Minnesota Wetland Conservation Action **Notice of Application**

City of Plymouth	Address 3400 Plym Plymouth,	outh Blvd MN 55447		
1. Applicant Name	PROJECT INFOR	RMATION	Date of	Application
Three Rivers Park District Justin Valenty	Luce Line Trail		Application 11/14/16	Number NA
Type of Application (check all that ap	oply):			
	☐ No-Loss	☐ Exer	nption	
Replacemen	t Plan	☐ Banki	ng Plan	
Summary and description of proposed The Three Rivers Park District proposed Lane in Plymouth, MN. One wetland	oses and extension/co	nnection to the	Luce Line alor	
marsh with Type 1 floodplain forest Grass, Cattail, Eastern Cottonwood,	on the southern fringe			
		12		
2. APPLIO	CATION REVIEW	AND DEC	ISION	
Signing and mailing of this complete Subp. 3 provides notice that an applic specified above. A copy of the applic	cation was made to th	e LGU under	the Wetland Coa	
Name and Title of LGU Contact Per Derek Asche Water Resources Manager	b		t be received by mment period):	y (minimum 15
Address (if different than LGU) City of Plymouth 3400 Plymouth Blvd. Plymouth, MN 55447	D 12 96		location of deci	sion:
Phone Number and E-mail Address 763-506-5526 dasche@plymouthmn,gov	D	ecision-maker Staff	for this applica	
Signature: Duh Muche			Date: 1//15	-/16
				

BWSR Forms 7-1-10

3. LIST OF ADDRESSEES

SWCD TEP member: Ms. Stacey Lijewski, HCD, 701 Fourth Avenue South, Suite 700, Minneapolis, MN, 55415-
1600 (sent electronically)
BWSR TEP member: Ben Meyer, BWSR, 520 Lafayette Road North, St. Paul, MN, 55401-1397 (sent electronically)
LGU TEP member (if different than LGU Contact):
DNR TEP member: Beckey Horton, MN DNR, 1200 Warner Road, St. Paul, MN, 55106 (sent electronically)
☑ DNR Regional Office (if different than DNR TEP member)
Kate Drewry, Area Hydrologist, MN DNR, 1200 Warner Road, St. Paul, MN, 55106 (sent electronically)
☑ WD or WMO (if applicable):
BCWMC, c/o Laura Jester, Keystone Waters LLC, 16145 Hillcrest Lane, Eden Prairie, MN, 553467 (sent
electronically)
Applicant (notice only) and Landowner (if different):
Justin Valenty, Three Rivers Park District (sent electronically)
Members of the public who requested notice (notice only):
☐ Corps of Engineers Project Manager (notice only): Melissa Jenny, Army Corps of Engineers, 180 5th Street East,
Suite 700, St. Paul, MN, 55101-1678 (sent electronically)
BWSR Wetland Bank Coordinator (wetland bank plan applications only)

4. MAILING INFORMATION

>For a list of BWSR TEP representatives: www.bwsr.state.mn.us/contact/WCA_areas.pdf

For a list of DNR TEP representatives: www.bwsr.state.mn.us/wetlands/wca/DNR TEP contacts.pdf

➤ Department of Natural Resources Regional Offices:

NW Region:	NE Region:	Central Region:	Southern Region:
Reg. Env. Assess. Ecol.	Reg. Env. Assess. Ecol.	Reg. Env. Assess.	Reg. Env. Assess. Ecol.
Div. Ecol. Resources	Div. Ecol. Resources	Ecol.	Div. Ecol. Resources
2115 Birchmont Beach Rd. NE	1201 E. Hwy. 2	Div. Ecol. Resources	261 Hwy. 15 South
Bemidji, MN 56601	Grand Rapids, MN	1200 Warner Road	New Ulm, MN 56073
	55744	St. Paul, MN 55106	, and the second

For a map of DNR Administrative Regions, see: http://files.dnr.state.mn.us/aboutdnr/dnr regions.pdf

For a list of Corps of Project Managers: www.mvp.usace.army.mil/regulatory/default.asp?pageid=687 or send to:

US Army Corps of Engineers St. Paul District, ATTN: OP-R 180 Fifth St. East, Suite 700 St. Paul, MN 55101-1678

For Wetland Bank Plan applications, also send a copy of the application to:

Minnesota Board of Water and Soil Resources

Wetland Bank Coordinator 520 Lafayette Road North St. Paul, MN 55155

5. ATTACHMENTS

T THE CALL THE TAIL AT MALE
In addition to the application, list any other attachments:
■ Wetland delineation report for the Luce Line Trail Project dated 9/27/16 by TRPD
lΠ

BWSR Forms 7-1-10 Page 2 of 2

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 (https://webapps11.dnr.state.mn.us/mpars/public/authentication/login). 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.

Project Name and/or Number:

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: Justin Valenty
Mailing Address: 12615 County Road 9

Phone: 763-694-7844

E-mail Address: Justin.valenty@threeriversparks.org

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

Mailing Address:

Phone:

E-mail Address:

Agent Name:

Mailing Address:

Phone:

E-mail Address:

PART TWO: Site Location Information

County: Hennepin

City/Township:

Plymouth

Parcel ID and/or Address: Intersection of County Rd 6 and Fernbrook Lane

Legal Description (Section, Township, Range): 27, 118, 22 Lat/Long (decimal degrees): 44.993678, -93..461377

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): 2,000 ft

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/Regulatory/Docs/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.

PART FOUR: Aquatic Resource Impact¹ 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.

quatic Resource ID (as noted on overhead view)	Aquatic Resource Type (wetland, lake, tributary etc.)	l drain or l	Impact	Size of Impact ²	Overall Size of Aquatic Resource ³	Existing Plant Community Type(s) in Impact Area ⁴	County, Major Watershed #, and Bank Service Area # of Impact Area ⁵

¹ 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:

DART FIVE. Annlicant Signature

TART TIEL Applicant Signature
Check here if you are requesting a <u>pre-application</u> consultation with the Corps and LGU based on the information you have provided. Regulatory entities will not initiate a formal application review if this box is checked.
By signature below, I attest that the information in this application is complete and accurate. I further attest that I possess the authority to undertake the work described herein.
Signature:
I hereby authorize to act on my behalf as my agent in the processing of this application and to furnish, upon request,

²Impacts 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).

³This is generally only applicable if you are applying for a de minimis exemption under MN Rules 8420.0420 Subp. 8, otherwise enter "N/A". ⁴Use Wetland Plants and Plant Community Types of Minnesota and Wisconsin 3rd Ed. as modified in MN Rules 8420.0405 Subp. 2. ⁵Refer to Major Watershed and Bank Service Area maps in MN Rules 8420.0522 Subp. 7.

¹ The term "impact" as used 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 indicate whether or not those activities may require mitigation/replacement.

Project Name and/or Number:

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

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Luce Line Trail Project Wetland Delineation Report Prepared by Justin Valenty 9-27-2016

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Introduction

Three Rivers Park District is constructing a new bituminous pavement trail along Fernbrook Lane that will connect the Luce Line Trail to a City of Plymouth trail along County Road 6 (Figure 1). The project will include removing curbing and pavement as well as clearing trees adjacent to Fernbrook Lane. Three Rivers Park District does not intend for construction to occur within the wetland boundaries. The methods and results of the field review and delineation are summarized below. The review was conducted by Justin Valenty of Three Rivers Park District (justin.valenty@threeriversparks.org).

1.0 Methods

Prior to delineating the wetland, the site was remotely assessed by reviewing soils data from the National Resources Conservation Service (Figure2), and wetland data from the National Wetland Inventory (Figure1). In order to determine the wetland boundary a routine level 2 wetland delineation was conducted as described in the 1987 Corps of Engineers Wetland Delineation Manual. The Midwest Regional Supplement was used to determine if all three indicators of a wetland were met.

Two transects were conducted to determine the wetland boundary. Each transect included an upland and a wetland plot. At each plot a soil core was taken and vegetation was identified and given an indicator status based on the National Wetland Plant List. Hydrology indicators were also recorded.

2.0 Results

The wetland located adjacent to the project area is listed as a Type 3 shallow marsh on the National Wetland Inventory. There is also a Type 1 floodplain forest listed in the southern portion of the project area. A 30-day cumulative precipitation total was calculated to determine whether antecedent precipitation conditions were considered normal. The normal range for this time of year is between 3 to 5 inches of rain. Precipitation was above normal 2 months prior to the wetland delineation because the area received more than 10 inches of rain in August (Figure 4).

Soils in the wetland plot of the first transect contained 10YR 2/1 sandy loam from 0-15 inches. Redox concentrations were not detected due to the wet soil conditions with the water table being 7 inches below the surface. The dominant vegetation in the wetland plot was Eastern Cottonwood, Box Elder, Reed Canary Grass, and Cattail. The upland plot consisted mainly of Blue Spruce, Box Elder, Canada Goldenrod, and Crownvetch (Table 1). There were no hydric soil characteristics or evidence of wetland hydrology in the upland plot. The second transect along the wetland was dominated by Reed Canary Grass and River Bulrush (Table 1). The soils consisted of 10YR 2/2 clay loam in the upper 6 inches. From 6-20 inches the soil was a 10YR 3/2 clay loam with 7.5 YR 5/8 redox concentrations. The water table was present at 14 inches below the surface and multiple secondary hydrology indicators were met, including dry-season water table, geomorphic position, and the FAC-Neutral test. The presence of surface water in

the wetland and abrupt change in slope were used to determine the wetland boundary (Figure 3).

A soil core was also taken in the forested area in the southern end of the project area to determine if any wetland indicators were met. Vegetation was dominated by Box Elder, Buckthorn, and Stinging Nettle. A 35 inch soil core was taken and there were no hydric soil indicators observed. Wetland hydrology indicators were also absent.

3.0 References

- Knobel, E. 1977. Field Guide to the Grasses, Sedges, and Rushes of the United States, 2nd Edition. Dover Publications, Inc. New York.
- Lichvar, R.W. and J.T. Kartesz. 2009. North American Digital Flora: National Wetland Plant List, version 2.4.0 (https://wetland_plants.usace.army.mil). U.S. Army Corps of Engineers, Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory, Hanover, NH, and BONAP, Chapel Hill, NC.
- Munsell Color. 1994. Munsell Soil Color Charts. Macbeth. New York.
- Newcomb, L. 1977. *Wildflower Guide, 1st Edition*. Little, Brown, and Company. New York.
- Peterson, R.T, M. McKenny. 1968. A Field Guide to Wildflowers of Northeastern/North-central North America. Houghton Mifflin Company. New York.
- Petrides, G.A. 1958. A Field Guide to Trees and Shrubs. Houghton Mifflin Company. New York.
- United States Army Corps of Engineers. 1987. U.S. Corps of Engineers Wetland Delineation Manual. U.S. Army Corps of Engineers Waterways Experiment Station. Vicksburg, MS.
- United States Army Corps of Engineers. 2010. Regional supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region. U.S. Army Engineer Research and Development Center. Vicksburg, MS.
- United States Department of Agriculture. Natural Resources Conservation Service, Web Soil Survey. http://websoilsurvey.nrcs.usda.gov/.

Table 1. Wetland vegetation Summary.

		%			
Common Name	Scientific Name	% Cover	Dominant	Stratum	Indicator
Transect 1				or, acam	Indicator
Wetland					·
Eastern					
Cottonwood	Populus deltoides	35	Υ	Т	FAC
Box Elder	Acer negundo	10		T	FAC
Sandbar Willow	Salix interior	10		Т	FACW
Reed Canary Grass	Phalaris arundinacea	50	Υ	Н	FACW
Box Elder	Acer negundo	5	Υ	S	FAC
Narrow Leaved Cattail	Typha angustifolia	20	Υ	Н	OBL
Carrain Canada Thistle	Cirsium arvense	20	ĭ		OBL
Crownvetch		2		Н	FACU
Upland	Securigera varia	2		H	NL
Blue Spruce	Picea pungens	15	Υ	T	EAC
Box Elder	Acer negundo	10	Y		FAC
Eastern	Acer negundo	10	Ť	Т	FAC
Cottonwood	Populus deltoides	10	Υ	Т	FACW
Box Elder	Acer negundo	5	Υ	S	FAC
Common Buckthorn	Rhamnus cathartica	5	Υ	S	FAC
Canada Goldenrod	Solidago canadensis	25	Υ	Н	FACU
Giant Goldenrod	Solidago gigantea	15		Н	FACW
Crownvetch	Securigera varia	50	Υ	Н	NL
Burdock	Cirsium arvense	2		Н	FACU
Reed Canary Grass	Phalaris arundinacea	2		Н	FACW
Lesser Burdock	Arctium minus	2		Н	FACU
	Parthenocissus				
Virginia Creeper	quinquefolia	5	Υ	V	FACU
Transect 2					
Wetland					
Reed Canary Grass	Phalaris arundinacea	75	Y	Н	FACW
River Bulrush	Bolboshoenus fluviatilis	35	Υ	Н	OBL
Canada Thistle	Cirsium arvense	1		Н	FACU
Upland					
Eastern Cottonwood	Populus deltoides	5	Υ	т	EAC
Crownvetch	Securigera varia	100	Ϋ́	Т	FAC
Canada Thistle	Cirsium arvense		ſ	Н	NL
Canada TIIISUE	Chalum arvelise	5		<u>H</u>	FACU

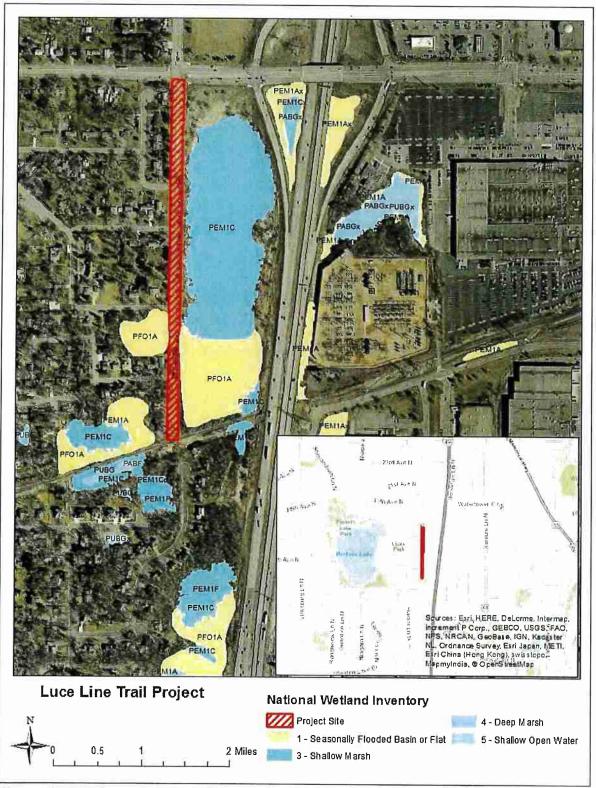


Figure 1. Site Location and Existing Wetland Data.



Figure 2. Soils Data.



Figure 3. Delineated Wetland Boundary.

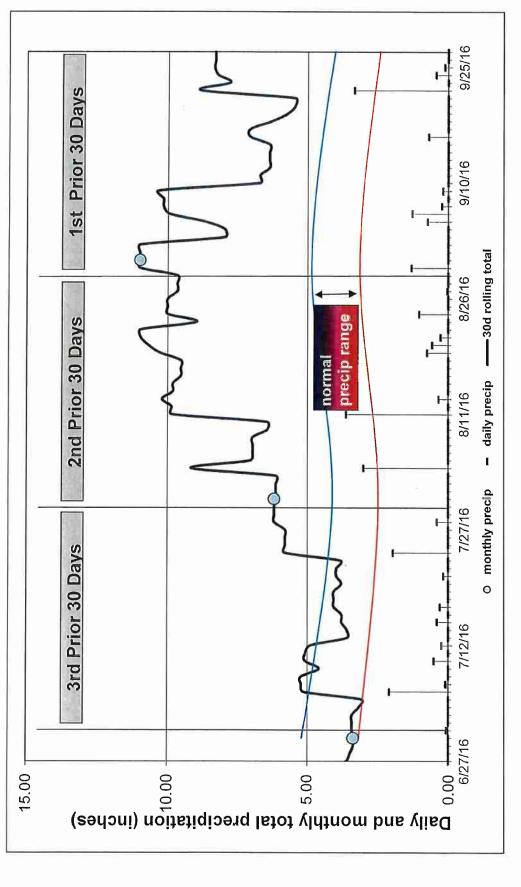


Figure 4. Antecedent precipitation data for the project site location.





Figure 5. Photos of wetland site.

WETLAND DETERMINATION DATA FORM - Midwest Region City/County: Plamout WHEALER' A Sampling Date: 9-27-2016 Applicant/Owner: Three Rivers Park Distric State: MN Sampling Point: Transport 1 - Wet Investigator(s): Justin Valentu Section, Township, Range: Sect. 27. TOLUN 118, RANG. 22 Landform (hillslope, terrace, etc.): Tol 5/8 Local relief (concave, convex, none): _Concave_ Long: 93°27'40,(07"1~ Datum: NAN 1983 Soil Map Unit Name: // LAAN land Udinsamment Complex, O-1% & boes NWI classification: Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ____ (If no, explain in Remarks.) Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Is the Sampled Area Hydric Soil Present? within a Wetland? Wetland Hydrology Present? No Remarks: VEGETATION - Use scientific names of plants. Absolute Dominant Indicator Dominance Test worksheet: Tree Stratum (Plot size: % Cover Species? Status **Number of Dominant Species** Posalus deltoi That Are OBL, FACW, or FAC: cer Negundo AC Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) = Total Cover Sapling/Shrub Stratum (Plot size: Prevalence Index worksheet: Total % Cover of: **OBL** species FACW species FAC species **FACU** species UPL species = Total Cover Herb Stratum (Plot size: Column Totals: Prevalence Index = B/A = Hydrophytic Vegetation Indicators: irsiam asvense 1 - Rapid Test for Hydrophytic Vegetation √ 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 6. 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must 74 = Total Cover be present, unless disturbed or problematic. Woody Vine Stratum (Plot size: Hydrophytic Vegetation Present? = Total Cover Remarks: (Include photo numbers here or on a separate sheet.)

Sampling Point: Transect - Wet

Depth (in a ban)	Matrix	D/	Redox Features	-2 T	n
(inches)	Color (moist)	and the second	Color (moist) % Type' Lo	per Control	Remarks
0-15	10YR2/1	_ 100		Jaroly losen	
				J	
			1. Sec. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10		
Tvpe: C=Cc	ncentration, D=De	pletion, RM=Re	duced Matrix, MS=Masked Sand Grains.	²Location:	PL=Pore Lining, M=Matrix.
lydric Soil I					or Problematic Hydric Solls ³ :
Histosol	(A1)		Sandy Gleyed Malrix (S4)		rairie Redox (A16)
_	ipedon (A2)		Sandy Redox (S5)		rface (S7)
Black His			Stripped Matrix (S6)		nganese Masses (F12)
	n Sulfide (A4)		Loamy Mucky Mineral (F1)		allow Dark Surface (TF12)
Stratified	Layers (A5)		Loamy Gleyed Matrix (F2)		xplain in Remarks)
2 cm Mu	ck (A10)		Depleted Matrix (F3)		
_ Depleted	Below Dark Surfa	ce (A11)	✓ Redox Dark Surface (F6)		
	rk Surface (A12)		Depleted Dark Surface (F7)	³ Indicators o	of hydrophytic vegetation and
	ucky Mineral (S1)		Redox Depressions (F8)	wetland	hydrology must be present,
	cky Peat or Peal (S			unless d	listurbed or problematic.
	ayer (if observed):			/
Type:				Hydric Soil F	resent? Yes V No
					10261111 162 - 140
Depth (inc		near su	stace. Soils to wet to		concertiations.
Depth (inc Remarks: ()	later table	near su	stace. Soils to wet to		concertations.
Depth (inc Remarks: U	bter tabk		Hace. Soils to wet t		concertiations.
Depth (inc Remarks: () YDROLOG Vetland Hyd	bter tabk GY Irology Indicators			o see redox	
Depth (inc Remarks: U YDROLOG Vetland Hyd Primary Indic	bates tabk GY Irology Indicators ators (minimum of		check all that apply)	o see redox	y Indicators (minimum of two required
Popth (inc Remarks: () YDROLOG Vetland Hyd Primary Indica Surface N	ates tabk GY Irology Indicators ators (minimum of Nater (A1)		check all that apply) Water-Stained Leaves (B9)	Secondar Surfa	v Indicators (minimum of two required ce Soil Cracks (B6)
Popth (inc Remarks: () YDROLOG Vetland Hyd Primary Indic Surface N	GY Irology Indicators ators (minimum of Water (A1) ler Table (A2)		check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13)	Secondar Secondar Drain	v Indicators (minimum of two required ce Soil Cracks (B6) age Patterns (B10)
YDROLOG Vetland Hyd Surface V High Wat Y Saturatio	GY Irology Indicators ators (minimum of Water (A1) ier Table (A2) n (A3)		check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14)	Secondar Secondar Drain Dry-S	y Indicators (minimum of two required ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2)
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Popth (inc Remarks: // PDROLOG Wetland Hyd Primary Indic Surface N High Water Ma Sediment Drift Dep Algal Mat Iron Depo Inundatio Surface Water Table F Saturation Preserved	GY Irology Indicators ators (minimum of Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B6) n Visible on Aerial Vegetated Concavations: r Present?	Imagery (B7) e Surface (B8) /es No	check all that apply) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Represence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soil Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) Depth (inches):	Secondar Surfa Drain Dry-S Crayf cots (C3) Satur Stunte S (C6) Geom FAC-	y Indicators (minimum of two required ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
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WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lace Line Trail Seament	C	City/County: Plamout	L/Hennepin Sampling Date: 9-27-2016
Applicant/Owner: Three Rivers Park A	istrict		State: MA Sampling Point: Transect 1
		Section Township Par	nge: Sect. 27, Town/18, Rang 22
			2
Landform (hillslope, terrace, etc.): Rackslare		Local relief (concave, convex, none): Convex
Slope (%): Lat: 44 59 33, 10 1)		ong: 1 0 0 1 4/), (17" L) Datum: NAA 1983
Soft Map Unit Name: Mrban Land MolipSor	nments,	0-2% 5/01	NWI classification:
Are climatic / hydrologic conditions on the site typical for	this time of yea	r? Yes _ /_ No_	(If no, explain in Remarks.)
Are Vegetation 🔼 , Soil ル , or Hydrofogy 枞	_significantly d	listurbed? Are "	Normal Circumstances" present? Yes No
Are Vegetation 🕖 , Soil 🕡 , or Hydrology 🖊			eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site ma	p showing	sampling point lo	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	No_V_		
Hydric Soll Present? Yes	No_1/_	is the Sampled	
Wetland Hydrology Present? Yes	No/_	within a Wetlan	d? Yes No V
Remarks:			; 6 ;
VEGETATION - Use scientific names of plan		B 1. (1.8)	I Book and Post contains
Tree Stratum (Plot size: 30 f)	Absolute % Cover	Dominant Indicator Species? Status	Dominance Test worksheet:
1. Picra Dungens	15	Y FAC	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2. Acer negundo	10	FAC	
3. Populus deltoides	10	Y FACW	Total Number of Dominant Species Across All Strata: (B)
3. TODOLONI ALE IGIALS	_ _	—— 1710 M	opedies Across Ali dirata.
4			Percent of Dominant Species / 3%
5	75	= Total Cover	That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size: 15 +)		= Total Cover	Prevalence Index worksheet:
1. Acer neundo	5	Y FAC	Total % Cover of: Multiply by:
2. Rhamaus cathartica	5	Y FAC	OBL species x 1 =
44			FACW species
3			FAC species35x3 = _/05
*			FACU species 34 x4= 136
b	$-\frac{1}{10}$	= Total Cover	UPL species O x5 = O
Herb Stratum (Plot size: 5 ++)		- Total Cover	Column Totals: 94 (A) 291 (B)
1. Solidage Canadensis	25	Y FACU	
2. Solidado sigantea	15	FACY	Prevalence Index = B/A =
3. Securia era Varia	50	V 7/4	Hydrophytic Vegetation Indicators:
4. Citsian arverse.		FACU	1 - Rapid Test for Hydrophytic Vegetation
5. Phalatis arundinacea	- 5	FACN	2 - Dominance Test is >50%
6. Arctium minus	~2	FACU	3 - Prevalence Index is ≤3.0 ¹
			4 - Morphological Adaptations (Provide supporting
7	—() ———()		data in Remarks or on a separate sheet)
8			Problematic Hydrophytic Vegetation (Explain)
19.			
10	99	- Total Cover	Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size: 15 Ft)		= Total Cover	be present, unless disturbed or problematic.
1. Parthenocissus quinquefolia	5	Y FACU	Hydrophytic
		1/1/10	Vegetation
2	- 5	= Total Cover	Present? Yes No
Remarks: (Include photo numbers here or on a separa		10(4) 00491	<u> </u>
, recommend (missed plane)			

Depth Matrix	depth needed to document the indicator or confi	rm the absence of indicators.)
(inches) Color (moist) %	Redox Features Color (moist) % Type¹ Loc²	
0-20 7.5YR 3/1 100		Sandy Lasm
700		_ Sandy Loan_
		
	V The state of the	
		
Turne Co-Consentation D. D. et al.		*
Type: C=Concentration, D=Depletion, Tydric Soll Indicators:	RM=Reduced Matrix, MS=Masked Sand Grains.	² Location: PL=Pore Lining, M=Matrix.
Histosol (A1)	Orando Olassida (1. 40.)	Indicators for Problematic Hydric Solls ³ :
Histic Epipedon (A2)	Sandy Gleyed Matrix (S4) Sandy Redox (S5)	Coast Prairie Redox (A16)
Black Histic (A3)	Stripped Matrix (S6)	Dark Surface (S7)
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1)	Iron-Manganese Masses (F12)
Stratified Layers (A5)	Loamy Gleyed Matrix (F2)	Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
2 cm Muck (A10)	Depleted Matrix (F3)	Onter (Explain in Nemarks)
 Depleted Below Dark Surface (A11) 	Redox Dark Surface (F6)	
Thick Dark Surface (A12)	Depleted Dark Surface (F7)	Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Redox Depressions (F8)	wetland hydrology must be present,
5 cm Mucky Peat or Peat (S3)		unless disturbed or problematic.
Restrictive Layer (if observed):		÷:
Type:	1	1
Depth (inches):		Hydric Soll Present? Yes No
	7.97	Hydric Soil Present? Yes No
/DROLOGY		Hydric Soil Present? Yes No
/DROLOGY /etland Hydrology Indicators:	milited; check all that applied	
Pelland Hydrology Indicators: Indicators (minimum of one is re		Secondary Indicators (minimum of two required
PROLOGY Velland Hydrology Indicators: rimary Indicators (minimum of one is red Surface Water (A1)	Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required Surface Soil Cracks (B6)
POROLOGY Vetland Hydrology Indicators: rimary Indicators (minimum of one is red Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) Aquatic Fauna (B13)	Secondary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10)
PROLOGY Velland Hydrology Indicators: rimary Indicators (minimum of one is red Surface Water (A1)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14)	Secondary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)
PROLOGY Vetland Hydrology Indicators: rimary Indicators (minimum of one is red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1)	Secondary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
PROLOGY Vetland Hydrology Indicators: rimary Indicators (minimum of one is red Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots	Secondary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) (C3) Saturation Visible on Aerial Imagery (C9)
POROLOGY Vetland Hydrology Indicators: rimary Indicators (minimum of one is red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4)	Secondary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
POROLOGY Vetland Hydrology Indicators: rimary Indicators (minimum of one is recognized by the control of the c	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (Ci	Secondary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
POROLOGY Vetland Hydrology Indicators: rimary Indicators (minimum of one is recognized by the second secon	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (Ci	Secondary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
POROLOGY Vetland Hydrology Indicators: rimary Indicators (minimum of one is reconstructed by the control of th	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (Ci Thin Muck Surface (C7) Gauge or Well Data (D9)	Secondary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
POROLOGY Vetland Hydrology Indicators: rimary Indicators (minimum of one is recognized by the second secon	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (Ci Thin Muck Surface (C7) Gauge or Well Data (D9)	Secondary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
POROLOGY Jetland Hydrology Indicators: rimary Indicators (minimum of one is recognized by the second state) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surface	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (Ci Thin Muck Surface (C7) Gauge or Well Data (D9) (B8) Other (Explain in Remarks)	Secondary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
PROLOGY Veliand Hydrology Indicators: rimary Indicators (minimum of one is recompleted by the control of the c	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (Ci Thin Muck Surface (C7) Gauge or Well Data (D9) (B8) Other (Explain in Remarks)	Secondary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
PROLOGY Velland Hydrology Indicators: rimary Indicators (minimum of one is reconstructed by the Indicators (minimum of one is reconstructed by the Indicators (Management of one is reconstructed (Management of one is reconstructed by the Indicators (Management of one is reconstructed by Indica	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (Ci Thin Muck Surface (C7) Gauge or Well Data (D9) e (B8) Other (Explain in Remarks) No Depth (inches): No	Secondary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
POROLOGY Vetland Hydrology Indicators: rimary Indicators (minimum of one is reconstructed by the Indicators (Minimum of one is reconstructed by Indicators (Minimum o	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (Ci Thin Muck Surface (C7) Gauge or Well Data (D9) (B7) Gauge or Well Data (D9) (B8) Other (Explain in Remarks) No Depth (inches): No Depth (inches): Weti	Secondary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
POROLOGY Vetland Hydrology Indicators: rimary Indicators (minimum of one is reconstructed by the Indicators (Minimum of one is reconstructed by Indicators (Minimum o	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (Ci Thin Muck Surface (C7) Gauge or Well Data (D9) e (B8) Other (Explain in Remarks) No Depth (inches): No	Secondary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
Por Deposits (B3) Inundation Visible on Aerial Imagery Sparsely Vegelated Concave Surface Water Present? Sparsely Vegelated Concave Surface Water Present? Sparsely Present? Seluration Present? Sparsely Present. Spar	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (Ci Thin Muck Surface (C7) Gauge or Well Data (D9) (B7) Gauge or Well Data (D9) (B8) Other (Explain in Remarks) No Depth (inches): No Depth (inches): Weti	Secondary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
POROLOGY Vetland Hydrology Indicators: rimary Indicators (minimum of one is reconstructed by the Indicators (Minimum of one is reconstructed by Indicators (Minimum o	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (Ci Thin Muck Surface (C7) Gauge or Well Data (D9) (B7) Gauge or Well Data (D9) (B8) Other (Explain in Remarks) No Depth (inches): No Depth (inches): Weti	Secondary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)

WETLAND DETERMINATION DATA FORM - Midwest Region

oject/Site: Luce Line Trail Segment	(City/County: //urnov	14 Henrepin Sampling Date: 9-27-2016
oplicant/Owner: Three Rivers Park Di	STILCT		State: MN Sampling Point: Transe (+ 2
vestigator(s): Justin Valenty		Section, Township, Rar	nge: Seft 27, Town, 118, Rang, 22
ndform (hillslope, terrace, etc.): Toes la Ae			(concave, convex, rione): Concave
		Long: 73°27'3°	09"W Datum: NAD 1983
оре (%):Let: 44 59 44 79"N		Long: // d / \	St. Datum PC A16
il Map Unit Name: / la la la la Hawick	Comple	X, 10-11/2	Slopes NWI classification: PEMIC
e climatic / hydrologic conditions on the site typical for the			
e Vegetation M , Soil M , or Hydrology M	significantly	disturbed? Are "	Normal Circumstances" present? Yes No
e Vegetation / , Soil / , or Hydrology /	naturally pro	blematic? (If ne	eded, explain any answers in Remarks.)
UMMARY OF FINDINGS - Attach site map	showing	sampling point le	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	No		
Tydno ddii / 1225/iii	No	Is the Sampled	/
Vetland Hydrology Present? Yes	No	within a Wetlar	rar res_vNo
Remarks:			
			#1
EGETATION - Use scientific names of plant	S.		
20 8	Absolute	Dominant Indicator	Dominance Test worksheet:
ree Stratum (Plot size: 30 H)	% Cover	Species? Status	Number of Dominant Species
			That Are OBL, FACW, or FAC: (A)
			Total Number of Dominant
			Species Across All Strata:(B)
13			Percent of Dominant Species
			That Are OBL, FACW, or FAC:/OO (A/B)
apling/Shrub Stratum (Plot size: 15 ft)	-	= Total Cover	Prevalence Index worksheet:
			Total % Cover of: Multiply by:
•			OBL species
			FACW species 75 x2= 150
			FAC species O x3 = O
•			FACU species/ x 4 =4
		= Total Cover	UPL species x 5 =
erb Stratum (Plot size: 5 ++)		Mark Marketter	Column Totals: 111 (A) 189 (B)
Phalacis aryndinacea	_ 75_	Y FACE	17
Bolboschoe pus Fluviatilis	35	<u> </u>	Prevalence Index = B/A =
Citsium arvense		FA CU	Hydrophytic Vegetation Indicators:
			1 - Rapid Test for Hydrophytic Vegetation
			√ 3 - Prevalence Index is ≤3.01
			4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
			data in Remarks or on a separate sheet)
			data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation [†] (Explain)
0			data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must
0			data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation [†] (Explain)
o		= Total Cover	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation [†] (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Voody Vine Stratum (Plot size: _/5 ++)		= Total Cover	data in Remarks or on a separate sheet) — Problematic Hydrophytic Vegetation [†] (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic
8		= Total Cover	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation [†] (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Profile Des	scription: (Descri	be to the dep	oth needed to docu	ment the i	ndicator	or confirm	n the absence o	Sampling Point: Transe	
Depth	Matrix	(ox Features		01 00111111	it the apacilice o	i ilidicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture	Remarks	
0-6	1048 3/2	100			- 6		Clay Loan	- tanani	
6-20	10YR3/2	28	JOYR 4/1	1/1:		- AA	ALL I		
· · · · · · · · · · · · · · · · · · ·		_ 449—	7.5 YR 5/8				Clay Loam -		
			1.1/270	-/1		_/_			
	(a) (-						
								8	
Type: C=C	Concentration, D=D	eplelion, RM=	Reduced Matrix, M	S=Masked	Sand Gra	ins.	2) postion:	PL=Pore Lining, M=Matrix.	
lydric Soil	Indicators:			- Indiana	- mid Oit		Indicators for	r Problematic Hydric Solls ³ :	
Histoso	, ,		Sandy	Gleyed Mali	rix (S4)	v		airie Redox (A16)	
	pipedon (A2)		Sandy	Redox (S5)	55		Dark Sur		
	listic (A3)	98	Strippe	d Matrix (Se	3)			ganese Masses (F12)	
	en Sulfide (A4)		Loamy	Mucky Mine	ral (F1)			llow Dark Surface (TF12)	
	d Layers (A5) uck (A10)	52	Loamy	Gleyed Mat	rix (F2)			rplain in Remarks)	
	d Below Dark Surfa	ice (A11)	Deplete	ed Matrix (F	3)				
	ark Surface (A12)	100 (U11)		Dark Surfac d Dark Surf			ðı	The state of the s	
	Mucky Mineral (S1)			Depressions			Indicators of hydrophytic vegetation and		
_ 5 cm Mt	ucky Peat or Peat (S3)			, (i v)		wetland hydrology must be present, unless disturbed or problematic.		
estrictive	Layer (if observed	Dv.						attribed of problematic.	
		9:						the state of the s	
. Туре:		···		i i				,	
	ches):			i ė			Hydric Soll Pr	,	
2.51				ė				,	
Depth (in				lå				,	
Depth (in				Já				,	
Depth (in				là				,	
Depth (indepth)	ches):			14				,	
Depth (included in the control of th	ches):			1				,	
Depth (included in the control of th	ches): GY drology Indicators							,	
Depth (inclements: OROLO Jetland Hydrimary Indice	GY drology Indicators		cd; check all that ap	píy)			Hydric Soil Pr	esent? Yes_V No	
Depth (inclements: DROLO Jetland Hydrimary Indication	GY drology Indicators ators (minimum of			ply) ned Leaves	(B9)		Hydric Soll Pr	esent? Yes No	
Depth (included in the control of th	GY drology Indicators eators (minimum of water (A1) ter Table (A2)		Water-Stai Aquatic Fa	ned Leaves una (B13)			Hydric Soll Pr	esent? Yes No	
Depth (included in the control of th	GY drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3)		Water-Stai	ned Leaves una (B13)			Hydric Soll Pr Secondary Surface Drainage	ndicators (minimum of two required Soil Cracks (B6)	
Depth (included in the control of th	GY drology Indicators cators (minimum of water (A1) ter Table (A2) on (A3) arks (B1)		Water-Stai Aquatic Fa True Aqual Hydrogen S	ned Leaves una (B13) lic Plants (B Sulfide Odor	14) · (C1)		Secondary Surface Drainag Dry-Sea	esent? Yes No	
Depth (included in the control of th	GY drology Indicators sators (minimum of a Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2)		Water-Stai Aquatic Fa True Aquai Hydrogen S Oxidized R	ned Leaves una (B13) lic Plants (B Sulfide Odor hizospheres	14) (C1) on Livin	g Roots (C	Secondary Surface Drainag V Dry-Sea	indicators (minimum of two required Soil Cracks (B6) le Patterns (B10) ason Water Table (C2)	
Depth (incemarks: 'DROLO' etland Hydimary Indice Surface ' High Wa Saturatio Water Mater	GY drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3)		— Water-Stai — Aquatic Fa — True Aquai — Hydrogen S — Oxidized R — Presence o	ned Leaves una (B13) lic Plants (B Sulfide Odor hizospheres f Reduced I	14) (C1) on Livin ron (C4)		Secondary Surface Drainag V Dry-Sea Crayfish Saturati	indicators (minimum of two required Soil Cracks (B6) le Patterns (B10) ason Water Table (C2) in Burrows (C8) on Visible on Aerial Imagery (C9)	
Depth (incemarks: DROLO etland Hydinary Indice Surface of High Wa Saturation Water Mater Ma	GY drology Indicators cators (minimum of water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)		Water-Stai Aquatic Fa True Aqual Hydrogen S Oxidized R Presence co	ned Leaves una (B13) lic Plants (B Sulfide Odor hizospheres f Reduced I n Reduction	14) (C1) on Livin ron (C4) in Tilled		Secondary Surface Drainag V Dry-Sea Crayfish Saturati	indicators (minimum of two required Soil Cracks (B6) le Patterns (B10) ason Water Table (C2)	
Depth (incemarks: DROLO etland Hydimary Indice Surface 1 High Wa Saturatio Water Mater	GY drology Indicators sators (minimum of water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) f or Crust (B4) osits (B6)	: one is require	Water-Stai Aquatic Fa True Aqual Hydrogen S Oxidized R Presence co Recent Iror Thin Muck	ned Leaves una (B13) Ic Plants (B Sulfide Odor hizospheres f Reduced I n Reduction Surface (C7	14) (C1) on Livin ron (C4) in Tilled :		Secondary Surface Drainag V Dry-Sea Crayfish Stunted V Geomor	esent? Yes No	
DROLO etland Hydimary Indic Surface High Wa Saturatio Water Ma Sediment Drift Dep Algal Mat Iron Depo	GY drology Indicators eators (minimum of the two parts (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial	one is require	Water-Stai Aquatic Fa True Aqual Hydrogen S Oxidized R Presence c Recent Iror Thin Muck Gauge or V	ned Leaves una (B13) clic Plants (B Sulfide Odor hizospheres of Reduced I Reduction Surface (C7 Voll Data (Di	14) (C1) on Living ron (C4) in Tilled ()		Secondary Surface Drainag V Dry-Sea Crayfish Stunted V Geomor	Indicators (minimum of two required Soil Cracks (B6) as Patterns (B10) ason Water Table (C2) a Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) aphic Position (D2)	
Depth (incomplete of the complete of the compl	GY drology Indicators eators (minimum of the Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B6) on Visible on Aerial I Vegetated Concave	one is require	Water-Stai Aquatic Fa True Aqual Hydrogen S Oxidized R Presence c Recent Iror Thin Muck Gauge or V	ned Leaves una (B13) Ic Plants (B Sulfide Odor hizospheres f Reduced I n Reduction Surface (C7	14) (C1) on Living ron (C4) in Tilled ()		Secondary Surface Drainag V Dry-Sea Crayfish Stunted V Geomor	Indicators (minimum of two required Soil Cracks (B6) as Patterns (B10) ason Water Table (C2) a Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) aphic Position (D2)	
Depth (incemarks: DROLO etland Hyde imary Indice High Wa Saturatio Water Mai Sedimen Drift Depth Algal Mai Iron Depth Inundatio Sparsely	GY drology Indicators eators (minimum of a Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial I Vegelated Concave ations;	one is require	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of Recent Iror Thin Muck Gauge or V Other (Expl	ned Leaves una (B13) Ilc Plants (B Sulfide Odor hizospheres if Reduced I n Reduction Surface (C7 Voll Data (Di ain in Rema	14) (C1) on Living ron (C4) in Tilled ()		Secondary Surface Drainag V Dry-Sea Crayfish Stunted V Geomor	Indicators (minimum of two required Soil Cracks (B6) as Patterns (B10) ason Water Table (C2) a Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) aphic Position (D2)	
Depth (inclements: DROLO Vetland Hydrimary Indice Surface Mater	GY drology Indicators sators (minimum of all water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial I Vegelated Concave ations; r Present?	imagery (B7) e Surface (B8	Water-Stai Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of Recent Iror Thin Muck Gauge or V Other (Expl	ned Leaves una (B13) Ilc Plants (B Sulfide Odor hizospheres if Reduced I n Reduction Surface (C7 Voll Data (Di ain in Rema	14) (C1) on Living ron (C4) in Tilled ()		Secondary Surface Drainag V Dry-Sea Crayfish Stunted V Geomor	Indicators (minimum of two required Soil Cracks (B6) as Patterns (B10) ason Water Table (C2) a Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) aphic Position (D2)	
Depth (included in the control of th	GY drology Indicators sators (minimum of water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B6) on Visible on Aerial I Vegetated Concave ations; r Present? Y	Imagery (B7) e Surface (B6) es No	Water-Stai Aquatic Fa True Aqual Hydrogen S Oxidized R Presence of Recent Iror Thin Muck Gauge or V Other (Expl	ned Leaves una (B13) Ic Plants (B Sulfide Odor hizospheres if Reduced I Reduction Surface (C7 Voll Data (Di ain in Rema	14) (C1) on Living ron (C4) in Tilled ()	Soils (C6)	Secondary Surface Drainag V Dry-Sea Crayfist Stunted V Geomon V FAC-Ne	esent? Yes No	
Depth (incemarks: DROLO etland Hydical Surface Mater Mate	GY drology Indicators sators (minimum of water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B6) on Visible on Aerial I Vegetated Concave ations; r Present? Y	imagery (B7) e Surface (B8	Water-Stai Aquatic Fa Aquatic Fa True Aquat Hydrogen S Oxidized R Presence of Recent Iror Thin Muck Gauge or V Other (Expl	ned Leaves una (B13) Ic Plants (B Sulfide Odor hizospheres if Reduced I Reduction Surface (C7 Voll Data (Di ain in Rema	14) (C1) on Living ron (C4) in Tilled ()	Soils (C6)	Secondary Surface Drainag V Dry-Sea Crayfish Stunted V Geomor	esent? Yes No	

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Luce Line Trail Seament	City/	County: Plumas	AL Hennepin Sampling Date: 9-27-2016
applicant/Owner: Three Rivers Park Di		J	State: MN Sampling Point: Transect
ovestigator(s): Justin Valenty		lon, Township, Ra	ngo: Sect, 27, Town, 1/8, Kang, 2d
andform (hillslope, terrace, etc.): Foots and			(concave, convex, none): //ore-
lope (%): Lat: 44° 59' 44.92" \)	93° 27'37	
			IOPES NWI classification:
re climatic / hydrologic conditions on the site typical for			
re Vegetation, Soil, or Hydrology			'Normal Circumstances" present? Yes No
re Vegetation 🔬 , Soil, or Hydrology	naturally problen	natic? (If ne	eeded, explain any answers in Remarks.)
UMMARY OF FINDINGS - Attach site ma	ap showing sa	mpling point l	ocations, transects, important features, etc.
Hydrophylic Vegetation Present? Yes	No_·V_		
Hydric Soil Present? Yes	No	Is the Sampled	,
Wetland Hydrology Present? Yes	No/_	within a Wetlar	1d? Yes No
Remarks:			
			2
			*
EGETATION - Use scientific names of plan	nts.		
Tree Stratum (Plot size: 30 F)		minant Indicator ecies? Status	Dominance Test worksheet:
1. Populus deltoides		y FAC	Number of Dominant Species That Are OBL, FACW, or FAC:(A)
2. ASTRIALS		/	
			Total Number of Dominant Species Across All Strata: (B)
·			
ī.			Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
1= F1	5_= T c	otal Cover	
Sapling/Shrub Stratum (Plot size: 15 14)	101 ———————————————————————————————————		Prevalence Index worksheet:
			Total % Cover of: Multiply by:
2			OBL species
			FACW species
			FACU species 5 x4= 20
5		otal Cover	UPL species x5=
Herb Stratum (Plot size: 5++)	Siamon .	JIRI COVEI	Column Totals: /// (A) 3.5 (B)
. Securiaera Varia		Y NL	AND THE PARTY OF T
Circium arverse	5	FACU	Prevalence Index = B/A = 3.5
			Hydrophytic Vegetation Indicators:
			1 - Rapid Test for Hydrophylic Vegetation
j			2 - Dominance Test is >50%
l			3 - Prevalence Index is ≤3.01
			4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
J			Problematic Hydrophytic Vegetation ¹ (Explain)
9			
0	$\frac{1}{\sqrt{05}} = Tc$	alal Cover	Indicators of hydric soil and welland hydrology must
Noody Vine Stratum (Plot size: 15 H)	<u> </u>	olai Cover	be present, unless disturbed or problematic.
			Hydrophytic
			Vegetation
2			Present? Yes No /
2	== To	otal Cover	resent res nop

Depth	Matrix	.s are dep		dox Feature		or continu	n the absence of indicators.)
	Color (moist)	%	Color (moist)	oox Feature %	Type ¹	l oc²	Texture Remarks
0-6 10	ye 3/2	100					Sandy Loany
	Y: 3/2	80	10 Xe 4/4	20	. —		Change Con A
	μ. 7.6		70// /4	- 			
Type: C≍Concer lydric Soil Indic		letion, RM=	Reduced Matrix, I	MS=Masked	d Sand Gr	ains.	² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ :
_ Histosol (A1)			Sandy	Gleyed Ma	atrix (S4)	25	Coast Prairie Redox (A16)
Histic Epiped	on (A2)		1111111111111111111111111111111	Redox (Sa	, ,		Dark Surface (S7)
Black Histic (/	43)			ed Matrix (S	•		Iron-Manganese Masses (F12)
Hydrogen Sul				y Mucky Mir			Very Shallow Dark Surface (TF12)
Stratified Lay		2		Gleyed Ma			Other (Explain in Remarks)
2 cm Muck (A	.10) ow Dark Surface	(0.44)		ted Matrix (
_ Depleted Belo _ Thick Dark St		(A11)		Dark Surfa ted Dark Su	, ,		i e
_ Sandy Mucky			, ,	Depressio	, ,		Indicators of hydrophytic vegetation and
	Peat or Peat (S	1)	(\cdox	Deblessio	118 (1-0)		wetland hydrology must be present, unless disturbed or problematic.
	(if observed):						Timess distalled of problematic.
continuit of mary wi							
Type:							
Type: Depth (inches)				* .			Hydric Soll Present? Yes No
Type: Depth (inches)				× .			Hydric Soll Present? Yes No
Type: Depth (inches) remarks;							Hydric Soll Present? Yes No
Type:	gy Indicators:			* .			Hydric Soll Present? Yes No
Type:	gy Indicators:		ed: check all that a	apply)			Hydric Soll Present? Yes No
Type:	gy Indicators; (minimum of o			apply)	es (B9)		
Type:	gy Indicators: (minimum of or r (A1) able (A2)		Water-St				Secondary Indicators (minimum of two requ
Type:	gy Indicators: (minimum of or r (A1) able (A2)		Water-St Aquatic F True Aqu	ained Leave auna (B13) alic Plants) (B14)		Secondary Indicators (minimum of two requ Surface Soil Cracks (B6)
Depth (inches) lemarks: DROLOGY Vetland Hydrologinimary Indicators Surface Water High Water Ta Saturation (AS Water Marks (gy Indicators; (minimum of or r (A1) able (A2) B1)		Water-St Aquatic F True Aqu Hydroger	ained Leave auna (B13) alic Plants a Sulfide Oc) (B14) for (C1)	4	Secondary Indicators (minimum of two requestions of two requestions of two requestions (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
Depth (inches) temarks: DROLOGY Vetland Hydrology Indicators Surface Water High Water Ta Saturation (AS Water Marks (Sediment Dep	gy Indicators: (minimum of or r (A1) able (A2) s) B1) osíts (B2)		Water-St Aquatic F True Aqu Hydroger	ained Leave auna (B13) alic Plants) (B14) for (C1)	ng Roots (i	Secondary Indicators (minimum of two requestions of two requestions of two requestions (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
Depth (inches) temarks: DROLOGY Vetland Hydrology Indicators Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep	gy Indicators: (minimum of or r (A1) able (A2) 8) B1) ossits (B2) (B3)		— Water-St — Aquatic F — True Aqu — Hydroger — Oxidized — Presence	ained Leave fauna (B13) alic Plants n Sulfide Oc Rhizospher n of Reduce) (B14) for (C1) res on Livi d Iron (C4)	Secondary Indicators (minimum of two requestions of two requestions) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (Ca) Stunted or Stressed Plants (D1)
Type:	gy Indicators: (minimum of or r (A1) able (A2) B1) posits (B2) (B3) rust (B4)		Water-Sti Aquatic F True Aqu Hydroger Oxidized Presence Recent In	ained Leave fauna (B13) atic Plants in Sulfide Oc Rhizospher in of Reduce on Reduction) (B14) for (C1) res on Livi d Iron (C4 on in Tilled)	Secondary Indicators (minimum of two requestions of
Type:	gy Indicators: (minimum of or r (A1) able (A2) 8) B1) lossits (B2) (B3) trust (B4) (B5)	ne is requir	Water-Standard Water-	ained Leave Fauna (B13) atic Plants In Sulfide Oc Rhizospher In of Reduce In Reduction) (B14) for (C1) res on Livi d fron (C4 on in Tilled C7))	Secondary Indicators (minimum of two requestions) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C) Stunted or Stressed Plants (D1)
Type:	gy Indicators: (minimum of or r (A1) able (A2) B1) posits (B2) (B3) rust (B4) (B5)	ne is requir	Water-St Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc	ained Leave auna (B13) atic Plants in Sulfide Oc Rhizospher in of Reduce on Reduction k Surface (G Well Data) (B14) for (C1) res on Livi d Iron (C4 on in Tilled C7) (D9))	Secondary Indicators (minimum of two requestions of
Type:	gy Indicators: (minimum of or r (A1) able (A2) B1) B1) resits (B2) (B3) rrust (B4) (B5) Ible on Aerial Installed Concave	ne is requir	Water-St Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc	ained Leave Fauna (B13) atic Plants In Sulfide Oc Rhizospher In of Reduce In Reduction) (B14) for (C1) res on Livi d Iron (C4 on in Tilled C7) (D9))	Secondary Indicators (minimum of two requestions of
Type: Depth (inches) Identifications Identific	gy Indicators: (minimum of or r (A1) able (A2) B1) osits (B2) (B3) rrust (B4) (B5) ible on Aerial Inelated Concave	ne is requir nagery (87 Surface (8	Water-Sti Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc Gauge or Other (Ex	ained Leave fauna (B13) alto Plants in Sulfide Oc Rhizospher in Greduce on Reduction k Surface (Greduce Well Data ipplain in Rei) (B14) dor (C1) res on Livi d Iron (C4 on in Tilled C7) (D9) marks))	Secondary Indicators (minimum of two requestions of
Type: Depth (inches) Remarks: PDROLOGY Vetland Hydrology Vetland Hydrology Vetland Hydrology Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Inundation Vis Sparsely Vege Vetled Observation Uniface Water Pre	gy Indicators: (minimum of or r (A1) able (A2) B1) posits (B2) (B3) prust (B4) (B5) ible on Aerial In elated Concave us: sent? Ye	ne is requir nagery (B7 Surface (B	Water-Sti Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc Gauge or Other (Ex	ained Leave fauna (B13) alic Plants in Sulfide Oc Rhizospher of Reduce on Reduction k Surface (Control Well Data inplain in Rei) (B14) for (C1) res on Livi d fron (C4 on in Tilled C7) (D9) marks)) I Soils (C6)	Secondary Indicators (minimum of two requestions of
Type: Depth (inches) Remarks: YDROLOGY Vetland Hydroloi rimary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Inundation Vis Sparsely Vege leid Observation urface Water Prese	gy Indicators: (minimum of or r (A1) able (A2) B1) B1) cosits (B2) (B3) rust (B4) (B5) ible on Acrial Inelated Concave us: sent? Ye	nagery (B7 Surface (B s N	Water-Sti Aquatto F Aquatto F True Aqu Hydroger Oxidized Presence Recent In Thin Muc Gauge or Other (Ex	ained Leave fauna (B13) latic Plants in Sulfide Oc Rhizospher of Reduce on Reduction k Surface (C Well Data leplain in Refunches):	(B14) (G14) for (C1) res on Livi d Iron (C4 on in Tilled C7) (D9) marks)) I Soils (C6)	Secondary Indicators (minimum of two requestions) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (Canalist of Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
Type:	gy Indicators: (minimum of or r (A1) able (A2) b) B1) ossits (B2) (B3) rust (B4) (B5) ible on Aerial In elated Concave is: sent? Ye ringe)	nagery (B7 Surface (B s N s N	Water-Sti Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc Gauge or Other (Ex	ained Leave rauna (B13) eatic Plants in Sulfide Oc Rhizospher in of Reduce on Reduction k Surface (G Well Data explain in Res inches): inches): inches):	(B14) (B14) for (C1) res on Livi d Iron (C4 on in Tilled C7) (D9) marks)) I Soils (C6)	Secondary Indicators (minimum of two requestions of
Type:	gy Indicators: (minimum of or r (A1) able (A2) b) B1) ossits (B2) (B3) rust (B4) (B5) ible on Aerial In elated Concave is: sent? Ye ringe)	nagery (B7 Surface (B s N s N	Water-Sti Aquatto F Aquatto F True Aqu Hydroger Oxidized Presence Recent In Thin Muc Gauge or Other (Ex	ained Leave rauna (B13) eatic Plants in Sulfide Oc Rhizospher in of Reduce on Reduction k Surface (G Well Data explain in Res inches): inches): inches):	(B14) (B14) for (C1) res on Livi d Iron (C4 on in Tilled C7) (D9) marks)) I Soils (C6)	Secondary Indicators (minimum of two requestions of
Type: Depth (inches) Remarks: YDROLOGY Vetland Hydrolog Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Inundation Vis Sparsely Vege Ield Observation Furface Water Prese Vater Table Prese aturation Present Includes capillary	gy Indicators: (minimum of or r (A1) able (A2) b) B1) ossits (B2) (B3) rust (B4) (B5) ible on Aerial In elated Concave is: sent? Ye ringe)	nagery (B7 Surface (B s N s N	Water-Sti Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc Gauge or Other (Ex	ained Leave rauna (B13) eatic Plants in Sulfide Oc Rhizospher in of Reduce on Reduction k Surface (G Well Data explain in Res inches): inches): inches):	(B14) (B14) for (C1) res on Livi d Iron (C4 on in Tilled C7) (D9) marks)) I Soils (C6)	Secondary Indicators (minimum of two requestions of

WETLAND DETERMINATION DATA FORM - Midwest Region __ Sampling Date: <u>9-27-2016</u> Applicant/Owner: /Lree Sampling Point: Investigator(s): Justin Section, Township, Range: Sect. 27 Local relief (concave, convex, none): Landform (hilfstope, terrace, etc.): O.2% Slopes __ NWI classification: \(\int F \) 1A Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ (If no, explain in Remarks.) , or Hydrology _/V significantly disturbed? Are "Normal Circumstances" present? Yes Are Vegetation _____, Soil __ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Is the Sampled Area Hydric Soll Present? Yes Nο within a Wetland? Wetland Hydrology Present? Yes No 1 Remarks: VEGETATION - Use scientific names of plants. Absolute Dominant Indicator Dominance Test worksheet: Tree Stratum (Plot size: % Cover Species? Status Number of Dominant Species That Are OBL, FACW, or FAC: 2. Phamous Cathartico Total Number of Dominant Species Across All Strata: **(B)** Percent of Dominant Species That Are OBL, FACW, or FAC: = Total Cover Sapling/Shrub Stratum (Plot size: Prevalence Index worksheet: 1. Rhamous Cathartica Total % Cover of: OBL species **FACW** species FAC species FACU species _ = Total Cover UPL species Column Totals: Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.01 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vagetation (Explain) Indicators of hydric soil and welland hydrology must = Total Cover be present, unless disturbed or problematic. Woody Vine Stratum (Plot size: Hydrophytic Vegetation Present? = Total Cover Remarks: (Include photo numbers here or on a separate sheet.)

Profile Descr	ription: (Describe	to the depti	needed to docur	nent the Indica	lor or confi	rm the absence of h	Sampling Point:
Depth	Matrix		Redo	x Features			
(inches)	Color (moist)	%	Color (moist)	, <u>%</u> Tyr	e¹ Loc²	Texture	Remarks
0-/5	10YR 2/1	100				ClayLoan	
15-20	10YR3/	100		*		Clay	
20-30	2.57 4/2	100				Clary	
30-35	2.54 5/4	/00				- 0	
<u> </u>	4.7/11	_ /00 _				- Sandy Clay	/
			+				
		oletion, RM=R	Reduced Matrix, MS	3=Masked Sand	Grains.	² Location: PL	_=Pore Lining, M=Matrix.
Hydric Soil In						Indicators for	Problematic Hydric Soils ³ :
Histosol (Bleyed Matrix (S	4)		rie Redox (A16)
	pedon (A2)			Redox (S5)		Dark Surfa	
Black Hist	n Sulfide (A4)	2	7	l Matrix (S6)	, r.	Iron-Manga	anese Masses (F12)
	Layers (A5)			Mucky Mineral (I Gleyed Matrix (F			ow Dark Surface (TF12)
2 cm Muc		-		эвуес матлх (г d Matrix (F3)	۷)	Other (Exp	lain in Remarks)
	Below Dark Surfac	e (A11)		o wathx (F3) Dark Surface (F6	3 1		
	k Surface (A12)	~ (· · · ·)		d Dark Surface (•	Indicators of h	ydrophytic vegetation and
	icky Mineral (S1)			Depressions (F8	. ,		drology must be present,
	ky Peat or Peat (S	.3)					urbed or problematic.
Restrictive La	ayer (if observed):						
Type:							/
Depth (inch	nes):		_			Hydric Soil Pres	sent? Yes No/_
Remarks:							
						10	
		ž.					
YDROLOG	Ϋ́						
Wetland Hydr	ology Indicators:	ALL CLOSE CO. C.					
Primary Indica	tors (minimum of o	ne is required	d: check all that app	oly)		Secondary In	dicators (minimum of two required
Surface W	/ater (A1)		Water-Stair	ned Leaves (B9))		Soil Cracks (B6)
High Wate	er Table (A2)		Aquatic Fau	Jna (B13)			Patterns (B10)
Saturation	(A3)		True Aquat	ic Plants (B14)			son Water Table (C2)
Water Mar	/ks (B1)		Hydrogen S	Sulfide Odor (C1)		Burrows (C8)
Sediment	Deposits (B2)			hizospheres on			n Visible on Aerial Imagery (C9)
Drift Depo:	sits (B3)			f Reduced Iron			or Stressed Plants (D1)
Alani Mat	or Crust (B4)		Recent Iron	Reduction in T	Wed 0-11-70		phic Position (D2)

___ Thin Muck Surface (C7)

___ Gauge or Well Data (D9)

___ Iron Deposits (B5)

Field Observations:

Surface Water Present?

(Includes capillary fringe)

Water Table Present?

Saturation Present?

Remarks:

___ Inundation Visible on Aerial Imagery (B7)

_ Sparsely Vegelated Concave Surface (B8) ___ Other (Explain in Remarks)

Yes ____ No ___ Depth (inches):

Yes ____ No __ Depth (inches):

Yes ____ No __ Depth (inches):

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

__ Geomorphic Position (D2)

__ FAC-Neutral Test (D5)

Wetland Hydrology Present? Yes