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# Type and Boundary Application Headwaters Parkway

# Forest Lake, Minnesota

July 11, 2019

### Submitted by:

Bolton & Menk, Inc. 1960 Premier Drive Mankato, MN 56001 P: 507-625-4171 F: 507-625-4177

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2005 NOTICE OF DECISION - PERMIT WETLAND DELINEATION REPORT

# **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.

Applican	t/Lando	wner Name:	Dan Undem   Interim City Administrator
Mailing A	Address:	1408 Lake	Street South   Forest Lake, MN 55025
Phone:	651-20	9-9727	
E-mail Ad	ddress:		
L			
Authoriz	ed Cont	act (do not co	mplete if same as above):
Mailing A	Address:		
Phone:			
E-mail Ad	ddress:		
Agent Na	ame:	Bolton & Men	k, Inc.   Brandon Bohks
Mailing A	Address:	12224 Nico	llet Drive   Burnsville, MN   55337
Phone:	952-89	0-0509 ext 32	44
E-mail Ad	ddress:	brandonbo(	Dolton-menk.com

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

County: Washington County	City/Township: Forest Lake			
Parcel ID and/or Addres PID: 2903221230002				
Legal Description (Section, Township, Ran 29, 32, 21				
Lat/Long (decimal degrees)				
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 117.42 acres				
(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.

2005 Headwaters wetland delineation and subsequent permitting. WCA reference # 05-079, no ACE project number was found, although the ACE was involved in the permit process.

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 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.)	drain or	Impact	Size of Impact <sup>2</sup>	Overall Size of Aquatic Resource <sup>3</sup>	Community Type(s) in Impact Area <sup>4</sup>	County, Major Watershed #, and Bank Service Area # of Impact Area <sup>5</sup>

<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)".

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

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

N/A

# **PART FIVE: 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.

\_ Date: Ə- //- / 9 Signature:

I hereby authorize **Bolton & Menk, Inc** 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.

<sup>&</sup>lt;sup>1</sup> 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.

# **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

# Appendix

## Notice of Decision Minnesota Wetland Conservation Act

DEC 1 2005

Mailing Date:

LGU:

11/28/05

Rice Creek Watershed District (RCWD) 4325 Pheasant Ridge Drive NE, Suite 611 Blaine, MN 55449

Project Name: RCWD Ref. #: Location:

Name of Applicant: Wetland Decision Type: Date of Decision:

Description of Decision:

Headwaters 05-079 Forest Lake, Washington County Sec. 20 & 29, T32N R21W

Fenway Investments, Inc. Wetland Replacement Plan Application 11/22/05

The RCWD Board of Managers conditionally-approved an application for a private/public partnership project involving construction of residential housing, a community center, municipal and County facilities, commercial development, parks, and recreational facilities on 302 acres of land in the City of Forest Lake (see attached plan sheets). The project involves 4.79 acres of wetland fill and 1.56 acres of wetland excavation. The total replacement package includes 10.47 acres of new wetland creation and an equal amount of public value credit generated by the creation of water quality treatment ponds. No wetland banking is proposed, and the applicant has met 2:1 WCA replacement requirements for all wetland impacts including all wetland fill and excavation. Of the 10.47 acres of NWC, the applicant proposes 6.75 acres of Type 2 wetland (1 foot above to 1 foot below NWL) and 3.72 acres of Type 3 wetland (1-3 feet below NWL). Additional mitigation measures incorporated into the replacement plan include the following:

- Native seeding and protecting via permanent easement upland buffer areas adjacent to created wetlands (no PVC claimed)
- Wildlife travel corridors (dry arched culverts measuring 13.5 high by 22 inches wide) connecting replacement wetland TM-3 with TM-4 and TM-4 with TM-5.
- Installation of 3 surface water education signage in the area of replacement wetlands TM-4 and TM-5.

You are hereby notified that the above-referenced decision was made by the Local Government Unit on the date stated above. The decision becomes final if not appealed to the Board of Water & Soil Resources within 30 days of the mailing date.

Ken Powell, Permit Coord.

11/28/05 Date

 C: MN Board of Water and Soil Resources, ATTN: Les Lemm Metro HQ, MN/Department of Natural Resources, ATTN: Wayne Barstad U.S. Army Corps of Engineers, ATTN: Dan Seemon Washington Conservation District ATTN: Jyneen Thatcher Applicant, Fenway Investments ATTN: Mike Waldo Consultant, Westwood Professional Services ATTN: Geneviene Bolling Agent, Larkin et al, Ltd. ATTN: Linda Fisher City of Forest Lake RCWD File/Engineer/Inspector



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# Wetland Delineation Report Headwaters Parkway

# Forest Lake, Minnesota

July 11, 2019

### Submitted by:

Bolton & Menk, Inc. 1960 Premier Drive Mankato, MN 56001 P: 507-625-4171 F: 507-625-4177

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Exhibit A: Site Location Map Exhibit B: Site Topography – 2 Foot LiDAR Contours Exhibit C: National Wetlands Inventory Exhibit D: Public Waters Inventory Exhibit E: Washington County Soil Survey Exhibit F: Delineated Aquatic Resources Exhibit G: Delineation Data Sheets Exhibit H: Off-Site Hydrology Assessment

### I. INTRODUCTION

The City of Forest Lake requested a wetland delineation on parcel ID: (2903221230002) for developmental purposes. A portion of the parcel was delineated in the past but the five-year window has elapsed. Additional wetland permitting was completed and was associated with the construction of Headwaters Parkway.

The study area is located along the western side of the Forest Lake City limits. This area is characterized by small urban developments surrounded by agriculture, remnant forest, and aquatic resources.

The project is found in Section 29 in Township 32 North of Range 21 West.

### II. WETLAND DELINEATION METHODOLOGY

The wetland boundaries were delineated and staked in the field on June 13, 17, and 19 of 2019 using methods described in the "Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)". Wetlands identified were classified using "Classification of Wetlands and Deepwater Habitats of the United States (Cowardin, et al., 1979)", "Wetlands of the United States (United States Fish and Wildlife Service Circular No. 39, 1971 edition)" and "Wetland Plants and Plant Communities of Minnesota and Wisconsin" (Eggers and Reed Third Edition). Subsequently, the three mandatory technical criteria for wetland determinations are as follows:

*Hydrophytic Vegetation*. A hydrophytic plant community is present when the dominant plant species present can endure prolonged inundation and/or soil saturation during the growing season. A plant's Wetland Indicator Status is determined using the 2016 National Wetland Plant List for Minnesota, published by the Army Corp of Engineers.

*Hydric Soils*. A hydric soil is defined as a soil that is formed under conditions of saturation, flooding or ponding long enough during the growing season (the portion of the year when there is above ground growth and development of vascular plants and/or soil temperature at 12 inches below the soil surface is above 41 degrees Fahrenheit or higher) to develop anaerobic conditions in the upper part.

*Wetland Hydrology*. An area has wetland hydrology if it experiences 14 or more consecutive days of flooding, ponding or a water table within 12 inches of the surface during the growing season at a minimum frequency of five out of ten years. This is determined by using both primary and secondary Wetland Hydrology indicators.

### **III. BACKGROUND INFORMATION**

Prior to conducting a field investigation of this site, Exhibits A through E were used to complete a preliminary evaluation. The data gathered during the preliminary investigation was used as described below:

*Exhibit A* is a location map of the study area.

*Exhibits B* is an aerial photo with topographic information overlaid on it. This provides information regarding topography of the site, helping to identify areas that may have wetland characteristics.

*Exhibit C* is the National Wetlands Inventory of the site and surrounding properties. This information is used to complete a preliminary investigation of the wetlands that may or may not exist on the site.

*Exhibit* D is used to identify waters that are regulated by the DNR. This exhibit shows where there are DNR public waters relative to the site.

*Exhibit E* is the Washington County Soil Survey and is used to identify hydric soils that may lie within the study area.

*Exhibit F* is the site map showing the delineated aquatic resources.

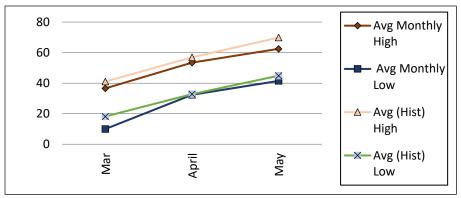
*Exhibit G* includes the wetland delineation data sheets.

*Exhibits F and G* were prepared from the information gathered at the site.

*Exhibit H* is the Off-Site Hydrology Assessment.

### IV. CLIMATE DATA

The monthly temperature table below shows the average high and low temperatures for the three months prior to the field delineation, along with the historical averages for these months. The average monthly highs were well below the historic averages for the past three months, while the average monthly lows have also been below the historic averages over the past three months.



MONTHLY TEMPERATURE RANGE

Antecedent precipitation was evaluated using a combination of the NRCS Method and the Rolling Totals Method. The analysis found that precipitation totals have been above normal for the months of April and May.



### ANTECEDENT PRECIPITATION CONDITIONS

This climatic data was gathered using the Climatology Working Group Website, <u>http://climate.umn.edu/</u> and the National Weather Service Forecast Office, <u>http://w2.weather.gov/climate/</u>. The information for the investigation was retrieved from the WETS Station: Washington-Forest Lake-Forest Lake (County–Township-City).

### V. FINDINGS

On June 13, 17, and 19 of 2019, a field investigation was performed to evaluate and verify the existence and boundary of any aquatic resources located within the proposed study corridor. Along with a field investigation, an off-site delineation was conducted to identify locations within agricultural field that may possess wetland signatures. Twenty-four years of aerial imagery was reviewed, of which 8 to 11 years were considered to have normal precipitation. Fourteen sites were identified as having potential wetland signatures.

The following describes the percentage of wet hits encountered at each site: (S1) 77%, (S2) 77%, (S3) 88%, (S4) 11%, (S5) 11%, (S6) 0%, (S7) 33%, (S8) 77%, (S9) 66%, (S10) 55%, (S11) 55%, (S12) 55%, (S13a) 77%, (S13b) 66%, (S13c) 44%, (S14) 77, (S15) 77%, (S16) 77%, (S17) 55%, (S18) 88%, (S19) 77%, (S20) 55%, (S21) 77%, and (S22) 77%). According to the off-site hydrology decision matrix, 18 sites required a field visit, all of which were field verified and determined to be wetland.

The field investigation identified that a total of 27 wetlands were found to exist within the study corridor. The following describes the aquatic resources identified, together with a brief description of wetland types and observations made during the field investigation.

#### Wetland 1 (W1):

NWI Cowardin: PEM1A PWI (Hydro) ID: None Field Observation Circular 39: Type 2/3 Field Observation Eggers and Reed: Fresh (wet) Meadow/Shallow Marsh Soil Mapping Unit(s): Webster loam/Dundas fine sandy loam

Wetland 1 was formally farmed but is now functioning as a fresh (wet) meadow complex. As of 2017, wetland 1 was actively farmed, therefore am offsite hydrology assessment was conducted on the site prior to completing the field delineation.

The field investigation found that wetland (W1) has met all three wetland indicators and should be considered a palustrine emergent persistent saturated wetland (PEM1B) and a palustrine emergent persistent seasonally flooded wetland (PEM1C). Four transects and several sample points were taken to determine the wetland boundary. Soils, hydrology and topography aided in determining the wetland boundary.



Wetland 1c



Prepared by: Bolton & Menk, Inc. Headwaters Parkway | N13.118783

At the wetland pit locations, the plant communities are dominated by: fox sedge, spike rush, red clover, salix species, and quacking aspen. At the upland pit locations, the plant communities are dominated by: red clover, pig weed, annual fleabane, common plantain, quacking aspen, Kentucky bluegrass, Canada goldenrod, giant goldenrod, and corn. Only the wetland pit plant communities were considered hydrophytic.

Soils at wetland pit location (W1-A) were dug to a depth of 18-inches and met hydric soil indicators A12 – Thick Dark Surface and F6 – Redox Dark Surface. Soils at wetland pit locations (W1-E and W1-G) were dug to approximately 20-inches and met hydric soil indicator A11 – Depleted Below Dark Surface. Soils at wetland pit location (W1-C) were dug to a depth of 9-inches and met hydric soil indicator F3 – Depleted Matrix. Soils at upland pit locations (W1-B, W1-F, and W1-H) were dug to approximately 20-inches and met hydric soil indicator A12. Soils at upland pit location W1-D were dug to a depth of 14-inches and failed to meet any of the hydric soil indicators.

Soils at all wetland pit locations were saturated within 12-inches of the soil surface, with high water tables present at wetland pit locations (W1-C and W1-G). Soils at all wetland pit locations also met secondary hydrology indicators D2 – Geomorphic Position and D5 – FAC Neutral Test. Soils at all upland pit locations failed to meet any wetland hydrology indicators.

The determining factor for this delineation was the lack hydrophytic vegetation and wetland hydrology at the upland pit locations. The boundary was determined by following the topographic breaks and saturated soil boundaries.

Wetland 2 (W2): NWI Cowardin: PUBF/PEM1A PWI (Hydro) ID: None Field Observation Circular 39: Type 2/3 Field Observation Eggers and Reed: Fresh (wet) Meadow/Shallow Marsh Soil Mapping Unit(s): Dundas fine sandy loam

Wetland 2 is approximately 2-acres in size and appears to have been created to function as a retention basin. Wetland 2 may have also been created for the purpose of self-mitigation related to pass wetland impacts.

The field investigation found that wetland (W2) has met all three wetland indicators and should be considered a PEM1B and PEM1C wetland. One transect and several sample points were taken to determine the wetland boundary. Soils, hydrology and topography aided in determining the wetland boundary.

At the wetland pit location, the plant community is dominated by quacking aspen, salix, field horsetail, and reed canary grass. At the upland pit location, the plant community is dominated by red clover, pig weed, annual fleabane, and common plantain. Only the wetland plant community is considered hydrophytic.



Wetland 2

Soils at the wetland pit location were dug to a depth of 12-inches and met hydric soil indicator A11. Soils at the upland pit location were dug to a depth of 14-inches and met hydric soil indicator A12.

Soils at the wetland pit location were saturated at a depth of 4-inches, with the water table present within 7-inches of the soil surface. Soils at the wetland pit location also met secondary hydrology indicators D2 and D5. Soils at the upland pit location failed to meet any of the wetland hydrology indicators.

The determining factor for this delineation was the lack hydrophytic vegetation and wetland hydrology at the upland pit locations. The boundary was determined by following the topographic breaks, red canary grass boundaries, and saturated soil boundaries.

Wetland 3 (W3): NWI Cowardin: PEM1Af PWI (Hydro) ID: None Field Observation Circular 39: Type 1 Field Observation Eggers and Reed: Seasonally Flooded Basin Soil Mapping Unit(s): Dundas fine sandy loam

Wetland 3 is a small farmed wetland located in the northwest corner of the property. Wetland 3 is associated with site two from the off-site hydrology assessment, which had seven wet hits in nine normal years, or 77%.

The field investigation found that wetland (W3) has met all three wetland indicators and should be considered a palustrine emergent persistent temporarily flooded wetland (PEM1A). One transect and several sample points were taken to determine the wetland boundary. Soils, hydrology and topography aided in determining the wetland boundary.

The wetland pit location is found in an active agricultural field. At this time, planting has not taken place at the wetland pit location due to wet soil conditions. Therefore, hydrophytic vegetation is assumed, due to the presence of hydric soils and wetland hydrology. The upland pit location is found in an active agricultural field and was recently planted with corn.

Soils at the wetland pit location were dug to a depth of 28-inches and met hydric soil indicator A12. Soils at the upland pit location were dug to a depth of 33-inches and met hydric soil indicator A12.

Soils at the wetland pit location met primary wetland hydrology indicator B7 – Inundation Visible on Aerial Imagery. Soils at the wetland pit location also met secondary hydrology indicators C9 – Saturation Visible on Aerial Imagery and D2. Soils at the upland pit location failed to meet any of the wetland hydrology indicators.

The determining factor for this delineation was the lack hydrophytic vegetation and wetland hydrology at the upland pit locations. The boundary was determined by following the topographic breaks.

### Wetland 4 (W4):

NWI Cowardin: None PWI (Hydro) ID: None Field Observation Circular 39: Type 1 Field Observation Eggers and Reed: Seasonally Flooded Basin Soil Mapping Unit(s): Dundas fine sandy loam

Wetland 4 is a small farmed wetland located in the northwest corner of the property. Wetland 4 was not identified in the off-site hydrology assessment, although meeting all three wetland parameters in the field.

The field investigation found that wetland (W4) has met all three wetland indicators and should be considered a PEM1A wetland. One transect and several sample points were taken to determine the wetland boundary. Soils, hydrology and topography aided in determining the wetland boundary.

The wetland pit location is found in an active agricultural field. At this time, planting has not taken place at the wetland pit location due to wet soil conditions. Therefore, hydrophytic vegetation is assumed, due to the presence of hydric soils and wetland hydrology. The upland pit location is found in an active agricultural field and was recently planted with corn.

Soils at the wetland pit location were dug to a depth of 26-inches and met hydric soil indicator A12. Soils at the upland pit location were dug to a depth of 30-inches and met hydric soil indicator A12.

Soils at the wetland pit location met secondary wetland hydrology indicators B6 – Surface Soil Cracking and D2. Soils at the upland pit location failed to meet any of the wetland hydrology indicators.

The determining factor for this delineation was the lack hydrophytic vegetation and wetland hydrology at the upland pit locations. The boundary was determined by following the topographic breaks.



Carlor A. Branner



Wetland 4

Wetland 5 (W5): **NWI Cowardin:** None PWI (Hvdro) ID: None Field Observation Circular 39: Type 1 Field Observation Eggers and Reed: Seasonally Flooded Basin **Soil Mapping Unit(s):** Webster loam

Wetland 5 is a small farmed wetland located in the northwest corner of the property. Wetland 5 is associated with site three from the off-site hydrology assessment, which had eight wet hits in nine normal years, or 88%.

The field investigation found that wetland (W5) has met all three wetland indicators and should be considered a PEM1A. One transect and several sample points were taken to determine the wetland boundary. Soils, hydrology and topography aided in determining the wetland boundary.

The wetland pit location is found in an active agricultural field. At this time, planting has not taken place due to wet soil conditions. Due to the persistent wet soil conditions water plantain was present at the wetland pit location,

therefore vegetation is considered hydrophytic. The upland pit location is found in an Wetland 5 active agricultural field and was recently planted with corn.

Soils at the wetland pit location were dug to a depth of 15-inches and met hydric soil indicator F6. Soils at the upland pit location were dug to a depth of 28-inches and met hydric soil indicator A12.

Soils at the wetland pit location met secondary hydrology indicators B6, C9, and D2. Soils at the upland pit location failed to meet any of the wetland hydrology indicators.

The determining factor for this delineation was the lack hydrophytic vegetation and wetland hydrology at the upland pit locations. The boundary was determined by following the topographic breaks.

#### Wetland 6 (W6):

**NWI Cowardin:** None PWI (Hydro) ID: None Field Observation Circular 39: Type 1 Field Observation Eggers and Reed: Seasonally Flooded Basin Soil Mapping Unit(s): Blomford loamy fine sand

Wetland 6 is a small farmed wetland located in the southwest corner of the property. Wetland 6 is associated with site eight from the off-site hydrology assessment, which had seven wet hits in nine normal years, or 88%.

The field investigation found that wetland (W6) has met all three wetland indicators and should be considered a PEM1A. One transect and several sample points were taken to determine the wetland boundary. Soils, hydrology and topography aided in determining the wetland boundary.

The wetland pit location is found in an active agricultural field. At this time, planting has not taken place at the wetland pit location due to wet soil conditions. Therefore, hydrophytic vegetation is assumed, due to the presence of hydric soils and wetland hydrology. The upland pit location is found in an active agricultural field and was recently planted with corn.

Soils at the wetland pit location were dug to a depth of 16-inches and met hydric soil indicator A11. Soils at the upland pit location were dug to a depth of 20-inches and failed to meet any of the hydric soil indicators.





Wetland 6

Soils at the wetland pit location met secondary hydrology indicators B6, C9, and D2. Soils at the upland pit location failed to meet any of the wetland hydrology indicators.

The determining factor for this delineation was the lack hydrophytic vegetation and wetland hydrology at the upland pit locations. The boundary was determined by following the topographic breaks.

Wetland 7 (W7): NWI Cowardin: None PWI (Hydro) ID: None Field Observation Circular 39: Type 1 Field Observation Eggers and Reed: Seasonally Flooded Basin Soil Mapping Unit(s): Dundas fine sandy loam

Wetland 7 is medium to large wetland complex located along the southern extent of the study area. A portion of wetland 7 is associated with site nine from the off-site hydrology assessment, which had six wet hits in nine normal years, or 66%. The other portion of wetland 7 is found within remnant forest.

The field investigation found that wetland (W7) has met all three wetland indicators and should be considered a PEM1A and a palustrine forested deciduous temporarily flooded wetland (PFO1A). Four transects and several sample points were taken to determine the wetland boundary. Soils, hydrology and topography aided in determining the wetland boundary.

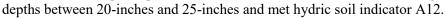


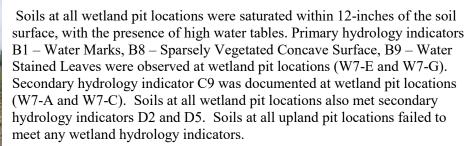
At the wetland pit locations, the plant communities are dominated by: water

plantain, green ash, and box elder. At the upland pit locations, the plant communities are dominated by: annual fleabane, box elder, pig weed, timothy, green ash, Virginia creeper, and common elderberry. All wetland pit plant communities and upland pit plant communities (W7-F and W7-H) were considered hydrophytic.

Wetland 7a

Soils at all wetland pit locations were dug to depths between 15-inches and 20-inches and met hydric soil indicator A11. Soils at upland pit location (W7-D) were dug to a depth of 12-inches and met hydric soil indicator A11. Soils at upland pit locations (W7-B, W7-F, and W7-H) were dug to





The determining factor for this delineation was the lack of wetland hydrology at the upland pit locations. The boundary was determined by following the topographic breaks and soil saturation boundaries.



Wetland 7c

<u>Wetland 8 (W8):</u> NWI Cowardin: None PWI (Hydro) ID: None Field Observation Circular 39: Type 1 Field Observation Eggers and Reed: Seasonally Flooded Basin Soil Mapping Unit(s): Dundas fine sandy loam

Wetland 8 is a small farmed wetland located in the southcentral portion of the study area. Wetland 8 is associated with site 10 from the off-site hydrology assessment, which had five wet hits in nine normal years, or 55%.

The wetland pit location is found in an active agricultural field. At this time, planting has not taken place due to wet soil conditions. Due to the persistent wet soil conditions water plantain and spike rush were present at the wetland pit location, therefore vegetation is considered hydrophytic. The upland pit location is found in an active agricultural field and was recently planted with corn.

The wetland pit location is found in an active agricultural field. At this time, planting has not taken place at the wetland pit location due to wet soil conditions.

Therefore, hydrophytic vegetation is assumed, due to the presence of hydric soils and wetland hydrology. The upland pit location is found in an active agricultural field and was recently planted with corn.

Soils at the wetland pit location were dug to a depth of 15-inches and met hydric soil indicator A11. Soils at the upland pit location were dug to a depth of 12-inches and met hydric soil indicator A11.

Soils at the wetland pit location met secondary hydrology indicators B6, D2, and D5. Soils at the upland pit location failed to meet any of the wetland hydrology indicators.

The determining factor for this delineation was the lack hydrophytic vegetation and wetland hydrology at the upland pit locations. The boundary was determined by following the topographic breaks.

#### Wetland 9 (W9):

NWI Cowardin: NonePWI (Hydro) ID: NoneField Observation Circular 39: Type 1Field Observation Eggers and Reed: Seasonally Flooded BasinSoil Mapping Unit(s): Webster loam

Wetland 9 is a small farmed wetland located in the southcentral portion of the study area. Wetland 9 is associated with site 11 from the off-site hydrology assessment, which had five wet hits in nine normal years, or 55%.

The field investigation found that wetland (W9) has met all three wetland indicators and should be considered a PEM1A wetland. One transect and several sample points were taken to determine the wetland boundary. Soils, hydrology and topography aided in determining the wetland boundary.

The wetland pit location is found in an active agricultural field. Planting has recently taken place at the wetland pit location. Due to the presence of hydric soils and wetland hydrology, hydrophytic vegetation is assumed to be present.

The upland pit location is found in an active agricultural field and was recently planted with corn. W

Soils at the wetland pit location were dug to a depth of 30-inches and met hydric soil indicator A12. Soils at the upland pit location were dug to a depth of 40-inches and met hydric soil indicator A12.

Soils at the wetland pit location met secondary hydrology indicators C9 and D2. Soils at the upland *Prepared by: Bolton & Menk, Inc.* Headwaters Parkway | N13.118783 Page 9

, **Example**, tions. soils and **Wetland 8** l field



pit location failed to meet any of the wetland hydrology indicators.

The determining factor for this delineation was the lack hydrophytic vegetation and wetland hydrology at the upland pit locations. The boundary was determined by following the topographic breaks.

Wetland 10 (W10): **NWI Cowardin:** None PWI (Hydro) ID: None Field Observation Circular 39: Type 1 Field Observation Eggers and Reed: Seasonally Flooded Basin Soil Mapping Unit(s): Dundas fine sandy loam

Wetland 10 is a small farmed wetland located in the southcentral portion of the study area. Wetland 10 is associated with site 12 from the off-site hydrology assessment, which had five wet hits in nine normal years, or 55%.

The field investigation found that wetland (W10) has met all three wetland indicators and should be considered a PEM1A wetland. One transect and several sample points were taken to determine the wetland boundary. Soils, hydrology and topography aided in determining the wetland boundary.

The wetland pit location is found in an active agricultural field. At this time, planting has not taken place at the wetland pit location due to wet soil conditions. Therefore, hydrophytic vegetation is assumed, due to the presence of hydric soils and wetland hydrology. The upland pit location is found in an active agricultural field and was recently planted with corn.

Soils at the wetland pit location were dug to a depth of 14-inches and met hydric soil indicator A11. Soils at the upland pit location were dug to a depth of 16-inches and met hydric soil indicator F6.

Soils at the wetland pit location met secondary hydrology indicators B6, C9, and D2. Soils at the upland pit location failed to meet any of the wetland hydrology indicators.

The determining factor for this delineation was the lack hydrophytic vegetation and wetland hydrology at the upland pit locations. The boundary was determined by following the topographic breaks.

Wetland 11 (W11): **NWI Cowardin: PEM1A** PWI (Hydro) ID: None Field Observation Circular 39: Type 1/2 Field Observation Eggers and Reed: Seasonally Flooded Basin/Fresh (wet) Meadow

Soil Mapping Unit(s): Dundas fine sandy loam/Webster loam

Wetland 11 is medium to large wetland complex located along the northern extent of the study area. A portion of wetland 11 is associated with site 14 from the off-site hydrology assessment, which had seven wet hits in nine normal years, or 77%. The other portion of wetland 11 is considered fresh (wet) meadow.

The field investigation found that wetland (W11) has met all three wetland indicators and should be considered a PEM1A and PEM1B wetland. Two transects and several sample points were taken to determine the wetland boundary. Soils, hydrology and topography aided in determining the wetland boundary.

Wetland 11a

At wetland pit location (W11-A), the plant communities are dominated by giant goldenrod and reed canary grass. Wetland pit location (W11-C) is found in an active agricultural field. Planting has recently taken place at the wetland pit location. Due to the presence

of hydric soils and wetland hydrology, hydrophytic vegetation is assumed to be present. At the Prepared by: Bolton & Menk. Inc. FINDINGS upland pit location (W11-B), the plant communities are dominated by Canada goldenrod and Kentucky bluegrass. Upland pit location (W11-D) is found in an active agricultural field and was recently planted with corn. Only the wetland pit plant communities are considered hydrophytic.

Soils at wetland pit location (W11-A) were dug to depth of 12-inches and met hydric soil indicator F3. Soils at wetland pit location (W11-C) were dug to a depth of 19-inches and met hydric soil indicator A11. Soils at upland pit location (W11-B) were dug to a depth of 12-inches and met hydric soil indicator F3. Soils at upland pit location (W11-D) were dug to a depth of 25-inches and met hydric soil indicator A12.

Soils at all wetland pit location (W11-A) were saturated at a depth of 6-inches, with a high water table present. Soils at wetland pit location (W11-C) met secondary hydrology indicators C9 and D2. Soils at all upland pit locations failed to meet any wetland hydrology indicators.

The determining factor for this delineation was the lack of hydrophytic vegetation and wetland hydrology at the upland pit locations. The boundary was determined by following the topographic breaks and soil saturation boundaries.

#### Wetland 12 (W12):

NWI Cowardin: None PWI (Hydro) ID: None Field Observation Circular 39: Type 2 Field Observation Eggers and Reed: Fresh (wet) Meadow Soil Mapping Unit(s): Dundas fine sandy loam

Wetland 12 is a small depression located along the northern extent of the study area. The wetland appears to be an isolated depression, functioning as shallow water habitat.

The field investigation found that wetland (W12) has met all three wetland indicators and should be considered a PEM1B wetland. One transect and several sample points were taken to determine the wetland boundary. Soils, hydrology and topography aided in determining the wetland boundary.

At the wetland pit location, the plant community is dominated reed canary grass. At the upland pit location, the plant community is dominated by reed canary grass and Kentucky bluegrass. Only the wetland plant community is considered hydrophytic.



Wetland 12

Soils at the wetland pit location were dug to a depth of 30-inches and met hydric soil indicator A12. Soils at the upland pit location were dug to a depth of 40-inches and met hydric soil indicator A12.

Soils at the wetland pit location were not saturated. Soils at the wetland pit location did meet secondary hydrology indicators D2 and D5. Soils at the upland pit location failed to meet any of the wetland hydrology indicators.

The determining factor for this delineation was the lack of hydrophytic vegetation and wetland hydrology at the upland pit location. The boundary was determined by following the topographic breaks and reed canary grass boundaries.

Wetland 13 (W13): NWI Cowardin: None PWI (Hydro) ID: None Field Observation Circular 39: Type 1 Field Observation Eggers and Reed: Seasonally Flooded Basin Soil Mapping Unit(s): Dundas fine sandy loam

Wetland 13 is a small to medium farmed wetland located in the central portion of the study area.

Wetland 13 is associated with site 15 from the off-site hydrology assessment, which had seven wet hits in nine normal years, or 77%.

The field investigation found that wetland (W13) has met all three wetland indicators and should be considered a PEM1A wetland. One transect and several sample points were taken to determine the wetland boundary. Soils, hydrology and topography aided in determining the wetland boundary.

The wetland pit location is found in an active agricultural field. Planting has recently taken place at the wetland pit location. Due to the presence of hydric soils and wetland hydrology, hydrophytic vegetation is assumed to be present. The upland pit location is found in an active agricultural field and was recently planted with corn.

Soils at the wetland pit location were dug to a depth of 37-inches and met hydric soil indicator A12. Soils at the upland pit location were dug to a depth of 45-inches and met hydric soil indicator A12.

Soils at the wetland pit location met secondary hydrology indicators C9 and D2. Soils at the upland pit location failed to meet any of the wetland hydrology indicators.



Wetland 13

The determining factor for this delineation was the lack of hydrophytic vegetation and wetland hydrology at the upland pit locations. The boundary was determined by following the topographic breaks.

Wetland 14 (W14):NWI Cowardin: NonePWI (Hydro) ID: NoneField Observation Circular 39: Type 1Field Observation Eggers and Reed: Seasonally Flooded BasinSoil Mapping Unit(s): Dundas fine sandy loam/Bluffton loam

Wetland 14 is a small to medium farmed wetland located in the southcentral portion of the study area. Wetland 14 is associated with site 16 from the off-site hydrology assessment, which had seven wet hits in nine normal years, or 77%.

The field investigation found that wetland (W14) has met all three wetland indicators and should be considered a PEM1A wetland. One transect and several sample points were taken to determine the wetland boundary. Soils, hydrology and topography aided in determining the wetland boundary.

The wetland pit location is found in an active agricultural field. At this time, planting has not taken place at the wetland pit location due to wet soil conditions. Therefore, hydrophytic vegetation is assumed, due to the presence of hydric soils and wetland hydrology. The upland pit location is found in an active agricultural field and was recently planted with corn.

Soils at the wetland pit location were dug to a depth of 15-inches and met hydric soil indicator A11. Soils at the upland pit location were dug to a depth of 25-inches and met hydric soil indicator A12.

Soils at the wetland pit location met secondary hydrology indicators B6, C9, and D2. Soils at the upland pit location failed to meet any of the wetland hydrology indicators.



Wetland 14

The determining factor for this delineation was the lack of hydrophytic vegetation and wetland hydrology at the upland pit locations. The boundary was determined by following the topographic breaks. Wetland 15 (W15): NWI Cowardin: None PWI (Hydro) ID: None Field Observation Circular 39: Type 1 Field Observation Eggers and Reed: Seasonally Flooded Basin Soil Mapping Unit(s): Dundas fine sandy loam

Wetland 15 is a small farmed wetland located in the northcentral portion of the study area. Wetland 15 is associated with site 19 from the off-site hydrology assessment, which had seven wet hits in nine normal years, or 77%.

The field investigation found that wetland (W15) has met all three wetland indicators and should be considered a PEM1A wetland. One transect and several sample points were taken to determine the wetland boundary. Soils, hydrology and topography aided in determining the wetland boundary.

The wetland pit location is found in an active agricultural field. Planting has recently taken place at the wetland pit location. Due to the presence of hydric soils and wetland hydrology, hydrophytic vegetation is assumed to be present. The upland pit location is found in an active agricultural field and was recently planted with corn.



Wetland 15

Soils at the wetland pit location were dug to a depth of 12-inches and met hydric soil indicator F3. Soils at the upland pit location were dug to a depth of 12-inches and met hydric soil indicator F6.

Soils at the wetland pit location met secondary hydrology indicators C9 and D2. Soils at the upland pit location failed to meet any of the wetland hydrology indicators.

The determining factor for this delineation was the lack of hydrophytic vegetation and wetland hydrology at the upland pit locations. The boundary was determined by following the topographic breaks.

Wetland 16 (W16): NWI Cowardin: None PWI (Hydro) ID: None Field Observation Circular 39: Type 1 Field Observation Eggers and Reed: Seasonally Flooded Basin Soil Mapping Unit(s): Nessel fine sandy loam

Wetland 16 is a small farmed wetland located in the southeasternl portion of the study area. Wetland 16 is associated with site 18 from the off-site hydrology assessment, which had eight wet hits in nine normal years, or 88%.

The field investigation found that wetland (W16) has met all three wetland indicators and should be considered a PEM1A wetland. One transect and several sample points were taken to determine the wetland boundary. Soils, hydrology and topography aided in determining the wetland boundary.

The wetland pit location is found in an active agricultural field. At this time, planting has not taken place at the wetland pit location due to wet soil conditions. Therefore, hydrophytic vegetation is assumed, due to the presence of hydric soils and wetland hydrology. The upland pit location is found in an active agricultural field and was recently planted with corn.

Soils at the wetland pit location were dug to a depth of 12-inches and met hydric soil indicator F3. Soils at the upland pit location were dug to a depth of 15-inches and failed to meet any hydric soil indicators.



Wetland 16

Soils at the wetland pit location met secondary hydrology indicators B6, C9, and D2. Soils at the upland pit location failed to meet any of the wetland hydrology indicators.

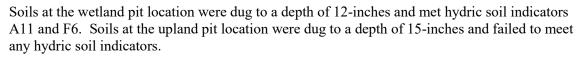
The determining factor for this delineation was the lack of all three wetland indicators at the upland pit locations. The boundary was determined by following the topographic breaks.

Wetland 17 (W17): NWI Cowardin: None PWI (Hydro) ID: None Field Observation Circular 39: Type 1 Field Observation Eggers and Reed: Seasonally Flooded Basin Soil Mapping Unit(s): Nessel fine sandy loam

Wetland 17 is a small farmed wetland located in the southeastern portion of the study area. Wetland 17 is associated with site 18 from the off-site hydrology assessment, which had seven wet hits in nine normal years, or 77%.

The field investigation found that wetland (W17) has met all three wetland indicators and should be considered a PEM1A wetland. One transect and several sample points were taken to determine the wetland boundary. Soils, hydrology and topography aided in determining the wetland boundary.

The wetland pit location is found in an active agricultural field. At this time, planting has not taken place at the wetland pit location due to wet soil conditions. Therefore, hydrophytic vegetation is assumed, due to the presence of hydric soils and wetland hydrology. The upland pit location is found in an active agricultural field and was recently planted with corn.



Soils at the wetland pit location met secondary hydrology indicators B6, C9, and D2. Soils at the upland pit location failed to meet any of the wetland hydrology indicators.

The determining factor for this delineation was the lack of all three wetland indicators at the upland pit locations. The boundary was determined by following the topographic breaks.

#### Wetland 18 (W18):

NWI Cowardin: None PWI (Hydro) ID: None Field Observation Circular 39: Type 1 Field Observation Eggers and Reed: Seasonally Flooded Basin Soil Mapping Unit(s): Nessel fine sandy loam

Wetland 18 is a small farmed wetland located along the eastern extent of the study area. Wetland 18 is associated with site 18 from the off-site hydrology assessment, which had five wet hits in nine normal years, or 55%.

The field investigation found that wetland (W18) has met all three wetland indicators and should be considered a PEM1A wetland. One transect and several sample points were taken to determine the wetland boundary. Soils, hydrology and topography aided in determining the wetland boundary.

The wetland pit location is found in an active agricultural field. At this time, planting has not taken place at the wetland pit location due to wet soil conditions. Therefore, hydrophytic vegetation is assumed, due to the presence of hydric soils and wetland hydrology. The upland pit location is found in an active agricultural field and was recently planted with corn.



Wetland 17



Wetland 18 FINDINGS Page 14

Soils at the wetland pit location were dug to a depth of 17-inches and met hydric soil indicator A11. Soils at the upland pit location were dug to a depth of 21-inches and met any hydric soil indicator A12.

Soils at the wetland pit location met secondary hydrology indicators B6, C9, and D2. Soils at the upland pit location failed to meet any of the wetland hydrology indicators.

The determining factor for this delineation was the lack of of hydrophytic vegetation and wetland hydrology at the upland pit locations. The boundary was determined by following the topographic breaks.

Wetland 19 (W19): NWI Cowardin: None PWI (Hydro) ID: None Field Observation Circular 39: Type 1 Field Observation Eggers and Reed: Seasonally Flooded Basin Soil Mapping Unit(s): Dundas fine sandy loam

Wetland 19 is a small to medium farmed wetland located in the southeastern portion of the study area. Wetland 19 is associated with site 17 from the offsite hydrology assessment, which had five wet hits in nine normal years, or 55%.

The field investigation found that wetland (W19) has met all three wetland indicators and should be considered a PEM1A wetland. One transect and several sample points were taken to determine the wetland boundary. Soils, hydrology and topography aided in determining the wetland boundary.

The wetland pit location is found in an active agricultural field. At this time, planting has not taken place at the wetland pit location due to wet soil conditions. Therefore, hydrophytic vegetation is assumed, due to the presence of hydric soils and wetland hydrology. The upland pit location is found in an active agricultural field and was recently planted with corn.

Soils at the wetland pit location were dug to a depth of 14-inches and met hydric soil indicators A11 and F6. Soils at the upland pit location were dug to a depth of 22-inches and met hydric soil indicator A12.

Soils at the wetland pit location met secondary hydrology indicators B6, C9, and D2. Soils at the upland pit location failed to meet any of the wetland hydrology indicators.

The determining factor for this delineation was the lack of hydrophytic vegetation and wetland hydrology at the upland pit locations. The boundary was determined by following the topographic breaks.

Wetland 20 (W20): NWI Cowardin: PEM1C PWI (Hydro) ID: None Field Observation Circular 39: Type 1 Field Observation Eggers and Reed: Seasonally Flooded Basin Soil Mapping Unit(s): Dundas fine sandy loam/Bluffton loam

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Wetland 20 is a small to medium farmed wetland located in the southeastern corner of the study area. Wetland 20 is associated with site 22 from the off-site hydrology assessment, which had seven wet hits in nine normal years, or 77%. Wetland 20 looks to drain east into an existing type 2 wetland.

The field investigation found that wetland (W20) has met all three wetland indicators and should be considered a PEM1A wetland. Two transects and several *Prepared by: Bolton & Menk. Inc.* 



Wetland 19



Wetland 20a FINDINGS Page 15

sample points were taken to determine the wetland boundary. Soils, hydrology and topography aided in determining the wetland boundary.

The wetland pit locations are found in an active agricultural field. At this time, planting has not taken place at the wetland pit locations due to wet soil conditions. Therefore, hydrophytic vegetation is assumed, due to the presence of hydric soils and wetland hydrology. The upland pit location is found in an active agricultural field and was recently planted with corn.

Soils at the wetland pit locations were dug to depths between 14-inches and 17-inches and met hydric soil indicator A11. Soils at the upland pit location were dug to a depth of 26-inches and met hydric soil indicator A12.

Soils at both wetland pit locations met secondary hydrology indicators B6, C9, and D2. Soils at the upland pit location failed to meet any of the wetland hydrology indicators.

The determining factor for this delineation was the lack of hydrophytic vegetation and wetland hydrology at the upland pit locations. The boundary was determined by following the topographic breaks.

### Wetland 21 (W21):

NWI Cowardin: None PWI (Hydro) ID: None Field Observation Circular 39: Type 2/3 Field Observation Eggers and Reed: Fresh (wet) Meadow/Shallow Marsh Soil Mapping Unit(s): Webster loam

Wetland 21 is a large wetland complex located in the northeastern corner of the study area. It's composed entirely of shallow water habitat and does extend beyond the study area to the south.

The field investigation found that wetland (W21) has met all three wetland indicators and should be considered a PEM1B and PEM1C wetland. Two transects and several sample points were taken to determine the wetland boundary. Soils, hydrology and topography aided in determining the wetland boundary.

At the wetland pit locations, the plant communities are dominated reed canary grass. At the upland pit locations, the plant communities are dominated by reed canary grass, smooth brome, eastern cottonwood, and Kentucky bluegrass. Only the wetland plant communities are considered hydrophytic.

Soils at wetland pit location (W21-A) were dug to a depth of 12-inches and met hydric soil indicator A3 – Black Histic. Soils at wetland pit location (W21-C) were dug to a depth of 12-inches and met hydric soil indicator F6. Soils at upland pit location (W21-B) were dug to a depth of 17-inches and met hydric soil indicator A11. Soils at upland pit location (W21-D) were dug to a depth of 12-inches and met hydric soil indicator A11. Soils at upland pit location (W21-D) were dug to a depth of 12-inches and met hydric soil indicator F6.

Soils at wetland pit location (W21-A) were saturated at the surface, with surface water present a depth of 0.5-inches. Soils at tboth wetland pit locations also met secondary hydrology indicators D2 and D5. Soils at the upland pit location failed to meet any of the wetland hydrology indicators.

The determining factor for this delineation was the lack of hydrophytic vegetation and wetland hydrology at the upland pit locations. The boundary was determined by following the topographic breaks and reed canary grass boundaries.





Wetland 21

Wetland 22 (W22): NWI Cowardin: None PWI (Hydro) ID: None Field Observation Circular 39: Type 2/3 Field Observation Eggers and Reed: Fresh (wet) Meadow/Shallow Marsh Soil Mapping Unit(s): Dundas fine sandy loam

Wetland 22 is a long depression located along the northern extent of the study area. The wetland may have been created to function as a retention/detention pond after the construction of Headwaters Parkway.

The field investigation found that wetland (W22) has met all three wetland indicators and should be considered a PEM1B and PEM1C wetland. One transect and several sample points were taken to determine the wetland boundary. Soils, hydrology and topography aided in determining the wetland boundary.

At the wetland pit location, the plant community is dominated by eastern cottonwood and Kentucky bluegrass. At the upland pit location, the plant community is dominated by Kentucky bluegrass and Canada goldenrod. Only the wetland plant community is considered hydrophytic.

Soils at the wetland pit location were dug to a depth of 12-inches and met hydric soil indicator F3. Soils at the upland pit location were dug to a depth of 12-inches and failed to meet any hydric soil indicator A12.

Soils at the wetland pit location were not saturated. Soils at the wetland pit location did meet wetland hydrology indicators B9 and D2. Soils at the upland pit location failed to meet any of the wetland hydrology indicators.

The determining factor for this delineation was the lack of all three wetland indicators at the upland pit location. The boundary was determined by following the topographic breaks.

Wetland 23 (W23a) (23b): NWI Cowardin: None PWI (Hydro) ID: None Field Observation Circular 39: Type 2 Field Observation Eggers and Reed: Fresh (wet) Meadow Soil Mapping Unit(s): Dundas fine sandy loam

Wetland 23 is a road side ditch along the southern extent of Headwaters Parkway. The road ditch has intermittent wet and upland patches, and was delineated as such.

The field investigation found that wetland (W2) has met all three wetland indicators and should be considered a PEM1B wetland. One transect and several sample points were taken to determine the wetland boundary. Soils, hydrology and topography aided in determining the wetland boundary.

At the wetland pit location, the plant community is dominated by reed canary grass. At the upland pit location, the plant community is dominated by Kentucky bluegrass and Canada goldenrod. Only the wetland plant community is considered hydrophytic.

Soils at the wetland pit location were dug to a depth of 12-inches and met hydric soil indicator F3. Soils at the upland pit location were dug to a depth of 12-inches and failed to meet any hydric soil indicators.





neet

Soils at the wetland pit location were not saturated. Soils at the wetland pit location did meet wetland hydrology indicators B9, D2, and D5. Soils at the upland pit location failed to meet any of the wetland hydrology indicators.

The determining factor for this delineation was the lack of all three wetland indicators at the upland pit location. The boundary was determined by following the topographic breaks and reed canary grass boundaries.

Wetland 24 (W24): NWI Cowardin: PEM1Af PWI (Hydro) ID: None Field Observation Circular 39: Type 1 Field Observation Eggers and Reed: Seasonally Flooded Basin Soil Mapping Unit(s): Dundas fine sandy loam/Bluffton loam

Wetland 24 is a small farmed wetland located along the western extent of the study area. Wetland 24 is associated with site 1 from the off-site hydrology assessment, which had seven wet hits in nine normal years, or 77%.

The field investigation found that wetland (W24) has met all three wetland indicators and should be considered a PEM1A wetland. One transect and several sample points were taken to determine the wetland boundary. Soils, hydrology and topography aided in determining the wetland boundary.

The wetland pit location is found in an active agricultural field. At this time, planting has not taken place at the wetland pit location due to wet soil conditions. Therefore, hydrophytic vegetation is assumed, due to the presence of hydric soils and wetland hydrology. The upland pit location is found in an active agricultural field and was recently planted with corn.



Wetland 24

Soils at the wetland pit location were dug to depth 20-inches and met hydric soil indicator A12. Soils at the upland pit location were dug to a depth of 27-inches and met hydric soil indicator A12.

Soils at both wetland pit locations met secondary hydrology indicators B6, C9, and D2. Soils at the upland pit location failed to meet any of the wetland hydrology indicators.

The determining factor for this delineation was the lack of hydrophytic vegetation and wetland hydrology at the upland pit locations. The boundary was determined by following the topographic breaks.

#### Wetland 25 (W25): NWI Cowardin: PEM1Af PWI (Hydro) ID: None Field Observation Circular 39: Type 1 Field Observation Eggers and Reed: Seasonally Flooded Basin Soil Mapping Unit(s): Dundas fine sandy loam/Bluffton loam

Wetland 25 is a small farmed wetland located along the western extent of the study area. Wetland 25 is associated with site 1 from the off-site hydrology assessment, which had seven wet hits in nine normal years, or 77%.

The field investigation found that wetland (W25) has met all three wetland indicators and should be considered a PEM1A wetland. One transect and several sample points were taken to determine the wetland boundary. Soils, hydrology and topography aided in determining the wetland boundary.

The wetland pit location is found in an active agricultural field. At this time, planting has recently taken place at the wetland pit location. Therefore,

hydrophytic vegetation is assumed, due to the presence of hydric soils and wetland *Prepared by: Bolton & Menk, Inc.* 



Wetland 25 FINDINGS Page 18

hydrology. The upland pit location is found in an active agricultural field and was recently planted with corn.

Soils at the wetland pit location were dug to depth 26-inches and met hydric soil indicator A12. Soils at the upland pit location were dug to a depth of 33-inches and met hydric soil indicator A12.

Soils at both wetland pit locations met secondary hydrology indicators C9 and D2. Soils at the upland pit location failed to meet any of the wetland hydrology indicators.

The determining factor for this delineation was the lack of hydrophytic vegetation and wetland hydrology at the upland pit location. The boundary was determined by following the topographic breaks.

Wetland 26 (W26): NWI Cowardin: None PWI (Hydro) ID: None Field Observation Circular 39: Type 2 Field Observation Eggers and Reed: Fresh (wet) Meadow Soil Mapping Unit(s): Dundas fine sandy loam

Wetland 26 is a small depression located along the northern extent of the study area. The wetland appears to be isolated and may be considered incidental but has not been verified.

The field investigation found that wetland (W26) has met all three wetland indicators and should be considered a PEM1B wetland. One transect and several sample points were taken to determine the wetland boundary. Soils, hydrology and topography aided in determining the wetland boundary.

At the wetland pit location, the plant community is dominated by eastern cottonwood, green ash, reed canary grass, Kentucky bluegrass, and giant goldenrod. At the upland pit location, the plant community is dominated by Kentucky bluegrass and Canada goldenrod. Only the wetland plant community is considered hydrophytic.

Soils at the wetland pit location were dug to a depth of 12-inches and met hydric soil indicator F3. Soils at the upland pit location were dug to a depth of 16-inches and failed to meet any hydric soil indicators.

Soils at the wetland pit location were not saturated. Soils at the wetland pit location did meet wetland hydrology indicators D2 and D5. Soils at the upland pit location failed to meet any of the wetland hydrology indicators.

The determining factor for this delineation was the lack of all three wetland indicators at the upland pit location. The boundary was determined by following the topographic breaks.

Sample Point (SP-1): NWI Cowardin: None PWI (Hydro) ID: None Field Observation Circular 39: Upland Field Observation Eggers and Reed: Upland Soil Mapping Unit(s): Webster loam

Sample point 1 (SP-1) was taken in a small farmed depression and is associated with site 4 from the off-site hydrology review. The sample pit location is found in an active agricultural field, recently planted with corn. Therefore, hydrophytic vegetation is considered absent. Soils at (SP-1) were dug to a depth of 22-inches and met hydric soil indicator A12. Soils at (SP-1) only met secondary hydrology indicator D2. The determining factor for this investigation was the lack of hydrophytic vegetation and wetland hydrology at the sample pit location.

Sample Point (SP-2): NWI Cowardin: None PWI (Hydro) ID: None Field Observation Circular 39: Upland Field Observation Eggers and Reed: Upland Soil Mapping Unit(s): Webster loam

Sample point 2 (SP-2) was taken in a small farmed depression and is associated with site 5 from the off-site hydrology review. The sample pit location is found in an active agricultural field, recently planted with corn. Therefore, hydrophytic vegetation is considered absent. Soils at (SP-2) were dug to a depth of 21-inches and met hydric soil indicator A12. Soils at (SP-2) only met secondary hydrology indicator D2. The determining factor for this investigation was the lack of hydrophytic vegetation and wetland hydrology at the sample pit location.

#### Sample Point (SP-3):

NWI Cowardin: None PWI (Hydro) ID: None Field Observation Circular 39: Upland Field Observation Eggers and Reed: Upland Soil Mapping Unit(s): Webster loam

Sample point 3 (SP-3) was taken in a small farmed depression and is associated with site 6 from the off-site hydrology review. The sample pit location is found in an active agricultural field, recently planted with corn. Therefore, hydrophytic vegetation is considered absent. Soils at (SP-3) were dug to a depth of 24-inches and met hydric soil indicator A12. Soils at (SP-3) only met secondary hydrology indicator D2. The determining factor for this investigation was the lack of hydrophytic vegetation and wetland hydrology at the sample pit location.

# Sample Point (SP-4):

NWI Cowardin: None PWI (Hydro) ID: None Field Observation Circular 39: Upland Field Observation Eggers and Reed: Upland Soil Mapping Unit(s): Dundas fine sandy loam

Sample point 4 (SP-4) was taken in a concave depression associated with wetland 2. Vegetation at the sample pit location was dominated by Kentucky bluegrass and Canada goldenrod. Therefore, hydrophytic vegetation is considered absent. Soils at (SP-4) were dug to a depth of 15-inches and failed to meet any hydric soil indicators. Soils at (SP-4) failed to meet any wetland hydrology indicators. The determining factor for this investigation was the lack of all three wetland indicators at the sample pit location.

### Sample Point (SP-5): NWI Cowardin: None

**PWI (Hydro) ID:** None **Field Observation Circular 39:** Upland **Field Observation Eggers and Reed:** Upland **Soil Mapping Unit(s):** Dundas fine sandy loam

Sample point 5 (SP-5) was taken to prove the existence of and upland island found within wetland 1. Vegetation at the sample pit location was dominated by red clover. Therefore, hydrophytic vegetation is considered absent. Soils at (SP-5) were dug to a depth of 25-inches and met hydric soil indicator A12. Soils at (SP-5) failed to meet any wetland hydrology indicators. The determining factor for this investigation was the lack of hydrophytic vegetation and wetland hydrology at the sample pit location.

Sample Point (SP-6): NWI Cowardin: None PWI (Hydro) ID: None Field Observation Circular 39: Upland Field Observation Eggers and Reed: Upland Soil Mapping Unit(s): Dundas fine sandy loam

Sample point 6 (SP-6) was taken in a small farmed depression and is associated with site 8 from the off-site hydrology review. Vegetation at the sample pit location is dominated by red clover. Therefore, hydrophytic vegetation is considered absent. Soils at (SP-6) were dug to a depth of 25-inches and met hydric soil indicator A12. Soils at (SP-6) only met secondary hydrology indicator D2. The determining factor for this investigation was the lack of hydrophytic vegetation and wetland hydrology at the sample pit location.

#### Sample Point (SP-7): NWI Cowardin: None

PWI (Hydro) ID: None Field Observation Circular 39: Upland Field Observation Eggers and Reed: Upland Soil Mapping Unit(s): Dundas fine sandy loam

Sample point 7 (SP-7) was taken to locate the extents of wetland 7. Vegetation at the sample pit location is dominated pig weed and Canada goldenrod. Therefore, hydrophytic vegetation is considered absent. Soils at (SP-7) were dug to a depth of 17-inches and met hydric soil indicator A11. Soils at (SP-7) failed to meet any wetland hydrology indicators. The determining factor for this investigation was the lack of hydrophytic vegetation and wetland hydrology at the sample pit location.

#### Sample Point (SP-8): NWI Cowardin: None PWI (Hydro) ID: None Field Observation Circular 39: Upland Field Observation Eggers and Reed: Upland Soil Mapping Unit(s): Dundas fine sandy loam

Sample point 8 (SP-8) was taken to display the disconnect between wetlands 14 and wetland 7. Vegetation at the sample pit location is dominated box elder, common buckthorn, common elderberry, Virginia creeper, and burdock . Therefore, hydrophytic vegetation is considered absent. Soils at (SP-8) were dug to a depth of 13-inches and met hydric soil indicator F6. Soils at (SP-8) failed to meet any wetland hydrology indicators. The determining factor for this investigation was the lack of hydrophytic vegetation and wetland hydrology at the sample pit location.

### Sample Point (SP-9):

NWI Cowardin: None PWI (Hydro) ID: None Field Observation Circular 39: Upland Field Observation Eggers and Reed: Upland Soil Mapping Unit(s): Dundas fine sandy loam

Sample point 9 (SP-9) was taken to display the upland between W23a and W23b. Vegetation at the sample pit location is dominated red clover and Kentucky bluegrass. Therefore, hydrophytic vegetation is considered absent. Soils at (SP-9) were dug to a depth of 8-inches when aa restrictive layer was observed. Hydric soils are assumed to be absent due to the lack of hydrophytic vegetation and wetland hydrology. Soils at (SP-9) only met secondary hydrology indicator D2.

The determining factor for this investigation was the lack of hydrophytic vegetation and wetland hydrology at the sample pit location.

Sample Point (SP-10): NWI Cowardin: None PWI (Hydro) ID: None Field Observation Circular 39: Upland Field Observation Eggers and Reed: Upland Soil Mapping Unit(s): Webster loam

Sample point 10 (SP-10) was taken in a small farmed depression and is associated with site 7 from the off-site hydrology review. The sample pit location is found in an active agricultural field, recently planted with corn. Therefore, hydrophytic vegetation is considered absent. Soils at (SP-10) were dug to a depth of 28-inches and met hydric soil indicator A12. Soils at (SP-3) only met secondary hydrology indicator D2. The determining factor for this investigation was the lack of hydrophytic vegetation and wetland hydrology at the sample pit location.

### **VI. CONCLUSION**

This delineation was performed on June 13, 17, and 19 of 2019. The boundaries of the wetlands were staked in the field with three foot "Wetland Delineation" pin flags. The location of the pin flags were surveyed by Bolton & Menk, Inc. using a Trimble Geo-XH GPS Data Collector and tied to the Washington County coordinate system. The delineated limits are believed to be the upper limits of where all three of the required wetland criteria were present.

Bolton & Menk, Inc., was asked to determine the boundaries of those jurisdictional wetlands that exist upon this property as defined by the Wetland Conservation Act.

Based upon all available information, the existing conditions that currently prevail, and the on-site investigation, evidence supports the presence of 27 wetlands within the boundaries of the study corridor.

Id #	Wetland Type <sup>^</sup>	Size*	Id #
W1	Type 2/3	<b>3.94 ac</b>	W14
W2	Type 2/3	1.83 ac	W15
W3	Type 1	0.25 ac	W16
W4	Type 1	0.06 ac	W17
W5	Type 1	0.14 ac	W18
W6	Type 1	0.09 ac	W19
W7	Type 1	2.29 ac	W20
W8	Type 1	0.29 ac	W21
W9	Type 1	0.11 ac	W22
W10	Type 1	0.09 ac	W23a
W11	Type 1/2	0.53 ac	W23b
W12	Type 2	0.15 ac	W24
W13	Type 1	0.36 ac	W25
			W26

#### WETLAND SUMMARY

Id #	Wetland Type^	Size*
W14	Type 1	0.88 ac
W15	Type 1	0.11 ac
W16	Type 1	0.08 ac
W17	Type 1	0.16 ac
W18	Type 1	0.14 ac
W19	Type 1	0.62 ac
W20	Type 1	0.85 ac
W21	Type 2/3	3.53 ac
W22	Type 2/3	0.36 ac
W23a	Type 2	0.04 ac
W23b	Type 2	0.01 ac
W24	Type 1	0.29 ac
W25	Type 1	0.25 ac
W26	Type 2	0.07 ac

\*size measured within study area. ^wetland type within study area

Sincerely, BOLTON & MENK, INC.

unh

Brandon Bohks Certified Wetland Delineator in Training, No. 5231

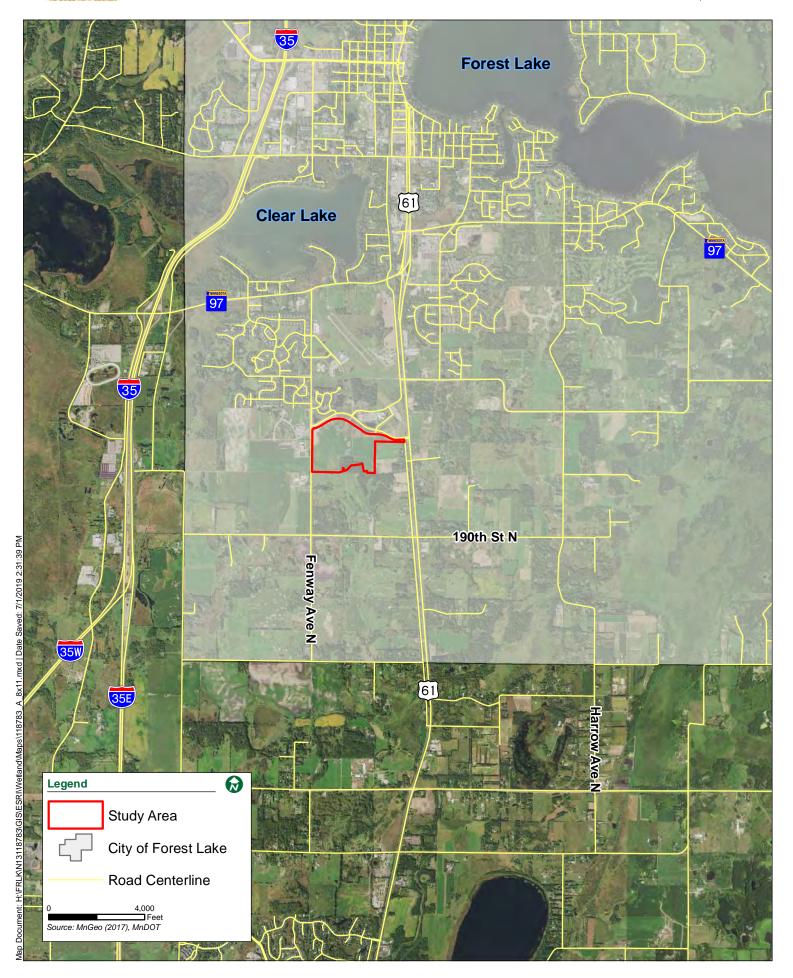
# **APPENDIX**

Headwaters Parkway



Exhibit A: Location Map



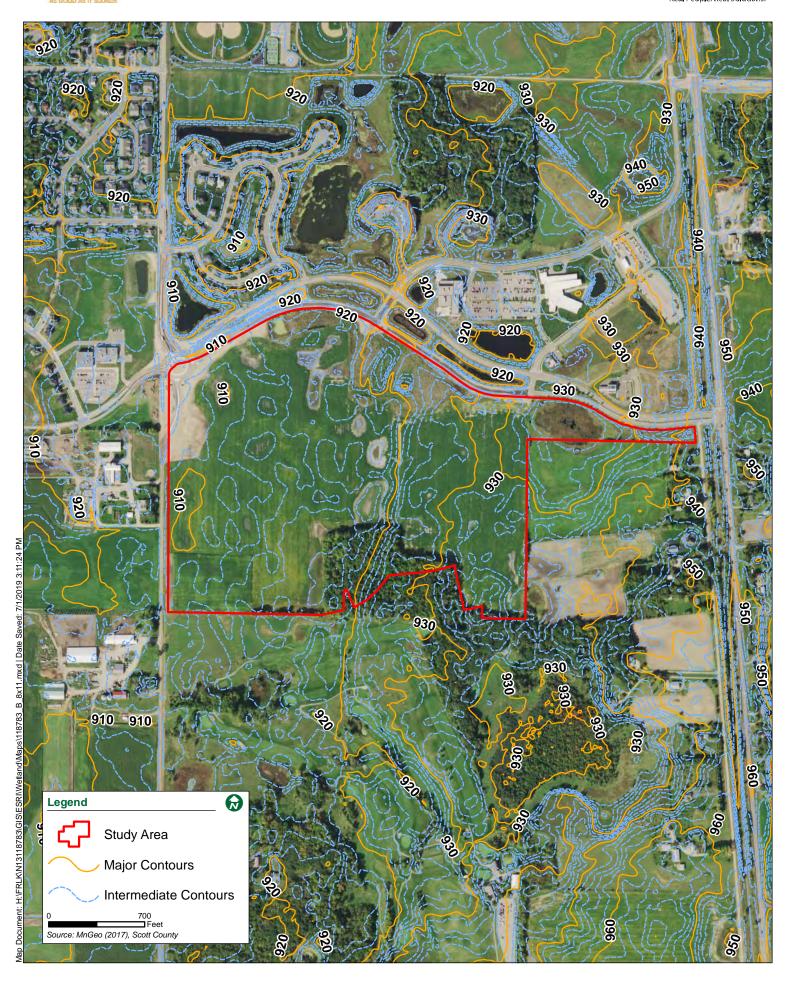


Headwaters Parkway



Exhibit B: 2-Foot LiDAR Contours





Forest Lake July, 2013







Forest Lake Headwaters Parkway July, 2013



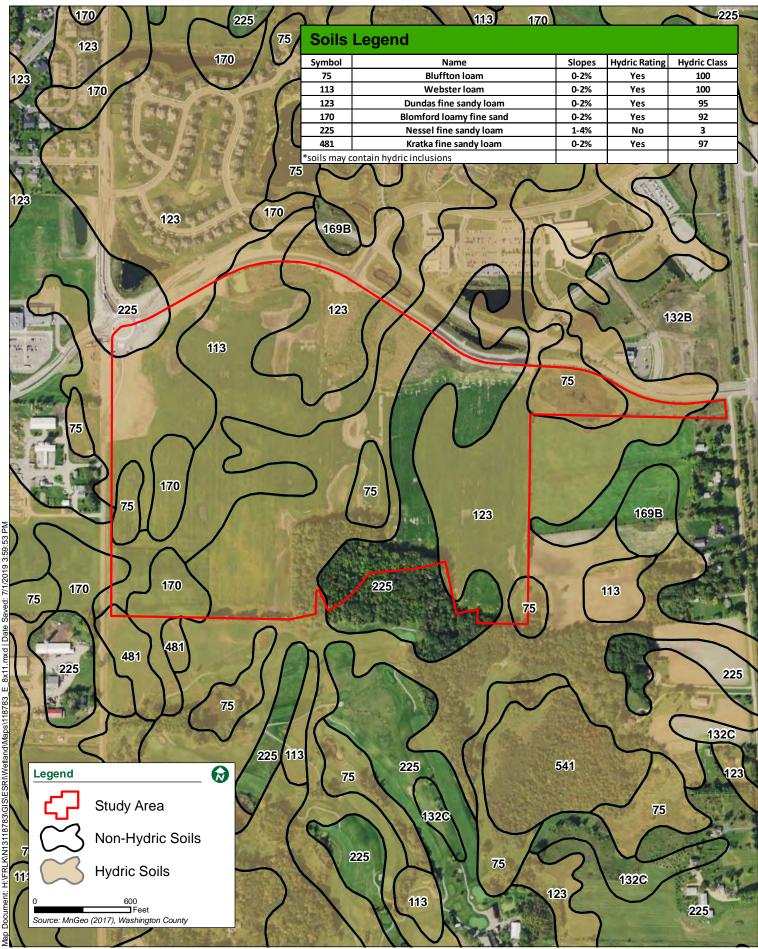


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Forest Lake July, 2013

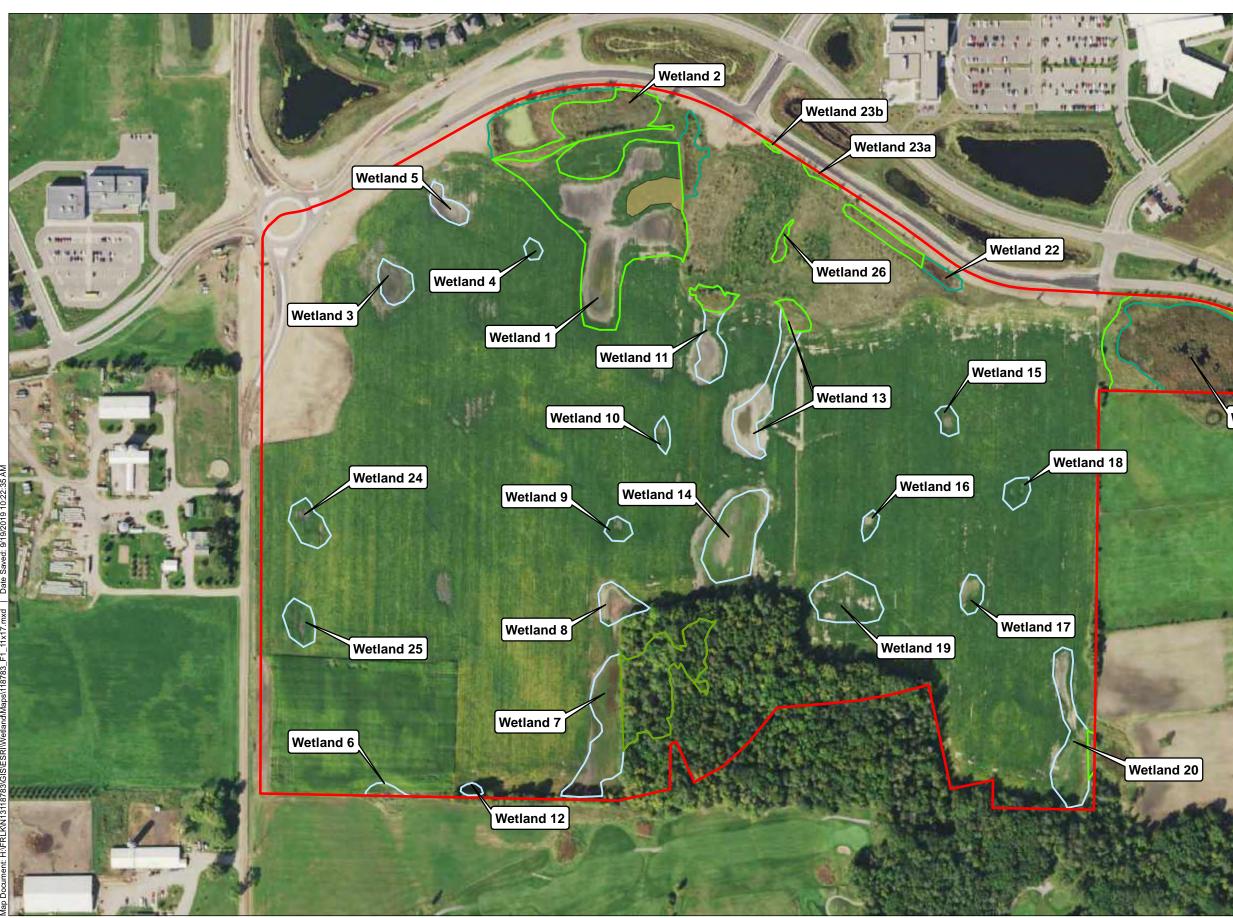


Real People. Real Solutions.





July, 2019

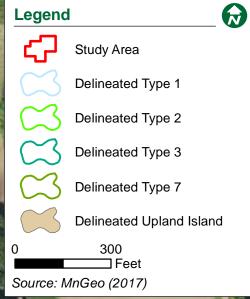






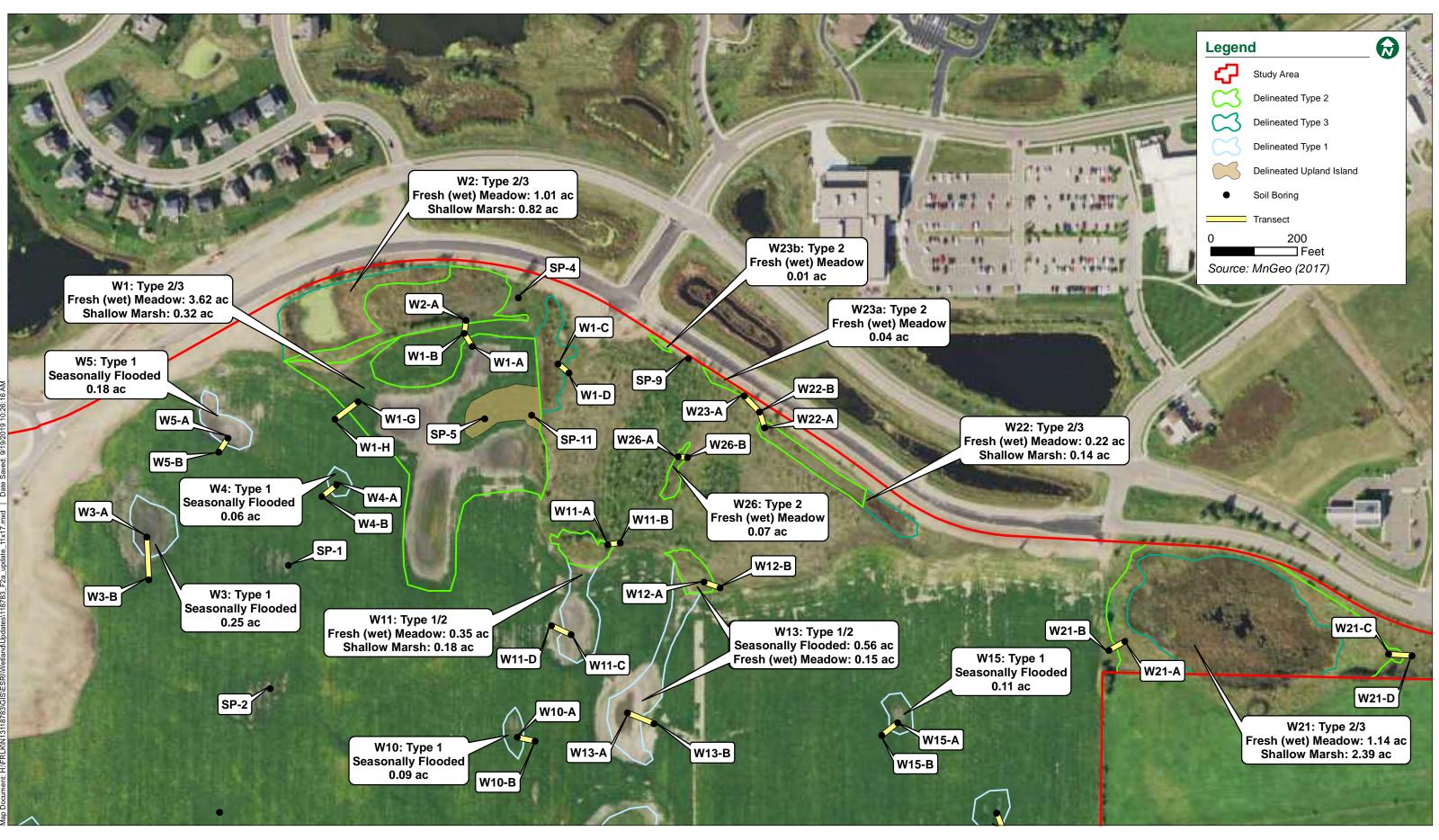
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Wetland 21





July, 2019

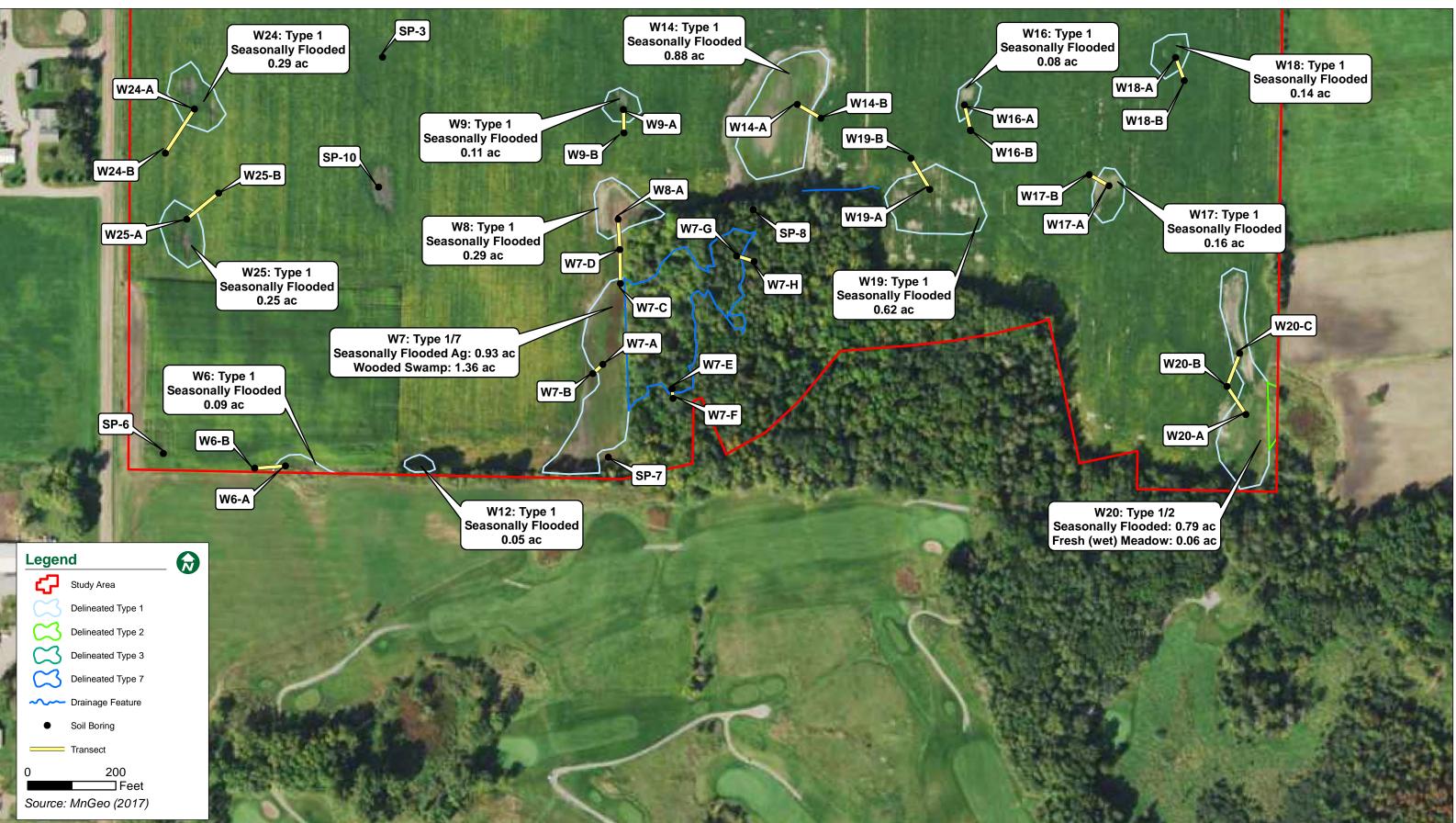


# **Exhibit F2a: Delineated Aquatic Resources**



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# **Exhibit F2b: Delineated Aquatic Resources**



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	-		Sampling Date: 6	
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: V	W1-A
Investigator(s): Brandon Bohks			nship, Range: 2			
Landforms (hillside, terrace, etc.): Basin Subregion: LRR K Latitude:			(concave, conv	ex, none): Conca Datum:	slope (%	6): <b>0-2</b>
Subregion:     LRR K     Latitude:       Soil Map Unit Name:     Webster loam		Longitude:	ification: <b>PEM</b>			
Are climatic/hydrologic conditions of the site typical for thi	s time of year?	Yes		, explain in remarks)		
	drology		icantly disturbe	- ,	umstances present	·? <b>V</b> og
	drology		ally problematic		in any answers in	
, sons, on ny		TALLAR		. (II needed, expla	in any answers in	Kemarks)
Hydrophytic vegetation present?	Yes					
Hydric soils present?	Yes		Is the sam	pled area within a wet	tland? Yes	
Wetland hydrology present?	Yes			prod drod (1701111 d 1701	103	_
Wenand nyarology present.	105					
Remarks:						
VE	GETATION	- Use scientific	names of plants	3		
	Absolute	Dominant	Indicator	50/20 Thresho	old 20%	50%
<u>Tree Stratum</u> (Plot size: 30 feet )	% Cover	Species	Status	Tree Stratum	0	0
1		1		Sapling/Shrub Stratu		0
2				Herb Stratum	23.6	59
3				Woody Vine Stratum		0
4					ce Test Workshe	et
5						
·	0 =	=Total Cover		Number of dom that are OBL, FAC	-	<b>3</b> (A)
Sapling/Shrub stratum (Plot size: 15 feet )				Total number		()
1						<b>3</b> (B)
2				Percent of dominant		
3				are OBL, FA		<b>0%</b> (A/B)
4				Prevalence	ce Index Workshe	eet
5				Total % cover of:		
	0 =	Total Cover		OBL Species:	<b>65</b> x 1 =	65
Herb stratum: (Plot size: 5 feet )				FACW Species:	<b>35</b> x 2 =	70
1 Carex vulpinoidea	40	Yes	OBL	FAC Species:	<b>0</b> x 3 =	0
2 Eleocharis species	25	Yes	FACW	FACU species:	<b>18</b> x 4 =	72
3 Schoenoplectus tabernaemontani	25	Yes	OBL	UPL Species:	<b>0</b> x 5 =	0
4 Schoenoplectus species	10	No	FACW	Totals:	118 (A)	<b>207</b> (B)
5 Erigeron annuus	10	No	FACU	Prevalence	Index (B/A): 1.7	5
6 Trifolium pretense	8	No	FACU	Hydrophytic	Vegetation Indic	cators
7				X Rapid test fo	r hydrophytic vege	etation
8				X Dominance t	est >50%	
9				X Prevalence in	ndex is $\leq 3.0^*$	
10						rovide
	118 =	Total Cover			al adaptations* (Pata in remarks)	iovide
Woody vine stratum: (Plot size: 15 feet )					hydrophytic vegeta	ation*
1				(Explain in r		
2				*Indicators of hydr		ł hydrology
	0 =	Total Cover		must be present, ur		
Durandar				Hydrophytic ve	getation	
<u>Remarks:</u>				present		



### EXHIBIT G: WETLAND DETERMINATION DATA FORM

Sample Point: W1-A

(Northcentral and Northeast Region - LRR K)

SOILS

Profile Descr	ription: (Describe to	the dep	th needed to docu	ıment t	he indicator of	or confirm th	e absence of indicat	ors.)
Depth	Matrix			Redo	x Features			
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-6	10YR 2/1	100					Clay Loam	
6-12	10YR 2/1	75	7.5YR 4/6	15	С	М	Sandy Clay Loan	n
12-18+	10YR 5/1	60	7.5YR 4/6	40			Sandy Clay Loan	n
		ation, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked S	and Grains. **Locat	ion: PL = Pore Lining, M = Matrix
Hydric Soil I	ndicators:						Indicators	s for Problematic Hydric Soils*:
Histise	ol (A1)			Stripp	ed Matrix (S6)	)	2 cr	n Muck (A10)
Histic	Epipedon (A2)			Loamy	/ Mucky Mine	ral (F1)	Coa	st Prairie Redox (A16)
Black	Histic (A3)			Loamy	Gleyed Matri	ix (F2)	5 cr	n Mucky Peat or Peat (S3)
Hydro	gen Sulfide (A4)			Deplet	ted Matrix (F3	)	Dar	k Surface (S7)
Stratif	ied Layers (A5)		X	Redox	Dark Surface	(F6)	Pol	valve Below Dark Surface (S8)
Deplet	ted Below Dark Surfa	ce (A11)	)	Deplet	ed Dark Surfa	ce (F7)	Thi	n Dark Surface (S9)
X Thick	Dark Surface (A12)			Redox	Depressions (	F8)	Iron	-Manganese Masses (F12)
Sandy	Mucky Material (S1)		*Indicators of h	ydroph	ytic vegetatior	and wetland	Red	Parent Material (T42)
Sandy	Gleyed Matrix (S4)		hydrology mu	-	resent, unless o	disturbed or	Ver	y Shallow Dark Surface (TF12)
Sandy	Redox (S5)			prol	blematic		Oth	er (Explain in remarks)
Restrictive L	ayer (if observed):							
Type:							Hydric Soils P	resent: Yes
Depth (inches	;):			-				
D		lug to -	donth of 10 to -1					
<u>Remark</u>	<u>s.</u> Son pit was o	ing to a	depth of 18-inch	ies.				
					HYDROL	OGY		

Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum of c	ne is required; check	all that apply)	Surface Soil Crack (B6)
Surface Water (A1)		Water-Stained Leaves (B9)	Drainage Patterns (B10)
High Water Table (A2)	_	Aquatic Fauna (B13)	Moss Trim Lines (B16)
<b>X</b> Saturation (A3)	_	Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1)		Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	-	Oxidized Rhizospheres on Living Roots (C3)	) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	-	Presence or Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	_	Recent Iron Reduction in Tilled Soils (C6)	X Geomorphic Position (D2)
Iron Deposits (B5)	-	Thin Muck Surface (C7)	Shallow Aquitard (D3)
Inundation Visible on Aer	al Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)
Sparsely Vegetated Conca	ve Surface (B8)		X FAC-Neutral Test (D5)
Field Observations:			
Surface Water Present?		Depth (inches):	Indicators of Wetland
Water Table Present?	No	Depth (inches): 14	Hydrology Present? Yes
Saturation Present?	Yes	Depth (inches): 10	



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Project/Site: Headwaters Parkway	Cit	y/County: Wash			Sampling Date: 6/1	
Applicant/Owner: City of Forest Lake			: MN		Sample Point: W1	- <b>B</b>
Investigator(s): Brandon Bohks			ship, Range: 2			
Landforms (hillside, terrace, etc.): Backslope			(concave, conv	·	Slope (%):	4-6
Subregion: LRR K Latitude:		Longitude:	<i></i>	Datum:		
Soil Map Unit Name: Webster loam			fication: None			
Are climatic/hydrologic conditions of the site typical for thi	-	Yes	_	explain in remarks)		
	drology		icantly disturbe		umstances present?	
Are vegetation, soils, or hy	drology	natura <b>Y OF FIND</b>	lly problematic	? (If needed, explan	in any answers in Re	emarks)
Hydrophytic vegetation present?		AY OF FIND	INGS			
Hydric soils present?	Yes		Is the sam	pled area within a wet	land? Na	
Wetland hydrology present?	No		15 the sam	pieu area witiini a wet	land? No	
wenand nydrology present:	110					
Remarks:						
VE	GETATION	- Use scientific	names of plants	3		
	Absolute	Dominant	Indicator	50/20 Thresho	ld 20%	50%
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	0	0
1				Sapling/Shrub Stratu	m <u>0</u>	0
2				Herb Stratum	25	62.5
3				Woody Vine Stratum	n <u> </u>	0
4				Dominan	ce Test Worksheet	
5				Number of domi	nant species	
	0 =	Total Cover		that are OBL, FAC	CW,  or FAC:  0	(A)
Sapling/Shrub stratum (Plot size: 15 feet )				Total number	of dominant	
1				species acro	oss all strata: 4	(B)
2				Percent of dominant	species that	
3				are OBL, FAC		(A/B)
4				Prevalenc	e Index Worksheet	
5				Total % cover of:		
	0 =	Total Cover		OBL Species:	<b>0</b> $x 1 = 0$	0
Herb stratum: (Plot size: 5 feet )				FACW Species:	0   x 2 = 0	0
1 Trifolium pretense	35	Yes	FACU	FAC Species:	0 x 3 = 0	0
2 Amranthus retroflexus	30	Yes	FACU	FACU species:	125 x 4 = 50	00
3 Erigeron annuus	25	Yes	FACU	UPL Species:	<b>0</b> $x 5 =$ <b>0</b>	0
4 Plantago major	25	Yes	FACU	Totals: 1	125 (A) 50	00 (B)
5 Melilotus officinalis	10	No	FACU	Prevalence I	Index (B/A): 4.00	
6				Hydrophytic	Vegetation Indicat	ors
7				Rapid test for	r hydrophytic vegetat	tion
8				Dominance te	est >50%	
9				Prevalence in	dex is $\leq 3.0^*$	
10					al adaptations* (Prov	vide
	125 =	Total Cover			ata in remarks)	140
Woody vine stratum: (Plot size: 15 feet )				Problematic k	hydrophytic vegetatio	on*
1				(Explain in re		~
2				*Indicators of hydri	ic soil and wetland h	ydrology
	0 =	Total Cover			less disturbed or pro	
<u>Remarks:</u>				Hydrophytic veg	getation	
<u>Neindiks.</u>				present?		



Sample Point: W1-B

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(Northcentral and Northeast Region - LRR K) SOILS

<b>Profile Descr</b>	iption: (Describe to	the dept	th needed to docu	ıment tl	he indicator o	or confirm the	e absence of indicator	s.)
Depth	Matrix			Redox	K Features			
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-14	10YR 2/1	100					Clay Loam	
14-20+	10YR 41	70	7.5YR 4/6	30	С	М	Sandy Clay Loam	
	• •	ation, D	= Depletion, RM	= Reduc	ed Matrix, M	S = Masked S	and Grains. **Location	: PL = Pore Lining, M = Matrix
Hydric Soil I	ndicators:						Indicators for	or Problematic Hydric Soils*:
Histisc	ol (A1)			Strippe	d Matrix (S6)	)	2 cm M	Auck (A10)
Histic	Epipedon (A2)			Loamy	Mucky Mine	ral (F1)	Coast	Prairie Redox (A16)
Black	Histic (A3)			Loamy	Gleyed Matri	ix (F2)	5 cm N	Aucky Peat or Peat (S3)
Hydrog	gen Sulfide (A4)			Deplete	ed Matrix (F3	)	Dark S	Surface (S7)
Stratif	ied Layers (A5)			Redox	Dark Surface	(F6)	Polyva	lve Below Dark Surface (S8)
Deplet	ed Below Dark Surfa	ce (A11)	)	Deplete	ed Dark Surfa	ce (F7)	Thin I	Dark Surface (S9)
X Thick	Dark Surface (A12)			Redox	Depressions (	(F8)	Iron-M	langanese Masses (F12)
Sandy	Mucky Material (S1)		*Indicators of h	- ydrophy	tic vegetatior	n and wetland	Red Pa	arent Material (T42)
Sandy	Gleyed Matrix (S4)		hydrology mu	-		disturbed or	Very S	Shallow Dark Surface (TF12)
Sandy	Redox (S5)			prob	olematic		Other	(Explain in remarks)
Restrictive L	ayer (if observed):							
Туре:							Hydric Soils Pres	ent: Yes
Depth (inches	):			-			·	
<u>Remark</u>	s: Soil pit was	dug to a	depth of 14-inch	es.				

Remarks:		
Saturation Present?	Depth (inches):	
Water Table Present?	Depth (inches):	Hydrology Present? No
Surface Water Present?	Depth (inches):	Indicators of Wetland
Field Observations:		
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)
Drift Deposits (B3)	Presence or Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Water Marks (B1)	Crayfish Burrows (C8)	
Saturation (A3)	Dry-Season Water Table (C2)	
High Water Table (A2)	Moss Trim Lines (B16)	
Surface Water (A1)	Drainage Patterns (B10)	
Primary Indicators (minimum of one is required; check	all that apply)	Surface Soil Crack (B6)
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)



		Northeast Regi	-			
Project/Site: Headwaters Parkway	Cit	y/County: Wash			Sampling Date: 6/1	
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: W1	I-C
Investigator(s): Brandon Bohks			nship, Range: 2			
Landforms (hillside, terrace, etc.): Basin Subregion: LRR K Latitude:			(concave, conv	ex, none): Concar Datum:	ve Slope (%):	0-2
Subregion: LRR K Latitude:		Longitude:	ification: <b>PEM</b>			
Are climatic/hydrologic conditions of the site typical for this	time of year?	N WI Class		explain in remarks)		
Are vegetation , soils , or hyd			icantly disturbe	-	umstances present?	Yes
Are vegetation , soils , or hyd			ally problematic		in any answers in Re	
, 01190		RY OF FIND		. (If fielded, explai	in any answers in re-	liidi K5)
Hydrophytic vegetation present?	Yes					
Hydric soils present?	Yes		Is the sam	pled area within a wet	land? Yes	
Wetland hydrology present?	Yes		15 010 5011	p		
fortalid hydrology prosone.	105					
Remarks:						
VEC	GETATION	- Use scientific	names of plants			
	Absolute	Dominant	Indicator	50/20 Thresho	ld 20%	50%
Tree Stratum (Plot size: 30 feet )	% Cover	Species	Status	Tree Stratum	0	0
1		1		Sapling/Shrub Stratu	<u> </u>	14
2				Herb Stratum	20.4	51
3				Woody Vine Stratum		0
4					ce Test Worksheet	
5						
	0 =	=Total Cover		Number of dominent that are OBL, FAC	-	(A)
Sapling/Shrub stratum (Plot size: 15 feet )				Total number		
1 Salix species	20	Yes	FAC	species acro		(B)
2 Populus tremuloides	8	Yes	FAC	Percent of dominant		
3				are OBL, FAC		⁄o (A/B)
4				Prevalence	e Index Worksheet	;
5				Total % cover of:		
	28	=Total Cover		OBL Species:	2 x 1 = 2	2
Herb stratum: (Plot size: 5 feet )				FACW Species: 1		00
1 Eleocharis species	45	Yes	FACW	FAC Species:		4
2 Carex species	35	Yes	FACW	FACU species:	0 x 4 = 0	0
3 Phalaris arundinacea	15	No	FACW	UPL Species:		0
4 Solidago gigantea	5	No	FACW	Totals: 1	130 (A) 29	86 (B)
5 Typha species	2	No	OBL	Prevalence I	ndex (B/A): 2.20	
6					Vegetation Indicat	ors
7					hydrophytic vegeta	
8				X Dominance te		
9				<b>X</b> Prevalence in		
10						• 1
	102	=Total Cover			al adaptations* (Prov ta in remarks)	vide
Woody vine stratum: (Plot size: 15 feet ) 1				Problematic h (Explain in re	nydrophytic vegetatio emarks)	on*
2		-Total Course			c soil and wetland h less disturbed or pro	
	0 =	=Total Cover		-		
<u>Remarks:</u>				Hydrophytic veg present?	-	



### EXHIBIT G: WETLAND DETERMINATION DATA FORM

Sample Point: W1-C

(Northcentral and Northeast Region - LRR K)

SOILS

Profile Descu	ription: (Describe to	the dep	th needed to docu	iment t	he indicator o	or confirm the	e absence of indicator	s.)	
Depth	Matrix			Redo	x Features				
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks	
0-9+	Gley 2 5/10G	80	7.5YR 4/6	20	С	М	Sandy Clay Loam		
	*Type: C = Concentra	ation, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked S	and Grains. **Location	n: PL = Pore Lining, M = Matrix	
Hydric Soil I	Indicators:						Indicators f	or Problematic Hydric Soils*:	
Histis	ol (A1)			Strippe	ed Matrix (S6)	)	2 cm l	Muck (A10)	
Histic	Epipedon (A2)			Loamy	/ Mucky Mine	ral (F1)	Coast	Prairie Redox (A16)	
Black	Histic (A3)			Loamy	Gleyed Matri	x (F2)	5 cm 1	Mucky Peat or Peat (S3)	
Hydro	gen Sulfide (A4)		X	Deplet	ed Matrix (F3)	)	Dark S	Surface (S7)	
Stratif	fied Layers (A5)			Redox	Dark Surface	(F6)	Polyva	alve Below Dark Surface (S8)	
Deple	ted Below Dark Surfac	ce (A11	)	Deplet	ed Dark Surfa	ce (F7)	Thin I	Dark Surface (S9)	
Thick	Dark Surface (A12)			Redox	Depressions (F8) Iron-M			Janganese Masses (F12)	
Sandy	Mucky Material (S1)		*Indicators of h	ydroph	ytic vegetation	and wetland	Red P	arent Material (T42)	
Sandy	Gleyed Matrix (S4)		hydrology mu		resent, unless disturbed or Very S			Shallow Dark Surface (TF12)	
Sandy	Redox (S5)			prol	blematic		(Explain in remarks)		
Restrictive L	ayer (if observed):								
Type:							Hydric Soils Pres	sent: Yes	
Depth (inches	\$):			-			·		
Remark	seil pit was d	lug to a	depth of 9-inche	s.					
<u> </u>					HYDROL	OGY			
Wetland Hyd	rology Indicators:						Secon	dary Indicators (minimum of two required)	

Primary Indicators (minimum of	one is required; check	all that apply)	Surface Soil Crack (B6)
Surface Water (A1)		Water-Stained Leaves (B9)	Drainage Patterns (B10)
<b>X</b> High Water Table (A2)	-	Aquatic Fauna (B13)	Moss Trim Lines (B16)
X Saturation (A3)	-	Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1)		Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	-	Oxidized Rhizospheres on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	-	Presence or Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	-	Recent Iron Reduction in Tilled Soils (C6)	X Geomorphic Position (D2)
Iron Deposits (B5)	-	Thin Muck Surface (C7)	Shallow Aquitard (D3)
Inundation Visible on Aer	rial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)
Sparsely Vegetated Conca	we Surface (B8)		X FAC-Neutral Test (D5)
Field Observations:			
Surface Water Present?		Depth (inches):	Indicators of Wetland
Water Table Present?	Yes	Depth (inches): 4	Hydrology Present? Yes
Saturation Present?	Yes	Depth (inches): Surface	
Remarks:			



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	-		Sampling Date: 6/13	
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: W1	-D
Investigator(s): Brandon Bohks			nship, Range: 2			
Landforms (hillside, terrace, etc.): Terrace			(concave, conve		<b>r</b> Slope (%):	1-3
Subregion: LRR K Latitude:		Longitude:		Datum:		
Soil Map Unit Name: <b>Dundas fine sandy loam</b>			ification: None	1		
Are climatic/hydrologic conditions of the site typical for	-	Yes	_	explain in remarks)		
	hydrology		icantly disturbed		umstances present?	
Are vegetation, soils, or l	hydrology	natura RY OF FIND	ally problematic	? (If needed, explai	in any answers in Re	marks)
Hydrophytic vegetation present?	SUMMAR No	T OF FINL	JINGS			
Hydric soils present?			Is the com	pled area within a wet	land? No	
Wetland hydrology present?			15 the sam	pieu area witiini a weti	land? <u>No</u>	
wetland hydrology present?						
Remarks:						
V	EGETATION	- Use scientific	names of plants			
	Absolute	Dominant	Indicator	50/20 Thresho	ld 20%	50%
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	0	0
1				Sapling/Shrub Stratu	m <u>2</u>	5
2				Herb Stratum	17	42.5
3				Woody Vine Stratum	<u> </u>	0
4				Dominano	ce Test Worksheet	
5				Number of domin	nant species	
	0 =	Total Cover		that are OBL, FAC	W, or FAC: 2	(A)
Sapling/Shrub stratum (Plot size: 15 feet )				Total number	of dominant	
1 Populus tremuloides	10	Yes	FAC	species acro	ss all strata: 4	(B)
2				Percent of dominant	species that	
3				are OBL, FAC	CW or FAC: 50%	(A/B)
4				Prevalence	e Index Worksheet	
5				Total % cover of:		
	10 =	Total Cover=		OBL Species:	<b>0</b> $x 1 = 0$	)
Herb stratum: (Plot size: 5 feet )				FACW Species:	<b>20</b> $\mathbf{x} = 4$	0
1 Poa pratensis	30	Yes	FACU	FAC Species:	<b>10</b> x 3 = <b>3</b>	0
2 Solidago canadensis	30	Yes	FACU	FACU species:	<b>65</b> $x 4 = 26$	60
3 Solidago gigantea	20	Yes	FACW	UPL Species:	<b>0</b> x 5 = <b>0</b>	)
4 Trifolium repens	5	No	FACU	Totals:	95 (A) 33	60 (B)
5				Prevalence I	ndex (B/A): 3.47	
6				Hydrophytic	Vegetation Indicate	ors
7				Rapid test for	hydrophytic vegetat	tion
8				Dominance te	est >50%	
9				Prevalence in	dex is $\leq 3.0^*$	
10				Morphologica	al adaptations* (Prov	vide
	85 =	Total Cover			ta in remarks)	
Woody vine stratum: (Plot size: 15 feet )					nydrophytic vegetatio	on*
1				(Explain in re		
2		T-+-1.C			c soil and wetland hy less disturbed or pro	
	0 =	Total Cover=		-		orematic
Remarks:				Hydrophytic veg present?	-	



### EXHIBIT G: WETLAND DETERMINATION DATA FORM

Sample Point: W1-D

(Northcentral and Northeast Region - LRR K)

SOILS

<b>Profile Descr</b>	iption: (Describe to	the dep	th needed to docu	iment t	he indicator o	or confirm the	absence of indicator	s.)	
Depth	Matrix			Redo	x Features				
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks	
0-4	10YR 2/2	100					Clay Loam		
4-14+	10YR 4/3	100					Clay Loam		
	*Type: C = Concentra	ation, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked Sa	nd Grains. **Location	n: PL = Pore Lining, M = Matrix	
Hydric Soil I	ndicators:						Indicators for	or Problematic Hydric Soils*:	
Histisc	ol (A1)			Stripp	ed Matrix (S6)		2 cm N	Muck (A10)	
Histic Epipedon (A2)				Loamy Mucky Mineral (F1)			Coast Prairie Redox (A16)		
Black	Histic (A3)			Loamy	Gleyed Matri	x (F2)	5 cm N	Mucky Peat or Peat (S3)	
Hydrog	gen Sulfide (A4)			Deplet	ted Matrix (F3)	)	Dark S	Surface (S7)	
Stratifi	ed Layers (A5)			Redox	Dark Surface	(F6)	Polyva	alve Below Dark Surface (S8)	
Deplet	ed Below Dark Surfa	ce (A11)	)	Deplet	ed Dark Surfa	ce (F7)	Thin I	Dark Surface (S9)	
Thick	Thick Dark Surface (A12) Redox Depressions (F8)				Iron-M	Manganese Masses (F12)			
Sandy	Mucky Material (S1)		*Indicators of h	ydroph	vtic vegetation	and wetland	Red Pa	arent Material (T42)	
Sandy Gleyed Matrix (S4) hydrology must				st be pi	resent, unless d		Very S	Shallow Dark Surface (TF12)	
Sandy	Redox (S5)			prol	blematic		Other	(Explain in remarks)	
Restrictive L	ayer (if observed):								
Туре:							Hydric Soils Pres	sent: No	
Depth (inches	):			•					
Remarks	s: Soil pit was o	lug to a	depth of 14-inch	es.	ļ				

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check	all that apply)	Surface Soil Crack (B6)
Surface Water (A1)	Drainage Patterns (B10)	
High Water Table (A2)	Moss Trim Lines (B16)	
Saturation (A3)	Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence or Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present?	Depth (inches):	Indicators of Wetland
Water Table Present?	Depth (inches):	Hydrology Present? No
Saturation Present?	Depth (inches):	



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	-		Sampling Date: 6/1	
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: W	1-E
Investigator(s): Brandon Bohks			nship, Range: 2			
Landforms (hillside, terrace, etc.): Basin Subregion: LRR K Latitude:			f (concave, conv	ex, none): Concav Datum:	Slope (%):	: 0-2
÷		Longitude:	ification: None	Datum:		
Soil Map Unit Name: <b>Dundas fine sandy loam</b> Are climatic/hydrologic conditions of the site typical for t	this time of year?	N WI Class Yes		explain in remarks)		
	hydrology		ficantly disturbed	-	imstances present?	<b>V</b> 7
· · · · · · · · · · · · · · · · · · ·	hydrology		ally problematic		n any answers in R	
, 5015 , 5017		TAILIT		. (If fictured, explain	any answers in R	cillar KSj
Hydrophytic vegetation present?	Yes					
Hydric soils present?	Yes		Is the sam	pled area within a wetl	and? Yes	
Wetland hydrology present?	Yes			• • • • • • • • • • • • • • • • • • • •		-
Remarks:		<u>         I                           </u>				
	EGETATION	I las asiantifia				
V]				50/20 Threshol	ld 20%	50%
<u>Tree Stratum</u> (Plot size: 30 feet )	Absolute % Cover	Dominant Species	Indicator Status	Tree Stratum	0	0
1		species	514145	Sapling/Shrub Stratur		0
2				Herb Stratum	24.6	61.5
3				Woody Vine Stratum		0
4					e Test Worksheet	
5				Number of domin		
	0 =	Total Cover		Number of domin that are OBL, FAC	-	(A)
Sapling/Shrub stratum (Plot size: 15 feet )				Total number of	of dominant	
1				species acros		(B)
2				Percent of dominant	species that	
3				are OBL, FAC		<u>/o</u> (A/B)
4				Prevalence	e Index Workshee	t
5				Total % cover of:		
	0 =	Total Cover		OBL Species:	70 x 1 =	70
Herb stratum: (Plot size: 5 feet )				FACW Species:	8 x 2 = 1	16
1 Carex vulpinoidea	70	Yes	OBL	FAC Species:	<b>0</b> x 3 =	0
2 Trifolium pretense	35	Yes	FACU	FACU species:	<b>45</b> x 4 = <b>1</b>	80
3 Erigeron annuus	10	No	FACU	UPL Species:	0 x 5 =	0
4 Eleocharis species	8	No	FACW	Totals: 1	23 (A) 2	<b>66</b> (B)
5				Prevalence In	ndex (B/A): 2.16	-
6				Hydrophytic	Vegetation Indica	tors
7				Rapid test for	hydrophytic vegeta	ation
8				Dominance te	st>50%	
9				X Prevalence inc	tex is $\leq 3.0^*$	
10					ll adaptations* (Pro	ovide
Woody vine stratum: (Plot size: 15 feet )	123 =	Total Cover=		supporting dat		
Woody vine stratum: (Plot size: <u>15 feet</u> ) 1				Problematic h (Explain in re	ydrophytic vegetati marks)	ion*
2	0=	=Total Cover		*Indicators of hydrid must be present, unl		
Remarks:				Hydrophytic veg present?	getation Yes	



### EXHIBIT G: WETLAND DETERMINATION DATA FORM

Sample Point: W1-E

(Northcentral and Northeast Region - LRR K)

SOILS

Profile Descr	ription: (Describe to f	the dep	th needed to docı	ument t	the indicator o	or confirm the	absence of indicator	s.)
Depth	Matrix			Redo	x Features			
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-10	10YR 2/1	100					Clay Loam	
10-19	10YR 5/1	80	7.5YR 4/6	20	С	М	Sandy Clay Loam	
*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix								
Hydric Soil I								or Problematic Hydric Soils*:
Histisc	· · ·				ed Matrix (S6)			Muck (A10)
Histic Epipedon (A2) Loamy					y Mucky Miner	ral (F1)	Coast	Prairie Redox (A16)
	Histic (A3)			- '	y Gleyed Matri			Mucky Peat or Peat (S3)
Hydrog	gen Sulfide (A4)			- 1	ted Matrix (F3)		Dark S	Surface (S7)
Stratifi	ied Layers (A5)			Redox	Dark Surface	(F6)	Polyva	lve Below Dark Surface (S8)
X Deplet	ted Below Dark Surfac	e (A11)	)	Deplet	ted Dark Surfac	ce (F7)	Thin D	Dark Surface (S9)
Thick Dark Surface (A12) Redox				Depressions (I	F8)	Iron-M	langanese Masses (F12)	
Sandy Mucky Material (S1) *Indicators of hydroph					nytic vegetation and wetland Red Pa			arent Material (T42)
				-	e present, unless disturbed or Very S			Shallow Dark Surface (TF12)
Sandy	Redox (S5)			proł	blematic		Other	(Explain in remarks)
Restrictive L	ayer (if observed):							
Type:							Hydric Soils Pres	sent: Yes
Depth (inches	5):			-				
				-				
Remarks	<u>s:</u> Soil pit was d	lug to a	depth of 19-inch	ies.				

Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of or	ne is required; check	all that apply)	Surface Soil Crack (B6)		
Surface Water (A1)		Water-Stained Leaves (B9)	Drainage Patterns (B10)		
High Water Table (A2)	-	Aquatic Fauna (B13)	Moss Trim Lines (B16)		
<b>X</b> Saturation (A3)	-	Dry-Season Water Table (C2)			
Water Marks (B1)	-	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)		
Sediment Deposits (B2)	-	Oxidized Rhizospheres on Living Roots (C3	Saturation Visible on Aerial Imagery (C9)		
Drift Deposits (B3)	-	Presence or Reduced Iron (C4)	Stunted or Stressed Plants (D1)		
Algal Mat or Crust (B4)	_	Recent Iron Reduction in Tilled Soils (C6)	<b>X</b> Geomorphic Position (D2)		
Iron Deposits (B5)	-	Thin Muck Surface (C7)	Shallow Aquitard (D3)		
Inundation Visible on Aeria	l Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)		
Sparsely Vegetated Concav	e Surface (B8)		X FAC-Neutral Test (D5)		
Field Observations:					
Surface Water Present?		Depth (inches):	Indicators of Wetland		
Water Table Present?	No	Depth (inches): 16	Hydrology Present? Yes		
Saturation Present?	Yes	Depth (inches): 12			



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	_		Sampling Date: 6/13/2019		
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: W1	-F	
Investigator(s): Brandon Bohks			nship, Range: 2				
Landforms (hillside, terrace, etc.): Terrace Subregion: LRR K Latitude:			(concave, conv		r Slope (%):	4-7	
8		Longitude:	ification: None	Datum:			
Soil Map Unit Name: <b>Dundas fine sandy loam</b> Are climatic/hydrologic conditions of the site typical for	this time of year?			, explain in remarks)			
	hydrology	Yes	icantly disturbe		imstances present?	<b>X</b> 7	
· · · · · · · · · · · · · · · · · · ·	hydrology		ally problematic		n any answers in Re		
, sons, , or, , or _		TAILITZ	• •	. (If fielded, explain	any answers in Re	illar KS)	
Hydrophytic vegetation present?	No						
Hydric soils present?	Yes		Is the sam	pled area within a wetl	and? No		
Wetland hydrology present?	No			<b>F</b>	110		
Remarks:							
	EGETATION	Llas ssientifis	names of plants				
V				50/20 Threshol	ld 20%	50%	
<u>Tree Stratum</u> (Plot size: 30 feet )	Absolute % Cover	Dominant Species	Indicator Status	Tree Stratum	0	0	
1		Speeres	2	Sapling/Shrub Stratur		0	
2				Herb Stratum	22.6	56.5	
3				Woody Vine Stratum		0	
4				-	e Test Worksheet		
5							
5	0 =	Total Cover		Number of domir that are OBL, FAC	-	(A)	
Sapling/Shrub stratum (Plot size: 15 feet )				Total number of	of dominant		
1				species acros	ss all strata: 2	(B)	
23				Percent of dominant are OBL, FAC	-	(A/B)	
4				Prevalence	e Index Worksheet		
5				Total % cover of:			
		Total Cover		OBL Species:	8 x 1 = 8	3	
Herb stratum: (Plot size: 5 feet )				FACW Species:		)	
1 Trifolium pretense	40	Yes	FACU	FAC Species:	5 x 3 = 1	5	
2 Erigeron annuus	35	Yes	FACU	FACU species: 1	$100  ext{ x 4} = 40$	)0	
3 Amaranthus retroflexus	15	No	FACU	UPL Species:	0 x 5 = 0	)	
4 Melilotus officinalis	10	No	FACU	Totals: 1	13 (A) 42	<b>23</b> (B)	
5 Carex vulpinoidea	8	No	OBL	Prevalence In	ndex (B/A): 3.74		
6 Ambrosia trifida	5	No	FAC	Hydrophytic	Vegetation Indicat	ors	
7				Rapid test for	hydrophytic vegetat	tion	
8				Dominance te	st>50%		
9				Prevalence inc	dex is ≤3.0*		
10					l adaptations* (Prov	vide	
	113 =	Total Cover		supporting dat			
Woody vine stratum: (Plot size: <u>15 feet</u> ) 1				Problematic h (Explain in ren	ydrophytic vegetatio marks)	on*	
2				*Indicators of hydric		ydrology	
	0 =	Total Cover		must be present, unl			
Remarks:				Hydrophytic veg present?			



#### EXHIBIT G: WETLAND DETERMINATION DATA FORM

Sample Point: W1-F

(Northcentral and Northeast Region - LRR K)

SOILS

Profile Descr	iption: (Describe to t	he dept	th needed to docu	ıment t	he indicator o	or confirm the	absence of indicator	rs.)
Depth	Matrix			Redo	x Features			
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-16	10YR 2/1	100					Clay Loam	
16-22+	10YR 5/1	90	7.5YR 4/6	10	С	М	Sandy Clay Loam	
	*Type: C = Concentra	tion, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked Sa	and Grains. **Location	n: PL = Pore Lining, M = Matrix
Hydric Soil I	ndicators:						Indicators f	or Problematic Hydric Soils*:
Histisc	ol (A1)			Strippe	ed Matrix (S6)		2 cm M	Muck (A10)
Histic	Epipedon (A2)			Loamy	Mucky Miner	ral (F1)	Coast	Prairie Redox (A16)
Black	Histic (A3)			Loamy	Gleyed Matrix	x (F2)	5 cm N	Mucky Peat or Peat (S3)
Hydrog	gen Sulfide (A4)			Deplet	ted Matrix (F3)	)	Dark S	Surface (S7)
Stratifi	ed Layers (A5)			Redox	Dark Surface	(F6)	Polyva	alve Below Dark Surface (S8)
Deplet	ed Below Dark Surfac	e (A11)	)	Deplet	ed Dark Surfac	ce (F7)	Thin I	Dark Surface (S9)
X Thick	Dark Surface (A12)			Redox	Depressions (l	F8)	Iron-M	Manganese Masses (F12)
Sandy Mucky Material (S1) *Indicators of hydroph				ytic vegetation and wetland Red F			arent Material (T42)	
				present, unless disturbed or Very Shallow Dark Surface (TF12)			Shallow Dark Surface (TF12)	
Sandy	Redox (S5)			proł	blematic		Other	(Explain in remarks)
Restrictive L	ayer (if observed):							
Type:							Hydric Soils Pres	sent: Yes
Depth (inches	):			•				
		-		-	<u> </u>			
Remarks	s: Soil pit was d	lug to a	depth of 22-inch	les.				

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; check	all that apply)	Surface Soil Crack (B6)			
Surface Water (A1)	Drainage Patterns (B10)				
High Water Table (A2)	Moss Trim Lines (B16)				
Saturation (A3)	Dry-Season Water Table (C2)				
Water Marks (B1)	Crayfish Burrows (C8)				
Sediment Deposits (B2)	Saturation Visible on Aerial Imagery (C9)				
Drift Deposits (B3)	Presence or Reduced Iron (C4)	Stunted or Stressed Plants (D1)			
Algal Mat or Crust (B4)	Geomorphic Position (D2)				
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)			
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)			
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)			
Field Observations:					
Surface Water Present?	Depth (inches):	Indicators of Wetland			
Water Table Present?	Depth (inches):	Hydrology Present? No			
Saturation Present?	Depth (inches):				



		Northeast Regi	-			
Project/Site: Headwaters Parkway	Cit	y/County: Wash	-		Sampling Date: 6/1	
Applicant/Owner: City of Forest Lake		Stat	Sample Point: W1	1-G		
Investigator(s): Brandon Bohks			nship, Range: 2			
Landforms (hillside, terrace, etc.): Basin			concave, conv		Slope (%):	0-2
Subregion: LRR K Latitude:		Longitude:		Datum:		
Soil Map Unit Name: Webster loam			ification: <b>PEM</b>			
Are climatic/hydrologic conditions of the site typical for thi	-	Yes	_	, explain in remarks)		
	drology		icantly disturbe		imstances present?	
Are vegetation, soils, or hy	drology		ally problematic	? (If needed, explain	n any answers in Re	emarks)
		RY OF FINI	DINGS			
Hydrophytic vegetation present?	Yes					
Hydric soils present?	Yes		Is the sam	pled area within a wetl	and? Yes	-
Wetland hydrology present?	Yes					
Remarks:						
	OF THE O	т.				
VE	GETATION	- Use scientific	names of plants		200/	500/
	Absolute	Dominant	Indicator	50/20 Threshol		50%
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	0	0
1				Sapling/Shrub Stratur		0
2				Herb Stratum	21.8	54.5
3				Woody Vine Stratum		0
4				Dominanc	e Test Worksheet	
5				Number of domir	ant species	
	0	=Total Cover		that are OBL, FAC	W, or FAC: 2	(A)
Sapling/Shrub stratum (Plot size: 15 feet )				Total number of	of dominant	
1				species acros	ss all strata: 2	(B)
2				Percent of dominant		
3				are OBL, FAC	CW or FAC: 100%	<b>%</b> (A/B)
4				Prevalence	e Index Worksheet	t
5				Total % cover of:		
	0 =	=Total Cover			98 x 1 = 9	98
Herb stratum: (Plot size: 5 feet )				FACW Species:	<b>4</b> x 2 =	8
1 Carex vulpinoidea	90	Yes	OBL	FAC Species:	<b>7</b> x 3 = <b>2</b>	21
2 Schoenoplectus tabernaemontani	8	No	OBL	FACU species:	<b>0</b> x 4 =	0
3 Populus tremuloides	7	No	FAC	UPL Species:	<b>0</b> x 5 =	0
4 Salix exigua	4	No	FACW	Totals: 1	<b>09</b> (A) <b>1</b>	<b>27</b> (B)
5				Prevalence In	ndex (B/A): 1.17	-
6				Hydrophytic `	Vegetation Indicat	tors
7				X Rapid test for	hydrophytic vegeta	tion
8				X Dominance te	st >50%	
9				X Prevalence inc	tex is $\leq 3.0^*$	
10				Morphologica	l adaptations* (Pro	vide
	109	=Total Cover		supporting dat		
Woody vine stratum: (Plot size: 15 feet )				Problematic h	ydrophytic vegetati	on*
1				(Explain in ren		
2				*Indicators of hydrid	e soil and wetland h	ydrology
	0	=Total Cover		must be present, unl		
				Hydrophytic veg	etation	
<u>Remarks:</u>				present?	Yes	



### EXHIBIT G: WETLAND DETERMINATION DATA FORM

Sample Point: W1-G

(Northcentral and Northeast Region - LRR K)

SOILS

Profile Descu	ription: (Describe to	the dep	th needed to docu	ument t	he indicator o	or confirm the	e absence of indicator	s.)	
Depth	Matrix			Redo	x Features				
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks	
0-7	10YR 2/1	100					Clay Loam		
7-15+	10YR 5/1	70	7.5YR 4/6	30	С	М	Sandy Clay Loam		
	*Type: C = Concentr	ation, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked S	and Grains. **Location	h: PL = Pore Lining, M = Matrix	
Hydric Soil I	ndicators:						Indicators for	or Problematic Hydric Soils*:	
Histis	ol (A1)			Strippe	ed Matrix (S6)		2 cm N	Muck (A10)	
Histic	Epipedon (A2)			Loamy	Mucky Miner	ral (F1)	Coast	Prairie Redox (A16)	
Black	Histic (A3)			Loamy	Gleyed Matri	x (F2)	5 cm N	Mucky Peat or Peat (S3)	
Hydro	gen Sulfide (A4)			Deplet	ed Matrix (F3)	)	Dark S	Surface (S7)	
Stratif	ied Layers (A5)			Redox	Dark Surface	(F6)	Polyva	lve Below Dark Surface (S8)	
X Deple	X         Depleted Below Dark Surface (A11)         Depleted Dark Surface (F7)         Thin Dark Surface (S9)					Dark Surface (S9)			
Thick	Thick Dark Surface (A12)Redox Depressions (F8)					Iron-N	Iron-Manganese Masses (F12)		
Sandy	Mucky Material (S1)		*Indicators of h	ydroph	ytic vegetation	and wetland	Red Pa	arent Material (T42)	
Sandy	Gleyed Matrix (S4)			ist be pr	esent, unless d		Very S	Shallow Dark Surface (TF12)	
Sandy	Redox (S5)			proł	olematic		Other	(Explain in remarks)	
Restrictive L	ayer (if observed):								
Type:							Hydric Soils Pres	sent: Yes	
Depth (inches	):			-			-		
Remark	s: Soil nit was	dua to o	depth of 15-inch	-	ļ				
ixenial K	<u>s.</u> Son pri was	uug iv a	ucpui or 15-men	103.					

Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum of	one is required; check	all that apply)	Surface Soil Crack (B6)
Surface Water (A1)	_	Water-Stained Leaves (B9)	Drainage Patterns (B10)
<b>X</b> High Water Table (A2)	_	Aquatic Fauna (B13)	Moss Trim Lines (B16)
<b>X</b> Saturation (A3)		Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1)		Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)		Oxidized Rhizospheres on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)		Presence or Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)		Recent Iron Reduction in Tilled Soils (C6)	X Geomorphic Position (D2)
Iron Deposits (B5)		Thin Muck Surface (C7)	Shallow Aquitard (D3)
Inundation Visible on Aer	rial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)
Sparsely Vegetated Conca	ave Surface (B8)		X FAC-Neutral Test (D5)
Field Observations:			
Surface Water Present?		Depth (inches):	Indicators of Wetland
Water Table Present?	Yes	Depth (inches): 9	Hydrology Present? Yes
Saturation Present?	Yes	Depth (inches): 4	
Remarks:			



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	_		npling Date: 6/1	
Applicant/Owner: City of Forest Lake			$\frac{MN}{1}$		ample Point: W	1-H
Investigator(s): Brandon Bohks			nship, Range: 2			
Landforms (hillside, terrace, etc.): Backslope			(concave, conve		Slope (%)	: 3-5
Subregion: LRR K Latitude:		Longitude:	· · · · · · · · · · · · · · · · · · ·	Datum:		
Soil Map Unit Name: Webster loam	<u></u>		ification: None			
Are climatic/hydrologic conditions of the site typical f	-	Yes	_	explain in remarks)		
· · · · · · · · · · · · · · · · · · ·	or hydrology		icantly disturbed		-	No
Are vegetation, soils,	or hydrology	NATUR:	ally problematic	? (If needed, explain a	ny answers in R	emarks)
Hydrophytic vegetation present?	No					
Hydric soils present?	Yes		Is the sam	pled area within a wetlan	d? No	
Wetland hydrology present?	No				110	-
Remarks:						
	VEGETATION	- Use scientific	names of plants			
	Absolute	Dominant	Indicator	50/20 Threshold	20%	50%
<u>Tree Stratum</u> (Plot size: 30 feet )	% Cover	Species	Status	Tree Stratum	0	0
1				Sapling/Shrub Stratum	0	0
2				Herb Stratum	0	0
3				Woody Vine Stratum	0	0
4				Dominance 7	Fest Worksheet	;
5				Number of dominar	t species	
	0 =	Total Cover		that are OBL, FACW,	-	(A)
<u>Sapling/Shrub stratum</u> (Plot size: <u>15 feet</u> )				Total number of	lominant	
1				species across a	ıll strata:	(B)
2				Percent of dominant spe	ecies that	
3				are OBL, FACW		<u>(A/B)</u>
4				Prevalence In	ndex Workshee	t
5				Total % cover of:		
	0 =	Total Cover		OBL Species: 0	x 1 =	0
Herb stratum: (Plot size: 5 feet )				FACW Species: 0	x 2 =	0
1 Zea mays				FAC Species: 0	x 3 =	0
2				FACU species: 0	x 4 =	0
3				UPL Species: 0	x 5 =	0
4				Totals: 0	(A)	<b>0</b> (B)
5				Prevalence Inde	x (B/A):	
6				Hydrophytic Ve	getation Indica	tors
7				Rapid test for hy	drophytic vegeta	ation
8				Dominance test	>50%	
9				Prevalence index	is ≤3.0*	
10				Morphological a		vide
Washing statum (Dist instanting)	0 =	Total Cover		supporting data i		white
Woody vine stratum: (Plot size: 15 feet ) 1				Problematic hyd (Explain in rema		ion*
2	0 =	Total Cover		*Indicators of hydric so must be present, unless		
Samp	le point was taken in	a		Hydrophytic veget:	ation	
	eld recently planted w			present?	No No	



#### EXHIBIT G: WETLAND DETERMINATION DATA FORM

Sample Point: W1-H

(Northcentral and Northeast Region - LRR K)

SOILS

Profile Descr	iption: (Describe to	the dep	th needed to docu	iment t	he indicator o	or confirm the	e absence of indicator	s.)	
Depth	Matrix			Redox	x Features				
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks	
0-17	10YR 2/1	100					Clay Loam		
17-24+	10YR 5/1	85	7.5YR 4/6	15	С	М	Sandy Clay Loam		
	*Type: C = Concentra	ation, D	= Depletion, RM	= Reduc	eed Matrix, M	S = Masked S	and Grains. **Location	: PL = Pore Lining, M = Matrix	
Hydric Soil I	ndicators:						Indicators fo	or Problematic Hydric Soils*:	
Histisc	ol (A1)			Strippe	ed Matrix (S6)		2 cm N	Auck (A10)	
Histic	Epipedon (A2)			Loamy	Mucky Miner	ral (F1)	Coast	Prairie Redox (A16)	
Black	Histic (A3)			Loamy	Gleyed Matri	x (F2)	5 cm N	Aucky Peat or Peat (S3)	
Hydrog	gen Sulfide (A4)			Deplet	ed Matrix (F3)	)	Dark S	Surface (S7)	
Stratifi	ied Layers (A5)			Redox	Dark Surface	(F6)	Polyva	lve Below Dark Surface (S8)	
Deplet	Depleted Below Dark Surface (A11)Depleted Dark Surface (F7)Thin Dark Surface (S9)					Dark Surface (S9)			
X Thick	X         Thick Dark Surface (A12)         Redox Depressions (F8)					Iron-M	Manganese Masses (F12)		
Sandy Mucky Material (S1) *Indicators of hydrophytic vegetation and wetland					and wetland	Red Parent Material (T42)			
Sandy Gleyed Matrix (S4)hydrology must be present, unless disturbed orVery Shallow Dark Surface (TF12)					shallow Dark Surface (TF12)				
Sandy	Redox (S5)			prob	olematic		Other	(Explain in remarks)	
Restrictive L	ayer (if observed):								
Type:							Hydric Soils Pres	ent: Yes	
Depth (inches	):			_			·		
Remark	s: Soil pit was o	dug to a	depth of 24-inch	es.	<u>.</u>				

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; check	all that apply)	Surface Soil Crack (B6)			
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)			
High Water Table (A2)	Moss Trim Lines (B16)				
Saturation (A3)	Dry-Season Water Table (C2)				
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)			
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)			
Drift Deposits (B3)	Presence or Reduced Iron (C4)	Stunted or Stressed Plants (D1)			
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)			
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)			
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)			
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)			
Field Observations:					
Surface Water Present?	Depth (inches):	Indicators of Wetland			
Water Table Present?	Depth (inches):	Hydrology Present? No			
Saturation Present?	Depth (inches):				



Real People. Real Solutions.	(Northcentral and Northeast Region - LRR K)							
Project/Site: Headwaters Parkway	Cit	y/County: Wash			/13/2019			
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: V	W2-A		
Investigator(s): Brandon Bohks			nship, Range: 2					
Landforms (hillside, terrace, etc.): Basin			(concave, conv	ex, none): Conca	ve Slope (%	): 0-2		
Subregion: LRR K Latitude:		Longitude:		Datum:				
Soil Map Unit Name: <b>Dundas fine sandy loam</b>		NWI Class	ification: <b>PEM</b>	1C				
Are climatic/hydrologic conditions of the site typical for	this time of year?	Yes	(If no	, explain in remarks)				
Are vegetation, soils, or	hydrology	signif	icantly disturbe	d? Are normal circu	imstances present	? Yes		
Are vegetation , soils , or	r hydrology	natura	ally problematic	? (If needed, explai	n any answers in l	Remarks)		
	SUMMAR	RY OF FINI	DINGS					
Hydrophytic vegetation present?	Yes							
Hydric soils present?	Yes		Is the sam	pled area within a wet	land? Yes			
Wetland hydrology present?	Yes					—		
Remarks:								
	EGETATION	- Use scientific	names of plants	2				
	Absolute	Dominant	Indicator	50/20 Thresho	ld 20%	50%		
<u>Tree Stratum</u> (Plot size: 30 feet )	% Cover	Species	Status	Tree Stratum	4	10		
1 Populus tremuloides	20	Yes	FAC	Sapling/Shrub Stratu	m 6	15		
2				Herb Stratum	20	50		
3				Woody Vine Stratum		0		
4				-	e Test Workshee			
5								
	20 =	Total Cover		Number of domin that are OBL, FAC	1	5(A)		
Sapling/Shrub stratum (Plot size: 15 feet )				Total number	of dominant			
1 Salix species	20	Yes	FAC	species acro	ss all strata:	5 (B)		
2 Populus tremuloides	10	Yes	FAC	Percent of dominant	species that			
3				are OBL, FAC	CW or FAC: 10	<b>)%</b> (A/B)		
4				Prevalence	e Index Workshe	et		
5				Total % cover of:				
	30 =	Total Cover		OBL Species:	<b>0</b> x 1 =	0		
Herb stratum: (Plot size: 5 feet )				FACW Species:	30   x 2 =	60		
1 Equisetum arvense	55	Yes	FAC	FAC Species: 1	120 x 3 =	360		
2 Phalaris arundinacea	30	Yes	FACW	FACU species:	<b>0</b> x 4 =	0		
3 Salix species	15	No	FAC	UPL Species:	0 x 5 =	0		
4				Totals: 1		<b>420</b> (B)		
5					ndex (B/A): 2.80			
· · · · · · · · · · · · · · · · · · ·					Vegetation Indic			
6					hydrophytic vege			
7						lation		
8				X Dominance te				
9				X Prevalence in	dex is $\leq 3.0^*$			
10	100 =	=Total Cover			al adaptations* (Pr ta in remarks)	ovide		
Woody vine stratum: (Plot size: 15 feet ) 1				Problematic h (Explain in re	ydrophytic vegeta marks)	tion*		
2		=Total Cover		*Indicators of hydri must be present, un				
				-				
<u>Remarks:</u>				Hydrophytic veg present?				



### EXHIBIT G: WETLAND DETERMINATION DATA FORM

Sample Point: W2-A

(Northcentral and Northeast Region - LRR K)

SOILS

Profile Descr	ription: (Describe to	the dep	th needed to docu	ıment t	he indicator of	or confirm the	e absence of indicator	rs.)		
Depth	Matrix			Redo	x Features					
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks		
0-4	10YR 2/1	100					Sandy Clay Loam			
4-12+	10YR 5/1	95	7.5YR 4/6	5	C	М	Sandy Clay Loam			
	*Type: C = Concentra	ation, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked S	and Grains. **Location	n: PL = Pore Lining, M = Matrix		
Hydric Soil I	ndicators:						Indicators f	or Problematic Hydric Soils*:		
Histisol (A1) Stripped Matrix (S6)					2 cm 1	Muck (A10)				
Histic	Epipedon (A2)			Loamy	y Mucky Miner	ral (F1)	Coast Prairie Redox (A16)			
Black	Histic (A3)			Loamy	Gleyed Matri	ix (F2)	5 cm ]	5 cm Mucky Peat or Peat (S3)		
Hydro	gen Sulfide (A4)			Deplet	ted Matrix (F3)	)	Dark	Surface (S7)		
Stratif	ied Layers (A5)			Redox	Dark Surface	(F6)	Polyv	alve Below Dark Surface (S8)		
X Deplet	ted Below Dark Surfa	ce (A11	)	Deplet	ed Dark Surfa	ce (F7)	Thin I	Dark Surface (S9)		
Thick	Dark Surface (A12)			Redox	Depressions (	F8)	Iron-N	Manganese Masses (F12)		
Sandy	Mucky Material (S1)		*Indicators of h	- iydroph	ytic vegetation	and wetland	Red P	arent Material (T42)		
Sandy	Gleyed Matrix (S4)		hydrology mu		resent, unless d	listurbed or	Very	Shallow Dark Surface (TF12)		
Sandy	Redox (S5)			prol	blematic		Other	(Explain in remarks)		
Restrictive L	ayer (if observed):									
Type:							Hydric Soils Pre	sent: Yes		
Depth (inches	s):			-			·			
	-			-						
Remark	<u>s:</u> Soil pit was o	lug to a	depth of 12-inch	es.						

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)				
Primary Indicators (minimum of or	e is required; check	all that apply)	Surface Soil Crack (B6)		
Surface Water (A1)		Water-Stained Leaves (B9)	Drainage Patterns (B10)		
<b>X</b> High Water Table (A2)	_	Aquatic Fauna (B13)	Moss Trim Lines (B16)		
X Saturation (A3)	_	Marl Deposits (B15)	Dry-Season Water Table (C2)		
Water Marks (B1)		Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)		
Sediment Deposits (B2)	Saturation Visible on Aerial Imagery (C9)				
Drift Deposits (B3)		Stunted or Stressed Plants (D1)			
Algal Mat or Crust (B4)		Recent Iron Reduction in Tilled Soils (C6)	X Geomorphic Position (D2)		
Iron Deposits (B5)		Thin Muck Surface (C7)	Shallow Aquitard (D3)		
Inundation Visible on Aeria	l Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)		
Sparsely Vegetated Concave	e Surface (B8)		X FAC-Neutral Test (D5)		
Field Observations:					
Surface Water Present?		Depth (inches):	Indicators of Wetland		
Water Table Present?	No	Depth (inches): 7	Hydrology Present? Yes		
Saturation Present?	Yes	Depth (inches): 4			
Remarks:		·			



	(Northcentral and									
Project/Site: Headwaters Parkway	Cit	y/County: Wasl	_		Sampling Date: 6/	/13/2019				
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: W	V3-A				
Investigator(s): Brandon Bohks		Section, Tow	nship, Range: 2	9, 32, 21						
Landforms (hillside, terrace, etc.): Basin			f (concave, conve	ex, none): Conc	Slope (%)	): 0-2				
Subregion: LRR K Latitude:		Longitude:		Datum:						
Soil Map Unit Name: <b>Dundas fine sandy loam</b>		NWI Class	ification: <b>PEM</b> 1							
Are climatic/hydrologic conditions of the site typical for	this time of year?	Yes	(If no,	explain in remarks)						
Are vegetation X , soils , or	hydrology	signit	ficantly disturbed	1? Are normal cir	cumstances present?	No				
Are vegetation , soils , or	hydrology	natur	ally problematic	? (If needed, expl	lain any answers in F	Remarks)				
	SUMMAR	RY OF FINI	DINGS							
Hydrophytic vegetation present?	Yes									
Hydric soils present?	Yes		Is the sam	pled area within a we	etland? Yes					
Wetland hydrology present?	Yes									
<u>Remarks:</u> Sample point was taken in a agriculture	e field recently pla	nted with corn								
V	EGETATION	- Use scientific	names of plants							
	Absolute	Dominant	Indicator	50/20 Thresh	nold 20%	50%				
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	0	0				
1				Sapling/Shrub Strat	tum 0	0				
2				Herb Stratum	0	0				
3				Woody Vine Stratu	ım <u>0</u>	0				
4				Domina	nce Test Workshee	et				
5				Number of dom	ninant species					
	0 =	Total Cover=		that are OBL, FA	-	) (A)				
Sapling/Shrub stratum (Plot size: 15 feet )				Total numbe	er of dominant					
1					ross all strata:	(B)				
2				Percent of dominar	nt species that					
3					ACW or FAC: 0%	% (A/B)				
4				Prevaler	nce Index Workshe	et				
5				Total % cover of:						
		Total Cover		OBL Species:	<b>0</b> x 1 =	0				
Herb stratum: (Plot size: 5 feet )				FACW Species:	<b>0</b> x 2 =	0				
1 Zea mays				FAC Species:	0 x 3 =	0				
2				FACU species:	$\frac{0}{0}$ x 4 =	0				
3				UPL Species:	$\frac{0}{0}$ x 5 =	0				
4				Totals:	$\frac{0}{0}$ (A)	<b>0</b> (B)				
5				-	e Index (B/A):	<b>0</b> (D)				
5						_				
6					ic Vegetation Indica					
7					or hydrophytic veget	tation				
8				Dominance						
9				Prevalence	index is $\leq 3.0^*$					
10	0 =	=Total Cover			ical adaptations* (Pr data in remarks)	ovide				
<u>Woody vine stratum:</u> (Plot size: <u>15 feet</u> ) 1				Problematic (Explain in	e hydrophytic vegeta remarks)	tion*				
2		=Total Cover		*Indicators of hyd	lric soil and wetland inless disturbed or pi					
			• • • •	• ·	•					
Remarks:         Due to the presence of hydric soils and assum	d wetland hydrolog ed to be present.	gy. Hydrophyt	ic vegetation is	Hydrophytic v present	-					



### EXHIBIT G: WETLAND DETERMINATION DATA FORM

Sample Point: W3-A

(Northcentral and Northeast Region - LRR K)

SOILS

<b>Profile Descr</b>	iption: (Describe to	the dept	th needed to docu	ument t	he indicator o	or confirm the	e absence of indicato	rs.)
Depth	Matrix			Redo	k Features			
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-18	10YR 2/1	100					Clay Loam	
18-28	10YR 5/1	85	7.5YR 4/6	15	С	М	Sandy Clay Loam	
18-35+	10YR 6/1	80	7.5YR 4/6	20	С	М	Sandy Clay Loam	
	*Type: C = Concentr	ation, D	= Depletion, RM	= Redu	eed Matrix, M	S = Masked S	and Grains. **Locatio	n: PL = Pore Lining, M = Matrix
Hydric Soil I	ndicators:						Indicators f	or Problematic Hydric Soils*:
Histisc	< <i>/</i>				ed Matrix (S6)			Muck (A10)
Histic	Epipedon (A2)			Loamy	Mucky Mine	ral (F1)	Coast	Prairie Redox (A16)
Black	Histic (A3)			Loamy	Gleyed Matri	x (F2)	5 cm	Mucky Peat or Peat (S3)
Hydrog	gen Sulfide (A4)			Deplet	ed Matrix (F3	)	Dark	Surface (S7)
Stratifi	ied Layers (A5)			Redox	Dark Surface	(F6)	Polyv	alve Below Dark Surface (S8)
Deplet	ed Below Dark Surfa	ce (A11)	)	Deplet	ed Dark Surfa	ce (F7)	Thin	Dark Surface (S9)
X Thick	Dark Surface (A12)			Redox	Depressions (	F8)	Iron-l	Manganese Masses (F12)
Sandy	Mucky Material (S1)		*Indicators of h	ydrophy	ytic vegetatior	and wetland	Red F	Parent Material (T42)
Sandy	Gleyed Matrix (S4)		hydrology mu	-	esent, unless o	listurbed or	Very	Shallow Dark Surface (TF12)
Sandy	Redox (S5)			prob	olematic		Other	(Explain in remarks)
Restrictive L	ayer (if observed):							
Type:							Hydric Soils Pre	sent: Yes
Depth (inches	):							
Remark	s: Soil pit was	dug to a	depth of 35-inch	nes.				

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; check a	all that apply)	Surface Soil Crack (B6)		
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)		
High Water Table (A2)	Moss Trim Lines (B16)			
Saturation (A3)	Dry-Season Water Table (C2)			
Water Marks (B1)	Crayfish Burrows (C8)			
Sediment Deposits (B2)	<b>X</b> Saturation Visible on Aerial Imagery (C9)			
Drift Deposits (B3)	Stunted or Stressed Plants (D1)			
Algal Mat or Crust (B4)	X Geomorphic Position (D2)			
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)		
X Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)		
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)		
Field Observations:				
Surface Water Present?	Depth (inches):	Indicators of Wetland		
Water Table Present?	Depth (inches):	Hydrology Present? Yes		
Saturation Present?	Depth (inches):			
Saturation Present?	Depth (inches):			



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	_		ampling Date: 6/1	
Applicant/Owner: City of Forest Lake			$\frac{MN}{1}$		Sample Point: W	3-B
Investigator(s): Brandon Bohks Landforms (hillside, terrace, etc.): Backslope			nship, Range: 2		<u> </u>	
			(concave, conv	ex, none): Convex	Slope (%)	: 2-4
Subregion: LRR K Latitude:		Longitude:	ification: None	Datum:		
Are climatic/hydrologic conditions of the site typical for	on this time of year?			explain in remarks)		
	-	Yes	icantly disturbed	-		
· · · · · · · · · · · · · · · · · · ·	or hydrology		ally problematic		-	
Are vegetation, soils,	or hydrology SUMMAR	TATURA		(II needed, explain	any answers in R	emarks)
Hydrophytic vegetation present?	No					
Hydric soils present?	Yes		Is the sam	pled area within a wetla	nd? No	
Wetland hydrology present?					-	
Remarks:						
	VEGETATION	- Use scientific	names of plants	3		
	Absolute	Dominant	Indicator	50/20 Threshold	1 20%	50%
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	0	0
1				Sapling/Shrub Stratum	n <u> </u>	0
2				Herb Stratum	0	0
3				Woody Vine Stratum	0	0
4				Dominance	e Test Worksheet	t
5				Number of domina	ant species	
	0 =	Total Cover		that are OBL, FACV	-	(A)
Sapling/Shrub stratum (Plot size: 15 feet )				Total number of	f dominant	
1				species across		(B)
2				Percent of dominant s	pecies that	
3				are OBL, FAC		ó (A/B)
4				Prevalence	Index Workshee	t
5				Total % cover of:		
	0 =	Total Cover		OBL Species: (	<b>x</b> 1 =	0
Herb stratum: (Plot size: 5 feet )				FACW Species: 0	) x 2 =	0
1 Zea mays				FAC Species: (	) x 3 =	0
2				FACU species: (	x 4 =	0
3				UPL Species:		0
4				Totals:		<b>0</b> (B)
5				Prevalence In	dex (B/A):	
6					vegetation Indica	tors
7					ydrophytic vegeta	
8				Dominance tes		
9 9				Prevalence ind		
10						
	0 =	Total Cover		Morphological supporting data	adaptations* (Pro a in remarks)	ovide
Woody vine stratum:         (Plot size: 15 feet )           1				Problematic hy (Explain in ren	vdrophytic vegetati narks)	ion*
2		=Total Cover		*Indicators of hydric must be present, unle		
Sample	e point was taken in	a		Hydrophytic vege	tation	
	ld recently planted w			present?	No No	



### EXHIBIT G: WETLAND DETERMINATION DATA FORM

Sample Point: W3-B

(Northcentral and Northeast Region - LRR K)

SOILS

<b>Profile Descr</b>	iption: (Describe to	the dept	th needed to docu	ıment t	he indicator o	or confirm the	absence of indicator	s.)	
Depth	Matrix			Redo	x Features				
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks	
0-25	10YR 2/1	100					Clay Loam		
25-33+	10YR 5/1	90	7.5YR 4/6	10	С	М	Sandy Clay Loam		
	*Type: C = Concentra	tion, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked Sa	and Grains. **Location	PL = Pore Lining, M = Matrix	
Hydric Soil I	ndicators:						Indicators fo	or Problematic Hydric Soils*:	
Histisc	l (A1)			Strippe	ed Matrix (S6)		2 cm N	Auck (A10)	
Histic	Epipedon (A2)			Loamy	Mucky Miner	ral (F1)	Coast Prairie Redox (A16)		
Black	Histic (A3)			Loamy	Gleyed Matri	x (F2)	5 cm Mucky Peat or Peat (S3)		
Hydrog	gen Sulfide (A4)			Deplet	ed Matrix (F3)	)	Dark S	Surface (S7)	
Stratifi	ed Layers (A5)			Redox	Dark Surface	(F6)	Polyva	lve Below Dark Surface (S8)	
Deplet	ed Below Dark Surfac	e (A11)	)	Deplet	ed Dark Surfa	ce (F7)	Thin D	Dark Surface (S9)	
X Thick	Dark Surface (A12)			Redox	Depressions (	F8)	Iron-M	langanese Masses (F12)	
Sandy	Mucky Material (S1)		*Indicators of h	ydroph	vtic vegetation	and wetland	Red Pa	arent Material (T42)	
Sandy	Gleyed Matrix (S4)			st be pr	esent, unless d		Very S	hallow Dark Surface (TF12)	
Sandy	Redox (S5)			proł	olematic		Other	(Explain in remarks)	
Restrictive L	ayer (if observed):								
Type:							Hydric Soils Pres	ent: Yes	
Depth (inches	):			-			·		
Remarks	s: Soil pit was d	lug to a	depth of 33-inch	es.	<u> </u>				

Wetland Hydrology Indicators:	etland Hydrology Indicators:						
Primary Indicators (minimum of one is required; check	all that apply)	Surface Soil Crack (B6)					
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)					
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B16)					
Saturation (A3)	Dry-Season Water Table (C2)						
Water Marks (B1)	Crayfish Burrows (C8)						
Sediment Deposits (B2)	Saturation Visible on Aerial Imagery (C9)						
Drift Deposits (B3)	Stunted or Stressed Plants (D1)						
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)					
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)					
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)					
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)					
Field Observations:							
Surface Water Present?	Depth (inches):	Indicators of Wetland					
Water Table Present?	Depth (inches):	Hydrology Present? No					
Saturation Present?	Depth (inches):						



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Project/Site: Headwaters Parkway	Cit	y/County: Wash			ampling Date: 6/		
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: W	/4-A	
Investigator(s): Brandon Bohks			nship, Range: 29				
Landforms (hillside, terrace, etc.): Basin/Depressi	on		(concave, conve	·	e Slope (%)	): 0-2	
Subregion: LRR K Latitude:		Longitude:	·	Datum:			
Soil Map Unit Name: Webster loam	<u></u>		ification: None	·····1.:			
Are climatic/hydrologic conditions of the site typical f	-	Yes	_	explain in remarks)			
· · · · · · · · · · · · · · · · · · ·	or hydrology		icantly disturbed		-		
Are vegetation, soils,	or hydrology	RY OF FINI	ally problematic	? (If needed, explain	any answers in R	temarks)	
Hydrophytic vegetation present?			JING5				
Hydric soils present?	Yes		Is the same	alad anaa within a watla			
			is the sam	pled area within a wetla	nd? Yes	_	
Wetland hydrology present?	Yes						
<u>Remarks:</u> Sample point was taken in a agricult	ure field not wet plan	nted, due to wet	soil conditions				
	VEGETATION	- Use scientific	names of plants				
	Absolute	Dominant	Indicator	50/20 Threshold	l 20%	50%	
Tree Stratum         (Plot size: 30 feet )	% Cover	Species	Status	Tree Stratum	0	0	
1				Sapling/Shrub Stratum	n <u> </u>	0	
2				Herb Stratum	0	0	
3				Woody Vine Stratum	0	0	
4				Dominance	e Test Workshee	t	
5				Number of domina	ant species		
	0 =	=Total Cover		that are OBL, FACW	V, or FAC: 0	(A)	
Sapling/Shrub stratum (Plot size: 15 feet )				Total number of	f dominant		
1				species across all strata:			
2				Percent of dominant s	pecies that		
3				are OBL, FAC	W or FAC: 0%	<u>/o</u> (A/B)	
4					Index Workshee	et	
5				Total % cover of:			
	0 =	=Total Cover		OBL Species: 0	x 1 =	0	
Herb stratum: (Plot size: 5 feet )				FACW Species: 0	x 2 =	0	
1				FAC Species: 0	x 3 =	0	
2				FACU species: 0	x 4 =	0	
3				UPL Species: 0		0	
4			. <u> </u>		(A)	<b>0</b> (B)	
5				Prevalence Inc	1ex (B/A):	_	
6				Hydrophytic V	egetation Indica	itors	
7					nydrophytic veget	ation	
8				Dominance tes	t>50%		
9				Prevalence inde	ex is ≤3.0*		
10	0 =	=Total Cover		Morphological supporting data	adaptations* (Pro a in remarks)	ovide	
Woody vine stratum: (Plot size: 15 feet ) 1				Problematic hy (Explain in ren	drophytic vegetat narks)	tion*	
2		=Total Cover		*Indicators of hydric must be present, unle			
Due to the process of handlet and			a vogstat! !	-			
Remarks:         Due to the presence of hydric soils           ass         ass	and wetland hydrolog	gy. nyaropnyt	ic vegetation is	Hydrophytic vege present?	etation Yes		



### **EXHIBIT G:** WETLAND DETERMINATION DATA FORM

Sample Point: W4-A

(Northcentral and Northeast Region - LRR K)

SOILS

					DOIL	0		
Profile Desci	ription: (Describe to	the dep	th needed to docu	iment t	he indicator of	or confirm th	e absence of indicator	·s.)
Depth	Matrix			Redoz	x Features			
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-15	10YR 2/1	100					Clay Loam	
15-21	10YR 2/1	90	7.5YR 4/6	10	С	М	Sandy Clay Loam	
21-26+	10YR 5/1	80	7.5YR 4/6	20	С	М	Sandy Clay Loam	
	*Type: C = Concentr	ation, D	= Depletion, RM	= Redu	ced Matrix, M	IS = Masked S	and Grains. **Location	n: PL = Pore Lining, M = Matrix
Hydric Soil l	indicators:						Indicators f	or Problematic Hydric Soils*:
Histis	ol (A1)			Strippe	ed Matrix (S6)	)	2 cm 1	Muck (A10)
Histic	Epipedon (A2)		Loamy	Mucky Mine	ral (F1)	Coast Prairie Redox (A16)		
Black Histic (A3)				Loamy	Gleyed Matri	ix (F2)	5 cm 1	Mucky Peat or Peat (S3)
Hydro	gen Sulfide (A4)			Deplet	ted Matrix (F3	)	Dark	Surface (S7)
Stratif	ied Layers (A5)			Redox	Dark Surface	(F6)	Polyva	alve Below Dark Surface (S8)
Deple	ted Below Dark Surfa	ce (A11)	)	Deplet	ed Dark Surfa	ice (F7)	Thin I	Dark Surface (S9)
X Thick	Dark Surface (A12)			Redox	Depressions (	(F8)	Iron-N	Manganese Masses (F12)
Sandy	Mucky Material (S1)		*Indicators of h	ydrophy	ytic vegetatior	n and wetland	Red P	arent Material (T42)
Sandy	Gleyed Matrix (S4)		hydrology mu	-	resent, unless o	disturbed or	Very	Shallow Dark Surface (TF12)
Sandy	Redox (S5)			prob	blematic		Other	(Explain in remarks)
Restrictive L	ayer (if observed):							
Type:							Hydric Soils Pres	sent: Yes
Depth (inches	s):			•			-	
				•	<u> </u>			
Remark	s: Soil pit was	dug to a	depth of 26-inch	es.				
				]	HYDROL	OGY		
Wetland Hyd	rology Indicators:						Secon	dary Indicators (minimum of two required)
-	ators (minimum of on	e is requ	ired; check all the	at apply	·)			Surface Soil Crack (B6)
-	e Water (A1)				-Stained Leave	es (B9)		Drainage Patterns (B10)
High	Water Table (A2)			Aquati	ic Fauna (B13)	)		Moss Trim Lines (B16)
Satura	tion (A3)			- 1	Deposits (B15)	/		Dry-Season Water Table (C2)

Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence or Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Geomorphic Position (D2) Recent Iron Reduction in Tilled Soils (C6) Х Iron Deposits (B5) Thin Muck Surface (C7) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) Microtopographic Relief (D4) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Depth (inches): **Indicators of Wetland** Water Table Present? Depth (inches): **Hydrology Present?** Saturation Present? Depth (inches):

Yes

Remarks:



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	-		ampling Date: 6/1	
Applicant/Owner: City of Forest Lake			$\frac{MN}{1}$		Sample Point: W	4-B
Investigator(s): Brandon Bohks			nship, Range: 2		C1 (A/)	
Landforms (hillside, terrace, etc.): Backslope Subregion: LRR K Latitude:			(concave, conve	ex, none): Convex Datum:	Slope (%)	3-5
		Longitude:	ification: None	Datum:		
Soil Map Unit Name: Webster loam Are climatic/hydrologic conditions of the site typical for	w this time of year?			explain in remarks)		
	-	Yes	icantly disturbed		actorian procent?	N
· · · · · · · · · · · · · · · · · · ·	or hydrology		ally problematic		-	<u>No</u>
Are vegetation, soils, o	or hydrology SUMMAR	TAILURA		(II needed, explain	any answers in K	emarks)
Hydrophytic vegetation present?	No					
Hydric soils present?	Yes		Is the sam	pled area within a wetla	nd? No	
Wetland hydrology present?					-	
Remarks:						
	VEGETATION	- Use scientific	names of plants	:		
	Absolute	Dominant	Indicator	50/20 Threshold	20%	50%
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	0	0
1				Sapling/Shrub Stratum	0	0
2				Herb Stratum	0	0
3				Woody Vine Stratum	0	0
4				Dominance	Test Worksheet	:
5				Number of domina	int species	
	0 =	Total Cover=		that are OBL, FACW	/, or FAC: 0	(A)
Sapling/Shrub stratum (Plot size: 15 feet )				Total number of	dominant	
1				species across	all strata:	(B)
2				Percent of dominant s	pecies that	
3				are OBL, FACV	W or FAC: 0%	(A/B)
4				Prevalence	Index Workshee	t
5				Total % cover of:		
	0 =	Total Cover		OBL Species: 0	x 1 =	0
Herb stratum: (Plot size: 5 feet )				FACW Species: 0	x 2 =	0
1 Zea mays				FAC Species: 0	x 3 =	0
2				FACU species: 0	x 4 =	0
3				UPL Species: 0	x 5 =	0
4				Totals: 0	(A)	<b>0</b> (B)
5				Prevalence Inc	lex (B/A):	
6				Hydrophytic V	egetation Indica	tors
7				Rapid test for h	ydrophytic vegeta	ntion
8				Dominance test	t>50%	
9				Prevalence inde	ex is ≤3.0*	
10	0 =	Total Cover		Morphological supporting data	adaptations* (Pro	vide
Woody vine stratum: (Plot size: <u>15 feet</u> ) 1					drophytic vegetat	ion*
2		=Total Cover		*Indicators of hydric must be present, unle	soil and wetland l	
a 1				-		
	e point was taken in d recently planted w			Hydrophytic vege present?	tation <u>No</u>	



#### EXHIBIT G: WETLAND DETERMINATION DATA FORM

Sample Point: W4-B

(Northcentral and Northeast Region - LRR K)

SOILS

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Depth Matrix		Redox Features						
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks	
0-23	10YR 2/1	100					Clay Loam		
23-30+	10YR 5/1	95	7.5YR 4/6	5	С	М	Sandy Clay Loam		
	*Type: C = Concentra	tion, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked Sa	and Grains. **Location	PL = Pore Lining, M = Matrix	
Hydric Soil I	ndicators:						Indicators fo	or Problematic Hydric Soils*:	
Histisol (A1)				Stripped Matrix (S6)			2 cm Muck (A10)		
Histic Epipedon (A2)				Loamy Mucky Mineral (F1)			Coast Prairie Redox (A16)		
Black Histic (A3)				Loamy	Gleyed Matri	x (F2)	5 cm N	Aucky Peat or Peat (S3)	
Hydrogen Sulfide (A4)				Deplet	ted Matrix (F3)	)	Dark S	Surface (S7)	
Stratified Layers (A5)				Redox Dark Surface (F6)			Polyva	lve Below Dark Surface (S8)	
Depleted Below Dark Surface (A11)			)	Depleted Dark Surface (F7)			Thin Dark Surface (S9)		
X Thick Dark Surface (A12)				Redox	Depressions (I	F8)	Iron-Manganese Masses (F12)		
Sandy Mucky Material (S1) *Indicators of hy					vtic vegetation	and wetland	Red Parent Material (T42)		
				gy must be present, unless disturbed or			Very Shallow Dark Surface (TF12)		
Sandy Redox (S5)				problematic			Other (Explain in remarks)		
Restrictive L:	ayer (if observed):								
Туре:							Hydric Soils Pres	ent: Yes	
Depth (inches)	):			•			·		
Remarks	s: Soil pit was d	lug to a	depth of 30-inch	es.	<u> </u>				

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; check	Surface Soil Crack (B6)			
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10) Moss Trim Lines (B16)		
High Water Table (A2)	Aquatic Fauna (B13)			
Saturation (A3)	Marl Deposits (B15)	Dry-Season Water Table (C2)		
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)		
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)		
Drift Deposits (B3)	Presence or Reduced Iron (C4)	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)		
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)			
Iron Deposits (B5)	Thin Muck Surface (C7)			
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)			
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)		
Field Observations:				
Surface Water Present?	Indicators of Wetland			
Water Table Present?	Hydrology Present? No			
Saturation Present?	Depth (inches):			



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Project/Site: Headwaters Parkway	Cıt	y/County: Wash			Sampling Date: 6/	
Applicant/Owner: City of Forest Lake			$\frac{MN}{1}$		Sample Point: W5-A	
Investigator(s): Brandon Bohks			nship, Range: 2		<u> </u>	
Landforms (hillside, terrace, etc.): Basin/Depression	1		(concave, conve		ve Slope (%)	): 0-2
Subregion: LRR K Latitude:		Longitude:	Gastian None	Datum:		
Soil Map Unit Name: Webster loam	this time of mon		ification: None	analain in annadra)		
Are climatic/hydrologic conditions of the site typical for	-	Yes	_	explain in remarks)	·····	<b>.</b>
· · · · · · · · · · · · · · · · · · ·	hydrology		icantly disturbed		umstances present?	
Are vegetation, soils, or	hydrology	TATURA TATURA	ally problematic	(If needed, explai	in any answers in F	(emarks)
Hydrophytic vegetation present?	Yes					
Hydric soils present?	Yes		Is the sam	pled area within a wet	land? Yes	
Wetland hydrology present?			<b></b>	105	_	
	Yes					
<u>Remarks:</u> Sample point was taken in a agricultur						
V	EGETATION	- Use scientific	names of plants		1.1 200/	500/
	Absolute	Dominant	Indicator	50/20 Thresho		50%
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	0	0
1				Sapling/Shrub Stratu		0
2				Herb Stratum	2	5
3				Woody Vine Stratum		0
4				Dominan	ce Test Workshee	t
5		Total Cover		Number of domi that are OBL, FAC	-	(A)
Sapling/Shrub stratum (Plot size: 15 feet )				Total number		(1)
1					oss all strata: <u>1</u>	(B)
2				Percent of dominant	species that	
3				are OBL, FAC	CW or FAC: 100	<b>%</b> (A/B)
4					e Index Workshee	et
5				Total % cover of:		
	0 =	Total Cover=			<b>10</b> x 1 =	10
Herb stratum: (Plot size: 5 feet )				FACW Species:	0 x 2 =	0
1 Alisma triviale	10	Yes	OBL	FAC Species:	<b>0</b> x 3 =	0
2				FACU species:	<b>0</b> x 4 =	0
3				UPL Species:	<b>0</b> x 5 =	0
4				Totals:	10 (A)	<b>10</b> (B)
5				Prevalence I	ndex (B/A): 1.00	
6				Hydrophytic	Vegetation Indica	ators
7				X Rapid test for	hydrophytic veget	ation
8				X Dominance te	est >50%	
9				X Prevalence in	dex is ≤3.0*	
10				Mornhologic	al adaptations* (Pr	ovide
	10 =	Total Cover			ita in remarks)	ovide
<u>Woody vine stratum:</u> (Plot size: <u>15 feet</u> ) 1				Problematic h (Explain in re	nydrophytic vegetat emarks)	tion*
2				*Indicators of hydri		
	0 =	Total Cover=		must be present, un	less disturbed or pi	roblematic
Remarks:         Due to the presence of hydric soils an assun	nd wetland hydrolo ned to be present.	gy. Hydrophyt	ic vegetation is	Hydrophytic veg present?		



### **EXHIBIT G:** WETLAND DETERMINATION DATA FORM

Sample Point: W5-A

Yes

(Northcentral and Northeast Region - LRR K)

COLLC

r				SOIL	3				
Profile Descu	iption: (Describe to th	e depth needed to	odocument	the indicator	or confirm the	absence of indicato	rs.)		
Depth	Matrix		Redo	ox Features	-				
(inches)	Color (moist)	% Color (me	oist) %	Type*	Loc**	Texture	Remarks		
0-15	10YR 2/1	90 7.5YR 4	/6 10	С	М	Clay Loam			
	*Type: C = Concentrati	on, D = Depletion	, RM = Redu	uced Matrix, M	S = Masked Sa	nd Grains. **Locatio	n: PL = Pore Lining, M = Matrix		
Hydric Soil I	ndicators:					Indicators f	for Problematic Hydric Soils*:		
Histis	ol (A1)		Stripp	ed Matrix (S6)	)	2 cm	Muck (A10)		
Histic	Epipedon (A2)		Loam	y Mucky Mine	ral (F1)	Coast	Prairie Redox (A16)		
Black	Histic (A3)	-	Loam	y Gleyed Matri	ix (F2)	5 cm	Mucky Peat or Peat (S3)		
Hydro	gen Sulfide (A4)	_	Deple	ted Matrix (F3	)	Dark	ark Surface (S7)		
Stratif	ied Layers (A5)	_	X Redox	x Dark Surface	(F6)	Polyv	Polyvalve Below Dark Surface (S8)		
Deple	ted Below Dark Surface	(A11)	Deple	Depleted Dark Surface (F7)			Thin Dark Surface (S9)		
Thick	Dark Surface (A12)	_	Redo	x Depressions (	(F8)	Iron-l	ron-Manganese Masses (F12)		
Sandy	Mucky Material (S1)	*Indicator	s of hydropl	nytic vegetatior	n and wetland	Red F	Parent Material (T42)		
Sandy	Gleyed Matrix (S4)		gy must be p	resent, unless o		Very	Shallow Dark Surface (TF12)		
Sandy	Redox (S5)		pro	blematic		Other	(Explain in remarks)		
Restrictive L	ayer (if observed):								
Type:						Hydric Soils Pre	sent: Yes		
Depth (inches	s):					·			
	-								
Remark	s: Soil pit was du	g to a depth of 15	-inches.						
				HYDROL	OGY				
Wetland Hyd	rology Indicators:			mibhol	001	Secor	ndary Indicators (minimum of two required)		
	ators (minimum of one i	all that apply	y)		X	• • • •			
	e Water (A1)			es (B9)		Drainage Patterns (B10)			
	Water Table (A2)	-	Aqua	Aquatic Fauna (B13)			Moss Trim Lines (B16)		
	tion (A3)	-		Deposits (B15)			Dry-Season Water Table (C2)		
	Marks (B1)	-		ydrogen Sulfide Odor (C1)			Crayfish Burrows (C8)		
	ent Deposits (B2)	-		xidized Rhizospheres on Living Roots (C3)			X         Saturation Visible on Aerial Imagery (C9)		
	Deposits (B3)		nce or Reduced		(-)	Stunted or Stressed Plants (D1)			
	Mat or Crust (B4)			on in Tilled Soil	s (C6) X	X     Geomorphic Position (D2)			
Iron D	eposits (B5)	-		Muck Surface (			Shallow Aquitard (D3)		
	ation Visible on Aerial I	magery (B7)		(Explain in Re			Microtopographic Relief (D4)		
	ely Vegetated Concave S				,		FAC-Neutral Test (D5)		
Field Observa	ations:						<b></b>		

Depth (inches): Surface Water Present? **Indicators of Wetland** Water Table Present? Depth (inches): Hydrology Present? Saturation Present? Depth (inches):

Remarks:



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	-		mpling Date: 6/1	
Applicant/Owner: City of Forest Lake			e: MN		ample Point: W	5-B
Investigator(s): Brandon Bohks			nship, Range: 29			
Landforms (hillside, terrace, etc.): Backslope Subregion: LRR K Latitude:			(concave, conve	ex, none): Convex Datum:	Slope (%)	: 3-6
Subregion: LRR K Latitude:		Longitude:	ification: None	Datum:		
Are climatic/hydrologic conditions of the site typical for	or this time of year?	N WI Class Yes		explain in remarks)		
	or hydrology		icantly disturbed	-	stances present?	No
· · · · · · · · · · · · · · · · · · ·	or hydrology		ally problematic		-	
, , , , , , , , , , , , , , , , , , , ,		RY OF FINI		. (If fielded, explain t	any answers in R	emarks)
Hydrophytic vegetation present?	No					
Hydric soils present?	Yes		Is the sam	pled area within a wetlan	d? No	
Wetland hydrology present?					-	
Remarks:						
	VEGETATION	- Use scientific	names of plants			
	Absolute	Dominant	Indicator	50/20 Threshold	20%	50%
Tree Stratum (Plot size: 30 feet )	% Cover	Species	Status	Tree Stratum	0	0
1				Sapling/Shrub Stratum	0	0
2				Herb Stratum	0	0
3				Woody Vine Stratum	0	0
4				Dominance '	Test Worksheet	;
5				Number of dominar	nt species	
	0 =	Total Cover=		that are OBL, FACW,	or FAC: 0	(A)
Sapling/Shrub stratum (Plot size: 15 feet )				Total number of	dominant	
1				species across	all strata:	(B)
2				Percent of dominant sp		
3				are OBL, FACW		
4					ndex Workshee	t
5				Total % cover of:		
	0 =	Total Cover		OBL Species: 0	x 1 =	0
Herb stratum: (Plot size: 5 feet )				FACW Species: 0	x 2 =	0
1 Zea mays				FAC Species: 0	x 3 =	0
2				FACU species: 0	x 4 =	0
3				UPL Species: 0	x 5 =	<u>0</u>
4				Totals: 0	_(A)	<b>0</b> (B)
5				Prevalence Inde		-
6				Hydrophytic Ve	0	
7				Rapid test for hy		ation
8			. <u> </u>	Dominance test		
9				Prevalence index	x 1s ≤3.0*	
10	0 =	Total Cover		Morphological a supporting data		ovide
Woody vine stratum: (Plot size: 15 feet ) 1				Problematic hyd (Explain in rema		ion*
2		=Total Cover		*Indicators of hydric s must be present, unless		
Sample	e point was taken in	a		Hydrophytic veget	ation	
	d recently planted w			present?	No No	



### EXHIBIT G: WETLAND DETERMINATION DATA FORM

Sample Point: W5-B

(Northcentral and Northeast Region - LRR K)

SOILS

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth Matrix		Redox Features							
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks	
0-22	10YR 2/1	100					Silty Clay Loam		
23-28+	10YR 5/1	95	7.5YR 4/6	5	MS	М	Sandy Loam		
*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix									
Hydric Soil I	ndicators:						Indicators fo	or Problematic Hydric Soils*:	
Histisol (A1)					ed Matrix (S6)		2 cm Muck (A10)		
Histic Epipedon (A2)				Loamy	y Mucky Miner	al (F1)	Coast Prairie Redox (A16)		
Black Histic (A3)				Loamy	y Gleyed Matri	x (F2)	5 cm N	Mucky Peat or Peat (S3)	
Hydrogen Sulfide (A4)				Deplet	ted Matrix (F3)	)	Dark S	Surface (S7)	
Stratified Layers (A5)				Redox Dark Surface (F6)			Polyva	alve Below Dark Surface (S8)	
Depleted Below Dark Surface (A11)				Depleted Dark Surface (F7)			Thin Dark Surface (S9)		
X Thick Dark Surface (A12) Rede				Redox Depressions (F8)			Iron-Manganese Masses (F12)		
Sandy Mucky Material (S1) *Indicators of hydrophytic						and wetland	Red Pa	arent Material (T42)	
Sandy	hydrology mu	hydrology must be present, unless disturbed or				Very Shallow Dark Surface (TF12)			
Sandy Redox (S5) problem				blematic		Other	(Explain in remarks)		
Restrictive L	ayer (if observed):								
Type:							Hydric Soils Pres	sent: Yes	
Depth (inches	):			-			-		
Remark	<u>s:</u> Soil pit was d	lug to a	depth of 28-inch	les.					

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; check	Surface Soil Crack (B6)				
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)			
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8)			
Saturation (A3)	Marl Deposits (B15)				
Water Marks (B1)	Hydrogen Sulfide Odor (C1)				
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)			
Drift Deposits (B3)	Presence or Reduced Iron (C4)	Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3)			
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)				
Iron Deposits (B5)	Thin Muck Surface (C7)				
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)			
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)			
Field Observations:					
Surface Water Present?	Depth (inches):	Indicators of Wetland			
Water Table Present?	Hydrology Present? No				
Saturation Present?	Depth (inches):				



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	-		Sampling Date: 6/	
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: W	/6-A
Investigator(s): Brandon Bohks			nship, Range: 29			
Landforms (hillside, terrace, etc.): Basin/Depressio	on		(concave, conve		ve Slope (%)	): 0-2
Subregion: LRR K Latitude:		Longitude:		Datum:		
Soil Map Unit Name: Blomford loamy fine sand		NWI Class	ification: None			
Are climatic/hydrologic conditions of the site typical for	-	Yes	_	explain in remarks)		
·	or hydrology		ficantly disturbed		umstances present?	
Are vegetation, soils, o	or hydrology		ally problematic	? (If needed, expla	in any answers in F	≀emarks)
Hadron bart's and station managed		RY OF FINI	DINGS			
Hydrophytic vegetation present?	Yes		T- 41		1	
Hydric soils present?	Yes		Is the sam	pled area within a wet	tland? Yes	_
Wetland hydrology present?	Yes					
Remarks: Sample point was taken in a agricultu	ure field not yet plan	ted, due to wet	soil conditions			
	VEGETATION	- Use scientific	names of plants	I		
	Absolute	Dominant	Indicator	50/20 Thresho	old 20%	50%
Tree Stratum     (Plot size: 30 feet )	% Cover	Species	Status	Tree Stratum	0	0
1				Sapling/Shrub Stratu		0
2				Herb Stratum	0	0
3				Woody Vine Stratum	n <u>0</u>	0
4				Dominan	ce Test Workshee	t
5	0 =	=Total Cover		Number of domithat are OBL, FAC	-	) (A)
Sapling/Shrub stratum (Plot size: 15 feet )				Total number		`
1					oss all strata:	(B)
2				Percent of dominant	species that	
3				are OBL, FA		% (A/B)
4				Prevalence	e Index Workshe	et
5				Total % cover of:		
		=Total Cover		OBL Species:	<b>0</b> x 1 =	0
Herb stratum: (Plot size: 5 feet )				FACW Species:	<b>0</b> x 2 =	0
1				FAC Species:	<b>0</b> x 3 =	0
2				FACU species:	<b>0</b> x 4 =	0
3				UPL Species:	x 5 =	0
4				Totals:	<b>0</b> (A)	<b>0</b> (B)
5					Index (B/A):	<u> </u>
					Vegetation Indica	
6					r hydrophytic veget	
						.ation
8				Dominance to		
9				Prevalence in	dex 1s $\leq 3.0^*$	
10	0 =	Total Cover			al adaptations* (Prata in remarks)	ovide
Woody vine stratum: (Plot size: 15 feet ) 1				Problematic I (Explain in re	hydrophytic vegeta emarks)	tion*
2		=Total Cover		*Indicators of hydr must be present, un	ic soil and wetland	
Due to the puscess of harder of			la vogetation i	• ·	•	
Due to the presence of hydric soils a           Remarks:         assu	imed to be present.	gy, myuropnyti	ic vegetation is	Hydrophytic ve present?	-	



## **EXHIBIT G:** WETLAND DETERMINATION DATA FORM

Sample Point: W6-A

(Northcentral and Northeast Region - LRR K)

COLLC

					SOIL	<u>.</u> S					
Profile Descu	ription: (Describe to	the dep	th needed to doc	ument t	he indicator	or confirm the	e absence of indica	tors.)			
Depth	Matrix			Redo	x Features						
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks			
0-9	10YR 2/1	90	7.5YR 4/6	10	С	М	Clay Loam				
9-16+	10YR 4/1	80	7.5YR 4/6	20	С	М	Silty Clay Loan	m			
	*Type: C = Concentr	ation, D	= Depletion, RM	= Redu	ced Matrix, M	IS = Masked Sa	and Grains. **Loca	tion: PL = Pore Lining, M = Matrix			
Hydric Soil I	Indicators:						Indicator	rs for Problematic Hydric Soils*:			
Histis	ol (A1)			Strippe	ed Matrix (S6)	)	2 c	m Muck (A10)			
Histic	Epipedon (A2)			Loamy	y Mucky Mine	eral (F1)	Co	ast Prairie Redox (A16)			
Black	Histic (A3)			Loamy	y Gleyed Matr	ix (F2)	5 c	m Mucky Peat or Peat (S3)			
Hydro	gen Sulfide (A4)			Deplet	ted Matrix (F3	;)	Da	rk Surface (S7)			
Stratif	fied Layers (A5)			Redox	Dark Surface	: (F6)	Pol	Polyvalve Below Dark Surface (S8)			
X Deple	ted Below Dark Surfa	ice (A11	)	Deplet	ted Dark Surfa	ace (F7)	Thi	in Dark Surface (S9)			
Thick	Dark Surface (A12)			Redox	Depressions (	(F8)	Iro	n-Manganese Masses (F12)			
Sandy Mucky Material (S1) *Indicators of hydrop							Ree	d Parent Material (T42)			
Sandy	Gleyed Matrix (S4)			ust be pr	resent, unless		Ve	ry Shallow Dark Surface (TF12)			
Sandy	Redox (S5)			prot	blematic		Oth	ner (Explain in remarks)			
Restrictive L	ayer (if observed):										
Type:							Hydric Soils P	Present: Yes			
Depth (inches	s):			-							
<u>Remark</u>	scil pit was	dug to a	a depth of 16-inch	ies.							
					HYDROL	JOGY					
Wetland Hyd	rology Indicators:						Sec	condary Indicators (minimum of two required)			
Primary Indic	ators (minimum of or	ne is requ	uired; check all th	at apply	<u>')</u>			K Surface Soil Crack (B6)			
Surfac	e Water (A1)			Water-	-Stained Leave	es (B9)		Drainage Patterns (B10)			
High	Water Table (A2)			- Aquati	ic Fauna (B13	5)		Moss Trim Lines (B16)			
Satura	tion (A3)			_	Deposits (B15)			Dry-Season Water Table (C2)			
Water	Marks (B1)				gen Sulfide O			Crayfish Burrows (C8)			
Sedim	ent Deposits (B2)				-	eres on Living F	Roots (C3)	<b>K</b> Saturation Visible on Aerial Imagery (C9)			
Drift I	Deposits (B3)			-	ice or Reduced	-	· · ·	Stunted or Stressed Plants (D1)			
Algal	Mat or Crust (B4)			_		on in Tilled Soi	ils (C6)	Geomorphic Position (D2)			
Iron D	Deposits (B5)			_	Auck Surface		× /	Shallow Aquitard (D3)			
Inunda	ation Visible on Aeria	ıl Imageı	ry (B7)	-	(Explain in Re			Microtopographic Relief (D4)			
Sparse	ely Vegetated Concav	e Surfac	e (B8)	-		,		FAC-Neutral Test (D5)			
Field Observa	ations										
Surface Wate				г	Depth (inches)	).					
Surface wate	1 Tresent:			L	reptil (menes)	·•	_	Indicators of Wetland			

Surface Water Present? Water Table Present?

Saturation Present? Depth (inches): Remarks:

Depth (inches):

Yes

Hydrology Present?



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	-		Sampling Date: 6	
Applicant/Owner: City of Forest Lake			$\approx \frac{MN}{1 + P}$		Sample Point: V	V6-B
Investigator(s): Brandon Bohks			nship, Range: 29		<b>C1</b> (0)	
Landforms (hillside, terrace, etc.): Backslope Subregion: LRR K Latitude:			(concave, conve	ex, none): Conve Datum:	Slope (%	): 6-10
Subregion:         LRR K         Latitude:           Soil Map Unit Name:         Blomford loamy fine sand		Longitude:	ification: None	Datum:		
Are climatic/hydrologic conditions of the site typical for	or this time of year?	N WI Class		explain in remarks)		
	or hydrology		icantly disturbed		umstances present	? <b>No</b>
· · · · · · · · · · · · · · · · · · ·	or hydrology		ally problematic		in any answers in l	
, , , , , , , , , , , , , , , , , , , ,		Y OF FINE		(II needed, explu	in any answers in I	(contariks)
Hydrophytic vegetation present?	No					
Hydric soils present?	No		Is the sam	pled area within a wet	land? No	
Wetland hydrology present?	No					_
Remarks:		•				
	VEGETATION	- Use scientific	names of plants			
	Absolute	Dominant	Indicator	50/20 Thresho	ld 20%	50%
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	0	0
1				Sapling/Shrub Stratu	m <u>0</u>	0
2				Herb Stratum	0	0
3				Woody Vine Stratum	n <u> </u>	0
4				Dominan	ce Test Workshee	et
5				Number of domi	nant species	
	0 =	Total Cover		that are OBL, FAC	CW, or FAC:	) (A)
Sapling/Shrub stratum (Plot size: 15 feet )				Total number	of dominant	
1				species acro	oss all strata:	(B)
2				Percent of dominant		
3				are OBL, FA	CW or FAC: 0	% (A/B)
4					e Index Workshe	et
5				Total % cover of:		
	0 =	Total Cover		OBL Species:	<b>0</b> x 1 =	0
Herb stratum: (Plot size: 5 feet )				FACW Species:	<b>0</b> x 2 =	0
1 Zea mays				FAC Species:	<b>0</b> x 3 =	0
2				FACU species:	0 x 4 =	0
3				UPL Species:	<b>0</b> x 5 =	0
4				Totals:	<b>0</b> (A)	<b>0</b> (B)
5				Prevalence 1		_
6					Vegetation Indic	
7					hydrophytic vege	tation
8				Dominance to	est >50%	
9				Prevalence in	dex is $\leq 3.0^*$	
10	0 =	Total Cover			al adaptations* (Pr ta in remarks)	ovide
Woody vine stratum: (Plot size: 15 feet ) 1				Problematic I (Explain in re	nydrophytic vegeta emarks)	tion*
2	0 =	Total Cover		*Indicators of hydri must be present, un		
	e point was taken in ld recently planted w			Hydrophytic ve present?	-	



Sample Point: W6-B

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(Northcentral and Northeast Region - LRR K)

SOILS

Profile Descr	iption: (Describe to	the dept	th needed to docu	iment t	he indicator o	or confirm the	absence of indicator	·s.)		
Depth	Matrix	_		Redo	x Features					
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks		
0-15	10YR 2/1	100					Silty Clay Loam			
15-20+	10YR 3/2	100								
	*Type: C = Concentr	ation, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked Sa	and Grains. **Location	n: PL = Pore Lining, M = Matrix		
Hydric Soil I	ndicators:						Indicators f	or Problematic Hydric Soils*:		
Histisol (A1) Stripped Matrix (S6)						2 cm 1	Muck (A10)			
Histic	Epipedon (A2)			Loamy	Mucky Miner	al (F1)	Coast	Prairie Redox (A16)		
Black	Histic (A3)			Loamy	Gleyed Matri	x (F2)	5 cm Mucky Peat or Peat (S3)			
Hydro	gen Sulfide (A4)			Deplet	ed Matrix (F3)	)	Dark Surface (S7)			
Stratif	ied Layers (A5)			Redox	Dark Surface	ark Surface (F6) Polyvalve Below Dark Surface (				
Deplet	ed Below Dark Surfa	ce (A11)	)	Deplet	ed Dark Surfa	ce (F7)	Thin Dark Surface (S9)			
Thick	Dark Surface (A12)			Redox	Depressions (	F8)	Iron-N	Manganese Masses (F12)		
Sandy	Mucky Material (S1)		*Indicators of h	ydroph	vtic vegetation	and wetland	Red P	arent Material (T42)		
Sandy	Gleyed Matrix (S4)			st be pr	esent, unless d		Very S	Shallow Dark Surface (TF12)		
Sandy Redox (S5) proble					olematic		Other	(Explain in remarks)		
Restrictive L	ayer (if observed):									
Type:	-						Hydric Soils Pres	sent: No		
Depth (inches	):			•						
• `	·									
Remark	s: Soil pit was	dug to a	depth of 20-inch	es.						

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; check	all that apply)	Surface Soil Crack (B6)		
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)		
High Water Table (A2)	Moss Trim Lines (B16)			
Saturation (A3)	Dry-Season Water Table (C2)			
Water Marks (B1)	Crayfish Burrows (C8)			
Sediment Deposits (B2)	Saturation Visible on Aerial Imagery (C9)			
Drift Deposits (B3)	Stunted or Stressed Plants (D1)			
Algal Mat or Crust (B4)	Geomorphic Position (D2)			
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)		
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)		
Field Observations:				
Surface Water Present?	Depth (inches):	Indicators of Wetland		
Water Table Present?	Depth (inches):	Hydrology Present? No		
Saturation Present?	Depth (inches):			



neur copie. neur solutions.	Northcentral and	e	,						
Project/Site: Headwaters Parkway	Cit	Sampling Date: 6/17/20							
Applicant/Owner: City of Forest Lake		State: MN Sample Point: W7-A							
Investigator(s): Brandon Bohks			nship, Range: 2						
Landforms (hillside, terrace, etc.): Basin/Depression			concave, conv	· · · · · · · · · · · · · · · · · · ·	Slope (%)	: 0-2			
Subregion: LRR K Latitude:		Longitude:		Datum:					
Soil Map Unit Name: Dundas fine sandy loam			ification: None	1					
Are climatic/hydrologic conditions of the site typical for the	-	Yes	_	, explain in remarks)					
· · · · · · · · · · · · · · · · · · ·	ydrology		icantly disturbe		cumstances present?				
Are vegetation, soils, or h	ydrology SUMMAR	TATURA	ally problematic	(If needed, expl	lain any answers in R	emarks)			
Hydrophytic vegetation present?	Yes								
Hydric soils present?	Yes	Is the sampled area within a wetland? Yes							
Wetland hydrology present?	Yes			-		_			
Remarks: Sample point was taken in a agriculture	field not yet plan	ted, due to wet	soil conditions						
VI	EGETATION	- Use scientific	names of plants	3					
	Absolute	Dominant	Indicator	50/20 Thresh	nold 20%	50%			
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	0	0			
1				Sapling/Shrub Strat	tum 0	0			
2				Herb Stratum	15	37.5			
3				Woody Vine Stratu	um <u>0</u>	0			
4				Domina	nce Test Workshee	t			
5	=	Total Cover		Number of don that are OBL, FA	-	(A)			
<u>Sapling/Shrub stratum</u> (Plot size: <u>15 feet</u> ) 1					er of dominant ross all strata: <u>1</u>	(B)			
23				Percent of dominar are OBL, FA	nt species that ACW or FAC: <u>100</u>	% (A/B)			
4				Prevalen	nce Index Workshee	et			
5				Total % cover of:					
	0 =	Total Cover		OBL Species:	<b>60</b> x 1 =	60			
Herb stratum: (Plot size: 5 feet )				FACW Species:	15 x 2 =	30			
1 Alisma triviale	60	Yes	OBL	FAC Species:	<b>0</b> x 3 =	0			
2 Phalaris arundinacea	10	No	FACW	FACU species:	0 x 4 =	0			
3 Carex species	5	No	FACW	UPL Species:	<b>0</b> x 5 =	0			
4				Totals:	75 (A)	<b>90</b> (B)			
5				Prevalence	e Index (B/A): 1.20				
6				Hydrophyti	ic Vegetation Indica	itors			
7				X Rapid test for	or hydrophytic veget	ation			
8				X Dominance	test >50%				
9				X Prevalence	index is $\leq 3.0^*$				
10		Total Cover			ical adaptations* (Pro data in remarks)	ovide			
Woody vine stratum: (Plot size: <u>15 feet</u> ) 1				Problematic (Explain in	e hydrophytic vegetat remarks)	ion*			
2		Total Cover			lric soil and wetland l inless disturbed or pr				
Remarks:				Hydrophytic v present	-				



## EXHIBIT G: WETLAND DETERMINATION DATA FORM

Sample Point: W7-A

(Northcentral and Northeast Region - LRR K)

SOILS

Profile Descr	iption: (Describe to	the dep	th needed to docu	ıment t	he indicator	or confirm the	e absence of indicator	s.)			
Depth	Matrix			Redo	x Features						
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks			
0-5	10YR 2/1	90	7.5YR 4/6	10	С	М	Clay Loam				
5-15+	10YR 5/1	60	7.5YR 4/6	40	С	М	Sandy Clay Loam				
	71	ation, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked S		: PL = Pore Lining, M = Matrix			
Hydric Soil Indicators:								or Problematic Hydric Soils*:			
Histisol (A1) Stripp					ed Matrix (S6)			Auck (A10)			
Histic Epipedon (A2) Loam					Mucky Mine	. ,	Coast	Prairie Redox (A16)			
Black	Histic (A3)			Loamy	Gleyed Matri	ix (F2)	5 cm N	Aucky Peat or Peat (S3)			
Hydro	gen Sulfide (A4)			Deplet	ed Matrix (F3	)	Dark S	Surface (S7)			
Stratif	ied Layers (A5)			Redox	Dark Surface	(F6)	Polyvalve Below Dark Surface (S8)				
X Deplet	ed Below Dark Surfa	ce (A11	)	Deplet	ed Dark Surfa	ce (F7)	Thin D	Dark Surface (S9)			
Thick	Dark Surface (A12)			Redox	Depressions (	F8)	Iron-N	Iron-Manganese Masses (F12)			
Sandy	Mucky Material (S1)		*Indicators of h	ydroph	vtic vegetatior	and wetland	Red Pa	arent Material (T42)			
Sandy	Gleyed Matrix (S4)		hydrology mu			listurbed or					
Sandy	Redox (S5)			proł	olematic		Other	(Explain in remarks)			
Restrictive L	ayer (if observed):										
Type:							Hydric Soils Pres	ent: Yes			
Depth (inches	):			-			-				
Remark	s: Soil pit was o	lug to a	depth of 15-inch	ies.							
						OCV					
					HYDROL	UGI					

Wetland Hydrology Indicators	:	Secondary Indicators (minimum of two required)				
Primary Indicators (minimum of	one is required; check	all that apply)	Surface Soil Crack (B6)			
Surface Water (A1)		Water-Stained Leaves (B9)	Drainage Patterns (B10)			
<b>X</b> High Water Table (A2)	-	Aquatic Fauna (B13)	Moss Trim Lines (B16)			
<b>X</b> Saturation (A3)	-	Marl Deposits (B15)	Dry-Season Water Table (C2)			
Water Marks (B1)	-	Crayfish Burrows (C8)				
Sediment Deposits (B2)	-	<b>X</b> Saturation Visible on Aerial Imagery (C9)				
Drift Deposits (B3)	_	Presence or Reduced Iron (C4)	Stunted or Stressed Plants (D1)			
Algal Mat or Crust (B4)	_	Recent Iron Reduction in Tilled Soils (C6)	<b>X</b> Geomorphic Position (D2)			
Iron Deposits (B5)	_	Thin Muck Surface (C7)	Shallow Aquitard (D3)			
Inundation Visible on Ae	rial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)			
Sparsely Vegetated Conc	ave Surface (B8)		X FAC-Neutral Test (D5)			
Field Observations:						
Surface Water Present?		Depth (inches):	Indicators of Wetland			
Water Table Present?	Yes	Depth (inches): 7	Hydrology Present? Yes			
Saturation Present?	Yes	Depth (inches): 3				



	orthcentral and	-	-					
Project/Site: Headwaters Parkway	Cit	y/County: Wash	-	S	Sampling Date: 6/17/			
Applicant/Owner: City of Forest Lake			$\frac{MN}{1 \cdot P}$	Sample Point: W7-B				
Investigator(s): Brandon Bohks			nship, Range: 2 (concave, conv		C1 (A/)			
Landforms (hillside, terrace, etc.):     Backslope       Subregion:     LRR K     Latitude:		Local Relief	(concave, conv	ex, none): Convex	Slope (%):	3-5		
Soil Map Unit Name: Dundas fine sandy loam			fication: None					
Are climatic/hydrologic conditions of the site typical for thi	s time of year?	Yes		, explain in remarks)				
	drology		icantly disturbe	-	mstances present?	No		
	drology		lly problematic		any answers in Rem			
, 5013 , 5013		Y OF FIND	• •	. (If needed, explain	any answers in reen	urko)		
Hydrophytic vegetation present?	No							
Hydric soils present?	Yes		Is the sam	pled area within a wetla	and? No			
Wetland hydrology present?	No							
Remarks:		I						
	GETATION	- Use scientific	names of plants	3				
	Absolute	Dominant	Indicator	50/20 Threshold	d 20%	50%		
<u>Tree Stratum</u> (Plot size: 30 feet )	% Cover	Species	Status	Tree Stratum	0	0		
1				Sapling/Shrub Stratun	n 0	0		
2				Herb Stratum	11.4	28.5		
3				Woody Vine Stratum	0	0		
4				Dominance	e Test Worksheet			
5				Number of domin	ant species			
	0 =	Total Cover		that are OBL, FACV	-	(A)		
<u>Sapling/Shrub stratum</u> (Plot size: <u>15 feet</u> ) 1				Total number o species acros		(B)		
2				Percent of dominant s are OBL, FAC		(A/B)		
а И	- <u> </u>				Index Worksheet	(122)		
5				Total % cover of:	index () of itsheet			
5	0 =	Total Cover		OBL Species:	<b>0</b> $x 1 = 0$			
Herb stratum: (Plot size: 5 feet )					$\frac{x}{0}$ $x^2 = 0$	_		
1 Erigeron annuus	- 45	Yes	FACU		$x_3 = 0$	_		
2 Amaranthus retroflexus	12	No	FACU		7 x 4 = 228	;		
3				UPL Species:	x 5 = 0	_		
4	• <u> </u>			Totals: 5	7 (A) 228	(B)		
5				Prevalence In	dex (B/A): 4.00	_		
6				Hydrophytic V	Vegetation Indicator	rs		
7	·			Rapid test for	hydrophytic vegetatio	on		
8				Dominance tes	it >50%			
9				Prevalence ind	ex is ≤3.0*			
10	57 =	Total Cover		Morphological supporting data	adaptations* (Provid a in remarks)	de		
Woody vine stratum: (Plot size: 15 feet )					drophytic vegetation	l*		
2		-Total Carrie		*Indicators of hydric must be present, unle	soil and wetland hyd			
		Total Cover=		must be present, unit	ss disturbed of probl	ematic		
Remarks.	nt was taken in a eld not yet plant			Hydrophytic vego present?	etation No			



#### EXHIBIT G: WETLAND DETERMINATION DATA FORM

Sample Point: W7-B

(Northcentral and Northeast Region - LRR K)

SOILS

Profile Descr	iption: (Describe to t	he dep	th needed to docu	ıment t	the indicator o	or confirm the	absence of indicato	ors.)	
Depth	Matrix			Redo	x Features				
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks	
0-16	10YR 2/1	100					Sandy Clay Loan	L	
16-23+	10YR 4/1	90	10YR 4/6	10	С	М	Sandy Clay Loan	ı	
	*Type: C = Concentra	tion, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked Sa	and Grains. **Location	on: PL = Pore Lining, M = Matrix	
Hydric Soil I	ndicators:						Indicators	for Problematic Hydric Soils*:	
Histisol (A1) Stripped Matrix (S6)						2 cm	Muck (A10)		
Histic Epipedon (A2)         Loamy Mucky Mineral (F1)					Coast Prairie Redox (A16)				
Black	Histic (A3)			Loamy	y Gleyed Matri	x (F2)	5 cm Mucky Peat or Peat (S3)		
Hydrog	gen Sulfide (A4)			Deplet	ted Matrix (F3)	)	Dark Surface (S7)		
Stratifi	ied Layers (A5)			Redox	Dark Surface	(F6)	Polyvalve Below Dark Surface (S8)		
Deplet	ed Below Dark Surfac	e (A11)	)	Deplet	ted Dark Surfac	ce (F7)	Thin	Dark Surface (S9)	
X Thick	Dark Surface (A12)			Redox	Depressions (I	F8)	Iron-	Manganese Masses (F12)	
Sandy	Mucky Material (S1)		*Indicators of h	- iydroph	vtic vegetation	and wetland	Red	Parent Material (T42)	
Sandy	Gleyed Matrix (S4)			ist be pr	resent, unless d		Very	Shallow Dark Surface (TF12)	
Sandy	Redox (S5)			prol	blematic		Othe	r (Explain in remarks)	
Restrictive L	ayer (if observed):								
Type:							Hydric Soils Pr	esent: Yes	
Depth (inches	):			_					
<b>D</b> 1					<u>.</u>				
Remark	<u>s:</u> Soil pit was d	iug to a	depth of 23-inch	les.					

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; check	all that apply)	Surface Soil Crack (B6)		
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)		
High Water Table (A2)	Moss Trim Lines (B16)			
Saturation (A3)	Dry-Season Water Table (C2)			
Water Marks (B1)	Crayfish Burrows (C8)			
Sediment Deposits (B2)	Saturation Visible on Aerial Imagery (C9)			
Drift Deposits (B3)	Stunted or Stressed Plants (D1)			
Algal Mat or Crust (B4)	Geomorphic Position (D2)			
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)		
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)		
Field Observations:				
Surface Water Present?	Depth (inches):	Indicators of Wetland		
Water Table Present?	Depth (inches):	Hydrology Present? No		
Saturation Present?	Depth (inches):			



	lorthcentral and	-	-						
Project/Site: Headwaters Parkway	Cit	ity/County: Washington Sampling Date: 6/17/2							
Applicant/Owner: City of Forest Lake			e: MN	Sample Point: W7-C					
Investigator(s): Brandon Bohks			nship, Range: 2						
Landforms (hillside, terrace, etc.): Basin/Depression			concave, conv		slope (%	): 0-2			
Subregion: LRR K Latitude:		Longitude:		Datum:					
Soil Map Unit Name: <b>Dundas fine sandy loam</b>			ification: None						
Are climatic/hydrologic conditions of the site typical for thi	-	Yes	_	, explain in remarks)					
	drology		icantly disturbe		cumstances present				
Are vegetation, soils, or hy	drology		ally problematic	? (If needed, expl	ain any answers in I	Remarks)			
Hadaa dadi		<b>Y OF FINI</b>	JING5						
Hydrophytic vegetation present?	Yes		T. 41	-1.1	-41				
Hydric soils present?	Yes	Is the sampled area within a wetland? Yes							
Wetland hydrology present?	Yes								
<u>Remarks:</u> Sample point was taken in a agriculture f	ield not yet plan	ted, due to wet	soil conditions						
VE	GETATION	- Use scientific	names of plants						
	Absolute	Dominant	Indicator	50/20 Thresh	nold 20%	50%			
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	0	0			
1				Sapling/Shrub Strat	tum 0	0			
2				Herb Stratum	17	42.5			
3				Woody Vine Stratu	m <u>0</u>	0			
4				Domina	nce Test Workshee	et			
5				Number of don	ninant species				
	0 =	Total Cover		that are OBL, FA	CW, or FAC: 1	(A)			
Sapling/Shrub stratum (Plot size: 15 feet )				Total numbe	er of dominant				
1				species act	ross all strata: 1	(B)			
2				Percent of dominat	nt species that				
3				are OBL, FA	ACW or FAC: 100	<b>)%</b> (A/B)			
4				Prevaler	nce Index Workshe	et			
5				Total % cover of:					
	0 =	Total Cover		OBL Species:	<b>68</b> x 1 =	68			
Herb stratum: (Plot size: 5 feet )	_			FACW Species:	<b>17</b> x 2 =	34			
1 Alisma triviale	55	Yes	OBL	FAC Species:	<b>0</b> x 3 =	0			
2 Carex species	12	No	FACW	FACU species:	<b>0</b> x 4 =	0			
3 Typha species	8	No	OBL	UPL Species:	<b>0</b> x 5 =	0			
4 Salix exigua	5	No	FACW	Totals:	<b>85</b> (A)	<b>102</b> (B)			
5 Schoenoplectus tabernaemontani	5	No	OBL	Prevalence	e Index (B/A): 1.20	)			
6				Hydrophyti	ic Vegetation Indica	ators			
7				X Rapid test f	or hydrophytic vege	tation			
8				X Dominance	test >50%				
9				X Prevalence	index is $\leq 3.0^*$				
10				Morphologi	cal adaptations* (Pr	ovide			
	85 =	Total Cover			data in remarks)				
Woody vine stratum: (Plot size: 15 feet )				Problematic	v hydrophytic vegeta	tion*			
1				(Explain in					
2				*Indicators of hvd	lric soil and wetland	hydrology			
	0 =	Total Cover			inless disturbed or p				
Dunantan				Hydrophytic v	egetation				
<u>Remarks:</u>				present					



#### EXHIBIT G: WETLAND DETERMINATION DATA FORM

Sample Point: W7-C

(Northcentral and Northeast Region - LRR K)

SOILS

Profile Descr	iption: (Describe to t	the dep	th needed to docu	iment t	he indicator o	or confirm the	e absence of indicator	s.)		
Depth	Matrix			Redo	x Features					
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks		
0-8	10YR 2/1	100					Clay Loam			
8-18+	10YR 5/1	80	7.5YR 4/6	20	С	М	Sandy Clay Loam			
	*Type: C = Concentra	tion, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked S	and Grains. **Location	h: PL = Pore Lining, M = Matrix		
Hydric Soil I	ndicators:						Indicators f	or Problematic Hydric Soils*:		
Histiso	ol (A1)			Stripp	ed Matrix (S6)		2 cm N	Muck (A10)		
Histic	Epipedon (A2)			Loamy	Mucky Miner	ral (F1)	Coast	Prairie Redox (A16)		
Black	Histic (A3)			Loamy	Gleyed Matri	x (F2)	5 cm N	Mucky Peat or Peat (S3)		
Hydro	gen Sulfide (A4)			Deplet	ed Matrix (F3)	)	Dark S	Surface (S7)		
Stratif	ied Layers (A5)			Redox	x Dark Surface (F6) Pol			alve Below Dark Surface (S8)		
X Deplet	ed Below Dark Surfac	e (A11	)	Deplet	ed Dark Surfa	ce (F7)	Thin I	Dark Surface (S9)		
Thick	Dark Surface (A12)			Redox	Depressions (	F8)	Iron-N	n-Manganese Masses (F12)		
Sandy	Mucky Material (S1)		*Indicators of h	ydroph	hytic vegetation and wetland Red P			arent Material (T42)		
Sandy	Gleyed Matrix (S4)		hydrology mu	-	esent, unless d	listurbed or	Very S	Shallow Dark Surface (TF12)		
Sandy	Redox (S5)			prol	blematic		Other	(Explain in remarks)		
Restrictive L	ayer (if observed):									
Type:							Hydric Soils Pres	sent: Yes		
Depth (inches	):			-						
Remark	<u>s:</u> Soil pit was d	lug to a	depth of 18-inch	les.						
<u>.</u>					HYDROL	OGY				
Wedless J II.	ualaan Indiaatana						G			

wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of	one is required; check	all that apply)	Surface Soil Crack (B6)		
Surface Water (A1)		Water-Stained Leaves (B9)	Drainage Patterns (B10)		
<b>X</b> High Water Table (A2)	_	Aquatic Fauna (B13)	Moss Trim Lines (B16)		
<b>X</b> Saturation (A3)	-	Marl Deposits (B15)	Dry-Season Water Table (C2)		
Water Marks (B1)	-	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)		
Sediment Deposits (B2)	-	Oxidized Rhizospheres on Living Roots (C3)	X Saturation Visible on Aerial Imagery (C9)		
Drift Deposits (B3)	-	Presence or Reduced Iron (C4)	Stunted or Stressed Plants (D1)		
Algal Mat or Crust (B4)	-	Recent Iron Reduction in Tilled Soils (C6)	X Geomorphic Position (D2)		
Iron Deposits (B5)	-	Thin Muck Surface (C7)	Shallow Aquitard (D3)		
Inundation Visible on Aer	rial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)		
Sparsely Vegetated Conca	ave Surface (B8)		X FAC-Neutral Test (D5)		
Field Observations:					
Surface Water Present?		Depth (inches):	Indicators of Wetland		
Water Table Present?	Yes	Depth (inches): 8	Hydrology Present? Yes		
Saturation Present? Yes		Depth (inches): 5			



	orthcentral and	-	-				
Project/Site: Headwaters Parkway	Cit	y/County: Wash			Sampling Date: 6/17/2019		
Applicant/Owner: City of Forest Lake			$\frac{MN}{1}$		Sample Point: W7-D		
Investigator(s): Brandon Bohks			nship, Range: 2				
Landforms (hillside, terrace, etc.): Backslope			(concave, conv	· · · · · · · · · · · · · · · · · · ·	Slope (%):	4-8	
Subregion: LRR K Latitude:		Longitude:	ification: None	Datum:			
Soil Map Unit Name: <b>Dundas fine sandy loam</b> Are climatic/hydrologic conditions of the site typical for thi	a time of year?	Yes		, explain in remarks)			
	drology		icantly disturbe		nstances present?	N	
	drology		ally problematic		any answers in Rem	No arks)	
, sons, or ny		TALLER TO THE TALLER	• •	(If fielded, explain	any answers in Ken	iai K5)	
Hydrophytic vegetation present?	No						
Hydric soils present?	Yes		Is the sam	pled area within a wetla	nd? No		
Wetland hydrology present?	No		15 the sum	picu arca within a weta			
wenand nydrology present.	110						
<u>Remarks:</u>							
VE	GETATION	- Use scientific	names of plants	5			
				50/20 Threshold	20%	50%	
<u>Tree Stratum</u> (Plot size: 30 feet )	Absolute % Cover	Dominant Species	Indicator Status	Tree Stratum	0	0	
1		species	Status	Sapling/Shrub Stratum		0	
2				Herb Stratum		22.5	
3				Woody Vine Stratum		0	
				-	Test Worksheet	0	
4				Dominance	lest worksheet		
5	. <u> </u>	T . 1 G		Number of domina	-	(1)	
Sapling/Shrub stratum (Plot size: 15 feet )	0 =	Total Cover=		that are OBL, FACW	<i>V</i> , or FAC: 1	(A)	
Sapling/Shrub stratum (Plot size: <u>15 feet</u> ) 1				Total number of species across		(B)	
23				Percent of dominant s are OBL, FAC		(A/B)	
4				Prevalence	Index Worksheet		
5				Total % cover of:			
	0 =	Total Cover		OBL Species: 0	x 1 = 0		
Herb stratum: (Plot size: 5 feet )				FACW Species: 0	x 2 = 0	_	
1 Acer negundo	25	Yes	FAC	FAC Species: 2	5 x 3 = 75		
2 Amaranthus retroflexus	10	Yes	FACU	FACU species: 2	x 4 = 80	_	
3 Phleum pratense	10	Yes	FACU	UPL Species: 0	x 5 = 0	_	
4				Totals: 4	5 (A) 155	(B)	
5				Prevalence Inc	dex (B/A): 3.44	_	
6				Hydrophytic V	egetation Indicator	rs	
7					ydrophytic vegetatio		
8	·			Dominance tes	t >50%		
9	·			Prevalence inde	ex is <3.0*		
10						do	
	45 =	Total Cover		supporting data			
Woody vine stratum: (Plot size: 15 feet ) 1	. <u> </u>			Problematic hy (Explain in ren	drophytic vegetation narks)	l*	
2	0 =	Total Cover		*Indicators of hydric must be present, unle			
Course 1	nt was taken in						
Remarks.	eld not yet plant			Hydrophytic vege present?	tation No		



Sample Point: W7-D

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(Northcentral and Northeast Region - LRR K)

SOILS

Depth	Matrix		Redo	x Features					
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks	
0-4	10YR 2/1	100					Sandy Clay Loam		
4-12+	10YR 4/1	90	10YR 4/6	10	С	М	Sandy Clay Loam		
	*Type: C = Concentr	ation, D	= Depletion, RM	= Redu	ed Matrix, M	S = Masked S	and Grains. **Location	h: PL = Pore Lining, M = Matrix	
Hydric Soil	Indicators:						Indicators f	or Problematic Hydric Soils*:	
Histisol (A1) Strippe					d Matrix (S6)		2 cm 1	Muck (A10)	
Histic	Epipedon (A2)			Loamy	Mucky Mine	ral (F1)	Coast	Prairie Redox (A16)	
Black	Histic (A3)			Loamy	Gleyed Matri	Gleyed Matrix (F2) 5 cm Mucky Peat or Peat (S3)			
Hydro	ogen Sulfide (A4)			Deplet	ed Matrix (F3) Dark S			Surface (S7)	
Strati	fied Layers (A5)			Redox	Dark Surface (F6) Polyvalve Below Dark Su			alve Below Dark Surface (S8)	
X Deple	eted Below Dark Surfa	ce (A11)	)	Deplet	ed Dark Surfa	ce (F7)	Thin Dark Surface (S9)		
Thick	Dark Surface (A12)			Redox	Depressions (	F8)	Iron-N	Manganese Masses (F12)	
Sandy	Mucky Material (S1)		*Indicators of h	- ydrophy	tic vegetation	and wetland	Red Parent Material (T42)		
Sandy	Gleyed Matrix (S4)		hydrology mu	ist be pr	esent, unless d		Very Shallow Dark Surface (TF12)		
Sandy Redox (S5) problem					olematic		Other	(Explain in remarks)	
Restrictive I	Layer (if observed):								
Туре:							Hydric Soils Pres	sent: Yes	
Depth (inche	s):			-					

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; check	all that apply)	Surface Soil Crack (B6)		
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)		
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B16)		
Saturation (A3)	Marl Deposits (B15)	Dry-Season Water Table (C2)		
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)		
Sediment Deposits (B2)	Saturation Visible on Aerial Imagery (C9)			
Drift Deposits (B3)	Stunted or Stressed Plants (D1)			
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)		
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)		
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)		
Field Observations:				
Surface Water Present?	Depth (inches):	Indicators of Wetland		
Water Table Present?	Depth (inches):	Hydrology Present? No		
Saturation Present?	Depth (inches):			



	Northcentral and	-					
Project/Site: Headwaters Parkway	Cit	y/County: Wash	-		Sampling Date: 6/17/2019		
Applicant/Owner: City of Forest Lake			MN		Sample Point: W7-E		
Investigator(s): Brandon Bohks			ship, Range: 2		<b>C1</b> (0/)		
Landforms (hillside, terrace, etc.):     Basin/Depression       Subregion:     LRR K       Latitude:			(concave, conve	· · · · · · · · · · · · · · · · · · ·	e Slope (%):	0-2	
Subregion: LRR K Latitude:		Longitude:	fication: None	Datum:			
Are climatic/hydrologic conditions of the site typical for th	is time of year?	Yes		explain in remarks)			
	ydrology		cantly disturbed	-	nstances present?	Voc	
· · · · · · · · · · · · · · · · · · ·	drology		lly problematic		any answers in Ren		
, 3013, 0115		Y OF FIND		. (II needed, explain	any answers in item	liu K5)	
Hydrophytic vegetation present?	Yes						
Hydric soils present?	Yes		Is the sam	pled area within a wetla	nd? Yes		
Wetland hydrology present?	Yes				105		
Remarks:							
		The second for	£ 1				
VE	GETATION			50/20 Threshold	1 20%	50%	
<u>Tree Stratum</u> (Plot size: 30 feet )	Absolute % Cover	Dominant Species	Indicator Status	Tree Stratum	10	25	
1 Fraxinus pennsylvanica	- <u>30</u>	Yes	FACW	Sapling/Shrub Stratum		0	
2 Acer negundo	20	Yes	FAC	Herb Stratum	0 -	0	
3				Woody Vine Stratum	0	0	
4					e Test Worksheet		
5				Namban 6 Iamin			
	50 =	Total Cover		Number of domina that are OBL, FACW	1	(A)	
Sapling/Shrub stratum (Plot size: 15 feet )				Total number of			
1				species across		(B)	
2				Percent of dominant s	pecies that		
3				are OBL, FAC	W or FAC: 100%	(A/B)	
4				Prevalence	Index Worksheet		
5				Total % cover of:			
	0 =	Total Cover		OBL Species: 0	<b>a</b> $x = 0$		
Herb stratum: (Plot size: 5 feet )	_			FACW Species: 3	<b>0</b> $x 2 = 60$	)	
1				FAC Species: 2	0 x 3 = 60	)	
2				FACU species: 0	x 4 = 0		
3				UPL Species: 0		_	
4				Totals: 5	0 (A) 120	<b>0</b> (B)	
5				Prevalence Inc	dex (B/A): <b>2.40</b>		
6				Hydrophytic V	egetation Indicator	rs	
7				X Rapid test for h	ydrophytic vegetati	on	
8				X Dominance test	t>50%		
9				X Prevalence inde	ex is ≤3.0*		
10		Total Cover		Morphological supporting data	adaptations* (Provi a in remarks)	de	
Woody vine stratum: (Plot size: 15 feet )					drophytic vegetation	n*	
1				(Explain in ren			
2		Total Cover		*Indicators of hydric must be present, unle			
Remarks: Unvegatate	ed concave surfac	e		Hydrophytic vege present?	etation Yes		



#### EXHIBIT G: WETLAND DETERMINATION DATA FORM

Sample Point: W7-E

(Northcentral and Northeast Region - LRR K)

SOILS

Profile Descr	iption: (Describe to t	the dept	th needed to docu	ıment t	he indicator o	or confirm the	absence of indicator	s.)		
Depth	Matrix			Redo	x Features					
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks		
0-15	10YR 2/1	100					Clay Loam			
15-21+	10YR 5/1	90	7.5YR 4/6	10	С	М	Sandy Clay Loam			
	*Type: C = Concentra	tion, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked Sa	und Grains. **Location	h: $PL = Pore Lining, M = Matrix$		
Hydric Soil I	ndicators:						Indicators for	or Problematic Hydric Soils*:		
Histisc	l (A1)			Strippe	ed Matrix (S6)		2 cm Muck (A10)			
Histic	Epipedon (A2)			Loamy				Prairie Redox (A16)		
Black	Histic (A3)			Loamy	Gleyed Matri	x (F2)	<u>5 cm N</u>	Mucky Peat or Peat (S3)		
Hydrog	gen Sulfide (A4)			Deplet	eted Matrix (F3) Dark			Surface (S7)		
Stratifi	ed Layers (A5)			Redox	Dark Surface	(F6)	Polyva	alve Below Dark Surface (S8)		
X Deplet	ed Below Dark Surfac	e (A11)	)	Deplet	ted Dark Surface (F7) Thin			Dark Surface (S9)		
Thick	Dark Surface (A12)			Redox	Depressions (	F8)	Iron-N	langanese Masses (F12)		
Sandy	Mucky Material (S1)		*Indicators of h	- ydroph	vtic vegetation	and wetland	Red Pa	arent Material (T42)		
Sandy	Gleyed Matrix (S4)		hydrology mu	-		sent, unless disturbed or Very Shallow Dark Surface (TF12)				
Sandy	Redox (S5)			prol	blematic		Other	(Explain in remarks)		
Restrictive L	ayer (if observed):									
Type:							Hydric Soils Pres	sent: Yes		
Depth (inches	):			-			-			
Remarks	Remarks:       Soil pit was dug to a depth of 21-inches.									

Wetland Hydrology Indicators:	Seco	Secondary Indicators (minimum of two required)					
Primary Indicators (minimum of o	Primary Indicators (minimum of one is required; check all that apply)						
Surface Water (A1)		Х	Water-Stained Leaves (B9)		Drainage Patterns (B10)		
<b>X</b> High Water Table (A2)			Aquatic Fauna (B13)		Moss Trim Lines (B16)		
X Saturation (A3)			Marl Deposits (B15)		Dry-Season Water Table (C2)		
X Water Marks (B1)			Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C8)		
Sediment Deposits (B2)			Oxidized Rhizospheres on Living Roots (C3)		Saturation Visible on Aerial Imagery (C9)		
Drift Deposits (B3)			Presence or Reduced Iron (C4)	Stunted or Stressed Plants (D1)			
Algal Mat or Crust (B4)			Recent Iron Reduction in Tilled Soils (C6)	X	X Geomorphic Position (D2)		
Iron Deposits (B5)		Thin Muck Surface (C7)			Shallow Aquitard (D3)		
Inundation Visible on Aeri	al Imagery (B7)	Other (Explain in Remarks)			Microtopographic Relief (D4)		
X Sparsely Vegetated Concar	ve Surface (B8)		_	X	FAC-Neutral Test (D5)		
Field Observations:							
Surface Water Present?			Depth (inches):		Indicators of Wetland		
Water Table Present?	Yes		Depth (inches): 9	Hydrology Present? Yes			
Saturation Present?	Yes		Depth (inches): 6				
Remarks:			·				



	Northcentral and	-	-				
Project/Site: Headwaters Parkway	City	/County: Wash	_		Sampling Date: 6/17/2019		
Applicant/Owner: City of Forest Lake			: MN	Sample Point: W7-F	Sample Point: W7-F		
Investigator(s): Brandon Bohks			nship, Range: 29				
Landforms (hillside, terrace, etc.): Backslope			(concave, conve		8-6		
Subregion: LRR K Latitude:		Longitude:	C NT	Datum:			
Soil Map Unit Name: Dundas fine sandy loam			fication: None				
Are climatic/hydrologic conditions of the site typical for the	-	Yes	-	explain in remarks)			
	drology		icantly disturbed				
Are vegetation, soils, or hy	drology	Y OF FIND	lly problematic	? (If needed, explain any answers in Remark	.s)		
Hydrophytic vegetation present?	Yes		INGS				
Hydric soils present?	Yes		Is the sam	pled area within a wetland? No			
Wetland hydrology present?	No		15 the sam	pled area within a wetland? <u>No</u>			
wenand nydrology present:	110						
Remarks:							
VE	GETATION	- Use scientific	names of plants				
	Absolute	Dominant	Indicator	50/20 Threshold 20% 50%	6		
<u>Tree Stratum</u> (Plot size: 30 feet )	% Cover	Species	Status	Tree Stratum 21 52.5	5		
1 Acer negundo	60	Yes	FAC	Sapling/Shrub Stratum 3 7.5	;		
2 Fraxinus pennsylvanica	45	Yes	FACW	Herb Stratum 4.6 11.3	5		
3				Woody Vine Stratum 0 0			
4				Dominance Test Worksheet			
5				Number of dominant species			
	105 =	Total Cover		-	(A)		
Sapling/Shrub stratum (Plot size: 15 feet )				Total number of dominant			
1 Acer negundo	15	Yes	FAC	species across all strata: 5 (1	(B)		
2				Percent of dominant species that			
3				are OBL, FACW or FAC: 60% (.	(A/B)		
4				<b>Prevalence Index Worksheet</b>			
5				Total % cover of:			
	15 =	Total Cover		OBL Species: $0$ x 1 = $0$			
Herb stratum: (Plot size: 5 feet )	_			FACW Species: $45   x 2 = 90$			
1 Parthenocissus quinquefolia	15	Yes	FACU	FAC Species: $75 \times 3 = 225$			
2 Sambucus canadensis	8	Yes	FACU	FACU species: $23   x 4 = 92$			
3				UPL Species: $0  \mathbf{x} \ 5 = 0$			
4				Totals: <b>143</b> (A) <b>407</b> (A)	B)		
5				Prevalence Index (B/A): 2.85			
6				Hydrophytic Vegetation Indicators			
7				Rapid test for hydrophytic vegetation			
8				X Dominance test >50%			
9				<b>X</b> Prevalence index is $\leq 3.0^*$			
10				Morphological adaptations* (Provide			
	23 =	Total Cover		supporting data in remarks)			
Woody vine stratum: (Plot size: 15 feet )				Problematic hydrophytic vegetation*			
1				(Explain in remarks)			
2				*Indicators of hydric soil and wetland hydrol			
	0 =	Total Cover		must be present, unless disturbed or problem.	atic		
Remarks.	nt was taken in a eld not yet plant			Hydrophytic vegetation present? Yes			



#### EXHIBIT G: WETLAND DETERMINATION DATA FORM

Sample Point: W7-F

(Northcentral and Northeast Region - LRR K)

SOILS

Profile Descr	iption: (Describe to	the dep	th needed to docu	ıment t	he indicator o	or confirm the	e absence of indicator	rs.)	
Depth	Matrix			Redo	x Features				
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks	
0-15	10YR 2/1	100					Sandy Clay Loam		
15-22+	10YR 4/1	80	10YR 4/6	20	С	М	Sandy Clay Loam		
	*Type: C = Concentra	ation, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked Sa	and Grains. **Location	h: $PL = Pore Lining, M = Matrix$	
Hydric Soil I	ndicators:						Indicators f	or Problematic Hydric Soils*:	
Histisc	ol (A1)			Stripp	ed Matrix (S6)		2 cm 1	Muck (A10)	
Histic	Epipedon (A2)			Loamy Mucky Mineral (F1)			Coast Prairie Redox (A16)		
Black	Histic (A3)			Loamy Gleyed Matrix (F2)			5 cm Mucky Peat or Peat (S3)		
Hydro	gen Sulfide (A4)			Deplet	ted Matrix (F3)	)	Dark Surface (S7)		
Stratif	ed Layers (A5)			Redox	Dark Surface	(F6)	Polyvalve Below Dark Surface (S8)		
Deplet	ed Below Dark Surfac	ce (A11	)	Deplet	ed Dark Surfa	ce (F7)	Thin I	Dark Surface (S9)	
X Thick	Dark Surface (A12)			Redox	Depressions (	F8)	Iron-N	Manganese Masses (F12)	
Sandy	Mucky Material (S1)		*Indicators of h	- lydroph	vtic vegetation	and wetland	Red P	arent Material (T42)	
Sandy	Gleyed Matrix (S4)			ist be pi	resent, unless d		Very S	Shallow Dark Surface (TF12)	
Sandy	Redox (S5)			prol	blematic		Other	(Explain in remarks)	
Restrictive L	ayer (if observed):								
Type:							Hydric Soils Pres	sent: Yes	
Depth (inches	):			-			·		
				-					
Remark	s: Soil pit was d	lug to a	depth of 22-inch	es.					

Wetland Hydrology Indicators:	/etland Hydrology Indicators:							
Primary Indicators (minimum of	rimary Indicators (minimum of one is required; check all that apply)							
Surface Water (A1)		Water-Stained Leaves (B9)	Drainage Patterns (B10)					
High Water Table (A2)	_	Aquatic Fauna (B13)	Moss Trim Lines (B16)					
Saturation (A3)	_	Marl Deposits (B15)	Dry-Season Water Table (C2)					
Water Marks (B1)	_	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)					
Sediment Deposits (B2)	-	Oxidized Rhizospheres on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)					
Drift Deposits (B3)	_	Presence or Reduced Iron (C4)	Stunted or Stressed Plants (D1)					
Algal Mat or Crust (B4)	_	Recent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)					
Iron Deposits (B5)	-	Thin Muck Surface (C7)	Shallow Aquitard (D3)					
Inundation Visible on Aer	ial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)					
Sparsely Vegetated Conca	ve Surface (B8)		FAC-Neutral Test (D5)					
Field Observations:								
Surface Water Present?		Depth (inches):	Indicators of Wetland					
Water Table Present?	No	Depth (inches): 19	Hydrology Present? No					
Saturation Present?	No	Depth (inches): 15						



Real r copie. Real Solutions.	(Northcentral and	e	,				
Project/Site: Headwaters Parkway	Cit	y/County: Wash	-		Sampling Date: 6/17/2019		
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: W7-	G	
Investigator(s): Brandon Bohks			nship, Range: 29				
Landforms (hillside, terrace, etc.): Basin/Depression			(concave, conve		Slope (%):	0-2	
Subregion: LRR K Latitude:		Longitude:		Datum:			
Soil Map Unit Name: Dundas fine sandy loam			ification: None				
Are climatic/hydrologic conditions of the site typical for t	-	Yes	_	explain in remarks)			
· · · · · · · · · · · · · · · · · · ·	hydrology		icantly disturbed				
Are vegetation, soils, or h	hydrology		lly problematic	? (If needed, explain a	any answers in Ren	narks)	
		AY OF FIND	DINGS				
Hydrophytic vegetation present?	Yes						
Hydric soils present?	Yes		Is the sam	pled area within a wetlar	nd? Yes		
Wetland hydrology present?	Yes						
Remarks:							
VI	EGETATION	- Use scientific	names of plants				
	Absolute	Dominant	Indicator	50/20 Threshold	20%	50%	
<u>Tree Stratum</u> (Plot size: 30 feet )	% Cover	Species	Status	Tree Stratum	14	35	
1 Fraxinus pennsylvanica	45	Yes	FACW	Sapling/Shrub Stratum	3	7.5	
2 Acer negundo	25	Yes	FAC	Herb Stratum	0	0	
3				Woody Vine Stratum	0	0	
4				Dominance	Test Worksheet		
5				Number of domination	nt spacios		
	70 =	Total Cover		that are OBL, FACW	1	(A)	
Sapling/Shrub stratum (Plot size: 15 feet )				Total number of		_``	
1 Acer negundo	15	Yes	FAC	species across		(B)	
2				Percent of dominant sp		_`´	
3				are OBL, FACW		(A/B)	
4					ndex Worksheet	_``	
5				Total % cover of:			
·		=Total Cover		OBL Species: 0	x 1 = 0		
Herb stratum: (Plot size: 5 feet )		10tul Covel		FACW Species: 45			
1				FAC Species: 40			
2				FACU species: 0	x 4 = 0		
3				UPL Species: 0	x 5 = 0		
4				Totals: 85		0 (B)	
5					ex (B/A): 2.47	<u> </u>	
					egetation Indicato	re	
6					ydrophytic vegetati		
8				X Dominance test		on	
° 9				X Prevalence inde			
·							
10	0 =	=Total Cover		Morphological a supporting data	adaptations* (Provi in remarks)	de	
Woody vine stratum: (Plot size: 15 feet ) 1				Problematic hyd (Explain in rema	lrophytic vegetation arks)	n*	
2	_	=Total Cover		*Indicators of hydric s must be present, unles			
Remarks: Unvegatat	ted concave surfac	ce		Hydrophytic veget present?	ation Yes		



#### **EXHIBIT G:** WETLAND DETERMINATION DATA FORM

Sample Point: W7-G

(Northcentral and Northeast Region - LRR K)

SOILS

Profile Descr	iption: (Describe to	the dept	th needed to docu	ıment t	the indicator o	or confirm the	e absence of indicator	s.)		
Depth	Matrix			Redo	x Features					
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks		
0-9	10YR 2/1	100					Clay Loam			
9-17+	10YR 5/1	80	7.5YR 4/6	20	С	М	Sandy Clay Loam			
	*Type: C = Concentra	ation, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked Sa	and Grains. **Locatior	n: PL = Pore Lining, M = Matrix		
Hydric Soil I	ndicators:						Indicators fo	or Problematic Hydric Soils*:		
Histisc	ol (A1)			Strippe	ed Matrix (S6)	1	2 cm M	Muck (A10)		
Histic	Epipedon (A2)			Loamy	y Mucky Miner	ral (F1)	Coast	Prairie Redox (A16)		
Black	Histic (A3)			Loamy	/ Gleyed Matri	Gleyed Matrix (F2) 5 cm Mucky Peat or Peat (S3)				
Hydro	gen Sulfide (A4)			Deplet	ted Matrix (F3)	)	Dark Surface (S7)			
Stratif	ied Layers (A5)			Redox	Dark Surface	(F6)	Polyvalve Below Dark Surface (S8)			
X Deplet	ted Below Dark Surfac	ce (A11)	)	Deplet	ted Dark Surfac	ce (F7)	Thin D	Thin Dark Surface (S9)		
Thick	Dark Surface (A12)			Redox	Depressions (I	F8)	Iron-M	Janganese Masses (F12)		
Sandy	Mucky Material (S1)		*Indicators of h	- iydroph	vtic vegetation	tic vegetation and wetland Red Parent Material (T42)				
Sandy	Gleyed Matrix (S4)			ist be pr	resent, unless d		Very S	Shallow Dark Surface (TF12)		
Sandy	Redox (S5)			prot	blematic		Other	Other (Explain in remarks)		
Restrictive L	ayer (if observed):									
Type:							Hydric Soils Pres	sent: Yes		
Depth (inches	b):			-			-			
Remark	s: Soil pit was d	dug to a	depth of 17-inch	les.						

Wetland Hydrology Indicators:	Secor	Secondary Indicators (minimum of two required)						
Primary Indicators (minimum of o	ne is required; checl	k all that a	apply)		Surface Soil Crack (B6)			
Surface Water (A1)		X V	X Water-Stained Leaves (B9)			Drainage Patterns (B10)		
<b>X</b> High Water Table (A2)			Aquatic Fauna (B13)			Moss Trim Lines (B16)		
X Saturation (A3)			Marl Deposits (B15)			Dry-Season Water Table (C2)		
X Water Marks (B1)			Hydrogen Sulfide Odor (O	21)		Crayfish Burrows (C8)		
Sediment Deposits (B2)		C	Oxidized Rhizospheres on	Living Roots (C3)		Saturation Visible on Aerial Imagery (C9)		
Drift Deposits (B3)		Presence or Reduced Iron (C4)				Stunted or Stressed Plants (D1)		
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)				X Geomorphic Position (D2)			
Iron Deposits (B5)		Thin Muck Surface (C7)				Shallow Aquitard (D3)		
Inundation Visible on Aeri	al Imagery (B7)	Other (Explain in Remarks)				Microtopographic Relief (D4)		
X Sparsely Vegetated Concar	ve Surface (B8)				Х	FAC-Neutral Test (D5)		
Field Observations:								
Surface Water Present?			Depth (inches):			Indicators of Wetland		
Water Table Present?	Yes		Depth (inches):	5	Hydrology Present? Yes			
Saturation Present?	Yes		Depth (inches):	3				
Remarks:				·				



	Northcentral and	-					
Project/Site: Headwaters Parkway	City	/County: Wash	-		Sampling Date: 6/17/2019		
Applicant/Owner: City of Forest Lake			$\approx \frac{MN}{1 + P}$		Sample Point: W7-H		
Investigator(s): Brandon Bohks			nship, Range: 2				
Landforms (hillside, terrace, etc.): Backslope Subregion: LRR K Latitude:			(concave, conve	· · · · · · · · · · · · · · · · · · ·	Slope (%): 3-6		
Subregion: LRR K Latitude:		Longitude:	ification: None	Datum:			
Are climatic/hydrologic conditions of the site typical for th	his time of year?	Yes		explain in remarks)			
	ydrology		icantly disturbed	1 ,	stances present? Yes		
· · · · · · · · · · · · · · · · · · ·	ydrology		illy problematic		any answers in Remarks)		
, 5015, 011		Y OF FIND		. (II needed, explaint			
Hydrophytic vegetation present?	Yes						
Hydric soils present?	Yes		Is the sam	pled area within a wetlaı	nd? No		
Wetland hydrology present?	No			•			
Remarks:		<u> </u>					
	GETATION	- Use scientific	names of plants				
	Absolute	Dominant	Indicator	50/20 Threshold	20% 50%		
Tree Stratum (Plot size: 30 feet )	% Cover	Species	Status	Tree Stratum	22 55		
1 Acer negundo	75	Yes	FAC	Sapling/Shrub Stratum	4 10		
2 Fraxinus pennsylvanica	35	Yes	FACW	Herb Stratum	8.4 21		
3				Woody Vine Stratum	0 0		
4				Dominance	Test Worksheet		
5				Number of domina	nt species		
	110 =	Total Cover		that are OBL, FACW	-		
Sapling/Shrub stratum (Plot size: 15 feet )				Total number of	dominant		
1 Acer negundo	20	Yes	FAC	species across	all strata: 5 (B)		
2				Percent of dominant sp	ecies that		
3				are OBL, FACW	/ or FAC: 60% (A/B)		
4				Prevalence I	ndex Worksheet		
5				Total % cover of:			
	20 =	Total Cover		OBL Species: 0	x 1 = <b>0</b>		
Herb stratum: (Plot size: 5 feet )				FACW Species: 35	x 2 = <b>70</b>		
1 Acer negundo	30	Yes	FAC	FAC Species: 12	5 x 3 = <b>375</b>		
2 Parthenocissus quinquefolia	12	Yes	FACU	FACU species: 12	x 4 = <b>48</b>		
3				UPL Species: 0	x 5 = 0		
4				Totals: 172			
5					ex (B/A): 2.87		
6					egetation Indicators		
7					ydrophytic vegetation		
8				X Dominance test			
9				X Prevalence inde	x is ≤3.0*		
10	=	Total Cover		Morphological a supporting data	adaptations* (Provide in remarks)		
Woody vine stratum: (Plot size: 15 feet )					lrophytic vegetation*		
1				(Explain in rem			
2				*Indicators of hydric s	oil and wetland hydrology		
	0 =	Total Cover		must be present, unles	s disturbed or problematic		
Remarks.	int was taken in a ïeld not yet plant			Hydrophytic veget present?	ation Yes		



## EXHIBIT G: WETLAND DETERMINATION DATA FORM

Sample Point: W7-H

(Northcentral and Northeast Region - LRR K)

SOILS

Profile Descu	iption: (Describe to	the dep	th needed to docu	ıment t	he indicator o	or confirm the	e absence of indicator	rs.)	
Depth	Matrix	trix Redox Features							
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks	
0-14	10YR 2/1	100					Sandy Clay Loam		
14-26+	10YR 5/1	70	10YR 4/6	30	С	М	Sandy Clay Loam		
	*Type: C = Concentr	ation, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked S	and Grains. **Locatio	n: PL = Pore Lining, M = Matrix	
Hydric Soil I	ndicators:						Indicators f	for Problematic Hydric Soils*:	
Histisol (A1) Stripped Matrix (S6)					2 cm Muck (A10)				
Histic	Epipedon (A2)			Loamy	Mucky Miner	ral (F1)	Coast Prairie Redox (A16)		
Black	Histic (A3)			Loamy	Gleyed Matri	x (F2)	5 cm Mucky Peat or Peat (S3)		
Hydro	gen Sulfide (A4)			Deplet	ed Matrix (F3)	)	Dark Surface (S7)		
Stratif	ied Layers (A5)			Redox	Dark Surface	(F6)	Polyvalve Below Dark Surface (S8)		
Deple	ed Below Dark Surfa	ce (A11)	)	Deplet	ed Dark Surfa	ce (F7)	Thin	Dark Surface (S9)	
X Thick	Dark Surface (A12)			Redox	Depressions (	F8)	Iron-N	Manganese Masses (F12)	
Sandy	Mucky Material (S1)		*Indicators of h	- ydroph	ytic vegetation	and wetland	Red P	arent Material (T42)	
Sandy	Gleyed Matrix (S4)		hydrology mu	-	esent, unless d	listurbed or	Very	Shallow Dark Surface (TF12)	
Sandy	Redox (S5)			prol	blematic		Other	(Explain in remarks)	
Restrictive L	ayer (if observed):								
Туре:							Hydric Soils Pre	sent: Yes	
Depth (inches	):			-			·		
				-					
Remark	<u>s:</u> Soil pit was	dug to a	depth of 26-inch	es.					

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one	Surface Soil Crack (B6)			
Surface Water (A1)		Water-Stained Leaves (B9)	Drainage Patterns (B10)	
High Water Table (A2)	_	Aquatic Fauna (B13)	Moss Trim Lines (B16)	
Saturation (A3)		Marl Deposits (B15)	Dry-Season Water Table (C2)	
Water Marks (B1)		Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)	
Sediment Deposits (B2)	_	Oxidized Rhizospheres on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)	
Drift Deposits (B3)		Presence or Reduced Iron (C4)	Stunted or Stressed Plants (D1)	
Algal Mat or Crust (B4)		Recent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)	
Iron Deposits (B5)		Thin Muck Surface (C7)	Shallow Aquitard (D3)	
Inundation Visible on Aerial	Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)	
Sparsely Vegetated Concave	Surface (B8)		FAC-Neutral Test (D5)	
Field Observations:				
Surface Water Present?		Depth (inches):	Indicators of Wetland	
Water Table Present?		Depth (inches):	Hydrology Present? No	
Saturation Present?	No	Depth (inches): 22		
Remarks:				



	lorthcentral and	-	-				
Project/Site: Headwaters Parkway	Cit	y/County: Wash			Sampling Date: 6/17/2019		
Applicant/Owner: City of Forest Lake			$\frac{MN}{1}$	Sample Point: W8-A			
Investigator(s): Brandon Bohks			nship, Range: 2				
Landforms (hillside, terrace, etc.):     Basin/Depression       Subregion:     LRR K       Latitude:			(concave, conv	· · · · · · · · · · · · · · · · · · ·	slope (%	): <b>0-2</b>	
Subregion:     LRR K     Latitude:       Soil Map Unit Name:     Dundas fine sandy loam	<u> </u>	Longitude:	ification: None	Datum:			
Are climatic/hydrologic conditions of the site typical for thi	s time of year?	N WI Class Yes		, explain in remarks)			
	drology		icantly disturbe	-	cumstances present		
	drology		ally problematic		ain any answers in H		
, sons, on ny		TALLAR		. (If fielded, expl	and any answers in I	(centar KS)	
Hydrophytic vegetation present?	Yes						
Hydric soils present?	Yes		Is the sam	pled area within a we	etland? Yes		
Wetland hydrology present?			F	105	_		
	Yes						
<u>Remarks:</u> Sample point was taken in a agriculture f							
VE	GETATION	- Use scientific	names of plants		11 200/	500/	
	Absolute	Dominant	Indicator	50/20 Thresh		50%	
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	0	0	
1				Sapling/Shrub Strat		0	
2				Herb Stratum	21	52.5	
3				Woody Vine Stratu	1	0	
4				Domina	nce Test Workshee	et	
5	0 =	=Total Cover		Number of don that are OBL, FA	-	l (A)	
Sapling/Shrub stratum (Plot size: 15 feet )					er of dominant	( )	
1					ross all strata: 1	<b>I</b> (B)	
2				Percent of dominar			
3					ACW or FAC: 100	<b>0%</b> (A/B)	
4				Prevalen	ice Index Workshe	et	
5				Total % cover of:			
	0 =	Total Cover		OBL Species:	<b>70</b> x 1 =	70	
Herb stratum: (Plot size: 5 feet )	_			FACW Species:	<b>35</b> x 2 =	70	
1 Alisma triviale	70	Yes	OBL	FAC Species:	<b>0</b> x 3 =	0	
2 Eleocharis species	35	Yes	FACW	FACU species:	<b>0</b> x 4 =	0	
3				UPL Species:	<b>0</b> x 5 =	0	
4				Totals:	105 (A)	<b>140</b> (B)	
5				Prevalence	Index (B/A): 1.33	3	
6				Hydrophyti	c Vegetation Indic	ators	
7				X Rapid test for	or hydrophytic vege	tation	
8				X Dominance	test >50%		
9				X Prevalence	index is $\leq 3.0^*$		
10	105 =	Total Cover			cal adaptations* (Pr data in remarks)	ovide	
<u>Woody vine stratum:</u> (Plot size: <u>15 feet</u> )		· • •		Problematic	hydrophytic vegeta	tion*	
1 2				(Explain in t		11-1	
۷	0 =	Total Cover			ric soil and wetland inless disturbed or p		
Remarks:				Hydrophytic v present	-		



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SOILS

<b>Profile Descr</b>	ription: (Describe to t	the dep	th needed to docu	ıment t	he indicator o	or confirm the	e absence of indicator	s.)		
Depth	Matrix			Redo	x Features					
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks		
0-3	10YR 2/1	100					Sandy Clay Loam			
3-15+	10YR 4/1	85	7.5YR 4/6	15	С	М	Sandy Loam			
	*Type: C = Concentra	tion, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked S	and Grains. **Location	h: PL = Pore Lining, M = Matrix		
Hydric Soil I	ndicators:						Indicators f	or Problematic Hydric Soils*:		
Histisol (A1) Strippe					ed Matrix (S6)	1	2 cm 1	Muck (A10)		
Histic Epipedon (A2) Loamy					Mucky Mine	ral (F1)	Coast	Prairie Redox (A16)		
Black	Black Histic (A3)				Gleyed Matri	ix (F2)	5 cm 1	Mucky Peat or Peat (S3)		
Hydro	gen Sulfide (A4)				ed Matrix (F3)	·	Dark	Surface (S7)		
Stratif	ied Layers (A5)			Redox	Dark Surface (F6) Poly			alve Below Dark Surface (S8)		
X Deplet	ted Below Dark Surfac	e (A11	)	Deplet	ed Dark Surfa	ce (F7)	Thin I	Thin Dark Surface (S9)		
Thick	Dark Surface (A12)			Redox	Depressions (F8) Iron-M			Janganese Masses (F12)		
Sandy	Mucky Material (S1)		*Indicators of h	ydroph	ytic vegetation	and wetland	Red P	arent Material (T42)		
Sandy	Gleyed Matrix (S4)		hydrology mu	-	· · ·			Shallow Dark Surface (TF12)		
Sandy	Redox (S5)			prol	blematic Other			(Explain in remarks)		
Restrictive L	ayer (if observed):									
Type:							Hydric Soils Pres	sent: Yes		
Depth (inches	s):			-						
Remark	<u>s:</u> Soil pit was d	lug to a	depth of 15-inch	ies.						
L					HYDROL	OGY				
Wetland Hyd	rology Indicators:						Secon	dary Indicators (minimum of two required)		

Primary Indicators (minimum of one is required; check	all that apply)	X Surface Soil Crack (B6)		
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)		
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B16)		
X Saturation (A3)	Marl Deposits (B15)	Dry-Season Water Table (C2)		
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)		
Sediment Deposits (B2)	Saturation Visible on Aerial Imagery (C9)			
Drift Deposits (B3)	Presence or Reduced Iron (C4)	Stunted or Stressed Plants (D1)		
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	<b>X</b> Geomorphic Position (D2)		
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)		
Sparsely Vegetated Concave Surface (B8)		X FAC-Neutral Test (D5)		
Field Observations:				
Surface Water Present?	Depth (inches):	Indicators of Wetland		
Water Table Present?	Depth (inches):	Hydrology Present? Yes		
Saturation Present? Yes	Depth (inches): 11			
Remarks:				



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Project/Site: Headwaters Parkway	Cit	y/County: Wash			Sampling Date: 6/17/2019		
Applicant/Owner: City of Forest Lake			e: MN	Sample Point: W9-A			
Investigator(s): Brandon Bohks			nship, Range: 2				
Landforms (hillside, terrace, etc.): Basin/Depressio	n		(concave, conv	· · · · · · · · · · · · · · · · · · ·	ve Slope (%	b): <b>0-2</b>	
Subregion: LRR K Latitude:		Longitude:	· · · · • •	Datum:			
Soil Map Unit Name: Webster loam	4:		ification: None	·····1			
Are climatic/hydrologic conditions of the site typical for	-	Yes	_	explain in remarks)			
· · · · · · · · · · · · · · · · · · ·	or hydrology		icantly disturbe		umstances present		
Are vegetation, soils, o	or hydrology	natura RY OF FINI	ally problematic	? (If needed, explan	in any answers in l	Remarks)	
Hydrophytic vegetation present?			INGS				
Hydric soils present?	Yes		Is the same	nlad anaa mithin a mati	land? W		
			is the sam	pled area within a wet	land? Yes	_	
Wetland hydrology present?	Yes						
<u>Remarks:</u> Sample point was taken in a agricultu	re field recently pla	nted with corn.					
	VEGETATION	- Use scientific	names of plants	3			
	Absolute	Dominant	Indicator	50/20 Thresho	ld 20%	50%	
<u>Tree Stratum</u> (Plot size: 30 feet )	% Cover	Species	Status	Tree Stratum	0	0	
1				Sapling/Shrub Stratu	m 0	0	
2				Herb Stratum	0	0	
3				Woody Vine Stratum	n 0	0	
4				Dominan	ce Test Workshee	et	
5				Number of domi	nant species		
	0 =	Total Cover		that are OBL, FAC	-	0 (A)	
Sapling/Shrub stratum         (Plot size: 15 feet )				Total number	of dominant		
1				species acro		(B)	
2				Percent of dominant	species that		
3				are OBL, FAC		% (A/B)	
4				Prevalenc	e Index Workshe	et	
5				Total % cover of:			
	0 =	Total Cover		OBL Species:	<b>0</b> x 1 =	0	
Herb stratum: (Plot size: 5 feet )				FACW Species:	<b>0</b> x 2 =	0	
1 Zea mays				FAC Species:	<b>0</b> x 3 =	0	
2				FACU species:	0 x 4 =	0	
3				UPL Species:	<b>0</b> x 5 =	0	
4				Totals:	<b>0</b> (A)	<b>0</b> (B)	
5				Prevalence I	ndex (B/A):		
6				Hydrophytic	Vegetation Indic	ators	
7				Rapid test for	hydrophytic vege	tation	
8				Dominance te	est >50%		
9				Prevalence in	.dex is ≤3.0*		
10					al adaptations* (Pr	rovide	
	0 =	=Total Cover			ata in remarks)	lovide	
Woody vine stratum: (Plot size: 15 feet )				Problematic h	nydrophytic vegeta	ation*	
1				(Explain in re		011	
2				*Indicators of hydri		l hydrology	
	0 =	Total Cover		must be present, un			
Due to the presence of hydric soils a	nd wetland hydrolo	gv. Hydronhyfi	c vegetation is	Hydrophytic veg	rotation		
Remarks.	med to be present.	6, ·, • p.i.j t		present?			



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SOILS

Profile Desc	ription: (Describe to	the dep	th needed to docu	ıment t	he indicator o	or confirm the	e absence of indicator	s.)		
Depth	Matrix			Redo	x Features					
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks		
0-22	10YR 2/1	100					Sandy Clay Loam			
22-30+	10YR 4/1	85	7.5YR 4/6	15	С	М	Sandy Loam			
	*Type: C = Concentr	ation, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked S	and Grains. **Location	h: PL = Pore Lining, M = Matrix		
Hydric Soil	Indicators:						Indicators f	or Problematic Hydric Soils*:		
Histisol (A1) Stripp					ed Matrix (S6)	)	2 cm l	Muck (A10)		
Histic	Epipedon (A2)			Loamy	Mucky Mine	ral (F1)	Coast	Prairie Redox (A16)		
Black	Histic (A3)			Loamy	Gleyed Matri	ix (F2)	5 cm 1	Mucky Peat or Peat (S3)		
Hydro	ogen Sulfide (A4)			Deplet				Surface (S7)		
Stratif	fied Layers (A5)			Redox	Dark Surface	(F6)	Polyva	Polyvalve Below Dark Surface (S8)		
Deple	ted Below Dark Surfa	ice (A11)	)	Deplet	ed Dark Surfa	ce (F7)	Thin Dark Surface (S9)			
X Thick	Dark Surface (A12)			Redox	Depressions (F8) Iron-M			fanganese Masses (F12)		
Sandy	Mucky Material (S1)	)	*Indicators of h	ydroph	ytic vegetation	and wetland	Red P	arent Material (T42)		
Sandy	Gleyed Matrix (S4)		hydrology mu		be present, unless disturbed or Very			Shallow Dark Surface (TF12)		
Sandy	Redox (S5)			proł	olematic		Other	(Explain in remarks)		
Restrictive I	ayer (if observed):									
Type:							Hydric Soils Pres	sent: Yes		
Depth (inches	s):			•						
Remark	s: Soil pit was	dug to a	depth of 30-inch	es.						

Vetland Hydrology Indicators:						
Primary Indicators (minimum of one is required; check all that apply)						
Water-Stained Leaves (B9)	Drainage Patterns (B10)					
Aquatic Fauna (B13)	Moss Trim Lines (B16)					
Marl Deposits (B15)	Dry-Season Water Table (C2)					
Water Marks (B1)   Hydrogen Sulfide Odor (C1)						
Sediment Deposits (B2)         Oxidized Rhizospheres on Living Roots (C3)						
Drift Deposits (B3) Presence or Reduced Iron (C4)						
Recent Iron Reduction in Tilled Soils (C6)	<b>X</b> Geomorphic Position (D2)					
Thin Muck Surface (C7)	Shallow Aquitard (D3)					
Other (Explain in Remarks)	Microtopographic Relief (D4)					
	FAC-Neutral Test (D5)					
Depth (inches):	Indicators of Wetland					
Depth (inches):	Hydrology Present? Yes					
Depth (inches):						
	Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence or Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches): Depth (inches):					



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	_		Sampling Date: 6/17/2019		
Applicant/Owner: City of Forest Lake			e: MN		ample Point: W	9-B	
Investigator(s): Brandon Bohks			nship, Range: 2				
Landforms (hillside, terrace, etc.): Backslope Subregion: LRR K Latitude:			(concave, conve	ex, none): Convex Datum:	Slope (%)	: 5-8	
Subregion: LRR K Latitude:		Longitude:	ification: None	Datum:			
Are climatic/hydrologic conditions of the site typical for	or this time of year?	N WI Class Yes		explain in remarks)			
	or hydrology		icantly disturbed	-	stances present?	No	
· · · · · · · · · · · · · · · · · · ·	or hydrology		ally problematic		-		
, , , , , , , , , , , , , , , , , , , ,		RY OF FINI		. (If fielded, explain t	any answers in R	ciliar (K3)	
Hydrophytic vegetation present?	No						
Hydric soils present?	No		Is the sam	pled area within a wetlan	d? No		
Wetland hydrology present?					_		
Remarks:							
	VEGETATION	- Use scientific	names of plants				
	Absolute	Dominant	Indicator	50/20 Threshold	20%	50%	
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	0	0	
1				Sapling/Shrub Stratum	0	0	
2				Herb Stratum	0	0	
3				Woody Vine Stratum	0	0	
4				Dominance '	Test Worksheet	t	
5				Number of dominar	nt species		
	0 =	Total Cover=		that are OBL, FACW,	or FAC: 0	(A)	
Sapling/Shrub stratum (Plot size: 15 feet )				Total number of	dominant		
1				species across	all strata:	(B)	
2				Percent of dominant sp			
3				are OBL, FACW			
4					ndex Workshee	t	
5				Total % cover of:			
	0 =	Total Cover		OBL Species: 0	x 1 =	0	
Herb stratum: (Plot size: 5 feet )				FACW Species: 0	x 2 =	0	
1 Zea mays				FAC Species: 0	x 3 =	0	
2				FACU species: 0	x 4 =	0	
3				UPL Species: 0	x 5 =	<u>0</u>	
4				Totals: 0	_(A)	<b>0</b> (B)	
5				Prevalence Inde		_	
6				Hydrophytic Ve	0		
7				Rapid test for hy		ation	
8				Dominance test			
9				Prevalence index	K 18 ≤3.0*		
10	0 =	Total Cover		Morphological a supporting data		ovide	
Woody vine stratum: (Plot size: 15 feet ) 1				Problematic hyd (Explain in rema		ion*	
2		=Total Cover		*Indicators of hydric s must be present, unless			
Sample	e point was taken in	a		Hydrophytic veget	ation		
	d recently planted w			present?	No No		



#### EXHIBIT G: WETLAND DETERMINATION DATA FORM

Sample Point: W9-B

(Northcentral and Northeast Region - LRR K)

SOILS

Profile Descr	iption: (Describe to t	he dep	th needed to docu	ıment t	he indicator o	or confirm the	absence of indicator	rs.)		
Depth	Depth Matrix Redox Features									
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks		
0-30	10YR 2/1	100					Silty Clay Loam			
30-40+	10YR 4/1	90	7.5YR 4/6	10	С	М	Sandy Loam			
	*Type: C = Concentra	tion, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked Sa	and Grains. **Locatio	n: PL = Pore Lining, M = Matrix		
Hydric Soil I	ndicators:						Indicators f	or Problematic Hydric Soils*:		
Histisc	ol (A1)			Strippe	ed Matrix (S6)					
Histic	Epipedon (A2)			Loamy Mucky Mineral (F1)			Coast Prairie Redox (A16)			
Black	Histic (A3)			Loamy Gleyed Matrix (F2)			5 cm Mucky Peat or Peat (S3)			
Hydrog	gen Sulfide (A4)			Depleted Matrix (F3)			Dark Surface (S7)			
Stratifi	ed Layers (A5)			Redox Dark Surface (F6)			Polyvalve Below Dark Surface (S8)			
Deplet	ed Below Dark Surfac	e (A11	)	Deplet	ed Dark Surfa	ce (F7)	Thin Dark Surface (S9)			
X Thick	Dark Surface (A12)			Redox	Depressions (	F8)	Iron-M	Manganese Masses (F12)		
Sandy	Mucky Material (S1)		*Indicators of h	vdroph	vtic vegetation	and wetland	Red P	Red Parent Material (T42)		
Sandy	Gleyed Matrix (S4)			ist be pr	esent, unless d		Very	Shallow Dark Surface (TF12)		
Sandy Redox (S5) problematic						Other	(Explain in remarks)			
Restrictive L	ayer (if observed):									
Туре:							Hydric Soils Pre	sent: No		
Depth (inches	):			-			·			
Remarks	Remarks: Soil pit was dug to a depth of 40-inches.									

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; check	Surface Soil Crack (B6)			
Surface Water (A1)	Drainage Patterns (B10)			
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B16)		
Saturation (A3)	Marl Deposits (B15)	Dry-Season Water Table (C2)		
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)		
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)		
Drift Deposits (B3)	Presence or Reduced Iron (C4)	Stunted or Stressed Plants (D1)		
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)		
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)		
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)		
Field Observations:				
Surface Water Present?	Depth (inches):	Indicators of Wetland		
Water Table Present?	Depth (inches):	Hydrology Present? No		
Saturation Present?	Depth (inches):			



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	-		Sampling Date: 6/17/2019		
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: W	V10-A	
Investigator(s): Brandon Bohks			nship, Range: 29				
Landforms (hillside, terrace, etc.): Basin/Depression	n		(concave, conve		we Slope (%	): <b>0-2</b>	
Subregion: LRR K Latitude:		Longitude:		Datum:			
Soil Map Unit Name: <b>Dundas fine sandy loam</b>			ification: None				
Are climatic/hydrologic conditions of the site typical fo	-	Yes	-	explain in remarks)			
	r hydrology		icantly disturbed		sumstances present?		
Are vegetation, soils, o	r hydrology		ally problematic	? (If needed, expla	in any answers in F	Remarks)	
		Y OF FINI	DINGS				
Hydrophytic vegetation present?	Yes						
Hydric soils present?	Yes		Is the sam	pled area within a wet	tland? Yes	_	
Wetland hydrology present?	Yes						
<u>Remarks:</u> Sample point was taken in a agricultu	re field, not yet plar	nted due to wet	soil conditions				
	VEGETATION	- Use scientific	names of plants	-			
	Absolute	Dominant	Indicator	50/20 Thresho	old 20%	50%	
Tree Stratum         (Plot size: 30 feet )	% Cover	Species	Status	Tree Stratum	0	0	
1				Sapling/Shrub Stratu	um <u>0</u>	0	
2				Herb Stratum	0	0	
3				Woody Vine Stratun	n <u>0</u>	0	
4				Dominan	nce Test Workshee	et	
5				Number of domi	inant species		
	0 =	Total Cover		that are OBL, FAC	-	<b>)</b> (A)	
Sapling/Shrub stratum (Plot size: 15 feet )				Total number	of dominant		
1					oss all strata:	(B)	
2				Percent of dominant	t species that		
3				are OBL, FA		% (A/B)	
4				Prevalence	ce Index Workshe	et	
5				Total % cover of:			
	0 =	Total Cover		OBL Species:	<b>0</b> x 1 =	0	
Herb stratum: (Plot size: 5 feet )				FACW Species:	<b>0</b> x 2 =	0	
1				FAC Species:	<b>0</b> x 3 =	0	
2				FACU species:	<b>0</b> x 4 =	0	
3				UPL Species:	<b>0</b> x 5 =	0	
4				Totals:	0 (A)	<b>0</b> (B)	
5					Index (B/A):	<u> </u>	
					vegetation Indica	otore	
6					r hydrophytic veget		
/				Dominance t		tation	
8							
9				Prevalence in	$1 \text{ dex } 1 \text{ s} \leq 3.0^*$		
10	0 =	Total Cover			cal adaptations* (Pr ata in remarks)	ovide	
Woody vine stratum: (Plot size: 15 feet ) 1				Problematic (Explain in r	hydrophytic vegeta emarks)	tion*	
2	0 =	Total Cover		*Indicators of hydr must be present, un			
Due to the presence of hydric soils a	nd wetland hvdrolog	gy. Hvdrophvt	ic vegetation is	Hydrophytic ve	retation		
	med to be present.	50 · 5 · · · · · · · · · · · · · · · · ·		present	-		



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SOILS

					SOIL	0				
Profile Desc	ription: (Describe to	the dep	th needed to docu	ıment t	he indicator o	or confirm the	absence of ind	icators.)		
Depth	Pepth Matrix Redox Features									
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture		Remarks	
0-7	10YR 2/1	100					Silty Clay	7		
7-14+	10YR 4/1	90	7.5YR 4/6	10	С	М	Sandy Loa	m		
	*Type: C = Concentr	ration, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked Sa	nd Grains. **Lo	cation: l	PL = Pore Lining, M = Matrix	
Hydric Soil	Indicators:						Indica	tors for	Problematic Hydric Soils*:	
Histis	ol (A1)			Stripp	ed Matrix (S6)	)		2 cm Mu	uck (A10)	
Histic	Epipedon (A2)			Loamy	Mucky Mine	ral (F1)		Coast Pr	airie Redox (A16)	
Black	Histic (A3)			-	Gleyed Matri		:	5 cm Mu	ucky Peat or Peat (S3)	
Hydro	ogen Sulfide (A4)			Deplet	ed Matrix (F3	)	Dark Surface (S7)			
	fied Layers (A5)			-	Dark Surface		Polyvalve Below Dark Surface (S8)			
X Deple	ted Below Dark Surfa	ice (A11	)	Deplet	ed Dark Surfa	ce (F7)	Thin Dark Surface (S9)			
Thick	Dark Surface (A12)			Redox	Depressions (	(F8)	Iron-Manganese Masses (F12)			
Sandy	Mucky Material (S1)	)	*Indicators of h	ydroph	ytic vegetatior	n and wetland	Red Parent Material (T42)			
Sandy	Gleyed Matrix (S4)		hydrology mu	-	esent, unless o	disturbed or	Very Shallow Dark Surface (TF12)			
Sandy	Redox (S5)			pro	blematic		Other (Explain in remarks)			
Restrictive I	ayer (if observed):									
Type:							Hydric Soil	s Preser	nt: Yes	
Depth (inches	s):			-						
				-						
Remark	<u>ks:</u> Soil pit was	dug to a	depth of 14-inch	es.						
					HYDROL	OGY				
Wetland Hyd	Irology Indicators:							Seconda	ry Indicators (minimum of two required)	
Primary Indic	cators (minimum of or	ne is requ	uired; check all that	at apply	)		_	X S	urface Soil Crack (B6)	
Surface Water (A1)     Water-Stained Leaves (B9)								D	Prainage Patterns (B10)	
High	High Water Table (A2)   Aquatic Fauna (B13)							Ν	foss Trim Lines (B16)	
Satura	Saturation (A3)   Marl Deposits (B15)							Dry-Season Water Table (C2)		
Water	Water Marks (B1)   Hydrogen Sulfide Odor (C1)							C	rayfish Burrows (C8)	
Sedim	nent Deposits (B2)			Oxidiz	ed Rhizospher	res on Living R	oots (C3)			
Drift l	Deposits (B3)			Presen	ce or Reduced	l Iron (C4)		S	tunted or Stressed Plants (D1)	
Algal	Mat or Crust (B4)			Recent	t Iron Reductio	on in Tilled Soi	s (C6) X Geomorphic Position (D2)			
Iron Deposits (B5) Thin Muck Surface (C7)							Shallow Aquitard (D3)			

Other (Explain in Remarks)

Depth (inches):

Depth (inches):

Depth (inches):

Microtopographic Relief (D4)
merotopographie Rener (B1)

FAC-Neutral Test (D5)

Indicators of Wetland	
Hydrology Present?	Yes

Remarks:

Saturation Present?

Field Observations:

Surface Water Present? Water Table Present?

Inundation Visible on Aerial Imagery (B7)

Sparsely Vegetated Concave Surface (B8)



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	-		Sampling Date: 6/17/2019		
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: W	/10-B	
Investigator(s): Brandon Bohks			nship, Range: 29				
Landforms (hillside, terrace, etc.): Backslope			(concave, conve	· · · · · · · · · · · · · · · · · · ·	Slope (%)	: 3-6	
Subregion: LRR K Latitude:		Longitude:	· · · · • • •	Datum:			
Soil Map Unit Name: <b>Dundas fine sandy loam</b>			ification: None	1			
Are climatic/hydrologic conditions of the site typical f	-	Yes	_	explain in remarks)			
· · · · · · · · · · · · · · · · · · ·	or hydrology		icantly disturbed		-		
Are vegetation, soils,	or hydrology		ally problematic	? (If needed, explain	any answers in R	lemarks)	
<b>T</b> 1 1 1		<b>Y OF FINI</b>	DINGS				
Hydrophytic vegetation present?	No		<b>T</b> (1		10		
Hydric soils present?	Yes		Is the sam	pled area within a wetla	nd? <u>No</u>	-	
Wetland hydrology present?	No						
Remarks:							
	VEGETATION	- Use scientific	names of plants				
	Absolute	Dominant	Indicator	50/20 Threshold	20%	50%	
Tree Stratum (Plot size: 30 feet )	% Cover	Species	Status	Tree Stratum	0	0	
1				Sapling/Shrub Stratum	0	0	
2				Herb Stratum	0	0	
3				Woody Vine Stratum	0	0	
4				Dominance	Test Worksheet	t	
5				Number of Jamino			
· · · · · · · · · · · · · · · · · · ·		Total Cover		Number of domina that are OBL, FACW	-	(A)	
Sapling/Shrub stratum (Plot size: 15 feet )						( )	
1				Total number of species across		(B)	
2							
3				Percent of dominant sp are OBL, FACW		6 (A/B)	
4					Index Workshee	et	
5				Total % cover of:		-	
J		Total Cover		OBL Species: 0	x 1 =	0	
Herb stratum: (Plot size: 5 feet )				FACW Species: 0	$x^{1} = $	0	
1 Zea mays				FAC Species: 0	$- \frac{x^2}{x^3} = -$	0	
2			·	FACU species: 0		0	
3				UPL Species: 0		0	
4				Totals: 0		<b>0</b> (B)	
45						<b>0</b> (B)	
			<u> </u>	Prevalence Ind		-	
6					egetation Indica		
7					ydrophytic vegeta	ation	
8				Dominance test			
9				Prevalence inde	x is ≤3.0*		
10	0 =	Total Cover		Morphological supporting data	adaptations* (Pro in remarks)	ovide	
Woody vine stratum: (Plot size: 15 feet ) 1				Problematic hyo (Explain in rem	drophytic vegetat arks)	ion*	
2		Total Cover		*Indicators of hydric s must be present, unles			
Samu	e point was taken in			Unducub-di-	tation		
	ld recently planted w			Hydrophytic veget present?	tation No		



#### EXHIBIT G: WETLAND DETERMINATION DATA FORM

(Northcentral and Northeast Region - LRR K)

SOILS

I Tollie Desci	ription: (Describe to	the dept	th needed to docu	iment t	he indicator o	or confirm the	e absence of indicator	s.)		
Depth Matrix			Redox	K Features						
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks		
0-8	10YR 2/1	100					Sandy Clay			
8-16+	10YR 2/1	85	7.5YR 4/6	15	С	М	Sandy Clay Loam			
	*Type: C = Concentr	ation, D	= Depletion, RM	= Reduc	ed Matrix, M	S = Masked S	and Grains. **Location	: PL = Pore Lining, M = Matrix		
Hydric Soil I	indicators:						Indicators fo	or Problematic Hydric Soils*:		
Histis	ol (A1)			Strippe	pped Matrix (S6) 2 cm Muck (			Auck (A10)		
Histic	Epipedon (A2)			Loamy	Mucky Mine	ral (F1)	Coast	Prairie Redox (A16)		
Black	Histic (A3)			Loamy	ny Gleyed Matrix (F2) 5 cm Mucky Peat or Peat (			Aucky Peat or Peat (S3)		
Hydro	gen Sulfide (A4)			Deplet	leted Matrix (F3) Dark S			Surface (S7)		
Stratif	ied Layers (A5)		X	Redox	dox Dark Surface (F6) Poly			lve Below Dark Surface (S8)		
Deple	ted Below Dark Surfa	ce (A11)	)	Deplet	epleted Dark Surface (F7)			Thin Dark Surface (S9)		
Thick	Dark Surface (A12)			Redox	Depressions (F8)			Manganese Masses (F12)		
Sandy	Mucky Material (S1)	1	*Indicators of h	ydrophy	tic vegetation	ic vegetation and wetland Red Parent Material (T42)				
Sandy	Gleyed Matrix (S4)							shallow Dark Surface (TF12)		
Sandy Redox (S5) prol					olematic		Other	(Explain in remarks)		
Restrictive L	ayer (if observed):									
Туре:							Hydric Soils Pres	ent: Yes		
Depth (inches	s):			•			·			
				•						

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)				
Primary Indicators (minimum of one is required; check	Surface Soil Crack (B6)				
Surface Water (A1)	Drainage Patterns (B10)				
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B16)			
Saturation (A3)	Marl Deposits (B15)	Dry-Season Water Table (C2)			
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)			
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)			
Drift Deposits (B3)	Stunted or Stressed Plants (D1)				
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2) Shallow Aquitard (D3)			
Iron Deposits (B5)	Thin Muck Surface (C7)				
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)			
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)			
Field Observations:					
Surface Water Present?	Depth (inches):	Indicators of Wetland			
Water Table Present?	Depth (inches):	Hydrology Present? No			
Saturation Present?	Depth (inches):				



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	-	S	Sampling Date: 6/17/2019		
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: W1	1-A	
Investigator(s): Brandon Bohks			nship, Range: 2		C1 (A/)		
Landforms (hillside, terrace, etc.): Basin/Depression			(concave, conv	· · · · · · · · · · · · · · · · · · ·	e Slope (%):	0-2	
Subregion: LRR K Latitude:		Longitude:		Datum:			
Soil Map Unit Name: <b>Dundas fine sandy loam</b>	4:		ification: None	1			
Are climatic/hydrologic conditions of the site typical for	-	Yes	_	, explain in remarks)			
· · · · · · · · · · · · · · · · · · ·	hydrology		icantly disturbe		mstances present?		
Are vegetation, soils, or	hydrology		ally problematic	? (If needed, explain	n any answers in Rer	marks)	
		Y OF FINI	DINGS				
Hydrophytic vegetation present?	Yes						
Hydric soils present?	Yes		Is the sam	pled area within a wetla	and? Yes		
Wetland hydrology present?	Yes						
Remarks:							
v	EGETATION	- Use scientific	names of plants	3			
	Absolute	Dominant	Indicator	50/20 Threshold	d 20%	50%	
<u>Tree Stratum</u> (Plot size: 30 feet )	% Cover	Species	Status	Tree Stratum	0	0	
1				Sapling/Shrub Stratun	n 0	0	
2				Herb Stratum	25	62.5	
3				Woody Vine Stratum	0	0	
4				Dominance	e Test Worksheet		
5							
·		Total Cover		Number of domin that are OBL, FACV	-	(A)	
Sapling/Shrub stratum (Plot size: 15 feet )						_(1)	
				Total number o species acros		(B)	
2						(B)	
2				Percent of dominant s are OBL, FAC		6 (A/B)	
5						(A/D)	
4					Index Worksheet		
5				Total % cover of:			
	0 =	Total Cover			10   x   1 = 10	)	
Herb stratum: (Plot size: 5 feet )				· _ ·	x 2 = 16	0	
1 Solidago gigantea	45	Yes	FACW		$x_3 = 60$	)	
2 Phalaris arundinacea	35	Yes	FACW	FACU species: 1	5   x 4 = 60	)	
3 Equisetum arvense	20	No	FAC	UPL Species:	<b>0</b> x 5 = <b>0</b>	1	
4 Poa pratensis	15	No	FACU	Totals: 12	25 (A) 29	<b>0</b> (B)	
5 Typha species	10	No	OBL	Prevalence In	idex (B/A): 2.32		
6				Hydrophytic V	Vegetation Indicato	ors	
7				<b>X</b> Rapid test for	hydrophytic vegetati	ion	
8				X Dominance tes	st >50%		
9				<b>X</b> Prevalence ind			
10							
	125 =	Total Cover		Morphological supporting dat	l adaptations* (Prov a in remarks)	ıde	
Woody vine stratum: (Plot size: 15 feet )				Problematic hy	ydrophytic vegetatio	n*	
1				(Explain in ren	narks)		
2				*Indicators of hydric			
	=	Total Cover		must be present, unle	ess disturbed or prob	olematic	
Due to the presence of hydric soils an assum	d wetland hydrolog ned to be present.	gy. Hydrophyt	ic vegetation is	Hydrophytic veg present?	etation Yes		



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SOILS

Profile Desci	ription: (Describe to	the dept	th needed to docu	iment t	he indicator o	or confirm the	absence of indicate	ors.)		
Depth	Depth Matrix Redox Features				x Features					
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks		
0-12+	10YR 5/1	100					Silty Clay			
	*Type: C = Concentr	ation, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked Sa	nd Grains. **Locati	on: PL = Pore Lining, M = Matrix		
Hydric Soil I	Indicators:						Indicators	for Problematic Hydric Soils*:		
Histis	ol (A1)			Stripp	ed Matrix (S6)	)	2 cm Muck (A10)			
Histic	Epipedon (A2)			Loamy	Mucky Mine	ral (F1)	Coast Prairie Redox (A16)			
Black	Histic (A3)			Loamy	Gleyed Matri	ix (F2)	5 cm	5 cm Mucky Peat or Peat (S3)		
Hydro	gen Sulfide (A4)		X	Depleted Matrix (F3)			Darl	Dark Surface (S7)		
Stratif	fied Layers (A5)			Redox Dark Surface (F6)			Poly	Polyvalve Below Dark Surface (S8)		
Deple	ted Below Dark Surfa	ce (A11)	)	Deplet	ed Dark Surfa	ce (F7)	Thin Dark Surface (S9)			
Thick	Dark Surface (A12)			Redox	Depressions (	F8)	Iron	Iron-Manganese Masses (F12)		
Sandy	Mucky Material (S1)	)	*Indicators of h	ydroph	ytic vegetation	and wetland	Red	Parent Material (T42)		
Sandy	Gleyed Matrix (S4)		hydrology mu	-	esent, unless c	disturbed or	Very	y Shallow Dark Surface (TF12)		
Sandy	Redox (S5)			prol	olematic		er (Explain in remarks)			
Restrictive L	ayer (if observed):									
Туре:							Hydric Soils Pr	resent: Yes		
Depth (inches	5):			-			-			
				•	l					
Remark	s: Soil pit was	dug to a	depth of 12-inch	es.						
						0.077				

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)				
Primary Indicators (minimum of o	Surface Soil Crack (B6)				
Surface Water (A1)		Water-Stained Leaves (B9)	Drainage Patterns (B10)		
<b>X</b> High Water Table (A2)	_	Aquatic Fauna (B13)	Moss Trim Lines (B16)		
<b>X</b> Saturation (A3)	_	Marl Deposits (B15)	Dry-Season Water Table (C2)		
Water Marks (B1)	_	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)		
Sediment Deposits (B2)		Oxidized Rhizospheres on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)		
Drift Deposits (B3)		Presence or Reduced Iron (C4)	Stunted or Stressed Plants (D1)		
Algal Mat or Crust (B4)		Recent Iron Reduction in Tilled Soils (C6)	X Geomorphic Position (D2)		
Iron Deposits (B5)		Thin Muck Surface (C7)	Shallow Aquitard (D3)		
Inundation Visible on Aeri	al Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)		
Sparsely Vegetated Concav	ve Surface (B8)		X FAC-Neutral Test (D5)		
Field Observations:					
Surface Water Present?		Depth (inches):	Indicators of Wetland		
Water Table Present?	Yes	Depth (inches): 9	Hydrology Present? Yes		
Saturation Present?	Yes	Depth (inches): 6			
Remarks:					



	Northcentral and	-	-					
Project/Site: Headwaters Parkway	Cit	y/County: Wash			Sampling Date: 6/17/2019			
Applicant/Owner: City of Forest Lake			$\frac{MN}{1}$		Sample Point: W	11-B		
Investigator(s): Brandon Bohks			nship, Range: 2					
Landforms (hillside, terrace, etc.):     Depression/Ditch       Subregion:     LRR K       Latitude:			(concave, conv	ex, none): Conca Datum:	Slope (%)	: 0-2		
Subregion:     LRR K     Latitude:       Soil Map Unit Name:     Dundas fine sandy loam		Longitude:	fication: None	Datum:				
Are climatic/hydrologic conditions of the site typical for th	is time of year?	Yes		, explain in remarks)				
	/drology		icantly disturbe		umstances present?	Vag		
	/drology		illy problematic		in any answers in R			
, 5013, 0115		TANA		. (II needed, expla	in any answers in re	ciliar ks)		
Hydrophytic vegetation present?	No							
Hydric soils present?	Yes	Is the sampled area within a wetland? No						
Wetland hydrology present?	No							
Remarks:								
VE	GETATION	- Use scientific	names of plants	3				
	Absolute	Dominant	Indicator	50/20 Thresho	old 20%	50%		
<u>Tree Stratum</u> (Plot size: 30 feet )	% Cover	Species	Status	Tree Stratum	0	0		
1		-		Sapling/Shrub Stratu	ım 0	0		
2				Herb Stratum	27	67.5		
3				Woody Vine Stratun	n 0	0		
4				Dominan	ce Test Worksheet	t		
5				Number of dom				
	0 =	Total Cover		Number of dom that are OBL, FAC	-	(A)		
Sapling/Shrub stratum (Plot size: 15 feet )				Total number				
1					oss all strata: 2	(B)		
2				Percent of dominant		``		
3				are OBL, FA		6 (A/B)		
4	_			Prevalence	e Index Workshee	t		
5				Total % cover of:				
		Total Cover		OBL Species:	<b>0</b> x 1 =	0		
Herb stratum: (Plot size: 5 feet )				FACW Species:		80		
1 Solidago canadensis	45	Yes	FACU	FAC Species:		0		
2 Poa pratensis	30	Yes	FACU	FACU species:		80		
3 Phalaris arundinacea	20	No	FACW	UPL Species:		0		
4 Solidago gigantea	20	No	FACW	Totals:		<b>60</b> (B)		
5 Asclepias syriaca	10	No	FACU	Prevalence	Index (B/A): 3.41			
6 Trifolium pretense	5	No	FACU		Vegetation Indica	tors		
7 Erigeron annuus	5	No	FACU		r hydrophytic vegeta			
8				Dominance t				
9				Prevalence in				
10						. 1		
	135 =	Total Cover			al adaptations* (Pro ata in remarks)	ovide		
Woody vine stratum: (Plot size: 15 feet ) 1				Problematic (Explain in r	hydrophytic vegetati emarks)	ion*		
2					ic soil and wetland h			
	=	Total Cover		must be present, un	lless disturbed or pro	oblematic		
Remarks:				Hydrophytic ve present	-			



## EXHIBIT G: WETLAND DETERMINATION DATA FORM

(Northcentral and Northeast Region - LRR K)

SOILS

<b>Profile Descr</b>	iption: (Describe to	the dep	th needed to docu	iment t	he indicator (	or confirm the	absence of indicator	s.)
Depth	Depth Matrix Redox				ox Features			
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-12+	10YR 5/1	85	7.5YR 4/6	15	С	М	Sandy Clay	
	*Type: C = Concentr	ation, D	= Depletion, RM	= Reduc	ed Matrix, M	S = Masked Sa	nd Grains. **Location	h: PL = Pore Lining, M = Matrix
Hydric Soil I	ndicators:						Indicators fo	or Problematic Hydric Soils*:
Histisc	ol (A1)			Strippe	d Matrix (S6)	)	2 cm N	Muck (A10)
Histic	Epipedon (A2)			Loamy	Mucky Mineral (F1) Coast Prairie Redox (A16)			
Black Histic (A3)				Loamy	Gleyed Matri	Mucky Peat or Peat (S3)		
Hydrogen Sulfide (A4) X Deplet				Deplet	ed Matrix (F3	)	Dark S	Surface (S7)
Stratified Layers (A5) Redox				Dark Surface	(F6)	Polyva	lve Below Dark Surface (S8)	
Depleted Below Dark Surface (A11) Deplet				Deplet	ed Dark Surfa	ce (F7)	Thin D	Dark Surface (S9)
Thick Dark Surface (A12) Redox					Depressions (	langanese Masses (F12)		
Sandy	Mucky Material (S1)		*Indicators of h	- ydrophy	tic vegetatior	n and wetland	Red Pa	arent Material (T42)
Sandy Gleyed Matrix (S4) hydrology must be p				-	-			Shallow Dark Surface (TF12)
Sandy	Redox (S5)			prob	olematic		Other	(Explain in remarks)
Restrictive L	ayer (if observed):							
Type:							Hydric Soils Pres	sent: Yes
Depth (inches	):			_			·	
Remark	s: Soil pit was	dug to a	depth of 12-inch	ies.				

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; check	all that apply)	Surface Soil Crack (B6)		
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)		
High Water Table (A2)	Moss Trim Lines (B16)			
Saturation (A3)	Dry-Season Water Table (C2)			
Water Marks (B1)	Crayfish Burrows (C8)			
Sediment Deposits (B2)	Saturation Visible on Aerial Imagery (C9)			
Drift Deposits (B3)	Presence or Reduced Iron (C4)	Stunted or Stressed Plants (D1)		
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	X Geomorphic Position (D2)		
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7)	Microtopographic Relief (D4)			
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)		
Field Observations:				
Surface Water Present?	Depth (inches):	Indicators of Wetland		
Water Table Present?	Hydrology Present? No			
Saturation Present?	Depth (inches):			



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Project/Site: Headwaters Parkway	Cit	y/County: Washington			Sampling Date: 6/17/2019		
Applicant/Owner: City of Forest Lake						oint: W11-C	
Investigator(s): Brandon Bohks			nship, Range: 2				
Landforms (hillside, terrace, etc.): Basin/Depress	ion		(concave, conve		Slope (%)	: 0-2	
Subregion: LRR K Latitude:		Longitude:		Datum:			
Soil Map Unit Name: Webste loam			ification: None				
Are climatic/hydrologic conditions of the site typical	-	Yes	_	explain in remarks)			
· · · · · · · · · · · · · · · · · · ·	or hydrology		icantly disturbed		•		
Are vegetation, soils,	or hydrology		ally problematic	? (If needed, explain	any answers in R	emarks)	
		RY OF FINI	DINGS				
Hydrophytic vegetation present?	Yes						
Hydric soils present?	Yes		Is the sam	pled area within a wetla	nd? Yes	-	
Wetland hydrology present?	Yes						
<u>Remarks:</u> Sample point was taken in a agricul	ture field recently pla	nted with corn.					
	VEGETATION	- Use scientific	names of plants	-			
	Absolute	Dominant	Indicator	50/20 Threshold	20%	50%	
<u>Tree Stratum</u> (Plot size: 30 feet	% Cover	Species	Status	Tree Stratum	0	0	
1				Sapling/Shrub Stratum	0	0	
2				Herb Stratum	0	0	
3				Woody Vine Stratum	0	0	
4				Dominance	Test Worksheet	t	
5				Number of domina	int species		
	0 =	Total Cover		that are OBL, FACW	/, or FAC: 0	(A)	
Sapling/Shrub stratum (Plot size: 15 feet	)			Total number of	dominant		
1				species across	all strata:	(B)	
2				Percent of dominant sp	pecies that		
3				are OBL, FACV	W or FAC: 0%	<u>(A/B)</u>	
4				<b>Prevalence</b>	Index Workshee	et	
5				Total % cover of:			
	0 =	Total Cover		OBL Species: 0	x 1 =	0	
Herb stratum: (Plot size: 5 feet	)			FACW Species: 0	x 2 =	0	
1 Zea mays				FAC Species: 0	x 3 =	0	
2				FACU species: 0	x 4 =	0	
3				UPL Species: 0		0	
4				Totals: 0	_`	<b>0</b> (B)	
5				Prevalence Inc	lex (B/A):	-	
6				Hydrophytic V	egetation Indica	tors	
7				Rapid test for h	ydrophytic veget	ation	
8				Dominance test	>50%		
9				Prevalence inde	ex is $\leq 3.0^*$		
10	0 =	=Total Cover		Morphological supporting data	adaptations* (Pro in remarks)	ovide	
Woody vine stratum: (Plot size: 15 feet )	)			Problematic hyd (Explain in rem	drophytic vegetat aarks)	ion*	
2		=Total Cover		*Indicators of hydric must be present, unles			
Due to the presence of hydric soils			ic vegetation is	Hydrophytic vege	tation		
Remarks.	sumed to be present.	• • • •	<u> </u>	present?	Yes		



#### EXHIBIT G: WETLAND DETERMINATION DATA FORM

(Northcentral and Northeast Region - LRR K)

SOILS

Profile Descr	iption: (Describe to t	the dept	th needed to docu	iment t	he indicator o	or confirm the	e absence of indicator	s.)
Depth	Depth Matrix Redox Features							
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-11	10YR 2/1	100					Clay Loam	
11-19+	10YR 4/1	90	7.5YR 4/6	10	С	М	Sandy Clay Loam	
		tion, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked Sa	and Grains. **Locatior	e: PL = Pore Lining, M = Matrix
Hydric Soil I	ndicators:						Indicators for	or Problematic Hydric Soils*:
Histiso	ol (A1)			Stripp	· · ·			Muck (A10)
Histic Epipedon (A2)					· · · · · · · · · · · · · · · · · · ·			Prairie Redox (A16)
Black Histic (A3)					Gleyed Matri	Gleyed Matrix (F2) 5 cm Mucky Peat or Peat (S3)		
Hydrogen Sulfide (A4) Deplete					ed Matrix (F3)	)	Dark S	Surface (S7)
Stratified Layers (A5) Redox					Dark Surface	(F6)	Polyva	lve Below Dark Surface (S8)
X         Depleted Below Dark Surface (A11)         Depleted					ed Dark Surfa	ce (F7)	Thin I	Dark Surface (S9)
Thick Dark Surface (A12) Redox					Depressions (F8) Iron-Manganese Masses (F12			langanese Masses (F12)
Sandy Mucky Material (S1) *Indicators of hydroph					ytic vegetation	and wetland	Red Pa	arent Material (T42)
Sandy Gleyed Matrix (S4) hydrology must be p						Shallow Dark Surface (TF12)		
Sandy Redox (S5) pro					blematic		Other	(Explain in remarks)
Restrictive L	ayer (if observed):							
Type:								
Depth (inches	):			-			•	
Remark	s: Soil pit was d	lug to a	depth of 19-inch	es.				
L					HYDROL	OGY		
Wetland Hyd	rology Indicators:						Secon	dary Indicators (minimum of two required)

Primary Indicators (minimum of one is required; check	all that apply)	Surface Soil Crack (B6)		
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)		
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B16)		
Saturation (A3)	Marl Deposits (B15)	Dry-Season Water Table (C2)		
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)		
Sediment Deposits (B2)	X Saturation Visible on Aerial Imagery (C9)			
Drift Deposits (B3)	Presence or Reduced Iron (C4)	Stunted or Stressed Plants (D1)		
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	X Geomorphic Position (D2)		
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)		
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)		
Field Observations:				
Surface Water Present?	Depth (inches):	Indicators of Wetland		
Water Table Present?	Hydrology Present? Yes			
Saturation Present?	Depth (inches):			



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	-		ampling Date: 6/1	
Applicant/Owner: City of Forest Lake			$\frac{MN}{1}$		Sample Point: W	11-D
Investigator(s): Brandon Bohks			nship, Range: 2		C1 (A/)	
Landforms (hillside, terrace, etc.): Backslope Subregion: LRR K Latitude:			(concave, conve	ex, none): Convex	Slope (%)	: 3-5
Subregion: LRR K Latitude:		Longitude:	ification: None	Datum:		
Are climatic/hydrologic conditions of the site typical for	w this time of year?			explain in remarks)		
	-	Yes	icantly disturbed			<b>N</b> .T
· · · · · · · · · · · · · · · · · · ·	or hydrology		ally problematic		-	
Are vegetation, soils, c	or hydrology SUMMAR	TAILURA		(II needed, explain	any answers in K	emarks)
Hydrophytic vegetation present?	No					
Hydric soils present?	Yes		Is the sam	pled area within a wetla	and? No	
Wetland hydrology present?	No					-
Remarks:						
	VEGETATION	- Use scientific	names of plants			
	Absolute	Dominant	Indicator	50/20 Threshold	d 20%	50%
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	0	0
1				Sapling/Shrub Stratum	n <u>0</u>	0
2				Herb Stratum	0	0
3				Woody Vine Stratum	0	0
4				Dominance	e Test Worksheet	t
5				Number of domin	ant species	
	0 =	Total Cover		that are OBL, FACW	W, or FAC: 0	(A)
Sapling/Shrub stratum (Plot size: 15 feet )				Total number o	f dominant	
1				species acros	s all strata:	(B)
2				Percent of dominant s	pecies that	
3				are OBL, FAC	W or FAC: 0%	ó (A/B)
4				Prevalence	Index Workshee	t
5				Total % cover of:		
	0 =	Total Cover		OBL Species:	) x 1 =	0
Herb stratum: (Plot size: 5 feet )				FACW Species: (	) x 2 =	0
1 Zea mays				FAC Species:	) x 3 =	0
2				FACU species:	) x 4 =	0
3				UPL Species:	) x 5 =	0
4				Totals: (	) (A)	<b>0</b> (B)
5				Prevalence In	dex (B/A):	
6				Hydrophytic V	egetation Indica	tors
7				Rapid test for l	hydrophytic vegeta	ation
8				Dominance tes	t>50%	
9				Prevalence ind	ex is ≤3.0*	
10		Total Cover		Morphological supporting data	adaptations* (Pro a in remarks)	ovide
Woody vine stratum: (Plot size: 15 feet ) 1					drophytic vegetat	ion*
2		=Total Cover		*Indicators of hydric must be present, unle	soil and wetland l	
				-		
	e point was taken in d recently planted w			Hydrophytic vego present?	etation <u>No</u>	



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SOILS

Depth	Matrix			Redox	. Features			
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-17	10YR 2/1	100					Clay Loam	
17-25+	10YR 4/1	90	7.5YR 4/6	10	С	М	Sandy Clay Loam	1
	*Type: C = Concentr	ation, D	= Depletion, RM	= Reduc	ed Matrix, M	S = Masked S	and Grains. **Locatio	n: PL = Pore Lining, M = Matrix
Iydric Soil l	Indicators:						Indicators	for Problematic Hydric Soils*:
Histis	ol (A1)			Strippe	d Matrix (S6)	)	2 cm	Muck (A10)
Histic	Epipedon (A2)			Loamy	Mucky Mine	ral (F1)	Coast	t Prairie Redox (A16)
Black	Histic (A3)			Loamy	Gleyed Matri	ix (F2)	5 cm	Mucky Peat or Peat (S3)
Hydro	ogen Sulfide (A4)			Deplet	ed Matrix (F3	)	Dark	Surface (S7)
Stratif	fied Layers (A5)			Redox	Dark Surface	(F6)	Polyv	valve Below Dark Surface (S8)
Deple	ted Below Dark Surfa	ce (A11)	)	Deplet	ed Dark Surfa	ce (F7)	Thin	Dark Surface (S9)
X Thick	Dark Surface (A12)			Redox	Depressions (	F8)	Iron-I	Manganese Masses (F12)
Sandy	Mucky Material (S1)		*Indicators of h	- ydrophy	tic vegetatior	and wetland	Red I	Parent Material (T42)
Sandy	Gleyed Matrix (S4)		hydrology mu		•		Very	Shallow Dark Surface (TF12)
Sandy	Redox (S5)			prob	olematic		Other	(Explain in remarks)
Restrictive L	ayer (if observed):							
Туре:							Hydric Soils Pre	esent: Yes
Depth (inches	s):			-			•	

#### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; check	all that apply)	Surface Soil Crack (B6)			
Surface Water (A1)	Drainage Patterns (B10)				
High Water Table (A2)	Moss Trim Lines (B16)				
Saturation (A3)	Dry-Season Water Table (C2)				
Water Marks (B1)	Crayfish Burrows (C8)				
Sediment Deposits (B2)	Saturation Visible on Aerial Imagery (C9)				
Drift Deposits (B3)	Stunted or Stressed Plants (D1)				
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)			
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)			
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)			
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)			
Field Observations:					
Surface Water Present?	Depth (inches):	Indicators of Wetland			
Water Table Present?	Hydrology Present? No				
Saturation Present?	Depth (inches):				



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	-		Sampling Date: 6/17/2019		
Applicant/Owner: City of Forest Lake			e: MN	Sample Point: W1	2-A		
Investigator(s): Brandon Bohks			nship, Range: 2				
Landforms (hillside, terrace, etc.): Basin			concave, conv	· · · · · · · · · · · · · · · · · · ·	<b>Ye</b> Slope (%):	0-2	
Subregion: LRR K Latitude:		Longitude:		Datum:			
Soil Map Unit Name: Dundas fine sandy loam			ification: <b>PEM</b>				
Are climatic/hydrologic conditions of the site typical for the	-	Yes	_	, explain in remarks)			
	drology		icantly disturbe		imstances present?		
Are vegetation, soils, or hy	drology		ally problematic	? (If needed, explain	n any answers in Re	emarks)	
		RY OF FINI	DINGS				
Hydrophytic vegetation present?	Yes						
Hydric soils present?	Yes		Is the sam	pled area within a weth	and? Yes		
Wetland hydrology present?	Yes						
Remarks:							
VE	GETATION	- Use scientific	names of plants	3			
	Absolute	Dominant	Indicator	50/20 Threshol	d 20%	50%	
<u>Tree Stratum</u> (Plot size: 30 feet )	% Cover	Species	Status	Tree Stratum	0	0	
1				Sapling/Shrub Stratur	m 0	0	
2				Herb Stratum	20.6	51.5	
3				Woody Vine Stratum	0	0	
4				Dominanc	e Test Worksheet		
5				Noushan of domin			
	0 =	Total Cover		Number of domin that are OBL, FAC	-	(A)	
Sapling/Shrub stratum (Plot size: 15 feet )				Total number of		``	
1				species acros		(B)	
2				Percent of dominant		_``	
3				are OBL, FAC		6 (A/B)	
4				Prevalence	e Index Worksheet		
5		·		Total % cover of:			
·		Total Cover		OBL Species:	0 x 1 = 0	)	
Herb stratum: (Plot size: 5 feet )				FACW Species: 1		)6	
1 Phalaris arundinacea	85	Yes	FACW			)	
2 Solidago gigantea	10	No	FACW		<u> </u>	<u>,</u>	
3 Urtica dioica		No	FACW			, <u> </u>	
4		110	TACW	Totals: 1		)6 (B)	
·		·				<b>JO</b> (D)	
5					ndex (B/A): 2.00		
6					Vegetation Indicat		
7					hydrophytic vegetat	tion	
8				X Dominance tes			
9				X Prevalence inc	lex is $\leq 3.0^*$		
10	103 =	=Total Cover		Morphologica supporting dat	l adaptations* (Prov ta in remarks)	vide	
Woody vine stratum: (Plot size: 15 feet ) 1				Problematic h (Explain in ren	ydrophytic vegetatio marks)	on*	
2	0 =	=Total Cover		*Indicators of hydric must be present, unl	e soil and wetland h		
<u>Remarks:</u>				Hydrophytic veg			
				present?	Yes		



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SOILS

Depth	Matrix			Redox	x Features			
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-22	10YR 2/1	100					Clay Loam	
22-30+	10YR 4/1	90	7.5YR 4/6	10	С	М	Sandy Clay Loan	1
	*Type: C = Concentr	ation, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked S	and Grains. **Locati	on: PL = Pore Lining, M = Matrix
Hydric Soil I	indicators:						Indicators	for Problematic Hydric Soils*:
Histise	ol (A1)			Strippe	ed Matrix (S6)		2 cm	Muck (A10)
Histic	Epipedon (A2)			Loamy	Mucky Mine	ral (F1)	Coas	st Prairie Redox (A16)
Black	Histic (A3)			Loamy	Gleyed Matri	x (F2)	5 cm	Mucky Peat or Peat (S3)
Hydro	gen Sulfide (A4)			Deplet	ed Matrix (F3	)	Dark	Surface (S7)
Stratif	ied Layers (A5)			Redox	Dark Surface	(F6)	Poly	valve Below Dark Surface (S8)
Deplet	ted Below Dark Surfa	ce (A11)	)	Deplet	ed Dark Surfa	ce (F7)	Thin	Dark Surface (S9)
X Thick	Dark Surface (A12)			Redox	Depressions (	F8)	Iron	Manganese Masses (F12)
Sandy	Mucky Material (S1)		*Indicators of h	- ydrophy	vtic vegetatior	and wetland	Red	Parent Material (T42)
Sandy	Gleyed Matrix (S4)		hydrology mu	ist be pr	esent, unless o		Very	Shallow Dark Surface (TF12)
Sandy	Redox (S5)			prob	olematic		Othe	r (Explain in remarks)
Restrictive L	ayer (if observed):							
Туре:	•						Hydric Soils Pr	esent: Yes
Depth (inches	s):			-			v	
• •				-				
Remark	s: Soil pit was	dug to a	depth of 30-inch	es.				
					HYDROL	0.011		

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check	all that apply)	Surface Soil Crack (B6)
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3)	Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence or Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	X Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		X FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present?	Depth (inches):	Indicators of Wetland
Water Table Present?		Hydrology Present? Yes
Saturation Present?		
Remarks:		



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	_		Sampling Date: 6/1	
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: W12-B	
Investigator(s): Brandon Bohks			nship, Range: 2			
Landforms (hillside, terrace, etc.): Backslope			(concave, conv		Slope (%):	4-7
Subregion: LRR K Latitude:		Longitude:		Datum:		
Soil Map Unit Name: <b>Dundas fine sandy loam</b>	1		ification: None			
Are climatic/hydrologic conditions of the site typical for t	-	Yes	_	, explain in remarks)		
	hydrology		icantly disturbe		cumstances present?	
Are vegetation, soils, or l	hydrology		ally problematic	? (If needed, expla	ain any answers in Re	emarks)
		<b>RY OF FIND</b>	DINGS			
Hydrophytic vegetation present?	No					
Hydric soils present?	Yes		Is the sam	pled area within a we	tland? <u>No</u>	-
Wetland hydrology present?	No					
Remarks:						
V	EGETATION	- Use scientific	names of plants	3		
	Absolute	Dominant	Indicator	50/20 Thresh	old 20%	50%
<u>Tree Stratum</u> (Plot size: 30 feet )	% Cover	Species	Status	Tree Stratum	0	0
1				Sapling/Shrub Stratu	um 0	0
2				Herb Stratum	21	52.5
3				Woody Vine Stratur	m 0	0
4				Dominar	nce Test Worksheet	
5				Number of Jour		
		Total Cover		Number of dom that are OBL, FAG	-	(A)
Sapling/Shrub stratum (Plot size: 15 feet )				Total number		
1					oss all strata: 2	(B)
2						
3				Percent of dominan are OBL, FA		<u>(A/B)</u>
4				Prevalene	ce Index Worksheet	t
5				Total % cover of:		
	0 =	Total Cover		OBL Species:	<b>0</b> x 1 =	0
Herb stratum: (Plot size: 5 feet )				FACW Species:	<b>45</b> x 2 = <b>9</b>	0
1 Phalaris arundinacea	40	Yes	FACW	FAC Species:	<b>0</b> x 3 =	0
2 Poa pratensis	30	Yes	FACU	FACU species:	<b>60</b> $x 4 = 24$	40
3 Solidago canadensis	20	No	FACU	UPL Species:	0 x 5 = 0	0
4 Bromus inermis	10	No	FACU	Totals:	105 (A) 3	<b>30</b> (B)
5 Solidago gigantea	5	No	FACW	Prevalence	Index (B/A): 3.14	
6					c Vegetation Indicat	ors
7					or hydrophytic vegeta	
8				Dominance t		
° 9				I		
·					ndex is $\leq 3.0^*$	
10	105 =	Total Cover			cal adaptations* (Provata in remarks)	vide
Woody vine stratum: (Plot size: 15 feet )					hydrophytic vegetati	on*
1				(Explain in r	emarks)	
2					ric soil and wetland h	
	=	Total Cover		must be present, ur	nless disturbed or pro	blematic
<u>Remarks:</u>				Hydrophytic ve present		



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SOILS

Profile Descr	iption: (Describe to	the dep	th needed to docu	iment t	he indicator of	or confirm the	absence of	indicator	s.)
Depth	Matrix			Redo	x Features				
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Text	ture	Remarks
0-30	10YR 2/1	100					Clay I	Loam	
30-40+	10YR 4/1	90	7.5YR 4/6	10	С	М	Clay I	Loam	
	*Type: C = Concentr	ation, D	= Depletion, RM	= Redu	eed Matrix, M	S = Masked Sa	nd Grains. *	**Location	: PL = Pore Lining, M = Matrix
Hydric Soil I	ndicators:						Inc	dicators fo	or Problematic Hydric Soils*:
Histiso	ol (A1)			Strippe	ed Matrix (S6)			2 cm N	Auck (A10)
Histic	Epipedon (A2)			Loamy	Mucky Mine	ral (F1)		Coast	Prairie Redox (A16)
Black	Histic (A3)			Loamy	Gleyed Matri	ix (F2)		5 cm N	Aucky Peat or Peat (S3)
Hydro	gen Sulfide (A4)			Deplet	ed Matrix (F3	)		Dark S	Surface (S7)
Stratif	ied Layers (A5)			Redox	Dark Surface	(F6)		Polyva	lve Below Dark Surface (S8)
Deplet	ed Below Dark Surfa	ce (A11	)	Deplet	ed Dark Surfa	ce (F7)		Thin D	Dark Surface (S9)
X Thick	Dark Surface (A12)			Redox	Depressions (	F8)		Iron-M	langanese Masses (F12)
Sandy	Mucky Material (S1)		*Indicators of h	- ydrophy	vtic vegetatior	and wetland		Red Pa	arent Material (T42)
Sandy	Gleyed Matrix (S4)		hydrology mu	ist be pr	esent, unless o			Very S	hallow Dark Surface (TF12)
Sandy	Redox (S5)			prob	olematic			Other	(Explain in remarks)
Restrictive L	ayer (if observed):								
Type:							Hydric	Soils Pres	ent: Yes
Depth (inches	):			-			·		
				-					
Remark	s: Soil pit was	dug to a	depth of 40-inch	les.					

# HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; check	all that apply)	Surface Soil Crack (B6)		
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)		
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B16)		
Saturation (A3)	Marl Deposits (B15)	Dry-Season Water Table (C2)		
Water Marks (B1)	Crayfish Burrows (C8)			
Sediment Deposits (B2)	Saturation Visible on Aerial Imagery (C9)			
Drift Deposits (B3)	Presence or Reduced Iron (C4)	Stunted or Stressed Plants (D1)		
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)		
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)		
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)		
Field Observations:				
Surface Water Present?	Depth (inches):	Indicators of Wetland		
Water Table Present?	Depth (inches):	Hydrology Present? No		
Saturation Present?	Depth (inches):			



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Project/Site: Headwaters Parkway	Cit	y/County: Wash			ampling Date: <u>6/</u>	
Applicant/Owner: City of Forest Lake			$\frac{MN}{1}$		Sample Point: W	′13-A
Investigator(s): Brandon Bohks			nship, Range: 2			
Landforms (hillside, terrace, etc.): Basin/Depressi	ion		(concave, conv	· · · · · · · · · · · · · · · · · · ·	Slope (%)	): 0-2
Subregion: LRR K Latitude:		Longitude:		Datum:		
Soil Map Unit Name: <b>Dundas fine sandy loam</b>			ification: None			
Are climatic/hydrologic conditions of the site typical	-	Yes	_	explain in remarks)		
· · · · · · · · · · · · · · · · · · ·	, or hydrology		icantly disturbe		-	
Are vegetation, soils,	, or hydrology		ally problematic	? (If needed, explain	any answers in R	temarks)
	SUMMAR	RY OF FINI	DINGS			
Hydrophytic vegetation present?	Yes					
Hydric soils present?	Yes		Is the sam	pled area within a wetla	nd? Yes	
Wetland hydrology present?	Yes					
<u>Remarks:</u> Sample point was taken in a agricul	ture field recently pla	nted with corn.				
	VEGETATION	- Use scientific	names of plants			
	Absolute	Dominant	Indicator	50/20 Threshold	20%	50%
<u>Tree Stratum</u> (Plot size: 30 feet )	) % Cover	Species	Status	Tree Stratum	0	0
1				Sapling/Shrub Stratum	0	0
2				Herb Stratum	0	0
3				Woody Vine Stratum	0	0
4				Dominance	Test Workshee	t
5				Number of domina	nt species	
	0 =	Total Cover		that are OBL, FACW	-	(A)
Sapling/Shrub stratum (Plot size: 15 feet )	)			Total number of	dominant	
1				species across		(B)
2				Percent of dominant sp	pecies that	
3				are OBL, FACW		% (A/B)
4				Prevalence 1	Index Workshee	et
5				Total % cover of:		
	0 =	=Total Cover		OBL Species: 0	x 1 =	0
Herb stratum: (Plot size: 5 feet )	)			FACW Species: 0	x 2 =	0
1 Zea mays				FAC Species: 0	x 3 =	0
2				FACU species: 0	x 4 =	0
3				UPL Species: 0		0
<u></u>				Totals: 0		<b>0</b> (B)
5				Prevalence Ind	<u> </u>	<u> </u>
					egetation Indica	tors
6					ydrophytic veget	
/				Dominance test		auon
8						
9				Prevalence inde	$x \text{ is } \leq 3.0^*$	
10	0 =	=Total Cover		Morphological supporting data	adaptations* (Pro in remarks)	ovide
Woody vine stratum:     (Plot size: 15 feet )       1	)			Problematic hyd (Explain in rem	drophytic vegetat arks)	tion*
2		=Total Cover		*Indicators of hydric s must be present, unles		
Due to the presence of hydric soils			ic vegetation ic	Hydrophytic veget	tation	
Remarks.	sumed to be present.	<sub>B</sub> , in opiny t	- rescution is	present?	tation Yes	_



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SOILS

Depth	Matrix			Redox	x Features			
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-29	10YR 2/1	100					Sandy Clay Loar	n
29-37+	10YR 5/1	90	7.5YR 4/6	10	С	М	Sandy Clay Loar	n
	*Type: C = Concentr	ation, D	= Depletion, RM	= Reduc	ed Matrix, M	S = Masked S	and Grains. **Locati	on: PL = Pore Lining, M = Matrix
Hydric Soil I	Indicators:						Indicators	for Problematic Hydric Soils*:
Histis	ol (A1)			Strippe	d Matrix (S6)		2 cm	n Muck (A10)
Histic	Epipedon (A2)			Loamy	Mucky Mine	ral (F1)	Coa	st Prairie Redox (A16)
Black	Histic (A3)			Loamy	Gleyed Matri	x (F2)	5 cn	n Mucky Peat or Peat (S3)
Hydro	gen Sulfide (A4)			Deplet	ed Matrix (F3	)	Darl	c Surface (S7)
Stratif	fied Layers (A5)			Redox	Dark Surface	(F6)	Poly	valve Below Dark Surface (S8)
Deple	ted Below Dark Surfa	ce (A11)	)	Deplet	ed Dark Surfa	ce (F7)	Thir	Dark Surface (S9)
X Thick	Dark Surface (A12)			Redox	Depressions (	F8)	Iron	-Manganese Masses (F12)
Sandy	Mucky Material (S1)		*Indicators of h	- ydrophy	tic vegetatior	and wetland	Red	Parent Material (T42)
Sandy	Gleyed Matrix (S4)		hydrology mu	ist be pr	esent, unless o		Ver	Shallow Dark Surface (TF12)
Sandy	Redox (S5)			prob	olematic		Othe	er (Explain in remarks)
Restrictive I	ayer (if observed):							
Туре:							Hydric Soils Pı	resent: Yes
Depth (inches	s):			-			U	

#### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; check	all that apply)	Surface Soil Crack (B6)		
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)		
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B16)		
Saturation (A3)	Marl Deposits (B15)	Dry-Season Water Table (C2)		
Water Marks (B1)	Crayfish Burrows (C8)			
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	X Saturation Visible on Aerial Imagery (C9)		
Drift Deposits (B3)	Presence or Reduced Iron (C4)	Stunted or Stressed Plants (D1)		
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	X Geomorphic Position (D2)		
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)		
<b>X</b> Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)		
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)		
Field Observations:				
Surface Water Present?	Depth (inches):	Indicators of Wetland		
Water Table Present?	Depth (inches):	Hydrology Present? Yes		
Saturation Present?	Depth (inches):			



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	-		Sampling Date: 6/17/2019		
Applicant/Owner: City of Forest Lake			$\frac{MN}{1}$		Sample Point: W	′13-B	
Investigator(s): Brandon Bohks			nship, Range: 29				
Landforms (hillside, terrace, etc.): Backslope Subregion: LRR K Latitude:		Local Relief (concave, convex, none): Convex Slope (%): 4-7 Longitude: Datum:					
Subregion:         LRR K         Latitude:           Soil Map Unit Name:         Dundas fine sandy loam		Longitude:	ification: None	Datum:			
Are climatic/hydrologic conditions of the site typical for	or this time of year?	N WI Class Yes		explain in remarks)			
	or hydrology		icantly disturbed	-	nstances present?	No	
· · · · · · · · · · · · · · · · · · ·	or hydrology		ally problematic		-		
, 50115, 70		Y OF FINI		(If fielded, explain	any answers in it	cillarks)	
Hydrophytic vegetation present?	No						
Hydric soils present?	Yes		Is the sam	pled area within a wetla	nd? No		
Wetland hydrology present?	No					-	
Remarks:							
	VEGETATION	- Use scientific	names of plants				
	Absolute	Dominant	Indicator	50/20 Threshold	20%	50%	
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	0	0	
1				Sapling/Shrub Stratum	0	0	
2				Herb Stratum	0	0	
3				Woody Vine Stratum	0	0	
4				Dominance	Test Workshee	t	
5				Number of domina	-		
Serling/Charle starture (Distring)	=	Total Cover=		that are OBL, FACW	/, or FAC: 0	(A)	
Sapling/Shrub stratum (Plot size: 15 feet )				Total number of			
1				species across		(B)	
23				Percent of dominant sp are OBL, FACV		6 (A/B)	
4					Index Workshee	<u> </u>	
*5				Total % cover of:	index workshee		
		Total Cover		OBL Species: 0	x 1 =	0	
Herb stratum: (Plot size: 5 feet )				FACW Species: 0	x 2 =	0	
1 Zea mays				FAC Species: 0	$x_3 =$	0	
2				FACU species: 0		0	
3				UPL Species: 0		0	
4				Totals: 0		<b>0</b> (B)	
5				Prevalence Inc	— · · · —		
6					egetation Indica	tors	
7					ydrophytic veget		
8				Dominance test			
9				Prevalence inde	ex is <3.0*		
10							
	0 =	Total Cover		supporting data	adaptations* (Pro in remarks)	ovide	
Woody vine stratum: (Plot size: 15 feet ) 1				Problematic hy (Explain in rem	drophytic vegetat arks)	ion*	
2	0=	Total Cover		*Indicators of hydric must be present, unle			
	e point was taken in a d recently planted w			Hydrophytic vege present?	tation No		



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# EXHIBIT G: WETLAND DETERMINATION DATA FORM

(Northcentral and Northeast Region - LRR K)

SOILS

Profile Descr	iption: (Describe to	the dep	th needed to docu	ment 1	the indicator o	or confirm the	absence of indicator	·s.)			
Depth	Matrix			Redo	x Features						
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks			
0-45+	10YR 2/1	100					Clay Loam				
	*Type: C = Concentr	ation, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked Sa	nd Grains. **Location	n: PL = Pore Lining, M = Matrix			
Hydric Soil I	ndicators:		• ·				Indicators f	or Problematic Hydric Soils*:			
Histisol (A1) Stripped Matrix (S6) 2 cm Muck (A10)							·				
Histic	Epipedon (A2)			•	y Mucky Miner			Prairie Redox (A16)			
	Histic (A3)				y Gleyed Matri	· · ·		Mucky Peat or Peat (S3)			
	gen Sulfide (A4)			•	ted Matrix (F3)			Surface (S7)			
	ied Layers (A5)			•	Dark Surface			alve Below Dark Surface (S8)			
	ed Below Dark Surfa	ce (A11	)		ted Dark Surfa			Dark Surface (S9)			
X Thick		. 1	Depressions (			Manganese Masses (F12)					
								Red Parent Material (T42)			
Sandy Mucky Material (S1) Sandy Gleyed Matrix (S4) *Indicators of hydrophytic vegetation and hydrology must be present, unless distur								Shallow Dark Surface (TF12)			
	Redox (S5)			-	blematic			(Explain in remarks)			
	ayer (if observed):							(			
	ayer (ii observeu).										
Type: Depth (inches)	).			•			Hydric Soils Pre	sent: Yes			
Depth (inches	).										
Remarks							according to the Wa assumed to be present	shington County soil survey, hydric soil			
	nave been ci	assineu	at the son pit loc		HYDROL		issumed to be prese	iit.			
Wotland Hydy	rology Indicators:				HIDKUL	UGI					
-	ators (minimum of or	ne is real	ured: check all the	t annla	<i>d</i> )		Secon	dary Indicators (minimum of two required)			
-	e Water (A1)	ie is iequ	ineu, check an tha		-Stained Leave	c (D0)		Surface Soil Crack (B6)			
				-		( )		Drainage Patterns (B10)			
	Vater Table (A2)			• •	ic Fauna (B13)			Moss Trim Lines (B16)			
	tion (A3)			•	Deposits (B15)			Dry-Season Water Table (C2)			
	Marks (B1)				gen Sulfide Od			Crayfish Burrows (C8)			
	ent Deposits (B2)			-	-	es on Living R	bots (C3)	Saturation Visible on Aerial Imagery (C9)			
	Deposits (B3)			-	ice or Reduced			Stunted or Stressed Plants (D1)			
	Mat or Crust (B4)			-		n in Tilled Soil	s (C6)	Geomorphic Position (D2)			
	eposits (B5)	1 7	(D7)	•	Auck Surface (	·		Shallow Aquitard (D3)			
	tion Visible on Aeria	-	· · · · · · · · · · · · · · · · · · ·	Other	(Explain in Re	marks)		Microtopographic Relief (D4)			
Sparse	ly Vegetated Concav	e Surfac	e (B8)					FAC-Neutral Test (D5)			
Field Observa	itions:										
Surface Water	Present?				Depth (inches):		.	Indicators of Wetland			
Water Table Present?					Depth (inches):		Hydrology Present? No				
Saturation Pre	Saturation Present? Depth (inches):										
Remarks											



· · · · · · · · · · · · · · · · · · ·	Northcentral and					
Project/Site: Headwaters Parkway	Cit	y/County: Wash	-		Sampling Date: 6/	
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: W	/ <b>14-A</b>
Investigator(s): Brandon Bohks			nship, Range: 29			
Landforms (hillside, terrace, etc.): Basin/Depression			(concave, conve		ave Slope (%)	): 0-2
Subregion: LRR K Latitude:		Longitude:		Datum:		
Soil Map Unit Name: Dundas fine sandy loam			ification: None			
Are climatic/hydrologic conditions of the site typical for t	-	Yes	-	explain in remarks)		
	nydrology		icantly disturbed		cumstances present?	
Are vegetation, soils, or h	ydrology		ally problematic	? (If needed, expla	ain any answers in F	Remarks)
		<b>AY OF FIND</b>	DINGS			
Hydrophytic vegetation present?	Yes		<b>T</b> (1		(1 10	
Hydric soils present?	Yes		Is the sam	pled area within a we	tland? Yes	_
Wetland hydrology present?	Yes					
<u>Remarks:</u> Sample point was taken in a agriculture	field, not yet plan	nted due to wet	soil conditions.			
VI	EGETATION	- Use scientific	names of plants	I		
	Absolute	Dominant	Indicator	50/20 Thresh	old 20%	50%
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	0	0
1				Sapling/Shrub Strate	um 0	0
2				Herb Stratum	0	0
3				Woody Vine Stratur	m <u>0</u>	0
4				Dominar	nce Test Workshee	t
5				Number of dom	inant species	
	0 =	Total Cover		that are OBL, FA	CW, or FAC: 0	(A)
Sapling/Shrub stratum (Plot size: 15 feet )				Total number	r of dominant	
1				species acr	oss all strata:	(B)
2				Percent of dominan	t species that	
3				are OBL, FA	CW or FAC: 09	<b>/o</b> (A/B)
4				Prevalen	ce Index Workshe	et
5				Total % cover of:		
	0 =	Total Cover		OBL Species:	<b>0</b> x 1 =	0
Herb stratum: (Plot size: 5 feet )				FACW Species:	<b>0</b> x 2 =	0
1				FAC Species:	<b>0</b> x 3 =	0
2				FACU species:	0 x 4 =	0
3				UPL Species:	<b>0</b> x 5 =	0
4				Totals:	<b>0</b> (A)	<b>0</b> (B)
5				Prevalence	Index (B/A):	
6					c Vegetation Indica	
7		<u> </u>			or hydrophytic veget	
8				Dominance		wion
9					ndex is ≤3.0*	
·						
10	0 =	Total Cover			cal adaptations* (Pr lata in remarks)	ovide
Woody vine stratum:     (Plot size: 15 feet )       1				Problematic (Explain in r	hydrophytic vegeta remarks)	tion*
2		Total Cover			ric soil and wetland nless disturbed or pr	
Due to the presence of hydric soils and assume	wetland hydrologed to be present.	gy. Hydrophyti	c vegetation is	Hydrophytic ve present	-	



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(Northcentral and Northeast Region - LRR K)

SOILS

Profile Desc	ription: (Describe to	the dep	th needed to doc	ument t	he indicator	or confirm th	e absence of indicato	rs.)		
Depth	Matrix			Redoz	x Features					
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks		
0-7	10YR 2/1	100					Clay Loam			
7-15+	10YR 5/1	90	7.5YR 4/6	10	С	М	Sandy Clay Loam			
	*Type: C = Concent	ration, D	= Depletion, RM	= Reduc	ced Matrix, M	IS = Masked S	and Grains. **Locatio	n: PL = Pore Lining, M = Matrix		
Hydric Soil	Indicators:						Indicators f	for Problematic Hydric Soils*:		
Histisol (A1) Stripped Matrix (S6)					)	2 cm Muck (A10)				
Histic Epipedon (A2)				Loamy	/ Mucky Mine	eral (F1)	Coast Prairie Redox (A16)			
Black Histic (A3) Loamy Gleyed Matrix (F2)					ix (F2)	5 cm	Mucky Peat or Peat (S3)			
Hydro	Hydrogen Sulfide (A4)Depleted Matrix (F3)				)	Dark	Surface (S7)			
Stratif	fied Layers (A5)			Redox	Dark Surface	(F6)	Polyvalve Below Dark Surface (S8)			
X Deple	ted Below Dark Surfa	ace (A11	)	Deplet	ed Dark Surfa	ice (F7)	Thin	Dark Surface (S9)		
Thick	Dark Surface (A12)			Redox	Depressions (	(F8)	Iron-Manganese Masses (F12)			
Sandy	Mucky Material (S1	)	*Indicators of h	hydrophy	ytic vegetation	n and wetland	Red Parent Material (T42)			
Sandy	Gleyed Matrix (S4)		hydrology mu	-	resent, unless of	disturbed or	Very	Shallow Dark Surface (TF12)		
Sandy	Redox (S5)			prob	blematic		Other	(Explain in remarks)		
Restrictive I	ayer (if observed):									
Туре:							Hydric Soils Pre	sent: Yes		
Depth (inches	s):			-			·			
<u>Remark</u>	Soil pit was	dug to a	depth of 15-inch	ies.						
				]	HYDROL	OGY				
Wetland Hyd	rology Indicators:						Secor	dary Indicators (minimum of two required)		
Primary Indic	ators (minimum of o	ne is requ	lired; check all the	at apply	)		X	Surface Soil Crack (B6)		
Surface Water (A1) Water-Stained Leaves (B9)							Drainage Patterns (B10)			

rinnary indicators (initiation of	one is required, check	an mai appiy)	A Surface Soil Crack (B6)		
Surface Water (A1)	_	Water-Stained Leaves (B9)	Drainage Patterns (B10)		
High Water Table (A2)	_	Aquatic Fauna (B13)	Moss Trim Lines (B16)		
X Saturation (A3)	_	Marl Deposits (B15)	Dry-Season Water Table (C2)		
Water Marks (B1)	_	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)		
Sediment Deposits (B2)		Oxidized Rhizospheres on Living Roots (C3)	X Saturation Visible on Aerial Imagery (C9)		
Drift Deposits (B3)	_	Presence or Reduced Iron (C4)	Stunted or Stressed Plants (D1)		
Algal Mat or Crust (B4)	_	Recent Iron Reduction in Tilled Soils (C6)	X Geomorphic Position (D2)		
Iron Deposits (B5)	-	Thin Muck Surface (C7)	Shallow Aquitard (D3)		
Inundation Visible on Ae	rial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)		
Sparsely Vegetated Conc	ave Surface (B8)		FAC-Neutral Test (D5)		
Field Observations:					
Surface Water Present?		Depth (inches):	Indicators of Wetland		
Water Table Present?	No	Depth (inches): 14	Hydrology Present? Yes		
Saturation Present?	Yes	Depth (inches): 11			



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	-		Sampling Date: 6/17/2019		
Applicant/Owner: City of Forest Lake			$\frac{MN}{1}$		Sample Point: W	14-B	
Investigator(s): Brandon Bohks			nship, Range: 29				
Landforms (hillside, terrace, etc.):     Backslope       Subregion:     LRR K     Latitude:		Local Relief (concave, convex, none): Convex Slope (%): 6-9 Longitude: Datum:					
Subregion:     LRR K     Latitude:       Soil Map Unit Name:     Bluffton loam		Longitude:	ification: None	Datum:			
Are climatic/hydrologic conditions of the site typical fo	r this time of year?	N WI Class Yes		explain in remarks)			
	r hydrology		icantly disturbed	-	stances present?	No	
	r hydrology		ally problematic		-		
, 50115, 0		Y OF FINE		(II needed, explain a	any answers in R	cillarks)	
Hydrophytic vegetation present?	No						
Hydric soils present?	Yes		Is the sam	pled area within a wetlar	nd? No		
Wetland hydrology present?	No					_	
Remarks:							
	VEGETATION	- Use scientific	names of plants				
	Absolute	Dominant	Indicator	50/20 Threshold	20%	50%	
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	0	0	
1				Sapling/Shrub Stratum	0	0	
2				Herb Stratum	0	0	
3				Woody Vine Stratum	0	0	
4				Dominance	Test Worksheet	t	
5				Number of domination	-		
	0 =	Total Cover		that are OBL, FACW	, or FAC: 0	(A)	
Sapling/Shrub stratum (Plot size: 15 feet )				Total number of			
1				species across	all strata:	(B)	
2				Percent of dominant sp		( ( ) ( )	
3				are OBL, FACW			
4					ndex Workshee	et	
5				Total % cover of:			
	0 =	Total Cover		OBL Species: 0	x 1 =	0	
Herb stratum: (Plot size: 5 feet )				FACW Species: 0	x 2 =	0	
1 Zea mays				FAC Species: 0	x 3 =	0	
2				FACU species: 0 UPL Species: 0		0	
3						0 0 (B)	
4					_`	<b>0</b> (B)	
5				Prevalence Ind		_	
6				Hydrophytic Vo	0		
7					ydrophytic veget	ation	
8				Dominance test			
9				Prevalence inde			
10	0 =	Total Cover		Morphological a supporting data	adaptations* (Pro in remarks)	ovide	
Woody vine stratum:         (Plot size: 15 feet )           1				Problematic hyd (Explain in rema	lrophytic vegetat arks)	ion*	
2		Total Cover		*Indicators of hydric s must be present, unles			
	point was taken in d recently planted w			Hydrophytic veget present?	tation No		



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#### EXHIBIT G: WETLAND DETERMINATION DATA FORM

(Northcentral and Northeast Region - LRR K)

SOILS

r					5011	10				
Profile Desc	ription: (Describe to	the dep	th needed to doc	ument t	he indicator	or confirm the	absence of indic	ators.)		
Depth	Matrix			Redo	x Features					
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks		
0-18	10YR 2/1	100					Clay Loam			
18-25+	10YR 4/1	95	7.5YR 4/6	5	С	М	Clay Loam			
					[					
	*Type: C = Concentr	ration, D	= Depletion, RM	= Redu	ced Matrix, N	AS = Masked Sa	nd Grains. **Loc	ation: PL = Pore Lining, M = Matrix		
Hydric Soil		,	1		,			ors for Problematic Hydric Soils*:		
	ol (A1)			Stripp	ed Matrix (S6	j)		cm Muck (A10)		
Histic Epipedon (A2) Loamy Mucky Mineral (F1)							C	oast Prairie Redox (A16)		
Black Histic (A3) Loamy Gleyed Matrix (F2)							cm Mucky Peat or Peat (S3)			
Hydrogen Sulfide (A4) Depleted Matrix (F3)								ark Surface (S7)		
Stratified Layers (A5) Redox Dark Surface (F6)								olyvalve Below Dark Surface (S8)		
	ted Below Dark Surfa	ace (A11	)	_	ted Dark Surfa			Thin Dark Surface (S9)		
`	Dark Surface (A12)				Depressions			on-Manganese Masses (F12)		
	Mucky Material (S1	)	*1	-	-			ed Parent Material (T42)		
	Gleyed Matrix (S4)	,	*Indicators of l hydrology mu		resent, unless			ery Shallow Dark Surface (TF12)		
Sandy Redox (S5) problematic							ther (Explain in remarks)			
					1					
	Layer (if observed):							D / W		
Type:	-).			-			Hydric Soils	Present: Yes		
Depth (inches	s):									
Remark	si Soil pit was	dug to 2	5-inches.							
					HYDROL	LOGY				
-	Irology Indicators:						Se	econdary Indicators (minimum of two required)		
-	cators (minimum of o	ne is requ	ired; check all th	at apply	)			Surface Soil Crack (B6)		
Surfac	ce Water (A1)			Water-	-Stained Leav	res (B9)		Drainage Patterns (B10)		
High	Water Table (A2)			Aquati	ic Fauna (B13	3)		Moss Trim Lines (B16)		
Satura	ation (A3)			Marl I	Deposits (B15	)		Dry-Season Water Table (C2)		
Water	Marks (B1)			Hydro	gen Sulfide O	dor (C1)		Crayfish Burrows (C8)		
Sedim	nent Deposits (B2)			Oxidiz	ed Rhizosphe	eres on Living Ro	oots (C3)	Saturation Visible on Aerial Imagery (C9)		
Drift l	Deposits (B3)			Presen	ice or Reduced	d Iron (C4)		Stunted or Stressed Plants (D1)		
Algal	Mat or Crust (B4)			Recent	t Iron Reducti	ion in Tilled Soil	ls (C6)	Geomorphic Position (D2)		
Iron Deposits (B5) Thin Muck Surface (C7)								Shallow Aquitard (D3)		
Inund	ation Visible on Aeria	al Imager	y (B7)	Other	(Explain in R	emarks)		Microtopographic Relief (D4)		
Sparse	ely Vegetated Concav	ve Surface	e (B8)	-				FAC-Neutral Test (D5)		
Field Observ	ations:									
Surface Wate				г	Depth (inches)	).				
Surface wate	i i resent.			-	septii (menes)	·	-	Indicators of Wetland		

Depth (inches):

Depth (inches):

Hydrology Present?

No

Remarks:

Water Table Present?

Saturation Present?



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	_		Sampling Date: 6/	
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: W	/15-A
Investigator(s): Brandon Bohks			nship, Range: 29			
Landforms (hillside, terrace, etc.): Basin/Depression	on	Local Relief (concave, convex, none):       Concave       Slope (%):       0-2				
Subregion: LRR K Latitude:		Longitude:		Datum:		
Soil Map Unit Name: <b>Dundas fine sandy loam</b>		NWI Class	ification: None			
Are climatic/hydrologic conditions of the site typical for	•	Yes	-	explain in remarks)		
	or hydrology		icantly disturbed		cumstances present?	
Are vegetation, soils,	or hydrology		ally problematic	? (If needed, expl	ain any answers in F	Remarks)
		Y OF FINE	DINGS			
Hydrophytic vegetation present?	Yes					
Hydric soils present?	Yes		Is the sam	pled area within a we	etland? Yes	_
Wetland hydrology present?	Yes					
<u>Remarks:</u> Sample point was taken in a agricult	ure field recently pla	nted with corn.				
	VEGETATION	- Use scientific	names of plants	_		
	Absolute	Dominant	Indicator	50/20 Thresh	old 20%	50%
Tree Stratum (Plot size: 30 feet )	% Cover	Species	Status	Tree Stratum	0	0
1				Sapling/Shrub Strat	um <u>0</u>	0
2				Herb Stratum	0	0
3				Woody Vine Stratur	m <u>0</u>	0
4				Domina	nce Test Workshee	t
5				Number of dom	inant species	
	0 =	Total Cover		that are OBL, FA	CW, or FAC: 0	(A)
Sapling/Shrub stratum (Plot size: 15 feet )				Total numbe	r of dominant	
1				species act	coss all strata:	(B)
2				Percent of dominar	nt species that	
3				are OBL, FA	ACW or FAC: 09	<b>/o</b> (A/B)
4				Prevalen	ce Index Workshe	et
5				Total % cover of:		
	=	Total Cover		OBL Species:	<b>0</b> x 1 =	0
Herb stratum: (Plot size: 5 feet )				FACW Species:	<b>0</b> x 2 =	0
1 Zea mays				FAC Species:	<b>0</b> x 3 =	0
2				FACU species:	<b>0</b> x 4 =	0
3				UPL Species:	<b>0</b> x 5 =	0
4				Totals:	<b>0</b> (A)	<b>0</b> (B)
5				Prevalence	Index (B/A):	_
6				Hydrophyti	c Vegetation Indica	ators
7				Rapid test fo	or hydrophytic veget	ation
8				Dominance	test >50%	
9				Prevalence i	index is $\leq 3.0^*$	
10		Total Cover			cal adaptations* (Pr lata in remarks)	ovide
Woody vine stratum: (Plot size: <u>15 feet</u> ) 1				Problematic (Explain in	hydrophytic vegeta remarks)	tion*
2		Total Cover		*Indicators of hyd	ric soil and wetland nless disturbed or pi	
Due to the presence of hydric soils a			ic vegetation is	Hydrophytic v	agatation	
Remarks.	med to be present.	5,, ar oprij ti		present	-	



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SOILS

Profile Desc	ription: (Describe to	the dep	th needed to docu	ument tl	ne indicator	or confirm the	absence of indicator	s.)	
Depth	Matrix			Redox	Features				
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks	
0-12+	10YR 4/1	90	7.5YR 4/6	10	С	М	Clay Loam		
	*Type: C = Concentr	ation, D	= Depletion, RM	= Reduc	ed Matrix, M	IS = Masked Sa	nd Grains. **Locatior	n: PL = Pore Lining, M = Matrix	
Hydric Soil	Indicators:						Indicators f	or Problematic Hydric Soils*:	
Histis	Histisol (A1) Stripped M					)	2 cm M	Muck (A10)	
Histic	Epipedon (A2)	) Loamy Mucky Mineral (F1) Coas					Prairie Redox (A16)		
Black	Histic (A3)			Loamy	Gleyed Matr	ix (F2)	5 cm 1	Mucky Peat or Peat (S3)	
Hydro	gen Sulfide (A4)		X	Deplete	ed Matrix (F3	)	Dark S	Surface (S7)	
Stratif	fied Layers (A5)			Redox	· · · ·			lve Below Dark Surface (S8)	
Deple	ted Below Dark Surfa	ice (A11	)	Deplete	ed Dark Surfa	Dark Surface (F7) Thin Dark Surface (S9)			
Thick	Dark Surface (A12)			Redox	Depressions (	(F8)	Janganese Masses (F12)		
Sandy	Mucky Material (S1)	)	*Indicators of h	- ydrophy	tic vegetation	n and wetland	Red Pa	arent Material (T42)	
Sandy	Gleyed Matrix (S4)		hydrology mu	-		disturbed or	Very S	Shallow Dark Surface (TF12)	
Sandy	Redox (S5)			prob	lematic		(Explain in remarks)		
Restrictive I	ayer (if observed):								
Type:							Hydric Soils Pres	sent: Yes	
Depth (inches	s):			_					
Remark	s: Soil pit was	dug to a	depth of 12-inch	ies.					
				]	HYDROL	OGY			
Wetland Hyd	rology Indicators:						Secon	dary Indicators (minimum of two required)	

Primary Indicators (minimum of one is required; check	all that apply)	Surface Soil Crack (B6)					
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)					
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B16)					
Saturation (A3)	Marl Deposits (B15)	Dry-Season Water Table (C2)					
Water Marks (B1)	Water Marks (B1)   Hydrogen Sulfide Odor (C1)						
Sediment Deposits (B2)	X Saturation Visible on Aerial Imagery (C9)						
Drift Deposits (B3)	Stunted or Stressed Plants (D1)						
Algal Mat or Crust (B4)	X Geomorphic Position (D2)						
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)					
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)					
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)					
Field Observations:							
Surface Water Present?	Depth (inches):	Indicators of Wetland					
Water Table Present?	Depth (inches):	Hydrology Present? Yes					
Saturation Present?	Depth (inches):						



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	-		Sampling Date: 6/17/2019		
Applicant/Owner: City of Forest Lake			e: MN		ample Point: W	15-B	
Investigator(s): Brandon Bohks			nship, Range: 29				
Landforms (hillside, terrace, etc.): Backslope			(concave, conve	· · · · · · · · · · · · · · · · · · ·	Slope (%)	: 3-5	
Subregion: LRR K Latitude:		Longitude:	· · · · • • •	Datum:			
Soil Map Unit Name: <b>Dundas fine sandy loam</b>			ification: None	1 • • • • • • •			
Are climatic/hydrologic conditions of the site typical f	-	Yes	_	explain in remarks)			
· · · · · · · · · · · · · · · · · · ·	or hydrology		icantly disturbed		-		
Are vegetation, soils,	or hydrology		ally problematic	? (If needed, explain a	iny answers in R	emarks)	
Hudronhutic vecsetation macaut?		AY OF FINI	JING5				
Hydrophytic vegetation present?	No		T. 41		19		
Hydric soils present?	Yes		is the sam	pled area within a wetlan	nd? No	-	
Wetland hydrology present?	No						
Remarks:							
	VEGETATION	Llas sojontifio	names of plants				
				50/20 Threshold	20%	50%	
<u>Tree Stratum</u> (Plot size: 30 feet )	Absolute % Cover	Dominant Species	Indicator Status	Tree Stratum	0	0	
1 (1100 500 1000)	70 Cover	species	Status	Sapling/Shrub Stratum	0	0	
2				Herb Stratum	0	0	
3				Woody Vine Stratum	0	0	
4					Test Worksheet		
4 5						L	
5		-Total Carvan		Number of dominar	-	$(\mathbf{A})$	
Sapling/Shrub stratum (Plot size: 15 feet )	0 -	Total Cover=		that are OBL, FACW		(A)	
Sapling/Shrub stratum (Plot size: 15 feet )				Total number of		<b>(D)</b>	
1				species across		(B)	
2				Percent of dominant sp are OBL, FACW		6 (A/B)	
5					ndex Workshee		
4				Total % cover of:	nuex worksnee	ι	
5		T ( 1 C		OBL Species: 0	1	0	
Herb stratum: (Plot size: 5 feet )	=	Total Cover=		FACW Species: 0	x 1 =	0	
				· ·	x 2 =	0	
1 Zea mays				FAC Species: 0 FACU species: 0	$x^{3} =$	0	
2				FACU species: 0 UPL Species: 0	x 4 =	0	
3				Totals: 0	$\frac{x 5}{(A)} = $	0 0 (B)	
·						<b>0</b> (B)	
5				Prevalence Inde			
6				Hydrophytic Ve Rapid test for hy	-		
7					1, 0	ation	
8				Dominance test			
9				Prevalence index	K 1S ≤3.0*		
10	0 =	Total Cover		Morphological a supporting data		ovide	
Woody vine stratum: (Plot size: 15 feet ) 1				Problematic hyd (Explain in rema		ion*	
2		Total Cover		*Indicators of hydric s must be present, unles			
Samu	e point was taken in	a		Hydrophytic veget	ation		
	ld recently planted w			present?	No No		



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#### **EXHIBIT G:** WETLAND DETERMINATION DATA FORM

(Northcentral and Northeast Region - LRR K)

SUILS

					SOIL	<b>N</b>				
Profile Descr	ription: (Describe to	the dep	th needed to docu	ıment t	he indicator	or confirm the	absence of indicato	rs.)		
Depth	Matrix			Redo	x Features					
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks		
0-4	10YR 2/1	100					Clay Loam			
4-12+	10YR 2/1	90	7.5YR 4/6	10	С	М	Clay Loam			
	*Type: C = Concentr	ration, D	= Depletion, RM	= Redu	ced Matrix, M	IS = Masked Sa	and Grains. **Location	on: PL = Pore Lining, M = Matrix		
Hydric Soil I	Indicators:						Indicators	for Problematic Hydric Soils*:		
Histis	ol (A1)			Stripp	ed Matrix (S6)	)	2 cm	Muck (A10)		
Histic	Epipedon (A2)			Loamy	y Mucky Mine	eral (F1)	Coast	t Prairie Redox (A16)		
Black	Histic (A3)			Loamy	y Gleyed Matr	ix (F2)	5 cm	Mucky Peat or Peat (S3)		
Hydrogen Sulfide (A4)Depleted Matrix (F3)						Dark	Dark Surface (S7)			
Stratified Layers (A5) X Redox Dark Surface (F6)						Polyv	valve Below Dark Surface (S8)			
Depleted Below Dark Surface (A11)         Depleted Dark Surface (F7)						Thin	Dark Surface (S9)			
Thick Dark Surface (A12) Redox Depressions (F8)						(F8)	Iron-]	Manganese Masses (F12)		
Sandy	Mucky Material (S1)	)	*Indicators of h				Red I	Parent Material (T42)		
Sandy	Gleyed Matrix (S4)		hydrology mu			disturbed or	Very	Shallow Dark Surface (TF12)		
Sandy	Redox (S5)			prol	blematic		Other	Other (Explain in remarks)		
Restrictive L	Layer (if observed):									
Туре:							Hydric Soils Pre	esent: Yes		
Depth (inches	s):			•						
				<u> </u>	<u> </u>					
<u>Remark</u>	<u>ks:</u> Soil pit was	dug to 1	2-inches.							
					HYDROL	JOGY				
Wetland Hyd	Irology Indicators:						Secon	ndary Indicators (minimum of two required)		
Primary Indic	cators (minimum of or	ne is requ	ired; check all the	it apply	<u>')</u>			Surface Soil Crack (B6)		
Surfac	ce Water (A1)			Water	-Stained Leave	es (B9)		Drainage Patterns (B10)		
High	Water Table (A2)			Aquati	ic Fauna (B13	5)		Moss Trim Lines (B16)		
Satura	ation (A3)			Marl I	Deposits (B15)	)		Dry-Season Water Table (C2)		
Water	Marks (B1)			Hydro	gen Sulfide Oo	dor (C1)		Crayfish Burrows (C8)		
Sedim	nent Deposits (B2)			Oxidiz	ed Rhizosphe	eres on Living R	oots (C3)	Saturation Visible on Aerial Imagery (C9)		
Drift I	Deposits (B3)			Presen	ice or Reduced	d Iron (C4)		Stunted or Stressed Plants (D1)		
Algal	Mat or Crust (B4)			Recent	t Iron Reduction	on in Tilled Soil	ls (C6)	Geomorphic Position (D2)		
Iron Deposits (B5)     Thin Muck Surface (C7)							Shallow Aquitard (D3)			

Microtopographic Relief (D4) Other (Explain in Remarks)

FAC-Neutral Test (D5)

Depth (inches):	<b>Indicators of Wetland</b>	
Depth (inches):	<b>Hydrology Present?</b>	No
Depth (inches):		

Remarks:

Saturation Present?

Field Observations: Surface Water Present?

Water Table Present?

Inundation Visible on Aerial Imagery (B7)

Sparsely Vegetated Concave Surface (B8)



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Project/Site: Headwaters Parkway						
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: W	V16-A
Investigator(s): Brandon Bohks			nship, Range: 2			
Landforms (hillside, terrace, etc.): Basin/Depression	n		(concave, conve	, , , <del>, , , , , , , , , , , , , , , , </del>	slope (%)	): 0-2
Subregion: LRR K Latitude:		Longitude:		Datum:		
Soil Map Unit Name: Nessel fine sandy laom			ification: None			
Are climatic/hydrologic conditions of the site typical fo	-	Yes	-	explain in remarks)		
	r hydrology		icantly disturbed		sumstances present?	
Are vegetation, soils, o	r hydrology		ally problematic	? (If needed, expla	in any answers in F	Remarks)
		Y OF FINI	DINGS			
Hydrophytic vegetation present?	Yes					
Hydric soils present?	Yes		Is the sam	pled area within a wet	tland? Yes	_
Wetland hydrology present?	Yes					
<u>Remarks:</u> Sample point was taken in a agricultu	re field, not yet plar	nted with due to	wet conditions			
	VEGETATION	- Use scientific	names of plants	I		
	Absolute	Dominant	Indicator	50/20 Thresho	old 20%	50%
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	0	0
1				Sapling/Shrub Stratu	um <u>0</u>	0
2				Herb Stratum	0	0
3				Woody Vine Stratum	n <u>0</u>	0
4				Dominan	nce Test Workshee	et
5				Number of dom	inant species	
	0 =	Total Cover		that are OBL, FAC	CW, or FAC: 0	) (A)
Sapling/Shrub stratum (Plot size: 15 feet )				Total number	of dominant	
1				species acro	oss all strata:	(B)
2				Percent of dominant	t species that	
3				are OBL, FA	CW or FAC: 09	<mark>% (</mark> A/B)
4				Prevalence	ce Index Workshe	et
5				Total % cover of:		
	0 =	Total Cover		OBL Species:	<b>0</b> x 1 =	0
Herb stratum: (Plot size: 5 feet )				FACW Species:	<b>0</b> x 2 =	0
1				FAC Species:	0 x 3 =	0
2		. <u></u> .		FACU species:	<b>0</b> x 4 =	0
3				UPL Species:	0 x 5 =	0
4				Totals:	<b>0</b> (A)	<b>0</b> (B)
5				Prevalence	Index (B/A):	
6					· Vegetation Indica	
7					r hydrophytic veget	
۲ و				Dominance t		
° 9				Prevalence in		
·						
10	0 =	Total Cover			cal adaptations* (Prata in remarks)	ovide
Woody vine stratum: (Plot size: <u>15 feet</u> ) 1				Problematic (Explain in r	hydrophytic vegeta emarks)	tion*
2	0 =	Total Cover		*Indicators of hydr must be present, ur		
Due to the presence of hydric soils a	nd wetland hvdrolog	gy. Hvdrophvt	c vegetation is	Hydrophytic ve	getation	
	med to be present.	5, , , , <b>P</b> , <b>V</b>		present	-	



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(Northcentral and Northeast Region - LRR K)

SOILS

				SOIL	<u>u</u>				
Profile Descr	iption: (Describe to th	ne depth needed to docu	ıment t	he indicator of	or confirm the a	bsence of indicato	rs.)		
Depth	Pepth Matrix Redox Features								
(inches)	Color (moist)	% Color (moist)	%	Type*	Loc**	Texture	Remarks		
0-12+ 10YR 4/1 85		85 7.5YR 4/6	15	С	М	Clay Loam			
	*Type: C = Concentrate	ion, $D = Depletion, RM$	= Redu	ced Matrix, M	IS = Masked Sand	d Grains. **Locatio	n: PL = Pore Lining, M = Matrix		
Hydric Soil I	ndicators:					Indicators f	for Problematic Hydric Soils*:		
Histisc	ol (A1)		Strippe	ed Matrix (S6)	)	2 cm	Muck (A10)		
Histic	Epipedon (A2)		Loamy	/ Mucky Mine	eral (F1)	Coast	Prairie Redox (A16)		
Black	Histic (A3)		Loamy	Gleyed Matri	ix (F2)	5 cm	Mucky Peat or Peat (S3)		
Hydro	gen Sulfide (A4)	Х	Deplet	ed Matrix (F3	i)	Dark	Surface (S7)		
Stratif	ied Layers (A5)		Redox	Dark Surface	: (F6)	Polyvalve Below Dark Surface (S8)			
Deplet	ted Below Dark Surface	e (A11)	Deplet	ed Dark Surfa	ice (F7)	Thin Dark Surface (S9)			
Thick Dark Surface (A12)   Redox Depressions (F8)						Iron-Manganese Masses (F12)			
Sandy	Mucky Material (S1)	*Indicators of h	Iydroph	vtic vegetatior	n and wetland	Red F	Red Parent Material (T42)		
Sandy	Gleyed Matrix (S4)	hydrology mu	ist be pr	esent, unless o		Very Shallow Dark Surface (TF12)			
Sandy	Redox (S5)		proł	blematic		Other	(Explain in remarks)		
Restrictive L	ayer (if observed):								
Туре:						Hydric Soils Pre	sent: Yes		
Depth (inches	s):		-			<b>,</b>			
Remark	<u>s:</u> Soil pit was du	ig to a depth of 12-inch	les.						
				HYDROL	OGY				
Wetland Hyd	rology Indicators:					Secor	ndary Indicators (minimum of two required)		
•		is required; check all that	at apply	)		X Surface Soil Crack (B6)			
Surface Water (A1) Water-Stained Leaves (B9)					es (B9)	Drainage Patterns (B10)			
	Water Table (A2)		-				Moss Trim Lines (B16)		
	High Water Table (A2)Aquatic Fauna (B13)Saturation (A3)Marl Deposits (B15)						Dry-Season Water Table (C2)		
Water	Marks (B1)		-	gen Sulfide Oo			Crayfish Burrows (C8)		
	ent Deposits (B2)			-		ots (C3) X	-		
	Deposits (B3)		-	Oxidized Rhizospheres on Living Roots (C3) Presence or Reduced Iron (C4)			Stunted or Stressed Plants (D1)		
	Mat or Crust (B4)		Recent Iron Reduction in Tilled Soils (C6)				X         Geomorphic Position (D2)		
	eposits (B5)		-	hin Muck Surface (C7)			Shallow Aquitard (D3)		
	ation Visible on Aerial I	Imagery (B7)	-	(Explain in Re			Microtopographic Relief (D4)		

Depth (inches):

Depth (inches):

Depth (inches):

FAC-Neutral Test (D5)

Indicators of Wetland	
Hydrology Present?	Yes

Remarks:

Saturation Present?

Field Observations: Surface Water Present?

Water Table Present?

Sparsely Vegetated Concave Surface (B8)



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	-		Sampling Date: 6/17/2019 Sample Point: W16-B		
Applicant/Owner: City of Forest Lake			$\frac{MN}{1}$				
Investigator(s): Brandon Bohks			nship, Range: 2		<u> </u>		
Landforms (hillside, terrace, etc.): Backslope Subregion: LRR K Latitude:			(concave, conve	ex, none): Conver Datum:	x Slope (%)	: 4-6	
Subregion: LRR K Latitude:		Longitude:	ification: None	Datum:			
Are climatic/hydrologic conditions of the site typical for	an this time of year?			explain in remarks)			
	-	Yes	icantly disturbed	-	matanaga nugant?	NT	
· · · · · · · · · · · · · · · · · · ·	or hydrology		ally problematic		imstances present? n any answers in R		
Are vegetation, soils, o	or hydrology SUMMAR	TAILURA		(II needed, explan	1 any answers in R	emarks)	
Hydrophytic vegetation present?	No						
Hydric soils present?	No		Is the sam	pled area within a wetl	and? No		
Wetland hydrology present?	No					_	
Remarks:							
	VEGETATION	- Use scientific	names of plants				
	Absolute	Dominant	Indicator	50/20 Threshol	d 20%	50%	
Tree Stratum (Plot size: 30 feet )	% Cover	Species	Status	Tree Stratum	0	0	
1				Sapling/Shrub Stratur	n 0	0	
2				Herb Stratum	0	0	
3				Woody Vine Stratum	0	0	
4				Dominanc	e Test Workshee	t	
5				Number of domir	ant species		
	0 =	Total Cover		that are OBL, FAC	-	(A)	
<u>Sapling/Shrub stratum</u> (Plot size: 15 feet )				Total number of	of dominant		
1				species acros		(B)	
2				Percent of dominant	species that		
3				are OBL, FAC		6 (A/B)	
4				Prevalence	e Index Workshee	et	
5				Total % cover of:			
	0 =	Total Cover		OBL Species:	<b>0</b> x 1 =	0	
Herb stratum: (Plot size: 5 feet )				FACW Species:	<b>0</b> x 2 =	0	
1 Zea mays				FAC Species:	<b>0</b> x 3 =	0	
2				FACU species:	0 x 4 =	0	
3				UPL Species:	0 x 5 =	0	
4				Totals:	<b>0</b> (A)	<b>0</b> (B)	
5				Prevalence In	ndex (B/A):		
6					Vegetation Indica	tors	
7					hydrophytic veget		
8				Dominance te			
9				Prevalence inc			
10							
	0 =	Total Cover		Morphologica supporting dat	l adaptations* (Pro ta in remarks)	ovide	
Woody vine stratum:         (Plot size: 15 feet )           1				Problematic h (Explain in res	ydrophytic vegetat marks)	ion*	
2	0 =	Total Cover		*Indicators of hydric must be present, unl			
Sample	e point was taken in	a		Hydrophytic veg	etation		
	d recently planted w			present?	No No		



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#### EXHIBIT G: WETLAND DETERMINATION DATA FORM

(Northcentral and Northeast Region - LRR K)

SOILS

					SOIL	io o				
Profile Desc	ription: (Describe to	the dep	th needed to docu	ament t	he indicator	or confirm th	e absence of indicato	rs.)		
Depth	Matrix Redox Features									
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks		
0-7	10YR 2/1	100					Clay Loam			
7-15+	10YR 3/4	90	7.5YR 4/6	10	С	М	Sandy Clay Loam			
	*Type: C = Concentr	ration, D	= Depletion, RM	= Redu	ced Matrix, M	IS = Masked S	and Grains. **Locatio	n: PL = Pore Lining, M = Matrix		
Hydric Soil	Indicators:						Indicators	for Problematic Hydric Soils*:		
Histis	ol (A1)			Strippe	ed Matrix (S6)	)	2 cm	Muck (A10)		
Histic	Epipedon (A2)			Loamy	y Mucky Mine	eral (F1)	Coast	Coast Prairie Redox (A16)		
Black	Histic (A3)			Loamy Gleyed Matrix (F2)				5 cm Mucky Peat or Peat (S3)		
Hydro	ogen Sulfide (A4)			Depleted Matrix (F3)				Dark Surface (S7)		
Stratified Layers (A5)				Redox Dark Surface (F6)			Polyv	Polyvalve Below Dark Surface (S8)		
Deple	ted Below Dark Surfa	ace (A11	)	Depleted Dark Surface (F7)				Thin Dark Surface (S9)		
Thick	Dark Surface (A12)			Redox Depressions (F8)				Iron-Manganese Masses (F12)		
Sandy	Mucky Material (S1)	)		of hydrophytic vegetation and wetland				Red Parent Material (T42)		
Sandy	Gleyed Matrix (S4)		hydrology mu	y must be present, unless disturbed or			Very	Shallow Dark Surface (TF12)		
Sandy	Redox (S5)			prot	blematic		Other (Explain in remarks)			
Restrictive I	Layer (if observed):									
Type:							Hydric Soils Pre	sent: No		
Depth (inche	s):			-						
Damari		dua ta 1	5 inches		J					
Remark	sei Soil pit was	aug to 1	5-menes.							
				]	HYDROL	OGY				
Wetland Hyd	Irology Indicators:						Secon	ndary Indicators (minimum of two required)		
Primary Indic	cators (minimum of or	ne is requ	uired; check all the	at apply	)			Surface Soil Crack (B6)		
Surface Water (A1) Water-Stained Leaves (B9)							Drainage Patterns (B10)			
High	Water Table (A2)			Aquati	ic Fauna (B13)	)		Moss Trim Lines (B16)		
Satura	ation (A3)			Marl D	Deposits (B15)	)		Dry-Season Water Table (C2)		
Water	Marks (B1)			Hydrogen Sulfide Odor (C1)				Crayfish Burrows (C8)		
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3)						Roots (C3)	Saturation Visible on Aerial Imagery (C9)			

Drift Deposits (B3) Presence or Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B5) Shallow Aquitard (D3) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Microtopographic Relief (D4) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Depth (inches): **Indicators of Wetland** Water Table Present? Depth (inches): **Hydrology Present?** No Depth (inches): Saturation Present?

Remarks:



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Project/Site: Headwaters Parkway						
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: W	/17-A
Investigator(s): Brandon Bohks			nship, Range: 29			
Landforms (hillside, terrace, etc.): Basin/Depression	n		(concave, conve		slope (%)	): 0-2
Subregion: LRR K Latitude:		Longitude:		Datum:		
Soil Map Unit Name: <b>Dundas fine sandy laom</b>			ification: None			
Are climatic/hydrologic conditions of the site typical for	-	Yes	-	explain in remarks)		
· · · · · · · · · · · · · · · · · · ·	or hydrology		icantly disturbed		umstances present?	
Are vegetation, soils, o	or hydrology		ally problematic	? (If needed, expla	in any answers in F	Remarks)
		<b>Y OF FINI</b>	DINGS			
Hydrophytic vegetation present?	Yes					
Hydric soils present?	Yes		Is the sam	pled area within a wet	tland? Yes	_
Wetland hydrology present?	Yes					
<u>Remarks:</u> Sample point was taken in a agricultu	ıre field, not yet plar	nted with due to	wet conditions			
	VEGETATION	- Use scientific	names of plants			
	Absolute	Dominant	Indicator	50/20 Thresho	old 20%	50%
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	0	0
1				Sapling/Shrub Stratu	um <u>0</u>	0
2				Herb Stratum	0	0
3				Woody Vine Stratum	n <u>0</u>	0
4				Dominan	ce Test Workshee	t
5		Total Cover		Number of domi that are OBL, FAC	-	) (A)
Sapling/Shrub stratum (Plot size: 15 feet )						(11)
1				Total number	of dominant oss all strata:	(B)
2						(5)
3				Percent of dominant are OBL, FA		<b>%</b> (A/B)
4					e Index Workshe	. ,
5				Total % cover of:		
		Total Cover		OBL Species:	<b>0</b> x 1 =	0
Herb stratum: (Plot size: 5 feet )				FACW Species:	$\frac{0}{0}$ x 2 =	0
1				FAC Species:	$\frac{0}{0}$ x 3 =	0
2				FACU species:	$\frac{0}{0}$ x 4 =	0
3				UPL Species:	$\frac{0}{0}$ x 5 =	0
4				Totals:	$\frac{0}{0}$ (A)	<b>0</b> (B)
5					Index (B/A):	0 (2)
					Vegetation Indica	tors
6				• • •	r hydrophytic veget	
/				Dominance to		lation
8						
9				Prevalence in		
10	0 =	Total Cover			al adaptations* (Prata in remarks)	ovide
Woody vine stratum: (Plot size: 15 feet ) 1				Problematic I (Explain in re	hydrophytic vegeta emarks)	tion*
2		Total Cover		*Indicators of hydr must be present, un		
Due to the presence of hydric soils a			ic vegetation is	Hedrend 4		
	med to be present.	<sub>5</sub> , nyuropnyu	ie vegetation 18	Hydrophytic ve present?	-	



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(Northcentral and Northeast Region - LRR K)

SOILS

					SOIL	0				
Profile Desc	ription: (Describe to	the dep	th needed to docu	ıment t	he indicator o	or confirm th	e absence of indicat	ors.)		
Depth Matrix Redox Features										
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks		
0-5	10YR 2/1	85	7.5YR 4/6	15	С	М	Clay Loam			
5-12+	10YR 5/1	80	7.5YR 4/6	20	С	М	Sandy Clay Loan	n		
	*Type: C = Concentr	ration, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked S	and Grains. **Locat	ion: PL = Pore Lining, M = Matrix		
Hydric Soil	Indicators:						Indicators	s for Problematic Hydric Soils*:		
Histis	ol (A1)			Strippe	ed Matrix (S6)	)	2 cr	n Muck (A10)		
Histic	Epipedon (A2)			Loamy	Mucky Mine	ral (F1)	Coa	st Prairie Redox (A16)		
Black	Histic (A3)			Loamy	Gleyed Matri	ix (F2)	5 cr	n Mucky Peat or Peat (S3)		
Hydro	ogen Sulfide (A4)			Deplet	ed Matrix (F3	)	Dar	Dark Surface (S7)		
Stratif	fied Layers (A5)		X	Redox	Dark Surface	(F6)	Polyvalve Below Dark Surface (S8)			
X Deple	ted Below Dark Surfa	ace (A11	)	Deplet	ed Dark Surfa	ce (F7)	Thin Dark Surface (S9)			
Thick	Dark Surface (A12)			Redox	Depressions (	(F8)	Iron-Manganese Masses (F12)			
Sandy	Mucky Material (S1)	)	*Indicators of h	- ydroph	ytic vegetatior	n and wetland	Red Parent Material (T42)			
Sandy	Gleyed Matrix (S4)		hydrology mu	-		disturbed or	Ver	Very Shallow Dark Surface (TF12)		
Sandy	r Redox (S5)			prol	olematic		Oth	er (Explain in remarks)		
Restrictive I	Layer (if observed):									
Type:							Hydric Soils P	resent: Yes		
Depth (inches	s):			-						
				-						
Remark	<u>(s:</u> Soil pit was	dug to a	depth of 12-inch	les.						
					HYDROL	OGY				
Wetland Hyd	Irology Indicators:						Sec	ondary Indicators (minimum of two required)		
Primary Indic	cators (minimum of or	ne is requ	ired; check all the	at apply	)		Х	Surface Soil Crack (B6)		
Surfac	Surface Water (A1) Water-Stained Leaves (B9)							Drainage Patterns (B10)		
High	Water Table (A2)			Aquati	c Fauna (B13	)		Moss Trim Lines (B16)		
Satura	ation (A3)			Marl I	Deposits (B15)	)	Dry-Season Water Table (C2)			
Water	Water Marks (B1) Hydrogen Sulfide Odor (C1)						Crayfish Burrows (C8)			
Sedim	nent Deposits (B2)			Oxidiz	ed Rhizospher	res on Living I	Roots (C3) X	Saturation Visible on Aerial Imagery (C9)		
Drift l	Deposits (B3)			Presen	ce or Reduced	l Iron (C4)		Stunted or Stressed Plants (D1)		
Algal	Mat or Crust (B4)			Recent	Iron Reduction	on in Tilled So	ils (C6) X			
Iron Deposits (B5) Thin Muck Surface (C7)						Shallow Aquitard (D3)				

Other (Explain in Remarks)

Depth (inches):

Depth (inches):

Depth (inches):

FAC-Neutral Test (D5)

Indicators of Wetland	
<b>Hydrology Present?</b>	Yes

Remarks:

Saturation Present?

Field Observations: Surface Water Present?

Water Table Present?

Inundation Visible on Aerial Imagery (B7)

Sparsely Vegetated Concave Surface (B8)



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Project/Site: Headwaters Parkway	Cit	y/County: Wasl	-		Sampling Date: 6/17/2019 Sample Point: W17-B		
Applicant/Owner: City of Forest Lake			e: MN				
Investigator(s): Brandon Bohks			nship, Range: 2				
Landforms (hillside, terrace, etc.): Backslope			f (concave, conve	· · · · · · · · · · · · · · · · · · ·	Slope (%)	: 3-5	
Subregion: LRR K Latitude:		Longitude:	·	Datum:			
Soil Map Unit Name: <b>Dundas fine sandy loam</b>			sification: None	1			
Are climatic/hydrologic conditions of the site typical	-	Yes	_	explain in remarks)			
· · · · · · · · · · · · · · · · · · ·	, or hydrology		ficantly disturbed		-		
Are vegetation, soils,	, or hydrology		ally problematic	? (If needed, explain a	iny answers in R	emarks)	
		RY OF FINI	DINGS				
Hydrophytic vegetation present?	No						
Hydric soils present?	No		Is the sam	pled area within a wetlan	d? No	_	
Wetland hydrology present?	No						
Remarks:							
	VEGETATION	- Use scientific	e names of plants				
	Absolute	Dominant	Indicator	50/20 Threshold	20%	50%	
<u>Tree Stratum</u> (Plot size: 30 feet	) % Cover	Species	Status	Tree Stratum	0	0	
1				Sapling/Shrub Stratum	0	0	
2				Herb Stratum	0	0	
3				Woody Vine Stratum	0	0	
4				Dominance '	Test Worksheet	t	
5				Number of dominar	nt species		
	0 =	=Total Cover		that are OBL, FACW.	-	(A)	
Sapling/Shrub stratum (Plot size: 15 feet )	)			Total number of	dominant		
1				species across		(B)	
2				Percent of dominant sp	ecies that		
3				are OBL, FACW		6 (A/B)	
4				Prevalence I	ndex Workshee	t	
5				Total % cover of:			
		=Total Cover		OBL Species: 0	x 1 =	0	
Herb stratum: (Plot size: 5 feet	)			FACW Species: 0	x 2 =	0	
1 Zea mays	· <u> </u>			FAC Species: 0	$x_3 =$	0	
2				FACU species: 0	x 4 =	0	
3				UPL Species: 0	- x 5 = -	0	
4				Totals: 0	-(A) -	<b>0</b> (B)	
5				Prevalence Inde		<u> </u>	
				Hydrophytic Ve		tong	
6				Rapid test for hy	-		
7 <u></u>				Dominance test		ation	
8							
9				Prevalence index	K 18 ≤3.0*		
10	0	=Total Cover		Morphological a supporting data		ovide	
Woody vine stratum:         (Plot size: 15 feet )           1	)			Problematic hyd (Explain in rema		ion*	
2		=Total Cover		*Indicators of hydric s must be present, unless			
Comm	le point was taken in	a		Unduanha ta ara t	ation		
	eld recently planted v			Hydrophytic veget present?	ation No		



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Profile Descu	ription: (Describe to	the dept	th needed to docu	ıment t	he indicator o	or confirm th	e absence of indicato	rs.)	
Depth Matrix Redox				x Features					
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks	
0-7	10YR 2/2	100					Sandy Clay Loam	1	
7-15+	10YR 3/4	100					Sandy Loam		
	*Type: C = Concentr	ration, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked S	and Grains. **Locatio	on: $PL = Pore Lining, M = Matrix$	
Hydric Soil I	Indicators:						Indicators	for Problematic Hydric Soils*:	
Histis	Histisol (A1) Strippe				ed Matrix (S6) 2 cm M			Muck (A10)	
Histic	Histic Epipedon (A2) Loamy				Mucky Mine	ral (F1)	Coas	Prairie Redox (A16)	
Black	Histic (A3)			Loamy	Gleyed Matri	x (F2)	5 cm	Mucky Peat or Peat (S3)	
Hydro	gen Sulfide (A4)			Deplet	ed Matrix (F3	)	Dark	Surface (S7)	
Stratif	fied Layers (A5)			Redox	Dark Surface (F6) Polyval			valve Below Dark Surface (S8)	
Deple	ted Below Dark Surfa	ice (A11)	)	Deplet	ed Dark Surface (F7) Thin D			Dark Surface (S9)	
Thick	Dark Surface (A12)			Redox	Depressions (F8) Iron-M			langanese Masses (F12)	
Sandy	Mucky Material (S1)	)	*Indicators of h	- wdroph	ytic vegetation and wetland Red Pa			arent Material (T42)	
Sandy	Gleyed Matrix (S4)			ist be pr	present, unless disturbed or			ry Shallow Dark Surface (TF12)	
Sandy	Redox (S5)			proł	blematic Other (Explain in remarks)			r (Explain in remarks)	
Restrictive L	ayer (if observed):								
Туре:							Hydric Soils Pro	esent: No	
Depth (inches	5):			-			U		
Remark	scil pit was	dug to 1	5-inches.						
					HYDROL	OGY			
Wetland Hyd	rology Indicators:						Seco	ndary Indicators (minimum of two required)	

Primary Indicators (minimum of one is required; check	all that apply)	Surface Soil Crack (B6)	
Surface Water (A1)	Drainage Patterns (B10)		
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B16)	
Saturation (A3)	Marl Deposits (B15)	Dry-Season Water Table (C2)	
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)	
Sediment Deposits (B2)	Saturation Visible on Aerial Imagery (C9)		
Drift Deposits (B3)	Stunted or Stressed Plants (D1)		
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)	
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)	
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)	
Field Observations:			
Surface Water Present?	Depth (inches):	Indicators of Wetland	
Water Table Present?	Depth (inches):	Hydrology Present? No	
Saturation Present?	Depth (inches):		



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Project/Site: Headwaters Parkway	Cit	y/County: Wash			Sampling Date: 6/17/2019		
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: W	'18-A	
Investigator(s): Brandon Bohks			nship, Range: 29				
Landforms (hillside, terrace, etc.): Basin/Depressi	on		(concave, conve	· · · · · · · · · · · · · · · · · · ·	e Slope (%)	: 0-2	
Subregion: LRR K Latitude:		Longitude:		Datum:			
Soil Map Unit Name: Dundas fine sandy laom			ification: None				
Are climatic/hydrologic conditions of the site typical f	-	Yes	_	explain in remarks)			
· · · · · · · · · · · · · · · · · · ·	or hydrology		icantly disturbed		-		
Are vegetation, soils,	or hydrology		ally problematic?	(If needed, explain	any answers in R	lemarks)	
		<b>RY OF FINI</b>	DINGS				
Hydrophytic vegetation present?	Yes						
Hydric soils present?	Yes		Is the samp	oled area within a wetla	nd? Yes	_	
Wetland hydrology present?	Yes						
<u>Remarks:</u> Sample point was taken in a agricult	ture field, not yet plan	nted with due to	wet conditions				
	VEGETATION	- Use scientific	names of plants	I			
	Absolute	Dominant	Indicator	50/20 Threshold	20%	50%	
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	0	0	
1				Sapling/Shrub Stratum	0	0	
2				Herb Stratum	0	0	
3				Woody Vine Stratum	0	0	
4				Dominance	Test Worksheet	t	
5				Number of domina	int species		
	0 =	Total Cover		that are OBL, FACW	<i>V</i> , or FAC: <b>0</b>	(A)	
Sapling/Shrub stratum (Plot size: 15 feet )				Total number of	dominant		
1				species across	all strata:	(B)	
2				Percent of dominant s	pecies that		
3				are OBL, FAC	W or FAC: 0%	<u>(A/B)</u>	
4				Prevalence	Index Workshee	et	
5				Total % cover of:			
	0 =	Total Cover		OBL Species: 0	x 1 =	0	
Herb stratum: (Plot size: 5 feet )				FACW Species: 0	x 2 =	0	
1				FAC Species: 0	x 3 =	0	
2				FACU species: 0	x 4 =	0	
3				UPL Species: 0		0	
4					(A)	<b>0</b> (B)	
5				Prevalence Inc	lex (B/A):	-	
6					egetation Indica		
7					ydrophytic vegeta	ation	
8				Dominance test	:>50%		
9				Prevalence inde	ex is ≤3.0*		
10	0 =	Total Cover		Morphological	adaptations* (Pro i in remarks)	ovide	
Woody vine stratum: (Plot size: 15 feet ) 1				Problematic hy (Explain in ren	drophytic vegetat narks)	ion*	
2		=Total Cover		*Indicators of hydric must be present, unle			
Due to the presence of hydric soils           Remarks:         assu	and wetland hydrolog umed to be present.	gy. Hydrophyti	ic vegetation is	Hydrophytic vege present?	tation Yes		



**Indicators of Wetland** 

Hydrology Present?

Yes

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SOILS

SOILS			
Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)			
Depth Matrix Redox Features			
(inches)Color (moist)%Color (moist)%Type*Loc**TextureRemark	ks		
0-10 10YR 2/1 100 C M Clay Loam			
10-17+ 10YR 5/1 85 7.5YR 4/6 15 C M Sandy Clay Loam			
*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = 1	Matrix		
Hydric Soil Indicators:       Indicators for Problematic Hydric S	oils*:		
Histisol (A1) Stripped Matrix (S6) 2 cm Muck (A10)			
Histic Epipedon (A2)Loamy Mucky Mineral (F1)Coast Prairie Redox (A16)			
Black Histic (A3)Loamy Gleyed Matrix (F2)5 cm Mucky Peat or Peat (S3)			
Hydrogen Sulfide (A4)Depleted Matrix (F3)Dark Surface (S7)			
Stratified Layers (A5)Redox Dark Surface (F6)Polyvalve Below Dark Surface (F6)	Polyvalve Below Dark Surface (S8)		
XDepleted Below Dark Surface (A11)Depleted Dark Surface (F7)Thin Dark Surface (S9)	Thin Dark Surface (S9)		
Thick Dark Surface (A12)Redox Depressions (F8)Iron-Manganese Masses (F12)	Iron-Manganese Masses (F12)		
Sandy Mucky Material (S1)*Indicators of hydrophytic vegetation and wetlandRed Parent Material (T42)			
Sandy Gleyed Matrix (S4)hydrology must be present, unless disturbed orVery Shallow Dark Surface (TF	Very Shallow Dark Surface (TF12)		
Sandy Redox (S5)problematicOther (Explain in remarks)	Other (Explain in remarks)		
Restrictive Layer (if observed):			
Type: Hydric Soils Present: Yes			
Depth (inches):			
<u>Remarks:</u> Soil pit was dug to a depth of 17-inches.			
HYDROLOGY			
Wetland Hydrology Indicators: Secondary Indicators (minimum	of two required)		
Primary Indicators (minimum of one is required; check all that apply)     X     Surface Soil Crack (B6)			
Surface Water (A1)     Water-Stained Leaves (B9)     Drainage Patterns (B10)			
High Water Table (A2)     Aquatic Fauna (B13)     Moss Trim Lines (B16)			
Saturation (A3)     Marl Deposits (B15)     Dry-Season Water Table	(C2)		
Water Marks (B1)     Hydrogen Sulfide Odor (C1)     Crayfish Burrows (C8)	(02)		
Sediment Deposits (B2)       Oxidized Rhizospheres on Living Roots (C3)       X       Saturation Visible on Aer			
	nal Imagery (C9)		
Drift Deposits (B3) Presence or Reduced Iron (C4) Stunted or Stressed Plant			
Drift Deposits (B3)Presence or Reduced Iron (C4)Stunted or Stressed PlantAlgal Mat or Crust (B4)Recent Iron Reduction in Tilled Soils (C6)XGeomorphic Position (D2)	s (D1)		
Algal Mat or Crust (B4)       Recent Iron Reduction in Tilled Soils (C6)       X       Geomorphic Position (D2)	s (D1)		
Algal Mat or Crust (B4)       Recent Iron Reduction in Tilled Soils (C6)       X       Geomorphic Position (D2)	s (D1) 2)		

Depth (inches):

Depth (inches):

Depth (inches):

Field	Observations:

- Surface Water Present?
- Water Table Present?
- Saturation Present?

Remarks:



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	-		Sampling Date: 6/17/2019		
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: W	18-B	
Investigator(s): Brandon Bohks			nship, Range: 29				
Landforms (hillside, terrace, etc.): Backslope			(concave, conve	· · · · · · · · · · · · · · · · · · ·	Slope (%)	: 4-6	
Subregion: LRR K Latitude:		Longitude:	· · · · • • •	Datum:			
Soil Map Unit Name: <b>Dundas fine sandy loam</b>			ification: None	1			
Are climatic/hydrologic conditions of the site typical f	-	Yes	_	explain in remarks)			
· · · · · · · · · · · · · · · · · · ·	or hydrology		icantly disturbed		-		
Are vegetation, soils,	or hydrology		ally problematic	? (If needed, explain	any answers in R	emarks)	
<b>T</b> 1 1 1		<b>Y OF FINI</b>	DINGS				
Hydrophytic vegetation present?	No		<b>T</b> (1		10		
Hydric soils present?	Yes		Is the sam	pled area within a wetla	nd? No	_	
Wetland hydrology present?	No						
Remarks:							
	VEGETATION	- Use scientific	names of plants				
	Absolute	Dominant	Indicator	50/20 Threshold	20%	50%	
<u>Tree Stratum</u> (Plot size: 30 feet )	% Cover	Species	Status	Tree Stratum	0	0	
1				Sapling/Shrub Stratum	0	0	
2				Herb Stratum	0	0	
3				Woody Vine Stratum	0	0	
4				-	Test Workshee	t	
5							
·		Total Cover		Number of domina that are OBL, FACW	-	(A)	
Sapling/Shrub stratum (Plot size: 15 feet )						()	
1				Total number of species across		(B)	
2						(2)	
3				Percent of dominant sp are OBL, FACV		6 (A/B)	
4			·		Index Workshee		
5			·	Total % cover of:			
J		Total Cover		OBL Species: 0	x 1 =	0	
Herb stratum: (Plot size: 5 feet )				FACW Species: 0	$x_{1} = $	0	
1 Zea mays				FAC Species: 0	$x^{2} = x^{3} = $	0	
2			·	FACU species: 0		0	
3				UPL Species: 0		0	
4				Totals: 0		<b>0</b> (B)	
5				Prevalence Inc	— · · —	0 (2)	
			·		egetation Indica	tong	
6					ydrophytic veget		
/				Dominance test		ation	
8			<u> </u>				
·			<u> </u>	Prevalence inde			
10	0 =	Total Cover		Morphological supporting data	adaptations* (Pro in remarks)	ovide	
Woody vine stratum: (Plot size: 15 feet ) 1				Problematic hyd (Explain in rem	drophytic vegetat arks)	ion*	
2		Total Cover		*Indicators of hydric must be present, unles			
Sampl	e point was taken in	a		Hydrophytic vege	tation		
	ld recently planted w			present?	No		



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#### EXHIBIT G: WETLAND DETERMINATION DATA FORM

(Northcentral and Northeast Region - LRR K)

SOILS

					SUIL	N S			
Profile Desc	ription: (Describe to	the dept	th needed to doc	ument tl	he indicator	or confirm th	e absence of in	dicators	s.)
Depth	Depth Matrix Redox Features								
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Textur	e	Remarks
0-14	10YR 2/1	100					Sandy Clay	Loam	
14-21+	10YR 4/1	90	7.5YR 4/6	10	С	М	Sandy Lo	oam	
	*Type: C = Concentr	ration, D	= Depletion, RM	= Reduc	ed Matrix, N	IS = Masked S	and Grains. **I	Location	: PL = Pore Lining, M = Matrix
Hydric Soil	Indicators:						Indic	cators fo	or Problematic Hydric Soils*:
Histis	ol (A1)			Strippe	ed Matrix (S6)	)		2 cm N	Muck (A10)
Histic	Epipedon (A2)			- Loamy	Mucky Mine	eral (F1)		Coast I	Prairie Redox (A16)
Black	Histic (A3)			- Loamy	Gleyed Matr	ix (F2)		- 5 cm N	Mucky Peat or Peat (S3)
Hydro	ogen Sulfide (A4)			- Deplet	ed Matrix (F3	5)		Dark S	Surface (S7)
Stratif	fied Layers (A5)			Redox	Dark Surface	(F6)		Polyva	lve Below Dark Surface (S8)
Deple	ted Below Dark Surfa	ace (A11)	)	- Deplet	ed Dark Surfa	ace (F7)		Thin Dark Surface (S9)	
X Thick	Dark Surface (A12)	Redox	Depressions (	(F8)		Iron-M	langanese Masses (F12)		
Sandy	Mucky Material (S1)	- nydronhy	vtic vegetation	n and wetland		Red Pa	arent Material (T42)		
Sandy	Gleyed Matrix (S4)		hydrology mu					Very S	Shallow Dark Surface (TF12)
Sandy	Redox (S5)			prob	olematic			Other (	(Explain in remarks)
Restrictive I	Layer (if observed):							-	
Туре:	uger (ir observeu).						Hydric So	ils Pres	ent: Yes
Depth (inches	s):			-			inyune so	115 1 1 05	
Dopin (mono					<u> </u>				
Remark	s: Soil pit was	dug to 2	1-inches.						
				ī		OCV			
Wetland Hud	Irology Indicators:				HYDROL	JUGI		G	
	cators (minimum of o	no io 1000	vined, about all th	at annlui	)				dary Indicators (minimum of two required)
		ne is requ	inted, check an un		<u>)</u> Stained Leave				Surface Soil Crack (B6)
	ce Water (A1)			-		( )		Drainage Patterns (B10)	
	Water Table (A2)			-	c Fauna (B13				Moss Trim Lines (B16)
	ation (A3)				Deposits (B15)				Dry-Season Water Table (C2)
	Marks (B1)				gen Sulfide O				Crayfish Burrows (C8)
	ent Deposits (B2)		-		res on Living l	Roots (C3)		Saturation Visible on Aerial Imagery (C9)	
	Deposits (B3)			-	ce or Reduced				Stunted or Stressed Plants (D1)
	Mat or Crust (B4)			-		on in Tilled So	oils (C6)		Geomorphic Position (D2)
	Deposits (B5)	1 7			luck Surface				Shallow Aquitard (D3)
	ation Visible on Aeria	-	· · · · ·	_Other (	Explain in Re	emarks)			Microtopographic Relief (D4)
Sparse	ely Vegetated Concav	e Surface	e (B8)						FAC-Neutral Test (D5)
Field Observ	ations:								
Surface Wate	er Present?			D	Depth (inches)	:		т	Indicators of Watland

 Surface Water Present?
 Depth (inches):
 Indicators of Wetland

 Water Table Present?
 Depth (inches):
 Hydrology Present?
 No

 Saturation Present?
 Depth (inches):
 Volume

Remarks:



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Project/Site: Headwaters Parkway		Sampling Date: 6/19/2019				
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: W	V19-A
Investigator(s): Brandon Bohks			nship, Range: 2			
Landforms (hillside, terrace, etc.): Basin/Depression	n		(concave, conve	, , <u> </u>	ave Slope (%	o): 0-2
Subregion: LRR K Latitude:		Longitude:		Datum:		
Soil Map Unit Name: <b>Dundas fine sandy laom</b>			ification: None			
Are climatic/hydrologic conditions of the site typical for	-	Yes	-	explain in remarks)		
· · · · · · · · · · · · · · · · · · ·	or hydrology		icantly disturbed		cumstances present?	
Are vegetation, soils, o	or hydrology		ally problematic	? (If needed, expla	in any answers in I	Remarks)
		RY OF FINI	DINGS			
Hydrophytic vegetation present?	Yes					
Hydric soils present?	Yes		Is the sam	pled area within a we	tland? Yes	_
Wetland hydrology present?	Yes					
<u>Remarks:</u> Sample point was taken in a agricultu	ıre field, not yet plar	nted with due to	wet conditions	8		
,	VEGETATION	- Use scientific	names of plants			
	Absolute	Dominant	Indicator	50/20 Thresho	old 20%	50%
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	0	0
1				Sapling/Shrub Stratu	um <u>0</u>	0
2				Herb Stratum	0	0
3				Woody Vine Stratum	n <u>0</u>	0
4				Dominar	nce Test Workshee	et
5				Number of dom	inant species	
	0 =	Total Cover=		that are OBL, FAG	CW, or FAC:	0 (A)
Sapling/Shrub stratum (Plot size: 15 feet )				Total number	of dominant	
1				species acro	oss all strata:	(B)
2				Percent of dominant	t species that	
3				are OBL, FA	CW or FAC: 09	% (A/B)
4				Prevalence	ce Index Workshe	et
5				Total % cover of:		
	0 =	Total Cover		OBL Species:	<b>0</b> x 1 =	0
Herb stratum: (Plot size: 5 feet )				FACW Species:	<b>0</b> x 2 =	0
1				FAC Species:	<b>0</b> x 3 =	0
2				FACU species:	<b>0</b> x 4 =	0
3				UPL Species:	0 x 5 =	0
4				Totals:	<b>0</b> (A)	<b>0</b> (B)
5				Prevalence	Index (B/A):	
6			·		vegetation Indica	 ators
7					or hydrophytic vege	
۲ و				Dominance t		
° 9					ndex is ≤3.0*	
10						
	0 =	Total Cover			cal adaptations* (Pr ata in remarks)	ovide
Woody vine stratum: (Plot size: 15 feet ) 1				Problematic (Explain in r	hydrophytic vegeta emarks)	tion*
2	0 =	Total Cover		*Indicators of hydr must be present, ur		
Due to the presence of hydric soils a	nd wetland hydrolog	gy. Hydrophyfi	ic vegetation is	Hydrophytic ve	getation	
	med to be present.			present	-	



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Profile Descr	iption: (Describe to t	he dep	th needed to docu	ıment t	the indicator o	or confirm the	absence of indicator	s.)		
Depth	Matrix			Redo	x Features					
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks		
0-7	10YR 2/1	90	7.5YR 4/6	10	С	М	Clay Loam			
7-14+	10YR 5/1	60	7.5YR 4/6	40	С	М	Sandy Clay Loam			
	*Type: C = Concentra	tion, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked Sa	nd Grains. **Location	: PL = Pore Lining, M = Matrix		
Hydric Soil I	ndicators:						Indicators fo	or Problematic Hydric Soils*:		
Histisc	ol (A1)			Stripp	ed Matrix (S6)		2 cm M	Muck (A10)		
Histic	Epipedon (A2)			Loamy	y Mucky Miner	al (F1)	Coast	Prairie Redox (A16)		
Black	Histic (A3)			Loamy	y Gleyed Matri	Gleyed Matrix (F2) 5 cm Mucky Peat or Peat (S3)				
Hydro	gen Sulfide (A4)			Deplet	ted Matrix (F3)	1	Dark S	Surface (S7)		
Stratif	ied Layers (A5)		X	Redox	Dark Surface	(F6)	Polyva	alve Below Dark Surface (S8)		
X Deplet	ed Below Dark Surfac	e (A11)	)	Deplet	ted Dark Surfac	ce (F7)	Thin D	Dark Surface (S9)		
Thick	Dark Surface (A12)			Redox	Depressions (I	langanese Masses (F12)				
Sandy	Mucky Material (S1)		*Indicators of h	ydroph	vtic vegetation	arent Material (T42)				
Sandy	Gleyed Matrix (S4)			st be pi	vresent, unless disturbed or Very Shallow Dark Surface (TF12)					
Sandy	Redox (S5)			prol	oblematic Other (Explain in remarks)					
Restrictive L	ayer (if observed):									
Туре:							Hydric Soils Pres	ent: Yes		
Depth (inches	):						·			
<u>Remark</u>	s: Soil pit was d	ug to a	depth of 14-inch	es.						
					HYDROL	OGY				
Wetland Hyd	rology Indicators:						Second	dary Indicators (minimum of two required)		
Primary Indic	ators (minimum of one	e is requ	ired; check all that	t apply	<u>')</u>		X	Surface Soil Crack (B6)		
Surfac	e Water (A1)			Water	-Stained Leave	ained Leaves (B9) Drainage Patterns (B10)				

		()	
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)	
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B16)	
Saturation (A3)	Marl Deposits (B15)	Dry-Season Water Table (C2)	
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)	
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	X Saturation Visible on Aerial Imagery (C9)	
Drift Deposits (B3)	Presence or Reduced Iron (C4)	Stunted or Stressed Plants (D1)	
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	<b>X</b> Geomorphic Position (D2)	
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)	
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)	
Field Observations:			
Surface Water Present?	Depth (inches):	Indicators of Wetland	
Water Table Present?	Depth (inches):	Hydrology Present? Yes	
Saturation Present?	Depth (inches):		



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	-		Sampling Date: 6/19/2019		
Applicant/Owner: City of Forest Lake			e: MN		ample Point: W	19-B	
Investigator(s): Brandon Bohks			nship, Range: 29				
Landforms (hillside, terrace, etc.): Backslope Subregion: LRR K Latitude:			(concave, conve	ex, none): Convex Datum:	Slope (%)	: 4-6	
Soil Map Unit Name: <b>Dundas fine sandy loam</b>		Longitude:	ification: None	Datum:			
Are climatic/hydrologic conditions of the site typical f	for this time of year?	N WI Class Yes		explain in remarks)			
	or hydrology		icantly disturbed	-	stances present?	No	
· · · · · · · · · · · · · · · · · · ·	or hydrology		ally problematic		•		
, , , , , , , , , , , , , , , , , , , ,		Y OF FINI		(II needed, explain a	iny answers in R	ciliar ks)	
Hydrophytic vegetation present?	No						
Hydric soils present?	Yes		Is the sam	pled area within a wetlan	nd? No		
Wetland hydrology present?	No					-	
<u>Remarks:</u>							
	VEGETATION	- Use scientific	names of plants				
	Absolute	Dominant	Indicator	50/20 Threshold	20%	50%	
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	0	0	
1				Sapling/Shrub Stratum	0	0	
2				Herb Stratum	0	0	
3				Woody Vine Stratum	0	0	
4				Dominance	Test Worksheet	t	
5				Number of dominar	-		
Serling / Charlestone (Distained and Charlestone)	0 =	Total Cover=		that are OBL, FACW	, or FAC: 0	(A)	
Sapling/Shrub stratum (Plot size: 15 feet )				Total number of			
1				species across	all strata:	(B)	
2				Percent of dominant sp		( (A/D)	
3				are OBL, FACW			
4				Total % cover of:	ndex Workshee	t	
5		T . 1 G		OBL Species: 0		0	
Herb stratum: (Plot size: 5 feet )	=	Total Cover=		FACW Species: 0	x 1 =	0	
				FAC Species: 0	$x^2 = -$	0	
1 Zea mays					$x^{3} =$	0	
2				FACU species: 0 UPL Species: 0	x 4 =	0	
3				Totals: 0	$\frac{x 5}{(A)} = $	0 0 (B)	
45						<b>0</b> (B)	
				Prevalence Inde			
6				Hydrophytic Ve Rapid test for hy	-		
2				Dominance test		ation	
8			. <u> </u>				
·				Prevalence index			
10	0 =	Total Cover		Morphological a supporting data		ovide	
Woody vine stratum:         (Plot size: 15 feet )           1				Problematic hyd (Explain in rema		ion*	
2		Total Cover		*Indicators of hydric s must be present, unles			
Bampaka: Sampl	e point was taken in	a		Hydrophytic veget	ation		
	eld recently planted w			present?	No		



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#### **EXHIBIT G:** WETLAND DETERMINATION DATA FORM

(Northcentral and Northeast Region - LRR K)

SOLLS

i					SOIL	0			
Profile Desc	ription: (Describe to	the dept	th needed to docu	ıment t	he indicator o	or confirm th	e absence of indicat	tors.)	
Depth	Depth Matrix Redox Features								
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks	
0-16	10YR 2/1	100					Sandy Clay Loa	m	
16-22+	10YR 4/1	90	7.5YR 4/6	10	С	М	Sandy Clay Loa	m	
	*Type: C = Concentr	ration, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked S	and Grains. **Locat	ion: PL = Pore Lining, M = Matrix	
Hydric Soil	Indicators:						Indicator	s for Problematic Hydric Soils*:	
Histis	ol (A1)			Strippe	ed Matrix (S6)	)	2 ci	n Muck (A10)	
Histic	Epipedon (A2)			Loamy	Mucky Mine	ral (F1)	Coa	st Prairie Redox (A16)	
Black	Histic (A3)			Loamy	Gleyed Matri	ix (F2)	5 ci	n Mucky Peat or Peat (S3)	
Hydro	ogen Sulfide (A4)			Deplet	ed Matrix (F3	)	Dark Surface (S7)		
Stratif	fied Layers (A5)			Redox	Dark Surface	(F6)	Polyvalve Below Dark Surface (S8)		
Deple	ted Below Dark Surfa	ace (A11)	)	Deplet	ed Dark Surfa	ce (F7)	Thin Dark Surface (S9)		
X Thick	Dark Surface (A12)			Redox	Depressions (	(F8)	Iron-Manganese Masses (F12)		
Sandy	Mucky Material (S1)	)	*Indicators of h	ydroph	ytic vegetatior	n and wetland	Red Parent Material (T42)		
Sandy	Gleyed Matrix (S4)		hydrology mu	st be pr	esent, unless o		Ver	y Shallow Dark Surface (TF12)	
Sandy	Redox (S5)			prol	olematic		Other (Explain in remarks)		
Restrictive I	Layer (if observed):								
Type:							Hydric Soils P	resent: Yes	
Depth (inches	s):								
Remark	sei Soil pit was	dug to 2	2-inches.						
					HYDROL	OGY			
Wetland Hyd	rology Indicators:						Sec	ondary Indicators (minimum of two required)	
Primary Indic	cators (minimum of or	ne is requ	uired; check all that	it apply	)			Surface Soil Crack (B6)	
Surfac	Surface Water (A1) Water-Stained Leaves (B9)							Drainage Patterns (B10)	
High	Water Table (A2)			Aquati	c Fauna (B13)	)		Moss Trim Lines (B16)	
Satura	ation (A3)			Marl I	Deposits (B15)	)		Dry-Season Water Table (C2)	
Water	Marks (B1)			Hydro	gen Sulfide Oo	dor (C1)		Crayfish Burrows (C8)	
Sedim	ent Deposits (B2)			Oxidiz	ed Rhizospher	res on Living I	Roots (C3)	Saturation Visible on Aerial Imagery (C9)	
Drift l	Deposits (B3)			Presen	ce or Reduced	l Iron (C4)		Stunted or Stressed Plants (D1)	
Algal	Mat or Crust (B4)			Recent	Iron Reductio	on in Tilled So	ils (C6)	Geomorphic Position (D2)	
Iron E	Iron Deposits (B5)     Thin Muck Surface (C7)							Shallow Aquitard (D3)	

Microtopographic Relief (D4) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)

Surface Water Present?	Depth (inches):	Indicators of Wetland
Water Table Present?	Depth (inches):	Hydrology Present? No
Saturation Present?	Depth (inches):	

Remarks:

Field Observations:



Real People. Real Solutions.	(Northcentral and	-			Sampling Date: 6		
Project/Site: Headwaters Parkway							
Applicant/Owner: City of Forest Lake			e: MN	Sample Point: V	V20-A		
Investigator(s): Brandon Bohks			nship, Range: 2				
Landforms (hillside, terrace, etc.): Basin/Depressio	on		concave, conve	· · · · · · · · · · · · · · · · · · ·	ve Slope (%	o): 0-2	
Subregion: LRR K Latitude:		Longitude:		Datum:			
Soil Map Unit Name: Bluffton loam			ification: <b>PEM</b>				
Are climatic/hydrologic conditions of the site typical for	-	Yes	_	explain in remarks)		_	
· · · · · · · · · · · · · · · · · · ·	or hydrology		icantly disturbed		imstances present		
Are vegetation, soils, o	or hydrology		ally problematic	? (If needed, explai	n any answers in I	Remarks)	
		RY OF FINI	DINGS				
Hydrophytic vegetation present?	Yes						
Hydric soils present?	Is the sampled area within a wetland? Yes						
Wetland hydrology present?	Yes						
<u>Remarks:</u> Sample point was taken in a agricultu	ure field, not yet plan	nted with due to	wet conditions	8			
	VEGETATION	- Use scientific	names of plants				
	Absolute	Dominant	Indicator	50/20 Threshol	ld 20%	50%	
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	0	0	
1				Sapling/Shrub Stratur		0	
2				Herb Stratum	0	0	
3				Woody Vine Stratum	0	0	
4				Dominanc	e Test Workshee	et	
5				Number of domin	nant species		
	0 =	Total Cover=		that are OBL, FAC	W, or FAC:	0 (A)	
Sapling/Shrub stratum (Plot size: 15 feet )				Total number	of dominant		
1				species acros	ss all strata:	(B)	
2				Percent of dominant	species that		
3				are OBL, FAC	CW or FAC: 0	% (A/B)	
4				Prevalence	e Index Workshe	et	
5				Total % cover of:			
	0 =	Total Cover=		OBL Species:	<b>0</b> x 1 =	0	
Herb stratum: (Plot size: 5 feet )				FACW Species:	<b>0</b> x 2 =	0	
1				FAC Species:	<b>0</b> x 3 =	0	
2				FACU species:	0 x 4 =	0	
3				UPL Species:	<b>0</b> x 5 =	0	
4				Totals:	<b>0</b> (A)	<b>0</b> (B)	
5				Prevalence In	ndex (B/A):	_	
6				Hydrophytic	Vegetation Indic	ators	
7				Rapid test for	hydrophytic vege	tation	
8				Dominance te	st >50%		
9				Prevalence in	dex is $\leq 3.0^*$		
10		Total Cover		Morphologica supporting da	al adaptations* (Pr ta in remarks)	rovide	
Woody vine stratum: (Plot size: 15 feet ) 1				Problematic h (Explain in re	ydrophytic vegeta marks)	ition*	
2		=Total Cover		*Indicators of hydrid must be present, unl	c soil and wetland		
				-			
Buse to the presence of hydric soils a           Remarks:         assu	and wetland hydrolog med to be present.	gy. Hydrophyt	ic vegetation is	Hydrophytic veg present?			



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SOILS

					boil	0					
Profile Desc	ription: (Describe to	the dep	th needed to docu	ıment t	he indicator	or confirm the	e absence of indi	cators	5.)		
Depth	Depth Matrix		Redox Features								
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture		Remarks		
0-5	10YR 2/1	100					Clay Loan	ı			
5-12+	10YR 5/1	85	7.5YR 4/6	15	С	Μ	Sandy Clay L	oam			
	*Type: C = Concentr	ation, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked Sa	and Grains. **Loo	cation	: PL = Pore Lining, M = Matrix		
Hydric Soil I	Indicators:						Indicat	ors fo	or Problematic Hydric Soils*:		
Histis	ol (A1)			Strippe	ed Matrix (S6)	)	2	2 cm Muck (A10)			
Histic Epipedon (A2) Loamy Mucky Minera				ral (F1)	Coast Prairie Redox (A16)						
Black	Histic (A3)			Loamy	Gleyed Matri	ix (F2)	5	5 cm Mucky Peat or Peat (S3)			
Hydro	ogen Sulfide (A4)			Deplet	ted Matrix (F3	)	Dark Surface (S7)				
Stratif	Stratified Layers (A5) Redox Dark Surface (F6)					Polyvalve Below Dark Surface (S8)					
X Deple	X         Depleted Below Dark Surface (A11)         Depleted Dark Surface (F7)				Thin Dark Surface (S9)						
Thick	Thick Dark Surface (A12)         Redox Depressions (F8)					Iron-Manganese Masses (F12)					
Sandy	Mucky Material (S1)	)	*Indicators of h	vdroph	vtic vegetatior	n and wetland	Red Parent Material (T42)				
Sandy Gleyed Matrix (S4) hydrology must be present, unless disturbed or					Very Shallow Dark Surface (TF12)						
Sandy	Redox (S5)	x (S5) problematic					Other (Explain in remarks)				
Restrictive L	ayer (if observed):										
Type:							Hydric Soils	Pres	ent: Yes		
Depth (inches):											
<u>Remark</u>	soil pit was	dug to a	depth of 14-inch	es.							
	HYDROLOGY										
Wetland Hyd	rology Indicators:						<u>S</u>	econd	lary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; check all that apply)					X Surface Soil Crack (B6)						
Surfac	e Water (A1)			Water-Stained Leaves (B9)			Drainage Patterns (B10)				
High	Water Table (A2)			Aquatic Fauna (B13)			_	Moss Trim Lines (B16)			
Satura	tion (A3)			Marl Deposits (B15)			_	Dry-Season Water Table (C2)			
Water	Marks (B1)			Hydrogen Sulfide Odor (C1)			_	Crayfish Burrows (C8)			
Sedim	ent Deposits (B2)			Oxidized Rhizospheres on Living R			Roots (C3)	ots (C3) X Saturation Visible on Aerial Imagery (C9)			
Drift I	Deposits (B3)			Presen	ce or Reduced	_	Stunted or Stressed Plants (D1)				
Algal	Mat or Crust (B4)			Recent	t Iron Reductio	ils (C6)	C6) X Geomorphic Position (D2)				
Iron D	Deposits (B5)			Thin Muck Surface (C7)			-	Shallow Aquitard (D3)			

Other (Explain in Remarks)

Depth (inches):

Depth (inches):

Depth (inches):

- Microtopographic Relief (D4)
  - FAC-Neutral Test (D5)

Indicators of Wetland	
Hydrology Present?	Yes

Remarks:

Saturation Present?

Field Observations: Surface Water Present?

Water Table Present?

Inundation Visible on Aerial Imagery (B7)

Sparsely Vegetated Concave Surface (B8)



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	-		Sampling Date: 6/19/2019		
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: W	20-В	
Investigator(s): Brandon Bohks			nship, Range: 29				
Landforms (hillside, terrace, etc.): Backslope			(concave, conve	· · · · · · · · · · · · · · · · · · ·	Slope (%)	: <b>7-9</b>	
Subregion: LRR K Latitude:		Longitude:	· · · · • • •	Datum:			
Soil Map Unit Name: <b>Dundas fine sandy loam</b>			ification: None	1			
Are climatic/hydrologic conditions of the site typical	-	Yes	_	explain in remarks)			
· · · · · · · · · · · · · · · · · · ·	, or hydrology		icantly disturbed		-		
Are vegetation, soils	, or hydrology		ally problematic	? (If needed, explain	any answers in R	emarks)	
		RY OF FINI	DINGS				
Hydrophytic vegetation present?	No						
Hydric soils present?	Yes		Is the sam	pled area within a wetlaı	nd? <u>No</u>	_	
Wetland hydrology present?	No						
Remarks:							
		-					
	VEGETATION	- Use scientific	names of plants				
	Absolute	Dominant	Indicator	50/20 Threshold	20%	50%	
Tree Stratum (Plot size: 30 feet	) % Cover	Species	Status	Tree Stratum	0	0	
1				Sapling/Shrub Stratum	0	0	
2				Herb Stratum	0	0	
3				Woody Vine Stratum	0	0	
4				Dominance	Test Worksheet	t	
5				Number of domina	nt species		
	0 =	=Total Cover		that are OBL, FACW	, or FAC: 0	(A)	
Sapling/Shrub stratum (Plot size: 15 feet	)			Total number of	dominant		
1				species across	all strata:	(B)	
2				Percent of dominant sp	becies that		
3				are OBL, FACW	V or FAC: 0%	<u>(A/B)</u>	
4				Prevalence 1	Index Workshee	et	
5				Total % cover of:			
	0 =	=Total Cover		OBL Species: 0	x 1 =	0	
Herb stratum: (Plot size: 5 feet	)			FACW Species: 0	x 2 =	0	
1 Zea mays				FAC Species: 0	x 3 =	0	
2				FACU species: 0	x 4 =	0	
3				UPL Species: 0	x 5 =	0	
4				Totals: 0	(A)	<b>0</b> (B)	
5				Prevalence Ind	lex (B/A):		
6				Hydrophytic V	egetation Indica	itors	
7				Rapid test for h	ydrophytic vegeta	ation	
8				Dominance test	>50%		
9				Prevalence inde	x is ≤3.0*		
10					adaptations* (Pro	ovide	
	0 =	Total Cover		supporting data			
Woody vine stratum: (Plot size: 15 feet	)			Problematic hyd	drophytic vegetat	ion*	
1				(Explain in rem			
2	0 =	=Total Cover		*Indicators of hydric s must be present, unles			
Some	ole point was taken in	a		Unduanh	tation		
	ield recently planted v			Hydrophytic veget present?	tation No		



#### EXHIBIT G: WETLAND DETERMINATION DATA FORM

(Northcentral and Northeast Region - LRR K)

SOILS

Profile Descr	iption: (Describe to	the dep	th needed to docu	iment t	he indicator o	or confirm the	absence of indicat	eors.)
Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-16	10YR 2/1	100					Clay Loam	
16-26+	10YR 4/1	90	7.5YR 4/6	10	С	М	Sandy Clay Loa	n
	*Type: C = Concentra	ation, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked Sa	and Grains. **Locat	ion: PL = Pore Lining, M = Matrix
Hydric Soil I	ndicators:						Indicators	s for Problematic Hydric Soils*:
Histise	ol (A1)			Strippe	ed Matrix (S6)		2 cr	n Muck (A10)
Histic	Epipedon (A2)			Loamy	Mucky Mine	ral (F1)	Coa	st Prairie Redox (A16)
Black	Histic (A3)			Loamy	Gleyed Matri	x (F2)	5 cr	n Mucky Peat or Peat (S3)
Hydro	gen Sulfide (A4)			Deplet	ed Matrix (F3)	)	Dar	k Surface (S7)
Stratif	ied Layers (A5)			Redox	Dark Surface	(F6)	Pol	valve Below Dark Surface (S8)
Deplet	ed Below Dark Surfa	ce (A11)	)	Deplet	ed Dark Surfa	ce (F7)	Thi	n Dark Surface (S9)
X Thick	Dark Surface (A12)		Iron	Iron-Manganese Masses (F12)				
Sandy	Mucky Material (S1)		Red	Parent Material (T42)				
Sandy	Gleyed Matrix (S4)		*Indicators of h hydrology mu				Ver	y Shallow Dark Surface (TF12)
Sandy	Redox (S5)			proł	olematic		Oth	er (Explain in remarks)
Restrictive L	ayer (if observed):							
Туре:							Hydric Soils P	resent: Yes
Depth (inches	):			•			119 di 10 5 ons 1 .	
	·			•				
Remark	<u>s:</u> Soil pit was o	dug to 2	6-inches.					
					HYDROL	OGY		
Wetland Hyd	rology Indicators:						Sec	ondary Indicators (minimum of two required)
Primary Indic	ators (minimum of on	e is requ	ired; check all the	t apply	)			Surface Soil Crack (B6)
Surfac	e Water (A1)			Water-	Stained Leave	es (B9)		Drainage Patterns (B10)
High V	Water Table (A2)			Aquati	c Fauna (B13)	)		Moss Trim Lines (B16)
Satura	tion (A3)			Marl D	Deposits (B15)			Dry-Season Water Table (C2)
Water	Marks (B1)			Hydrog	gen Sulfide Oc	lor (C1)		Crayfish Burrows (C8)
Sedim	ent Deposits (B2)			Oxidiz	ed Rhizospher	es on Living F	Loots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift I	Deposits (B3)			Presen	ce or Reduced	Iron (C4)		Stunted or Stressed Plants (D1)
Algal	Mat or Crust (B4)			•		on in Tilled Soi	lls (C6)	Geomorphic Position (D2)
Iron D	eposits (B5)				luck Surface (		· · ·	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)								Microtopographic Relief (D4)
Sparse	ly Vegetated Concave	e Surface	e (B8)	•				FAC-Neutral Test (D5)
Field Observa	ations:							
Surface Wate	r Present?			Γ	Depth (inches):			Indicators of Wetland
Water Table I	Present?				Depth (inches):		-	Hydrology Present? No
Saturation Pre					Depth (inches):		-	
Remark	5:					1	- !	



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	_		Sampling Date: 6	
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: V	V20-C
Investigator(s): Brandon Bohks			nship, Range: 2			
Landforms (hillside, terrace, etc.): Basin/Depressio	on		(concave, conve		ve Slope (%	b): <b>0-2</b>
Subregion: LRR K Latitude:		Longitude:	· · · · · · · · · · · · · · · · · · ·	Datum:		
Soil Map Unit Name: Bluffton loam			ification: <b>PEM</b>			
Are climatic/hydrologic conditions of the site typical for	-	Yes	_	explain in remarks)		
	or hydrology		icantly disturbed		imstances present	
Are vegetation, soils,	or hydrology	natura RY OF FINI	ally problematic	? (If needed, explai	n any answers in I	Remarks)
Hydrophytic vegetation present?	Yes		muus			
Hydric soils present?	Yes		Is the sam	pled area within a wetl	and? Yes	
Wetland hydrology present?	Yes		15 the sam	picu area within a web		_
wettand nyurology present:	105					
<u>Remarks:</u> Sample point was taken in a agricult	ure field, not yet plan	nted with due to	wet conditions	8		
	VEGETATION	- Use scientific	names of plants			
	Absolute	Dominant	Indicator	50/20 Thresho	ld 20%	50%
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	0	0
1				Sapling/Shrub Stratur	m <u>0</u>	0
2				Herb Stratum	0	0
3				Woody Vine Stratum	0	0
4				Dominano	ce Test Workshee	et
5				Number of domin	nant species	
	0 =	Total Cover		that are OBL, FAC	W, or FAC:	<b>0</b> (A)
<u>Sapling/Shrub stratum</u> (Plot size: <u>15 feet</u> )				Total number	of dominant	
1				species acro	ss all strata:	(B)
2				Percent of dominant	-	
3				are OBL, FAC	CW or FAC: 0	% (A/B)
4					e Index Workshe	et
5				Total % cover of:		
	0 =	Total Cover=		OBL Species:	<b>0</b> x 1 =	0
Herb stratum: (Plot size: 5 feet )				FACW Species:	<b>0</b> x 2 =	0
1				FAC Species:	<b>0</b> x 3 =	0
2				FACU species:	<b>0</b> x 4 =	0
3				UPL Species:	<b>0</b> x 5 =	0
4				Totals:	<b>0</b> (A)	<b>0</b> (B)
5				Prevalence In		_
6					Vegetation Indic	
7					hydrophytic vege	tation
8				Dominance te	st >50%	
9				Prevalence in	dex is $\leq 3.0^*$	
10	0 =	Total Cover		Morphologica supporting da	al adaptations* (Pr ta in remarks)	rovide
Woody vine stratum: (Plot size: 15 feet ) 1				Problematic h (Explain in re	ydrophytic vegeta marks)	ation*
2		=Total Cover		*Indicators of hydri- must be present, unl		
Due to the measure of herdets and			a vogstat! !	-	_	
Buse to the presence of hydric soils a assu	imed to be present.	gy. nyuropnyti	ic vegetation is	Hydrophytic veg present?		



#### **EXHIBIT G:** WETLAND DETERMINATION DATA FORM

(Northcentral and Northeast Region - LRR K)

SULLE

					SOIL	<u>ی</u>				
Profile Desc	ription: (Describe to	the dept	h needed to docu	ment f	the indicator	or confirm the	e absence of indica	itors.)		
Depth	Matrix			Redo	x Features					
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks		
0-11	10YR 2/1	100					Sandy Clay Los	am		
11-17+	10YR 5/1	100					Sandy Clay Los	am		
	*Type: C = Concentr	ration, D -	= Depletion, RM =	= Redu	ced Matrix, M	IS = Masked Sa	and Grains. **Loca	tion: PL = Pore Lining, M = Matrix		
Hydric Soil	Indicators:						Indicato	rs for Problematic Hydric Soils*:		
Histis	ol (A1)			Stripp	ed Matrix (S6)	)	2 c	em Muck (A10)		
Histic	Epipedon (A2)			Loamy	y Mucky Mine	ral (F1)		ast Prairie Redox (A16)		
Black Histic (A3) Loamy Gleyed Matrix (F2)							5 0	5 cm Mucky Peat or Peat (S3)		
Hydrogen Sulfide (A4)Depleted Matrix (F3)						Da	rk Surface (S7)			
Stratified Layers (A5)     Redox Dark Surface (F6)						Po	lyvalve Below Dark Surface (S8)			
X         Depleted Below Dark Surface (A11)         Depleted Dark Surface (F7)					Th	in Dark Surface (S9)				
Thick Dark Surface (A12) Redox Depressions (F8)					Irc	n-Manganese Masses (F12)				
Sandy	Mucky Material (S1	)	*Indicators of h	vdroph	vtic vegetation	n and wetland	Re	d Parent Material (T42)		
Sandy	Gleyed Matrix (S4)			st be pi	e present, unless disturbed or			Very Shallow Dark Surface (TF12)		
Sandy	Redox (S5)			pro	blematic		Ot	Other (Explain in remarks)		
Restrictive I	Layer (if observed):									
Type:							Hydric Soils l	Present: Yes		
Depth (inche	s):						-			
					1					
Remark	<u>(S)</u> Soil pit was	dug to a	depth of 17-inch	es.						
					HYDROL	OGY				
Wetland Hyd	Irology Indicators:						Se	condary Indicators (minimum of two required)		
Primary India	cators (minimum of o	ne is requ	ired; check all tha	t apply	<u>/)</u>			X Surface Soil Crack (B6)		
Surfa	ce Water (A1)			Water	-Stained Leave	es (B9)		Drainage Patterns (B10)		
High	Water Table (A2)			Aquat	ic Fauna (B13)	)		Moss Trim Lines (B16)		
Satura	ation (A3)			• -	Deposits (B15)			Dry-Season Water Table (C2)		
Water	r Marks (B1)				gen Sulfide Oo			Crayfish Burrows (C8)		
Sedin	nent Deposits (B2)				-	res on Living R	Roots (C3)			
Drift	Deposits (B3)			Preser	nce or Reduced	l Iron (C4)	- · ·	Stunted or Stressed Plants (D1)		
Algal	Mat or Crust (B4)					on in Tilled Soi	ils (C6)	X Geomorphic Position (D2)		
Iron Γ	Deposits (B5)				Muck Surface (			Shallow Aquitard (D3)		

Other (Explain in Remarks)

Depth (inches):

Depth (inches):

Depth (inches):

- Microtopographic Relief (D4)
  - FAC-Neutral Test (D5)

Indicators of Wetland	
Hydrology Present?	Yes

Remarks:

Saturation Present?

Field Observations:

Surface Water Present? Water Table Present?

Inundation Visible on Aerial Imagery (B7)

Sparsely Vegetated Concave Surface (B8)



	(Northcentral and	-	-			
Project/Site: Headwaters Parkway	Cit	y/County: Wash	_		Sampling Date: 6/19/2019	
Applicant/Owner: City of Forest Lake			$\frac{MN}{1}$		Sample Point: W	W21-A
Investigator(s): Brandon Bohks			nship, Range: 2			
Landforms (hillside, terrace, etc.): Basin/Depression			(concave, conv	· · · · · · · · · · · · · · · · · · ·	ve Slope (%)	): 0-2
Subregion: LRR K Latitude:		Longitude:	· · · · · · · · · · · · · · · · · · ·	Datum:		
Soil Map Unit Name: Bluffton loam	1		ification: <b>PEM</b>			
Are climatic/hydrologic conditions of the site typical for t	-	Yes	_	explain in remarks)	, , , , , , , , , , , , , , , , , , ,	
	nydrology		icantly disturbe		umstances present?	
Are vegetation, soils, or h		natura RY OF FINI	ally problematic	? (If needed, explai	in any answers in F	Remarks)
Hydrophytic vegetation present?	Yes		JING5			
Hydric soils present?	Yes		Is the sam	pled area within a wet	land? Veg	
Wetland hydrology present?	Yes		15 the sam	pieu area witiini a wet	land? Yes	_
wettand nyurology present?	165					
Remarks:						
VI	EGETATION	- Use scientific	names of plants	3		
	Absolute	Dominant	Indicator	50/20 Thresho	ld 20%	50%
<u>Tree Stratum</u> (Plot size: 30 feet )	% Cover	Species	Status	Tree Stratum	0	0
1				Sapling/Shrub Stratu	m 0	0
2				Herb Stratum	13	32.5
3				Woody Vine Stratum	n <u>0</u>	0
4				Dominan	ce Test Workshee	et
5				Number of domi	nant species	
	0 =	Total Cover		that are OBL, FAC	-	(A)
Sapling/Shrub stratum (Plot size: 15 feet )				Total number	of dominant	
1					oss all strata: 1	(B)
2				Percent of dominant	species that	
3				are OBL, FAC	-	<b>)%</b> (A/B)
4				Prevalenc	e Index Workshe	et
5				Total % cover of:		
	0 =	=Total Cover		OBL Species:	<b>0</b> x 1 =	0
Herb stratum: (Plot size: 5 feet )				FACW Species:	65 x 2 =	130
1 Phalaris arundinacea	65	Yes	FACW	FAC Species:	0 x 3 =	0
2				FACU species:	0 x 4 =	0
3				UPL Species:	0 x 5 =	0
4				Totals:	65 (A)	<b>130</b> (B)
5				Prevalence I	Index (B/A): 2.00	)
6				Hydrophytic	Vegetation Indica	ators
7				<b>X</b> Rapid test for	r hydrophytic veget	tation
8				X Dominance te	est >50%	
9				X Prevalence in	dex is $\leq 3.0^*$	
10				Morphologica	al adaptations* (Pr	ovide
	65 =	=Total Cover			ata in remarks)	
Woody vine stratum: (Plot size: 15 feet )				Problematic h	nydrophytic vegeta	tion*
1				(Explain in re		
2				*Indicators of hydri		
	0 =	=Total Cover		must be present, un	less disturbed or p	roblematic
<u>Remarks:</u>				Hydrophytic veg present?	-	



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SOILS

Depth	Matrix			Redox Features						
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks		
0-12+	10YR 2/1	100					Muck			
	*Type: C = Concentr	ation, D	= Depletion, RM	= Redu	ed Matrix, M	S = Masked San	d Grains. **Locatio	on: PL = Pore Lining, M = Matrix		
Hydric Soil Indicators:							Indicators	for Problematic Hydric Soils*:		
Histisol (A1) Stripp					ed Matrix (S6)		2 cm	Muck (A10)		
Histic Epipedon (A2) Loam				Loamy	Mucky Miner	ral (F1)	Coast	t Prairie Redox (A16)		
X Black	Histic (A3)			Loamy	Gleyed Matri	x (F2)	5 cm	cm Mucky Peat or Peat (S3)		
Hydro	ogen Sulfide (A4)			Deplet	ed Matrix (F3)	)	Dark	Surface (S7)		
Stratif	fied Layers (A5)			Redox	Dark Surface	(F6)	Polyvalve Below Dark Surface (S8)			
Deplet	ted Below Dark Surfa	ce (A11)	i	Deplet	ed Dark Surfac	ce (F7)	Thin Dark Surface (S9)			
Thick	Dark Surface (A12)			Redox	Depressions (I	F8)	Iron-J	Iron-Manganese Masses (F12)		
Sandy	Mucky Material (S1)	)	*Indicators of h	ydrophy	ytic vegetation	and wetland	Red I	Parent Material (T42)		
Sandy	Gleyed Matrix (S4)		hydrology mu	-	esent, unless d	listurbed or	Very	Shallow Dark Surface (TF12)		
Sandy	Redox (S5)			prob	olematic		Other	Other (Explain in remarks)		
Restrictive L	Layer (if observed):									
Туре:							Hydric Soils Pre	esent: Yes		
	s):			•			-			

### HYDROLOGY

Wetland Hydrology Indicators	:	Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of	f one is required; check	all that apply)	Surface Soil Crack (B6)		
X Surface Water (A1)		Water-Stained Leaves (B9)	Drainage Patterns (B10)		
<b>X</b> High Water Table (A2)	-	Aquatic Fauna (B13)	Moss Trim Lines (B16)		
X Saturation (A3)	-	Marl Deposits (B15)	Dry-Season Water Table (C2)		
Water Marks (B1)	-	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)		
Sediment Deposits (B2)	-	Saturation Visible on Aerial Imagery (C9)			
Drift Deposits (B3)	-	Presence or Reduced Iron (C4)	Stunted or Stressed Plants (D1)		
Algal Mat or Crust (B4)	_	Recent Iron Reduction in Tilled Soils (C6)	X Geomorphic Position (D2)		
Iron Deposits (B5)	-	Thin Muck Surface (C7)	Shallow Aquitard (D3)		
Inundation Visible on Ae	erial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)		
Sparsely Vegetated Conc	cave Surface (B8)		X FAC-Neutral Test (D5)		
Field Observations:					
Surface Water Present?	Yes	Depth (inches): 0.5	Indicators of Wetland		
Water Table Present?	Yes	Depth (inches): Surface	Hydrology Present? Yes		
Saturation Present?	Yes	Depth (inches): Surface			



	Northcentral and	-				
Project/Site: Headwaters Parkway	Cit	y/County: Wash	_	5	Sampling Date: 6/1	
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: W2	21-B
Investigator(s): Brandon Bohks			nship, Range: 2			
Landforms (hillside, terrace, etc.): Backslope			(concave, conve	· · · · · · · · · · · · · · · · · · ·	Slope (%):	7-9
Subregion: LRR K Latitude:		Longitude:		Datum:		
Soil Map Unit Name: Bluffton loam			ification: None	1		
Are climatic/hydrologic conditions of the site typical for the	-	Yes	_	explain in remarks)		
· · · · · · · · · · · · · · · · · · ·	ydrology		icantly disturbed		mstances present?	
Are vegetation, soils, or h	ydrology		ally problematic	? (If needed, explain	any answers in Re	emarks)
		<b>AY OF FINE</b>	JINGS			
Hydrophytic vegetation present?	No		<b>T</b> (1		10	
Hydric soils present?	Yes		Is the sam	pled area within a wetl	and? No	-
Wetland hydrology present?	No					
Remarks:						
		TT : .:	C 1 /			
VI	EGETATION			50/20 Threshol	d 20%	50%
Tree Stratum (Plot size: 30 feet )	Absolute	Dominant	Indicator			
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	$\frac{0}{0}$	$\frac{0}{0}$
1				Sapling/Shrub Stratum Herb Stratum	22	55
2					0	0
3				Woody Vine Stratum		
4				Dominanc	e Test Worksheet	
5		<b>T</b> 1 0		Number of domin	-	<i>(</i> <b>)</b> )
Serling (Short starter) (Distring 15.0 )	0 =	Total Cover=		that are OBL, FAC	W, or FAC: 1	(A)
Sapling/Shrub stratum (Plot size: 15 feet )				Total number of		
1				species acros	s all strata: 2	(B)
2				Percent of dominant s		( ( ) ( ) )
3				are OBL, FAC		
4					Index Worksheet	t
5				Total % cover of:		
	0 =	Total Cover		OBL Species:		0
Herb stratum: (Plot size: 5 feet )	_					50
1 Bromus inermis	65	Yes	FACU	· -		0
2 Phalaris arundinacea	25	Yes	FACW			20
3 Solidago canadensis	15	No	FACU			0
4 Solidago gigantea	5	No	FACW	Totals: 1		<b>80</b> (B)
5					dex (B/A): 3.45	-
6					egetation Indicat	
7					hydrophytic vegeta	tion
8				Dominance tes	st >50%	
9				Prevalence ind	ex is $\leq 3.0^*$	
10		Total Cover		Morphologica supporting dat	adaptations* (Pro a in remarks)	vide
Woody vine stratum: (Plot size: <u>15 feet</u> ) 1				Problematic hy (Explain in rer	/drophytic vegetati narks)	on*
2		=Total Cover		*Indicators of hydric must be present, unlo	soil and wetland h	
	<u> </u>	- i otal Cover		-		
Remarks:				Hydrophytic veg present?	etation No	



#### **EXHIBIT G:** WETLAND DETERMINATION DATA FORM

**Indicators of Wetland** 

Hydrology Present?

No

(Northcentral and Northeast Region - LRR K)

COLLC

r				SOIL	S				
Profile Desc	ription: (Describe to the	depth needed to doc	ument f	the indicator of	or confirm the	absence of indicato	rs.)		
Depth	Matrix		Redo	x Features					
(inches)	Color (moist)	% Color (moist)	%	Type*	Loc**	Texture	Remarks		
0-9	10YR 2/1 10	00				Clay Loam			
9-17+	10YR 5/1 6	50 7.5YR 4/6	40	С	М	Sandy Clay Loam			
	*Type: C = Concentration	n, D = Depletion, RM	= Redu	ced Matrix, M	IS = Masked Sa	and Grains. **Locatio	n: PL = Pore Lining, M = Matrix		
Hydric Soil	Indicators:					Indicators f	for Problematic Hydric Soils*:		
Histis	ol (A1)		Stripp	ed Matrix (S6)	)	2 cm	Muck (A10)		
Histic	Epipedon (A2)		Loamy	y Mucky Mine	eral (F1)	Coast	Prairie Redox (A16)		
Black	Histic (A3)		Loamy	y Gleyed Matri	ix (F2)	5 cm	Mucky Peat or Peat (S3)		
Hydro	ogen Sulfide (A4)		-	ted Matrix (F3			Surface (S7)		
Stratified Layers (A5) Redox Dark Surface (F6)						Polyv	alve Below Dark Surface (S8)		
X         Depleted Below Dark Surface (A11)         Depleted Dark Surface (F7)					Thin	Dark Surface (S9)			
Thick Dark Surface (A12) Redox Depressions (F8)							Manganese Masses (F12)		
Sandy Mucky Material (S1) *Indicators of hydrophytic vegetation and wetla							Parent Material (T42)		
	Gleyed Matrix (S4)			resent, unless o		Very	Shallow Dark Surface (TF12)		
	Redox (S5)	-		blematic		Other (Explain in remarks)			
Restrictive I	Layer (if observed):			T					
Type:	ayer (ii observeu).					Hydric Soils Pre	cont. Vos		
Depth (inches	c).		-			Hyuric Sons i re	sent: Yes		
Depui (mene.	s).								
Remark	sei Soil pit was dug	to 17-inches.							
· · · · · ·				HYDROL	OGY				
	Irology Indicators:					Secor	ndary Indicators (minimum of two required)		
-	cators (minimum of one is	required; check all the					Surface Soil Crack (B6)		
	ce Water (A1)		-	-Stained Leave	· · ·		Drainage Patterns (B10)		
	Water Table (A2)		-	ic Fauna (B13)			Moss Trim Lines (B16)		
	ation (A3)		Marl I	Deposits (B15)	)		Dry-Season Water Table (C2)		
	Marks (B1)		Hydro	gen Sulfide Oo	dor (C1)		Crayfish Burrows (C8)		
	nent Deposits (B2)		Oxidiz	zed Rhizospher	res on Living R	Loots (C3)	Saturation Visible on Aerial Imagery (C9)		
Drift l	Deposits (B3)		Preser	nce or Reduced	l Iron (C4)		Stunted or Stressed Plants (D1)		
Algal	Mat or Crust (B4)		Recen	t Iron Reductio	on in Tilled Soi	ls (C6)	Geomorphic Position (D2)		
Iron D	Deposits (B5)		Thin N	Muck Surface (	(C7)		Shallow Aquitard (D3)		
Inund	ation Visible on Aerial Ima	agery (B7)	Other	(Explain in Re	emarks)		Microtopographic Relief (D4)		
Sparse	ely Vegetated Concave Sur	rface (B8)	_				FAC-Neutral Test (D5)		

Depth (inches):

Depth (inches):

Depth (inches):

Field Observations:

Surface Water Present?

Water Table Present?

Saturation Present?

Remarks:



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	-		Sampling Date: 6/1			
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: W	21-C		
Investigator(s): Brandon Bohks			nship, Range: 2					
Landforms (hillside, terrace, etc.): Basin/Depression	1	Local Relief (concave, convex, none):       Concave       Slope (%):       0-2						
Subregion: LRR K Latitude:		Longitude:		Datum:				
Soil Map Unit Name: Dundas fine sandy loam			ification: <b>PEM</b>					
Are climatic/hydrologic conditions of the site typical for	-	Yes	_ ``	explain in remarks)				
· · · · · · · · · · · · · · · · · · ·	r hydrology		icantly disturbed		imstances present?			
Are vegetation, soils, or	r hydrology		ally problematic	? (If needed, explai	n any answers in R	emarks)		
	SUMMAR	Y OF FINE	DINGS					
Hydrophytic vegetation present?	Yes							
Hydric soils present?	Yes		Is the sam	pled area within a wetl	and? Yes	_		
Wetland hydrology present?	Yes							
Remarks:								
	<b>EGETATION</b>	- Use scientific	names of plants	3				
	Absolute	Dominant	Indicator	50/20 Threshol	ld 20%	50%		
<u>Tree Stratum</u> (Plot size: 30 feet )	% Cover	Species	Status	Tree Stratum	0	0		
1				Sapling/Shrub Stratur	m 0	0		
2				Herb Stratum	20	50		
3				Woody Vine Stratum	0	0		
4				Dominanc	e Test Worksheet	t		
5					, ·			
		Total Cover		Number of domin that are OBL, FAC	-	(A)		
Sapling/Shrub stratum (Plot size: 15 feet )						()		
1				Total number of species acros		(B)		
2						(B)		
3				Percent of dominant are OBL, FAC		% (A/B)		
4				Prevalence	e Index Workshee	et		
5				Total % cover of:				
		Total Cover		OBL Species:	<b>0</b> x 1 =	0		
Herb stratum: (Plot size: 5 feet )				FACW Species: 1		200		
1 Phalaris arundinacea	100	Yes	FACW			0		
	100	105	TACW					
2						0		
3						0 (D)		
4				Totals: 1		200 (B)		
5					ndex (B/A): 2.00	-		
6					Vegetation Indica			
7				X Rapid test for	hydrophytic vegeta	ation		
8				X Dominance te	st >50%			
9				X Prevalence in	dex is ≤3.0*			
10	100 =	Total Cover		Morphologica supporting da	nl adaptations* (Pro ta in remarks)	ovide		
Woody vine stratum: (Plot size: <u>15 feet</u> )					ydrophytic vegetat	ion*		
2				*Indicators of hydrid		hudrala		
۲	0 =	Total Cover		*Indicators of hydrid must be present, unl				
Remarks:		_		Hydrophytic veg present?				



### EXHIBIT G: WETLAND DETERMINATION DATA FORM

(Northcentral and Northeast Region - LRR K)

SOILS

Profile Desc	ription: (Describe to	the dep	th needed to doc	ument t	he indicator	or confirm the	absence of indicator	s.)	
Depth	Matrix	Redox Features							
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks	
0-12+	10YR 2/1	85	7.5YR 4/6	15	С	М	Clay Loam		
	*Type: C = Concentr	ation, D	= Depletion, RM	= Redu	ed Matrix, M	S = Masked Sa	nd Grains. **Location	h: PL = Pore Lining, M = Matrix	
Hydric Soil	Indicators:						Indicators fo	or Problematic Hydric Soils*:	
Histis	ol (A1)			Strippe	d Matrix (S6)	)	2 cm N	Muck (A10)	
Histic	Histic Epipedon (A2)					ral (F1)	Coast	Prairie Redox (A16)	
Black	Histic (A3)			Loamy	Gleyed Matr	ix (F2)	5 cm N	Mucky Peat or Peat (S3)	
Hydro	ogen Sulfide (A4)			Deplet	ed Matrix (F3	)	Dark S	Surface (S7)	
Stratit	fied Layers (A5)		X	Redox	Dark Surface (F6) Polyval			lve Below Dark Surface (S8)	
Deple	ted Below Dark Surfa	ce (A11	)	Deplet	ted Dark Surface (F7) Thin			Dark Surface (S9)	
Thick	Dark Surface (A12)			Redox	Depressions (F8)			Manganese Masses (F12)	
Sandy	Mucky Material (S1)		*Indicators of h	- ydrophy	ytic vegetation and wetland Red Pa			arent Material (T42)	
Sandy	Gleyed Matrix (S4)			ist be pr				Shallow Dark Surface (TF12)	
Sandy	Redox (S5)			prob	oblematic Other (Explain in remarks)			(Explain in remarks)	
Restrictive I	ayer (if observed):								
Type:	-						Hydric Soils Pres	sent: Yes	
Depth (inches	5):			-					
				-					
Remark	soil pit was	dug to a	depth of 12-inch	ies.					
				]	HYDROL	OGY			
Wetland Hyd	rology Indicators:						Second	dary Indicators (minimum of two required)	

Primary Indicators (minimum of one is required; check	all that apply)	Surface Soil Crack (B6)					
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)					
High Water Table (A2)	High Water Table (A2)Aquatic Fauna (B13)						
Saturation (A3)	Saturation (A3)Marl Deposits (B15)						
Water Marks (B1)	Crayfish Burrows (C8)						
Sediment Deposits (B2)	Saturation Visible on Aerial Imagery (C						
Drift Deposits (B3)	Stunted or Stressed Plants (D1)						
Algal Mat or Crust (B4)	<b>X</b> Geomorphic Position (D2)						
Iron Deposits (B5)	Iron Deposits (B5) Thin Muck Surface (C7)						
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)					
Sparsely Vegetated Concave Surface (B8)		X FAC-Neutral Test (D5)					
Field Observations:							
Surface Water Present?	Depth (inches):	Indicators of Wetland					
Water Table Present?	Depth (inches):	Hydrology Present? Yes					
Saturation Present?	Depth (inches):						



neur copie. neur solutions.	Northcentral and	e	,				
Project/Site: Headwaters Parkway	Cit	y/County: Wash	-	5	Sampling Date: 6/19/2019		
Applicant/Owner: City of Forest Lake		Stat		Sample Point: W21-D			
Investigator(s): Brandon Bohks			nship, Range: 2				
Landforms (hillside, terrace, etc.): Backslope			(concave, conve	· · · · · · · · · · · · · · · · · · ·	Slope (%):	: 7-9	
Subregion: LRR K Latitude:		Longitude:	· · · · • • • •	Datum:			
Soil Map Unit Name: <b>Dundas fine sandy loam</b>			ification: None	1			
Are climatic/hydrologic conditions of the site typical for t	-	Yes	_	explain in remarks)			
· · · · · · · · · · · · · · · · · · ·	ydrology		icantly disturbed		mstances present?		
Are vegetation, soils, or h	ydrology		ally problematic	? (If needed, explain	any answers in R	emarks)	
		Y OF FINI	DINGS				
Hydrophytic vegetation present?	No		T 4		10		
Hydric soils present?	Yes		Is the sam	pled area within a wetl	and? No	-	
Wetland hydrology present?	No						
Remarks:							
X7	ECETATION	TT	C 1 /				
	EGETATION			50/20 Threshold	d 20%	50%	
<u>Tree Stratum</u> (Plot size: 30 feet )	Absolute % Cover	Dominant	Indicator Status	Tree Stratum		0	
	76 Cover	Species	Status		n $\frac{0}{3}$	7.5	
2				Sapling/Shrub Stratum Herb Stratum	22.4	56	
2				Woody Vine Stratum	0	0	
5					e Test Worksheet		
4				Dominanc	e Test worksheet	·	
5		T ( 1 C		Number of domin	-		
Sonling/Shush stratum (Dist size) 15 ( )	0 =	Total Cover=		that are OBL, FAC	W, or FAC: 1	(A)	
Sapling/Shrub stratum (Plot size: 15 feet )	15	Yes	EAC	Total number of			
1 Populus deltoides	15	res	FAC	species acros	s all strata: 2	(B)	
2				Percent of dominant s			
3				are OBL, FAC			
4				Total % cover of:	Index Workshee	t	
5							
	=	Total Cover		OBL Species:		0	
Herb stratum: (Plot size: 5 feet )		<b>X</b> 7	EA CU	· ·		64	
1 Poa pratensis	60	Yes	FACU			45	
2 Phalaris arundinacea		No	FACW			<u>20</u>	
3 Bromus inermis	15	No	FACU			0 (D)	
4 Cirsium arvense		No	FACW	Totals: 1		<b>29</b> (B)	
5 Solidago canadensis	5	No	FACU		idex (B/A): 3.38	-	
6					Vegetation Indica		
7					hydrophytic vegeta	ition	
8				Dominance tes			
9				Prevalence ind	ex is $\leq 3.0^*$		
10	112 =	Total Cover		Morphologica supporting dat	l adaptations* (Pro a in remarks)	vide	
Woody vine stratum: (Plot size: 15 feet ) 1				Problematic h (Explain in ren	ydrophytic vegetati narks)	ion*	
2		Total Cover		*Indicators of hydric must be present, unle			
				Hydrophytic veg	etation		
<u>Remarks:</u>				present?	No No		



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(Northcentral and Northeast Region - LRR K)

SOILS

Profile Desci	ription: (Describe to	the dep	th needed to docu	ıment t	he indicator o	or confirm the	absence of indicator	rs.)
Depth	Matrix			Redo	x Features			
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-4	10YR 2/2	100					Sandy Loam	
4-12+	10YR 2/2	90	7.5YR 4/6	10	С	М	Sandy Loam	
						1		
				1				
						1		
	*Type: C = Concentr	ation, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked Sa	nd Grains. **Locatio	n: PL = Pore Lining, M = Matrix
Hydric Soil I	Indicators:						Indicators f	or Problematic Hydric Soils*:
Histis	ol (A1)			Strippe	ed Matrix (S6)	)	2 cm	Muck (A10)
Histic	Epipedon (A2)			Loamy	Mucky Mine	ral (F1)	Coast	Prairie Redox (A16)
	Histic (A3)			-	Gleyed Matri		5 cm	Mucky Peat or Peat (S3)
	gen Sulfide (A4)			- '	ed Matrix (F3	· · ·		Surface (S7)
	ied Layers (A5)		X	-	Dark Surface			alve Below Dark Surface (S8)
	ted Below Dark Surfa	ce (A11		-	ed Dark Surfa			Dark Surface (S9)
	Dark Surface (A12)		,		Depressions (			Manganese Masses (F12)
	Mucky Material (S1)	)	*Indications of h	-	-			arent Material (T42)
	Gleyed Matrix (S4)		*Indicators of h hydrology mu		esent, unless c			Shallow Dark Surface (TF12)
	Redox (S5)			-	olematic			(Explain in remarks)
	ayer (if observed):							
Type:	ayer (il observeu).						Hudria Caila Dra	aanta Vaa
Depth (inches	z).			-			Hydric Soils Pre	sent: Yes
Deptil (mener				•				
Remark	soil pit was	dug to 1	2-inches.					
					HYDROL	OCV		
Wetland Hyd	rology Indicators:				IIIDKUL	001	Sacar	dary Indicators (minimum of two required)
-	ators (minimum of or	ne is reau	uired: check all the	at apply	)		<u></u>	Surface Soil Crack (B6)
	e Water (A1)				∠ Stained Leave	es (B9)		Drainage Patterns (B10)
	Water Table (A2)			-	c Fauna (B13)			Moss Trim Lines (B16)
	tion (A3)			-	Deposits (B15)			Dry-Season Water Table (C2)
	Marks (B1)			-	gen Sulfide Oc			Crayfish Burrows (C8)
	ent Deposits (B2)				-	res on Living R	oots(C3)	Saturation Visible on Aerial Imagery (C9)
	Deposits (B3)			-	ce or Reduced	-		Stunted or Stressed Plants (D1)
	Mat or Crust (B4)			-		on in Tilled Soi		Geomorphic Position (D2)
	Deposits (B5)			-	luck Surface (			Shallow Aquitard (D3)
	ation Visible on Aeria	l Imager		-	Explain in Re			Microtopographic Relief (D4)
	ely Vegetated Concav	-	· · · · ·			indiks)		FAC-Neutral Test (D5)
Field Observa			x -7					
Surface Wate				г	enth (inchas)			
Water Table I					Depth (inches):		-	Indicators of Wetland Hydrology Present? No
					Depth (inches)		.	Hydrology Present? No
Saturation Pro	escill?			L	Depth (inches)		-	

Remarks:



Real reopie: near solutions.	lorthcentral and	e	,			
Project/Site: Headwaters Parkway	Cit	y/County: Wash	-		ampling Date: 6/19/	
Applicant/Owner: City of Forest Lake			$\approx MN$		Sample Point: W22	;-A
Investigator(s): Brandon Bohks			nship, Range: 2			
Landforms (hillside, terrace, etc.): Basin/Depression Subregion: LRR K Latitude:			(concave, conve	· · · · · · · · · · · · · · · · · · ·	Slope (%):	0-2
÷	<u> </u>	Longitude:	ification: <b>PEM</b> 1	Datum:		
Soil Map Unit Name: Webster loam Are climatic/hydrologic conditions of the site typical for thi	s time of year?	Yes		explain in remarks)		
	drology		icantly disturbed	-	nstances present?	Vag
	drology		ally problematic		any answers in Rem	
		TAILITE RY OF FIND		. (If fielded, explain	any answers in Ken	lai KSj
Hydrophytic vegetation present?	Yes					
Hydric soils present?	Yes		Is the sam	pled area within a wetla	nd? Yes	
Wetland hydrology present?	Yes		15 the sum	pica area wrann a weda	103	
	105					
Remarks:						
VE	GETATION	- Use scientific	names of plants			
	Absolute	Dominant	Indicator	50/20 Threshold	20%	50%
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	7	17.5
1 Populus deltoides	35	Yes	FAC	Sapling/Shrub Stratum	4	10
2				Herb Stratum	20.8	52
3				Woody Vine Stratum	0	0
4				Dominance	Test Worksheet	
5				Number of domina	int species	
	35 =	Total Cover=		that are OBL, FACW	<i>V</i> , or FAC: 2	(A)
Sapling/Shrub stratum (Plot size: 15 feet )				Total number of	dominant	
1 Populus deltoides	20	Yes	FAC	species across	all strata: 3	(B)
2				Percent of dominant sp		
3				are OBL, FACV		(A/B)
4				Prevalence	Index Worksheet	
5				Total % cover of:		
	20 =	Total Cover		OBL Species: 10	<b>0</b> $x 1 = 10$	
Herb stratum: (Plot size: 5 feet )	_			FACW Species: 1	<b>0</b> $x 2 = 20$	_
1 Poa pratensis	45	Yes	FACU	FAC Species: 84	4 $x 3 = 252$	2
2 Hordeum jubatum	19	No	FAC	FACU species: 5	5 x 4 = 220	)
3 Populus deltoides	10	No	FAC	UPL Species: 0		_
4 Asclepias incarnata	10	No	OBL	Totals: 15	9 (A) 502	2 (B)
5 Solidago gigantea	10	No	FACW	Prevalence Inc	dex (B/A): 3.16	
6 Trifolium pretense	5	No	FACU		egetation Indicator	
7				Rapid test for h	ydrophytic vegetatio	on
8				X Dominance test	:>50%	
9				Prevalence inde	ex is ≤3.0*	
10	104 =	=Total Cover		Morphological supporting data	adaptations* (Provid in remarks)	de
Woody vine stratum: (Plot size: <u>15 feet</u> ) 1				Problematic hy (Explain in rem	drophytic vegetation narks)	1*
2		=Total Cover		*Indicators of hydric must be present, unlea	soil and wetland hyd	
		. 5001 00101		-		
<u>Remarks:</u>				Hydrophytic vege present?	tation Yes	



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SOILS

Danth	Matrix			Redo	x Features						
Depth (inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks			
0-12	10YR 4/2	80	7.5YR 4/6	20	С	М	Clay Loam				
	*Type: C = Concentr	ation, D	= Depletion, RM	= Redu	eed Matrix, M	S = Masked Sa	nd Grains. **Locatio	on: $PL = Pore Lining, M = Matrix$			
Hydric Soil	Indicators:						Indicators	for Problematic Hydric Soils*:			
Histis	ol (A1)			Strippe	ed Matrix (S6)	)	2 cm	Muck (A10)			
Histic	Epipedon (A2)			Loamy	Mucky Mine	ral (F1)	Coas	Coast Prairie Redox (A16)			
Black	Histic (A3)			Loamy	Gleyed Matri	ix (F2)	5 cm	Mucky Peat or Peat (S3)			
Hydro	gen Sulfide (A4)		X	Deplet	ed Matrix (F3	)	Dark	Surface (S7)			
Stratif	fied Layers (A5)			Redox	Dark Surface	(F6)	Poly	valve Below Dark Surface (S8)			
Deple	ted Below Dark Surfa	ce (A11	)	Deplet	ed Dark Surfa	ce (F7)	Thin	Dark Surface (S9)			
Thick	Dark Surface (A12)			Redox	Depressions (	F8)	Iron-	Manganese Masses (F12)			
Sandy	Mucky Material (S1)	)	*Indicators of h	ydrophy	ytic vegetatior	and wetland	Red	Parent Material (T42)			
Sandy	Gleyed Matrix (S4)		hydrology mu	-		listurbed or	Very	Shallow Dark Surface (TF12)			
Sandy	Redox (S5)			prob	olematic		Othe	r (Explain in remarks)			
Restrictive I	ayer (if observed):										
Type:							Hydric Soils Pro	esent: Yes			
Depth (inches	s):			-							
				•							
Remark	s: Soil pit was	dug to a	depth of 12-inch	es.							

#### HYDROLOGY

Leaves (B9) Surface Soil Crack (B6) Drainage Patterns (B10)
Leaves (B9) Drainage Patterns (B10)
Diamage Fatterns (B10)
(B13) Moss Trim Lines (B16)
(B15) Dry-Season Water Table (C2)
ide Odor (C1) Crayfish Burrows (C8)
Saturation Visible on Aerial Imagery (C9)
duced Iron (C4) Stunted or Stressed Plants (D1)
duction in Tilled Soils (C6) <b>X</b> Geomorphic Position (D2)
face (C7) Shallow Aquitard (D3)
in Remarks) Microtopographic Relief (D4)
FAC-Neutral Test (D5)
ches): Indicators of Wetland
ches): Hydrology Present? Yes
ches):



neur copie: neur solutions.	Northcentral and	e	,				
Project/Site: Headwaters Parkway	City	y/County: Wash	_		mpling Date: 6/1		
Applicant/Owner: City of Forest Lake			$\frac{MN}{1}$	Sample Point: W22-B			
Investigator(s): Brandon Bohks			nship, Range: 2				
Landforms (hillside, terrace, etc.): Terrace			(concave, conv	· · · · · · · · · · · · · · · · · · ·	Slope (%):	1-3	
Subregion: LRR K Latitude:		Longitude:		Datum:			
Soil Map Unit Name: Webster loam			ification: None				
Are climatic/hydrologic conditions of the site typical for the	-	Yes	_	explain in remarks)			
· · · · · · · · · · · · · · · · · · ·	ydrology		icantly disturbe		-		
Are vegetation, soils, or h	ydrology		ally problematic	? (If needed, explain a	any answers in R	emarks)	
		Y OF FINE	DINGS				
Hydrophytic vegetation present?	No						
Hydric soils present?	No		Is the sam	pled area within a wetlan	nd? No	_	
Wetland hydrology present?	No						
Remarks:							
VI	EGETATION	- Use scientific	names of plants				
	Absolute	Dominant	Indicator	50/20 Threshold	20%	50%	
Tree Stratum         (Plot size: 30 feet )	% Cover	Species	Status	Tree Stratum	3	7.5	
1 Populus deltoides	15	Yes	FAC	Sapling/Shrub Stratum	0	0	
2				Herb Stratum	18.8	47	
3				Woody Vine Stratum	0	0	
4				Dominance	Test Worksheet		
5				Number of dominar	nt species		
	15 =	Total Cover		that are OBL, FACW	-	(A)	
Sapling/Shrub stratum (Plot size: 15 feet )				Total number of	dominant		
1				species across		(B)	
2				Percent of dominant sp			
3				are OBL, FACW		6 (A/B)	
4				Prevalence I	ndex Workshee	t	
5				Total % cover of:			
·		Total Cover		OBL Species: 0	x 1 =	0	
Herb stratum: (Plot size: 5 feet )				FACW Species: 5		10	
1 Poa pratensis	40	Yes	FACU	FAC Species: 15		15	
2 Solidago canadensis	40	Yes	FACU	FACU species: 89		56	
	9	No	FACU	UPL Species: 0		0	
3 Asclepias syriaca 4 Solidago gigantea	5	No	FACU	Totals: 109		0 11 (B)	
0.00			TACW			<u>II</u> (D)	
5					ex (B/A): 3.77	-	
6				Hydrophytic Ve	-		
7					drophytic vegeta	ition	
8				Dominance test	>50%		
9				Prevalence index	x is ≤3.0*		
10	94 =	Total Cover		Morphological a supporting data	adaptations* (Pro in remarks)	vide	
Woody vine stratum: (Plot size: <u>15 feet</u> ) 1				Problematic hyd (Explain in rema	lrophytic vegetati arks)	on*	
2		Total Cover		*Indicators of hydric s must be present, unless	oil and wetland h		
				-			
Remarks:				Hydrophytic veget present?	ation No		



#### **EXHIBIT G:** WETLAND DETERMINATION DATA FORM

(Northcentral and Northeast Region - LRR K)

SOILS

Profile Desc	ription: (Describe to	the dept	th needed to docu	iment 1	the indicator	or confirm the	absence of indicator	rs.)		
Depth	Matrix			Redo	ox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks		
0-12	10YR 3/3	100			1	1	Sandy Loam			
					1	1				
	*Type: C = Concentr	ation, D	= Depletion, RM	= Redu	iced Matrix, M	IS = Masked Sa	nd Grains. **Location	n: PL = Pore Lining, M = Matrix		
Hydric Soil	Indicators:						Indicators f	or Problematic Hydric Soils*:		
Histis	sol (A1)				ed Matrix (S6)	·	2 cm 1	Muck (A10)		
Histic	Epipedon (A2)			Loamy	y Mucky Mine	eral (F1)	Coast	Coast Prairie Redox (A16)		
Black	Histic (A3)			Loamy	y Gleyed Matr	ix (F2)	5 cm 1	5 cm Mucky Peat or Peat (S3)		
Hydro	ogen Sulfide (A4)			Deplet	ted Matrix (F3	5)	Dark	Surface (S7)		
Stratif	fied Layers (A5)			-	Dark Surface		Polyva	alve Below Dark Surface (S8)		
Deple	eted Below Dark Surfa	ice (A11)	)	Deplet	ted Dark Surfa	ace (F7)	Thin I	Dark Surface (S9)		
Thick	Dark Surface (A12)			Redox	Depressions (	(F8)	Iron-N	Manganese Masses (F12)		
Sandy	Mucky Material (S1)	)	*Indicators of h	ydroph	ytic vegetation	n and wetland	Red P	Parent Material (T42)		
Sandy	Gleyed Matrix (S4)		hydrology mu	-		disturbed or	Very	Shallow Dark Surface (TF12)		
Sandy	(Redox (S5)			pro	blematic		Other	(Explain in remarks)		
Restrictive I	Layer (if observed):				Τ					
Type:							Hydric Soils Pres	sent: No		
Depth (inches	s):			•						
					<u>.</u> [					
Remark	ks: Soil pit was	dug to 1	2-inches.							
					HYDROL	JOGY				
Wetland Hyd	lrology Indicators:						Secon	dary Indicators (minimum of two required)		
Primary Indic	cators (minimum of or	ne is requ	ired; check all that	it apply	<u>/)</u>			Surface Soil Crack (B6)		
Surfac	ce Water (A1)			Water	-Stained Leave	es (B9)		Drainage Patterns (B10)		
High	Water Table (A2)			Aquat	ic Fauna (B13	<b>)</b>	Moss Trim Lines (B16)			
Satura	ation (A3)			Marl I	Deposits (B15)	)		Dry-Season Water Table (C2)		

Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence or Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) Microtopographic Relief (D4) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Depth (inches): **Indicators of Wetland** Water Table Present? **Hydrology Present?** Depth (inches): Saturation Present? Depth (inches):

No

Remarks:



	Northcentral and	-	-			
Project/Site: Headwaters Parkway	Cit	y/County: Wash			Sampling Date: 6/1	
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: W	23-A
Investigator(s): Brandon Bohks			nship, Range: 2			
Landforms (hillside, terrace, etc.): Road Ditch			(concave, conv		ve Slope (%)	: 0-2
Subregion: LRR K Latitude:		Longitude:		Datum:		
Soil Map Unit Name: Dundas fine sandy loam			ification: <b>PEM</b>			
Are climatic/hydrologic conditions of the site typical for the	-	Yes	_	, explain in remarks)		
	ydrology		ficantly disturbe		imstances present?	
Are vegetation, soils, or h	ydrology		ally problematic	? (If needed, explai	n any answers in R	emarks)
		RY OF FINI	DINGS			
Hydrophytic vegetation present?	Yes					
Hydric soils present?	Yes		Is the sam	pled area within a wetl	and? Yes	-
Wetland hydrology present?	Yes					
Remarks:						
VI	EGETATION	- Use scientific	names of plants		ld 20%	50%
Tree Stratum (Plot size: 30 feet )	Absolute	Dominant	Indicator	50/20 Threshol		
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	0	0
1				Sapling/Shrub Stratur		0
2				Herb Stratum	10	25
3				Woody Vine Stratum	10000000000	0
4				Dominand	ce Test Worksheet	t
5				Number of domin	-	
	0 =	Total Cover		that are OBL, FAC	W, or FAC: 1	(A)
Sapling/Shrub stratum (Plot size: 15 feet )				Total number		
1				species acro	ss all strata: 1	(B)
2				Percent of dominant	-	
3				are OBL, FAC		
4					e Index Workshee	t
5				Total % cover of:		
	0 =	Total Cover		OBL Species:	8 x 1 =	8
Herb stratum: (Plot size: 5 feet )	_				<b>42</b> x 2 =	84
1 Phalaris arundinacea	35	Yes	FACW	FAC Species:	<b>0</b> x 3 =	0
2 Alisma triviale	8	No	OBL	FACU species:	<b>0</b> x 4 =	0
3 Eleocharis species	7	No	FACW	UPL Species:		0
4				Totals:	50 (A)	<b>92</b> (B)
5				Prevalence In	ndex (B/A): 1.84	_
6				Hydrophytic	Vegetation Indica	tors
7				X Rapid test for	hydrophytic vegeta	ation
8				X Dominance te	st>50%	
9				X Prevalence in	dex is $\leq 3.0^*$	
10				Morphologica	al adaptations* (Pro	ovide
	50 =	Total Cover		supporting da		
Woody vine stratum: (Plot size: 15 feet )				Problematic h	ydrophytic vegetat	ion*
1				(Explain in re		
2				*Indicators of hydrid	c soil and wetland	nydrology
	0 =	Total Cover		must be present, unl		
Romonka.				Hydrophytic veg	getation	
<u>Remarks:</u>				present?		



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SOILS

Depth	Matrix			Redox	x Features				
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks	
0-12	10YR 4/2	858	7.5YR 4/6	15	C M		Clay Loam		
	<b>71</b>	ation, D	= Depletion, RM	= Reduc	ed Matrix, M	S = Masked Sa		ion: PL = Pore Lining, M = Matrix	
Hydric Soil 1								s for Problematic Hydric Soils*:	
	ol (A1)				d Matrix (S6)			n Muck (A10)	
Histic	Epipedon (A2)			Loamy	Mucky Mine	ral (F1)	Coa	st Prairie Redox (A16)	
Black	Histic (A3)			Loamy	Gleyed Matri	x (F2)	5 cr	n Mucky Peat or Peat (S3)	
Hydro	gen Sulfide (A4)		X	Deplete	ed Matrix (F3)	)	Dar	k Surface (S7)	
Stratif	ied Layers (A5)			Redox	Dark Surface	(F6)	Pol	vvalve Below Dark Surface (S8)	
Deple	ted Below Dark Surfa	ce (A11)	)	Deplete	ed Dark Surfa	ce (F7)	Thi	n Dark Surface (S9)	
Thick	Dark Surface (A12)			Redox	Depressions (	F8)	Iron	-Manganese Masses (F12)	
Sandy	Mucky Material (S1)	)	*Indicators of h	vdrophy	· · · · ·			Parent Material (T42)	
Sandy	Gleyed Matrix (S4)		hydrology mu				Ver	y Shallow Dark Surface (TF12)	
Sandy	Redox (S5)			prob	olematic		Oth	er (Explain in remarks)	
Restrictive I	ayer (if observed):								
Гуре:							Hydric Soils P	resent: Yes	
Depth (inches	5):								
Restrictive I Type: Depth (inches <u>Remark</u>	s):	dug to a	depth of 12-inch	es.			Hydric Soils P	resent: <u>Yes</u>	

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; cheet	<u>k all that apply)</u>	Surface Soil Crack (B6)			
Surface Water (A1)	X Water-Stained Leaves (B9)	Drainage Patterns (B10)			
High Water Table (A2)	High Water Table (A2)   Aquatic Fauna (B13)				
Saturation (A3)	Saturation (A3) Marl Deposits (B15)				
Water Marks (B1)	Crayfish Burrows (C8)				
Sediment Deposits (B2)	Saturation Visible on Aerial Imagery (C9)				
Drift Deposits (B3)	Stunted or Stressed Plants (D1)				
Algal Mat or Crust (B4)	X Geomorphic Position (D2)				
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)			
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)			
Sparsely Vegetated Concave Surface (B8)		X FAC-Neutral Test (D5)			
Field Observations:					
Surface Water Present?	Depth (inches):	Indicators of Wetland			
Water Table Present?	Depth (inches):	Hydrology Present? Yes			
Saturation Present?	Depth (inches):				



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	_		ampling Date: <u>6/</u>	
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: W	/24-A
Investigator(s): Brandon Bohks			nship, Range: 29			
Landforms (hillside, terrace, etc.): Basin/Depres			(concave, conve		e Slope (%)	): 0-2
Subregion: LRR K Latitude:		Longitude:		Datum:		
Soil Map Unit Name: Bluffton loam			ification: <b>PEM</b> 1			
Are climatic/hydrologic conditions of the site typical	-	Yes	_	explain in remarks)		
Are vegetation X, soils	, or hydrology		icantly disturbed		-	
Are vegetation, soils	, or hydrology		ally problematic	? (If needed, explain	any answers in R	Remarks)
	SUMMAR	RY OF FINI	DINGS			
Hydrophytic vegetation present?	Yes					
Hydric soils present?	Yes		Is the sam	pled area within a wetla	nd? Yes	
Wetland hydrology present?	Yes					
Remarks: Sample point was taken in a agricu	llture field, planting ha	s not taken pla	ce due to wet co	onditions		
	VEGETATION	- Use scientific	names of plants			
	Absolute	Dominant	Indicator	50/20 Threshold	20%	50%
Tree Stratum (Plot size: 30 feet	) % Cover	Species	Status	Tree Stratum	0	0
1				Sapling/Shrub Stratum	0	0
2				Herb Stratum	0	0
3				Woody Vine Stratum	0	0
4				Dominance	Test Workshee	t
5				Number of domina	int species	
	0 =	Total Cover		that are OBL, FACW	-	(A)
Sapling/Shrub stratum (Plot size: 15 feet	)			Total number of	dominant	
1	-			species across		(B)
2				Percent of dominant s	necies that	
3				are OBL, FACV		% (A/B)
4				Prevalence	Index Workshee	et
5				Total % cover of:		
		Total Cover		OBL Species: 0	x 1 =	0
Herb stratum: (Plot size: 5 feet	)			FACW Species: 0	x 2 =	0
1	<u>,                                     </u>			FAC Species: 0	x 3 =	0
2				FACU species: 0		0
3				UPL Species: 0		0
4				Totals: 0		<b>0</b> (B)
5			·	Prevalence Inc	—`´ —	0 (2)
6					egetation Indica	
7					ydrophytic veget	ation
8				Dominance test		
9				Prevalence inde	$x \text{ is } \leq 3.0^*$	
10	=	Total Cover		Morphological supporting data	adaptations* (Pro in remarks)	ovide
Woody vine stratum: (Plot size: 15 feet 1	_)			Problematic hy (Explain in rem	drophytic vegetat 1arks)	tion*
2		=Total Cover		*Indicators of hydric must be present, unle		
Due to the presence of hydric soil			ic vegetation is	Hydrophytic vege	tation	
Remarks.	ssumed to be present.	B) J ar o' prij ti		present?	Yes	



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SOLLS

				SOIL	0			
Profile Desc	ription: (Describe to the	e depth needed to doct	ument t	the indicator	or confirm the	absence of indicator	rs.)	
Depth	Depth Matrix Redox Features							
(inches)	Color (moist)	% Color (moist)	%	Type*	Loc**	Texture	Remarks	
0-14	10YR 2/1	100				Clay Loam		
14-20+	10YR 5/1	85 7.5YR 4/6	15	С	М	Sandy Clay Loam		
	*Type: C = Concentratio	$\overline{D}$ = Depletion, RM	= Redu	ced Matrix, M	S = Masked Sa	and Grains. **Locatio	n: PL = Pore Lining, M = Matrix	
Hydric Soil	Indicators:					Indicators f	for Problematic Hydric Soils*:	
Histis	ol (A1)		Stripp	ed Matrix (S6)	)	2 cm	Muck (A10)	
Histic	Epipedon (A2)		Loamy	y Mucky Mine	ral (F1)	Coast	Prairie Redox (A16)	
Black	Histic (A3)		Loamy	y Gleyed Matri	ix (F2)	5 cm	Mucky Peat or Peat (S3)	
Hydro	ogen Sulfide (A4)		Deplet	ted Matrix (F3	)	Dark	Surface (S7)	
Stratif	fied Layers (A5)		Redox	Dark Surface	(F6)	Polyvalve Below Dark Surface (S8)		
Depleted Below Dark Surface (A11)         Depleted Dark Surface (F7)					Thin	Dark Surface (S9)		
X         Thick Dark Surface (A12)         Redox Depressions (F8)					Iron-N	Manganese Masses (F12)		
Sandy Mucky Material (S1) *Indicators of hydrophytic vegetation and wetland					Red P	Parent Material (T42)		
Sandy	Gleyed Matrix (S4)	hydrology mu	-	resent, unless o	disturbed or	Very Shallow Dark Surface (TF12)		
Sandy	r Redox (S5)		pro	blematic		Other	(Explain in remarks)	
Restrictive I	ayer (if observed):							
Type:						Hydric Soils Pre	sent: Yes	
Depth (inches	s):		-			·		
	T		-					
Remark	scil pit was dug	g to a depth of 20-inch	ies.					
				HYDROL	OGY			
Wetland Hyd	Irology Indicators:					Secon	ndary Indicators (minimum of two required)	
Primary Indic	cators (minimum of one is	s required; check all the	at apply	<u>r)</u>		X	Surface Soil Crack (B6)	
Surfac	ce Water (A1)		Water	-Stained Leave	es (B9)		Drainage Patterns (B10)	
High	Water Table (A2)		Aquat	ic Fauna (B13)	)		Moss Trim Lines (B16)	
Satura	ation (A3)		-	Deposits (B15)			– Dry-Season Water Table (C2)	
Water Marks (B1)     Hydrogen Sulfide Odor (C1)							Crayfish Burrows (C8)	
Sediment Deposits (B2)     Oxidized Rhizospheres on Living Roots (0)					Loots (C3) X	-		
Drift Deposits (B3) Presence or Reduced Iron (C4)						Stunted or Stressed Plants (D1)		
Algal	Mat or Crust (B4)		Recen	t Iron Reductio	on in Tilled Soi	lls (C6) X	Geomorphic Position (D2)	
Iron E	Deposits (B5)		-	Auck Surface (		· · ·	Shallow Aquitard (D3)	
Inund	ation Visible on Aerial In	nagery (B7)	Other	(Explain in Re	emarks)		Microtopographic Relief (D4)	
Sparsely Vegetated Concave Surface (B8)						FAC-Neutral Test (D5)		

Depth (inches):

Depth (inches):

Depth (inches):

FAC-Neutral Test (D5)

Indicators of Wetland	
Hydrology Present?	Yes

Remarks:

Saturation Present?

Field Observations: Surface Water Present?

Water Table Present?



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	-		Sampling Date: 6/19/2019	
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: W24-B	
Investigator(s): Brandon Bohks			nship, Range: 29			
Landforms (hillside, terrace, etc.): Backslope			(concave, conve		Slope (%)	: 3-5
Subregion: LRR K Latitude:		Longitude:	· · · · • • •	Datum:		
Soil Map Unit Name: <b>Dundas fine sandy loam</b>			ification: None	1		
Are climatic/hydrologic conditions of the site typical	-	Yes	_	explain in remarks)		
· · · · · · · · · · · · · · · · · · ·	, or hydrology		icantly disturbed		-	
Are vegetation, soils	, or hydrology		ally problematic	? (If needed, explain a	ny answers in R	emarks)
		RY OF FINI	DINGS			
Hydrophytic vegetation present?						
Hydric soils present?		Is the sam	pled area within a wetlan	d? No	_	
Wetland hydrology present?						
Remarks:						
		_				
	VEGETATION	- Use scientific	names of plants			
	Absolute	Dominant	Indicator	50/20 Threshold	20%	50%
Tree Stratum (Plot size: 30 feet	) % Cover	Species	Status	Tree Stratum	0	0
1				Sapling/Shrub Stratum	0	0
2				Herb Stratum	0	0
3				Woody Vine Stratum	0	0
4				Dominance 7	Fest Worksheet	t
5				Number of dominar	t species	
	0 =	=Total Cover		that are OBL, FACW,	-	(A)
Sapling/Shrub stratum (Plot size: 15 feet	)			Total number of	dominant	
1				species across a	all strata:	(B)
2				Percent of dominant spe	ecies that	
3				are OBL, FACW		<b>6</b> (A/B)
4				Prevalence In	ndex Workshee	t
5				Total % cover of:		
	0 =	=Total Cover		OBL Species: 0	x 1 =	0
Herb stratum: (Plot size: 5 feet	)			FACW Species: 0	x 2 =	0
1 Zea mays				FAC Species: 0	x 3 =	0
2				FACU species: 0	x 4 =	0
3				UPL Species: 0	x 5 =	0
4				Totals: 0	(A)	<b>0</b> (B)
5				Prevalence Inde	ex (B/A):	
6				Hydrophytic Ve	getation Indica	tors
7				Rapid test for hy	drophytic veget	ation
8				Dominance test		
9				Prevalence index		
10						wide
	0=	=Total Cover		Morphological a supporting data i		ovide
Woody vine stratum:         (Plot size: 15 feet           1	)			Problematic hyd (Explain in rema		ion*
2		=Total Cover		*Indicators of hydric so must be present, unless		
Comr	ole point was taken in	a		Unduanha dia ara di	ation	
	eld recently planted v			Hydrophytic vegeta present?	ation No	



#### **EXHIBIT G:** WETLAND DETERMINATION DATA FORM

(Northcentral and Northeast Region - LRR K)

					SOIL	72				
Profile Desc	ription: (Describe to	the dept	th needed to docu	ument t	he indicator	or confirm the	e absence of indicate	ors.)		
Depth Matrix Redox Features										
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks		
0-20	10YR 2/1	100					Clay Loam			
20-27+	10YR 4/1	90	7.5YR 4/6	10	С	М	Sandy Clay Loan	ı		
	*Type: C = Concent	ration, D	= Depletion, RM	= Redu	ced Matrix, N	/IS = Masked S	and Grains. **Location	on: PL = Pore Lining, M = Matrix		
Hydric Soil	Indicators:						Indicators	for Problematic Hydric Soils*:		
Histis	sol (A1)			Strippe	ed Matrix (S6	)	2 cm	Muck (A10)		
Histic	Epipedon (A2)			Loamy	/ Mucky Mine	eral (F1)	Coas	t Prairie Redox (A16)		
Black	Histic (A3)			Loamy	Gleyed Matr	rix (F2)	5 cm	Mucky Peat or Peat (S3)		
Hydro	ogen Sulfide (A4)			Deplet	ted Matrix (F3	3)	Dark	Surface (S7)		
Strati	fied Layers (A5)			Redox	Dark Surface	e (F6)	Poly	valve Below Dark Surface (S8)		
Deple	eted Below Dark Surfa	ace (A11)	)	Deplet	ed Dark Surfa	ace (F7)	Thin	Dark Surface (S9)		
X Thick	Dark Surface (A12)			Redox	Depressions	(F8)	Iron-	Manganese Masses (F12)		
Sandy	Mucky Material (S1	)	*Indicators of h				Red Parent Material (T42)			
Sandy	Gleyed Matrix (S4)		hydrology mu	ist be pr	resent, unless		Very Shallow Dark Surface (TF12)			
Sandy	(Redox (S5)			prot	blematic		Othe	r (Explain in remarks)		
Restrictive I	Layer (if observed):			]						
Type:							Hydric Soils Pr	esent: Yes		
Depth (inches	s):			-						
				•	ļ					
Remark	ks: Soil pit was	dug to 2	7-inches.							
					HYDROL	LOGY				
Wetland Hyd	lrology Indicators:						Seco	ndary Indicators (minimum of two required)		
Primary India	cators (minimum of o	ne is requ	uired; check all the	at apply	)			Surface Soil Crack (B6)		
Surfa	ce Water (A1)			Water-	-Stained Leav	'es (B9)		Drainage Patterns (B10)		
High	High Water Table (A2) Aquatic Fauna (B13)							Moss Trim Lines (B16)		
Satura	ation (A3)			- Marl E	Deposits (B15	)		Dry-Season Water Table (C2)		
Water	r Marks (B1)			Hydro	gen Sulfide O	dor (C1)		Crayfish Burrows (C8)		
Sedim	nent Deposits (B2)			Oxidiz	ed Rhizosphe	eres on Living F	Roots (C3)	Saturation Visible on Aerial Imagery (C9)		
Drift	Deposits (B3)			Presen	ice or Reduced	d Iron (C4)		Stunted or Stressed Plants (D1)		
Algal	Mat or Crust (B4)			Recent	t Iron Reducti	ion in Tilled So	ils (C6)	Geomorphic Position (D2)		
Iron Deposits (B5) Thin Muck Surface (C7)							Shallow Aquitard (D3)			

Other (Explain in Remarks)

FAC-Neutral Test (D5)

Microtopographic Relief (D4)

Depth (inches):	<b>Indicators of Wetland</b>	
Depth (inches):	<b>Hydrology Present?</b>	No
Depth (inches):		

Remarks:

Saturation Present?

Field Observations: Surface Water Present?

Water Table Present?

Inundation Visible on Aerial Imagery (B7)

Sparsely Vegetated Concave Surface (B8)



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	-		Sampling Date: 6/19/2019		
Applicant/Owner: City of Forest Lake			e: MN		ample Point: W	25-A	
Investigator(s): Brandon Bohks			nship, Range: 2				
Landforms (hillside, terrace, etc.): Basin/Depressi	on		(concave, conv		Slope (%)	): 0-2	
Subregion: LRR K Latitude:		Longitude:		Datum:			
Soil Map Unit Name: Bluffton loam			fication: <b>PEM</b>				
Are climatic/hydrologic conditions of the site typical	-	Yes	_	, explain in remarks)			
· · · · · · · · · · · · · · · · · · ·	or hydrology		icantly disturbe		-		
Are vegetation , soils ,	or hydrology		lly problematic	? (If needed, explain a	iny answers in R	emarks)	
		RY OF FIND	DINGS				
Hydrophytic vegetation present?	Yes						
Hydric soils present?	Yes		Is the sam	pled area within a wetlan	d? Yes	_	
Wetland hydrology present?	Yes						
<u>Remarks:</u> Sample point was taken in a agricult	ture field recently pla	nted with corn.					
	VEGETATION	- Use scientific	names of plants	3			
	Absolute	Dominant	Indicator	50/20 Threshold	20%	50%	
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	0	0	
1				Sapling/Shrub Stratum	0	0	
2				Herb Stratum	0	0	
3				Woody Vine Stratum	0	0	
4				Dominance '	Test Workshee	t	
5				Number of dominar	nt species		
	0 =	=Total Cover		that are OBL, FACW,	-	(A)	
Sapling/Shrub stratum (Plot size: 15 feet )				Total number of	dominant		
1				species across		(B)	
2				Percent of dominant sp	ecies that		
3				are OBL, FACW		6 (A/B)	
4				Prevalence I	ndex Workshee	et	
5				Total % cover of:			
		=Total Cover		OBL Species: 0	x 1 =	0	
Herb stratum: (Plot size: 5 feet )				FACW Species: 0	x 2 =	0	
1 Zea mays				FAC Species: 0	x 3 =	0	
2				FACU species: 0	x 4 =	0	
3				UPL Species: 0	- x 5 = -	0	
4				Totals: 0	(A) –	<b>0</b> (B)	
5				Prevalence Inde	—`´ —	<u> </u>	
				Hydrophytic Ve			
6				Rapid test for hy	-		
/				Dominance test		ation	
8				·			
9				Prevalence index	K 18 ≤3.0*		
10	0 =	=Total Cover		Morphological a supporting data		ovide	
Woody vine stratum: (Plot size: 15 feet ) 1				Problematic hyd (Explain in rema		ion*	
2		=Total Cover		*Indicators of hydric s must be present, unless			
Due to the presence of hydric soils			c vegetation is	II. due - btt	ation		
Remarks.	umed to be present.	<sub>B</sub> , nyuropnyu	- , egetation is	Hydrophytic veget present?	Yes		



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SOILS

Profile Desci	ription: (Describe to	the dep	th needed to docu			or confirm th	e absence of indicato	rs.)		
Depth	Matrix		Redox Features							
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks		
0-19	10YR 2/1	100					Clay Loam			
19-26+	10YR 5/1	85	7.5YR 4/6	15	С	М	Sandy Clay Loam	1		
	51	ration, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked S		on: $PL = Pore Lining, M = Matrix$		
Hydric Soil I	Indicators:						Indicators	for Problematic Hydric Soils*:		
Histisol (A1) Stripp					ed Matrix (S6)			Muck (A10)		
Histic Epipedon (A2)				Loamy	Mucky Mine	ral (F1)	Coas	t Prairie Redox (A16)		
Black Histic (A3)				Loamy	Gleyed Matri	x (F2)	5 cm	Mucky Peat or Peat (S3)		
Hydro	gen Sulfide (A4)			Deplet	ed Matrix (F3	)	Dark	Surface (S7)		
Stratif	fied Layers (A5)			Redox	Dark Surface	(F6)	Poly	Polyvalve Below Dark Surface (S8)		
Deple	ted Below Dark Surfa	ace (A11	)	Deplet	ed Dark Surfa	ce (F7)	Thin Dark Surface (S9)			
X Thick	Dark Surface (A12)			Redox	Depressions (F8)			-Manganese Masses (F12)		
Sandy	Mucky Material (S1	)	*Indicators of h	- vdroph	vtic vegetation	and wetland	Red	Red Parent Material (T42)		
Sandy	Gleyed Matrix (S4)				esent, unless o		Very	Shallow Dark Surface (TF12)		
Sandy	Redox (S5)			proł	olematic		Othe	Other (Explain in remarks)		
Restrictive L	ayer (if observed):									
Type:							Hydric Soils Pro	esent: Yes		
Depth (inches	3):			_						
Remark	Soil pit was	dug to a	depth of 26-inch	es.	1					
					HYDROL	OGY				
Wotland Hyd	rology Indicators						G			

venanu myurology mulcators.		Secondary indicators (minimum or two require	
Primary Indicators (minimum of one is required; check	all that apply)	Surface Soil Crack (B6)	
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)	
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B16)	
Saturation (A3)	Marl Deposits (B15)	Dry-Season Water Table (C2)	
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)	
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	X Saturation Visible on Aerial Imagery (C	
Drift Deposits (B3)	Stunted or Stressed Plants (D1)		
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	X Geomorphic Position (D2)	
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)	
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)	
Field Observations:			
Surface Water Present?	Depth (inches):	Indicators of Wetland	
Water Table Present?	Depth (inches):	Hydrology Present? Yes	
Saturation Present?	Depth (inches):		



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Project/Site: Headwaters Parkway	Cit	y/County: Wash	-		Sampling Date: 6/19/2019	
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: W25-B	
Investigator(s): Brandon Bohks			nship, Range: 29			
Landforms (hillside, terrace, etc.): Backslope			(concave, conve	· · · · · · · · · · · · · · · · · · ·	Slope (%)	): 4-5
Subregion: LRR K Latitude:		Longitude:	· · · · • • •	Datum:		
Soil Map Unit Name: <b>Dundas fine sandy loam</b>			ification: None	1		
Are climatic/hydrologic conditions of the site typical	-	Yes	_	explain in remarks)		
· · · · · · · · · · · · · · · · · · ·	, or hydrology		icantly disturbed		•	
Are vegetation, soils	, or hydrology		ally problematic	? (If needed, explain	any answers in R	temarks)
		RY OF FINI	DINGS			
Hydrophytic vegetation present?						
Hydric soils present?		Is the sam	pled area within a wetla	nd? No	_	
Wetland hydrology present?						
Remarks:						
		_				
	VEGETATION	- Use scientific	names of plants			
	Absolute	Dominant	Indicator	50/20 Threshold	20%	50%
<u>Tree Stratum</u> (Plot size: 30 feet	) % Cover	Species	Status	Tree Stratum	0	0
1				Sapling/Shrub Stratum	0	0
2				Herb Stratum	0	0
3				Woody Vine Stratum	0	0
4				Dominance	Test Workshee	t
5				Number of domina	nt species	
	0 =	=Total Cover		that are OBL, FACW	-	(A)
Sapling/Shrub stratum (Plot size: 15 feet	)			Total number of	dominant	
1				species across	all strata:	(B)
2				Percent of dominant sp	becies that	
3				are OBL, FACV		<b>6</b> (A/B)
4				Prevalence 1	Index Workshee	et
5				Total % cover of:		
	0 =	=Total Cover		OBL Species: 0	x 1 =	0
Herb stratum: (Plot size: 5 feet	)			FACW Species: 0	x 2 =	0
1 Zea mays				FAC Species: 0	x 3 =	0
2				FACU species: 0	x 4 =	0
3				UPL Species: 0	x 5 =	0
4				Totals: 0	(A) —	<b>0</b> (B)
5				Prevalence Ind	lex (B/A):	
6					egetation Indica	tors
7					ydrophytic veget	
8				Dominance test		
9				Prevalence inde		
10						
	0 =	=Total Cover		Morphological supporting data	adaptations* (Pro in remarks)	ovide
Woody vine stratum:         (Plot size: 15 feet           1	)			Problematic hyd (Explain in rem	drophytic vegetat arks)	tion*
2	0 =	=Total Cover		*Indicators of hydric s must be present, unles		
Samr	ole point was taken in	a		Hydrophytic vege	tation	
	ield recently planted v			present?	No No	_



#### **EXHIBIT G:** WETLAND DETERMINATION DATA FORM

**Indicators of Wetland** 

Hydrology Present?

No

(Northcentral and Northeast Region - LRR K)

0.0**T** 

					SOIL	5				
Profile Descr	ription: (Describe to	the dept	h needed to docu	ıment t	he indicator of	or confirm the	e absence of indicato	rs.)		
Depth	Depth Matrix Redox Features									
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks		
0-26	10YR 2/1	100					Clay Loam			
26-33+	10YR 5/1	85	7.5YR 4/6	15	С	М	Sandy Clay Loam			
	*Type: C = Concentra	ation, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked S	and Grains. **Locatio	n: PL = Pore Lining, M = Matrix		
Hydric Soil I	Indicators:						Indicators	for Problematic Hydric Soils*:		
Histis	ol (A1)			Strippe	ed Matrix (S6)	)	2 cm	Muck (A10)		
Histic	Epipedon (A2)			Loamy	/ Mucky Mine	ral (F1)	Coast	Prairie Redox (A16)		
Black	Histic (A3)			Loamy	Gleyed Matri	ix (F2)	5 cm	Mucky Peat or Peat (S3)		
Hydro	gen Sulfide (A4)			Deplet	ed Matrix (F3	)	Dark	Surface (S7)		
Stratif	fied Layers (A5)			Redox	Dark Surface	(F6)	Polyv	Polyvalve Below Dark Surface (S8)		
Deple	ted Below Dark Surfac	ce (A11)		Deplet	ed Dark Surfa	ce (F7)	Thin	Dark Surface (S9)		
X Thick	Dark Surface (A12)			Redox	Depressions (	(F8)	Iron-J	Manganese Masses (F12)		
Sandy Mucky Material (S1) *Indicators of hydrophytic vegetation and wetland					Red I	Parent Material (T42)				
Sandy	Gleyed Matrix (S4)		hydrology mu	-		disturbed or	Very Shallow Dark Surface (TF12)			
Sandy	Redox (S5)			prol	blematic		Other	(Explain in remarks)		
Restrictive L	ayer (if observed):									
Type:							Hydric Soils Pre	esent: Yes		
Depth (inches	5):			•			-			
				•						
Remark	<u>s:</u> Soil pit was o	dug to 3	3-inches.							
					HYDROL	OGY				
Wetland Hyd	rology Indicators:						Seco	ndary Indicators (minimum of two required)		
Primary Indic	ators (minimum of on	e is requ	ired; check all that	it apply	)			Surface Soil Crack (B6)		
Surfac	e Water (A1)			Water-	-Stained Leave	es (B9)		Drainage Patterns (B10)		
High	Water Table (A2)			Aquati	ic Fauna (B13	)		Moss Trim Lines (B16)		
Satura	Saturation (A3)     Marl Deposits (B15)							Dry-Season Water Table (C2)		
Water	Water Marks (B1)     Hydrogen Sulfide Odor (C1)							Crayfish Burrows (C8)		
Sedim	ent Deposits (B2)				-	res on Living I	Roots (C3)	Saturation Visible on Aerial Imagery (C9)		
Drift I	Deposits (B3)			-	ce or Reduced	-	· · ·	Stunted or Stressed Plants (D1)		
Algal	Mat or Crust (B4)			-		on in Tilled So	ils (C6)	Geomorphic Position (D2)		
Iron D	Deposits (B5)			-	Auck Surface (		· · · ·	Shallow Aquitard (D3)		
Inunda	ation Visible on Aeria	l Imager	y (B7)	•	(Explain in Re			Microtopographic Relief (D4)		
Sparse	ely Vegetated Concave	e Surface	e (B8)	•				FAC-Neutral Test (D5)		

Depth (inches):

Depth (inches):

Depth (inches):

Field Observations:

Surface Water Present?

Water Table Present?

Saturation Present?

Remarks:



	Northcentral and	-						
Project/Site: Headwaters Parkway	Cit	y/County: Wash		S	Sampling Date: 6/19/2019			
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: W26	6-A		
Investigator(s): Brandon Bohks			nship, Range: 2					
Landforms (hillside, terrace, etc.): Depression		Local Relief (concave, convex, none): Concave Slope (%): 0-2						
Subregion: LRR K Latitude:		Longitude:	·	Datum:				
Soil Map Unit Name: Webster loam			ification: None	1				
Are climatic/hydrologic conditions of the site typical for th	-	Yes	_	explain in remarks)				
· · · · · · · · · · · · · · · · · · ·	ydrology		icantly disturbe		-	Yes		
Are vegetation, soils, or hy	ydrology	natura RY OF FINI	ally problematic	? (If needed, explain	any answers in Ren	narks)		
Hydrophytic vegetation present?	Yes		JING5					
Hydrophytic vegetation present?	Yes		Is the sam	pled area within a wetla	and? Var			
Wetland hydrology present?		18 the sam	pieu area witiini a wetia	and? Yes				
wettand hydrology present?	Yes							
Remarks:								
VF	GETATION	- Use scientific	names of plants					
	Absolute	Dominant	Indicator	50/20 Threshold	1 20%	50%		
<u>Tree Stratum</u> (Plot size: 30 feet )	Absolute % Cover	Species	Status	Tree Stratum	0	0		
1		1		Sapling/Shrub Stratum		10		
2				Herb Stratum	19	47.5		
3				Woody Vine Stratum	0	0		
4					e Test Worksheet			
5								
5	0 =	=Total Cover		Number of domin that are OBL, FACV	-	(A)		
Sapling/Shrub stratum (Plot size: 15 feet )				Total number o	f dominant			
1 Populus deltoides	15	Yes	FAC	species acros	species across all strata: 5 (B)			
2 Fraxinus pennsylvanica	5	Yes	FACW	Percent of dominant s	Percent of dominant species that			
3				are OBL, FAC	W or FAC: 80%	(A/B)		
4				Prevalence	Index Worksheet			
5				Total % cover of:				
	20 =	Total Cover=		OBL Species:	5 x 1 = <b>5</b>			
Herb stratum: (Plot size: 5 feet )	_			FACW Species: 7	<b>0</b> $x 2 = $ <b>14</b>	0		
1 Phalaris arundinacea	45	Yes	FACW	FAC Species: 1	<b>5</b> x 3 = <b>45</b>	;		
2 Poa pratensis	25	Yes	FACU	FACU species: 2	<b>5</b> x 4 = <b>10</b>	0		
3 Solidago gigantea	20	Yes	FACW	UPL Species:	x 5 = 0			
4 Asclepias incarnata	5	No	OBL	Totals: 1	15 (A) 290	<b>0</b> (B)		
5				Prevalence In	dex (B/A): 2.52			
6				Hydrophytic V	egetation Indicato	ors		
7				Rapid test for l	nydrophytic vegetati	on		
8				X Dominance tes	t>50%			
9				<b>X</b> Prevalence ind	ex is ≤3.0*			
10		=Total Cover		Morphological supporting data	adaptations* (Provi a in remarks)	ide		
<u>Woody vine stratum:</u> (Plot size: <u>15 feet</u> )					drophytic vegetation	n*		
2				*Indicators of hydric	soil and wetland hy			
	0 =	=Total Cover		must be present, unle	ess disturbed or prob	olematic		
Remarks:				Hydrophytic vego present?	etation Yes			



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SOILS

Profile Descr	ription: (Describe to	the dep	th needed to docu	ıment tl	he indicator	or confirm the	absence of indicator	s.)	
Depth	Matrix			Redox	K Features				
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks	
0-12	10YR 4/1	85	7.5YR 4/6	15	С	М	Clay Loam		
	*Type: C = Concentr	ation, D	= Depletion, RM	= Reduc	ed Matrix, M	IS = Masked Sa	nd Grains. **Locatior	h: $PL = Pore Lining, M = Matrix$	
Hydric Soil I	ndicators:						Indicators fo	or Problematic Hydric Soils*:	
Histisol (A1) Stripp				Strippe	d Matrix (S6)	)	2 cm M	Muck (A10)	
Histic Epipedon (A2)				Loamy	Mucky Mine	eral (F1)	Prairie Redox (A16)		
Black	Histic (A3)			Loamy	Gleyed Matr	ix (F2)	5 cm N	Mucky Peat or Peat (S3)	
Hydro	gen Sulfide (A4)		Х	Deplete	ed Matrix (F3	)	Dark S	Surface (S7)	
Stratif	ied Layers (A5)			Redox	Dark Surface (F6) Poly			lve Below Dark Surface (S8)	
Deplet	ted Below Dark Surfa	ce (A11	)	Deplet	ed Dark Surface (F7) Thir			Dark Surface (S9)	
Thick	Dark Surface (A12)			Redox	Depressions (F8) Iron-Mar			langanese Masses (F12)	
Sandy	Mucky Material (S1)		*Indicators of h	- ydrophy	tic vegetation and wetland Red Parent Mat			arent Material (T42)	
Sandy	Gleyed Matrix (S4)			ist be pr	resent, unless disturbed or Very			Shallow Dark Surface (TF12)	
Sandy	Redox (S5)			prob	olematic		Other	(Explain in remarks)	
Restrictive L	ayer (if observed):								
Type:							Hydric Soils Pres	sent: Yes	
Depth (inches	s):								
Remark	s: Soil pit was	dug to a	depth of 12-inch	ies.					

#### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; check	Surface Soil Crack (B6)			
Surface Water (A1)	Drainage Patterns (B10)			
High Water Table (A2)	Moss Trim Lines (B16)			
Saturation (A3)	Dry-Season Water Table (C2)			
Water Marks (B1)	Crayfish Burrows (C8)			
Sediment Deposits (B2)	Saturation Visible on Aerial Imagery (C9)			
Drift Deposits (B3)	Stunted or Stressed Plants (D1)			
Algal Mat or Crust (B4)	<b>X</b> Geomorphic Position (D2)			
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)		
Sparsely Vegetated Concave Surface (B8)		X FAC-Neutral Test (D5)		
Field Observations:				
Surface Water Present?	Depth (inches):	Indicators of Wetland		
Water Table Present?	Hydrology Present? Yes			
Saturation Present?	Depth (inches):			



	(Northcentral and	-	-			
Project/Site: Headwaters Parkway	Cit	y/County: Wash	-		npling Date: 6/1	
Applicant/Owner: City of Forest Lake			e: $\frac{MN}{1}$		Sample Point: W26-B	
Investigator(s): Brandon Bohks			nship, Range: 2		~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	
Landforms (hillside, terrace, etc.): Backslope			(concave, conv	· · · · · · · · · · · · · · · · · · ·	Slope (%):	3-5
Subregion: LRR K Latitude:		Longitude:	· · · · · ·	Datum:		
Soil Map Unit Name: Webster loam	1		ification: None	1		
Are climatic/hydrologic conditions of the site typical for t	-	Yes	_	explain in remarks)		
· · · · · · · · · · · · · · · · · · ·	nydrology		ficantly disturbe		-	
Are vegetation, soils, or h			ally problematic	? (If needed, explain an	iy answers in Re	emarks)
		RY OF FINI	DINGS			
Hydrophytic vegetation present?	No		T (1		10	
Hydric soils present?	No No		Is the sam	pled area within a wetland	I? No	
Wetland hydrology present?						
Remarks:						
X7	ECETATION	TTT 1 .101	6.1.4			
V.	EGETATION	- Use scientific		50/20 Threshold	20%	50%
Tree Stratum (Plot size: 30 feet )	Absolute % Cover	Dominant	Indicator Status	Tree Stratum		
	76 Cover	Species	Status		0	$\frac{0}{0}$
2				Sapling/Shrub Stratum Herb Stratum	20	50
2				Woody Vine Stratum	0	0
4				Dominance 1	est Worksheet	
5		T . 10		Number of dominan	-	
Sapling/Shrub stratum (Plot size: 15 feet )	0 =	=Total Cover		that are OBL, FACW,	or FAC: 0	(A)
<u>Sapling/Shrub stratum</u> (Plot size: <u>15 feet</u> )				Total number of d		
1				species across a		(B)
2				Percent of dominant spe are OBL, FACW		(A/D)
3						
4				Total % cover of:	dex Worksheet	
5						
	0 =	=Total Cover		OBL Species: 0		0
Herb stratum: (Plot size: 5 feet )		\$7	EACH	FACW Species: 10		<u>:0</u>
1 Solidago canadensis		Yes	FACU	FAC Species: 0		0
2 Poa pratensis	35	Yes	FACU	FACU species: 90		60
3 Solidago gigantea	10	No	FACW	UPL Species: 0		0 (D)
4				Totals: 100		<b>80</b> (B)
5				Prevalence Inde	· · ·	
6				Hydrophytic Veg		
7				Rapid test for hyd		tion
8				Dominance test >		
9				Prevalence index	is $\leq 3.0^*$	
10	100 =	=Total Cover		Morphological ac supporting data in		vide
Woody vine stratum: (Plot size: 15 feet ) 1				Problematic hydr (Explain in remai		on*
2		=Total Cover		*Indicators of hydric so must be present, unless		
				-		
<u>Remarks:</u>				Hydrophytic vegeta present?	tion No	



#### EXHIBIT G: WETLAND DETERMINATION DATA FORM

(Northcentral and Northeast Region - LRR K)

SOILS

							absence of ind		
Depth	Matrix			Redo	x Features	T			
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture		Remarks
0-16	10YR 2/2	100					Sandy Lo	m	
		ation, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked Sa			h: PL = Pore Lining, M = Matrix
Hydric Soil In									or Problematic Hydric Soils*:
Histiso	ol (A1)				ed Matrix (S6)				Muck (A10)
	Epipedon (A2)			•	Mucky Miner				Prairie Redox (A16)
	Histic (A3)	•	Gleyed Matri			5 cm l	Mucky Peat or Peat (S3)		
Hydrog	gen Sulfide (A4)	Deplet	ted Matrix (F3)	)		Dark	Surface (S7)		
Stratifi	ied Layers (A5)		Dark Surface	· /		-	alve Below Dark Surface (S8)		
	ed Below Dark Surfa	• -	ed Dark Surfac			Thin I	Dark Surface (S9)		
Thick Dark Surface (A12) Redox De						F8)		Iron-N	Aanganese Masses (F12)
Sandy 1		ytic vegetation and wetland Red Parent Material (T42)							
Sandy Gleyed Matrix (S4) hydrology must be p					resent, unless d	listurbed or		Very S	Shallow Dark Surface (TF12)
Sandy	Gleyed Matrix (S4)		nyarotogy ma	-					
	Redox (S5)		nyarorogy ma	-	blematic			Other	(Explain in remarks)
Sandy ]			nyurorogy mu	-				Other	(Explain in remarks)
Sandy ]	Redox (S5)		nyarotogy ma	-			Hydric Soi		
Sandy B Restrictive La	Redox (S5) ayer (if observed):		nyarotogy ma	-					
Sandy I Restrictive La Type: Depth (inches)	Redox (S5) ayer (if observed): .	due to 1		-					
Sandy B Restrictive La Type:	Redox (S5) ayer (if observed): .	dug to 1		-					
Sandy I Restrictive La Type: Depth (inches)	Redox (S5) ayer (if observed): .	dug to 1		prol					
Sandy I Restrictive La Type: Depth (inches) <u>Remarks</u> Wetland Hydr	Redox (S5) ayer (if observed):		6-inches.	prol	blematic		Hydric Soi	s Pre	
Sandy I Restrictive La Type: Depth (inches) <u>Remarks</u> Wetland Hydr	Redox (S5) ayer (if observed): ): <u>s:</u> Soil pit was		6-inches.	prol	blematic		Hydric Soi	s Pre	sent: <u>No</u>
Sandy I Restrictive La Type: Depth (inches) <u>Remarks</u> Wetland Hydr <u>Primary Indica</u>	Redox (S5) ayer (if observed):		6-inches.	prol	blematic	OGY	Hydric Soi	s Pre	sent: <u>No</u> dary Indicators (minimum of two required)
Sandy I Restrictive La Type: Depth (inches) <u>Remarks</u> Wetland Hydr <u>Primary Indica</u> Surface	Redox (S5) ayer (if observed): ): s: Soil pit was rology Indicators: ators (minimum of or		6-inches.	prol	HYDROL	<b>OGY</b> s (B9)	Hydric Soi	s Pre	sent: <u>No</u> dary Indicators (minimum of two required) Surface Soil Crack (B6)
Sandy I Restrictive La Type: Depth (inches) <u>Remarks</u> Wetland Hydr Primary Indica Surface High W	Redox (S5) ayer (if observed):		6-inches.	prol tt apply Water- Aquati	HYDROL	<b>OGY</b> s (B9)	Hydric Soi	s Pre	sent: <u>No</u> dary Indicators (minimum of two required) Surface Soil Crack (B6) Drainage Patterns (B10)
Sandy I Restrictive La Type: Depth (inches) Remarks Wetland Hydr Primary Indica Surface High W Saturat	Redox (S5) ayer (if observed):		6-inches.	prol tt apply Water- Aquati Marl I	HYDROL -Stained Leave ic Fauna (B13)	<b>OGY</b> s (B9)	Hydric Soi	s Pre	dary Indicators (minimum of two required) Surface Soil Crack (B6) Drainage Patterns (B10) Moss Trim Lines (B16)
Sandy I Sandy I Restrictive La Type: Depth (inches) Remarks Wetland Hydr Primary Indica Surface High W Saturat Water I	Redox (S5) ayer (if observed):  : : : : : : : : : : : : : : : : : :		6-inches.	prol ut apply Water- Aquati Marl I Hydrog	HYDROL( ) -Stained Leave ic Fauna (B13) Deposits (B15) gen Sulfide Od	<b>OGY</b> s (B9)	Hydric Soi	s Pre	dary Indicators (minimum of two required) Surface Soil Crack (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2)
Sandy I Restrictive La Type: Depth (inches) Remarks Wetland Hydr Primary Indica Surface High W Saturat Water I Sedime	Redox (S5) ayer (if observed):  ):  Soil pit was  rology Indicators: ators (minimum of or e Water (A1) Water Table (A2) tion (A3) Marks (B1)		6-inches.	prol tt apply Water- Aquati Marl I Hydrog Oxidiz	HYDROL( ) -Stained Leave ic Fauna (B13) Deposits (B15) gen Sulfide Od	OGY s (B9) lor (C1) res on Living R	Hydric Soi	s Pre	dary Indicators (minimum of two required) Surface Soil Crack (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8)
Sandy I Restrictive La Type: Depth (inches) Remarks Wetland Hydr Primary Indica Surface High W Saturat Water I Sedime Drift D	Redox (S5) ayer (if observed):  s: Soil pit was rology Indicators: ators (minimum of or e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2)		6-inches.	prol tt apply Water- Aquati Marl I Hydrog Oxidiz Presen	HYDROLO -Stained Leave ic Fauna (B13) Deposits (B15) gen Sulfide Od red Rhizospher ice or Reduced	OGY s (B9) lor (C1) res on Living R	Hydric Soi	s Pre	dary Indicators (minimum of two required) Surface Soil Crack (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Sandy I Restrictive La Type: Depth (inches) Remarks Wetland Hydr Primary Indica Surface High W Saturat Water I Sedime Drift D Algal M	Redox (S5) ayer (if observed): : Soil pit was rology Indicators: ators (minimum of or e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) Deposits (B3)		6-inches.	prol tt apply Water- Aquati Marl I Hydro Oxidiz Presen Recent	HYDROLO -Stained Leave ic Fauna (B13) Deposits (B15) gen Sulfide Od red Rhizospher ice or Reduced	OGY s (B9) o lor (C1) res on Living R Iron (C4) on in Tilled Soi	Hydric Soi	s Pre	dary Indicators (minimum of two required) Surface Soil Crack (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
Sandy I Restrictive La Type: Depth (inches) Remarks Wetland Hydr Primary Indica Surface High W Saturat Water I Sedime Drift D Algal M Iron De	Redox (S5) ayer (if observed): ): Sci Soil pit was rology Indicators: ators (minimum of or e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) Deposits (B3) Mat or Crust (B4)	ne is requ	6-inches.	prol tt apply Water- Aquati Marl I Hydrog Oxidiz Presen Recent Thin M	HYDROL HYDROL Stained Leave ic Fauna (B13) Deposits (B15) gen Sulfide Od red Rhizospher ice or Reduced t Iron Reductio	OGY s (B9) o lor (C1) res on Living R Iron (C4) on in Tilled Soi C7)	Hydric Soi	s Pre	dary Indicators (minimum of two required) Surface Soil Crack (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Sandy I Restrictive La Type: Depth (inches) Remarks Wetland Hydr Primary Indica Surface High W Saturat Water I Sedime Drift D Algal M Iron De	Redox (S5) ayer (if observed): <u>s:</u> Soil pit was rology Indicators: ators (minimum of or e Water (A1) Water Table (A2) tion (A3) Marks (B1) ent Deposits (B2) Deposits (B3) Mat or Crust (B4) eposits (B5)	ne is requ	6-inches.	prol tt apply Water- Aquati Marl I Hydrog Oxidiz Presen Recent Thin M	HYDROL( ) -Stained Leave ic Fauna (B13) Deposits (B15) gen Sulfide Od red Rhizospher ice or Reduced t Iron Reductio fuck Surface (	OGY s (B9) o lor (C1) res on Living R Iron (C4) on in Tilled Soi C7)	Hydric Soi	s Pre	dary Indicators (minimum of two required) Surface Soil Crack (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3)
Sandy I Restrictive La Type: Depth (inches) Remarks Wetland Hydr Primary Indica Surface High W Saturat Water I Sedime Drift D Algal M Iron De	Redox (S5) ayer (if observed): 	ne is requ	6-inches.	prol tt apply Water- Aquati Marl I Hydrog Oxidiz Presen Recent Thin M	HYDROL( ) -Stained Leave ic Fauna (B13) Deposits (B15) gen Sulfide Od red Rhizospher ice or Reduced t Iron Reductio fuck Surface (	OGY s (B9) o lor (C1) res on Living R Iron (C4) on in Tilled Soi C7)	Hydric Soi	s Pre	sent:       No         dary Indicators (minimum of two required)         Surface Soil Crack (B6)         Drainage Patterns (B10)         Moss Trim Lines (B16)         Dry-Season Water Table (C2)         Crayfish Burrows (C8)         Saturation Visible on Aerial Imagery (C9)         Stunted or Stressed Plants (D1)         Geomorphic Position (D2)         Shallow Aquitard (D3)         Microtopographic Relief (D4)
Sandy I Restrictive La Type: Depth (inches) Remarks Wetland Hydr Primary Indica Surface High W Saturat Water I Sedime Drift D Algal M Iron De Inundat Sparsel	Redox (S5) ayer (if observed): <u>s:</u> Soil pit was rology Indicators: ators (minimum of or e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) Deposits (B3) Mat or Crust (B4) eposits (B5) tion Visible on Aeria ly Vegetated Concav ntions:	ne is requ	6-inches.	prol tt apply Water- Aquati Marl I Hydro Oxidiz Presen Recent Thin N Other (	HYDROL( ) -Stained Leave ic Fauna (B13) Deposits (B15) gen Sulfide Od red Rhizospher ice or Reduced t Iron Reductio fuck Surface (	OGY s (B9) o lor (C1) res on Living R Iron (C4) on in Tilled Soi C7) marks)	Hydric Soi	Secon	sent: No
Sandy I Restrictive La Type: Depth (inches) Remarks Wetland Hydr Primary Indica Surface High W Saturat Water I Sedime Drift D Algal M Iron De Inundat Sparsel	Redox (S5) ayer (if observed): <u>s:</u> Soil pit was rology Indicators: ators (minimum of or e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) Deposits (B3) Mat or Crust (B4) eposits (B5) tion Visible on Aeria dy Vegetated Concav tions: r Present?	ne is requ	6-inches.	prol tt apply Water- Aquati Marl I Hydrog Oxidiz Presen Recent Thin M Other of	HYDROL HYDROL (1) -Stained Leave (2) -Stained Leave (3) -Stained Leave (4) -Stained Leave	OGY s (B9) o lor (C1) res on Living R Iron (C4) on in Tilled Soi C7) marks)	Hydric Soi	Secon	sent:       No         dary Indicators (minimum of two required)         Surface Soil Crack (B6)         Drainage Patterns (B10)         Moss Trim Lines (B16)         Dry-Season Water Table (C2)         Crayfish Burrows (C8)         Saturation Visible on Aerial Imagery (C9)         Stunted or Stressed Plants (D1)         Geomorphic Position (D2)         Shallow Aquitard (D3)         Microtopographic Relief (D4)



Real People. Real Solutions.	(Northcentral and					
Project/Site: Headwaters Parkway	Cit	y/County: Was	-		Sampling Date: 6	
Applicant/Owner: City of Forest Lake		Stat	Sample Point: S	SP-1		
Investigator(s): Brandon Bohks		Section, Tow	nship, Range: 29	9, 32, 21		
Landforms (hillside, terrace, etc.): Depression			f (concave, conve	x, none): Conc	Slope (%	6): <b>0-2</b>
Subregion: LRR K Latitude:		Longitude:		Datum:		
Soil Map Unit Name: Webster loam		NWI Class	ification: None			
Are climatic/hydrologic conditions of the site typical for	this time of year?	Yes	(If no,	explain in remarks)		
Are vegetation X, soils , or	hydrology	signi	ficantly disturbed	? Are normal cir	cumstances present	:? <u>No</u>
Are vegetation, soils, or	hydrology	natur	ally problematic?	(If needed, expl	ain any answers in	Remarks)
	SUMMAR	Y OF FINI	DINGS			
Hydrophytic vegetation present?	No					
Hydric soils present?	Yes		Is the samp	oled area within a we	etland? No	
Wetland hydrology present?	No					
<u>Remarks:</u> Sample point was taken in a agricultur	re field recently pla	nted with corn				
N	<b>EGETATION</b>	- Use scientific	names of plants	-		
	Absolute	Dominant	Indicator	50/20 Thresh	old 20%	50%
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	0	0
1				Sapling/Shrub Strat	tum 0	0
2				Herb Stratum	0	0
3				Woody Vine Stratu	m <u>0</u>	0
4				Domina	nce Test Workshe	et
5				Number of don	ninant species	
	0 =	Total Cover		that are OBL, FA	-	<b>0</b> (A)
Sapling/Shrub stratum (Plot size: 15 feet )				Total numbe	er of dominant	
1					ross all strata:	(B)
2				Percent of dominar		
3					-	% (A/B)
4					ce Index Worksho	. ,
5				Total % cover of:		
5		Total Cover		OBL Species:	<b>0</b> x 1 =	0
Herb stratum: (Plot size: 5 feet )				FACW Species:	$\frac{0}{0}$ x 1 = -	0
				FAC Species:	$\frac{0}{0}$ x 2 = -	0
1 Zea mays				FACU species:		-
2				UPL Species:	0 x 4 =	0
3				-	0 x 5 =	0(D)
4				Totals:	0 (A)	<b>0</b> (B)
5		. <u> </u>			Index (B/A):	
6					c Vegetation Indic	
7					or hydrophytic vege	etation
8				Dominance	test >50%	
9				Prevalence	index is $\leq 3.0^*$	
10	0 =	Total Cover			cal adaptations* (P data in remarks)	rovide
Woody vine stratum: (Plot size: 15 feet ) 1				Problematic (Explain in	hydrophytic vegeta remarks)	ation*
2		Total Cover		*Indicators of hyd	ric soil and wetland inless disturbed or p	
				· ·	•	
Buse to the lack of wetland hydrological           Remarks:         assure	gy at the sample sit ned to be absent.	e, nyarophytic	vegetation is	Hydrophytic v present	-	



Sample Point:

SP-1

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(Northcentral and Northeast Region - LRR K)

SOILS

Profile Descr	ription: (Describe to t	the dept	th needed to docı	ıment t	he indicator o	or confirm the	e absence of indicator	
Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-14	10YR 2/1	100					Clay Loam	
14-22+	10YR 5/1	60	7.5YR 4/6	40	С	М	Sandy Clay Loam	
	*Type: C = Concentra	tion, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked Sa	and Grains. **Location	n: $PL = Pore Lining, M = Matrix$
Hydric Soil I	ndicators:						Indicators f	or Problematic Hydric Soils*:
Histisc	ol (A1)			Strippe	ed Matrix (S6)		2 cm 1	Muck (A10)
Histic	Epipedon (A2)			Loamy	y Mucky Miner	ral (F1)	Coast	Prairie Redox (A16)
Black	Histic (A3)			Loamy	y Gleyed Matri	x (F2)	5 cm 1	Mucky Peat or Peat (S3)
Hydrog	gen Sulfide (A4)			Deplet	ted Matrix (F3)	)	Dark	Surface (S7)
Stratifi	ied Layers (A5)			Redox	Dark Surface	(F6)	Polyva	alve Below Dark Surface (S8)
Deplet	ed Below Dark Surfac	e (A11)	)	Deplet	ted Dark Surfac	ce (F7)	Thin I	Dark Surface (S9)
X Thick	Dark Surface (A12)			Redox	Depressions (I	F8)	Iron-N	Manganese Masses (F12)
Sandy Mucky Material (S1) *Indicators of hydrophytic vegetation and wetland						Red Parent Material (T42)		
Sandy Gleyed Matrix (S4) hydrology must be present, unl								
Sandy	Redox (S5)			proł	blematic		Other	(Explain in remarks)
Restrictive L	ayer (if observed):							
Туре:							Hydric Soils Pres	sent: Yes
Depth (inches	):			-				
	·				<u> </u>			
Remarks	<u>s:</u> Soil pit was d	lug to a	depth of 22-inch	ies.				

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; check	Surface Soil Crack (B6)				
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)			
High Water Table (A2)	Moss Trim Lines (B16)				
Saturation (A3)	Dry-Season Water Table (C2)				
Water Marks (B1)	Crayfish Burrows (C8)				
Sediment Deposits (B2)	Saturation Visible on Aerial Imagery (C9)				
Drift Deposits (B3)	Stunted or Stressed Plants (D1)				
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	X Geomorphic Position (D2)			
Iron Deposits (B5)	Shallow Aquitard (D3)				
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4) FAC-Neutral Test (D5)			
Sparsely Vegetated Concave Surface (B8)					
Field Observations:					
Surface Water Present?	Depth (inches):	Indicators of Wetland			
Water Table Present?	Hydrology Present? No				
Saturation Present?	Depth (inches):				



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Project/Site: Headwaters Parkway	Cit	y/County: Was	_		Sampling Date: 6	
Applicant/Owner: City of Forest Lake		Stat	Sample Point: S	SP-2		
Investigator(s): Brandon Bohks		Section, Tow	nship, Range: 29	9, 32, 21		
Landforms (hillside, terrace, etc.): Depression			f (concave, conve	ex, none): Conc	save Slope (%	(o): 0-2
Subregion: LRR K Latitude:		Longitude:		Datum:		
Soil Map Unit Name: Webster loam		NWI Class	ification: None			
Are climatic/hydrologic conditions of the site typical for	this time of year?	Yes	(If no,	explain in remarks)		
Are vegetation X , soils , or	hydrology	signi	ficantly disturbed	1? Are normal cir	cumstances present	? <u>No</u>
Are vegetation , soils , or	hydrology	natur	ally problematic	? (If needed, expl	ain any answers in	Remarks)
	SUMMAR	Y OF FINI	DINGS			
Hydrophytic vegetation present?	No					
Hydric soils present?	Yes		Is the sam	pled area within a we	etland? No	
Wetland hydrology present?	No					
<u>Remarks:</u> Sample point was taken in a agricultur	re field recently pla	nted with corn				
Ň	EGETATION	- Use scientific	names of plants	I		
	Absolute	Dominant	Indicator	50/20 Thresh	old 20%	50%
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	0	0
1				Sapling/Shrub Strat	tum <u>0</u>	0
2				Herb Stratum	0	0
3				Woody Vine Stratu	m <u>0</u>	0
4				Domina	nce Test Workshe	et
5				Number of don	ninant species	
	0 =	Total Cover		that are OBL, FA	-	<b>0</b> (A)
Sapling/Shrub stratum (Plot size: 15 feet )				Total numbe	er of dominant	
1					ross all strata:	(B)
2				Percent of dominar	nt species that	
3					-	% (A/B)
4				Prevalen	ice Index Workshe	eet
5				Total % cover of:		
· · · · · · · · · · · · · · · · · · ·		Total Cover		OBL Species:	<b>0</b> x 1 =	0
Herb stratum: (Plot size: 5 feet )				FACW Species:	$\frac{0}{0}$ x 2 =	0
1 Zea mays				FAC Species:	$\frac{1}{0}$ x 3 =	0
2				FACU species:	$\frac{0}{0}$ x 4 =	0
3				UPL Species:	$\frac{0}{0}$ x 5 =	0
4				Totals:	$\frac{0}{0}$ (A) -	<b>0</b> (B)
5				-	: Index (B/A):	<b>0</b> (D)
6					c Vegetation Indic	
7					or hydrophytic vege	etation
8				Dominance		
9				Prevalence	index is $\leq 3.0^*$	
10	0 =	Total Cover			cal adaptations* (Padata in remarks)	rovide
Woody vine stratum: (Plot size: 15 feet ) 1				Problematic (Explain in	e hydrophytic vegeta remarks)	ation*
2	0 =	Total Cover			ric soil and wetland	
Due to the lack of wetland hydrolog			vegetation is	<b>TI</b>		
Remarks.	ned to be absent.	, ny ar opny tie	· -5	Hydrophytic v present	-	



Sample Point: S

SP-2

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(Northcentral and Northeast Region - LRR K) SOILS

Profile Descr	iption: (Describe to	the dep	th needed to docu	ıment t	he indicator o	or confirm the	e absence o	of indicators	s.)
Depth	Matrix		Redox Features						
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Те	exture	Remarks
0-10	10YR 2/1	100					Sandy C	Clay Loam	
10-15	10YR 2/1	90	7.5YR 4/6	10	С	М	Sandy C	Clay Loam	
15-21+	10YR 5/1	80	7.5YR 4/6	20	С	М	Sandy C	Clay Loam	
	*Type: C = Concentra	ation, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked Sa	and Grains	. **Location	: PL = Pore Lining, M = Matrix
Hydric Soil I	ndicators:						Ι	ndicators fo	or Problematic Hydric Soils*:
Histisc	ol (A1)			Strippe	ed Matrix (S6)			2 cm N	Auck (A10)
Histic	Epipedon (A2)			Loamy	/ Mucky Miner	al (F1)		Coast	Prairie Redox (A16)
Black	Histic (A3)			Loamy	Gleyed Matri	x (F2)	_	5 cm N	Aucky Peat or Peat (S3)
Hydrog	gen Sulfide (A4)			Deplet	ed Matrix (F3)	)		Dark S	Surface (S7)
Stratif	ied Layers (A5)			Redox	Dark Surface	(F6)		Polyva	lve Below Dark Surface (S8)
Deplet	ed Below Dark Surfac	ce (A11	)	Deplet	ed Dark Surfa	ce (F7)		Thin D	bark Surface (S9)
X Thick	Dark Surface (A12)			Redox	Depressions (	F8)		Iron-M	langanese Masses (F12)
Sandy	Mucky Material (S1)		*Indicators of h	- ydroph	ytic vegetation	and wetland		Red Pa	arent Material (T42)
Sandy Gleyed Matrix (S4) hydrology must be present, unless disturbed					listurbed or	Very Shallow Dark Surface (TF12)			
Sandy	Redox (S5)			prol	blematic		_	Other (	(Explain in remarks)
Restrictive L	ayer (if observed):								
Type:							Hydri	c Soils Pres	ent: Yes
Depth (inches	):			-					
				-	ļ				
Remark	<u>s:</u> Soil pit was d	lug to a	depth of 21-inch	es.					

# HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; check	Surface Soil Crack (B6)			
Surface Water (A1)	Drainage Patterns (B10)			
High Water Table (A2)	Moss Trim Lines (B16)			
Saturation (A3)	Dry-Season Water Table (C2)			
Water Marks (B1)	Crayfish Burrows (C8)			
Sediment Deposits (B2)	Saturation Visible on Aerial Imagery (C9)			
Drift Deposits (B3)	Stunted or Stressed Plants (D1)			
Algal Mat or Crust (B4)	X Geomorphic Position (D2)			
Iron Deposits (B5)	Shallow Aquitard (D3)			
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4) FAC-Neutral Test (D5)		
Sparsely Vegetated Concave Surface (B8)				
Field Observations:				
Surface Water Present?	Indicators of Wetland			
Water Table Present?	Hydrology Present? No			
	Depth (inches):			



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Project/Site: Headwaters Parkway	Cit	y/County: Was	-		Sampling Date: 6	
Applicant/Owner: City of Forest Lake		Stat	Sample Point: S	SP-3		
Investigator(s): Brandon Bohks		Section, Tow	nship, Range: 29	0, 32, 21		
Landforms (hillside, terrace, etc.): Depression			f (concave, conve	ex, none): Conc	Slope (%	b): 0-2
Subregion: LRR K Latitude:		Longitude:		Datum:		
Soil Map Unit Name: Webster loam		NWI Class	ification: None			
Are climatic/hydrologic conditions of the site typical for	this time of year?	Yes	(If no,	explain in remarks)		
Are vegetation X, soils , or	hydrology	signi	ficantly disturbed	? Are normal cir	cumstances present	? <b>No</b>
Are vegetation, soils, or	hydrology	natur	ally problematic?	? (If needed, expl	ain any answers in I	Remarks)
	SUMMAR	Y OF FINI	DINGS			
Hydrophytic vegetation present?	No					
Hydric soils present?	Yes		Is the samp	pled area within a we	etland? No	
Wetland hydrology present?	No					
Remarks: Sample point was taken in a agricultur	re field recently pla	nted with corn	•			
N	<b>EGETATION</b>	- Use scientific	names of plants			
	Absolute	Dominant	Indicator	50/20 Thresh	old 20%	50%
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	0	0
1				Sapling/Shrub Strat	tum 0	0
2				Herb Stratum	0	0
3				Woody Vine Stratu	m <u>0</u>	0
4				Domina	nce Test Workshe	et
5				Number of don	ninant species	
	0 =	Total Cover		that are OBL, FA	-	<b>0</b> (A)
Sapling/Shrub stratum (Plot size: 15 feet )				Total numbe	er of dominant	
1					ross all strata:	(B)
2				Percent of dominar		
3					-	% (A/B)
4					ce Index Workshe	
5				Total % cover of:		
5		Total Cover		OBL Species:	<b>0</b> x 1 =	0
Herb stratum: (Plot size: 5 feet )				FACW Species:	$\frac{0}{0}$ x 1 = -	0
				FAC Species:	$\frac{0}{0}$ x 2 = -	0
1 Zea mays				FACU species:		<u> </u>
2				UPL Species:	0   x 4 =	0
3				_	0 x 5 =	0 0
4				Totals:	0 (A)	<b>0</b> (B)
5		. <u> </u>			Index (B/A):	_
6					c Vegetation Indic	
7					or hydrophytic vege	etation
8				Dominance	test >50%	
9				Prevalence	index is $\leq 3.0^*$	
10	0 =	Total Cover			cal adaptations* (Pr data in remarks)	rovide
Woody vine stratum: (Plot size: 15 feet ) 1				Problematic (Explain in	hydrophytic vegeta remarks)	ation*
2		Total Cover		*Indicators of hyd	ric soil and wetland inless disturbed or p	
					•	
<u>Remarks:</u> Due to the lack of wetland hydrolo	gy at the sample sit ned to be absent.	e, nyarophytic	vegetation is	Hydrophytic v present	-	



Sample Point: S

SP-3

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SOILS

Profile Descr	iption: (Describe to	the dep	th needed to docu	iment t	he indicator o	or confirm the	e absence of indicator	s.)
Depth	Matrix			Redoy	x Features			
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-15	10YR 2/1	100					Sandy Clay	
15-18	10YR 2/1	90	7.5YR 4/6	10	С	М	Sandy Clay	
18-24+	10YR 5/1	80	7.5YR 4/6	20	С	М	Sandy Clay Loam	
	*Type: C = Concentr	ation, D	= Depletion, RM	= Reduc	eed Matrix, M	S = Masked S	and Grains. **Locatior	h: $PL = Pore Lining, M = Matrix$
Hydric Soil I	ndicators:						Indicators fo	or Problematic Hydric Soils*:
Histiso	ol (A1)			Strippe	ed Matrix (S6)		2 cm N	Muck (A10)
Histic	Epipedon (A2)			Loamy	Mucky Mine	ral (F1)	Coast	Prairie Redox (A16)
Black	Histic (A3)			Loamy	Gleyed Matri	x (F2)	5 cm M	Mucky Peat or Peat (S3)
Hydro	gen Sulfide (A4)			Deplet	ed Matrix (F3)	)	Dark S	Surface (S7)
Stratif	ied Layers (A5)			Redox	Dark Surface	(F6)	Polyva	lve Below Dark Surface (S8)
Deplet	ed Below Dark Surfa	ce (A11)	)	Deplet	ed Dark Surfa	ce (F7)	Thin D	Dark Surface (S9)
X Thick	Dark Surface (A12)			Redox	Depressions (	F8)	Iron-N	Ianganese Masses (F12)
Sandy	Mucky Material (S1)	)	*Indicators of h	ydrophy	vtic vegetation	and wetland	Red Pa	arent Material (T42)
Sandy Gleyed Matrix (S4)         hydrology must be present, unless disturbed or         Very Shallow							Shallow Dark Surface (TF12)	
Sandy	Redox (S5)			prob	olematic		Other	(Explain in remarks)
Restrictive L	ayer (if observed):							
Type:							Hydric Soils Pres	sent: Yes
Depth (inches	):			-			·	
• •	·			-				
Remark	s: Soil pit was	dug to a	depth of 24-inch	es.				

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; check	Surface Soil Crack (B6)			
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)		
High Water Table (A2)	Moss Trim Lines (B16)			
Saturation (A3)	Dry-Season Water Table (C2)			
Water Marks (B1)	Crayfish Burrows (C8)			
Sediment Deposits (B2)	Saturation Visible on Aerial Imagery (C9)			
Drift Deposits (B3)	Stunted or Stressed Plants (D1)			
Algal Mat or Crust (B4)	<b>X</b> Geomorphic Position (D2)			
Iron Deposits (B5)	Shallow Aquitard (D3)			
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4) FAC-Neutral Test (D5)		
Sparsely Vegetated Concave Surface (B8)				
Field Observations:				
Surface Water Present?	Indicators of Wetland			
Water Table Present?	Hydrology Present? No			
Saturation Present?				



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Project/Site: Headwaters Parkway	Cit	y/County: Wash			ampling Date: 6/13		
Applicant/Owner: City of Forest Lake			$\approx MN$		Sample Point: SP-4		
Investigator(s): Brandon Bohks			nship, Range: 2		-1 (2.1)		
Landforms (hillside, terrace, etc.): Terrace Subregion: LRR K Latitude:			(concave, conv	ex, none): Linear Datum:	Slope (%):	1-3	
Subregion:     LRR K     Latitude:       Soil Map Unit Name:     Dundas fine sandy loam		Longitude:	ification: None	Datum:			
Are climatic/hydrologic conditions of the site typical for the	is time of year?	Yes		explain in remarks)			
	/drology		icantly disturbed	-	stances present?	N7	
· · · · · · · · · · · · · · · · · · ·	/drology		illy problematic		-		
, sons, or hy		Y OF FIND		. (If fielded, explain	any answers in Rel	narks)	
Hydrophytic vegetation present?	No						
Hydric soils present?	No		Is the sam	pled area within a wetla	nd? No		
Wetland hydrology present?	No			•			
Remarks:		I					
VE	GETATION	- Use scientific	names of plants	5			
	Absolute	Dominant	Indicator	50/20 Threshold	20%	50%	
Tree Stratum         (Plot size: 30 feet )	% Cover	Species	Status	Tree Stratum	0	0	
1				Sapling/Shrub Stratum	0	0	
2				Herb Stratum	20	50	
3				Woody Vine Stratum	0	0	
4		,		Dominance	Test Worksheet		
5				Number of domina	-		
	0 =	Total Cover=		that are OBL, FACW	/, or FAC: 0	(A)	
Sapling/Shrub stratum (Plot size: 15 feet )				Total number of			
1				species across		(B)	
3				Percent of dominant sp are OBL, FACV		(A/B)	
4				Prevalence	Index Worksheet		
5				Total % cover of:			
	0 =	Total Cover		OBL Species: 0	x 1 =0		
Herb stratum: (Plot size: 5 feet )	_			FACW Species: 15	x 2 = 3	)	
1 Poa pratensis	40	Yes	FACU	FAC Species: 0	x 3 = 0		
2 Solidago canadensis	30	Yes	FACU	FACU species: 85	x 4 = 34	0	
3 Solidago gigantea	15	No	FACW	UPL Species: 0	x 5 = 0		
4 Asclepias syriaca	15	No	FACU	Totals: 10	0 (A) <u>37</u>	<b>0</b> (B)	
5				Prevalence Inc	lex (B/A): <b>3.70</b>		
6				Hydrophytic V	egetation Indicate	ors	
7				Rapid test for h	ydrophytic vegetat	ion	
8				Dominance test	>50%		
9				Prevalence inde	ex is ≤3.0*		
10		Total Cover		Morphological supporting data	adaptations* (Prov in remarks)	ide	
Woody vine stratum: (Plot size: <u>15 feet</u> )					drophytic vegetatio	n*	
2				*Indicators of hydric	soil and wetland hy		
	0 =	Total Cover=		must be present, unles	ss disturbed or prol	mematic	
<u>Remarks:</u>				Hydrophytic vege present?	tation No		



Sample Point: SP-4

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(Northcentral and Northeast Region - LRR K) SOILS

<b>Profile Descr</b>	iption: (Describe to	the dept	th needed to docu	ıment t	he indicator o	or confirm the	absence of indicator	s.)		
Depth	Matrix			Redo	x Features					
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks		
0-8	10YR 2/2	100					Sandy Loam			
8-15+	10YR 3/3	100					Sand			
		ation, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked Sar	nd Grains. **Locatior	h: PL = Pore Lining, M = Matrix		
Hydric Soil I	ndicators:						Indicators for	or Problematic Hydric Soils*:		
Histisc					ed Matrix (S6)			Muck (A10)		
Histic	Epipedon (A2)			Loamy	Mucky Mine	ral (F1)	Coast Prairie Redox (A16)			
Black	Histic (A3)			Loamy	Gleyed Matri	ix (F2)	5 cm N	Mucky Peat or Peat (S3)		
Hydrog	gen Sulfide (A4)			Deplet	ed Matrix (F3	)	Dark S	Surface (S7)		
Stratifi	ied Layers (A5)			Redox	Dark Surface	(F6)	Polyva	alve Below Dark Surface (S8)		
Deplet	ed Below Dark Surfa	ce (A11)	)	Deplet	ed Dark Surfa	ce (F7)	Thin D	Dark Surface (S9)		
Thick	Dark Surface (A12)			Redox	Depressions (	F8)	Iron-N	Janganese Masses (F12)		
Sandy	Mucky Material (S1)		*Indicators of h	ydroph	ytic vegetation	and wetland	Red Pa	arent Material (T42)		
Sandy	Gleyed Matrix (S4)		hydrology mu	-	esent, unless o	listurbed or	Very S	Shallow Dark Surface (TF12)		
Sandy	Redox (S5)			prol	olematic		Other	(Explain in remarks)		
Restrictive L	ayer (if observed):									
Туре:							Hydric Soils Pres	sent: No		
Depth (inches	):			-			·			
Remarks	s: Soil pit was	dug to 1	5-inches.							

#### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; check	all that apply)	Surface Soil Crack (B6)		
Surface Water (A1)	Drainage Patterns (B10)			
High Water Table (A2)	Moss Trim Lines (B16)			
Saturation (A3)	Marl Deposits (B15)	Dry-Season Water Table (C2)		
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)		
Sediment Deposits (B2)	Saturation Visible on Aerial Imagery (C9)			
Drift Deposits (B3)	Stunted or Stressed Plants (D1)			
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)		
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)		
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)		
Field Observations:				
Surface Water Present?	Depth (inches):	Indicators of Wetland		
Water Table Present?	Hydrology Present? No			
Saturation Present?	Depth (inches):			



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Project/Site: Headwaters Parkway	Cit	y/County: Wash			Sampling Date: 6/1		
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: SP-5		
Investigator(s): Brandon Bohks			nship, Range: 2				
Landforms (hillside, terrace, etc.): Backslope Subregion: LRR K Latitude:			(concave, conv	ex, none): Conver Datum:	x Slope (%):	5-8	
Subregion:     LRR K     Latitude:       Soil Map Unit Name:     Dundas fine sandy loam		Longitude:	ification: None	Datum:			
Are climatic/hydrologic conditions of the site typical for	this time of year?	Yes		explain in remarks)			
	hydrology		ficantly disturbe	-	imstances present?	Vac	
· · · · · · · · · · · · · · · · · · ·	hydrology		ally problematic		n any answers in Re		
, 5015, 913		Y OF FINI		. (II needed, explain	any answers in R	cinarks)	
Hydrophytic vegetation present?	No						
Hydric soils present?	Yes		Is the sam	pled area within a wetl	and? No		
Wetland hydrology present?	No			Prou urou (1701111 u 1701		-	
() ettalle hydrology present:							
Remarks:							
V	EGETATION	- Use scientific	names of plants	5			
	Absolute	Dominant	Indicator	50/20 Threshol	d 20%	50%	
<u>Tree Stratum</u> (Plot size: 30 feet )	% Cover	Species	Status	Tree Stratum	0	0	
1		1		Sapling/Shrub Stratur	m 0	0	
2				Herb Stratum	22.4	56	
3				Woody Vine Stratum	0	0	
4				Dominanc	e Test Worksheet		
5				Number of domin			
		Total Cover		Number of domin that are OBL, FAC	-	(A)	
Sapling/Shrub stratum (Plot size: 15 feet )				Total number of		``	
1				species acros		(B)	
2				Percent of dominant			
3				are OBL, FAC		(A/B)	
4				Prevalence	e Index Worksheet	t	
5				Total % cover of:			
	0 =	Total Cover		OBL Species:	5 x 1 =	5	
Herb stratum: (Plot size: 5 feet )				FACW Species:	0 x 2 =	0	
1 Trifolium pretense	75	Yes	FACU	FAC Species:	0 x 3 =	0	
2 Erigeron annuus	20	No	FACU	FACU species: 1	<b>07</b> $x 4 = 4$	28	
3 Amaranthus retroflexus	12	No	FACU	UPL Species:	0 x 5 =	0	
4 Carex vulpinoidea	5	No	OBL	Totals: 1	12 (A) 4	<b>33</b> (B)	
5				Prevalence In	ndex (B/A): 3.87		
6				Hydrophytic	Vegetation Indicat	tors	
7				Rapid test for	hydrophytic vegeta	tion	
8				Dominance te	st>50%		
9				Prevalence inc	dex is ≤3.0*		
10				Morphologica	l adaptations* (Pro	vide	
	112 =	Total Cover		supporting da		vide	
Woody vine stratum: (Plot size: 15 feet )				Problematic h	ydrophytic vegetati	on*	
1				(Explain in re			
2				*Indicators of hydrid	e soil and wetland h	ydrology	
	0 =	Total Cover		must be present, unl			
Domostra				Hydrophytic veg	etation		
<u>Remarks:</u>				present?			



Sample Point:

**Indicators of Wetland** 

Hydrology Present?

No

SP-5

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SOLLS

					SOIL	2				
Profile Descu	ription: (Describe to	the dep	th needed to docu	iment t	he indicator o	or confirm the	absence of ind	icator	rs.)	
Depth	Matrix			Redox Features						
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture		Remarks	
0-18	10YR 2/1	100					Sandy Clay I	.oam		
18-25+	10YR 5/1	90	7.5YR 4/6	10	С	М	Sandy Clay I	.oam		
	*Type: C = Concentr	ation, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked Sa	and Grains. **Lo	catior	h: PL = Pore Lining, M = Matrix	
Hydric Soil I	indicators:						Indica	tors f	or Problematic Hydric Soils*:	
Histis	ol (A1)			Stripp	ed Matrix (S6)			2 cm 1	Muck (A10)	
Histic Epipedon (A2)         Loamy Mucky Mineral (F1)								Coast	Prairie Redox (A16)	
Black Histic (A3) Loamy Gleyed Matrix (F2)							:	5 cm 1	Mucky Peat or Peat (S3)	
Hydrogen Sulfide (A4) Depleted Matrix (F3)							Dark S	Surface (S7)		
Stratified Layers (A5)         Redox Dark Surface (F6)						(F6)		Polyvalve Below Dark Surface (S8)		
Depleted Below Dark Surface (A11)         Depleted Dark Surface (F7)						ce (F7)	Thin Dark Surface (S9)			
X         Thick Dark Surface (A12)         Redox Depressions (F8)						1	Iron-Manganese Masses (F12)			
Sandy Mucky Material (S1) *Indicators of hydrophytic vegetation and wetland						and wetland		Red Parent Material (T42)		
Sandy Gleyed Matrix (S4) hydrology must be pres					vesent, unless disturbed or Very Shallow Dark Surface (TF12)					
Sandy	Redox (S5)			prol	olematic			Other (Explain in remarks)		
Restrictive L	Restrictive Layer (if observed):									
Type:	Type: Hydri						Hydric Soil	s Pres	sent: Yes	
Depth (inches	Depth (inches):						·			
Remark	s: Soil pit was	dug to 2	5-inches.							
					HYDROL	OGY				
Wetland Hyd	rology Indicators:				IIIDKOL	001		Secon	dary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)						<u> -</u>	Jecon	Surface Soil Crack (B6)		
Surface Water (A1) Water-Stained Leaves (B9)						-		Drainage Patterns (B10)		
	High Water Table (A2)     Aquatic Fauna (B13)						-		Moss Trim Lines (B16)	
Saturation (A3)     Marl Deposits (B15)						-		Dry-Season Water Table (C2)		
	Water Marks (B1)     Mari Deposits (B15)       Water Marks (B1)     Hydrogen Sulfide Odor (C1)						-		Crayfish Burrows (C8)	
	ent Deposits (B2)				-	res on Living R	-		Saturation Visible on Aerial Imagery (C9)	
I	Deposits (B3)			•	ce or Reduced		-		Stunted or Stressed Plants (D1)	
	Mat or Crust (B4)			•		on in Tilled Soi	- ils (C6)		Geomorphic Position (D2)	
	Deposits (B5)			•	l non Reduction Iuck Surface (				Shallow Aquitard (D3)	
	ation Visible on Aeria	l Imager	v (B7)	•	(Explain in Re		-		Microtopographic Relief (D4)	
	ely Vegetated Concave	-	· · · · ·	Julie		markoj	-		FAC-Neutral Test (D5)	
	, · egenned Contrav	- Surrue	(20)							

Depth (inches):

Depth (inches):

Depth (inches):

Field Observations:

Saturation Present?

Surface Water Present?

Water Table Present?

Remarks:



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Project/Site: Headwaters Parkway	Cit	y/County: Wash			Sampling Date: 6/1		
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: SP-6		
Investigator(s): Brandon Bohks			nship, Range: 2				
Landforms (hillside, terrace, etc.): Backslope Subregion: LRR K Latitude:			(concave, conv	ex, none): Conver Datum:	x Slope (%):	5-8	
Subregion:     LRR K     Latitude:       Soil Map Unit Name:     Dundas fine sandy loam		Longitude:	ification: None	Datum:			
Are climatic/hydrologic conditions of the site typical for	this time of year?	Yes		, explain in remarks)			
	hydrology		icantly disturbe		imstances present?	Vac	
· · · · · · · · · · · · · · · · · · ·	hydrology		ally problematic		n any answers in Re		
, 5013, 01		Y OF FINI		. (II needed, explain	and the second	cinariko)	
Hydrophytic vegetation present?	No						
Hydric soils present?	Yes		Is the sam	pled area within a wetl	and? No		
Wetland hydrology present?			-		-		
Remarks:							
V	EGETATION	- Use scientific	names of plants				
	Absolute	Dominant	Indicator	50/20 Threshol	d 20%	50%	
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	0	0	
1				Sapling/Shrub Stratur	m <u>0</u>	0	
2				Herb Stratum	22.4	56	
3				Woody Vine Stratum		0	
4				Dominanc	e Test Worksheet		
5				Number of domir	-		
	0 =	Total Cover		that are OBL, FAC	W, or FAC: 0	(A)	
Sapling/Shrub stratum (Plot size: 15 feet )				Total number of			
1				species acros	ss all strata: 1	(B)	
2				Percent of dominant		(A/D)	
3				are OBL, FAC			
4				Total % cover of:	e Index Worksheet	L	
5		Total Cover		ODL G	5 1	5	
Herb stratum: (Plot size: 5 feet )	=	-Total Cover		FACW Species:		5 0	
1 Trifolium pretense	75	Yes	FACU			0	
2 Erigeron annuus	20	No	FACU	FACU species: 1		28	
3 Amaranthus retroflexus	12	No	FACU			0	
4 Carex vulpinoidea	5	No	OBL	Totals: 1		<b>33</b> (B)	
5					ndex (B/A): 3.87		
6					Vegetation Indicat	tors	
7					hydrophytic vegeta		
8				Dominance te	st >50%		
9				Prevalence inc	dex is ≤3.0*		
10				Mornhologica	ll adaptations* (Pro	vide	
	112 =	Total Cover		supporting dat		vide	
Woody vine stratum: (Plot size: 15 feet )				Problematic h	ydrophytic vegetati	on*	
1				(Explain in re			
2				*Indicators of hydrid			
	=	Total Cover		must be present, unl	ess disturbed or pro	oblematic	
<u>Remarks:</u>				Hydrophytic veg			
				present?	No		



Sample Point:

**SP-6** 

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(Northcentral and Northeast Region - LRR K)

SOLLS

				SOIL	<b>N</b>			
Profile Descr	ription: (Describe to the	depth needed to docu	iment t	the indicator	or confirm the	e absence of indicator	rs.)	
Depth	Depth Matrix Redox Features							
(inches)	Color (moist)	% Color (moist)	%	Type*	Loc**	Texture	Remarks	
0-18	10YR 2/1	100				Sandy Clay Loam		
18-25+	10YR 5/1	90 7.5YR 4/6	10	С	М	Sandy Clay Loam		
[	*Type: C = Concentratio	on, $D = Depletion, RM$	= Redu	ced Matrix, M	IS = Masked Sa	and Grains. **Locatio	n: PL = Pore Lining, M = Matrix	
Hydric Soil l	Indicators:					Indicators f	for Problematic Hydric Soils*:	
Histis	sol (A1)		Stripp	ed Matrix (S6)	)	2 cm	Muck (A10)	
Histic Epipedon (A2) Loamy Mucky Mineral (F1)							Prairie Redox (A16)	
Black Histic (A3) Loamy Gleyed Matrix (F2)							Mucky Peat or Peat (S3)	
Hydrogen Sulfide (A4) Depleted Matrix (F3)						Dark	Surface (S7)	
Stratified Layers (A5) Redox Dark Surface (F6)					Polyv	Polyvalve Below Dark Surface (S8)		
Depleted Below Dark Surface (A11)         Depleted Dark Surface (F7)				Thin	Dark Surface (S9)			
X         Thick Dark Surface (A12)         Redox Depressions (F8)				Iron-1	Manganese Masses (F12)			
Sandy Mucky Material (S1) *Indicators of hydrophytic vegetation and wetland				Red F	Red Parent Material (T42)			
Sandy	Gleyed Matrix (S4)		ist be pi	resent, unless o		Very Shallow Dark Surface (TF12)		
Sandy	v Redox (S5)		prol	blematic		Other	(Explain in remarks)	
Restrictive I	Layer (if observed):			1				
Type:	• •					Hydric Soils Pre	esent: Yes	
Depth (inches):								
			<u> </u>	L				
Remark	ks: Soil pit was dug	to 25-inches.						
				HYDROL	OGY			
Wetland Hyd	Irology Indicators:				001	Secor	ndary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)						Surface Soil Crack (B6)		
-	ce Water (A1)			-Stained Leave	es (B9)		Drainage Patterns (B10)	
	Water Table (A2)		-	ic Fauna (B13	× ,		Moss Trim Lines (B16)	
Ŭ	ation (A3)			Deposits (B15)	/		Dry-Season Water Table (C2)	
	r Marks (B1)		-	gen Sulfide O	·		Crayfish Burrows (C8)	
	nent Deposits (B2)		-	-	res on Living R	Roots (C3)	Saturation Visible on Aerial Imagery (C9)	
	Deposits (B3)		-	ice or Reduced	-		Stunted or Stressed Plants (D1)	
	Mat or Crust (B4)		-		on in Tilled Soi	ils (C6)	Geomorphic Position (D2)	
	Deposits (B5)		-	Muck Surface (			Shallow Aquitard (D3)	
	ation Visible on Aerial Im	nagery (B7)	-	(Explain in Re			Microtopographic Relief (D4)	
	ely Vegetated Concave Su		-		,		FAC-Neutral Test (D5)	

Depth (inches):

Depth (inches):

Depth (inches):

FAC-Neutral Test (D5)

 Indicators of Wetland	
<b>Hydrology Present?</b>	No

Remarks:

Saturation Present?

Field Observations: Surface Water Present?

Water Table Present?



	lorthcentral and	-	-				
Project/Site: Headwaters Parkway	Cit	y/County: Wash	_	5	Sampling Date: 6/1		
Applicant/Owner: City of Forest Lake			$\frac{MN}{1}$		Sample Point: SP-7		
Investigator(s): Brandon Bohks			nship, Range: 2				
Landforms (hillside, terrace, etc.): Backslope Subregion: LRR K Latitude:			(concave, conv	ex, none): Convey Datum:	Slope (%):	4-7	
Subregion:     LRR K     Latitude:       Soil Map Unit Name:     Dundas fine sandy loam	<u> </u>	Longitude:	ification: None				
Are climatic/hydrologic conditions of the site typical for thi	a time of year?	Yes		, explain in remarks)			
	drology		icantly disturbe	-	mstances present?	Vag	
	drology		ally problematic		n any answers in Re		
, sons, or ny		Y OF FIND		. (II needed, explain		iiidi KS)	
Hydrophytic vegetation present?	No						
Hydric soils present?	Yes		Is the sam	pled area within a wetla	and? No		
Wetland hydrology present?	No						
<u>Remarks:</u>							
VE	GETATION	- Use scientific	names of plants	3			
	Absolute	Dominant	Indicator	50/20 Threshold	d 20%	50%	
<u>Tree Stratum</u> (Plot size: <u>30 feet</u> )	% Cover	Species	Status	Tree Stratum	0	0	
1				Sapling/Shrub Stratum	n <u>0</u>	0	
2				Herb Stratum	13.4	33.5	
3				Woody Vine Stratum	0	0	
4				Dominanc	e Test Worksheet		
5				Number of domin	ant species		
	0 =	Total Cover		that are OBL, FAC	<i>W</i> , or FAC: <b>0</b>	(A)	
Sapling/Shrub stratum (Plot size: 15 feet )				Total number of	of dominant		
1				species acros	s all strata: 2	(B)	
2				Percent of dominant s			
3				are OBL, FAC			
4					Index Worksheet		
5				Total % cover of:			
	0 =	Total Cover		OBL Species:	<b>0</b> x 1 =	)	
Herb stratum: (Plot size: 5 feet )	-					0	
1 Amaranthus retrofluxus	30	Yes	FACU	1	0 x 3 = 0	)	
2 Solidago canadensis	20	Yes	FACU			28	
3 Solidago gigantea	10	No	FACW			)	
4 Erigeron annuus	7	No	FACU			<b>48</b> (B)	
5	: ——			Prevalence In	idex (B/A): 3.70		
6					Vegetation Indicat		
7					hydrophytic vegeta	tion	
8				Dominance tes	st >50%		
9				Prevalence ind	lex is $\leq 3.0^*$		
10	67 =	Total Cover		Morphologica supporting dat	l adaptations* (Prov a in remarks)	vide	
Woody vine stratum: (Plot size: <u>15 feet</u> ) 1				Problematic hy (Explain in rer	ydrophytic vegetationarks)	on*	
2		Tatal Car		*Indicators of hydric must be present, unlo	soil and wetland h		
	0 =	Total Cover=				orematic	
<u>Remarks:</u>				Hydrophytic veg present?	etation No		



Sample Point: SP-7

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Profile Descr	iption: (Describe to	the dep	th needed to docu	iment t	he indicator of	or confirm the	e absence of indicator	s.)		
Depth	Matrix			Redo	x Features	•				
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks		
0-11	10YR 2/1	100					Clay Loam			
11-17+	10YR 4/1	90	7.5YR 4/6	10	С	М	Sandy Clay Loam			
	71	ation, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked S	and Grains. **Location	: PL = Pore Lining, M = Matrix		
Hydric Soil I	ndicators:						Indicators fo	or Problematic Hydric Soils*:		
Histiso	( )				ed Matrix (S6)			Auck (A10)		
Histic Epipedon (A2)				•	Mucky Mine	. ,		Prairie Redox (A16)		
	Histic (A3)			Loamy	Gleyed Matri	ix (F2)	Aucky Peat or Peat (S3)			
Hydro	gen Sulfide (A4)			Depleted Matrix (F3)			Dark Surface (S7)			
Stratif	ied Layers (A5)			Redox Dark Surface (F6)			Polyva	Polyvalve Below Dark Surface (S8)		
X Deplet	ed Below Dark Surfa	ce (A11)	)	Deplet	Depleted Dark Surface (F7)			Thin Dark Surface (S9)		
Thick	Dark Surface (A12)			Redox	Depressions (	(F8)	Iron-N	langanese Masses (F12)		
Sandy	Mucky Material (S1)		*Indicators of h	ydroph	ytic vegetatior	n and wetland	Red Pa	arent Material (T42)		
Sandy	Gleyed Matrix (S4)		hydrology mu	st be present, unless disturbed or			Very S	Shallow Dark Surface (TF12)		
Sandy	Redox (S5)			prot	olematic		Other	(Explain in remarks)		
Restrictive L	ayer (if observed):									
Type:							Hydric Soils Pres	ent: Yes		
Depth (inches	):									
Remark	s: Soil pit was	dug to 1	7-inches.							
					HYDROL	OCV				

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; check	Surface Soil Crack (B6)				
Surface Water (A1)	Drainage Patterns (B10)				
High Water Table (A2)	Moss Trim Lines (B16)				
Saturation (A3)	Marl Deposits (B15)	Dry-Season Water Table (C2)			
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)			
Sediment Deposits (B2)	Saturation Visible on Aerial Imagery (C9)				
Drift Deposits (B3)	Stunted or Stressed Plants (D1)				
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)			
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)			
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)			
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)			
Field Observations:					
Surface Water Present?	Depth (inches):	Indicators of Wetland			
Water Table Present?	Depth (inches):	Hydrology Present? No			
Saturation Present?	Depth (inches):				



		Northeast Regi			
Project/Site: Headwaters Parkway	Cit	y/County: Wash			Sampling Date: 6/17/2019
Applicant/Owner: City of Forest Lake			$\frac{MN}{1}$		Sample Point: SP-8
Investigator(s): Brandon Bohks			nship, Range: 29		
Landforms (hillside, terrace, etc.): Terrace			(concave, conve	· · · · · · · · · · · · · · · · · · ·	ex Slope (%): 1-3
Subregion: LRR K Latitude:		Longitude:	· · · · •	Datum:	
Soil Map Unit Name: <b>Dundas fine sandy loam</b>			ification: None	1	
Are climatic/hydrologic conditions of the site typical for thi	-	Yes	_	explain in remarks)	()
	drology		icantly disturbed		umstances present? Yes
Are vegetation, soils, or hydrawing, here we have a solution, here we have a solution with the solution and the soluti	drology SUMMAR	NATURA	ally problematic	(If needed, expla	in any answers in Remarks)
Hydrophytic vegetation present?	No				
Hydric soils present?	Yes		Is the sam	pled area within a wet	land? No
Wetland hydrology present?	No				110
Remarks:					
VE/	GETATION	- Use scientific		50/20 Thresho	old 20% 50%
Tree Stratum (Plot size: 30 feet )	Absolute	Dominant	Indicator		
	% Cover <b>60</b>	Species Yes	Status FAC	Tree Stratum	23 57.5
1 Acer negundo	20	No	FAC	Sapling/Shrub Stratu Herb Stratum	
2 Populus deltoides 3 Fraxinus pennsylvanica	20	No	FAC	Woody Vine Stratum	$\frac{11}{0}$ $\frac{27.5}{0}$
	15	No	FACW	-	ce Test Worksheet
4 Salix bebbiana		<u>N0</u>	FACW	Dominan	ce Test worksneet
5	115 =	Total Cover		Number of domi that are OBL, FAC	1
Sapling/Shrub stratum (Plot size: 15 feet )				Total number	of dominant
1 Rhamnus cathartica	60	Yes	FAC	species acro	oss all strata: 5 (B)
2 Sambucus canadensis	15	Yes	FACU	Percent of dominant	species that
3				are OBL, FA	CW or FAC: <u>40%</u> (A/E
4				Prevalence	e Index Worksheet
5				Total % cover of:	
	75 =	Total Cover		OBL Species:	<b>0</b> x 1 = <b>0</b>
Herb stratum: (Plot size: 5 feet )	-			FACW Species:	<b>35</b> x 2 = <b>70</b>
1 Parthenocissus quinquefolia	20	Yes	FACU	FAC Species:	<b>150</b> x 3 = <b>450</b>
2 Arctium minus	15	Yes	FACU	FACU species:	<b>60</b> x 4 = <b>240</b>
3 Sambucus canadensis	10	No	FACU	UPL Species:	<b>0</b> x 5 = <b>0</b>
4 Rhamnus cathartica	10	No	FAC	Totals:	<b>245</b> (A) <b>760</b> (B)
5				Prevalence	Index (B/A): <b>3.10</b>
6	-			Hydrophytic	Vegetation Indicators
7				Rapid test for	r hydrophytic vegetation
8				Dominance te	est >50%
9	- <u> </u>			Prevalence in	idex is $\leq 3.0^*$
10					al adaptations* (Provide
	55 =	Total Cover			ata in remarks)
Woody vine stratum: (Plot size: <u>15 feet</u> ) 1				Problematic I (Explain in re	hydrophytic vegetation* emarks)
2					ic soil and wetland hydrology
	0 =	Total Cover			less disturbed or problematic
<u>Remarks:</u>				Hydrophytic ve present?	



Sample Point:

**SP-8** 

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SOILS

Profile Desc	ription: (Describe to	the dep	th needed to docu	iment	the indicator of	or confirm the	absence of indicator	rs.)
Depth	Matrix	_		Redo	x Features			
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-13+	10YR 2/1	90	7.5YR 4/6	10	С	М	Sandy Clay Loam	
	*Type: C = Concentr	ation, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked Sa	and Grains. **Location	n: PL = Pore Lining, M = Matrix
Hydric Soil	Indicators:						Indicators f	or Problematic Hydric Soils*:
Histis	ol (A1)			Stripp	ed Matrix (S6)		2 cm 1	Muck (A10)
Histic	Epipedon (A2)			Loamy	y Mucky Miner	ral (F1)	Coast	Prairie Redox (A16)
Black	Histic (A3)			x (F2)	5 cm 1	Mucky Peat or Peat (S3)		
Hydro	ogen Sulfide (A4)			Dark	Surface (S7)			
Stratit	fied Layers (A5)		X	Redox	Dark Surface	(F6)	Polyva	alve Below Dark Surface (S8)
Deple	ted Below Dark Surfa	ce (A11	)	- Deplet	ted Dark Surfa	ce (F7)	Thin I	Dark Surface (S9)
Thick	Dark Surface (A12)			Redox	Depressions (	F8)	Iron-N	Manganese Masses (F12)
Sandy	Mucky Material (S1)	)	*Indicators of h	- wdroph	vtic vegetation	and wetland	Red P	arent Material (T42)
Sandy	Gleyed Matrix (S4)				resent, unless d		Very	Shallow Dark Surface (TF12)
Sandy	Redox (S5)			pro	blematic		Other	(Explain in remarks)
Restrictive I	Layer (if observed):							
Type:	• • •						Hydric Soils Pres	sent: Yes
Depth (inches	s):			-			,	<u> </u>
				-				
Remark	<u>(s:</u> Soil pit was	dug to 1	3-inches.					
					HYDROL	OGY		
Wetland Hyd	Irology Indicators:					001	Secon	dary Indicators (minimum of two required)
	cators (minimum of or	ne is requ	ired; check all the	at apply	7)		<u></u>	Surface Soil Crack (B6)
Surfac	ce Water (A1)	-		Water	-Stained Leave	s (B9)		Drainage Patterns (B10)
High	Water Table (A2)			Aquat	ic Fauna (B13)			Moss Trim Lines (B16)
	ation (A3)				Deposits (B15)			Dry-Season Water Table (C2)
	Marks (B1)			-	gen Sulfide Od			Crayfish Burrows (C8)
	nent Deposits (B2)			• -	-	es on Living R	oots (C3)	Saturation Visible on Aerial Imagery (C9)
	Deposits (B3)			-	ice or Reduced	-		Stunted or Stressed Plants (D1)
	Mat or Crust (B4)			-		on in Tilled Soi	ls (C6)	Geomorphic Position (D2)
	Deposits (B5)			-	Auck Surface (		<u> </u>	Shallow Aquitard (D3)
	ation Visible on Aeria	ıl Imager	ry (B7)		(Explain in Re			Microtopographic Relief (D4)
	ely Vegetated Concav	-		-	、 <b>1</b>	,		FAC-Neutral Test (D5)
Field Observ	ations:							
Surface Wate				I	Depth (inches):			Indicators of Wetland
Water Table					Depth (inches):		-	Hydrology Present? No
Saturation Pr					Depth (inches):		-	

Remarks:



neur reopie: neur solutions.	(Northcentral and	e	,									
Project/Site: Headwaters Parkway	Cit	y/County: Wash	_		Sampling Date: 6/2							
Applicant/Owner: City of Forest Lake			e: MN		Sample Point: SI	<b>·</b> -9						
Investigator(s): Brandon Bohks			nship, Range: 2									
Landforms (hillside, terrace, etc.): Road Ditch		Local Relief	· · · · · · · · · · · · · · · · · · ·	Slope (%)	): 0-2							
Subregion: LRR K Latitude:		Longitude:		Datum:								
Soil Map Unit Name: <b>Dundas fine sandy loam</b>		NWI Classification: None										
Are climatic/hydrologic conditions of the site typical for	-	Yes	_	explain in remarks)								
	hydrology		icantly disturbe		mstances present?	Yes						
Are vegetation, soils, or l	hydrology		ally problematic	? (If needed, explain	1 any answers in R	emarks)						
	SUMMAR	<b>AY OF FINI</b>	DINGS									
Hydrophytic vegetation present?	No											
Hydric soils present?	No		Is the sam	pled area within a wetla	and? No	_						
Wetland hydrology present?	No											
Remarks:												
V	EGETATION	- Use scientific	names of plants	;								
	Absolute	Dominant	Indicator	50/20 Threshol	d 20%	50%						
<u>Tree Stratum</u> (Plot size: 30 feet )	% Cover	Species	Status	Tree Stratum	0	0						
1				Sapling/Shrub Stratum	n 0	0						
2				Herb Stratum	20	50						
3				Woody Vine Stratum	0	0						
4				-	e Test Worksheet	t						
5						-						
5	0 =	Total Cover		Number of domin that are OBL, FACV	-	(A)						
Sapling/Shrub stratum (Plot size: 15 feet )				Total number of	of dominant							
1				species acros	ss all strata: 2	(B)						
2				Percent of dominant	species that							
3				are OBL, FAC	-	<u>(A/B)</u>						
4				Prevalence	Index Workshee	et (						
5				Total % cover of:								
	0 =	Total Cover		OBL Species:	0 x 1 =	0						
Herb stratum: (Plot size: 5 feet )				FACW Species:	0 x 2 =	0						
1 Trifolium pretense	35	Yes	FACU	FAC Species: 1	15 x 3 = -	45						
2 Poa pratensis	30	Yes	FACU	FACU species: 8		340						
3 Hordeum jubatum	15	No	FAC	UPL Species:		0						
4 Lotus corniculatu	10	No	FACU	Totals: 1		385 (B)						
5 Phleum pretense	10	No	FACU		$\frac{1}{1000}$ (B/A): 3.85							
					Vegetation Indica							
6					hydrophytic vegeta							
7				Dominance tes		ation						
8												
9				Prevalence ind	lex 1s $\leq 3.0^*$							
10	100 =	Total Cover		Morphologica supporting dat	l adaptations* (Pro a in remarks)	ovide						
Woody vine stratum: (Plot size: <u>15 feet</u> ) 1				Problematic hy (Explain in rer	ydrophytic vegetat marks)	ion*						
2				*Indicators of hydric	soil and wetland							
	0 =	Total Cover		must be present, unle	ess disturbed or pr	oblematic						
Remarks:				Hydrophytic veg present?	etation No							



Sample Point: S

SP-9

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SOILS

Depth	Matrix			Redox	k Features							
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks				
0-8	10YR 2/2	100					Sandy Loam					
	••	ation, D	= Depletion, RM	= Reduc	ed Matrix, M	S = Masked Sat						
Hydric Soil 1	Indicators:						Indicators	for Problematic Hydric Soils*:				
Histis	ol (A1)			Strippe	ed Matrix (S6)		2 cm	Muck (A10)				
Histic	Epipedon (A2)			Loamy	Mucky Miner	al (F1)	Coast Prairie Redox (A16)					
Black	Histic (A3)			Loamy	Gleyed Matri	x (F2)	5 cm Mucky Peat or Peat (S3)					
Hydro	ogen Sulfide (A4)			Deplet	ed Matrix (F3)	)	Dark	Surface (S7)				
Stratif	fied Layers (A5)			Redox	Dark Surface	(F6)	Polyv	valve Below Dark Surface (S8)				
*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Mas         Hydric Soil Indicators:         Histisol (A1)       Stripped Matrix (S6)         Histic Epipedon (A2)       Loamy Mucky Mineral (F1)         Black Histic (A3)       Loamy Gleyed Matrix (F2)         Hydrogen Sulfide (A4)       Depleted Matrix (F3)         Stratified Layers (A5)       Redox Dark Surface (F6)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)         Thick Dark Surface (A12)       Redox Depressions (F8)         Sandy Mucky Material (S1)       *Indicators of hydrophytic vegetation and we hydrology must be present, unless disturbed							Thin	Dark Surface (S9)				
Thick	Dark Surface (A12)			Redox	Depressions (	F8)	Iron-	Manganese Masses (F12)				
Sandy	Mucky Material (S1)		*Indicators of h	- vdrophy	vtic vegetation	and wetland	Red I	Parent Material (T42)				
Sandy	Gleyed Matrix (S4)						Very	Shallow Dark Surface (TF12)				
Sandy	Redox (S5)			prob	olematic		Other	r (Explain in remarks)				
Restrictive I	ayer (if observed):											
Type:	Unknown						Hydric Soils Pre	esent: No				
Depth (inches	s): <b>8</b>			•								

#### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check	all that apply)	Surface Soil Crack (B6)
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3)	Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence or Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	X Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present?	Depth (inches):	Indicators of Wetland
Water Table Present?	Depth (inches):	Hydrology Present? No
Saturation Present?	Depth (inches):	



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Project/Site: Headwaters Parkway	City	y/County: Wash	-		Sampling Date:	
Applicant/Owner: City of Forest Lake			e: MN		Sample Point:	SP-10
Investigator(s): Brandon Bohks		Section, Town	nship, Range: 29	9, 32, 21		
Landforms (hillside, terrace, etc.): Depression			(concave, conve	ex, none): Conca	slope (%	%): <b>0-2</b>
Subregion: LRR K Latitude:		Longitude:		Datum:		
Soil Map Unit Name: Webster loam		NWI Class	ification: None			
Are climatic/hydrologic conditions of the site typical for	this time of year?	Yes	(If no,	explain in remarks)		
Are vegetation X , soils , or	hydrology	signif	icantly disturbed	1? Are normal circ	umstances presen	t? No
Are vegetation , soils , or	hydrology	natura	ally problematic	? (If needed, expla	in any answers in	Remarks)
	SUMMAR	Y OF FINE	DINGS			
Hydrophytic vegetation present?	No					
Hydric soils present?	Yes		Is the sam	pled area within a we	tland? No	
Wetland hydrology present?	No					
Remarks: Sample point was taken in a agricultur	e field recently pla	nted with corn.				
V	EGETATION	- Use scientific	names of plants	_		
	Absolute	Dominant	Indicator	50/20 Thresho	old 20%	50%
Tree Stratum (Plot size: 30 feet )	% Cover	Species	Status	Tree Stratum	0	0
1				Sapling/Shrub Stratu	um <u>0</u>	0
2				Herb Stratum	0	0
3				Woody Vine Stratum	n 0	0
4				Dominar	nce Test Workshe	eet
5				Number of dom	inant species	
	0 =	Total Cover		that are OBL, FAC	-	<b>0</b> (A)
Sapling/Shrub stratum (Plot size: 15 feet )				Total number		
1					oss all strata:	(B)
2						
3				Percent of dominant are OBL, FA		<b>)%</b> (A/B)
4					ce Index Worksh	. ,
5				Total % cover of:		
5		Total Cover		OBL Species:	<b>0</b> x 1 =	0
Herb stratum: (Plot size: 5 feet )				FACW Species:	$\frac{0}{0}$ x 2 =	0
1 Zea mays				FAC Species:	$\frac{0}{0}$ x 2 = -	0
2				FACU species:		-
				UPL Species:	<u> </u>	0
3				Totals:	$\frac{0}{0}$ x 5 = -	0 0 (B)
4					<u>0</u> (A)	<b>0</b> (B)
5					Index (B/A):	
6					vegetation Indi	
7					r hydrophytic veg	etation
8				Dominance t	est >50%	
9				Prevalence in	idex is $\leq 3.0^*$	
10	0 =	Total Cover			cal adaptations* (F ata in remarks)	Provide
Woody vine stratum: (Plot size: 15 feet ) 1				Problematic (Explain in r	hydrophytic veget emarks)	ation*
2		Total Cover		*Indicators of hydr must be present, ur		
Due to the lack of wetland hydrolog			vegetation is	Hydrophytic ve	actation	
Remarks.	ned to be absent.	-, n <sub>j</sub> ar opny ut	- Securion 15	Hydrophytic ve present	-	



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### EXHIBIT G: WETLAND DETERMINATION DATA FORM

Sample Point: SP-10

(Northcentral and Northeast Region - LRR K)

SOILS

Profile Descr	iption: (Describe to t	the dept	th needed to docu	ıment t	the indicator o	or confirm the	e absence of indicator	s.)			
Depth	Matrix			Redo	x Features						
(inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Name       Sandy Clay         M       Sandy Clay Loam         Masked Sand Grains. **Location: PL = Pore Lining, M         Indicators for Problematic Hydr         2 cm Muck (A10)         F1)       Coast Prairie Redox (A16)         F2)       5 cm Mucky Peat or Peat (S         Dark Surface (S7)       Polyvalve Below Dark Surface         F7)       Thin Dark Surface (S9)         Iron-Manganese Masses (F1         d wetland       Red Parent Material (T42)	Remarks			
0-14	10YR 2/1	100					Sandy Clay				
14-21	10YR 2/1	95	7.5YR 4/6	5	С	М	Sandy Clay				
21-28+	10YR 5/1	80	7.5YR 4/6	20	С	М	Sandy Clay Loam				
		tion, D	= Depletion, RM	= Redu	ced Matrix, M	S = Masked Sa	and Grains. **Location	: PL = Pore Lining, M = Matrix			
-								•			
				-							
	•• • •				•						
	Depth         Color (moist)         %         Colo           0-14         10YR 2/1         100         104           14-21         10YR 2/1         95         7.5           1-28+         10YR 5/1         80         7.5           1-29         10         10         10           Histisol (A1)         Histic Epipedon (A2)         Black Histic (A3)         Hydrogen Sulfide (A4)           Stratified Layers (A5)         Depleted Below Dark Surface (A11)         *Indi           Sandy Mucky Material (S1)         *Indi         Sandy Redox (S5) <td></td> <td>-</td> <td>-</td> <td></td> <td colspan="6"></td>		-	-							
Stratif	ied Layers (A5)			Redox	Dark Surface	(F6)	Polyva	lve Below Dark Surface (S8)			
Deplet	ed Below Dark Surfac	e (A11)	)	Deplet	ted Dark Surfa	ce (F7)	Thin D	Oark Surface (S9)			
X Thick	Dark Surface (A12)			Redox Features       Texture       Remarks         0       %       Type*       Loc**       Texture       Remarks         5       C       M       Sandy Clay       Image: Sandy Clay       Image: Sandy Clay         20       C       M       Sandy Clay Loam       Image: Sandy Clay Loam       Image: Sandy Clay Loam         1       20       C       M       Sandy Clay Loam       Image: Sandy Clay Loam         1       1       1       1       Image: Sandy Clay Loam       Image: Sandy Clay Loam         1       1       1       1       Image: Sandy Clay Loam       Image: Sandy Clay Loam         1       1       1       1       1       Image: Sandy Clay Loam       Image: Sandy Clay Loam         1       1       1       1       1       Image: Sandy Clay Loam       Image: Sandy Clay Loam         1       1       1       1       1       1       1       Image: Sandy Clay Loam         1       1       1       1       1       1       1       1       1         1       1       1       1       1       1       1       1       1       1       1       1       1       1       1	langanese Masses (F12)						
Sandy	Mucky Material (S1)		*Indicators of h	ıydroph	ytic vegetation	and wetland	Red Pa	arent Material (T42)			
Sandy	Gleyed Matrix (S4)	atrix       Redox Features         pist)       %       Color (moist)       %       Type*       Loc**       Texture         /1       100        Sandy Clay       ////////////////////////////////////	shallow Dark Surface (TF12)								
Sandy	Redox (S5)			prol	blematic		Other	(Explain in remarks)			
Restrictive L	ayer (if observed):										
Type:							Hydric Soils Pres	ent: Yes			
Depth (inches	):			-			·				
Remark	s: Soil pit was d	lug to a	depth of 28-inch	ies.							
					HYDROL	OGY					
Wetland Hyd	rology Indicators:						Second	dary Indicators (minimum of two required)			
Primary Indic	ators (minimum of one	e is requ	uired; check all the	at apply	7)			Surface Soil Crack (B6)			

Primary indicators (minimum of one is required; check	<u>all that apply)</u>	Surface Soil Crack (B6)					
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)					
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B16)					
Saturation (A3)	Marl Deposits (B15)	Dry-Season Water Table (C2)					
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)					
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)					
Drift Deposits (B3)	Presence or Reduced Iron (C4)	Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery ( Stunted or Stressed Plants (D1) X Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)					
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)						
Iron Deposits (B5)	Thin Muck Surface (C7)						
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)					
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)					
Field Observations:							
Surface Water Present?	Depth (inches):	Stunted or Stressed Plants (D1)         X       Geomorphic Position (D2)         Shallow Aquitard (D3)         Microtopographic Relief (D4)					
Water Table Present?	Depth (inches):	Hydrology Present? No					
Saturation Present?	Depth (inches):						



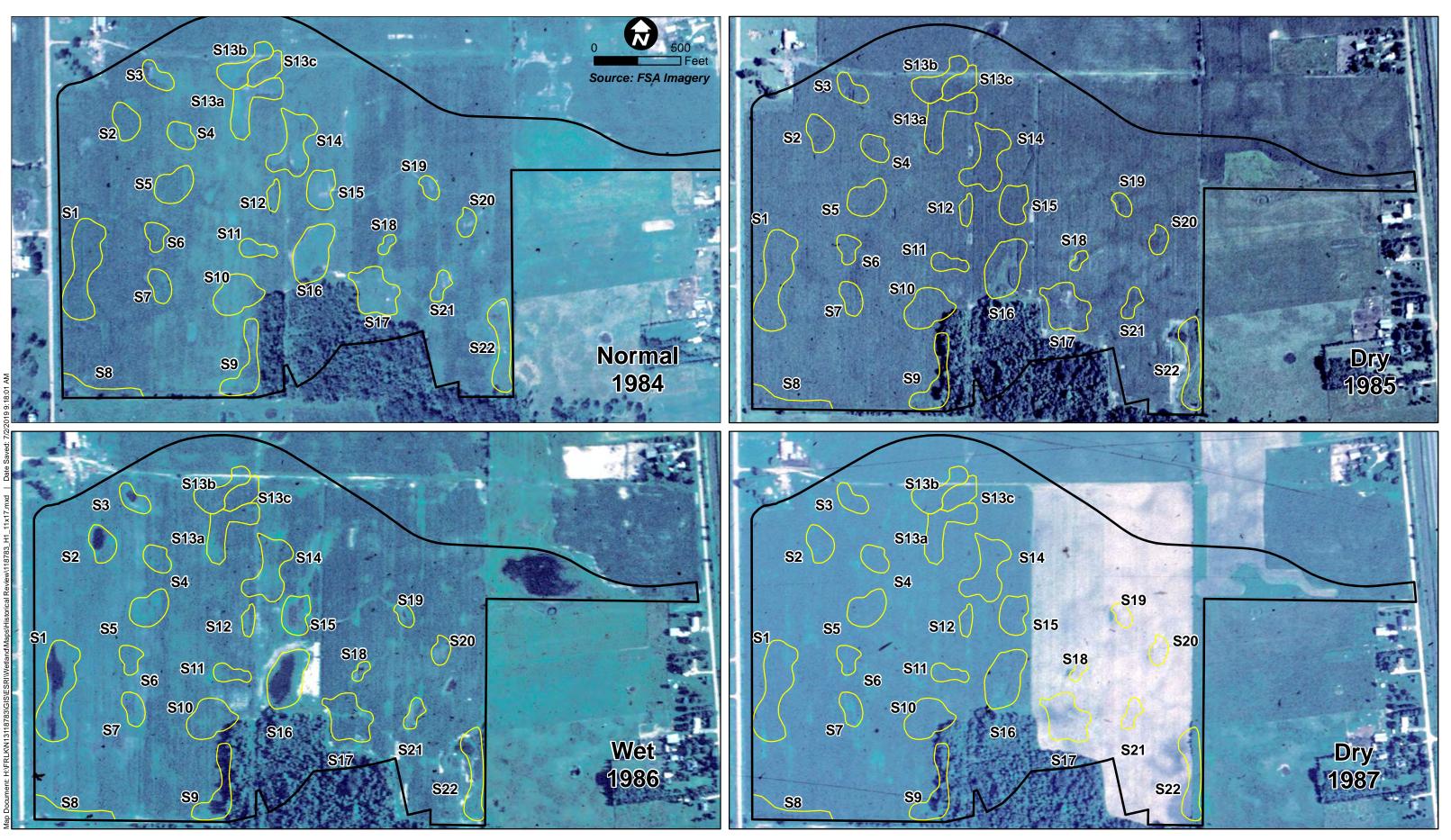
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#### HYDROLOGY ASSESSMENT USING AERIAL IMAGERY RECORDING FORM

Project/Site:	Headwaters				Date:	7/2/19
Applicant/Owner:	City of Forest Lake				City/Twp:	Forest Lake
Slide Reviewer:	Brandon Bohks				County:	Washington
WETS Station ID:	Washington-FL-FL	S - 29	T - 32	R - 21	State:	MN

Year	Climate Condition	Site	Site 2	Site 3	Site 4	Site 5	Site	Site 7	Site 8	Site	Site 10	Site 11	Site 12	Site 13a	Site 13b	Site 13c	Site 14	Site 15	Site 16	Site 17	Site 18	Site 19	Site 20	Site 21	Site 22	Site 23	Site 24	Site 25
1984	N	NV	NV	WS	4 NV	NV	NV	NV	WS	WS	WS	WS	NV	WS	WS	NV	CS	CS	WS	WS	WS	NV	CS	WS	WS	23	24	23
1985	D	NV	NV	WS	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	WS	WS	WS	NV	NV	NV	WS			
1986	W	DO	DO	DO	NV	NV	NV	CS	CS	WS	NV	NV	CS	WS	NV	NV	WS	DO	DO	WS	DO	DO	CS	DO	DO			
1987	D	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	WS			
1988	D	NV	NV	CS	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV			
1989	N	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV			
1990	W	SW	SW	SW	DO	DO	DO	SW	DO	DO	CS	CS	CS	DO	CS	CS	DO	CS	SW	NV	NV	NV	NV	NV	NV			
1991	W	DO	SW	SW	DO	CS	WS	SW	DO	DO	CS	SW	CS	SW	CS	NV	SW	DO	SW	NV	NV	NV	NV	NV	CS			
1992	D	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV			
1993	W	SW	SW	SW	DO	DO	DO	DO	CS	CS	CS	SW	CS	CS	CS	CS	CS	SW	SW	CS	CS	CS	NV	NV	CS			
1994	D	NV	DO	DO	NV	NV	NV	NV	CS	CS	NV	NV	CS	NV	CS	CS	CS	NV	NV	CS	NV	CS	NV	NV	CS			
1995	Ν	DO	SW	DO	NV	NV	NV	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS	SW	CS	CS	CS	CS	CS	CS			
1996	N	CS	DO	CS	NV	NV	NV	NV	CS	CS	NV	NV	NV	NV	NV	NV	NV	DO	DO	NV	CS	CS	NV	CS	CS			
1997	N	CS	CS	CS	NV	NV	NV	NV	CS	CS	CS	CS	CS	CS	CS	NV	CS	DO	DO	CS	CS	CS	CS	CS	CS			
1998	N	CS	CS	CS	NV	NV	NV	NV	NV	NV	CS	CS	CS	CS	NV	NV	CS	DO	DO	CS	CS	CS	CS	CS	DO			
1999	W	CS	CS	CS	NV	NV	NV	NV	CS	CS	CS	NV	CS	CS	NV	NV	NV	CS	DO	CS	CS	CS	CS	CS	DO			
2003	W	SW	DO	DO	DO	DO	DO	DO	CS	CS	CS	DO	DO	CS	DO	DO	CS	DO	DO	CS	DO	DO	DO	DO	CS			
2008	N	CS	DO	SW	CS	CS	NV	CS	CS	DO	DO	DO	CS	SW	SW	WS	DO	DO	DO	CS	CS	CS	DO	CS	DO			
2009	D	NV	CS	CS	CS	CS	CS	CS	NV	NV	CS	CS	CS	CS	CS	CS	CS	CS	CS	NV	NV	NV	NV	NV	NV			
2010	N	CS	CS	WS	NV	NV	NV	NV	CS	NV	NV	NV	NV	AP	AP	AP	CS	NV	NV	CS	CS	CS	NV	CS	CS			
2013	W	DO	DO	DO	DO	DO	DO	DO	DO	CS	DO	DO	DO	DO	DO	DO	DO	DO	DO	AP	DO	DO	DO	CS	DO			
2015	N	CS	DO	DO	NV	NV	NV	WS	CS	WS	NV	NV	CS	WS	WS	WS	CS	DO	DO	NV	CS	CS	NV	NV	NV			
2016	W	CS	DO	DO	SS	SS	SS	SS	CS	DO	CS	NV	DO	DO	DO	SS	DO	DO	DO	CS	DO	DO	SS	NV	SS			
2017	W	DO	SW	DO	DO	DO	NV	DO	CS	CS	DO	CS	CS	DO	DO	NV	DO	DO	DO	CS	DO	DO	NV	CS	CS			
							~~~~~	~ ~ ~			1 0111	~ •. •••	D-Dry N-N						~~~ ~	~								
							CS–Croj	o Stress DO	Denson During Denson During Denson Denso	<u>NC-Not Ci</u>	opped SW-S	Standing We	ter WS-Wetl	and Signati	ires AP-Alter	ed Pattern	<u>NV-Normal</u>	Vegetation 2	<u>SS-Saturatio</u>	n Signature								
	Hydric Soil	Yes	Yes	Yes	Yes	NV	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
	NWI	Yes	Yes	No	No	NV	No	No	No	No	No	No	No	Yes	Yes	Yes	No	No	No	No	No	No	No	No	Yes			
	Normal Years	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9			
	Wet Hits	7	7	8	1	1	0	3	7	6	5	5	5	7	6	4	7	7	7	5	8	7	5	7	7			
	% Wet	77	77	88	11	11	0	33	77	66	55	55	55	77	66	44	77	77	77	55	88	77	55	77	77			
	Field Visit	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1		
	Determination	Wetland		Wetland	No	No	No		Wetland	Wetland	Wetland		Wetland		Wetland	No		Wetland			Wetland		Wetland	Wetland		1		

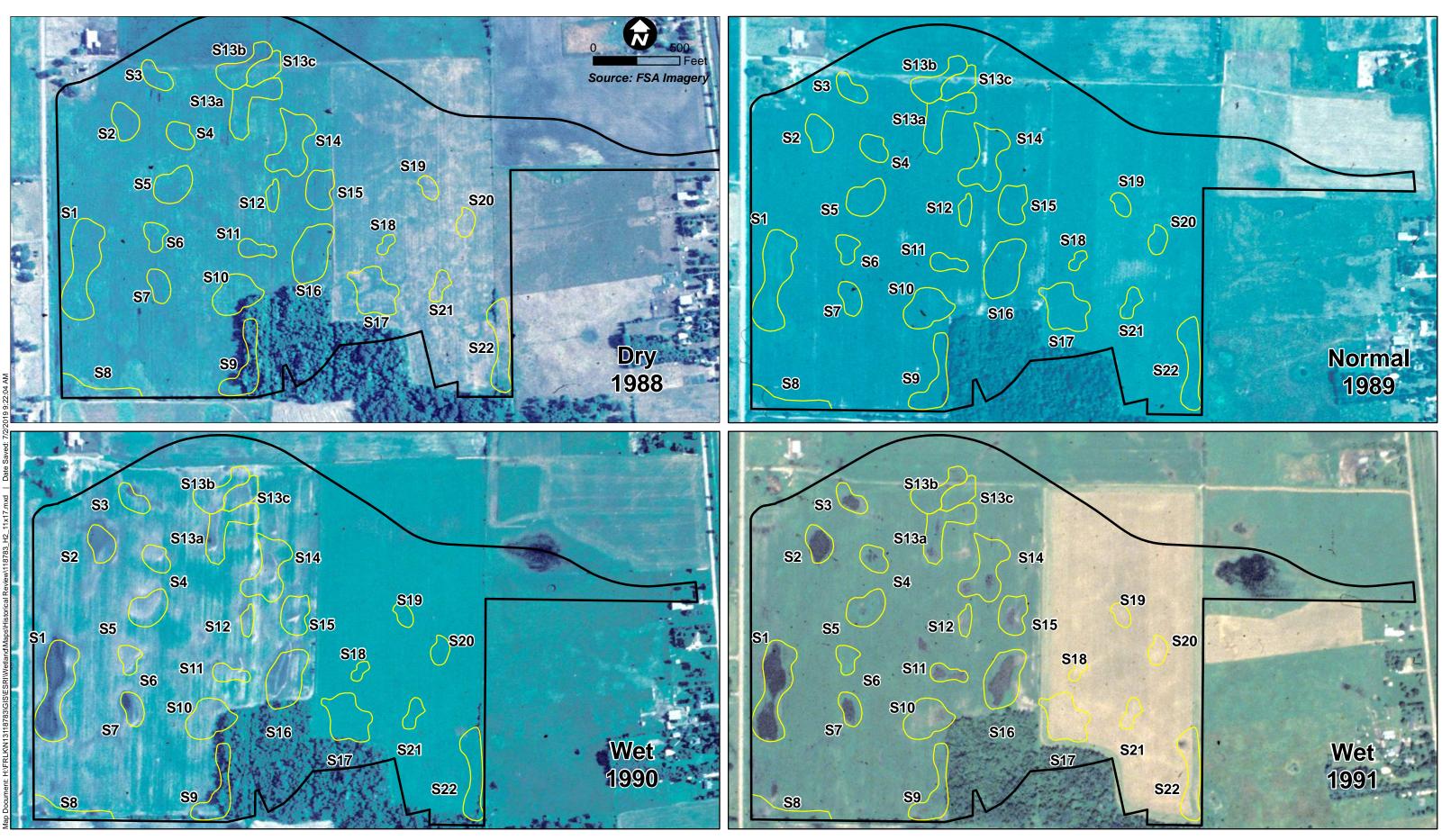
City of Forest Lake







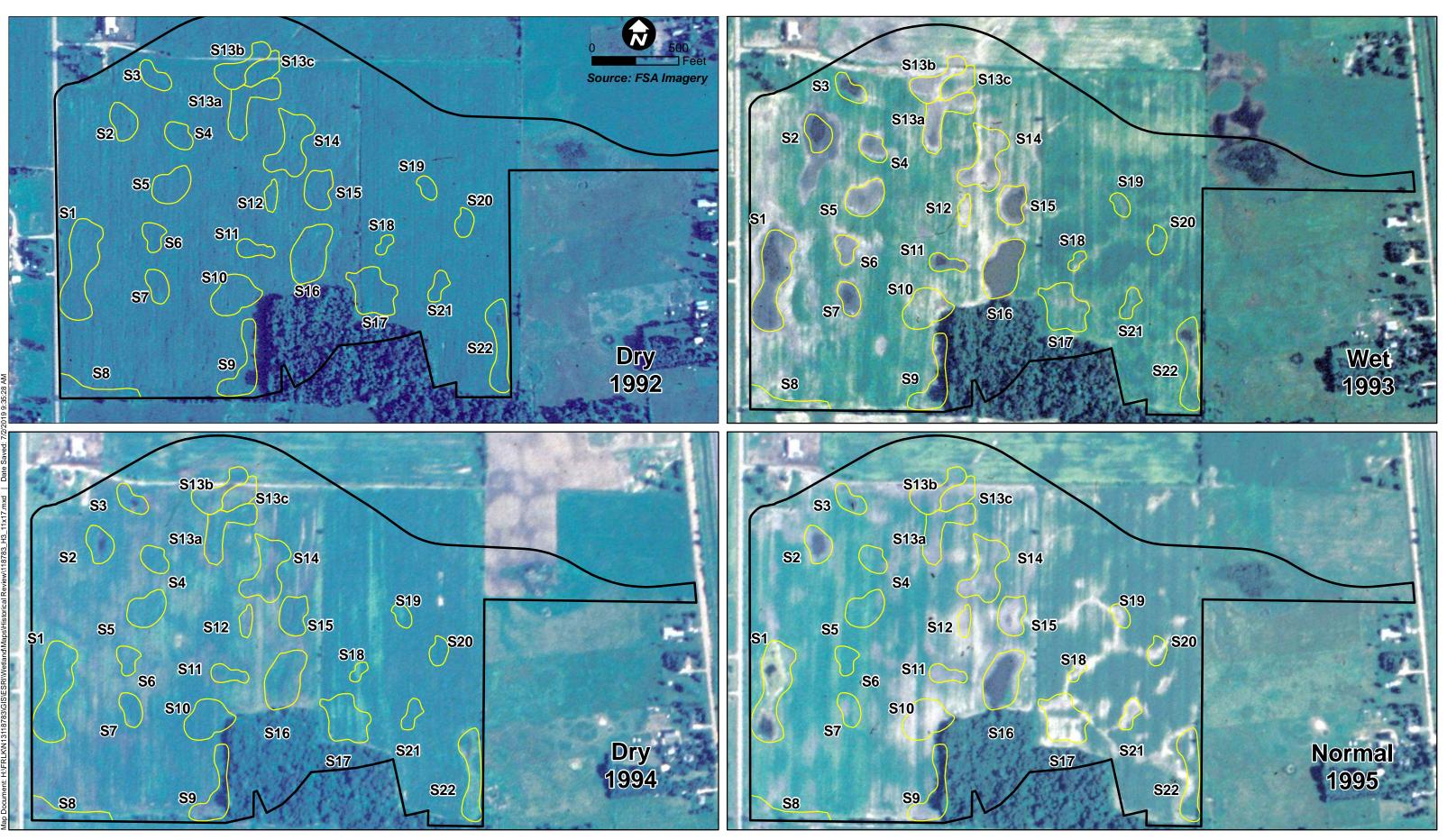
City of Forest Lake







City of Forest Lake

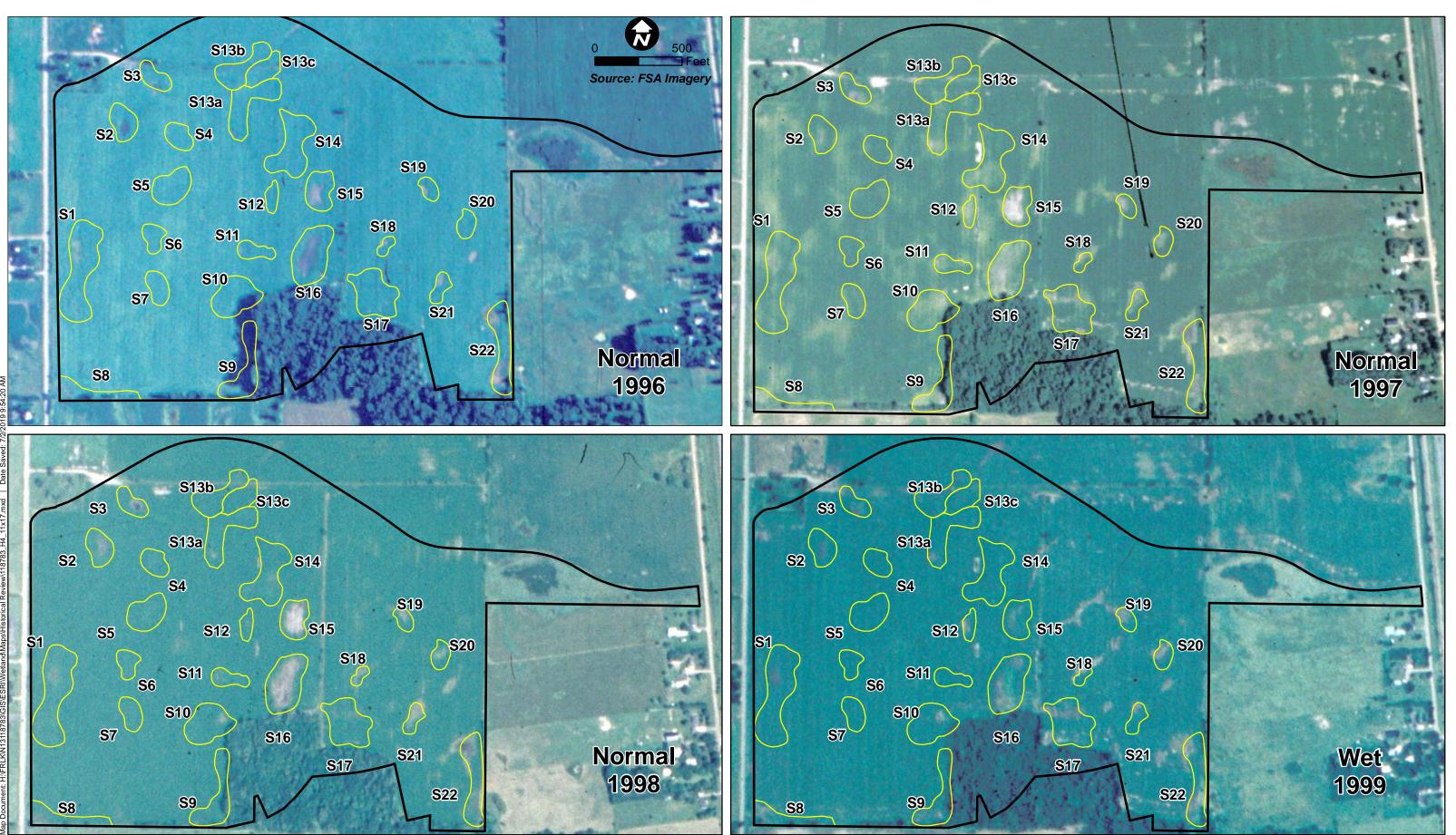




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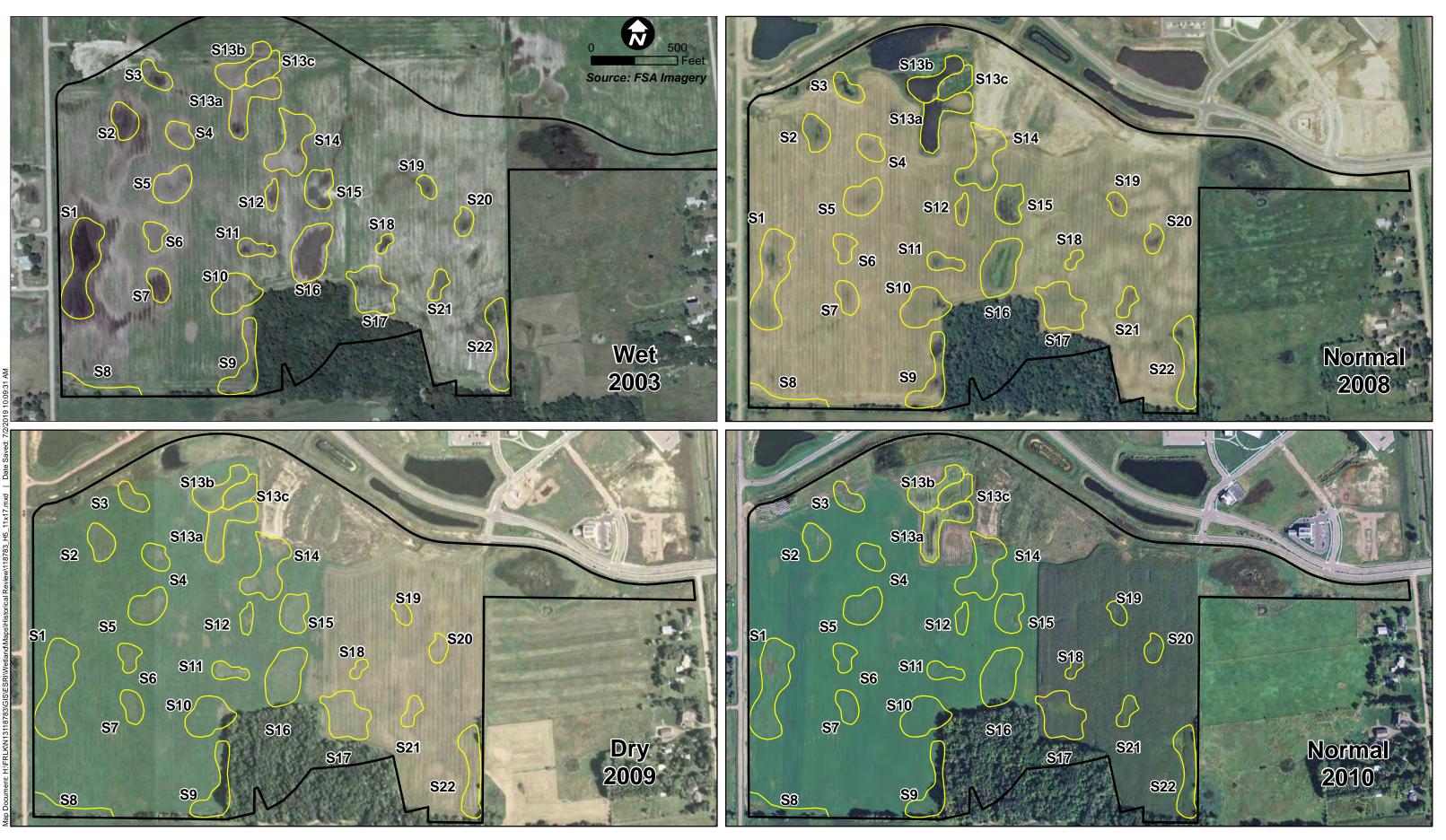




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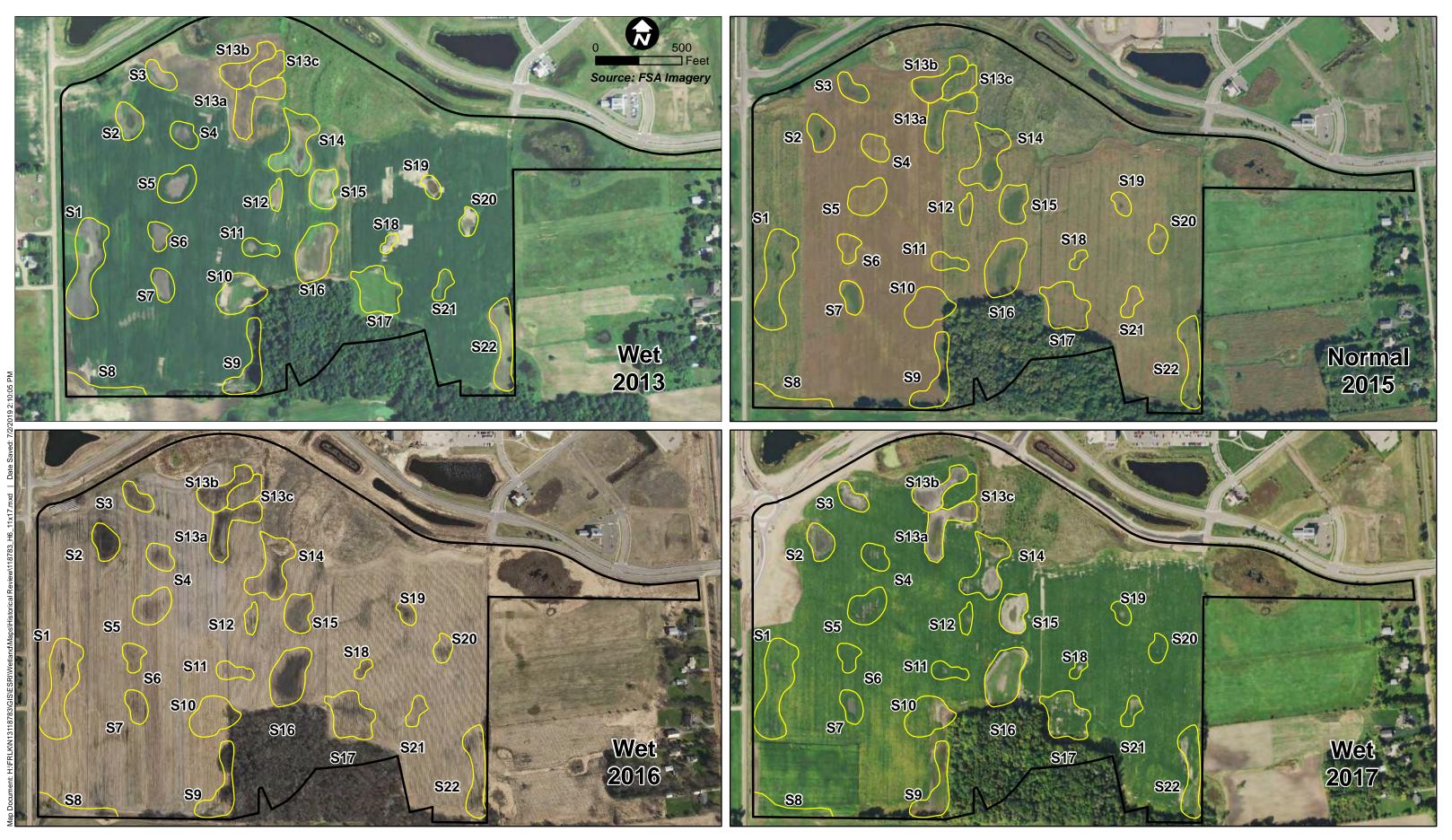
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August, 2018

