

## Minnesota Wetland Conservation Act Notice of Decision

Local Government Unit:	City of Plymouth	County	y: Hennepin	
Applicant Name: Xcel Ene	0,			
Applicant Representative:	Cardno, Inc. c/o Dan	Salas		
Project Name: Hollydale D	istribution Project			
LGU Project No. (if any): 2				
Date Complete Application		1-10-2020		
Date of LGU Decision: 02-2				
Date this Notice was Sent:	2-21-2020			
WCA Decision Type - check a	ll that apply			
☐ Wetland Boundary/Type		☐ Replacement Plan	☐ Bank Plan (not credit purchase	(د
☐ No-Loss (8420.0415)			· · · · · · · · · · · · · · · · · · ·	,
Part: □ A □ B □ C □ D I	□E □F □G □H	•	2	9
Replacement Plan Impacts (	renlacement nlan dec			
Total WCA Wetland Impact		cisions only)		
Wetland Replacement Type		c Credits:		$\dashv$
, and the place in the type	☐ Bank Credits:	c creatis.		
Bank Account Number(s):	Dank creates.			$\dashv$
Technical Evaluation Panel F	indings and Pacama	andations (attack if any)		
✓ Approve ☐ Approve w				
Approve - Approve v	// Conditions $\Box$ De	III	lendation	
LGU Decision				
☐ Approved with Condition	ns (specify below) <sup>1</sup>	□ Approved¹	☐ Denied	
List Conditions:				
4				
Decision-Maker for this Ap	olication: ⊠ Staff □	Governing Board/Counc	il □ Other:	
			Guiei.	6
<b>Decision is valid for:</b> ⊠ 5 ye	ears (default) 🛚 Oth	er (specify):		
<sup>1</sup> Wetland Replacement Plan appro	val is not valid until BWSR	confirms the withdrawal of an	y required wetland bank credits. For projec	
specific replacement a financial ass	urance per MN Rule 8420.	0522, Subp. 9 and evidence tha	nt all required forms have been recorded or	n
the title of the property on which th	e replacement wetland is	located must be provided to the	e LGU for the approval to be valid.	
LGU Findings – Attach docum	nent(s) and/or insert	narrative providing the ha	asis for the LGU decision!	
Attachment(s) (specify):			stribution Project Wetland	_
			s Affecting Water Resources in	
Minnesota	э. додоони прри		S Arrecting water Resources III	
	commented on the e	xemption and did not ha	ve concerns with the project	
meeting the exemption sta	tus.		to concerns with the project	
1			1	
<sup>1</sup> Findings must consider any TEP re	commendations.			

Attached Project Documents
$oximes$ Site Location Map $\oonup$ Project Plan(s)/Descriptions/Reports (specify):
Appeals of LGU Decisions  If you wish to appeal this decision, you must provide a written request within 30 calendar days of the date you received the notice. All appeals must be submitted to the Board of Water and Soil Resources Executive Director along with a check payable to BWSR for \$500 unless the LGU has adopted a local appeal process as identified below. The check must be sent by mail and the written request to appeal can be submitted by mail or e-mail. The appeal should include a copy of this notice, name and contact information of appellant(s) and their representatives (if applicable), a statement clarifying the intent to appeal and supporting information as to why the decision is in error. Send to:  Appeals & Regulatory Compliance Coordinator
Minnesota Board of Water & Soils Resources
520 Lafayette Road North
St. Paul, MN 55155
travis.germundson@state.mn.us
Does the LGU have a <u>local appeal process</u> applicable to this decision? $\boxtimes$ Yes <sup>1</sup> $\square$ No
<sup>1</sup> If yes, all appeals must first be considered via the local appeals process.
Local Appeals Submittal Requirements (LGU must describe how to appeal, submittal requirements, fees, etc. as applicable)
у такон так
Notice Distribution (include name) Required on all notices:
☑ LGU TEP Member (if different than LGU contact): Ben Scharenbroich, 3400 Plymouth Blvd, Plymouth MN 55447
□ Applicant: Xcel Energy, c/o Ellen Heine 414 Nicollet Mall, 414-6A, Minneapolis, MN 55401
⊠ Agent/Consultant: Cardno, Inc. c/o Dan Salas, 6130 West Cottonwood Drive, Fitchburg, WI 53719
Optional or As Applicable:
□ Corps of Engineers: US Army Corps of Engineers c/o Aiden Schore 180 Fifth Street East, Suite 700m St. Paul MN     □ S5101-1678
☐ BWSR Wetland Mitigation Coordinator (required for bank plan applications only):
☐ Members of the Public (notice only): ☐ Other:
Data:
Signature:   Date:   2/21/2020

This notice and accompanying application materials may be sent electronically or by mail. The LGU may opt to send a summary of the application to members of the public upon request per 8420.0255, Subp. 3.



## Minnesota Wetland Conservation Act Notice of Application

Local Government Unit: City of Plymouth	County: Hennepin
Applicant Name: Xcel Energy	Applicant Representative: Cardno, Inc. c/o Dan
Salas	
Project Name: Hollydale Distribution Project	
LGU Project No. (if any): 2020-01	
Date Complete Application Received by LGU: 10-25-20	19
Date this Notice was Sent by LGU: 01-10-2020	
Date that Comments on this Application Must Be Recei	
<sup>1</sup> minimum 15 business day comment period for Boundary & Type, Sequ	uencing, Replacement Plan and Bank Plan Applications
WCA Decision Type - check all that apply	
☐ Wetland Boundary/Type ☐ Sequencing ☐ Rep	lacement Plan 🔲 Bank Plan (not credit purchase)
□ No-Loss (8420.0415)	⊠Exemption (8420.0420)
Part: □ A □ B □ C □ D □ E □ F □ G □ H	Subpart: 🗆 2 🗆 3 🗆 4 🗆 5 🖂 6 🖂 7 🖂 8 🖂 9
Replacement Plan Impacts (replacement plan decisions o	nly)
Total WCA Impact Area Proposed:	
Application Materials	
☐ Attached ☐ Other¹ (specify):	
Xcel Energy - City of Plymouth Hollydale Distribution Pr	oject Wetland Delineation Report - September 2019
Joint Application Form for Activities Affecting Water Re	
<sup>1</sup> Link to ftp or other accessible file sharing sites is acceptable.	
Comments on this application should be sent to:	
LGU Contact Person: Ben Scharenbroich, Interim Water	Resources Manager
E-Mail Address: bscharenbroich@plymouthmn.gov	· ·
Address and Phone Number: 3400 Plymouth Blvd, Plymo	outh, MN 55447
Decision-Maker for this Application:	
⊠ Staff □ Governing Board/Council □ Other (spec	sify):
Notice Distribution (include name)	
Required on all notices:	
⊠ SWCD TEP Member: Ms. Stacey Lijewski, HCA, 701 Fourth	Avenue South, Suite 700, Minneapolis, MN 55415-1600
□ BWSR TEP Member: Ben Carlson, BWSR, 520 Lafayette Ro	ad North, St. Paul, MN 55401
_	
LGU TEP Member (if different than LGU contact):	
☑ DNR Representative: Leslie Parris, MnDNR, 1200 Warner I	
Jason Spiegel, MnDNR, 1200 Warner	r Koad, St. Paul, MN 55106
☑ Watershed District or Watershed Mgmt. Org.: <b>BCWMC, c/</b> 0	o Laura Jester, 16145 Hillcrest Lane, Eden Prairie, MN
55346	Lucia
☑ Applicant (notice only): Xcel Energy, c/o Ellen Heine 414 N	licollet Mall, 414-6A, Minneapolis, MN 55401
☑ Agent/Consultant (notice only): Cardno, Inc. c/o Dan Salas,	

Optional or As Applicable:

□ Corps of Engineers: US Army Corps of Engineers c/o Aiden Schore     55101-1678	180 Fifth Street East, Suite 700m St. Paul MN						
☐ BWSR Wetland Mitigation Coordinator (required for bank plan app	lications only):						
☐ Members of the Public (notice only): ☐ Other:							
Signature:	Date: ///0 / 2026						

This notice and accompanying application materials may be sent electronically or by mail. The LGU may opt to send a summary of the application to members of the public upon request per 8420.0255, Subp. 3.



September 2019



## **Document Information**

Prepared for Xcel Energy

Project Name City of Plymouth Hollydale Distribution Project Wetland

**Delineation Report** 

Xcel Project # 4500390136

Cardno Project # J153001M13

Project Manager Dan Salas, Cardno

Date September 2019

#### Prepared for:



8701 Monticello Lane N, Maple Grove, MN 55369-4550

#### Prepared by:



#### Cardno, Inc.

6130 West Cottonwood Drive, Fitchburg, WI 53719 USA

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## 1 Introduction

Cardno was contracted by Xcel Energy to complete a wetland delineation and classification of wetland resources between Lawndale Ln N and Highway 55, then paralleling HWY 55 in Hennepin County, Minnesota. The surveys included approximately 0.3 miles of Xcel Energy right-of-way (ROW) and historically disturbed land that total approximately 3.65 acres. The survey area is depicted with the associated delineation boundaries (survey area) in Figures 1-5.

Based on field investigations conducted by Cardno on July 25, 2019, and desktop review of related resource maps, it is our professional opinion that two wetland complexes, totaling 1.03 acres (44,773 square feet) are located within the existing Plymouth ROW survey area. No waterbodies or waterways were identified within or immediately adjacent to the survey area.

This report has been compiled by the following staff that are trained and experienced in delineation methodologies and applicable regulations:

- Will Taylor Project Scientist; Field Lead: Will has worked in the field of wetland restoration and ecology with Cardno for the past 7 years and has been leading wetland delineations, habitat surveys, and wildlife surveys for Cardno for the past 5 years throughout the Upper Midwest. He holds a Bachelor of Science degree in Biological Aspects of Conservation from the University of Wisconsin Madison. Other related training and experience includes completion of the WDNR and USACE basic wetland delineation training, NRCS hydric soils identification training, NASECA erosion control inspection training courses, and multiple plant and wildlife identification and survey technique certificates. Will is responsible for wetland delineations, wildlife and habitat surveys, landscape restoration and planning, project management, report writing, habitat management planning, and construction permitting and oversight.
- Shannon McClusky Staff Ecologist; Shannon has over 4 years of experience working in the field of restoration and ecology, including 2 years as a restoration technician for Cardno. She holds a Bachelor's of Science in Environmental Studies from the University of Wisconsin-Oshkosh. Currently, Shannon's job responsibilities include assistance in field surveys efforts including wetland delineations, stream surveys, threatened and endangered species and habitat, report writing, permitting, and environmental monitoring for a variety of linear corridor projects.
- Michael Smith GIS Analyst: Michael has over 5 years of experience in ecology and conservation biology, including four years applying his GIS expertise in the natural resources field. He holds a Bachelor of Science in Conservation Biology, a certificate in Environmental Studies, and a graduate-level certification in GIS, all from the University of Wisconsin-Madison. His experiences range from field and laboratory work to data management, GIS analysis, process development, cartography, data visualization and aerial imagery interpretation. He has experience developing wetland and water data layers for consumer mapping applications. Since joining Cardno, Michael provides GIS support to a variety of projects by conducting spatial analysis, managing data, and maintaining web maps. He is also responsible for creating project deliverables including figures, maps, and tables from data collected in the field.

## 2 Methods

Cardno conducted a field wetland determination and delineation on July 25, 2019 to identify wetland and waterway limits within the survey area provided by Xcel Energy. Prior to the field investigation, Cardno conducted a desktop review to determine the likelihood and potential location of wetlands and waterways. Sources reviewed include:

- United States Geological Survey (USGS) Topographical Map (Figure 2)
- USDA-NRCS Web Soil Survey Database for Hennepin, MN (Figure 3)
- National Wetland Inventory (NWI) Mapping (Figure 4)
- Hennepin County Wetland Inventory (Figure 5)

These maps display wetland indicators, including hydrology and hydric soil units, within the survey area. Locations that exhibited wetland signatures from aerial imagery review were further reviewed in the field to make a final determination on wetland limits. The sole use of any of these maps to make wetland determinations is not acceptable to the regulating agencies.

The delineation of wetlands and waterways was based on the methodology described in 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 (Environmental Laboratory, 2010) as required by current policy.

#### 2.1 Survey Method

During site reconnaissance, Cardno walked the extent of the survey area with the specific intent of determining wetland and waterway limits. Data points were collected within and near potential wetland areas to document soil characteristics, evidence of hydrology, and vegetation. Wetland ditch systems that were connected through culverted access drives and contained like communities were typically grouped with a representative pair of data points.

Cardno crews surveyed all data point locations and wetland boundaries using GPS technology. Data collection settings for the GPS units use available satellites, including two DGPS (Differential Global Positioning System) satellites, to capture location data. Cardno's GPS units acquire multiple readings per data point and use the Wide Area Augmentation System (WAAS) satellite readings to increase accuracy, usually to sub-meter. While Cardno's GPS surveys provide reasonably spatial accuracy, they do not provide the same accuracy as a professional land survey.

#### 2.2 Naming Protocol

Feature naming for spatial data collected in field followed the following conventions:

- DP-xx = Data Point (may also include photos)
- PP-xx = Photo Point
- W-xx = Wetland

#### 2.3 Site Photographs

Representative site photographs were taken at wetland and upland sample point locations as well as for general documentation throughout the survey area and are included in Appendix A. These photographs represent site conditions at the time of field delineation.

#### 2.4 Delineation Data Sheets

The USACE Midwest Region routine wetland delineation data sheets used in the wetland delineation process are included in Appendix B. These forms are the written documentation of how representative data point locations meet or do not meet each of the wetland criteria. Plant species nomenclature follows the 2016 National Wetland Plant List (Lichvar et al., 2016). Soils were identified using the methods outlined in the *USDA NRCS Field Indicators of Hydric Soils in the United States*, *Version 8.1* (USDA-NRCS 2017). Wetland communities follow the naming conventions described by Eggers and Reed (1997).

## 3 Results and Discussion

#### 3.1 Desktop Review

#### 3.1.1 Recent Climatic Conditions and Precipitation Data

Recent precipitation data was compared with historic precipitation data from a 47-year dataset (1971-2018) from a nearby weather station (Minneapolis-St. Paul International Airport, MN) to determine if normal hydrologic and climatic conditions were present on-site during the delineation. When compared to the WETS Station data, the observed precipitation data from three months prior to the delineation indicated normal precipitation conditions at the time of the delineation. The antecedent hydrologic condition analysis is provided below:

		Long-to	erm rainfall r	ecords (19	71 - 2018)				
WETS Station: Minneapolis-St. Paul International Airport, MN	Month	<30%	Mean	>30%	Actual	Condition	Condition Value	Month Weight Value	Condition Value X Month Weight
3rd Prior Month	May	2.45	3.54	4.22	6.68	Wet	3	1	3
2nd Prior Month	June	3.01	4.46	5.33	2.72	Dry	1	2	2
1st Prior Month	July	2.46	3.90	4.71	6.48	Wet	3	3	9
								Sum:	14
If sum is:					Condition Valu	ies:	Condit	ions Onsite:	Normal
6 to 9	then prior pe	eriod has bee normal	n drier than		(1) Dry				
10 to 14	then prior	period has be	en normal		(2) Normal				
15 to 18	then prior per	riod has been normal	wetter than		(3) Wet				

#### 3.1.2 Topography

A review of the USGS Topographical Map (Figure 2) for the survey area shows higher elevations in the western half of the survey area that gradually slope downward as the ROW continues east.

#### 3.1.3 Soil Survey

The USDA-NRCS Web Soil Survey Maps (Figure 3) identified eight soil types, two of which are considered hydric within the survey areas. Areas where hydric soil indicators exist were given priority for data collection, however data points were collected in all areas as necessary despite existing hydric rating

if wetland hydrological or topographical characteristics were present. A summary of mapped soil types and their hydric and wetland soil indicator status are outlined in Table 3-1 below.

**Table 3-1 Mapped Soil Units** 

Symbol	Map Unit Name	Hydric Rating	Acreage	Percent of Survey Area
L37B	Angus loam, 2 to 6 percent slopes	None	0.97	26.71%
L36A	Hamel, overwash-Hamel complex, 1 to 4 percent slopes	None	0.28	7.71%
L22D2	Lester loam, morainic, 12 to 18 percent slopes, eroded	None	0.39	10.70%
L24A	Glencoe loam, depressional, 0 to 1 percent slopes	Hydric	0.25	6.85%
L50A	Houghton and Muskego soils, depressional, 0 to 1 percent slopes	Hydric	0.53	14.41%
L44A	Nessel loam, 1 to 3 percent slopes	None	0.69	18.80%
L37B	Angus loam, 2 to 6 percent slopes	None	0.40	10.85%
L22C2	Lester loam, morainic, 6 to 12 percent slopes, eroded	None	0.15	3.98%
Total			3.65	100.00%

#### 3.1.4 National Wetland Inventory

The NWI (Figure 4) was reviewed to identify potential wetlands mapped within the survey area. Areas where mapped wetland features exist were given priority; however data points were collected in all areas as necessary despite existing mapped wetland features if wetland hydrological, topographical, or vegetative characteristics were present. The NWI data identified the approximately 0.96 acres of wetlands outlined in the table below. A summary of mapped NWI wetlands is outlined in Table 3-2 below.

**Table 3-2 Mapped NWI Wetlands** 

Symbol	Wetland Type	Square Feet	Acreage	Percent of Survey Area
PEMCd	Freshwater Emergent Wetland	41,988.75	0.96	100.00%
Total		41,988.75	0.96	100.00%

#### 3.1.5 Hennepin County Wetland Inventory

The Hennepin County Wetland Inventory (HCWI) was developed from a combination of remote sensing, NRCS slide reviews. The HCWI is intended to help locate wetlands and does not classify wetlands, whereas the NWI classifies wetlands based on the Cowardin classification system. The HCWI only identifies *potential* and *probable* wetlands. Based on the HCWI map review of the survey area, both *potential* and *probable* wetlands were identified in the project area.

#### 3.2 General Site Conditions

The parcels contained within the survey area consist primarily of maintained residential lawns with wetlands connected by culverts, bordered by highway and the continuing industrial and residential landscape. Upland areas are dominated by old field grasses and goldenrod.

#### 3.3 Wetlands

Based on this field investigation and desktop review of related resource maps, it is our professional opinion that two wetland complexes that consist of two wetland communities are present within the survey area. These wetlands total 1.03 acres within the survey area. These features are further described below.

Delineated wetlands (Figure 6) were assigned community types according to the Eggers and Reed (1997) community classification system. The wetlands that were identified were generally located in lowland areas or geomorphically positioned to collect water and drain more slowly, such as in valleys bordered by

impermeable surfaces and man-made basin features. Factors in determining wetland boundaries included topography of the landscape, dominant vegetation, soil, and hydrology observation. Documentation of these features, including wetland community type, associated data points, observed hydrology and hydric soil indictors, and dominant vegetation may be found in the wetland determination forms found in Appendix B, while general descriptions for observed wetland communities are found in Table 3-3 below.

#### 3.3.1 Shallow Marsh

Approximately 0.98 acres (26% of survey area) of Shallow Marsh community was identified and was the most abundant wetland type found. Vegetation in the shallow marsh community was dominated by narrow leaved cattail (*Typha angustifolia*). Non-dominant vegetation observed included jewelweed (*Impatiens capensis*) and reed canary grass (*Phalaris arundinacea*). Dominant soils across the shallow marsh ranged from silt loam to silty clay loam. The most common hydric soils indicators for these areas were found to be Depleted Below Dark Surface (A11), Loamy Gleyed Matrix (F2), Depleted Matrix (F3), Redox Dark Surface (F6), and Redox Depressions (F8). Hydrology indicators consisted of Geomorphic Position (D2), FAC Neutral Test (D5), Surface Water (A1), High Water Table (A2), and Saturation (A3).

#### 3.3.2 Fresh Wet Meadow (Degraded)

Approximately 0.05 acres (1.4% of survey area) of wet meadow community was identified and was the second most abundant wetland type identified within the survey area. Dominant vegetation in the wet meadow community included reed canary grass (*Phalaris arundinacea*), and narrow-leaved cattail (*Typha angustifolia*). There was no non-dominant vegetation observed in the wet meadow community. The dominant soils across the wet meadow communities was clay loam. Indicators of hydric soils present included Depleted Matrix (F3). Hydrology indicators consisted of Surface Water (A1), Geomorphic Position (D2), and FAC Neutral Test (D5).

Table 3-3 Delineated Wetland Summary Ta
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Wetland ID	Wetland Type	Square Feet	Acreage	Percent of Total Wetland
W-01	Shallow Marsh	42,812.68	0.98	95.62%
W-03	Fresh (Wet) Meadow (Degraded)	289.02	0.01	0.65%
W-02	Fresh (Wet) Meadow (Degraded)	1,671.48	0.04	3.73%
Total		44,773.19	1.03	100.00%

#### 3.3.3 Naturally Problematic and Significantly Disturbed Wetlands

Based on the guidance provided in Section 5: Difficult Wetland Situations in the Midwest Region, of the Regional Supplement to the USACE Delineation Manual: Midwest Region, Version 2.0, it was determined that DP-01 of the recorded wetland data points contained naturally problematic soils despite faint or no hydric soil indicator presence. Soils in this area are being considered hydric due to strong hydrophytic vegetation and wetland hydrology characteristics. The wetland is in an area that will collect water and the water table was at the surface at the time of the survey.

## 4 Summary and Conclusion

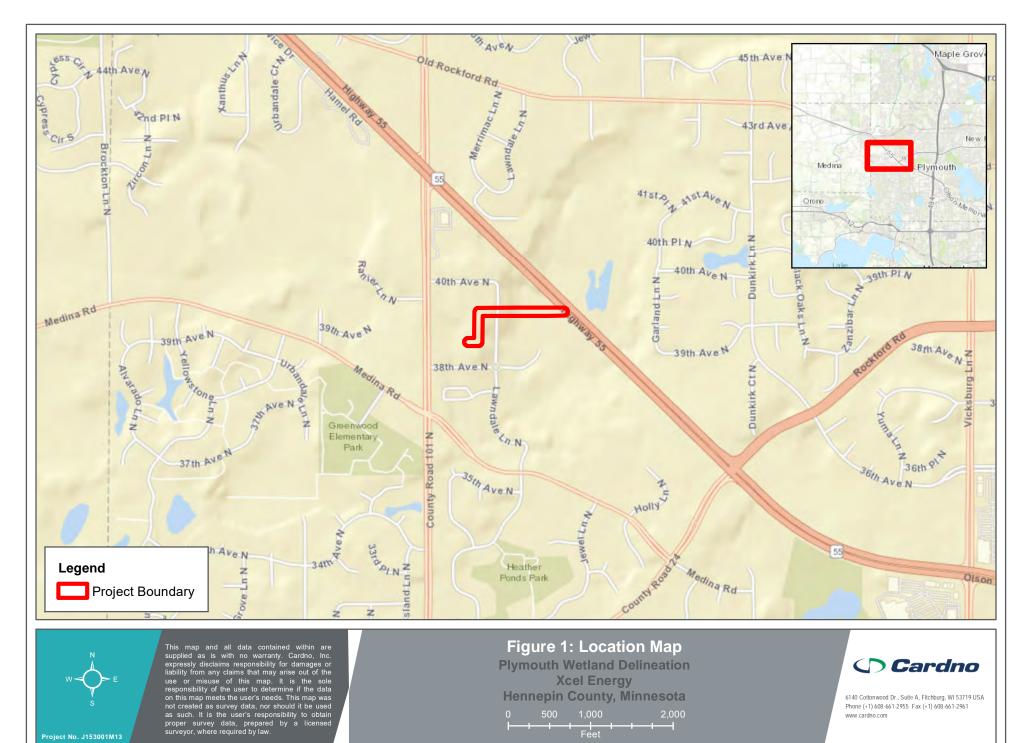
Cardno was contracted by Xcel Energy to complete a wetland delineation and classification of wetland resources between Lawndale Ln and Highway 55, then paralleling HWY 55 in Hennepin County, Minnesota. The survey included approximately 0.3 miles of ROW including historically disturbed land that total approximately 3.65 acres. Based on field investigations conducted by Cardno on July 25, 2019, and desktop review of related resource maps, it is our professional opinion that 2 wetland complexes, totaling 1.03 acres (44,773 square feet), zero waterways, and zero waterbodies are located within the existing Plymouth ROW survey area.

This report represents our best professional judgment based on our knowledge and experience. The field wetland determination and delineation was conducted within the survey area provided to Cardno. The project corridor is described generally above and is depicted on all figures that accompany this report.

The wetlands identified for this report may be subject to federal regulation under the jurisdiction of the U.S. Army Corps of Engineers, state regulation under the jurisdiction of Minnesota DNR, and local jurisdiction under the county, town, city or village.

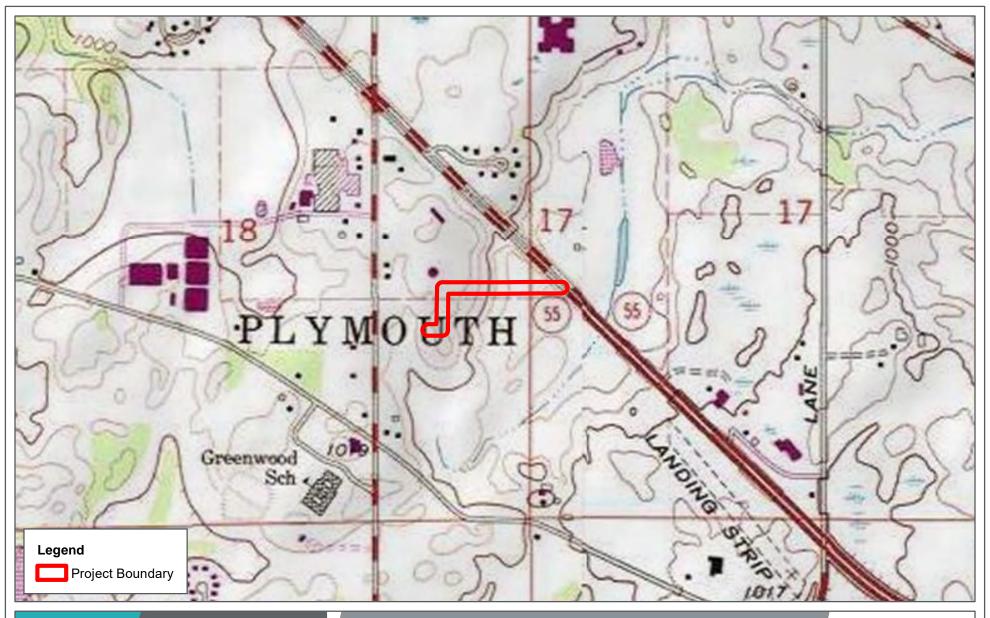
## 5 Literature Cited

- Eggers, Steve D. and Donald M. Reed. 1997. Wetland Plants and Plant Communities of Minnesota & Wisconsin. Second Edition. U.S. Army Corps of Engineers St. Paul District.
- Environmental Laboratory. 1987. *U.S. Army Corps of Engineers' Wetland Delineation Manual*, Technical Report Y-87-1, U.S. Waterways Experiment Station, Vicksburg, MS.
- Environmental Laboratory. 2012. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (version 2.0), ERDC/EL TR-12-01, U.S. Army Engineer Research and Development Center, Vicksburg, MS.
- Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. *The National Wetland Plant List:* 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X. http://www.phytoneuron.net/.
- NRCS-USDA Web Soil Survey. *Soil Survey of Hennepin County, MN*Available online at the following link: https://websoilsurvey.sc.egov.usda.gov/. Accessed July 2019 (Figure 3).
- USDA Field Office Climate Data. http://agacis.rcc-acis.org/?fips=55095. Accessed August 2019.
- USDA-NRCS. 2017. Field Indicators of Hydric Soils in the United States. A Guide for Identifying and Delineating Hydric Soils, Version 8.1. Edited by L.M. Vasilas, G.W. Hurt, and C.V. Noble.
- United States Fish and Wildlife Service (USFWS) National Wetland Inventory. Accessed August 18, 2019. Imagery date May 1980.
- United States Geological Survey (USGS) Topographical Map (Figure 2).



Date Created: 8/13/2019 Date Revised: 9/4/2019 File Path: \(\text{lcardno.corp\Global\US\Shared\CJF\NProjects\P

GIS Analyst: michael.smith





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# Figure 2: Topographic Map Plymouth Wetland Delineation Xcel Energy Hennepin County, Minnesota

0 250 500 1,000 Feet



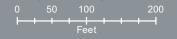




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## Figure 3: Mapped Soil Units

Plymouth Wetland Delineation Xcel Energy Hennepin County, Minnesota









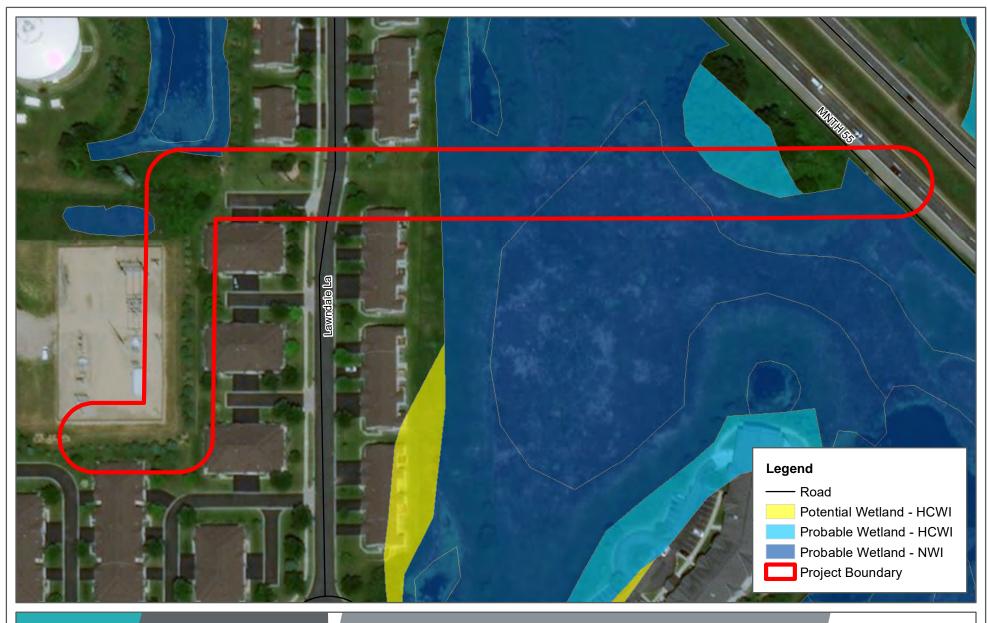
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## **Figure 4: NWI Mapped Wetlands**

Plymouth Wetland Delineation Xcel Energy Hennepin County, Minnesota









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## Figure 5: Hennepin County Wetland Inventory

Plymouth Wetland Delineation Xcel Energy Hennepin County, Minnesota









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#### **Figure 6: Wetland Delineation**

Plymouth Wetland Delineation Xcel Energy Hennepin County, Minnesota



City of Plymouth Hollydale Distribution Project Wetland Delineation Report

**APPENDIX** 



Site Photographs



Photograph DP-01 - View South



Photograph DP-02 - View South



Photograph DP-03 - View North



Photograph DP-04 - View West



Photograph DP-05 - View West



Photograph DP-06 - View West



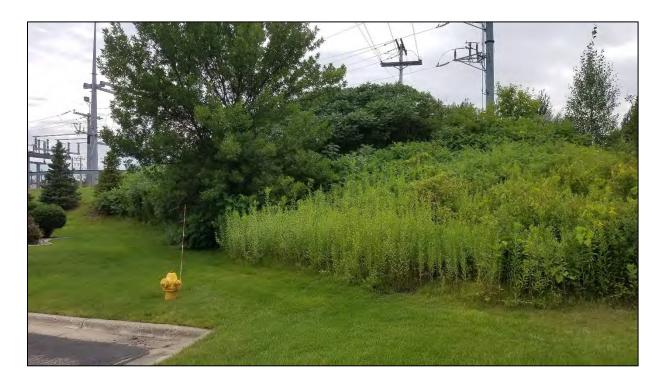
Photograph PP-01 - View East



Photograph PP-01 - View West



Photograph PP-02 - View East



Photograph PP-02 - View West-Southwest



Photograph PP-03 - View Northeast



Photograph PP-03 - View Northwest



Photograph PP-03 - View Southwest



Photograph PP-04 - View North



Photograph PP-04 - View South

City of Plymouth Hollydale Distribution Project Wetland Delineation Report

**APPENDIX** 

В

Wetland Delineation Forms – Midwest Region

## WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site:	Plymouth Wetland I	Delineation					City/County: Hennepin County Sampling Date: 7/25/2019				
Applicant/Owner:	Xcel Energy					State:	MN	Sampling Point:		OP-01	
Investigator(s):	W. Taylor; S. McClu	ısky						Section, Township, Range: TWP 118N, RNG 22W, SEC 18			
Landform (hillslope	e, terrace, etc.):		Toeslope					Loc	cal relief (concave, conve	x, none): concave	
Slope (%):	0-1%	Lat:		45.0273			Long:		93.50329	Datum:	NAD83
Soil Map Unit Nam	e: L22D2-Lester loam,	morainic, 12	2 to 18 percent s	lopes, eroded					N	IWI classification:	none
Are climatic / hydro	ologic conditions on the	e site typical	for this time of ye	ear?			Yes_	X No	(If no, explain in F	≀emarks.)	
Are Vegetation	N	, Soil	N	, or Hydrology	N	significantly distu	ırbed?	Are "Norm	al Circumstances" preser	nt? Yes	NoX
Are Vegetation	N	, Soil	Y	, or Hydrology	N	naturally problem	natic?	(If needed,	explain any answers in I	Remarks.)	
SUMMARY OF	FINDINGS Att	ach site r	map showing	g sampling point lo	cations, tr	ransects, imp	ortant feature	es, etc.			
	egetation Present?	?		Yes x	No	o		Sampled Ar			
Hydric Soil Pre				Yes x		0	within	a Wetland?	`	Yes <u>x</u> No	
Wetland Hydro	ology Present?			Yes x	No	0					
impermeable surfa	ces.			ohytic vegetation and hydro	ology. Soils a	re dark but lack f	eatures to give hyd	dric rating. Point	taken within cattail mars	h affected by runoff a	nd surrounding
VEGETATION	Use scientific	names of	plants.						1		
Tree Stratum (Plot	t size: 30' radius)					Absolute % Cover	Dominant Species?	Indicator	Dominance Test wor	kshoot:	
1	1 3126. 30 Taulus)					% Cover	Species?	Status	Dominance rest wor	ASHEEL.	
''									Number of Dominant S	Species	
3									That Are OBL, FACW,		1 (A)
4.									1		( )
5.									Total Number of Domi	inant	
							= Total Cover		Species Across All Str		1 (B)
									1		
Sapling/Shrub Stra	atum (Plot size: 15' rac	lius)						-	Percent of Dominant S	Species	
1.									That Are OBL, FACW,	, or FAC:	100% (A/B)
2.											
3.											
4.									Prevalence Index wor	ksheet:	
5.											
							= Total Cover		Total % Cove	er of:	Multiply by:
									That Are OBL, FACW,	or FAC:	A/B
Herb Stratum (Plo	t size: 5' radius)			<u> </u>					OBL species	91% x1 =	0.91
1. Typha angustit	folia					90%	Yes	OBL	FACW species	15% x2 =	0.3
2. Impatiens cape						10%	No	FACW	FAC species	1% x3 =	0.03
3. Phalaris arund						5%	No	FACW	FACU species	x4 =	
4. Solanum dulca						1%	No	FAC	UPL species	x5 =	
5. Persicaria amp	ohibia					1%	No	OBL	Column Totals:	1.07 (A)	(B)
6						<u> </u>					
7						<u> </u>			Prevalence	e Index = B/A =	1.16
8						·					
9						·			Undrankatia Vanatati	ion Indiantana	
10.						·			Hydrophytic Vegetati	on indicators:	
11.									V 1 Bonid Toot	for Hydrophytic Veget	tation
12. 13.									X 2-Dominance		lation
14.						· ——			x 3-Prevalence		
15.						<u> </u>				ical Adaptations <sup>1</sup> (Prov	vide supporting
16.						· ——				arks or on a separate	
17.						· ——				Hydrophytic Vegetatio	
18.						·	-			, a. op, no rogotano	(=/\frac{-/\frac{1}{2}}{2}
19.						·	-		<sup>1</sup> Indicators of hydric so	oil and wetland hydrold	pav must
20.									be present, unless dis	•	
						107%	= Total Cover		be present, unless uis	tarboa or problematic.	•
					·	101 /0	- rotal CUVEI				
Woody Vine Stratu	ım (Plot size: 30' radi	ıs)							Hydrophytic		
1	(1 131 3120. 30 Tauli	,							Vegetation		
2.									Present?	Yes X No	
<del>-</del>							= Total Cover			.00	
Remarks: (Include	photo numbers here	or on a sepai	ate sheet.)						•		
	. F S. S. Maribolo Hole (	5.1 a oopal									

Profile Descri	ption: (Describe to	the depth nee	ded to document the in	dicator or cor	nfirm the al	bsence of	f indicators.)			
Depth	Matrix			ox Features			,			
inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Rer	Remarks	
0-8"	10YR 2/1	100	, , , , , , , , , , , , , , , , , , , ,				Silt Loam			
8-34"	10YR 2/1	95	10YR 6/1	5	D .	М	Silt Loam			
34-36"	10YR 2/1	100					Silty Clay			
0+00	1011(2/1				·		Only Olay			
			_							
					·					
Type: C=Co	ncentration, D=Deple	tion, RM=Redu	uced Matrix, CS=Covered	d or Coated Sa	and Grains.	<sup>2</sup> Locati	on: PL=Pore Lining	, M=Matrix.		
ydric Soil Inc	dicators³:					Test	Indicators of Hydr	ic Soils:		
Histosol	(A1)		Sandy Gleyed	d Matrix (S4)			Iron-Manga	nese Masses (F12	2)	
	ipedon (A2)		Sandy Redox					w Dark Surface (F	22)	
Black His			Stripped Mati	, ,			Other (Expl	ain in Remarks)		
	n Sulfide (A4)		Dark Surface	, ,						
	Layers (A5)			y Mineral (F1)						
2 cm Mu	CK (A10) Below Dark Surface	(111)	Loamy Gleye Depleted Mat							
	rk Surface (A12)	(A11)	Redox Dark S	, ,			<sup>3</sup> The hydric soil in	dicators have hee	n undated to	
ITHICK Da	, ,			, ,		<sup>3</sup> The hydric soil indicators have been updated to				
Sandy M	uckv Mineral (S1)		Debleted Dai	'k Surface (F7)	)	comply with the Field Indicators of Hydric Soils in the United States, Version 8.0, 2016.				
5 cm Mu	ucky Mineral (S1) cky Peat or Peat (S3)		Redox Depre	k Surface (F7) essions (F8)	)				-	
5 cm Mu	. , ,				)				-	
5 cm Muc Restrictive La Type: Depth (inc	cky Peat or Peat (S3)  yer (if observed):  ches):			essions (F8)		<u> </u>	in the United S Soil Present?	Yes X	No	
5 cm Mucestrictive La Type: Depth (incemarks: Dil lacks featu	cky Peat or Peat (S3)  yer (if observed):  ches):  res for typical hydric s		Redox Depre	essions (F8)			in the United S Soil Present?	Yes X	No	
5 cm Muclestrictive La Type: Depth (incemarks: Dil lacks featu	cky Peat or Peat (S3) yer (if observed): ches): res for typical hydric s		Redox Depre	essions (F8)			in the United S Soil Present?	Yes X	No	
5 cm Muclestrictive La Type: Depth (incemarks: Dil lacks featu	cky Peat or Peat (S3)  yer (if observed):  ches):  res for typical hydric s  GY  ology Indicators:	soil category, b	Redox Depre	essions (F8)			in the United S Soil Present?  d hydrology and hyd	Yes X	No	
5 cm Muc Restrictive La Type: Depth (incemarks: oil lacks featu  IYDROLO Vetland Hydro Primary Indica	cky Peat or Peat (S3) yer (if observed): ches): res for typical hydric s GY ology Indicators: tors (minimum of one	soil category, b	Redox Depre	d community fe	eatures stro		in the United S Soil Present?  d hydrology and hyd Secondary Indica	Yes X rophytic vegetation	No	
5 cm Muc Restrictive La Type: Depth (incemarks: Dil lacks featu  IYDROLO Vetland Hydro Primary Indica Surface \	cky Peat or Peat (S3) yer (if observed): ches): res for typical hydric s GY ology Indicators: tors (minimum of one Water (A1)	soil category, b	Redox Depre	d community fe	eatures stro		in the United S  Soil Present?  d hydrology and hyd  Secondary Indica Surface Soi	Yes X rophytic vegetation tors (minimum of total Cracks (B6)	No	
5 cm Muclestrictive La Type: Depth (incemarks: Dil lacks featu    YDROLO   Vetland Hydro   Surface     X High War	cky Peat or Peat (S3) yer (if observed): ches): res for typical hydric s GY ology Indicators: tors (minimum of one Water (A1) ter Table (A2)	soil category, b	Redox Depre	d community fed Leaves (B9)	eatures stro		in the United S  Soil Present?  d hydrology and hyd  Secondary Indica  Surface Soi  Drainage Pa	Yes X rophytic vegetation tors (minimum of to I Cracks (B6) atterns (B10)	No	
5 cm Mucestrictive La Type: Depth (incentary lacks feature)  Primary Indica Surface V X High Wat X Saturatio	cky Peat or Peat (S3) yer (if observed): ches):  res for typical hydric s  GY ology Indicators: tors (minimum of one Water (A1) ter Table (A2) in (A3)	soil category, b	neck all that apply) Water-Staine Aquatic Faun True Aquatic	d community feed Leaves (B9) a (B13) Plants (B14)	eatures stro		in the United S  Soil Present?  d hydrology and hyd  Secondary Indica Surface Soi Drainage Pa Dry-Season	Yes X rophytic vegetation tors (minimum of to 1 Cracks (B6) atterns (B10) Water Table (C2)	No	
5 cm Muc estrictive La Type: Depth (incentary location)  YPDROLO Vetland Hydro Primary Indica Surface V X High Wat X Saturatio Water Ma	cky Peat or Peat (S3) yer (if observed): ches):  res for typical hydric s  GY ology Indicators: tors (minimum of one Water (A1) ter Table (A2) in (A3)	soil category, b	neck all that apply) Water-Staine Aquatic Faun True Aquatic Hydrogen Su	d community fed Leaves (B9)	eatures stro	ng wetland	in the United S  Soil Present?  d hydrology and hyd  Secondary Indica Surface Soi Drainage Pa Dry-Season Crayfish Bu	Yes X rophytic vegetation tors (minimum of to 1 Cracks (B6) atterns (B10) Water Table (C2)	No n. D wo required)	
5 cm Muc  estrictive La Type: Depth (incemarks: Dil lacks featu   YDROLO  Vetland Hydro  Surface V  X High War  X Saturatio Water Ma  Sedimen	GY  ology Indicators: tors (minimum of one Water (A1) ter Table (A2) in (A3) arks (B1)	soil category, b	neck all that apply) Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz	d community feed Leaves (B9) a (B13) Plants (B14) Ifide Odor (C1)	eatures stro	ng wetland	soil Present?  Soil Present?  d hydrology and hyd  Secondary Indica Surface Soi Drainage Pa Dry-Season Crayfish Bu Saturation \	Yes X  Trophytic vegetation  Yes (minimum of the Core (minimum of the Core (B6))  Atterns (B10)  Water Table (C2)  Trows (C8)	No n. D wo required)	
5 cm Mucestrictive La Type: Depth (incentary location)  YDROLO  Yetland Hydro Surface V X High War X Saturatio Water Ma Sedimen Drift Dep	cky Peat or Peat (S3)  yer (if observed):  ches):  res for typical hydric s  tors (minimum of one Water (A1)  ter Table (A2)  n (A3)  arks (B1)  t Deposits (B2)	soil category, b	neck all that apply) Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz	d community feed Leaves (B9) a (B13) Plants (B14) Ifide Odor (C1) zospheres on I	eatures stroi	ng wetland	Soil Present?  Soil Present?  d hydrology and hyd  Secondary Indica Surface Soi Drainage Pa Dry-Season Crayfish Bu Saturation N	Yes X  Trophytic vegetation  Fors (minimum of the content of the c	No n. D wo required)	
5 cm Muclestrictive La Type: Depth (inclemarks: Dil lacks featu  Primary Indica Surface V X High War X Saturatio Water Ma Sedimen Drift Dep Algal Ma	cky Peat or Peat (S3) yer (if observed): ches): ches): res for typical hydric s res for typical hydric s tors (minimum of one Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3)	soil category, b	neck all that apply) Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz	d Leaves (B9) a (B13) Plants (B14) Ifide Odor (C1) zospheres on I Reduced Iron (	eatures stroi	ng wetland	Soil Present?  Soil Present?  d hydrology and hyd  Secondary Indica Surface Soi Drainage Pa Dry-Season Crayfish Bu Saturation N	Yes X  Trophytic vegetation  A Cracks (B6)  Atterns (B10)  Water Table (C2)  Trows (C8)  Visible on Aerial In  Stressed Plants (D2)  C Position (D2)	No n. D wo required)	
5 cm Mucestrictive La Type: Depth (incentary Indicator) Evitand Hydro Surface V X High Water Mater M	cky Peat or Peat (S3) yer (if observed):  ches):  res for typical hydric s  for (A1)  for Table (A2) in (A3) for (A3) for (A3) for (A3) for (B4)  for Crust (B4)	soil category, b	neck all that apply)  Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz Presence of I	d Leaves (B9) a (B13) Plants (B14) Ifide Odor (C1) zospheres on I Reduced Iron ( Reduction in Ti	eatures stroi	ng wetland	Soil Present?  Soil Present?  d hydrology and hyd  Secondary Indica Surface Soi Drainage Present Dry-Season Crayfish Bu Saturation V Stunted or S X Geomorphic	Yes X  Trophytic vegetation  A Cracks (B6)  Atterns (B10)  Water Table (C2)  Trows (C8)  Visible on Aerial In  Stressed Plants (D2)  C Position (D2)	No n. D wo required)	
5 cm Mucestrictive La Type: Depth (incestrictive La Type: Depth (incestrictive La Type: Depth (incestrictive La Type: Depth (incestrictive La Example La E	GY  ology Indicators: tors (minimum of one Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5)	soil category, b	Redox Depre	d Leaves (B9) a (B13) Plants (B14) Ifide Odor (C1) zospheres on I Reduced Iron ( Reduction in Ti	eatures stroi Living Roots (C4) illed Soils (C	ng wetland	Soil Present?  Soil Present?  d hydrology and hyd  Secondary Indica Surface Soi Drainage Present Dry-Season Crayfish Bu Saturation V Stunted or S X Geomorphic	Yes X  Trophytic vegetation  A Cracks (B6)  Atterns (B10)  Water Table (C2)  Trows (C8)  Visible on Aerial In  Stressed Plants (D2)  C Position (D2)	No n. D wo required)	
5 cm Muc  Restrictive La  Type: Depth (inc emarks: oil lacks featu  Primary Indica Surface V X High Wat X Saturatio Water Mater Mate	GY  ology Indicators: tors (minimum of one Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Im	soil category, b	Redox Depre	d Community feed to Community feed Leaves (B9) at (B13) Plants (B14) Ifide Odor (C1) Zospheres on I Reduced Iron ( Reduction in Ti Lurface (C7)	eatures stroi Living Roots (C4) illed Soils (C	ng wetland	Soil Present?  Soil Present?  d hydrology and hyd  Secondary Indica Surface Soi Drainage Present Dry-Season Crayfish Bu Saturation V Stunted or S X Geomorphic	Yes X  Trophytic vegetation  A Cracks (B6)  Atterns (B10)  Water Table (C2)  Trows (C8)  Visible on Aerial In  Stressed Plants (D2)  C Position (D2)	No n. D wo required)	
5 cm Muc  Restrictive La Type: Depth (inc emarks: oil lacks featu  IYDROLO Vetland Hydro Primary Indica Surface V X High Wat X Saturatio Water Mater M	cky Peat or Peat (S3)  yer (if observed):  ches):  res for typical hydric s  res for typical hydric s  tors (minimum of one Water (A1)  ter Table (A2)  in (A3)  arks (B1)  t Deposits (B2)  osits (B3)  t or Crust (B4)  osits (B5)  in Visible on Aerial Im  Vegetated Concave s  tions:	e is required: chagery (B7) Surface (B8)	neck all that apply)  Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz Presence of I Recent Iron F Thin Muck Su Gauge or We Other (Explai	d Leaves (B9) a (B13) Plants (B14) Ifide Odor (C1) zospheres on I Reduced Iron ( Reduction in Ti urface (C7) ell Data (D9) n in Remarks) : N/A	eatures stroi Living Roots (C4) illed Soils (C	ng wetland	Soil Present?  Soil Present?  d hydrology and hyd  Secondary Indica Surface Soi Drainage Present Dry-Season Crayfish Bu Saturation V Stunted or S X Geomorphic	Yes X  Trophytic vegetation  A Cracks (B6)  Atterns (B10)  Water Table (C2)  Trows (C8)  Visible on Aerial In  Stressed Plants (D2)  C Position (D2)	No n. D wo required)	
5 cm Muc Restrictive La Type: Depth (inc emarks: oil lacks featu  IYDROLO Vetland Hydro Primary Indica Surface V X High War X Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Depo Inundatic Sparsely Field Observa Surface Water Water Table P	cky Peat or Peat (S3) yer (if observed):  ches):  res for typical hydric s  res for typical hydric s  tors (minimum of one Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Im Vegetated Concave s  tions: r Present?	e is required: chagery (B7) Surface (B8)  Yes No Yes No	neck all that apply)  Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz Presence of I Recent Iron F Thin Muck Su Gauge or We Other (Explai	d Leaves (B9) a (B13) Plants (B14) Ifide Odor (C1) zospheres on I Reduced Iron ( Reduction in Ti urface (C7) Ill Data (D9) n in Remarks)  : N/A Surface	eatures stroi Living Roots (C4) illed Soils (C	s (C3)	Soil Present?  Soil Present?  d hydrology and hyd  Secondary Indica Surface Soi Drainage Preseason Crayfish Bu Saturation N Stunted or S X Geomorphic X FAC-Neutra	Yes X  Trophytic vegetation  All Cracks (B6)  Atterns (B10)  Water Table (C2)  Trows (C8)  Visible on Aerial In  Stressed Plants (D  C Position (D2)  I Test (D5)	No No no Description No no Description No No no Description No no Description No	
5 cm Muc Restrictive La Type: Depth (ind emarks: oil lacks featu  IYDROLO Vetland Hydro Primary Indica Surface V X High Wat X Saturatio Water Mater Ma	GY  ology Indicators: tors (minimum of one Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Im Vegetated Concave of the Concave of t	e is required: chagery (B7) Surface (B8)	neck all that apply)  Water-Staine Aquatic Faun True Aquatic Hydrogen Su Oxidized Rhiz Presence of I Recent Iron F Thin Muck Su Gauge or We Other (Explai	d Leaves (B9) a (B13) Plants (B14) Ifide Odor (C1) zospheres on I Reduced Iron ( Reduction in Ti urface (C7) Ill Data (D9) n in Remarks)  : N/A Surface	eatures stroi Living Roots (C4) illed Soils (C	s (C3)	Soil Present?  Soil Present?  d hydrology and hyd  Secondary Indica Surface Soi Drainage Present Dry-Season Crayfish Bu Saturation V Stunted or S X Geomorphic	Yes X  Trophytic vegetation  A Cracks (B6)  Atterns (B10)  Water Table (C2)  Trows (C8)  Visible on Aerial In  Stressed Plants (D2)  C Position (D2)	No No no Description No	

## WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site:	Plymouth Wetland Delineation					City/County:	Hennepin			Sampling Date: <u>7/25/2019</u>				
Applicant/Owner:	Xcel Energy							State:	: <u>MN</u>	Sampling Poin	t:	DF	P-02	
Investigator(s):	ator(s): W. Taylor; S. McClusky							Section, Townsh	nship, Range: TWP 118N, RNG 22W, SEC 18					
Landform (hillslope	e, terrace, etc.):		Backslope						Loc	cal relief (concave, co	nvex, none): c	onvex		
Slope (%):	3-5%	Lat:		45.0273				_ong:		-93.5034		Datum: N	NAD83	
Soil Map Unit Name	e: L22D2-Lester loam,	morainic, 12	2 to 18 percent s	lopes, eroded							NWI classific	cation: <u>r</u>	none	
Are climatic / hydro	ologic conditions on the	site typical	for this time of ye					Yes_	· ·	(If no, explain				
Are Vegetation	N	, Soil	N	, or Hydrology	N	significantly				al Circumstances" pro		Yes _	X No	
Are Vegetation	N	, Soil	N	, or Hydrology	N	naturally pr				, explain any answers	in Remarks.)			
			nap showing	g sampling point lo	cations		impor							
	egetation Present?	•		Yes x		No			Sampled Ar					
Hydric Soil Pre Wetland Hydro				Yes X Yes		No		within	a Wetland?	•	Yes	NO_	X	
	- Teschi:			103										
Remarks: Backslope above c	attail marsh. Hydrophy	tic vegetatio	n creeps far ups	lope but area lacks hydro	logy.									
					•									
VEGETATION	Use scientific	names of	plants.											
						Absolu		Dominant	Indicator					
Tree Stratum (Plot	t size: 30' radius)					% Cov	er	Species?	Status	Dominance Test	worksheet:			
1														
2										Number of Domina				(4)
3										That Are OBL, FA	JVV, or FAC:		2	(A)
4										Total Number of D	lominant			
5							—	otal Cover		Species Across Al			3	(B)
							= 1	otal Covel		Species Across Ar	. Siraia.			<sup>(B)</sup>
Sapling/Shrub Stra	tum (Plot size: 15' rad	ius)								Percent of Domina	ent Species			
1.	(* 101 01 <u>2</u> 01 10 100									That Are OBL, FA	·	(	67%	(A/B)
2.										,	, , , , , ,			
3.														
4.										Prevalence Index	worksheet:			
5.														
							= T	otal Cover		Total % C	over of:		Multiply by	<i>r</i> :
										That Are OBL, FAC	W, or FAC:			A/B
Herb Stratum (Plot				<u> </u>						OBL species	20%	x1 =	0.2	
1. Solidago canad						30%		Yes	FACU	FACW species	55%	x2 =	1.1	
2. Phalaris arundi						25%		Yes	FACW	FAC species		x3 =		
3. Impatiens cape						25%		Yes	FACW	FACU species	45%	x4 = _	1.8	
4. Typha angustif						15%		No	OBL	UPL species	4.00	x5 = _		(D)
Parthenocissus     Cirsium arvens						<u>10%</u> 5%		No No	FACU FACU	Column Totals:	1.20	(A)	3.1	(B)
7. Urtica dioica						5%		No	FACW	Preval	ence Index = B	R/Λ —	2.58	
8. Persicaria amp	phihia					5%		No	OBL	1 Toval	SHOO INGEX = D	"/A =	2.50	
9.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,							110						
10.										Hydrophytic Vege	etation Indicat	ors:		
11.														
12.										1-Rapid T	Test for Hydrop	hytic Vegeta	ation	
13.										X 2-Domina	ance Test is >5	0%		
14.										3-Prevale	ence Index is ≤3	3.0 <sup>1</sup>		
15.										4-Morpho	logical Adaptat	tions <sup>1</sup> (Provid	de support	ing
16.										data in R	temarks or on a	a separate sl	heet)	
17										Problema	atic Hydrophytic	c Vegetation	ı <sup>1</sup> (Explain)	)
18														
19.										<sup>1</sup> Indicators of hydri	c soil and wetla	and hydrolog	jy must	
20.										be present, unless	disturbed or p	roblematic.		
						120%	5 = T	otal Cover						
Woody Vine Stratu	m (Plot size: 30' radiu	ıs)								Hydrophytic				
1										Vegetation				
2										Present?	Yes_	X No_		
							= T	otal Cover						
										1				
remarks: (Include	photo numbers here o	on a sepai	ate sneet.)											

rofile Descri	ption: (Describe to t	he depth need	led to document the i	indicator or c	onfirm the a	bsence o	f indicators.)	
Depth	Matrix			dox Features			,	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-9"	10YR 3/2	95	10YR 5/6	5	С	М	Silt Loam	
9-19"	10YR 5/3	93	7.5YR 4/6	7	С	М	Silty Clay Loam	
19-30"	10YR 2/1	100					Silty Clay	
• •	ncentration, D=Deplet	ion, RM=Redu	ced Matrix, CS=Cover	ed or Coated	Sand Grains		ion: PL=Pore Lin	•
lydric Soil Inc						Tes	t Indicators of H	-
Histosol	` '			red Matrix (S4	)			nganese Masses (F12)
Histic Ep Black His	pipedon (A2)		Sandy Red	, ,				allow Dark Surface (F22) xplain in Remarks)
	n Sulfide (A4)		Dark Surface	` '			Other (E	xpiain in Remarks)
	Layers (A5)			ky Mineral (F	1)			
2 cm Mu				ed Matrix (F2				
Depleted	l Below Dark Surface (	(A11)	Depleted M	atrix (F3)				
	rk Surface (A12)		Surface (F6)			•	il indicators have been updated to	
	ucky Mineral (S1)			ark Surface (F	7)			the Field Indicators of Hydric Soils
5 cm Mu	cky Peat or Peat (S3)		Redox Dep	ressions (F8)			in the Unite	ed States, Version 8.0, 2016.
	yer (if observed):							
Type: Depth (inc	ches):					Hydric	Soil Present?	Yes X No
	ches):					Hydric	Soil Present?	Yes <u>X</u> No
Depth (inc						Hydric	Soil Present?	Yes X No
Depth (inc						Hydric	Soil Present?	Yes X No
Depth (included)  emarks:  IYDROLO  Vetland Hydro	OGY ology Indicators:					Hydric		
Depth (inception of the property of the proper	OGY ology Indicators: ators (minimum of one	is required: ch			0)	Hydric	Secondary Ind	icators (minimum of two required)
Depth (incomercial property)  YDROLO  Vetland Hydro  Primary Indication  Surface \( \)	ology Indicators: ators (minimum of one Water (A1)	is required: ch	Water-Stair	ned Leaves (B	9)	Hydric	Secondary Ind	icators (minimum of two required) Soil Cracks (B6)
Depth (incomercial property)  YDROLO  Vetland Hydro  Primary Indica  Surface V  High War	ology Indicators: ators (minimum of one Water (A1) ter Table (A2)	is required: ch	Water-Stair Aquatic Fau	una (B13)	,	Hydric	Secondary Ind Surface Drainage	icators (minimum of two required) Soil Cracks (B6) Patterns (B10)
Depth (inception of the content of t	ology Indicators: utors (minimum of one Water (A1) ter Table (A2) on (A3)	is required: ch	Water-Stair Aquatic Fau True Aquati	una (B13) ic Plants (B14	)	Hydric	Secondary Ind Surface Drainage	icators (minimum of two required) Soil Cracks (B6) Patterns (B10) son Water Table (C2)
Primary Indica Surface \( \) High Water Ma	ology Indicators: ators (minimum of one Water (A1) ter Table (A2)	is required: ch	Water-Stair Aquatic Fau True Aquati Hydrogen S	una (B13)	) D1)		Secondary Ind Surface Drainage Dry-Sea	icators (minimum of two required) Soil Cracks (B6) Patterns (B10)
Depth (incept and property)  Primary Indication Surface V High War Saturation Water Ma Sedimen	ology Indicators: ators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1)	is required: ch	Water-Stair Aquatic Fat True Aquati Hydrogen S Oxidized RI	una (B13) ic Plants (B14 Sulfide Odor (C	) C1) n Living Roo		Secondary Ind Surface Drainage Dry-Sea Crayfish Saturatio	icators (minimum of two required) Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8)
Depth (inception of the property of the period of the peri	ology Indicators: ators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2)	is required: ch	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized RI Presence o	una (B13) ic Plants (B14 Sulfide Odor (C nizospheres o	) C1) n Living Roo n (C4)	ts (C3)	Secondary Ind Surface Drainage Dry-Sea Crayfish Saturatio	icators (minimum of two required) Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) On Visible on Aerial Imagery (C9)
Depth (incemarks:  IYDROLO  Vetland Hydro  Primary Indica  Surface N  High War  Saturatio  Water Ma  Sedimen  Drift Dep  Algal Ma	ology Indicators: ators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) assis (B3)	is required: ch	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized RI Presence o Recent Iron	una (B13) ic Plants (B14 Gulfide Odor (C nizospheres o f Reduced Iro	) C1) n Living Roo n (C4)	ts (C3)	Secondary Ind Surface Drainage Dry-Sea Crayfish Saturatio Stunted Geomor	icators (minimum of two required) Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) On Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Depth (incomplete in the complete in the compl	ology Indicators: ators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) t or Crust (B4)	agery (B7)	Water-Stair Aquatic Fat True Aquati Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S	una (B13) ic Plants (B14 culfide Odor (C nizospheres o f Reduced Iro Reduction in	) C1) n Living Roo n (C4) Tilled Soils (	ts (C3)	Secondary Ind Surface Drainage Dry-Sea Crayfish Saturatio Stunted Geomor	icators (minimum of two required) Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) On Visible on Aerial Imagery (C9) or Stressed Plants (D1) Onic Position (D2)
Depth (incomplete incomplete inco	ology Indicators: ators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) on Visible on Aerial Image Vegetated Concave Sections:	agery (B7) Surface (B8)	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck Gauge or W Other (Expl	una (B13) ic Plants (B14 Sulfide Odor (C nizospheres o f Reduced Iro Reduction in Surface (C7) /ell Data (D9) ain in Remark	) C1) n Living Roo n (C4) Tilled Soils (	ts (C3)	Secondary Ind Surface Drainage Dry-Sea Crayfish Saturatio Stunted Geomor	icators (minimum of two required) Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) On Visible on Aerial Imagery (C9) or Stressed Plants (D1) Onic Position (D2)
Depth (indexed)  IYDROLO  Vetland Hydro  Primary Indica  Surface V  High Wat  Saturatio  Water Mater M	ology Indicators: ators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial Image Vegetated Concave Sections: ar Present?	agery (B7) Surface (B8) Yes No _	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S Gauge or W Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (Conizospheres of Reduced Iron Reduction in Surface (C7) Vell Data (D9) ain in Remark s): N/A	) C1) n Living Roo n (C4) Tilled Soils (	ts (C3)	Secondary Ind Surface Drainage Dry-Sea Crayfish Saturatio Stunted Geomor	icators (minimum of two required) Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) On Visible on Aerial Imagery (C9) or Stressed Plants (D1) Onic Position (D2)
Depth (incomplete incomplete inco	ology Indicators: ators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) on Visible on Aerial Ima Vegetated Concave S ations: r Present?	agery (B7) Surface (B8)	Water-Stair Aquatic Fat True Aquatic Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S Gauge or W Other (Expl	una (B13) ic Plants (B14) Gulfide Odor (Conizospheres of Reduced Iron Reduction in Surface (C7) I/ell Data (D9) ain in Remark S): N/A S): 24"	) C1) n Living Roo n (C4) Tilled Soils (	ts (C3)	Secondary Ind Surface Drainage Dry-Sea Crayfish Saturatio Stunted Geomor	icators (minimum of two required) Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) On Visible on Aerial Imagery (C9) or Stressed Plants (D1) Onic Position (D2)

Remarks:

## WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site:	te: Plymouth Wetland Delineation					City/Co	City/County: Plymouth, Hennepin County Sampling Date: 7/2					
Applicant/Owner:	Xcel Energy						S	tate: MN	_ Sampling Poin	t:	DP-	03
Investigator(s):	stigator(s): W. Taylor; S. McClusky							Section, Town	ship, Range: TWP 118	N, RNG 22W,	SEC 18	
Landform (hillslope	e, terrace, etc.):	-	Backslope						ocal relief (concave, co	nvex, none): <u>c</u>	onvex	
Slope (%):	2-3%	Lat:		45.027	2		Long:		-93.50489		Datum: NA	\D83
Soil Map Unit Name	e: L37B- Angus Ioam,	2 to 6 percen	t slopes							NWI classifi	cation: no	ne
Are climatic / hydro	ologic conditions on the	site typical for	or this time of ye	ar?				<u> </u>	o (If no, explain			
Are Vegetation	N	, Soil	N	, or Hydrology		significantly o			mal Circumstances" pre		Yes X	<u>No</u>
Are Vegetation	N	, Soil	N	, or Hydrology	N	naturally prob			ed, explain any answers	in Remarks.)		
SUMMARY OF	FINDINGS Att	ach site m	nap showing	sampling point		s, transects, i	mportant fea	tures, etc.				
	egetation Present?	•		Yes x	_	No		he Sampled A				
Hydric Soil Pre Wetland Hydro				Yes Yes	_	No x No x	wit	hin a Wetland	l?	Yes	No	X
	logy Fresent!					NO A	_					
Remarks: Community is on w	hat appears to be a m	an-made berr	m above housinç	g development. Area is	mowed ac	ljacent to the natura	ally vegetated sh	rub community the	point was taken within.			
VEGETATION	Use scientific	names of	nlants									
	220 20101111110		p.w.1101			Absolute	Dominan	t Indicator				
Tree Stratum (Plot	t size: 30' radius)					% Cover	Species	Status	Dominance Test v	vorksheet:		
1									_			
2									Number of Domina	nt Species		
3									That Are OBL, FAC	CW, or FAC:	2	2 (A)
4									_			
5									Total Number of De			
							= Total Cove	ſ	Species Across All	Strata:	3	(B)
Carling/Church Ctra	t (Dist size: 45) as a	U \							_			
	tum (Plot size: 15' rac	iius)				00%	Voo	LIDI	Percent of Domina	•	67	70/ (A/D)
Rhus glabra     Celtis occident	to lin					90%	Yes Yes	UPL FAC	That Are OBL, FAC	SVV, OF FAC:	67	(A/B)
3.	alis					30%	162		-			
4.							_		Prevalence Index v	vorksheet:		
5.									-   Tevalence index	WOI KSHEEL.		
						120%	= Total Cove		─ Total % C	over of:	Mı	ultiply by:
							_		That Are OBL, FAC			A/B
Herb Stratum (Plo	t size: 5' radius)								OBL species		x1 =	
1. Poa pratensis				_		30%	Yes	FAC	FACW species	5%	x2 =	0.1
2. Phalaris arund	inacea					5%	No	FACW	FAC species	60%	x3 =	1.8
3. Solidago canad	densis					5%	No	FACU	FACU species	5%	x4 =	0.2
4									UPL species	90%	x5 =	4.5
5									Column Totals:	1.60	(A)	6.6 (B)
6									_			
7									Prevale	ence Index = B	3/A =	4.13
8									_			
9									_	4-41 b		
10.									<ul><li>Hydrophytic Vege</li></ul>	tation indicat	ors:	
11.									- 1 Ponid T	oot for Undron	hytic Vegetation	20
12. 13.							<u> </u>		<b>X</b> 2-Domina		-	ווכ
14.							_		_	nce Test is >3 nce Index is ≤		
15.									- I <del></del>		tions <sup>1</sup> (Provide	supporting
16.									<del>-  </del>		a separate she	
17.									_		c Vegetation <sup>1</sup>	
18.									-			
19.									<ul> <li>Indicators of hydric</li> </ul>	soil and wetla	and hydrology	must
20.									be present, unless	disturbed or p	roblematic.	
						40%	= Total Cove	<u> </u>		<u> </u>		
									_	·		
Woody Vine Stratu	m (Plot size: 30' radii	ıs)							Hydrophytic			
1									Vegetation			
2									Present?	Yes_	X No	_
							= Total Cove	r				
Remarks: (Include	photo numbers here of	or on a separa	ate sheet.)									

							Sam	<u> </u>			
		the depth nee		ed to document the indicator or confirm the absence of indicators.)  Redox Features							
Depth (inches)	Matrix Color (moist)	<u></u> %	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	- Texture	Pomarke			
0-7"	10YR 3/3	100	Color (moist)	/0	Турс	LUC		Remarks			
7-12"	10 TR 3/3		40VD 4/2			N.4	Loam				
· -			10YR 4/3	20		<u>M</u>	Loam				
12-20"	10YR 2/1	60	10YR 4/3	30	<u> </u>	<u>M</u>	Loam				
			10YR 3/1	10	<u> </u>	M	Loam	Mixed Matrix			
<del></del>											
• •	•	tion, RM=Red	uced Matrix, CS=Cover	ed or Coated S	Sand Grains.	<sup>2</sup> Locat	ion: PL=Pore Lining	g, M=Matrix.			
Hydric Soil In						Tes	t Indicators of Hyd				
Histosol	` '			ed Matrix (S4)	)			anese Masses (F12)			
Histic Epipedon (A2) Black Histic (A3)			Sandy Red	, ,				ow Dark Surface (F22)			
	` '		Stripped Ma	, ,			Other (Exp	lain in Remarks)			
	n Sulfide (A4) d Layers (A5)		Dark Surface	æ (57) ky Mineral (F1	1)						
	ick (A10)			ed Matrix (F2)							
	d Below Dark Surface	(A11)	Depleted M		,						
	ark Surface (A12)	()		Surface (F6)			<sup>3</sup> The hydric soil i	ndicators have been updated to			
	lucky Mineral (S1)			ark Surface (F	7)		comply with the Field Indicators of Hydric Soils				
5 cm Mu	icky Peat or Peat (S3)		Redox Dep	ressions (F8)		in the United States, Version 8.0, 2016.					
Restrictive La	ayer (if observed):										
Type:											
D											
Depth (in lemarks:	nches):					Hydric	Soil Present?	Yes No			
	nches):					Hydric	: Soil Present?	YesNo			
emarks:						Hydric	: Soil Present?	Yes No			
emarks:	OGY rology Indicators:					Hydric					
HYDROLO Wetland Hydro Primary Indica	OGY rology Indicators: ators (minimum of one	is required: c		ned Leaves (B	9)	Hydric	Secondary Indica	ators (minimum of two required)			
emarks:  HYDROLO  Wetland Hydro  Primary Indica  Surface	OGY rology Indicators: ators (minimum of one Water (A1)	is required: c	Water-Stair	ned Leaves (B	9)	Hydric	Secondary Indica	ators (minimum of two required)			
HYDROLO Vetland Hydi Primary Indica Surface High Wa	OGY rology Indicators: ators (minimum of one Water (A1) ater Table (A2)	is required: c	Water-Stair Aquatic Fau	ına (B13)	•	Hydric	Secondary Indica Surface So Drainage F	eators (minimum of two required) bil Cracks (B6) Patterns (B10)			
emarks:  IYDROLC  Vetland Hydr  Primary Indica  Surface  High Wa  Saturatio	rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3)	is required: c	Water-Stair Aquatic Fau True Aquati	una (B13) c Plants (B14	)	Hydric	Secondary Indica Surface So Drainage F Dry-Seaso	ators (minimum of two required) bil Cracks (B6) Patterns (B10) n Water Table (C2)			
emarks:  IYDROLC  Vetland Hydro  Primary Indica  Surface  High Wa  Saturatio  Water M	orology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1)	is required: c	Water-Stair Aquatic Fau True Aquati Hydrogen S	una (B13) c Plants (B14) culfide Odor (C	)		Secondary Indica Surface So Drainage F Dry-Seaso Crayfish B	ators (minimum of two required) bil Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8)			
emarks:  IYDROLO  Vetland Hydro  Primary Indica  Surface  High Wa  Saturatio  Water M  Sedimer	rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3)	is required: c	Water-Stair Aquatic Fat True Aquati Hydrogen S Oxidized RI	una (B13) c Plants (B14	) C1) n Living Roots		Secondary Indica Surface So Drainage F Dry-Seaso Crayfish B	ators (minimum of two required) bil Cracks (B6) Patterns (B10) n Water Table (C2)			
emarks:  HYDROLO  Vetland Hydi Primary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep	rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2)	is required: c	Water-Stair Aquatic Fat True Aquati Hydrogen S Oxidized RI Presence o	una (B13) ic Plants (B14) culfide Odor (C nizospheres o	) C1) n Living Roots n (C4)	s (C3)	Secondary Indica Surface So Drainage F Dry-Seaso Crayfish B Saturation Stunted or	ators (minimum of two required) bil Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9)			
emarks:  HYDROLC  Vetland Hydrolog  Surface  High Wa  Saturatio  Water M  Sedimer  Drift Dep  Algal Ma	orology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3)	is required: c	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized RI Presence o Recent Iron	una (B13) c Plants (B14) culfide Odor (C nizospheres of f Reduced Iron	) C1) n Living Roots n (C4)	s (C3)	Secondary Indica Surface So Drainage F Dry-Seaso Crayfish B Saturation Stunted or Geomorph	eators (minimum of two required) bil Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1)			
emarks:  HYDROLC  Wetland Hydro  Primary Indica  Surface  High Water Modern Mod	ology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		Water-Stair Aquatic Fat True Aquati Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck	una (B13) c Plants (B14) culfide Odor (C nizospheres of f Reduced Iron Reduction in	) C1) n Living Roots n (C4)	s (C3)	Secondary Indica Surface So Drainage F Dry-Seaso Crayfish B Saturation Stunted or Geomorph	eators (minimum of two required) bil Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2)			
HYDROLO Wetland Hydro Primary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep	orology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	agery (B7)	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S Gauge or W	una (B13) IC Plants (B14) Sulfide Odor (Conizospheres of Freduced Iron Reduction in Surface (C7)	) C1) n Living Root n (C4) Tilled Soils (C	s (C3)	Secondary Indica Surface So Drainage F Dry-Seaso Crayfish B Saturation Stunted or Geomorph	eators (minimum of two required) bil Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2)			
Algal Malor Inundation Sparsely	orology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial Im y Vegetated Concave S	agery (B7)	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S Gauge or W	una (B13) c Plants (B14) dulfide Odor (C nizospheres of f Reduced Iron Reduction in Surface (C7) /ell Data (D9)	) C1) n Living Root n (C4) Tilled Soils (C	s (C3)	Secondary Indica Surface So Drainage F Dry-Seaso Crayfish B Saturation Stunted or Geomorph	eators (minimum of two required) bil Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2)			
AYDROLO Wetland Hydro Primary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio Sparsely	or ology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial Im of Vegetated Concave Sections:	agery (B7) Surface (B8)	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S Gauge or W	una (B13) c Plants (B14) culfide Odor (Conizospheres of Reduced Iron Reduction in Surface (C7) /ell Data (D9) ain in Remark	) C1) n Living Root n (C4) Tilled Soils (C	s (C3)	Secondary Indica Surface So Drainage F Dry-Seaso Crayfish B Saturation Stunted or Geomorph	eators (minimum of two required) bil Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2)			
AYDROLC Wetland Hydro Primary Indica Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatic Sparsely Field Observa Surface Water	or ology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) darks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial Im y Vegetated Concave S ations: ar Present?	agery (B7) Surface (B8)	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S Gauge or W Other (Expl	una (B13) c Plants (B14) culfide Odor (Conizospheres of Reduced Iron Reduction in Surface (C7) /ell Data (D9) ain in Remark s): N/A N/A	) C1) n Living Roots n (C4) Tilled Soils (C	s (C3)	Secondary Indica Surface So Drainage F Dry-Seaso Crayfish B Saturation Stunted or Geomorph FAC-Neutr	ators (minimum of two required) bil Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2) ral Test (D5)			
HYDROLO Wetland Hydi Primary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio Sparsely Field Observa	rology Indicators: ators (minimum of one Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial Im y Vegetated Concave S ations: ar Present? Present?	agery (B7) Surface (B8)  Yes No Yes No	Water-Stair Aquatic Fat True Aquati Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S Gauge or W Other (Expl	una (B13) c Plants (B14) culfide Odor (Conizospheres of Reduced Iron Reduction in Surface (C7) /ell Data (D9) ain in Remark s): N/A N/A	) C1) n Living Roots n (C4) Tilled Soils (C	s (C3)	Secondary Indica Surface So Drainage F Dry-Seaso Crayfish B Saturation Stunted or Geomorph	eators (minimum of two required) bil Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2)			

Remarks:

## WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site:	Plymouth Wetland I	Delineation					City/County:	: Plymouth, Henr	nepin County	Sampling Date: 7/25/	2019
Applicant/Owner:	Xcel Energy						State	: <u>MN</u>	Sampling Point:	DP-04	
Investigator(s):	W. Taylor; S. McClu	sky						Section, Townsh	nip, Range: TWP 118N, RN	G 22W, SEC 18	
Landform (hillslope	e, terrace, etc.):		Toeslope					Loc	cal relief (concave, convex,	none): concave	
Slope (%):	0-2%	Lat:		45.0272			Long:	-	-93.50495	Datum: NAD83 UT	M16N
	e: L44A-Nessel loam,									I classification: none	
-	ologic conditions on the		•				Yes_		(If no, explain in Rer		
Are Vegetation	<u>N</u>	, Soil _	N	, or Hydrology		significantly distu			al Circumstances" present?		
Are Vegetation	N	, Soil _	N	, or Hydrology		naturally problem			, explain any answers in Rei	marks.)	
			ap snowing	sampling point loo							
	egetation Present?	)		Yes x	No			Sampled Ar		aa y Na	
Hydric Soil Pre Wetland Hydro				Yes x Yes x	No No		within	n a Wetland?	Ye	es X No	
	o be a man-made basi			unoff.							
VEGETATION	Use scientific	names of p	olants.			Absolute	Dominant	Indicator			
Tree Stratum (Plot	t size: 30' radius)					% Cover	Species?	Status	Dominance Test works	heet:	
1.							•				
2.									Number of Dominant Spe	ecies	
3									That Are OBL, FACW, or	r FAC: 1	(A)
4											
5									Total Number of Domina		
						:	= Total Cover		Species Across All Strata	a: 1	(B)
Sanling/Shrub Stra	tum (Plot size: 15' rac	liue)							Percent of Dominant Spe	ooioo	
1.	tuili (1 lot size. 15 lac	_							That Are OBL, FACW, or		(A/B)
2.									111017110 002, 171011, 01	10070	_(''')
3.										_	
4.									Prevalence Index works	sheet:	
5.											
							= Total Cover		Total % Cover of		
									That Are OBL, FACW, or		A/B
Herb Stratum (Plot	_			<del>_</del>					OBL species	10% x1 = 0.1	
1. Phalaris arundi						90%	Yes	FACW	FACW species	90% x2 = 1.8	<u></u>
Typha angustif     3.	rolla					10%	No	OBL	FAC species  FACU species	x3 =	
3									UPL species	x4 = x5 =	
5.									Column Totals:	1.00 (A) 1.9	) (B)
6.										(1)	(-/
7.									Prevalence li	ndex = B/A = 1.90	
8.											
9.											
10									Hydrophytic Vegetation	ı Indicators:	
11											
12										r Hydrophytic Vegetation	
13.									X 2-Dominance Te		
14									3-Prevalence In	idex is ≤3.0 I Adaptations¹ (Provide support	tina
15 16.										s or on a separate sheet)	ing
17.										/drophytic Vegetation <sup>1</sup> (Explain	.)
18.									<del></del>		
19.									<sup>1</sup> Indicators of hydric soil a	and wetland hydrology must	
20.									be present, unless distur	bed or problematic.	
						100%	= Total Cover				
Woody Vine Stratu	m (Plot size: 30' radio	us)							Hydrophytic		
1									Vegetation		
2									Present?	Yes X No	
							= Total Cover				
Demonder (I. )	mb ata		La al ( )						1		
remarks: (Include	photo numbers here of	or on a separa	ie sneet.)								

rofile Descri	ption: (Describe to t	he depth need	led to document the	indicator or c	onfirm the ab	sence o	f indicators.)		
epth _	Matrix		Re	edox Features			-		
nches)	Color (moist)	%	Color (moist)	ist) %		Loc <sup>2</sup>	Texture	Remarks	
0-12"	10YR 5/1	60	10YR 5/8	10	С	М	Clay Loam		
	10YR 2/1	20						mixed matrix	
Type: C=Co	ncentration, D=Deplet	ion. RM=Redu	ced Matrix, CS=Cover	ed or Coated S	Sand Grains	<sup>2</sup> l ocati	on: PL=Pore Lining, M	=Matrix	
dric Soil In	•	ion, ravi–rtoda	ood Matrix, OC-OOVER	ou or outlou t	ouria Oranio.		t Indicators of Hydric		
Histosol	(A1)		Sandy Gley	ed Matrix (S4)	)		•	se Masses (F12)	
Histic Ep	pipedon (A2)		Sandy Red	ox (S5)			Very Shallow D	Dark Surface (F22)	
Black His	stic (A3)		Stripped M	atrix (S6)			Other (Explain	in Remarks)	
Hydrogei	n Sulfide (A4)		Dark Surfa	ce (S7)					
Stratified	I Layers (A5)			cky Mineral (F1					
2 cm Mu	, ,			yed Matrix (F2)	)				
	Below Dark Surface	(A11)	X Depleted M	` ,			2		
	ark Surface (A12)			k Surface (F6)			•	ators have been updated to	
Sandy M	lucky Mineral (S1)			ark Surface (F	7)		• •	Field Indicators of Hydric Soi	
			V D I D						
	cky Peat or Peat (S3)		X Redox Dep	ressions (F8)			in the United Stat	es, Version 8.0, 2016.	
5 cm Mu	cky Peat or Peat (S3)  yer (if observed):		X Redox Dep	ressions (F8)			in the United Stat	es, Version 8.0, 2016.	
5 cm Mu estrictive La Type:	yer (if observed):		X Redox Dep	ressions (F8)					
5 cm Mu estrictive La Type: Depth (inc	yer (if observed):		X_ Redox Dep	ressions (F8)		Hydric	in the United Stat	Yes X No	
5 cm Mu  estrictive La  Type: Depth (incentification)  Primary Indication X Surface V X High Wa X Saturation Water M Sedimen Drift Dep Algal Ma Iron Dep	ology Indicators: ators (minimum of one Water (A1) tter Table (A2)		eck all that apply)  Water-Stain Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of Recent Iror Thin Muck	ned Leaves (B una (B13) ic Plants (B14) Sulfide Odor (C hizospheres or of Reduced Iron in Reduction in Surface (C7)	) C1) n Living Roots n (C4)	s (C3)	Secondary Indicators Surface Soil Containage Patter Dry-Season W Crayfish Burror Saturation Visi	Yes X No  s (minimum of two required) racks (B6) erns (B10) ater Table (C2) ws (C8) ble on Aerial Imagery (C9) essed Plants (D1) osition (D2)	
5 cm Mu estrictive La Type: Depth (incentaria) Primary Indication X Surface V X High Wa X Saturation Water Manuel	ology Indicators: ators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5)	agery (B7)	eck all that apply)  Water-Stain Aquatic Fa True Aquat Hydrogen S Oxidized R Presence C Recent Iror Thin Muck Gauge or V	ned Leaves (B una (B13) ic Plants (B14) Sulfide Odor (C hizospheres of f Reduced Iron n Reduction in	) C1) n Living Roots n (C4) Tilled Soils (C	s (C3)	Secondary Indicators Surface Soil Companing Patter Dry-Season W Crayfish Burror Saturation Visi Stunted or Street X Geomorphic Por	Yes X No  s (minimum of two required) racks (B6) erns (B10) ater Table (C2) ws (C8) ble on Aerial Imagery (C9) essed Plants (D1) osition (D2)	
5 cm Mu estrictive La Type: Depth (incentral land land) Part of the land Hydren land land land land) Type land land land land land land land land	ology Indicators: ators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) on Visible on Aerial Im vegetated Concave S	agery (B7)	eck all that apply)  Water-Stain Aquatic Fa True Aquat Hydrogen S Oxidized R Presence C Recent Iror Thin Muck Gauge or V	ned Leaves (B una (B13) ic Plants (B14) Sulfide Odor (C hizospheres of f Reduced Iron n Reduction in Surface (C7) Vell Data (D9)	) C1) n Living Roots n (C4) Tilled Soils (C	s (C3)	Secondary Indicators Surface Soil Companing Patter Dry-Season W Crayfish Burror Saturation Visi Stunted or Street X Geomorphic Por	Yes X No  s (minimum of two required) racks (B6) erns (B10) ater Table (C2) ws (C8) ble on Aerial Imagery (C9) essed Plants (D1) osition (D2)	
5 cm Mu estrictive La Type: Depth (incentary logical X Surface V X High Wa X Saturatio Water Management Drift Depth logical Iron Depth logical Sparsely eld Observa	or (if observed):  ches):  che	agery (B7)	eck all that apply)  Water-Stain Aquatic Fa True Aquat Hydrogen S Oxidized R Presence C Recent Iror Thin Muck Gauge or V	ned Leaves (B una (B13) ic Plants (B14) Sulfide Odor (C hizospheres or of Reduced Iron n Reduction in Surface (C7) Vell Data (D9) lain in Remark	) C1) n Living Roots n (C4) Tilled Soils (C	s (C3)	Secondary Indicators Surface Soil Companing Patter Dry-Season W Crayfish Burror Saturation Visi Stunted or Street X Geomorphic Por	Yes X No  s (minimum of two required) racks (B6) erns (B10) ater Table (C2) ws (C8) ble on Aerial Imagery (C9) essed Plants (D1) osition (D2)	
5 cm Mu estrictive La Type: Depth (incentary logical X Surface V X High Wa X Saturatio Water March Sedimen Drift Dep Algal Ma Iron Dep- Inundation	ology Indicators: ators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial Im a Vegetated Concave S ations: r Present?	agery (B7) Surface (B8)	eck all that apply)  Water-Stain Aquatic Fa True Aquat Hydrogen S Oxidized R Presence C Recent Iror Thin Muck Gauge or V Other (Exp	ned Leaves (Buna (B13) ic Plants (B14) Sulfide Odor (Chizospheres or Reduced Iron Reduction in Surface (C7) Vell Data (D9) lain in Remark s):7"	) C1) n Living Roots n (C4) Tilled Soils (C	s (C3)	Secondary Indicators Surface Soil Companing Patter Dry-Season W Crayfish Burror Saturation Visi Stunted or Street X Geomorphic Por	Yes X No  s (minimum of two required) racks (B6) erns (B10) ater Table (C2) ws (C8) ble on Aerial Imagery (C9) essed Plants (D1) osition (D2)	
5 cm Mu estrictive La Type: Depth (incentary Indical) X Surface V X High Wa X Saturation Water M Sedimen Drift Dep Algal Ma Iron Dep Inundation Sparsely eld Observa	ology Indicators: ators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) on Visible on Aerial Im vegetated Concave sations: r Present? Present?	agery (B7) Surface (B8) Yes <u>X</u> No_	eck all that apply)  Water-Stail Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of Recent Iror Thin Muck Gauge or V Other (Exp	ned Leaves (Buna (B13) ic Plants (B14) Sulfide Odor (Chizospheres or Reduction in Surface (C7) Vell Data (D9) lain in Remark s):	) C1) n Living Roots n (C4) Tilled Soils (C	s (C3)	Secondary Indicators Surface Soil Companing Patter Dry-Season W Crayfish Burror Saturation Visi Stunted or Street X Geomorphic Por	Yes X No  s (minimum of two required) racks (B6) erns (B10) ater Table (C2) ws (C8) ble on Aerial Imagery (C9) essed Plants (D1) osition (D2)	

## WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site:	Plymouth Wetland I	Delineation					City/Coun	ty: Plymouth, He	nnepin County		Sampling D	ate: 7/25/20	19
Applicant/Owner:	Xcel Energy						Sta	te: MN	Sampling Poin	t:	DF	P-05	
Investigator(s):	W. Taylor; S. McClu	ısky						Section, Towns	ship, Range: TWP 118	N, RNG 22W, S	SEC 17		
Landform (hillslope	e, terrace, etc.):		Backslope					Lo	ocal relief (concave, co	nvex, none): <u>c</u>	onvex		
Slope (%):	3-5%	Lat:		45.0273			Long:		-93.50133		Datum: N	NAD83	
Soil Map Unit Nam	e: L37B-Angus Ioam,	2 to 6 percen	t slopes							NWI classific	cation: <u>r</u>	none	
Are climatic / hydro	ologic conditions on the	e site typical	or this time of y	ear?			Ye	s X No	(If no, explain	in Remarks.)			
Are Vegetation	N	, Soil	N	, or Hydrology	N	significantly o		Are "Norr	mal Circumstances" pre	esent?	Yes _	X No	
Are Vegetation	N	, Soil	N	, or Hydrology	N	naturally prob			d, explain any answers	in Remarks.)			
SUMMARY OF	FINDINGS Att	ach site r	nap showin	g sampling point lo	cation	s, transects, i	mportant feat	ures, etc.					
	egetation Present?	?		Yes		Nox		e Sampled A					
Hydric Soil Pre				Yes X		No	with	in a Wetland	?	Yes	No_	X	
Wetland Hydro	nogy Present?			Yes		No x	<del></del>						
Remarks: Community is along	g a man-made berm, c	connected to	the road by a gr	ave drive. Area is impacte	ed but ind	icators or lack ther	reof are evident.						
VEGETATION	Use scientific	names of	plants.			A1 1 .		1 2 4					
Tree Stratum (Plot	t size: 30' radius)					Absolute % Cover		Indicator Status	Dominance Test v	vorksheet.			
1. Tilia americana						40%	Yes	FACU	-   Bommance rest	voi koncet.			
2. Quercus rubra						20%	Yes	FACU	<ul> <li>Number of Domina</li> </ul>	ent Species			
3.									That Are OBL, FAC			1	(A)
4.							_	_	-	, 0, 1, 10.	-		(/ ()
5.									Total Number of D	ominant			
						60%	= Total Cover		Species Across All			5	(B)
									-   -		-		(-)
Sapling/Shrub Stra	atum (Plot size: 15' rac	dius)							Percent of Domina	nt Species			
1.		,							That Are OBL, FAC		:	20%	(A/B)
2.									-	,			` ,
3.									-				
4.								_	Prevalence Index	worksheet:			
5.									-				
							= Total Cover		Total % C	over of:	ľ	Multiply by:	
									That Are OBL, FAC	W, or FAC:			A/B
Herb Stratum (Plo	t size: 5' radius)			_					OBL species		x1 =		
1. Festuca rubra						30%	Yes	FACU	FACW species	28%	x2 =	0.56	
2. Phalaris arund	linacea					20%	Yes	FACW	FAC species	18%	x3 =	0.54	
3. Solidago canad	densis					15%	Yes	FACU	FACU species	113%	x4 =	4.52	
4. Poa pratensis						10%	No	FAC	UPL species	5%	x5 =	0.25	
5. Vitis riparia						5%	No	FACW	Column Totals:	1.64	(A)	5.87	(B)
6. Cirsium arvens	se					5%	No	FACU	_				
7. Panicum virga	tum					5%	No	FAC	Prevale	ence Index = B	/A =	3.58	
8. Rhus glabra						5%	No	UPL	_				
9. Parthenocissus	s quinquefolia					3%	No	FACU	_				
10. Rhamnus cath	artica					3%	No	FAC	Hydrophytic Vege	tation Indicate	ors:		
11. Agrostis gigani	tea					3%	No	FACW	_				
12.								_	1-Rapid T	est for Hydroph	nytic Vegeta	ition	
13										nce Test is >50			
14									-	nce Index is ≤3			
15									4-Morpho	logical Adaptat	ions <sup>1</sup> (Provid	de supporting	J
16									_	emarks or on a			
17									Problema	atic Hydrophytic	: Vegetation	¹ (Explain)	
18								_	_   _				
19									Indicators of hydrid	soil and wetla	and hydrolog	y must	
20									be present, unless	disturbed or pr	roblematic.		
						104%	= Total Cover		-				
									_				
Woody Vine Stratu	ım (Plot size: 30' radi	us)							Hydrophytic				
1									Vegetation				
2									Present?	Yes_	No_	X	
							= Total Cover						
Remarks: (Include	photo numbers here o	or on a separ	ate sheet.)										

	<b>.</b>						Sam		
-	•	the depth nee	ded to document the i			bsence c	f indicators.)		
Depth	Matrix	0/		Redox Features  Color (moist) %		Loc <sup>2</sup>	- Tourture	Domorko	
(inches)	Color (moist)		Color (moist)		Type <sup>1</sup>		Texture	Remarks	
0-9"	10YR 3/2	97	10YR 4/6			M	Silt Loam		
9-20"	10YR 6/1		7.5YR 5/6	20	C	PL	Loam		
				_					
• •	•	tion, RM=Redu	ced Matrix, CS=Cover	ed or Coated	Sand Grains.		ion: PL=Pore Lining	·	
ydric Soil Indic			Candy Clay	M	`	Tes	t Indicators of Hyd		
Histosol (A1) Histosol (A2)			Sandy Gley Sandy Red	red Matrix (S4	)			anese Masses (F12) ow Dark Surface (F22)	
Histic Epipedon (A2) Black Histic (A3)			Stripped Ma					lain in Remarks)	
	Hydrogen Sulfide (A4)			ce (S7)			Other (Exp	iam in Romanto)	
Stratified La				ky Mineral (F	1)				
2 cm Muck				ed Matrix (F2					
X Depleted B	elow Dark Surface	(A11)	X Depleted M	atrix (F3)					
	Surface (A12)		Redox Dark	Surface (F6)	1		<sup>3</sup> The hydric soil indicators have been updated to		
	ky Mineral (S1)			ark Surface (F	<del>-</del> 7)		comply with the Field Indicators of Hydric Soils		
5 cm Muck	y Peat or Peat (S3)	)	Redox Dep	ressions (F8)		in the United States, Version 8.0, 2016.			
estrictive Laye	r (if observed):								
Type:									
Depth (inch	es):					Hydric	Soil Present?	Yes <u>X</u> No	
Depth (inche						Hydric	Soil Present?	Yes <u>X</u> No	
Depth (inche						Hydric	Soil Present?	Yes <u>X</u> No	
Depth (inchese depth)  IYDROLOG  Vetland Hydrolog	Y ogy Indicators:					Hydric			
Depth (inchesemarks:    YDROLOG   Vetland Hydrolog   Primary Indicato	Y ogy Indicators: rs (minimum of one	e is required: ch				Hydric	Secondary Indica	ators (minimum of two required)	
Depth (inchesemarks:  YDROLOG Vetland Hydrolog Surface Wa	Y ogy Indicators: rs (minimum of one ater (A1)	e is required: ch	Water-Stair	ned Leaves (E	39)	Hydric	Secondary Indica	ators (minimum of two required) bil Cracks (B6)	
Primary Indicato Surface Wa High Water	Y Day Indicators: rs (minimum of one ater (A1) Table (A2)	e is required: ch	Water-Stair Aquatic Fau	una (B13)		Hydric	Secondary Indica Surface So Drainage F	ators (minimum of two required) bil Cracks (B6) Patterns (B10)	
Primary Indicato Surface Wa High Water Saturation	yogy Indicators: rs (minimum of one ater (A1) Table (A2) (A3)	e is required: ch	Water-Stair Aquatic Fau True Aquati	una (B13) ic Plants (B14	4)	Hydric	Secondary Indica Surface So Drainage F Dry-Seaso	ators (minimum of two required) oil Cracks (B6) Patterns (B10) n Water Table (C2)	
Depth (inchesemarks:  YDROLOG  Vetland Hydrolog  Primary Indicato  Surface Wa  High Water  Saturation  Water Mark	rs (minimum of one ater (A1) Table (A2) (A3) (xs (B1)	e is required: ch	Water-Stair Aquatic Fau True Aquati Hydrogen S	una (B13) ic Plants (B14 Sulfide Odor (0	l) C1)		Secondary Indica Surface So Drainage F Dry-Seaso Crayfish Bo	ators (minimum of two required) bil Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8)	
Depth (inchesemarks:    YDROLOG	y ogy Indicators: rs (minimum of one ater (A1) Table (A2) (A3) rs (B1) Deposits (B2)	e is required: ch	Water-Stair Aquatic Fat True Aquati Hydrogen S Oxidized RI	una (B13) ic Plants (B14 Sulfide Odor (C nizospheres o	2) C1) on Living Root		Secondary Indica Surface So Drainage F Dry-Seaso Crayfish Bo Saturation	ators (minimum of two required) oil Cracks (B6) Patterns (B10) on Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9)	
Depth (inchesemarks:  IYDROLOG Vetland Hydrolog Surface Wa High Water Saturation Water Mark Sediment D Drift Depos	y pogy Indicators: rs (minimum of one ater (A1) Table (A2) (A3) rs (B1) Deposits (B2) its (B3)	e is required: ch	Water-Stair Aquatic Fat True Aquati Hydrogen S Oxidized RI Presence o	una (B13) ic Plants (B14 Gulfide Odor (C nizospheres of f Reduced Iro	(c) C1) In Living Root In (C4)	s (C3)	Secondary Indica Surface So Drainage F Dry-Seaso Crayfish Bo Saturation Stunted or	ators (minimum of two required) bil Cracks (B6) Patterns (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1)	
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US Army Corps of Engineers prepared by Cardno Midwest Region version 2.0

Remarks:

## WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site:	Plymouth Wetland	Delineation					City/County:	: Plymouth, Henr	nepin County	Sampling Date: <u>7/25/2019</u>
Applicant/Owner:	Xcel Energy					State:	: <u>MN</u>	Sampling Point:	DP-06	
Investigator(s):	W. Taylor; S. McCli	ısky						Section, Townsh	ip, Range: TWP 118N, RNG 22W	/, Sec 17
Landform (hillslope	e, terrace, etc.):	- -	Toeslope					Loc	cal relief (concave, convex, none):	concave
Slope (%):	0-2%	Lat:		45.02726			Long:	-	93.50137	Datum: NAD83
	e: L24A-Glencoe loam								NWI class	
-	ologic conditions on the		·				Yes_		(If no, explain in Remarks.	
Are Vegetation	<u>N</u>	, Soil	N	, or Hydrology		ignificantly distu			al Circumstances" present?	Yes <u>X</u> No
Are Vegetation	N	, Soil	N	, or Hydrology		aturally problem		,	explain any answers in Remarks	.)
			iap snowing	sampling point loc						
Hydrophytic Ve Hydric Soil Pre	egetation Present	?		Yes <u>x</u> Yes x	No No			Sampled Are a Wetland?		v No
Wetland Hydro				Yes X	No	_	WILIIII	i a wellanu i	Yes	<u>x</u> No
	nmunity fed by storm v									
VEGETATION	Use scientific	names of	plants.			A1 1 1			T	
Tree Stratum (Plot	t size: 30' radius)					Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1.	roleo. Go Tadiao)					70 OOVC1	Оросноз:	Otatus	Dominance Test Worksheet.	
2.									Number of Dominant Species	
3.									That Are OBL, FACW, or FAC:	2 (A)
4.										
5.									Total Number of Dominant	
							= Total Cover		Species Across All Strata:	(B)
	tum (Plot size: 15' rad	lius) -							Percent of Dominant Species	
1									That Are OBL, FACW, or FAC:	(A/B)
2. 3.										
4.									Prevalence Index worksheet:	
5.									revalence mack worksheet.	
							= Total Cover		Total % Cover of:	Multiply by:
									That Are OBL, FACW, or FAC:	A/B
Herb Stratum (Plot	t size: 5' radius)			_					OBL species 105%	x1 = 1.05
1. Calamagrostis	canadensis					60%	Yes	OBL	FACW species	x2 =
2. Typha angustif						40%	Yes	OBL	FAC species	x3 =
3. Scirpus cyperir	nus					5%	No	OBL	FACU species	x4 =
4									UPL species	x5 =(P)
5. 6.									Column Totals: 1.05	(A) 1.05 (B)
7									Prevalence Index =	: B/A = 1.00
8.									Trevalence mack =	1.00
9.										
10.									Hydrophytic Vegetation Indic	ators:
11.										
12.									X 1-Rapid Test for Hydro	ophytic Vegetation
13.									X 2-Dominance Test is	
14									X 3-Prevalence Index is	
15										tations <sup>1</sup> (Provide supporting
16.									data in Remarks or of	
17.									Problematic Hydrophy	vtic Vegetation <sup>1</sup> (Explain)
18 19.									<sup>1</sup> Indicators of hydric soil and we	etland hydrology must
20.									be present, unless disturbed or	
						105%	= Total Cover		50 procent, annous disturbed Of	p. solomatio.
Woody Vine Stratu	m (Plot size: 30' radi	ıs)							Hydrophytic	
1		_							Vegetation	
2									Present? Yes	X No
							= Total Cover			
Remarks: (Include	photo numbers here	or on a separa	ite sheet.)							

Profile Descri	ption: (Describe to t	he depth need	ded to document the in	ndicator or co	onfirm the al	osence o	of indicators.)		
Depth	Matrix	-	Re	dox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-6"	10YR 2/1	100					Silt Loam		
6-12"	N 5/	95	10YR 5/8	5	С	М	Silty Clay		
12-20"	N 5/	70	10YR 5/8	30	С	М	Silty Clay	gravel inclusions	
<sup>1</sup> Type: C=Co	ncentration, D=Deplet	ion, RM=Redu	ced Matrix, CS=Covere	ed or Coated S	and Grains.	<sup>2</sup> Locat	ion: PL=Pore Lining,	M=Matrix.	
Hydric Soil Inc	dicators <sup>3</sup> :					Tes	t Indicators of Hydr	ic Soils:	
Histosol	(A1)		Sandy Gleye	ed Matrix (S4)				nese Masses (F12)	
Histic Epipedon (A2)			Sandy Redo					w Dark Surface (F22)	
Black His	` '		Stripped Ma	` ,			Other (Expla	ain in Remarks)	
	n Sulfide (A4)		Dark Surfac	. ,					
	Layers (A5)			ky Mineral (F1)					
2 cm Mu	, ,		X Loamy Gley						
	Below Dark Surface	(A11)	X Depleted Ma				3-1 10.000	" · · · · · · · · · · · · · · · · · · ·	
	ark Surface (A12)			Surface (F6)	<del>7</del> \		•	dicators have been updated to	
	lucky Mineral (S1)			ark Surface (F7	')		comply with the Field Indicators of Hydric Soils in the United States, Version 8.0, 2016.		
5 CIII IVIU	cky Peat or Peat (S3)		Kedox Depi	essions (F8)			In the United 3	tates, version 8.0, 2016.	
	yer (if observed):								
Type:									
Depth (inc	ches):					Hydric	Soil Present?	Yes <u>X</u> No	
Remarks:									
HYDROLO	GY								
	OGY ology Indicators:								
Wetland Hydro		is required: ch	eck all that apply)				Secondary Indicat	ors (minimum of two required)	
<b>Wetland Hydro</b> Primary Indica	ology Indicators:	is required: ch		ed Leaves (BS	)			ors (minimum of two required) I Cracks (B6)	
Wetland Hydro Primary Indica Surface \	ology Indicators: ators (minimum of one	is required: ch		,	')		Surface Soi		
Wetland Hydro Primary Indica Surface \	ology Indicators: ators (minimum of one Water (A1) tter Table (A2)	is required: ch	Water-Stain Aquatic Fau	,			Surface Soi Drainage Pa	Cracks (B6)	
Wetland Hydro Primary Indica Surface \ X High Wat X Saturatio	ology Indicators: ators (minimum of one Water (A1) tter Table (A2)	is required: ch	Water-Stain Aquatic Fau True Aquati	ına (B13)			Surface Soi Drainage Pa	Cracks (B6) atterns (B10) Water Table (C2)	
Wetland Hydro Primary Indica Surface \ X High Wat X Saturatio Water Ma	ology Indicators: ators (minimum of one Water (A1) ter Table (A2) on (A3)	is required: ch	Water-Stain Aquatic Fau True Aquatic Hydrogen S	ina (B13) c Plants (B14)	1)	; (C3)	Surface Soi Drainage Pa Dry-Season Crayfish Bu	Cracks (B6) atterns (B10) Water Table (C2)	
Wetland Hydro Primary Indica Surface \ X High War X Saturatio Water Ma Sedimen	ology Indicators: ators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1)	is required: ch	Water-Stain Aquatic Fau True Aquatic Hydrogen S Oxidized Rh	ina (B13) c Plants (B14) ulfide Odor (C	1) Living Roots	; (C3)	Surface Soil Drainage Pa Dry-Season Crayfish Bull Saturation V	Cracks (B6) atterns (B10) Water Table (C2) rrows (C8)	
Wetland Hydro Primary Indica Surface N X High War X Saturatio Water Ma Sedimen Drift Dep	ology Indicators: ators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2)	is required: ch	Water-Stain Aquatic Fau True Aquatic Hydrogen S Oxidized Rh Presence of	ina (B13) c Plants (B14) ulfide Odor (C nizospheres on	1) Living Roots (C4)		Surface Soi  Drainage Pa  Dry-Season  Crayfish But  Saturation V	Cracks (B6) atterns (B10) Water Table (C2) rrows (C8) (risible on Aerial Imagery (C9)	
Wetland Hydro Primary Indica Surface N X High Wat X Saturatio Water Mater Mate	ology Indicators: ators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3)	is required: ch	Water-Stain Aquatic Fau True Aquatic Hydrogen S Oxidized Rh Presence of Recent Iron	ina (B13) c Plants (B14) ulfide Odor (C nizospheres on f Reduced Iron	1) Living Roots (C4)		Surface Soi  Drainage Pa  Dry-Season  Crayfish But  Saturation V	Cracks (B6) Atterns (B10) Water Table (C2) Crows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) Position (D2)	
Wetland Hydro Primary Indica Surface V X High War X Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Depo	ology Indicators: ators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4)		Water-Stain Aquatic Fau True Aquatic Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S	ina (B13) c Plants (B14) ulfide Odor (C nizospheres on f Reduced Iron Reduction in 1	1) Living Roots (C4)		Surface Soil Drainage Pa Dry-Season Crayfish But Saturation V Stunted or S X Geomorphic	Cracks (B6) Atterns (B10) Water Table (C2) Crows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) E Position (D2)	
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Primary Indica Surface N X High War X Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Depo Inundatio Sparsely	ology Indicators: ators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial Im a Vegetated Concave S ations: r Present?	agery (B7) Surface (B8)	Water-Stain Aquatic Fau True Aquatic Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	ina (B13) c Plants (B14) ulfide Odor (Cinizospheres on f Reduced Iron Reduction in Tourface (C7) rell Data (D9) ain in Remarks s): N/A	1) Living Roots (C4) Filled Soils (C		Surface Soil Drainage Pa Dry-Season Crayfish But Saturation V Stunted or S X Geomorphic	Cracks (B6) Atterns (B10) Water Table (C2) Crows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1) E Position (D2)	
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

#### **About Cardno**

Cardno is an ASX-200 professional infrastructure and environmental services company, with expertise in the development and improvement of physical and social infrastructure for communities around the world. Cardno's team includes leading professionals who plan, design, manage, and deliver sustainable projects and community programs. Cardno is an international company listed on the Australian Securities Exchange [ASX:CDD].

#### Cardno Zero Harm



At Cardno, our primary concern is to develop and maintain safe and healthy conditions for anyone involved at our project worksites. We require full compliance with our Health and Safety Policy Manual and established work procedures and expect the same protocol from our subcontractors. We are committed to achieving our Zero Harm goal by continually improving our safety systems, education, and vigilance at the workplace and in the field.

Safety is a Cardno core value and through strong leadership and active employee participation, we seek to implement and reinforce these leading actions on every job, every day.



## Joint Application Form for Activities Affecting Water Resources in Minnesota

This joint application form is the accepted means for initiating review of proposals that may affect a water resource (wetland, tributary, lake, etc.) in the State of Minnesota under state and federal regulatory programs. Applicants for Minnesota Department of Natural Resources (DNR) Public Waters permits **MUST** use the MPARS online permitting system for submitting applications to the DNR. Applicants can use the information entered into MPARS to substitute for completing parts of this joint application form (see the paragraph on MPARS at the end of the joint application form instructions for additional information). This form is only applicable to the water resource aspects of proposed projects under state and federal regulatory programs; other local applications and approvals may be required. Depending on the nature of the project and the location and type of water resources impacted, multiple authorizations may be required as different regulatory programs have different types of jurisdiction over different types of resources.

#### **Regulatory Review Structure**

#### Federal

The St. Paul District of the U.S. Army Corps of Engineers (Corps) is the federal agency that regulates discharges of dredged or fill material into waters of the United States (wetlands, tributaries, lakes, etc.) under Section 404 of the Clean Water Act (CWA) and regulates work in navigable waters under Section 10 of the Rivers and Harbors Act. Applications are assigned to Corps project managers who are responsible for implementing the Corps regulatory program within a particular geographic area.

#### **State**

There are three state regulatory programs that regulate activities affecting water resources. The Wetland Conservation Act (WCA) regulates most activities affecting wetlands. It is administered by local government units (LGUs) which can be counties, townships, cities, watershed districts, watershed management organizations or state agencies (on state-owned land). The Minnesota DNR Division of Ecological and Water Resources issues permits for work in specially-designated public waters via the Public Waters Work Permit Program (DNR Public Waters Permits). The Minnesota Pollution Control Agency (MPCA) under Section 401 of the Clean Water Act certifies that discharges of dredged or fill material authorized by a federal permit or license comply with state water quality standards. One or more of these regulatory programs may be applicable to any one project.

#### **Required Information**

Prior to submitting an application, applicants are <u>strongly encouraged</u> to seek input from the Corps Project Manager and LGU staff to identify regulatory issues and required application materials for their proposed project. Project proponents can request a preapplication consultation with the Corps and LGU to discuss their proposed project by providing the information required in Sections 1 through 5 of this joint application form to facilitate a meaningful discussion about their project. Many LGUs provide a venue (such as regularly scheduled technical evaluation panel meetings) for potential applicants to discuss their projects with multiple agencies prior to submitting an application. Contact information is provided below.

The following bullets outline the information generally required for several common types of determinations/authorizations.

- For delineation approvals and/or jurisdictional determinations, submit Parts 1, 2 and 5, and Attachment A.
- For activities involving CWA/WCA exemptions, WCA no-loss determinations, and activities not requiring mitigation, submit Parts 1 through 5, and Attachment B.
- For activities requiring compensatory mitigation/replacement plan, submit Parts 1 thru 5, and Attachments C and D.
- For local road authority activities that qualify for the state's local road wetland replacement program, submit Parts 1 through 5, and Attachments C, D (if applicable), and E to both the Corps and the LGU.

#### **Submission Instructions**

Send the completed joint application form and all required attachments to:

**U.S Army Corps of Engineers.** Applications may be sent directly to the appropriate Corps Office. For a current listing of areas of responsibilities and contact information, visit the St. Paul District's website at:

http://www.mvp.usace.army.mil/Missions/Regulatory.aspx and select "Minnesota" from the contact Information box. Alternatively, applications may be sent directly to the St. Paul District Headquarters and the Corps will forward them to the appropriate field office.

**Section 401 Water Quality Certification:** Applicants do not need to submit the joint application form to the MPCA unless specifically requested. The MPCA will request a copy of the completed joint application form directly from an applicant when they determine an individual 401 water quality certification is required for a proposed project.

**Wetland Conservation Act Local Government Unit:** Send to the appropriate Local Government Unit. If necessary, contact your county Soil and Water Conservation District (SWCD) office or visit the Board of Water and Soil Resources (BWSR) web site (www.bwsr.state.mn.us) to determine the appropriate LGU.

DNR Public Waters Permitting: In 2014 the DNR will begin using the Minnesota DNR Permitting and Reporting System (MPARS) for submission of Public Waters permit applications (<a href="https://webapps11.dnr.state.mn.us/mpars/public/authentication/login">https://webapps11.dnr.state.mn.us/mpars/public/authentication/login</a>). Applicants for Public Waters permits MUST use the MPARS online permitting system for submitting applications to the DNR. To avoid duplication and to streamline the application process among the various resource agencies, applicants can use the information entered into MPARS to substitute for completing parts of this joint application form. The MPARS print/save function will provide the applicant with a copy of the Public Waters permit application which, at a minimum, will satisfy Parts one and two of this joint application. For certain types of activities, the MPARS application may also provide all of the necessary information required under Parts three and four of the joint application. However, it is the responsibility of the Applicant to make sure that the joint application contains all of the required information, including identification of all aquatic resources impacted by the project (see Part four of the joint application). After confirming that the MPARS application contains all of the required information in Parts one and two the Applicant may attach a copy to the joint application and fill in any missing information in the remainder of the joint application.

## **PART ONE: Applicant Information**

If applicant is an entity (company, government entity, partnership, etc.), an authorized contact person must be identified. If the applicant is using an agent (consultant, lawyer, or other third party) and has authorized them to act on their behalf, the agent's contact information must also be provided.

Applicant/Landowner Name: Xcel Energy, Attn: Ellen Heine

Mailing Address: 414 Nicollet Mall, 414-6

**Phone:** 612-330-6073

E-mail Address: Ellen.L.Heine@XcelEnergy.com

Authorized Contact (do not complete if same as above):

**Mailing Address:** 

Phone:

E-mail Address:

Agent Name: Dan Salas, Cardno

Mailing Address: 6130 Cottonwood Drive, Ste B, Fitchburg, WI 53719

**Phone:** 608-620-0745

E-mail Address: dan.salas@cardno.com

### **PART TWO: Site Location Information**

County: Hennepin City/Township: Plymouth

Parcel ID and/or Address: Between County Hwy 101 and Highway 55

Legal Description (Section, Township, Range):

Lat/Long (decimal degrees): 45° 1'38.43"N, 93°30'8.24"W

Attach a map showing the location of the site in relation to local streets, roads, highways.

Approximate size of site (acres) or if a linear project, length (feet): Linear: 0.3 miles (1520 feet) (wetland crossing length is

approximately 430 feet)

If you know that your proposal will require an individual Permit from the U.S. Army Corps of Engineers, you must provide the names and addresses of all property owners adjacent to the project site. This information may be provided by attaching a list to your application or by using block 25 of the Application for Department of the Army permit which can be obtained at:

http://www.mvp.usace.army.mil/Portals/57/docs/regulatory/RegulatoryDocs/engform 4345 2012oct.pdf

## **PART THREE: General Project/Site Information**

If this application is related to a delineation approval, exemption determination, jurisdictional determination, or other correspondence submitted *prior to* this application then describe that here and provide the Corps of Engineers project number.

Describe the project that is being proposed, the project purpose and need, and schedule for implementation and completion. The project description must fully describe the nature and scope of the proposed activity including a description of all project elements that effect aquatic resources (wetland, lake, tributary, etc.) and must also include plans and cross section or profile drawings showing the location, character, and dimensions of all proposed activities and aquatic resource impacts.

The project involves installation of an underground electric distribution duct line running along Highway 55 then crossing the shallow marsh wetland described in this application and then connecting to the

i ( 1	Hollydale Substation located west of Lawndale Ln N. The duct line will be installed via op installation, and the trench will be closed and restored following completion of the instal of wetland to be impacted is estimated to be 430 feet in length and approximately 4-10 f. The project was initially expected to be done in the fall of 2019, but may end up being co spring of 2020 instead. The construction is expected to take approximately 3 months to or duct will not impact the small degraded fresh wet meadow located on the north side of the duct will not impact the small degraded fresh wet meadow located on the north side of the same control	lation. The area eet in width. mpleted in the complete. The
Min	nnesota Interagency Water Resource Application Form February 2014	Page 4 of 12

## PART FOUR: Aquatic Resource Impact<sup>1</sup> Summary

If your proposed project involves a direct or indirect impact to an aquatic resource (wetland, lake, tributary, etc.) identify each impact in the table below. Include all anticipated impacts, including those expected to be temporary. Attach an overhead view map, aerial photo, and/or drawing showing all of the aquatic resources in the project area and the location(s) of the proposed impacts. Label each aquatic resource on the map with a reference number or letter and identify the impacts in the following table.

Aquatic Resource ID (as noted on overhead view)	Aquatic Resource Type (wetland, lake, tributary etc.)	remove	Impact	Size of Impact <sup>2</sup>	Overall Size of Aquatic Resource <sup>3</sup>	Type(s) in Impact Area	County, Major Watershed #, and Bank Service Area # of Impact Area <sup>5</sup>
w-01	wetland	excavate	Т	2150 sq ft	N/A	Shallow marsh	20
w-03	wetland	excavate	Т	100 sq ft	N/A	Fresh wet meadow (degraded)	20

<sup>&</sup>lt;sup>1</sup>If impacts are temporary; enter the duration of the impacts in days next to the "T". For example, a project with a temporary access fill that would be removed after 220 days would be entered "T (220)".

If any of the above identified impacts have already occurred, identify which impacts they are and the circumstances associated with each:

### **PART FIVE: Applicant Signature**

- <del></del>	requesting a <u>pre-application</u> consultation with the Corps and LGU based on the information you have ities will not initiate a formal application review if this box is checked.
By signature below, I atte authority to undertake th	st that the information in this application is complete and accurate. I further attest that I possess the e work described herein.
Signature:	Date:
I hereby authorize	to act on my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this application.
The term "impact" as us	eed in this joint application form is a generic term used for disclosure purposes to identify

activities that may require approval from one or more regulatory agencies. For purposes of this form it is not meant to

Minnesota Interagency Water Resource Application Form February 2014

indicate whether or not those activities may require mitigation/replacement.

<sup>&</sup>lt;sup>2</sup>Impacts less than 0.01 acre should be reported in square feet. Impacts 0.01 acre or greater should be reported as acres and rounded to the nearest 0.01 acre. Tributary impacts must be reported in linear feet of impact and an area of impact by indicating first the linear feet of impact along the flowline of the stream followed by the area impact in parentheses). For example, a project that impacts 50 feet of a stream that is 6 feet wide would be reported as 50 ft (300 square feet).

<sup>&</sup>lt;sup>3</sup>This is generally only applicable if you are applying for a de minimis exemption under MN Rules 8420.0420 Subp. 8, otherwise enter "N/A".

<sup>&</sup>lt;sup>4</sup>Use Wetland Plants and Plant Community Types of Minnesota and Wisconsin 3<sup>rd</sup> Ed. as modified in MN Rules 8420.0405 Subp. 2.

<sup>&</sup>lt;sup>5</sup>Refer to Major Watershed and Bank Service Area maps in MN Rules 8420.0522 Subp. 7.

# Attachment A Request for Delineation Review, Wetland Type Determination, or Jurisdictional Determination

By submission of the enclosed wetland delineation report, I am requesting that the U.S. Army Corps of Engineers, St. Paul District (Corps) and/or the Wetland Conservation Act Local Government Unit (LGU) provide me with the following (check all that apply): Wetland Type Confirmation Delineation Concurrence. Concurrence with a delineation is a written notification from the Corps and a decision from the LGU concurring, not concurring, or commenting on the boundaries of the aquatic resources delineated on the property. Delineation concurrences are generally valid for five years unless site conditions change. Under this request alone, the Corps will not address the jurisdictional status of the aquatic resources on the property, only the boundaries of the resources within the review area (including wetlands, tributaries, lakes, etc.). | Preliminary Jurisdictional Determination. A preliminary jurisdictional determination (PJD) is a non-binding written indication from the Corps that waters, including wetlands, identified on a parcel may be waters of the United States. For purposes of computation of impacts and compensatory mitigation requirements, a permit decision made on the basis of a PJD will treat all waters and wetlands in the review area as if they are jurisdictional waters of the U.S. PJDs are advisory in nature and may not be appealed. Approved Jurisdictional Determination. An approved jurisdictional determination (AJD) is an official Corps determination that jurisdictional waters of the United States are either present or absent on the property. AJDs can generally be relied upon by the affected party for five years. An AJD may be appealed through the Corps administrative appeal process. In order for the Corps and LGU to process your request, the wetland delineation must be prepared in accordance with the 1987 Corps of Engineers Wetland Delineation Manual, any approved Regional Supplements to the 1987 Manual, and the Guidelines for Submitting Wetland Delineations in Minnesota (2013). http://www.mvp.usace.army.mil/Missions/Regulatory/DelineationJDGuidance.aspx

### **Attachment B**

## Supporting Information for Applications Involving Exemptions, No Loss Determinations, and Activities Not Requiring Mitigation

Complete this part **if** you maintain that the identified aquatic resource impacts in Part Four do not require wetland replacement/compensatory mitigation OR **if** you are seeking verification that the proposed water resource impacts are either exempt from replacement or are not under CWA/WCA jurisdiction.

Identify the specific exemption or no-loss provision for which you believe your project or site qualifies:

The project qualifies under MN WCA rule 8420.0420 Exemption Standards, Subpart 6 Utilities

Provide a detailed explanation of how your project or site qualifies for the above. Be specific and provide and refer to attachments and exhibits that support your contention. Applicants should refer to rules (e.g. WCA rules), guidance documents (e.g. BWSR guidance, Corps guidance letters/public notices), and permit conditions (e.g. Corps General Permit conditions) to determine the necessary information to support the application. Applicants are strongly encouraged to contact the WCA LGU and Corps Project Manager prior to submitting an application if they are unsure of what type of information to provide:

The project involves the installation of a distribution (utility) line as described in 8420.0420 Subp. 6 and the impacts have been minimized to the extent possible and modify or alter less than one-half of an acre of wetland. The duct line will be placed within an existing overhead transmission line corridor.

## Attachment C Avoidance and Minimization

**Project Purpose, Need, and Requirements**. Clearly state the purpose of your project and need for your project. Also include a description of any specific requirements of the project as they relate to project location, project footprint, water management, and any other applicable requirements. Attach an overhead plan sheet showing all relevant features of the project (buildings, roads, etc.), aquatic resource features (impact areas noted) and construction details (grading plans, storm water management plans, etc.), referencing these as necessary:

This project is needed to connect the distribution system to the Hollydale Substation which is located west of the location where the wetland impacts will occur.

**Avoidance**. Both the CWA and the WCA require that impacts to aquatic resources be avoided if practicable alternatives exist. Clearly describe all on-site measures considered to avoid impacts to aquatic resources and discuss at least two project alternatives that avoid all impacts to aquatic resources on the site. These alternatives may include alternative site plans, alternate sites, and/or not doing the project. Alternatives should be feasible and prudent (see MN Rules 8420.0520 Subp. 2 C). Applicants are encouraged to attach drawings and plans to support their analysis:

The wetland being crossed is fairly large and there is an existing utility easement and overhead line which crosses the wetland in the location of the proposed distribution duct bank. An alternative of routing the distribution line further north around the wetland would require the acquisition of new land rights and increased project costs.

The no-build option would not accomplish the goals of the project to improve the electric distribution system in the area.

**Minimization**. Both the CWA and the WCA require that all unavoidable impacts to aquatic resources be minimized to the greatest extent practicable. Discuss all features of the proposed project that have been modified to minimize the impacts to water resources (see MN Rules 8420.0520 Subp. 4):

The proposed location minimizes impacts by placing the duct bank within an existing electric utility easement beneath existing overhead power lines. Installation of the duct bank will result in temporary impacts to the wetland which will be restored once construction is complete. There will be no permanent structures above ground within the wetland.

**Off-Site Alternatives**. An off-site alternatives analysis is not required for all permit applications. If you know that your proposal will require an individual permit (standard permit or letter of permission) from the U.S. Army Corps of Engineers, you may be required to provide an off-site alternatives analysis. The alternatives analysis is not required for a complete application but must be provided during the review process in order for the Corps to complete the evaluation of your application and reach a final decision. Applicants with questions about when an off-site alternatives analysis is required should contact their Corps Project Manager.





## DEPARTMENT OF THE ARMY U.S. ARMY CORPS OF ENGINEERS, ST. PAUL DISTRICT 180 FIFTH STREET EAST, SUITE 700 ST. PAUL, MN 55101-1678

November 8, 2019

Regulatory File MVP-2019-02715-AIS

Ellen Heine, Xcel Energy c/o Dan Salas, Cardno 6130 Cottonwood Drive, Suite B Fitchburg, Wisconsin 53719

Dear Ms. Heine:

We are responding to your request for authorization to install an underground electric distribution duct line from Highway 55 to the Hollydale Substation. The proposed work is located in Sections 17 & 18, Township 118 North, Range 22 West, Hennepin County, Minnesota.

The regulated activity associated with the project described above includes the temporary discharge of fill material into 2,250 square feet of wetlands. The work appears to be authorized by a Nationwide Permit (NWP) and/or a Regional General Permit (RGP), specifically, the Utility RGP. No application or notification to the St. Paul District Corps of Engineers is required for your project.

This letter does not verify permit eligibility, but indicates that your project may meet the requirements of this permit. It is your responsibility to ensure that the work is performed in accordance with the terms and general conditions of this permit before starting work. It is also incumbent upon you to verify that your activity has received any necessary Water Quality Certification or waiver prior starting work in waters of the U.S. If a Water Quality Certification has not been issued for your activity, you are responsible for contacting the water certifying agency. A full list of applicable terms, conditions, issued Water Quality Certifications, and certifying agencies may be found by visiting our website at <a href="http://www.mvp.usace.army.mil/Missions/Regulatory/Permitting-Process-Procedures/">http://www.mvp.usace.army.mil/Missions/Regulatory/Permitting-Process-Procedures/</a>.

A change in location or project plans may require re-evaluation of your project. Proposed changes should be coordinated with this office prior to construction. Failure to comply with all terms and conditions of this permit invalidates this authorization and could result in a violation of Section 301 of the Clean Water Act or Section 10 of the Rivers and Harbors Act. You must also obtain all local, State, and other Federal permits that apply to this project.

Regulatory Branch (File No. MVP-2019-02715-AIS)

If you have any questions, please contact me in our St. Paul office at (651) 290-5266 or by email at Aiden.Schore@usace.army.mil.

Sincerely,

Aiden Schore Regulatory Specialist

CC: Ben Scharenbroich, LGU Ben Carlson, BWSR