state and federal guidelines. A total of 6.278 acres of wetland were identified within the survey area.

The information provided by Westwood regarding wetland boundaries was based on conditions present on the site at the time of the fieldwork. The wetland delineation was performed by a qualified professional according to current state and federal guidelines. The ultimate decision on wetland boundaries rests with the WDNR and USACE. As a result, there may be adjustments to boundaries based upon review by a regulatory agency. An agency determination can vary from time to time depending on various factors including, but not limited to, recent precipitation patterns and season of the year. In addition, the physical characteristics of the site can change over time, depending on weather, vegetation patterns, drainage activities on adjacent parcels, or other events. These factors can change the nature and extent of wetlands on the site.

Wetland Delineation Repor	Door Count	v Cherryland Air	port Runwa	v Reconstruction
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**Appendix A** 





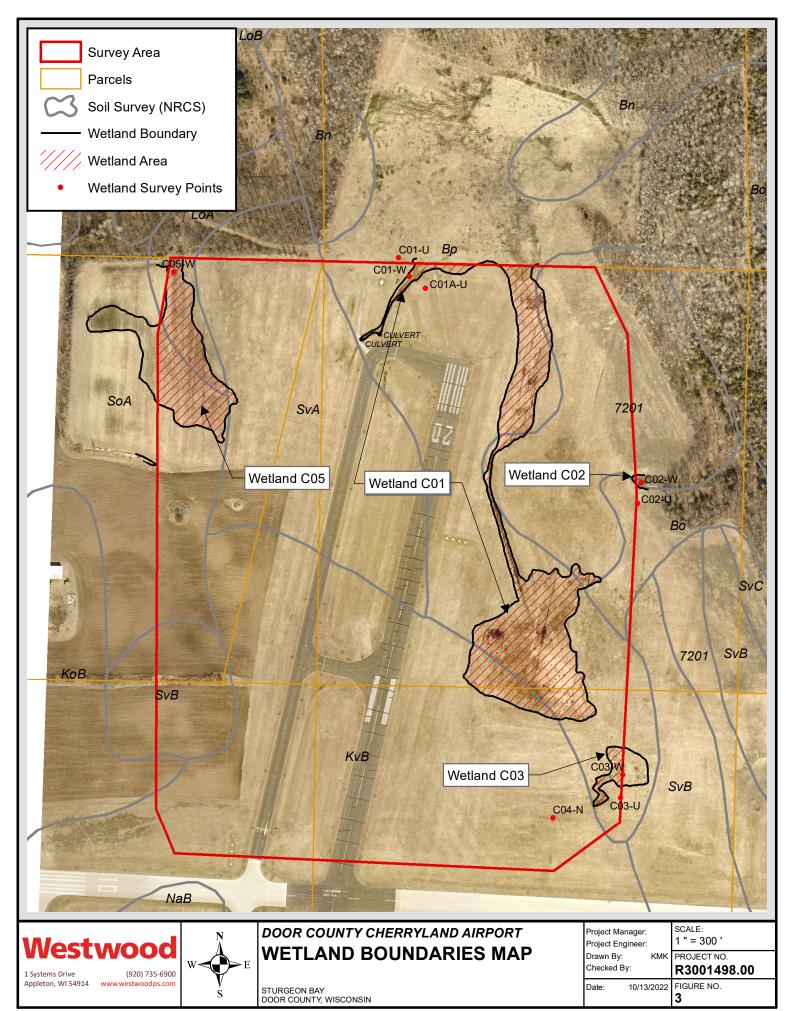


AND NRCS SOIL SURVEY MAP

STURGEON BAY DOOR COUNTY, WISCONSIN

R3001498.00 10/13/2022 FIGURE NO.

Appleton, WI 54914



Wetland Delineation Report | Door County Cherryland Airport Runway Reconstruction

**Appendix B** 



Photo 1 – View looking southwest at the northwest portion of Wetland CO1.



Photo 2 – View looking northeast at central portion of Wetland CO1.



Photo 3 – View looking southeast at south portion of Wetland CO1.



Photo 4 – View looking east at Wetland CO2.



Photo 5 – View looking northeast at WWI mapped wetland point too small to delineate. No wetlands found at or near point.



Photo 6 – View looking southeast at Wetland CO3.



Photo 7 – View looking east at upland point CO4-N.



Photo 8 – View looking south at Wetland C05.



Photo 9 – View looking west at wetland area outside of Survey Area southwest of Wetland CO5.

Wetland Delineation Repor	Door Count	v Cherryland Air	port Runwa	v Reconstruction
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**Appendix C** 

Project/Site: Door County	•	-			•			
Applicant/Owner: WisDOT						tate: Wisconsin S		: <u>C01-u</u>
Investigator(s): Kim Kenne	•							
Landform (hillslope, terrace, etc.								
Subregion (LRR or MLRA): LR								
Soil Map Unit Name: Bondu	<u>ıel variant loa</u>	am, wet				NWI classification	n:	
Are climatic / hydrologic conditi	ons on the site typi	ical for this tim	ne of year? \	Yes <u>✓</u> N	lo (If n	o, explain in Rema	rks.)	
Are Vegetation, Soil	, or Hydrology	signif	ficantly distu	ırbed?	Are "Normal Cir	cumstances" prese	ent? Yes <u></u>	<u>′</u> No
Are Vegetation, Soil	, or Hydrology	natur	rally problem	natic? (	If needed, expla	ain any answers in	Remarks.)	
SUMMARY OF FINDING	S - Attach si	te map sho	owing san	mpling poir	nt locations	, transects, im	portant fea	atures, etc.
Hydrophytic Vegetation Prese	ent? Yes	No	~	Is the Samp	oled Area			
Hydric Soil Present?		No		within a We	etland?	Yes	No <u> </u>	
Wetland Hydrology Present?		No _		If yes, option	nal Wetland Sit	e ID:		
Upland								
HYDROLOGY								
Wetland Hydrology Indicato	ors:					condary Indicators	•	wo required)
Primary Indicators (minimum	of one is required;	check all that	apply)			Surface Soil Crac		
Surface Water (A1)		Water-S				Drainage Patterns		
High Water Table (A2)		Aquatic			_			
Saturation (A3)		Marl Dep				Dry-Season Water		
Water Marks (B1)		Hydroge		res on Living F		-		gony (CO)
Sediment Deposits (B2) Drift Deposits (B3)		Oxidized		_	Roots (C3)	Stunted or Stress		
Algal Mat or Crust (B4)		·		on in Tilled So	ils (C6)	Geomorphic Posi		,
Iron Deposits (B5)		Thin Mu			. ,	Shallow Aquitard		
Inundation Visible on Aer	ial Imagery (B7)		(Explain in Remarks) Microtopographic Relief (D4)					
Sparsely Vegetated Cond				,		FAC-Neutral Test		
Field Observations:						-		
Surface Water Present?	Yes No _	✓ Depth (	(inches):					
Water Table Present?	Yes No _							
Saturation Present? (includes capillary fringe)	Yes No _	✓ Depth (	(inches):		Wetland Hydi	rology Present?	Yes	No <u>~</u>
Describe Recorded Data (stre	eam gauge, monito	ring well, aeria	al photos, pre	evious inspect	ions), if availab	le:		
Demonstra								
Remarks: Area relatively flat.								

Sampling	Daint	$C \cap A$	1	
Sambling	Point:	( ,( )	I – L J	

Tree Stratum (Plot size:30)	Absolute % Cover		t Indicator Status	Dominance Test worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC:  (A)
2.				( /
3.				Total Number of Dominant Species Across All Strata:3(B)
4.				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 0.00 (A/B)
6.				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Co		OBL species x 1 =
Sapling/Shrub Stratum (Plot size:)				FACW species0.00 x 2 =0.00
1.				FAC species <u>25.00</u> x 3 = <u>75.00</u>
2				FACU species <u>65.00</u> x 4 = <u>260.00</u>
3				UPL species <u>10.00</u> x 5 = <u>50.00</u> Column Totals: <u>100.00</u> (A) <u>385.00</u> (B)
4				Column Totals. 100.00 (A) 303.00 (B)
5				Prevalence Index = B/A = 3.85
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Co	over	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size:5				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
1. <u>Poa pratensis</u>		<u>Y</u>	<u>FACU</u>	data in Remarks or on a separate sheet)
2. <u>Lolium perenne</u>		<u>Y</u>	<u>FACU</u>	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3. <u>Symphyotrichum ericoides</u>	15		<u>FACU</u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4. <u>Daucus carota</u>		_N_	UPL	be present, unless disturbed or problematic.
5. <u>Juncus tenuis</u>		N	<u>FAC</u>	Definitions of Vegetation Strata:
6. <u>Lotus corniculatus</u>		N	<u>FACU</u>	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7. <u>Rubus idaeus</u>		N	<u>FAC</u>	at breast height (DBH), regardless of height.
8. <u>Toxicodendron rydbergii</u>			<u>FAC</u>	Sapling/shrub – Woody plants less than 3 in. DBH
9. Alopecurus pratensis		<u>N</u>	<u>FAC</u>	and greater than or equal to 3.28 ft (1 m) tall.
10.				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11.				
12.	400			Woody vines – All woody vines greater than 3.28 ft in height.
20	100	= Total Co	over	
Woody Vine Stratum (Plot size: 30 )				
1				
2				
3				Hydrophytic Vegetation
4		= Total Co		Present? Yes No
Remarks: (Include photo numbers here or on a separate		- 10tal 00	7401	
Vegetation ranges from UPL to FAC in		of sam	ple point	t.

SOIL Sampling Point: C01-u

Profile Des	cription: (Describe	to the dep	oth needed t	to docun	nent the i	ndicator	or confirm	the absence	of indicators.)	
Depth	Matrix	0/	Calar (m		x Features		1 2	T - 1 - 41 - 11 - 1	Domonto	
(inches) 0-8	Color (moist) 10YR 3/2	100	Color (m	ioist)	<u> </u>	Type'	Loc <sup>2</sup>	Texture	Remarks	
8-13	7.5YR 5/6	100						SL		
13-24	7.5YR 5/4		7.5YR	5/8	10				With gravel	
	7.5YR 5/6							SCL		
	oncentration, D=Dep	etion, RM	=Reduced M	latrix, MS	S=Masked	Sand Gr	ains.		n: PL=Pore Lining, M=Matrix.	
Hydric Soil			Dahasa	lee Belee	. 0	(00) (I DI			s for Problematic Hydric Soils <sup>3</sup> :	
Histoso Histic E	r (A1) pipedon (A2)		-	iue Belov <b>RA 149B</b> )	v Surface	(58) (LRI	ΚК,		Muck (A10) ( <b>LRR K, L, MLRA 149B</b> ) Prairie Redox (A16) ( <b>LRR K, L, R</b> )	
	istic (A3)						LRA 149B)		Mucky Peat or Peat (S3) (LRR K, L, R)	
	en Sulfide (A4) d Layers (A5)			-	⁄lineral (F1 Matrix (F2		, L)		Surface (S7) ( <b>LRR K, L</b> ) alue Below Surface (S8) ( <b>LRR K, L</b> )	
Deplete	d Below Dark Surface	e (A11)	Deplet	ed Matrix	(F3)			Thin D	Dark Surface (S9) ( <b>LRR K, L</b> )	
	ark Surface (A12) Mucky Mineral (S1)				rface (F6) Surface (F				Manganese Masses (F12) ( <b>LRR K, L, R</b> )	
-	Gleyed Matrix (S4)				ions (F8)	1)		<pre> Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)</pre>		
Sandy F	Redox (S5)				, ,			Red Parent Material (F21)		
	d Matrix (S6) urface (S7) ( <b>LRR R, N</b>	ILRA 149	В)					Very Shallow Dark Surface (TF12) Other (Explain in Remarks)		
	of hydrophytic vegetat		etland hydro	logy mus	t be prese	ent, unless	s disturbed	or problemati	C.	
Restrictive Type:	Layer (if observed):									
••	ches):							Hydric Soi	I Present? Yes No	
Remarks:										
No hydri	c soil indicator	s obse	rved.							

Project/Site: Door County	•	•	•				
Applicant/Owner: WisDOT							
Investigator(s): Kim Kenne	•						
Landform (hillslope, terrace, etc.							
Subregion (LRR or MLRA): LRI							
Soil Map Unit Name: Bondu		•	, , , , , , , , , , , , , , , , , , ,				
Are climatic / hydrologic condition							
Are Vegetation, Soil		-					
Are Vegetation, Soil				-	·		
SUMMARY OF FINDING	S - Attach sit	e map showing san	npling point locations,	transects, importar	nt features, etc.		
Hydrophytic Vegetation Preser	nt? Yes	<b>∨</b> No	Is the Sampled Area				
Hydric Soil Present?		<u>∨</u> No	within a Wetland?	Yes <u>✓</u> No			
Wetland Hydrology Present?  Remarks: (Explain alternative		✓ No	If yes, optional Wetland Site	e ID:			
HYDROLOGY							
Wetland Hydrology Indicator	rs:		Sec	ondary Indicators (minimu	m of two required)		
Primary Indicators (minimum o		check all that apply)		Surface Soil Cracks (B6)	III or two roganos,		
Surface Water (A1)	1010 10 10 44 0	Water-Stained Leave		Drainage Patterns (B10)			
High Water Table (A2)		Aquatic Fauna (B13)		Moss Trim Lines (B16)			
Saturation (A3)		Marl Deposits (B15)		Dry-Season Water Table	(C2)		
Water Marks (B1)		Hydrogen Sulfide Oc		Crayfish Burrows (C8)			
Sediment Deposits (B2)		Oxidized Rhizospher		Saturation Visible on Aeri			
Drift Deposits (B3)		Presence of Reduce	• • • —	Stunted or Stressed Plant			
Algal Mat or Crust (B4)		Recent Iron Reduction		Geomorphic Position (D2)	)		
Iron Deposits (B5) Inundation Visible on Aeria	al Imagery (B7)	Thin Muck Surface ( Other (Explain in Re					
Sparsely Vegetated Conc			· —	FAC-Neutral Test (D5)	D4)		
Field Observations:				1710 1100			
Surface Water Present?	Yes No _	✓ Depth (inches):					
Water Table Present?		✓ Depth (inches):					
Saturation Present? (includes capillary fringe)		✓ Depth (inches):		ology Present? Yes	<u>√</u> No		
Describe Recorded Data (stream	am gauge, monitor	ing well, aerial photos, pre	evious inspections), if available	e:			
Remarks:							
In bottom of drainage	e swale.						

Sampling	Point:	C01-w	
Sambinu	FOIL.	CUI-W	

Tree Stratum (Plot size:30)	Absolute % Cover		t Indicator Status	Dominance Test worksheet:
1	_			Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)
2				Total Number of Dominant
3				Species Across All Strata:1 (B)
4				Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)
5				That Are OBL, FACW, OF FAC. 100.00 (AB)
6				Prevalence Index worksheet:
7		= Total Co		
Sapling/Shrub Stratum (Plot size:15)		- 10tai 00	7701	FACW species
1				FAC species <u>0.00</u> x 3 = <u>0.00</u>
2.				FACU species <u>0.00</u> x 4 = <u>0.00</u>
3.				UPL species <u>0.00</u> x 5 = <u>0.00</u>
4.				Column Totals: <u>100.00</u> (A) <u>175.00</u> (B)
5				Prevalence Index = B/A = 1.75
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Co	over	2 - Dominance Test is >50%
Herb Stratum (Plot size:)				3 - Prevalence Index is ≤3.0¹     4 - Morphological Adaptations¹ (Provide supporting)
1. Phalaris arundinacea		<u>Y</u>	FACW	data in Remarks or on a separate sheet)
2. Scirpus atrovirens		N	OBL	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3. Eleocharis obtusa	10	N	OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4				be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9			-	
10 11				<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
12.				Woody vines – All woody vines greater than 3.28 ft in
		= Total Co	over	height.
Woody Vine Stratum (Plot size: 30 )				
1.				
2				
3				Hydrophytic
4				Vegetation Present? Yes No
		= Total Co	over	133
Remarks: (Include photo numbers here or on a separate FACW and OBL species observed.	sheet.)			
TACTV and OBL species observed.				

SOIL Sampling Point: C01-W

Profile Des	cription: (Describe	to the de	oth needed	to docun	nent the i	ndicator	or confirm	the absence	of indicators.)		
Depth	Matrix				x Feature:						
(inches) 0-4	Color (moist) 10YR 3/2	_ <u> </u>	Color (n	noist)	%	Type'	Loc <sup>2</sup>	Texture	Remarks		
4-15	7.5YR 4/2	_ <u>100</u> 90	10YR	4/6	10			CL			
	7.5YR 4/2	<u></u>	101R	_	20			CL	With some gravel		
13-20	7.51K 4/Z	/	7.5YR		10			CL	with some graver		
			7.511X	J/ I							
					· <del></del>						
	_										
<sup>1</sup> Type: C=C	oncentration, D=De	 pletion. RM	=Reduced N	//atrix. MS	S=Masked	Sand Gr	ains.	2Location	n: PL=Pore Lining, M=Matrix.		
Hydric Soil	Indicators:	,						Indicators	for Problematic Hydric Soils <sup>3</sup> :		
Histoso	l (A1) pipedon (A2)		-	ilue Belov <b>RA 149B</b> )	v Surface	(S8) ( <b>LR</b> I	RR,		Muck (A10) ( <b>LRR K, L, MLRA 149B</b> ) Prairie Redox (A16) ( <b>LRR K, L, R</b> )		
Black H	istic (A3)		Thin D	ark Surfa	ce (S9) ( <b>L</b>		LRA 149B)	5 cm l	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)		
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Stratified Layers (A5) Loamy Gleyed Matrix (F2)							Surface (S7) ( <b>LRR K, L</b> ) alue Below Surface (S8) ( <b>LRR K, L</b> )				
Deplete	d Below Dark Surfa	ce (A11)	Deplet	ed Matrix	(F3)			Thin D	Dark Surface (S9) ( <b>LRR K, L</b> )		
	ark Surface (A12) Mucky Mineral (S1)				rface (F6) Surface (F				Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B)		
Sandy (	Gleyed Matrix (S4)			Depress		.,		Mesic Spodic (TA6) ( <b>MLRA 144A, 145, 149B</b> )			
-	Redox (S5) d Matrix (S6)							Red Parent Material (F21) Very Shallow Dark Surface (TF12)			
	urface (S7) (LRR R,	MLRA 149	В)					Other (Explain in Remarks)			
	of hydrophytic vegeta		etland hydro	logy mus	t be prese	ent, unles	s disturbed	or problemati	С.		
	Layer (if observed	):									
Type:	iches).							Hydric Soi	I Present? Yes <u></u> No		
Remarks:	iches):							, ,			
Soils me	et hydric indi	cators.									

Project/Site: <u>Door County</u> Applicant/Owner: <u>WisDOT</u>	•	•		•	Sampling Da		
Investigator(s): Kim Kenn						Point. <u>Cota-u</u>	
- ' '	,			_		0, (0,) 0, 0	
Landform (hillslope, terrace, et							
Subregion (LRR or MLRA): LF							
Soil Map Unit Name: Bondu		•			VI classification:		
Are climatic / hydrologic condit							
Are Vegetation, Soil	, or Hydrology	significantl	y disturbed?	Are "Normal Circum:	stances" present? Yes	No	
Are Vegetation, Soil	, or Hydrology	naturally p	roblematic?	(If needed, explain a	any answers in Remarks	.)	
SUMMARY OF FINDING	3S – Attach si	te map showin	g sampling poi	nt locations, tra	ansects, importan	t features, etc.	
Hydrophytic Vegetation Prese	ent? Yes _	No	Is the Sam	-			
Hydric Soil Present?	Yes	No	within a W	etland? Y	′es No <u> </u>		
Wetland Hydrology Present?	Yes _	No	_ If yes, option	onal Wetland Site ID:	:		
Remarks: (Explain alternative Upland point located	d off runway o	end in mown	field adjacent	t to State Park	ζ.		
HYDROLOGY							
Wetland Hydrology Indicate	ors:			Second	dary Indicators (minimun	n of two required)	
Primary Indicators (minimum	of one is required;	check all that apply	)		rface Soil Cracks (B6)		
Surface Water (A1)		Water-Stained			ainage Patterns (B10)		
High Water Table (A2)		Aquatic Fauna					
Saturation (A3)		Marl Deposits		Dry-Season Water Table (C2) Crayfish Burrows (C8)			
<ul><li>Water Marks (B1)</li><li>Sediment Deposits (B2)</li></ul>		Hydrogen Sul	cospheres on Living		turation Visible on Aeria	I Imagany (C0)	
Drift Deposits (B3)		Presence of F	-		inted or Stressed Plants		
Algal Mat or Crust (B4)			teduction in Tilled So		comorphic Position (D2)	, (51)	
Iron Deposits (B5)		Thin Muck Su			allow Aquitard (D3)		
Inundation Visible on Ae	rial Imagery (B7)	Other (Explain		<del></del>	crotopographic Relief (D	94)	
Sparsely Vegetated Con-	cave Surface (B8)			FA	C-Neutral Test (D5)		
Field Observations:							
Surface Water Present?	Yes No _	✓ Depth (inche)	s):				
Water Table Present?	Yes No _	✓ Depth (inche)	s):				
Saturation Present? (includes capillary fringe)		✓ Depth (inche)			gy Present? Yes	No <u> </u>	
Describe Recorded Data (stre	eam gauge, monitor	ring well, aerial pho	tos, previous inspec	tions), if available:			
Remarks:							
rtomanto.							

#### **VEGETATION** – Use scientific names of plants.

				Sampling Point: <u>C01a-u</u>
Trac Stratum (Dictaire: 20		Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:30) 1		Species?		Number of Dominant Species That Are OBL, FACW, or FAC:(A)
2				Total Number of Dominant
3				Species Across All Strata: (B)
4	_			Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 0.00 (A/B)
6				Prevalence Index worksheet:
7	_			Total % Cover of: Multiply by:
		= Total Co	ver	OBL species <u>0.00</u> x 1 = <u>0.00</u>
Sapling/Shrub Stratum (Plot size: 15 )				FACW species <u>0.00</u> x 2 = <u>0.00</u> FAC species <u>0.00</u> x 3 = <u>0.00</u>
1				FACU species 100.00 x 4 = 400.00
2				UPL species 0.00 x 5 = 0.00
3				Column Totals: <u>100.00</u> (A) <u>400.00</u> (B)
4				Prevalence Index = B/A = 4.0
5.				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
Harb Stratum (Diet size: 5		= Total Co	ver	3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: <u>5</u> )  1. <i>Poa pratensis</i>	80	Y	FACU	4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
2. <u>Trifolium pratense</u>		Υ	FACU	Problematic Hydrophytic Vegetation¹ (Explain)
3.				1
4				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6	_			Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8		-		Sapling/shrub – Woody plants less than 3 in. DBH
9		-		and greater than or equal to 3.28 ft (1 m) tall.
10				<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11				
12				<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
West-1/6 Obstance (Blateine 20	100	= Total Co	ver	
Woody Vine Stratum (Plot size:)				
1				
2				Hadran katta
o				Hydrophytic Vegetation
4				
4		= Total Co		Present? Yes No

SOIL Sampling Point: C01a-u

		e to the dep	th needed to docum		dicator	or confirm	the absence of in	idicators.)	
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Features %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-8	10YR 3/2	100					L		
8-20	7.5YR 4/4	100					CL		
020	7.0111 1/1	100_		· <del></del> _					
				· <del></del> -					
				·					
	-			· <del></del> -					
				·					
				· <u></u> · <u>-</u>					
<sup>1</sup> Type: C=C	oncentration D=De	nletion RM=	Reduced Matrix, MS	S=Masked S	Sand Gra	ains	<sup>2</sup> Location: PL	=Pore Lining, M=Matrix.	
Hydric Soil		piction, ravi	Troduced Waths, We	o Macked C	Juliu Oit	JII 10.		Problematic Hydric Soil	s³:
Histosol	(A1)		Polyvalue Belov	v Surface (S	88) ( <b>LRF</b>	RR,	2 cm Muck	(A10) ( <b>LRR K, L, MLRA</b>	149B)
	pipedon (A2)		MLRA 149B)					ie Redox (A16) ( <b>LRR K</b> ,	
	istic (A3) en Sulfide (A4)		Thin Dark Surfa Loamy Mucky N					y Peat or Peat (S3) ( <b>LRR</b> ce (S7) ( <b>LRR K, L</b> )	(K, L, R)
	d Layers (A5)		Loamy Gleyed I		(=141414)	, <b>-</b> /		Below Surface (S8) ( <b>LRR</b>	K, L)
	d Below Dark Surfa	ce (A11)	Depleted Matrix					Surface (S9) (LRR K, L)	
	ark Surface (A12)		Redox Dark Sui				_	inese Masses (F12) ( <b>LRF</b>	
-	Mucky Mineral (S1) Gleyed Matrix (S4)		Depleted Dark S Redox Depress		)			Floodplain Soils (F19) ( <b>MI</b> dic (TA6) ( <b>MLRA 144A, 1</b>	
	Redox (S5)		Nodex Bepress	10110 (1 0)				: Material (F21)	10, 1102)
Stripped	l Matrix (S6)						Very Shallo	w Dark Surface (TF12)	
Dark Su	rface (S7) (LRR R,	MLRA 149B	3)				Other (Expl	ain in Remarks)	
<sup>3</sup> Indicators o	f hydrophytic vegeta	ation and we	tland hydrology mus	t be presen	t unless	disturbed	or problematic		
	Layer (if observed		adia nyarology mao	t bo procon	., аттоос	, diotal bod			
Type:									
Depth (in	ches):						Hydric Soil Pres	sent? Yes N	lo <u> </u>
Remarks:	,						<u> </u>		

Project/Site: Door County	/ Cherryland	Airport City/	County: Door Co	<u>ounty</u> s	Sampling Date: <u>2022-10-10</u>		
Applicant/Owner: WisDOT	•	•		•			
Investigator(s): Kim Kenne					· -		
Landform (hillslope, terrace, etc	,		-	_			
					Datum: WGS84		
Soil Map Unit Name: Bondu							
Are climatic / hydrologic condition	ons on the site typi	cal for this time of year?	Yes <b>✓</b> No	(If no, explain in Ren	narks.)		
Are Vegetation, Soil	, or Hydrology	significantly distu	urbed? Are "N	lormal Circumstances" pre	esent? Yes 🔽 No		
Are Vegetation, Soil				ded, explain any answers			
SUMMARY OF FINDING	S - Attach sit	te map showing sa	mpling point lo	cations, transects, i	mportant features, etc.		
Hydrophytic Vegetation Prese	ant? Yes	No	Is the Sampled A				
Hydric Soil Present?		No <u>/</u>	within a Wetland		No <u>/</u>		
Wetland Hydrology Present?		No	If yes, optional We	etland Site ID:			
Remarks: (Explain alternative			1 /				
HYDROLOGY							
Wetland Hydrology Indicato	rs:			Secondary Indicato	rs (minimum of two required)		
Primary Indicators (minimum	of one is required; of	check all that apply)		Surface Soil Cr	acks (B6)		
Surface Water (A1)		Water-Stained Leav	res (B9)	Drainage Patte	rns (B10)		
High Water Table (A2)		Aquatic Fauna (B13		Moss Trim Line			
Saturation (A3)		Marl Deposits (B15)		Dry-Season Water Table (C2)			
Water Marks (B1)		Hydrogen Sulfide O		Crayfish Burrows (C8)			
Sediment Deposits (B2)		Oxidized Rhizosphe			ble on Aerial Imagery (C9)		
Drift Deposits (B3)		Presence of Reduce			essed Plants (D1)		
Algal Mat or Crust (B4)		Recent Iron Reducti					
Iron Deposits (B5)		Thin Muck Surface		Shallow Aquita			
Inundation Visible on Aer	ial Imagery (B7)	Other (Explain in Re					
Sparsely Vegetated Cond	• • • •		,	FAC-Neutral Te			
Field Observations:	, (2c,				301 (20)		
Surface Water Present?	Yes No _	✓ Depth (inches):					
Water Table Present?		✓ Depth (inches):					
Saturation Present?		✓ Depth (inches):		and Hydrology Present?	Yes No <u>✓</u>		
(includes capillary fringe)				, ,,			
Describe Recorded Data (stre	am gauge, monitor	ring well, aerial photos, pr	revious inspections),	if available:			
Remarks:							
Nemans.							

Tree Stratum (Plot size: 30 )	Absolute % Cover	Dominant Species?	t Indicator Status	Dominance Test worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC:0(A)
2.				
3.				Total Number of Dominant Species Across All Strata:1 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7.				Total % Cover of: Multiply by:
		= Total Co		OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15 )		. 514. 55		FACW species 0.00 x2 = 0.00
				FAC species 10.00 x 3 = 30.00
1				FACU species <u>85.00</u> x 4 = <u>340.00</u>
2				UPL species <u>5.00</u> x 5 = <u>25.00</u>
3				Column Totals: <u>100.00</u> (A) <u>395.00</u> (B)
4				Prevalence Index = B/A = 3.95
5	<del>-</del>		<u> </u>	
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Co	ver	2 - Dominance Test is >50%
Herb Stratum (Plot size: 5				3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting
1. <u>Poa pratensis</u>	_70_	<u>Y</u>	<u>FACU</u>	data in Remarks or on a separate sheet)
2. Trifolium pratense		N	<u>FACU</u>	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3. <u>Rubus idaeus</u>		Ν	FAC	4
4. <u>Daucus carota</u>		N	UPL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6				
7				<b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8				
9				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10 11				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
		-		Woody vines – All woody vines greater than 3.28 ft in
12	100			height.
20	100	= Total Co	ver	
Woody Vine Stratum (Plot size:)				
1				
2				
3				Hydrophytic
4				Vegetation   Present? Yes No ✓
		= Total Co	ver	
Remarks: (Include photo numbers here or on a separate	sheet.)			

SOIL Sampling Point: C02-u

Profile Descript	tion: (Describe t	o the dept	n needed to docum	ent the	indicator	or confirm	the absence of indicators.)	
Depth	Matrix			<u>Feature</u>	s1	. 2	<b>.</b>	
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture Remarks	
	0YR 3/2	100					<u> </u>	
<u>8-24</u> 7.	.5YR 4/4	100					SL	
	_		_					
							- <u></u>	
	_		_					
<del></del> -								
<sup>1</sup> Type: C=Conce Hydric Soil Indi		etion, RM=I	Reduced Matrix, MS	=Masked	d Sand Gr	ains.	<sup>2</sup> Location: PL=Pore Lining, M=Ma Indicators for Problematic Hydric	
Histosol (A1			Polyvalue Below	, Surface	(S8) (I RI	2 R	2 cm Muck (A10) (LRR K, L, MI	
Histic Epipe		=	MLRA 149B)	Curiuoc	(OO) (LIKE	,	Coast Prairie Redox (A16) (LRR	
Black Histic		_	Thin Dark Surfa					LRR K, L, R)
Hydrogen S Stratified La		-	Loamy Mucky M Loamy Gleyed N			, <b>L</b> )	<ul><li>Dark Surface (S7) (LRR K, L)</li><li>Polyvalue Below Surface (S8) (I</li></ul>	DD K I \
	ayers (A5) elow Dark Surface	- e (A11)	Loamy Gleyed N Depleted Matrix		.)		Polyvaide Below Surface (S6) (LRR K,	
	Surface (A12)	. , _					Iron-Manganese Masses (F12)	
	ky Mineral (S1)	_	Depleted Dark S		7)		Piedmont Floodplain Soils (F19)	
Sandy Gley Sandy Redo	red Matrix (S4)	=	Redox Depressi	ons (F8)			Mesic Spodic (TA6) (MLRA 144 Red Parent Material (F21)	A, 145, 149B)
Stripped Ma							Very Shallow Dark Surface (TF1	12)
	ce (S7) ( <b>LRR R, M</b>	LRA 149B)	1				Other (Explain in Remarks)	_,
3								
	drophytic vegetativer (if observed):	on and wet	land hydrology mus	t be pres	ent, unles	disturbed	or problematic.	
Type:	er (ii observeu).							
Depth (inches	e).						Hydric Soil Present? Yes	No <u> </u>
Remarks:	3)							
Tromano.								

Project/Site: Door County Cherryl	and Airport City/C	County: Door County	Sampling Date: <u>2022-10-1(</u>
Applicant/Owner: WisDOT BOA	•		
Investigator(s): Kim Kennedy	Section	on, Township, Range: <u>Sec 02 T027</u>	N R025E
Landform (hillslope, terrace, etc.): Toeslo			
Subregion (LRR or MLRA): LRR K, MLRA			
Soil Map Unit Name: Bonduel varian			
Are climatic / hydrologic conditions on the si	ite typical for this time of year? Y	′es <u> </u>	Remarks.)
Are Vegetation, Soil, or Hyd	rology significantly distur	bed? Are "Normal Circumstances"	" present? Yes <u></u> ✓ No
Are Vegetation, Soil, or Hyd			
SUMMARY OF FINDINGS - Attac	ch site map showing sam	npling point locations, transect	ts, important features, etc.
Hydrophytic Vegetation Present?	Yes ✔ No	Is the Sampled Area	
	Yes No	within a Wetland? Yes	<u>′</u> No
	Yes No	If yes, optional Wetland Site ID:	
Remarks: (Explain alternative procedures			
Sample point located in a de	pression.		
LIVEROL COV			
HYDROLOGY Wetland Hydrology Indicators:		Secondary India	cators (minimum of two required)
Wetland Hydrology Indicators:	wired shock all that apply)	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·
Primary Indicators (minimum of one is requ			` '
Surface Water (A1)	Water-Stained Leave		•
High Water Table (A2)	Aquatic Fauna (B13)		Lines (B16)
Saturation (A3)	Marl Deposits (B15)		n Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Ode		urrows (C8)
Sediment Deposits (B2)	Oxidized Rhizosphere		Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced		Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reductio		ic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C	-	
Inundation Visible on Aerial Imagery (			raphic Relief (D4)
Sparsely Vegetated Concave Surface	(B8)	<u>✓</u> FAC-Neutr	al Test (D5)
Field Observations:			
	No V Depth (inches):		
	No Depth (inches):		
Saturation Present? Yes (includes capillary fringe)	No _ v Depth (inches):	Wetland Hydrology Prese	ent? Yes <u>/</u> No
Describe Recorded Data (stream gauge, n	nonitoring well, aerial photos, pre	evious inspections). if available:	
D0001100 110001404 D414 (5.1.54 344.6-1,	Torinorning won, dona. priotos, prio	vious mopositorio,, il available.	
Remarks:			

Tree Stratum (Plot size:30)	Absolute			Dominance Test worksheet:
1. <u>Salix amvadaloides</u>		Species?		Number of Dominant Species
, 0				That Are OBL, FACW, or FAC:4 (A)
2				Total Number of Dominant Species Across All Strata:  4 (B)
3				Species Across All Strata:4(B)
4				Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)
5				That Are OBE, I ACW, OF FAC. 100.00 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	15	= Total Cov	ver	OBL species <u>0.00</u> x 1 = <u>0.00</u>
Sapling/Shrub Stratum (Plot size: 15 )				FACW species <u>95.00</u> x 2 = <u>190.00</u>
1. Salix interior	55	<u>Y</u>	<u>FACW</u>	FACULTURE 10.00 x 3 = 30.00
2				FACU species <u>0.00</u> x 4 = <u>0.00</u> UPL species <u>0.00</u> x 5 = <u>0.00</u>
3				Column Totals: 105.00 (A) 220.00 (B)
4				(b)
5				Prevalence Index = B/A = 2.1
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Cov	ver	∠ 2 - Dominance Test is >50%
Herb Stratum (Plot size:5)				3 - Prevalence Index is ≤3.0¹
1. Phalaris arundinacea	25	Y	FACW	4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
2				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3				1
4				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				
6				Definitions of Vegetation Strata:
7				<b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8				
9				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11.				of size, and woody plants less than 3.28 ft tall.
12.				Woody vines – All woody vines greater than 3.28 ft in
12.		= Total Cov		height.
Manda Vina Chataina (Distaina 20		- Total Cov	vei	
Woody Vine Stratum (Plot size: 30 )	40	V		
1. <u>Vitis riparia</u>		<u>Y</u>		
2				
3	· ·			Hydrophytic Vegetation
4				Present? Yes <u>~</u> No
		= Total Cov	ver	
Remarks: (Include photo numbers here or on a separate s	sheet.)			

SOIL Sampling Point: C02-W

Profile Desc	cription: (Describe t	to the dep	th needed				or confirm	the absence of i	ndicators.)	
Depth	Matrix	0/	0-1		x Feature	S1	Loc <sup>2</sup>	T 4	Davisanta	
(inches) 0-4	Color (moist) 10YR 2/1	<del>%</del> 100	Color (n	noist)	%	Type <sup>1</sup>	Loc	Texture	Remarks	
			10VD	1/6				CL		
4-10	10YR 4/2		<u>10YR</u>	4/6						
10-24	7.5YR 4/4	100				-		SL		
						-				
			-						_	
						-				
			-							
-										
1Typo: C=C	oncentration, D=Depl	otion PM	-Poducod N	Antrix MS	S-Mackar	d Sand Gr		<sup>2</sup> Location: D	L=Pore Lining, M=Matrix.	
Hydric Soil		etion, rtivi	-reduced is	naun, mc	)-IVIASNEC	J Gariu Gi	allis.		Problematic Hydric Soils <sup>3</sup> :	
Histosol						(S8) ( <b>LR</b>	R R,		(A10) ( <b>LRR K, L, MLRA 149B</b> )	
	pipedon (A2)			<b>RA 149B</b> ) ark Surfa		RRR M	Ι <b>R</b> Δ 149R)		rie Redox (A16) ( <b>LRR K, L, R</b> ) xy Peat or Peat (S3) ( <b>LRR K, L, R</b> )	
	Black Histic (A3) Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B</b> ) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )							ace (S7) ( <b>LRR K, L</b> )		
	d Layers (A5)	(* 4 4)	-	-	Matrix (F2	2)			Below Surface (S8) (LRR K, L)	
-	d Below Dark Surface ark Surface (A12)	e (A11)		ed Matrix Dark Sui	: (F3) rface (F6)				Surface (S9) ( <b>LRR K, L</b> ) anese Masses (F12) ( <b>LRR K, L, R</b> )	
	Mucky Mineral (S1)				Surface (F			_	Floodplain Soils (F19) (MLRA 149B)	
	Gleyed Matrix (S4)		Redox	Depress	ions (F8)				dic (TA6) ( <b>MLRA 144A, 145, 149B</b> )	
-	Redox (S5) d Matrix (S6)								nt Material (F21)	
	urface (S7) ( <b>LRR R, M</b>	ILRA 149	3)					<ul><li>Very Shallow Dark Surface (TF12)</li><li>Other (Explain in Remarks)</li></ul>		
<sup>3</sup> Indicators o	f hydrophytic vegetat	ion and w	etland hydro	logy mus	t be pres	ent, unles	s disturbed	or problematic.		
	Layer (if observed):				<u> </u>					
Type:										
Depth (in	ches):							Hydric Soil Pre	esent? Yes <u>/</u> No	
Remarks:										

Project/Site: Door County	Cherryland	Airport Cir	ty/County: Do	or County	Samp	oling Date: <u>2022-1</u>	0-10
Applicant/Owner: WisDOT	•	•		•			
Investigator(s): Kim Kenne						-	
Landform (hillslope, terrace, etc	•						-2
Subregion (LRR or MLRA): LR							
Soil Map Unit Name: Bondu						Batam. <u><b>*****</b></u>	
Are climatic / hydrologic condition	ons on the site typic	cal for this time of year	? Yes <u>/</u> I	No (If no, e	explain in Remark	s.)	
Are Vegetation, Soil	, or Hydrology	significantly dis	sturbed?	Are "Normal Circur	nstances" present	? Yes <u></u> No _	
Are Vegetation, Soil	, or Hydrology	naturally proble	ematic?	(If needed, explain	any answers in R	emarks.)	
SUMMARY OF FINDING	S - Attach sit	te map showing s	ampling poi	nt locations, t	ransects, imp	ortant features,	etc.
Hydrophytic Vegetation Prese	nt? Yes	No _ <b>✓</b>	Is the Sam	pled Area			
Hydric Soil Present?		No <u>/</u>	within a W		Yes N	o <u> </u>	
Wetland Hydrology Present?		No 🔽	If yes, option	onal Wetland Site I	D:		
Remarks: (Explain alternative							
							ļ
							I
HYDROLOGY							
Wetland Hydrology Indicato	rs:			Secon	dary Indicators (n	ninimum of two require	<u>ed)</u>
Primary Indicators (minimum o	of one is required; o	check all that apply)		S	urface Soil Cracks	s (B6)	
Surface Water (A1)		Water-Stained Le		D	rainage Patterns (	(B10)	
High Water Table (A2)		Aquatic Fauna (B	13)	M	loss Trim Lines (B	16)	
Saturation (A3)		Marl Deposits (B1	5)	Dry-Season Water Table (C2)			
Water Marks (B1)		Hydrogen Sulfide		Crayfish Burrows (C8)			
Sediment Deposits (B2)		Oxidized Rhizosp	heres on Living				
Drift Deposits (B3)		Presence of Redu	iced Iron (C4)	S	tunted or Stressed	d Plants (D1)	
Algal Mat or Crust (B4)		Recent Iron Redu	ction in Tilled So	oils (C6) G	eomorphic Position	on (D2)	
Iron Deposits (B5)		Thin Muck Surface	e (C7)	S	hallow Aquitard ([	03)	
Inundation Visible on Aeri	al Imagery (B7)	Other (Explain in	Remarks)				
Sparsely Vegetated Conc	ave Surface (B8)			F	AC-Neutral Test (	D5)	
Field Observations:							
Surface Water Present?	Yes No _	✓ Depth (inches): _					
Water Table Present?	Yes No _	✓ Depth (inches): _					
Saturation Present?	Yes No _	✓ Depth (inches): _		Wetland Hydrolo	ogy Present? Y	es No <u>~</u>	
(includes capillary fringe)  Describe Recorded Data (stre	am gauga, manitar	ring well parial photos	aravious inspac	tions) if available:			
Describe Recorded Data (site	am gauge, monitor	ring well, aeriai priotos,	brevious irisped	illofis), ii avaliabie.			
Remarks:							

#### **VEGETATION** – Use scientific names of plants

	i.			Sampling Point: <u>C03-u</u>
Tree Stratum (Plot size:30)			t Indicator Status	Dominance Test worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC:(A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:(A/B)
6		-		Prevalence Index worksheet:
7		-		Total % Cover of: Multiply by:
		= Total Co	over	OBL species <u>0.00</u> x 1 = <u>0.00</u>
Sapling/Shrub Stratum (Plot size: 15 )				FACW species <u>0.00</u> x 2 = <u>0.00</u> FAC species <u>0.00</u> x 3 = <u>0.00</u>
1				FACU species 100.00 x 4 = 400.00
2				UPL species
3.				Column Totals: <u>100.00</u> (A) <u>400.00</u> (B)
4				Prevalence Index = B/A = 4.0
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7		= Total Co		2 - Dominance Test is >50%
Herb Stratum (Plot size:5)		- Total CC	ovei	3 - Prevalence Index is ≤3.0 <sup>1</sup>
1. <u>Poa pratensis</u>	_ 50	Υ	FACU	4 - Morphological Adaptations¹ (Provide supportino data in Remarks or on a separate sheet)
2. Bromus arvensis		Υ	FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3.				1
4				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8	_			Sapling/shrub – Woody plants less than 3 in. DBH
9		-		and greater than or equal to 3.28 ft (1 m) tall.
10		-		Herb – All herbaceous (non-woody) plants, regardless
11		-		of size, and woody plants less than 3.28 ft tall.
12				<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
	100	= Total Co	over	
Woody Vine Stratum (Plot size:30)				
1				
2.				
3				Hydrophytic Vegetation
				1 = <sup>-</sup> .=
4.		= Total Co	wor	Present? Yes No

SOIL Sampling Point: C03-u

Depth		e to the dep		<b>nent the in</b> x Features	dicator	or confirm	the absence of indica	itors.)
(inches)	Matrix Color (moist)	%	Color (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-9	10YR 3/2	100					L	
9-24	7.5YR 4/4	100					SL	
<u> </u>	<u></u>			· <del></del> -				
				· <del></del> =				
				. —— -			<del></del>	
				· —— -				
	-							
				·				
				· —— -				
	-							
	-							
<sup>1</sup> Type: C=C	oncentration, D=De	epletion, RM=	Reduced Matrix, MS	S=Masked S	Sand Gra	ains.	<sup>2</sup> Location: PL=Por	re Lining, M=Matrix.
Hydric Soil		•	·					lematic Hydric Soils <sup>3</sup> :
Histosol			Polyvalue Belov		88) ( <b>LRF</b>	RR,		) (LRR K, L, MLRA 149B)
	pipedon (A2) istic (A3)		MLRA 149B) Thin Dark Surfa		ор Мі	DA 140B)		edox (A16) ( <b>LRR K, L, R</b> ) at or Peat (S3) ( <b>LRR K, L, R</b> )
	en Sulfide (A4)		Loamy Mucky N				Self Mucky Pea	
Stratifie	d Layers (A5)		Loamy Gleyed I		`	,	Polyvalue Below	V Surface (S8) (LRR K, L)
	d Below Dark Surfa	ace (A11)	Depleted Matrix					ce (S9) ( <b>LRR K, L</b> )
	ark Surface (A12) Mucky Mineral (S1)		Redox Dark Su		١		_	e Masses (F12) ( <b>LRR K, L, R</b> ) plain Soils (F19) ( <b>MLRA 149B</b> )
-	Gleyed Matrix (S4)		oleted Dark Surface (F7) dox Depressions (F8)				(A6) (MLRA 144A, 145, 149B)	
	Redox (S5)			, ,			Red Parent Mat	
	d Matrix (S6)					Very Shallow Dark Surface (TF12)		
Dark Su	ırface (S7) ( <b>LRR R</b> ,	MLRA 149E	3)				Other (Explain in	n Remarks)
<sup>3</sup> Indicators o	of hydrophytic veget	ation and we	tland hydrology mus	t be presen	t, unless	disturbed	or problematic.	
	Layer (if observed							
Type:								
Depth (in	ches):						Hydric Soil Present?	? Yes No <u>/</u>
Remarks:							<u> </u>	

Project/Site: Door County	Cherryland A	Airport City/0	County: Door County	<i></i> San	npling Date: <u>2022-10-1(</u>		
Applicant/Owner: WisDOT	•	•	•				
Investigator(s): Kim Kenne	edy	Secti	on, Township, Range: <u>Se</u>	ec 02 T027N R	025E		
Landform (hillslope, terrace, etc	Landform (hillslope, terrace, etc.): Dip Local relief (concave, convex, none): Concave Slope (%):						
Subregion (LRR or MLRA): LR							
Soil Map Unit Name: Bondu							
Are climatic / hydrologic condition	ons on the site typic	al for this time of year?	res No (I	lf no, explain in Rema	rks.)		
Are Vegetation, Soil	, or Hydrology _	significantly distu	rbed? Are "Normal of	Circumstances" prese	nt? Yes <u>✓</u> No		
Are Vegetation, Soil	, or Hydrology _	naturally problem	atic? (If needed, ex	xplain any answers in	Remarks.)		
SUMMARY OF FINDING	S - Attach site	e map showing san	npling point location	ns, transects, im	portant features, etc.		
Hydrophytic Vegetation Prese	nt? Yes	<b>∨</b> No	Is the Sampled Area				
Hydric Soil Present?		<u>∨</u> No	within a Wetland?	Yes <u> </u>	No		
Wetland Hydrology Present?		<u>∨</u> No	If yes, optional Wetland	Site ID:			
Remarks: (Explain alternative	procedures here or	in a separate report.)					
HYDROLOGY							
Wetland Hydrology Indicato	re·			Secondary Indicators	(minimum of two required)		
		heck all that annly)		-			
Primary Indicators (minimum of one is required; check all that apply)  Surface Water (A1)  Water-Stained Leaves (B9)  Drainage Patterns (B10)					` '		
Surface Water (A1) High Water Table (A2)	-	Water-Stained Leave Aquatic Fauna (B13)		Moss Trim Lines			
Saturation (A3)		Aquatic r auria (B13) Marl Deposits (B15)		Moss Tilli Lilles (			
Water Marks (B1)		Hydrogen Sulfide Oc		Crayfish Burrows			
Sediment Deposits (B2)		Oxidized Rhizospher			on Aerial Imagery (C9)		
Drift Deposits (B3)		Presence of Reduce		Stunted or Stress			
Algal Mat or Crust (B4)		Recent Iron Reduction		Geomorphic Posi			
Iron Deposits (B5)		Thin Muck Surface (		Shallow Aquitard			
Inundation Visible on Aeri		Other (Explain in Re		Microtopographic			
Sparsely Vegetated Conc	ave Surface (B8)			∠ FAC-Neutral Test	(D5)		
Field Observations:							
Surface Water Present?		Depth (inches):					
Water Table Present?		Depth (inches):		uduala au Dua a au t2	Vaa ( Na		
Saturation Present? (includes capillary fringe)	Yes NO	Depth (inches):	vveuanu ny	yarology Present?	Yes No		
Describe Recorded Data (stre	am gauge, monitorir	ng well, aerial photos, pre	evious inspections), if avail	lable:			
Remarks:							
Nomano.							

Tree Stratum (Plot size: 30 )	Absolute		t Indicator Status	Dominance Test worksheet:
			_	Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
2.				Total Number of Dominant Species Across All Strata: 3 (B)
3				( //
4				Percent of Dominant Species That Are OBL, FACW, or FAC:66.67 (A/B)
5				111dt/110 0B2,1710VV, 011710
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Co	over	OBL species <u>0.00</u> x 1 = <u>0.00</u>
Sapling/Shrub Stratum (Plot size: 15 )				FACW species <u>75.00</u> x 2 = <u>150.00</u>
1		-		FAC species <u>0.00</u> x 3 = <u>0.00</u> FACU species <u>25.00</u> x 4 = <u>100.00</u>
2				UPL species 0.00 x 5 = 0.00
3				Column Totals: 100.00 (A) 250.00 (B)
4				
5				Prevalence Index = B/A = 2.5
6				Hydrophytic Vegetation Indicators:
7			_	1 - Rapid Test for Hydrophytic Vegetation
		= Total Co		2 - Dominance Test is >50%
Herb Stratum (Plot size:5 )				✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
1. <u>Salix triandra</u>	50	Υ	FACW	4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
2. Phalaris arundinacea		Y	FACW	Problematic Hydrophytic Vegetation¹ (Explain)
3. Poa pratensis				
4				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6.				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9				
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11.		-		
12		-		Woody vines – All woody vines greater than 3.28 ft in height.
	100	= Total Co	over	
Woody Vine Stratum (Plot size: 30 )				
1				
2				
3				Hydrophytic
4				Vegetation   Present?   Yes No
		= Total Co	over	
Remarks: (Include photo numbers here or on a separate	sheet.)			

SOIL Sampling Point: C03-W

	cription: (Describe	to the de	oth needed				or confirm	the absence o	of indicators.)	
Depth (inches)	Matrix Color (moist)	%	Color (r		x Feature %	s Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-8	10YR 3/1	90	<u>10YR</u>	4/6	_10			L		
8-24	7.5YR 4/3	90	7.5YR		10			SL		
	<u> </u>		7.011	17.0						
					· -					
					· <del></del>	. ——				
					· <del></del>					
						·				
1Type: C=C	oncentration, D=Dep	lotion PM	-Poducod M	Notriy MS	S-Mackac	d Sand Gr		<sup>2</sup> l ocation:	PL=Pore Lining, M=Mat	riv
Hydric Soil		ietion, Kivi	-Reduced i	viau ix, ivic	5-IVIASKE	ı Sanu Gi	ali i5.		for Problematic Hydric :	
Histosol			Polyva	alue Belov	v Surface	(S8) ( <b>LR</b> I	RR,		uck (A10) ( <b>LRR K, L, ML</b>	
Histic Ep	oipedon (A2)			RA 149B)		DD D M	DA 440D)		Prairie Redox (A16) (LRR	
	en Sulfide (A4)					LRR R, IVI 1) (LRR K	LRA 149B) , L)		ucky Peat or Peat (S3) ( <b>L</b> ırface (S7) ( <b>LRR K, L</b> )	-KK K, L, K)
Stratified	d Layers (A5)		Loamy	Gleyed I	Matrix (F2			Polyvalı	ue Below Surface (S8) ( <b>L</b>	·
	d Below Dark Surface ark Surface (A12)	e (A11)		ed Matrix	: (F3) rface (F6)				ark Surface (S9) ( <b>LRR K,</b> inganese Masses (F12) (	
	Mucky Mineral (S1)				Surface (F				nt Floodplain Soils (F19)	
Sandy G	Gleyed Matrix (S4)		<u>√</u> Redox			,		Mesic S	Spodic (TA6) ( <b>MLRA 144</b> )	
-	Redox (S5)								rent Material (F21)	2)
	l Matrix (S6) rface (S7) ( <b>LRR R, N</b>	ILRA 149	В)						nallow Dark Surface (TF1 Explain in Remarks)	2)
	f hydrophytic vegetat		etland hydro	ology mus	t be prese	ent, unles	s disturbed	or problematic.		
Type:	Layer (if observed):									
Depth (inc	choc):		<del></del>					Hydric Soil F	Present? Yes <u>/</u>	No
Remarks:										
rtomanto.										

Project/Site: Door County	/ Cherryland	Airport City	/County: <u>Doo</u>	r County	Sampling Date	e: <u>2022-10-10</u>	
Applicant/Owner: WisDOT	•	•		•			
Investigator(s): Kim Kenne							
andform (hillslope, terrace, etc.): Backslope Local relief (concave, convex, none): None Slope (%): 0-2							
Subregion (LRR or MLRA): LR							
Soil Map Unit Name: Kolber							
Are climatic / hydrologic condition	ons on the site typic	cal for this time of year?	Yes N	o (If no, exp	olain in Remarks.)		
Are Vegetation, Soil	, or Hydrology	significantly dist	urbed? A	re "Normal Circumst	tances" present? Yes	✓ No	
Are Vegetation, Soil					ny answers in Remarks.)		
SUMMARY OF FINDING	S - Attach sit	te map showing sa	mpling poin	t locations, tra	nsects, important	features, etc.	
Hydrophytic Vegetation Prese	ent? Yes	No <u> </u>	Is the Samp	oled Area			
Hydric Soil Present?		No <u>/</u>	within a We		es No <u> </u>	<u> </u>	
Wetland Hydrology Present?		No 🗸	If yes, option	nal Wetland Site ID:			
Remarks: (Explain alternative							
HYDROLOGY							
Wetland Hydrology Indicato	rs:			Seconda	ary Indicators (minimum	of two required)	
Primary Indicators (minimum o	of one is required; o	check all that apply)		Surf	face Soil Cracks (B6)		
Surface Water (A1) Water-Stained Leaves (B9) Drainage Patterns (B10)							
High Water Table (A2)		Aquatic Fauna (B13	3)	Mos	ss Trim Lines (B16)		
Saturation (A3)		Marl Deposits (B15	)	Dry-	-Season Water Table (C	(2)	
Water Marks (B1)		Hydrogen Sulfide C		Cray	yfish Burrows (C8)		
Sediment Deposits (B2)		Oxidized Rhizosphe	eres on Living R	oots (C3) Satu	uration Visible on Aerial	Imagery (C9)	
Drift Deposits (B3)		Presence of Reduc	ed Iron (C4)	Stur	nted or Stressed Plants	(D1)	
Algal Mat or Crust (B4)		Recent Iron Reduct	tion in Tilled Soil	is (C6) Geo	omorphic Position (D2)		
Iron Deposits (B5)		Thin Muck Surface	(C7)	Shallow Aquitard (D3)			
Inundation Visible on Aeri	ial Imagery (B7)	Other (Explain in R	emarks)	Microtopographic Relief (D4)			
Sparsely Vegetated Conc	ave Surface (B8)			FAC	C-Neutral Test (D5)		
Field Observations:							
Surface Water Present?	Yes No _	✓ Depth (inches):					
Water Table Present?	Yes No _	✓ Depth (inches):					
Saturation Present?	Yes No _	✓ Depth (inches):		Wetland Hydrology	y Present? Yes	No <u> </u>	
(includes capillary fringe)  Describe Recorded Data (stre	=== souse monitor	-i	vieus inspecti				
Describe Recorded Data (site	am gauge, monitor	nng well, aerial priolos, p	revious irispecii	ons), ii avaliable.			
Remarks:							

Sampling Point: <u>C04-n</u>
heet:
ocios

<u>'</u>				
Tree Stratum (Plot size: 30 )		Dominant Species?		Dominance Test worksheet:
				Number of Dominant Species
1				That Are OBL, FACW, or FAC:(A)
2				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7.				Total % Cover of: Multiply by:
		= Total Co		OBL species 0.00 x 1 = 0.00
0 1: 101 1 0: 1 (DL) : 45		- Total Co	vei	FACW species 10.00 x 2 = 20.00
Sapling/Shrub Stratum (Plot size: 15 )				FAC species
1				FACU species 75.00 x 4 = 300.00
2				UPL species
3				Column Totals: 100.00 (A) 365.00 (B)
4			· <u> </u>	(1) <u>100.00</u> (1) <u>100.00</u>
5				Prevalence Index = B/A = 3.65
6				Hydrophytic Vegetation Indicators:
			· <del></del>	1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
_		= Total Co	ver	3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 5			=	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
1. Poa pratensis		<u>Y</u>	<u>FACU</u>	data in Remarks or on a separate sheet)
2. Bromus arvensis	35	<u>Y</u>	<u>FACU</u>	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3. Equisetum arvense	15	N	<u>FAC</u>	The discrete are found in a sile and so other debuggles are seen
4. Salix triandra	10	N	<b>FACW</b>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				
				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb - All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12				Woody vines – All woody vines greater than 3.28 ft in
	100	= Total Co	ver	height.
Woody Vine Stratum (Plot size: 30 )				
,				
1				
2				
3		-		Hydrophytic
4				Vegetation   Present?   Yes No/_
		= Total Co	ver	
Remarks: (Include photo numbers here or on a separate	sheet.)			
Area periodically mown.				

SOIL Sampling Point: C04-n

			the dep	oth needed to docum			or confirm	the absence of i	ndicators.)	
Depth (inches)	Color (mo	atrix oist)	%	Color (moist)	<u>Feature</u> %	SType <sup>1</sup>	Loc <sup>2</sup>	Texture	Rema	arks
0-9	10YR 3	3/2	100					L		_
9-11	7.5YR 4	4/4		7.5YR 4/3	5			SL		_
11-24		4/4		7.011						
11-24	1.51	<del>T/ T</del>	100							
						·				
										_
						-				
						·				
Type: C=Co		D=Deplet	ion, RM	=Reduced Matrix, MS	S=Masked	d Sand Gr	ains.		L=Pore Lining, M Problematic Hy	
Histosol				Polyvalue Belov	v Surface	(S8) ( <b>LR</b> I	R R.		-	L, MLRA 149B)
	pipedon (A2)			MLRA 149B)		() (	,		irie Redox (A16)	
Black Hi				Thin Dark Surfa						(S3) ( <b>LRR K, L, R</b> )
	en Sulfide (A4) d Layers (A5)	)		<ul><li>Loamy Mucky M</li><li>Loamy Gleyed M</li></ul>			., L)		ace (S7) ( <b>LRR K</b> , Below Surface (	•
	d Below Dark	Surface (	A11)	Depleted Matrix	-	-,		-	Surface (S9) ( <b>LF</b>	
	ark Surface (A			Redox Dark Sur				_		F12) ( <b>LRR K, L, R</b> )
	Mucky Mineral Gleyed Matrix (			Depleted Dark S Redox Depressi		-7)				(F19) (MLRA 149B) A 144A, 145, 149B)
	Redox (S5)	(04)		Nedox Depressi	0113 (1 0)				nt Material (F21)	·
Stripped	Matrix (S6)							Very Shall	ow Dark Surface	e (TF12)
Dark Su	rface (S7) ( <b>LF</b>	RR R, ML	RA 1491	3)				Other (Exp	olain in Remarks	)
<sup>3</sup> Indicators of	f hydrophytic v	vegetatio	n and we	etland hydrology mus	t be pres	ent, unles	s disturbed	or problematic.		
	Layer (if obse	-			· ·					
Type:										
Depth (inc	ches):							Hydric Soil Pre	sent? Yes _	No <u> </u>
Remarks:								1		

Project/Site: Door County	•	•			•			
Applicant/Owner: WisDOT BOA  State: Wisconsin Sampling Point: C05-u								: <u>C05-u</u>
Investigator(s): Kim Kennedy Section, Township, Range: Sec 02 T027N R025E								
Landform (hillslope, terrace, etc.								
Subregion (LRR or MLRA): LR	Subregion (LRR or MLRA): LRR K, MLRA 95A Lat: 44.849887 Long: -87.423930 Datum: WGS84							: <u>WGS84</u>
Soil Map Unit Name: Summ	<u>ıerville loam,</u>	0 to 2 per	rcent slo	pes		_ NWI classification	າ:	
Are climatic / hydrologic conditi	ons on the site type	ical for this tim	ne of year?	Yes <u> </u>	No (If r	no, explain in Rema	rks.)	
Are Vegetation, Soil	, or Hydrology	/signif	ficantly distu	rbed?	Are "Normal Ci	rcumstances" prese	ent? Yes	<u>′</u> No
Are Vegetation, Soil	, or Hydrology	natur	ally problem	atic? (	If needed, exp	lain any answers in	Remarks.)	
SUMMARY OF FINDING	S – Attach si	te map sho	owing san	npling poi	nt locations	s, transects, im	portant fea	atures, etc.
Hydrophytic Vegetation Prese	ont? Voc	No	·/	Is the Sam	pled Area			
Hydric Soil Present?		No		within a We		Yes	No <u> </u>	
Wetland Hydrology Present?		No		If ves. optio	nal Wetland Si	te ID:		
Remarks: (Explain alternative				,,				
HYDROLOGY								
Wetland Hydrology Indicato					· · · · · · · · · · · · · · · · · · ·	econdary Indicators	•	wo required)
Primary Indicators (minimum	of one is required;					_ Surface Soil Crac		
Surface Water (A1) Water-Stained Leaves (B9) Drainage Patterns (B10) High Water Table (A2) Aquatic Fauna (B13) Moss Trim Lines (B16)								
<ul><li>High Water Table (A2)</li><li>Saturation (A3)</li></ul>		Aquatic i			_	<ul><li>Moss Trim Lines</li><li>Dry-Season Wate</li></ul>		
Water Marks (B1)		Wall Dep			_			
Sediment Deposits (B2)				res on Living F	·	-		igery (C9)
Drift Deposits (B3)		Presence		_		Stunted or Stress		
Algal Mat or Crust (B4)				on in Tilled So	ils (C6)	_ Geomorphic Posi		<i>'</i>
Iron Deposits (B5)		Thin Mu				_ Shallow Aquitard		
Inundation Visible on Aer	ial Imagery (B7)	Other (E	Explain in Re	marks)		_ Microtopographic	Relief (D4)	
Sparsely Vegetated Cond	cave Surface (B8)					_ FAC-Neutral Test	t (D5)	
Field Observations:								
Surface Water Present?	Yes No _							
Water Table Present?	Yes No _							
Saturation Present? (includes capillary fringe)	Yes No _	<u>✓</u> Depth (	inches):		Wetland Hyd	rology Present?	Yes	No <u>~</u>
Describe Recorded Data (stre	eam gauge, monito	ring well, aeria	al photos, pre	evious inspect	tions), if availab	ole:		
Remarks:								
Area relatively flat.								

Tree Stratum (Plot size:)	Absolute % Cover		t Indicator Status	Dominance Test worksheet:  Number of Dominant Species
1				That Are OBL, FACW, or FAC:(A)
2				Total Number of Dominant Species Across All Strata: 4 (B)
4.				Percent of Dominant Species
5.				That Are OBL, FACW, or FAC: 0.00 (A/B)
6.				Prevalence Index worksheet:
7.				Total % Cover of: Multiply by:
		= Total Co		OBL species x 1 =0.00
Sapling/Shrub Stratum (Plot size:15)				FACW species 0.00 x 2 = 0.00
1				FAC species <u>15.00</u> x 3 = <u>45.00</u>
2.				FACU species <u>65.00</u> x 4 = <u>260.00</u>
3.				UPL species <u>20.00</u> x 5 = <u>100.00</u>
				Column Totals: <u>100.00</u> (A) <u>405.00</u> (B)
4.       5.				Prevalence Index = B/A = 4.05
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Co		2 - Dominance Test is >50%
Herb Stratum (Plot size: 5				3 - Prevalence Index is ≤3.0 <sup>1</sup>
1. Poa pratensis	25	Υ	FACU	4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
2. Daucus carota		Y	UPL	Problematic Hydrophytic Vegetation¹ (Explain)
Trifolium pratense			FACU	
4. Lolium perenne			FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
- lumana kamuda	10	N	FAC	be present, unless disturbed or problematic.
Juncus tenuis     Lotus corniculatus		N	FACU	Definitions of Vegetation Strata:
7. Dubus ideaus	- <u></u>	N	FAC	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7. <u>Rubus idaeus</u>				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9		-		
10		-		<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11				
12		-		<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
	100	= Total Co	over	
Woody Vine Stratum (Plot size: 30 )				
1				
2				
3		-		Hydrophytic
4				Vegetation
		= Total Co	over	
Remarks: (Include photo numbers here or on a separate	sheet.)			

SOIL Sampling Point: C05-u

		to the dep			indicator or confirm	the absence	e of indicators.)	
Depth (inches)	Matrix Color (moist)	%	Redo	<u>x Feature</u> %	s _Type <sup>1</sup> Loc <sup>2</sup>	Texture	Remarks	
0-8	10YR 3/2	100				ı		
8-13	7.5YR 5/6	100				SL		
13-24	7.5YR 5/4		7.5YR 5/8	10			With gravel	
1027	7.5YR 5/6	45	7.0110 0/0		· ——	SCL	viui giavei	
	7.5110 3/0					JOL	·	
					· ——		· ———	
					. ——		·	
						-	· <del></del> -	
					· — — —			
				·			·	
							· <u></u>	
<sup>1</sup> Type: C=C Hydric Soil	oncentration, D=Depl	etion, RM	=Reduced Matrix, M	S=Masked	d Sand Grains.		n: PL=Pore Lining, M=Matrix. s for Problematic Hydric Soils <sup>3</sup> :	
Histosol			Polyvalue Belo	w Surface	(S8) ( <b>LRR R</b> ,		Muck (A10) ( <b>LRR K, L, MLRA 149B</b> )	
	Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)							
	istic (A3) en Sulfide (A4)		Inin Dark Surfa		LRR R, MLRA 149B) 1) (LRR K, L)		Mucky Peat or Peat (S3) ( <b>LRR K, L, R</b> ) Surface (S7) ( <b>LRR K, L</b> )	
Stratifie	d Layers (A5)		Loamy Gleyed	Matrix (F2		Polyva	alue Below Surface (S8) (LRR K, L)	
	d Below Dark Surface ark Surface (A12)	e (A11)	Depleted Matrix Redox Dark Su				Dark Surface (S9) ( <b>LRR K, L</b> ) Manganese Masses (F12) ( <b>LRR K, L, R</b> )	
Sandy N	/lucky Mineral (S1)		Depleted Dark				nont Floodplain Soils (F19) (MLRA 149B)	
	Gleyed Matrix (S4)		Redox Depress	ions (F8)		<ul><li>Mesic Spodic (TA6) (MLRA 144A, 145, 149B)</li><li>Red Parent Material (F21)</li></ul>		
-	Redox (S5) I Matrix (S6)						Shallow Dark Surface (TF12)	
	rface (S7) (LRR R, M	ILRA 149	<b>B</b> )				(Explain in Remarks)	
<sup>3</sup> Indicators o	f hydrophytic vegetat	ion and w	etland hvdrology mus	st be pres	ent. unless disturbed	or problemati	ic.	
	Layer (if observed):		, 3,	<u>'</u>	,			
Type:								
	ches):					Hydric Soi	Present? Yes No	
Remarks:	c soil indicator	e ohee	urved					
INO HYUH	c son maicator	3 0036	avea.					

Project/Site: Door County Che	erryland Airport	City/County: Do	or County	Sampling Date: <u>2022-10-1(</u>				
Applicant/Owner: WisDOT BOA								
Investigator(s): Kim Kennedy	Investigator(s): Kim Kennedv Section, Township, Range: Sec 02 T027N R025E							
Landform (hillslope, terrace, etc.): <u>Ta</u>	alf	Local relief (concave	e, convex, none): None	Slope (%): <u>0-2</u>				
Subregion (LRR or MLRA): LRR K, I								
	Soil Map Unit Name: Longrie Loam, 0 to 2 percent slopes NWI classification: PEM1C							
Are climatic / hydrologic conditions on	the site typical for this	s time of year? Yes	No (If no, explain in	n Remarks.)				
Are Vegetation, Soil,	r Hydrologys	ignificantly disturbed?	Are "Normal Circumstance	s" present? Yes 🔽 No				
Are Vegetation, Soil,			(If needed, explain any ans					
SUMMARY OF FINDINGS -	Attach site map	showing sampling po	int locations, transec	cts, important features, etc.				
Hydrophytic Vegetation Present?	Yes ✔ No	ls the Sar	npled Area					
Hydric Soil Present?	Yes <u>✓</u> No		Vetland? Yes	<u>√</u> No				
Wetland Hydrology Present?	Yes 🗸 No	· · · · · · · · · · · · · · · · · · ·	onal Wetland Site ID:					
Remarks: (Explain alternative proce	dures here or in a sep							
HYDROLOGY								
Wetland Hydrology Indicators:			Secondary Inc	dicators (minimum of two required)				
Primary Indicators (minimum of one	Surface S	Soil Cracks (B6)						
Surface Water (A1)		er-Stained Leaves (B9)	<u></u> ∠ Drainage	Patterns (B10)				
<u></u> High Water Table (A2)	Aqua	atic Fauna (B13)	Moss Trin	n Lines (B16)				
<u>✓</u> Saturation (A3)	Marl	Deposits (B15)	Dry-Seas	on Water Table (C2)				
Water Marks (B1)		ogen Sulfide Odor (C1)	Crayfish E	Burrows (C8)				
Sediment Deposits (B2)		ized Rhizospheres on Living	Roots (C3) Saturation	n Visible on Aerial Imagery (C9)				
Drift Deposits (B3)		ence of Reduced Iron (C4)						
Algal Mat or Crust (B4)		ent Iron Reduction in Tilled S						
Iron Deposits (B5)		Muck Surface (C7)	Shallow Aquitard (D3)					
Inundation Visible on Aerial Ima		er (Explain in Remarks)	Microtopographic Relief (D4)					
Sparsely Vegetated Concave St		,	FAC-Neutral Test (D5)					
Field Observations:	, ,			,				
Surface Water Present? Yes	No <u></u> Dep	oth (inches):						
		oth (inches): 1						
Saturation Present? Yes		oth (inches): 0	Wetland Hydrology Pres	sent? Yes <u> </u>				
(includes capillary fringe)		t totata a mandana hana	e - A se					
Describe Recorded Data (stream ga	uge, monitoring well, a	aerial photos, previous inspe	ctions), if available:					
Remarks:								

Sampling Point:	C05-w
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Tree Stratum (Plot size:30)	Absolute	Dominant Species?	Indicator	Dominance Test worksheet:
1		-		Number of Dominant Species That Are OBL, FACW, or FAC:3(A)
2				That Are OBL, FACW, or FAC:3 (A)
3				Total Number of Dominant Species Across All Strata: 4 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC:
6.				
7				Prevalence Index worksheet:  Total % Cover of: Multiply by:
		= Total Co	ver	
Sapling/Shrub Stratum (Plot size: 15 )		rotal oo	VOI	FACW species 30.00 x 2 = 60.00
1				FAC species <u>0.00</u> x 3 = <u>0.00</u>
2.				FACU species <u>20.00</u> x 4 = <u>80.00</u>
3.				UPL species <u>0.00</u> x 5 = <u>0.00</u>
4				Column Totals: <u>75.00</u> (A) <u>165.00</u> (B)
5				Prevalence Index = B/A = 2.2
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Co	ver	2 - Dominance Test is >50%
Herb Stratum (Plot size:5				y 3 - Prevalence Index is ≤3.0¹
1. Carex diandra	25	Y	OBL	4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
2. Poa pratensis		Υ	FACU	Problematic Hydrophytic Vegetation¹ (Explain)
3. <u>Salix interior</u>		Υ	FACW	1
4. Salix triandra		Y	<u>FACW</u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6				_
7				<b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11.				of size, and woody plants less than 3.28 ft tall.
12				Woody vines – All woody vines greater than 3.28 ft in
	<u>75</u>	= Total Co	ver	height.
Woody Vine Stratum (Plot size:)				
1				
2				
3				Hydrophytic
4				Vegetation
		= Total Co	ver	
Remarks: (Include photo numbers here or on a separate sep	sheet.)			
renodically mown lield.				

SOIL Sampling Point: C05-W

Depth	cription: (Describe to Matrix			x Features		the absence of	
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u> Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-18	10YR 3/2	_80_	10YR 4/6	20		CL	
				<del> </del>			
				<del>.</del>			
							_
			-				
				<del>-</del>			
		· <del></del>		<del>-</del>			
				<u> </u>			
1Type: C=C	oncentration, D=Depl	letion RM	-Reduced Matrix M	S-Masked Sand G	raine	<sup>2</sup> l ocation:	PL=Pore Lining, M=Matrix.
Hydric Soil		iction, ixivi-	-rreduced Matrix, Mi	5-Iviasked Salid C	iairis.		or Problematic Hydric Soils <sup>3</sup> :
Histosol			Polyvalue Belo	w Surface (S8) ( <b>LF</b>	R R		ck (A10) ( <b>LRR K, L, MLRA 149B</b> )
	oipedon (A2)		MLRA 149B		,		rairie Redox (A16) (LRR K, L, R)
	stic (A3)			, ace (S9) ( <b>LRR R, N</b>	ILRA 149B)		cky Peat or Peat (S3) ( <b>LRR K, L, R</b> )
	en Sulfide (A4)			Mineral (F1) ( <b>LRR</b>			face (S7) (LRR K, L)
Stratified	d Layers (A5)		Loamy Gleyed	Matrix (F2)		Polyvalu	e Below Surface (S8) ( <b>LRR K, L</b> )
	d Below Dark Surface	e (A11)	Depleted Matrix	(F3)			k Surface (S9) ( <b>LRR K, L</b> )
	ark Surface (A12)		Redox Dark Su				nganese Masses (F12) ( <b>LRR K, L, R</b> )
-	Mucky Mineral (S1)		Depleted Dark				at Floodplain Soils (F19) (MLRA 149B)
	Gleyed Matrix (S4)		Redox Depress	sions (F8)			podic (TA6) (MLRA 144A, 145, 149B)
-	Redox (S5)						ent Material (F21)
	l Matrix (S6) rface (S7) ( <b>LRR R, N</b>	II DA 1 <i>1</i> 05	2\				allow Dark Surface (TF12) xplain in Remarks)
Dark Su	nace (57) (LKK K, W	ILKA 1490	•)			Other (E.	xpiain in Remarks)
<sup>3</sup> Indicators o	f hydrophytic vegetat	ion and we	etland hydrology mus	st be present, unle	ss disturbed	or problematic.	
	Layer (if observed):		, 3,	,		<u> </u>	
Type:	,						
	-h \.					Hydric Soil P	resent? Yes <u> </u>
Depth (in	cnes):					Tryuno con r	100 NO
Remarks:							

Wetland Delineation Repor	Door County	v Cherryland Air	port Runway	<b>Reconstruction</b>
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**Appendix D** 

### **WETS Analysis Worksheet**

Project Name: Door County Cherryland Airport

Project Number: 3001498
Field delineation: October 10, 2022
Period of Interest: July - September

County: Door

	Long-term precipit	ation records	(from WETS	table)	Site determination				
							Condition	Month	
		3 yrs in 10		3 yrs in 10	Site	Condition	Value**	Weight	Product
	Month	less than	Normal	greater than	Rainfall (in)	Dry/Normal*/Wet	(A)	(B)	$(A \times B)$
1st month prior:	September	2.19	3.29	3.94	3.08	Normal	2	3	6
2nd month prior:	August	2.49	3.47	4.11	4.67	Wet	3	2	6
3rd month prior:	July	2.46	3.52	4.18	2.44	Dry	1	1	1
	Sum=	7.14	10.28	12.23	10.19			Sum***=	13

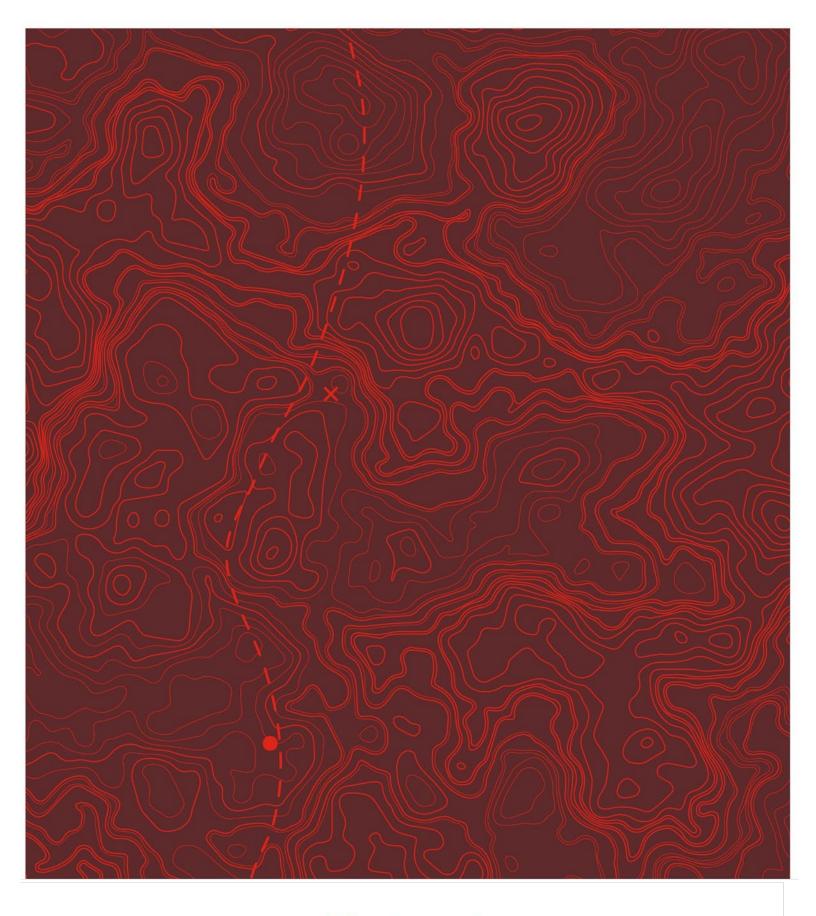
*Normal precipitation	rence Determination:		Wet		
				Х	Normal
**Condition Value:		***If sum is:	_		Dry
Dry =	1	6 to 9	then period has been drier than normal		
Normal =	2	10 to 14	then period has been normal		
Wet =	3	15 to 18	then period has been wetter than normal		

Precipitation data

source: USDA Field Office Climate Data, WETS Table: STURGEON BAY EXP FARM, 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.



# Westwood

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