

Minnesota Wetland Conservation Act Notice of Application

Local Government Unit: City of Plymouth	County: Hennepin
Applicant Name: 13120 County Road 6	
Applicant Representative: Jacobson Environmental, PLLC	
Project Name: 13120 County Road 6	
LGU Project No. (if any): 2020-10	
Date Complete Application Received by LGU: 5/4/2020	
Date this Notice was Sent by LGU: 5/4/2020	
Date that Comments on this Application Must Be Received By LGU¹: 5/26/2020	

¹ minimum 15 business day comment period for Boundary & Type, Sequencing, Replacement Plan and Bank Plan Applications

WCA Decision Type - check all that apply

<input checked="" type="checkbox"/> Wetland Boundary/Type	<input type="checkbox"/> Sequencing	<input type="checkbox"/> Replacement Plan	<input type="checkbox"/> Bank Plan (not credit purchase)
<input type="checkbox"/> No-Loss (8420.0415)	<input type="checkbox"/> Exemption (8420.0420)		
Part: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/> F <input type="checkbox"/> G <input type="checkbox"/> H		Subpart: <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9	

Replacement Plan Impacts (replacement plan decisions only)

Total WCA Impact Area Proposed:
--

Application Materials

<input checked="" type="checkbox"/> Attached <input checked="" type="checkbox"/> Other ¹ (specify): A wetland delineation was performed on April 8th, 2020 at the property address of 13120 County Road 6 in Plymouth. Two basins were delineated within the project area and are summarized on the report. Basin 1 was delineated as a Type 3, PEM1Cd, shallow marsh (ditched) wetland totaling 0.037 acres. Basin 2 was delineated as a Type 3/6, PEM1C/SS1Cd, shallow marsh / shrub-carr (ditched) wetland totaling 0.153 acres. The applicant has also submitted a request for the US Army Corps of Engineers concurrence.

¹ Link to ftp or other accessible file sharing sites is acceptable.

Comments on this application should be sent to:

LGU Contact Person: Ben Scharenbroich, Interim Water Resources Manager
E-Mail Address: bscharenbroich@plymouthmn.gov
Address and Phone Number: 3400 Plymouth Blvd, Plymouth, MN 55447
Decision-Maker for this Application:
<input checked="" type="checkbox"/> Staff <input type="checkbox"/> Governing Board/Council <input type="checkbox"/> Other (specify):

Notice Distribution (include name)


Required on all notices:

<input checked="" type="checkbox"/> SWCD TEP Member: Ms. Stacey Lijewski, HCA, 701 Fourth Avenue South, Suite 700, Minneapolis, MN 55415-1600
<input checked="" type="checkbox"/> BWSR TEP Member: Ben Carlson, BWSR, 520 Lafayette Road North, St. Paul, MN 55401
<input type="checkbox"/> LGU TEP Member (if different than LGU contact):
<input checked="" type="checkbox"/> DNR Representative: Leslie Parris, MnDNR, 1200 Warner Road, St. Paul, MN 55106 Lucas Youngsma, MnDNR, 1200 Warner Road, St. Paul, MN 55106

<input checked="" type="checkbox"/> Watershed District or Watershed Mgmt. Org.: BCWMC, c/o Laura Jester, 16145 Hillcrest Lane, Eden Prairie MN 55346
<input checked="" type="checkbox"/> Applicant (notice only): Wayne Jacobson, Jacobson Environmental, PLLC, 5821 Humboldt Avenue N , Brooklyn Center MN 55430
<input checked="" type="checkbox"/> Agent/Consultant (notice only):

Optional or As Applicable:

<input checked="" type="checkbox"/> Corps of Engineers: US Army Corps of Engineers, St Paul District, ATTN: OP-R, 180 Fifth Street East, Suite 700, St. Paul MN 55101-1678
<input type="checkbox"/> BWSR Wetland Mitigation Coordinator (required for bank plan applications only):
<input checked="" type="checkbox"/> Members of the Public (notice only): Lindsay Kolsrud, Colliers International Minneapolis St. Paul, 4350 Baker Road, Suite 400, Minnetonka, MN 55343 Deb Wheeler, Colliers International Minneapolis St. Paul, 4350 Baker Road, Suite 400, Minnetonka, MN 55343
<input type="checkbox"/> Other:

Signature: 	Date: 05/04/2020
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This notice and accompanying application materials may be sent electronically or by mail. The LGU may opt to send a summary of the application to members of the public upon request per 8420.0255, Subp. 3.

WETLAND DELINEATION REPORT

4/14/20

2020-94
13120 County Road 6,
Plymouth, MN 55441

Jacobson Environmental, PLLC
jacobsonenv@msn.com

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1.0 SUMMARY

Jacobson Environmental, PLLC (JE) visited the project site at PID 2711822420001 on April 8, 2020. The site was approximately 11.47 acres in size, and was located at Sec. 27, T118N, R22W, Plymouth, Minnesota. See Figure 1 for a Site Location Map.

The purpose of the investigation was to identify areas within the project boundary meeting the technical criteria for wetlands, delineate the jurisdictional extent of the wetland basins, and classify the wetland habitat according to the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual and the 2010 Regional Supplement to the Corps of Engineers Wetland Delineation: Midwest Region.

Wetlands are areas that are saturated or inundated with surface and or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in hydric soil conditions. Examples of wetlands include seasonally flooded basins, floodplain forests, wet meadows, shallow and deep marshes, shrub swamps, wooded swamps, fens, and bogs.

Wetland boundaries were determined through a routine analysis of the vegetation, soils and hydrology which must all show wetland characteristics for an area to be delineated as a wetland.

Two basins were delineated within the project area, which is summarized below and shown on Figure 5.

Basin ID	Circular 39	Cowardin	Eggers & Reed	Dominant Vegetation	Size (acres)
1	Type 3	PEM1Cd	Shallow marsh (ditched)	Hybrid Cattail	0.037
2	Type 3/6	PEM1C/SS 1Cd	Shallow marsh/shrub-carr (ditched)	Hybrid Cattail, Sandbar Willow, Woolly Sedge	0.153

All figures and appendices referenced by this report are presented at the end of the text.

This wetland delineation was performed by Jacobson Environmental, PLLC under the direction of Wayne Jacobson, Minnesota Professional Soil Scientist #30611, Society of Wetland Scientists – Professional Wetland Scientist #1000, University of Minnesota / BWSR Wetland Delineator, Certified #1019, American Fisheries Society – Associate Fisheries Scientist #A-171.

2.0 METHODS

2.1 EXISTING INFORMATION REVIEW

Prior to field delineation, Jacobson Environmental reviewed the following information:

2.1.1 Antecedent Precipitation

The previous three month's precipitation data obtained from the Minnesota State Climatology Office suggest that the sampling period occurred under wetter than normal conditions. Antecedent precipitation data can be found in Appendix A. The growing season in this area is approximately from mid-April to mid-October, when the air temperature averages above 28 degrees F. This delineation was completed during the growing season.

2.1.2 National Wetlands Inventory

The National Wetlands Inventory (NWI) identified one PEM1C wetland complex within the property boundary (Figure 2).

2.1.3 Web Soil Survey

The National Resource Conservation Service Web Soil Survey (Figure 7) identified the following soils:

Soil	Hydric Rating
Urban land-Udipsamments (cut and fill land) complex	0
Urban land-Udorthents (cut and fill land) complex	0

2.1.4 Public Waters Inventory

The Minnesota Department of Natural Resources Public Waters Inventory shows that no public waters exist on the property (Figure 4).

2.1.5 Topographic Map

A topographic map with aerial photo overlay was obtained from MnTOPO (Figure 6). This map was reviewed for suspected wetland areas based on topography and vegetative cover.

2.2 FIELD DELINEATION

5821 Humboldt Avenue North, Brooklyn Center, MN 55430
Email: jacobsonenv@msn.com

(612) 802-6619 Cell

The wetlands on the subject property were delineated using the routine determination methodology set forth in the 1987 U.S. Army Corps of Engineers *Wetlands Delineation Manual* and the 2010 Regional Supplement to the Corps of Engineers Wetland Delineation: Midwest Region as follows:

- 1) The vegetative community was sampled in all present strata to determine whether 50% of the dominant plant species were hydrophytic using the 50/20 method.
- 2) Soil pits were dug using a Dutch auger to depths of 24", noting soil profiles and any hydric soil characteristics.
- 3) Signs of wetland hydrology were noted and were compared to field criteria such as depth to shallow water table and depth of soil saturation found in the soil pits.

Transects were established in representative areas of each wetland. Each transect consisted of one sample point within the wetland and one sample point in upland. Other areas which have one or more of the wetland vegetation, soils, or hydrologic characteristics present, or where questionable conditions exist may also have been sampled. Data sheets for each sample point are available in Appendix B.

Wetland classifications discussed in the text are set forth in *Wetlands and Deepwater Habitats of the United States* (FWS/OBS Publication 79/31, Cowardin et al. 1979) and *Wetlands of the United States* (USFWS Circular 39, Shaw and Fredine, 1971.) Additionally, plant community types as named by Eggers and Reed (1998) are given.

Wetland edges were marked with orange numbered pin flags. Pink "wetland boundary" flagging tape tied on vegetation may be used if site conditions warrant. Sample points are marked with orange numbered pin flags.

Any wetlands or sample points were mapped using GPS.

2.2.1 Vegetation

The plant species within the parcel were cataloged and assigned a wetland indicator status according to: Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin, 2016. *The National Wetland Plant List: 2016 Wetland Ratings*, Phytoneuron 2016-30: 1-17.

In the text of this report and on the enclosed data forms, the plant indicator status follows the plant's scientific name unless a status has not been assigned. The hydrophytic plant criterion is met when more than 50 percent of the dominant species by the 50/20 rule for each stratum (herb, shrub/sapling, tree, and woody vine) were assigned an obligate (OBL)¹, facultative wet (FACW), and/or facultative (FAC) wetland status.

¹ OBL=Obligate Wetland, occurs an estimated 99% in wetlands. FACW=Facultative Wetland, has an estimated 67%-99% probability of occurrence in wetlands. FAC=Facultative, is equally likely to occur in wetlands and non-wetlands, 34%-66% probability. FACU=Facultative Upland, occurs in wetlands only occasionally, 1%-23% probability. UPL=Upland, almost never

With the 50/20 rule, dominants are generally measured by absolute % cover in each stratum which individually or collectively account for more than 50% of total vegetative cover in the stratum, plus any other species which itself accounts for at least 20% of the total vegetative cover.

2.2.2 Hydric Soils

A hydric soil is a soil formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part. If a soil exhibits the indicators of a hydric soil or is identified as a hydric soil the hydric soil criterion is met.

The break between hydric and non-hydric soils was determined by excavating soil pits along transects crossing the wetland/upland eco-tone and evaluating the soil colors, textures, and presence or absence of redoximorphic indicators (i.e., mottles, gley or oxidized rhizospheres). Hydric Soil Indicators for the Midwest Region were noted as presented in the National Technical Committee for Hydric Soils *Field Indicators of Hydric Soils in the United States version 8.1* (USDA NRCS 2017) if present at each sample point. Upper soil profiles were also compared to the mapped or inclusionary soil series found in the sample area for soil identification purposes.

2.2.3 Cautions Used in Applying the Field Indicators of Hydric Soils

There are hydric soils with morphologies that are difficult to interpret. These include soils with black, gray, or red parent material; soils with high pH; soils high or low in content of organic matter; recently developed hydric soils, and soils high in iron inputs. In some cases, we do not currently have indicators to assist in the identification of hydric soils in these situations. If the soil meets the definition of a hydric soil, the lack of an indicator does not preclude the soil from being hydric. The indicators were developed mostly to identify the boundary of hydric soil areas and generally work best on the margins. Not all the obviously wetter hydric soils will be identified by the indicators. Redoximorphic features are most likely to occur in soils that cycle between anaerobic (reduced) and aerobic (oxidized) conditions.

Morphological features of hydric soils indicate that saturation and anaerobic conditions have existed under either contemporary or former hydrologic regimes. Where soil morphology seems inconsistent with the landscape, vegetation, or observable hydrology, it may be necessary to obtain the assistance of an experienced soil or wetland scientist to determine whether the soil is hydric.

To clarify, when investigating hydric soils in this area, one must consider the following:

- Many of these soils have black or gray parent materials.
- Many of the soils have a high organic matter content.
- The hydric soil margin is typically higher than the wetland boundary margin on the site.
- Not all the obviously wetter soils will be identified by the indicators.
- Many of the hydric soils are Mollisols which are classic problem hydric soils in many cases.

occurs in wetlands, <1% probability. NI= No Indicator, insufficient information available to determine an indicator status. Positive or negative sign previously indicated a frequency toward higher (+) or lower (-) frequency of occurrence within a category.

3.0 RESULTS

3.1 WETLAND BASIN DESCRIPTIONS

Basin 1

Basin 1 was an approximately 0.037-acre, type 3, PEM1Cd, shallow marsh wetland. The basin was dominated by Hybrid Cattail (OBL).

Hydrology indicators included D2 (geomorphic position) and D5 (FAC neutral test).

Wetland soils met indicator A12 (thick dark surface).

Adjacent upland was typically dominated by Tall Goldenrod (FACU) and Reed Canary Grass (FACW). Primary hydrology indicators were not observed at the upland sample point, and no hydric soil indicators were found in the upland sample point soil.

The wetland boundary followed a change in vegetation from wetland to upland plant communities, as well as a gradual change in topography. The basin was shown as a PEM1C wetland on the NWI map (Figure 2) and was located within an area mapped as Urban land-Udipsamments (cut and fill land) complex (RATING=0) by the Web Soil Survey (Figure 7).

Sample data sheets 1-UP and 1-WET in Appendix B correspond to this basin.

Basin 2

Basin 2 was an approximately 0.153-acre, type 3/6, PEM/SS1Cd, shallow marsh/shrub-carr wetland. The basin was dominated by Hybrid Cattail (OBL), Sandbar Willow (FACW), and Woolly Sedge (OBL).

Hydrology indicators included D2 (geomorphic position) and D5 (FAC neutral test).

Wetland soils met indicator A12 (thick dark surface).

Adjacent upland was typically dominated by Tall Goldenrod (FACU), Giant Goldenrod (FACW), and White Avens (FAC). Primary hydrology indicators were not observed at the upland sample point, and no hydric soil indicators were found in the upland sample point soil.

The wetland boundary followed a change in vegetation from wetland to upland plant communities, as well as a slight to gradual change in topography. The basin was not shown as a wetland on the NWI map (Figure 2) and was located within an area mapped as Urban land-Udipsamments (cut and fill land) complex (RATING=0) by the Web Soil Survey (Figure 7).

Sample data sheets 2-UP and 2-WET in Appendix B correspond to this basin.

4.0 CONFIRMATION OF JURISDICTIONAL STATUS


Jacobson Environmental is submitting this report to the client and regulatory agencies to request a wetland boundary and type determination. We have enclosed an official WCA Approval of Wetland Type and Boundary form in Appendix D along with a USCOE wetland delineation concurrence request.

5.0 CERTIFICATION

I certify that this wetland delineation meets the standards and criteria described in the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual and the 2010 Regional Supplement to the Corps of Engineers Wetland Delineation: Midwest Region. This was a Routine On-Site Determination and the results reflect the conditions present at the time of the delineation.

I certify that this report has been prepared in accordance with regulatory standards. Thank you for the opportunity to provide wetland services on this important project.

If any wetland impacts are planned for this project, permits would be necessary from the LGU and other agencies.



Ashley Mack, Staff Scientist
Wetland Professional In-Training #5262
Jacobson Environmental, PLLC.

4/14/20

Date

Figures



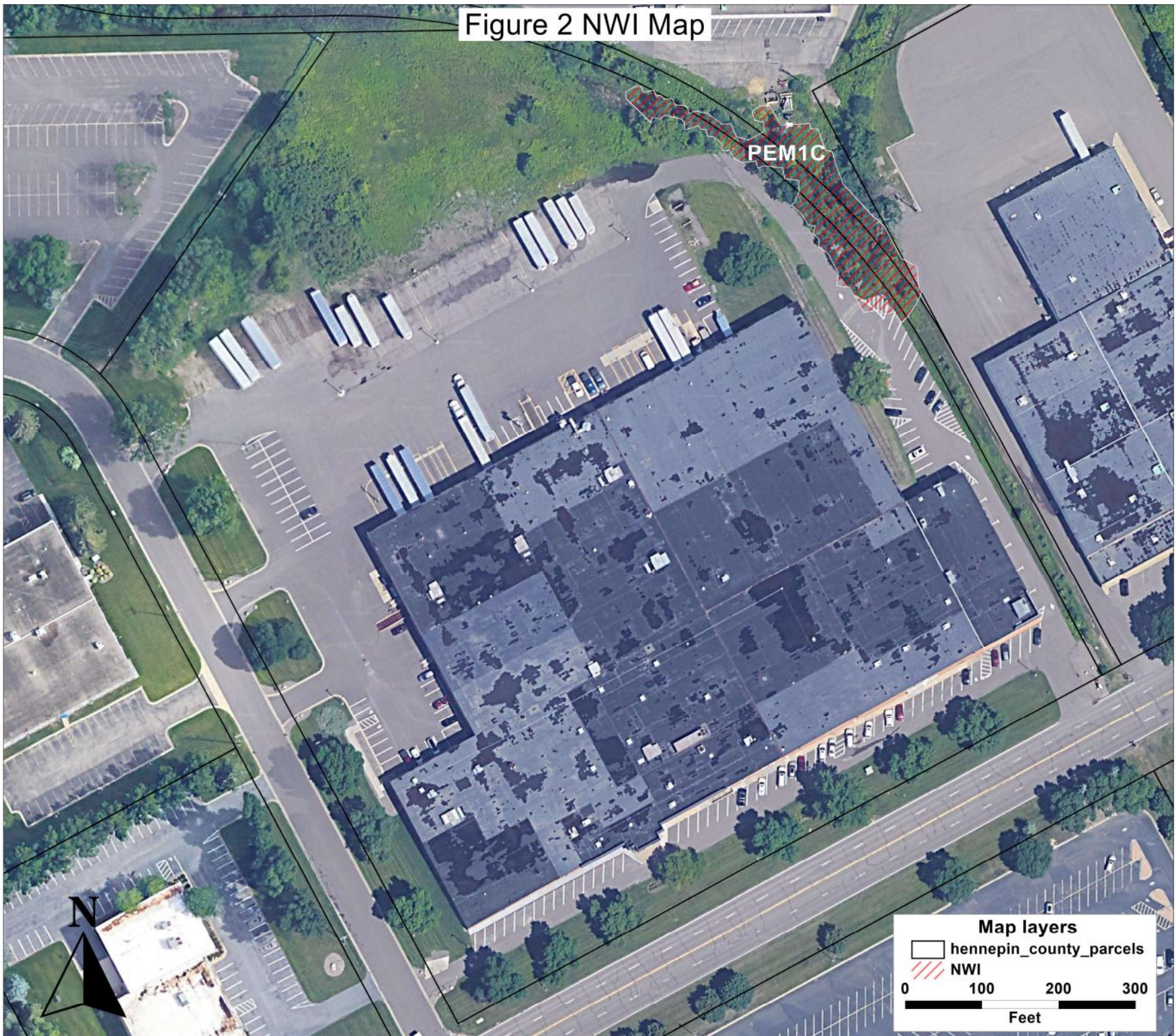
13120 County Rd 6

Figure 1 Site Map



Map data ©2020 1000 ft

Figure 2 NWI Map



PEM1C

Map layers

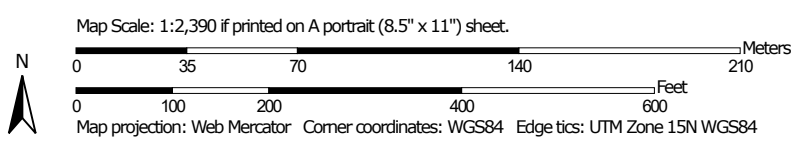
- hennepin_county_parcels
- NWI

0 100 200 300
Feet

Soil Map—Hennepin County, Minnesota
(Figure 3 Soil Map)




Soil Map may not be valid at this scale.




MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Hennepin County, Minnesota

Survey Area Data: Version 15, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 19, 2019—Aug 29, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
U4A	Urban land-Udipsamments (cut and fill land) complex, 0 to 2 percent slopes	11.6	85.9%
U6B	Urban land-Udorthents (cut and fill land) complex, 0 to 6 percent slopes	1.9	14.1%
Totals for Area of Interest		13.4	100.0%

Figure 4 PWI Map

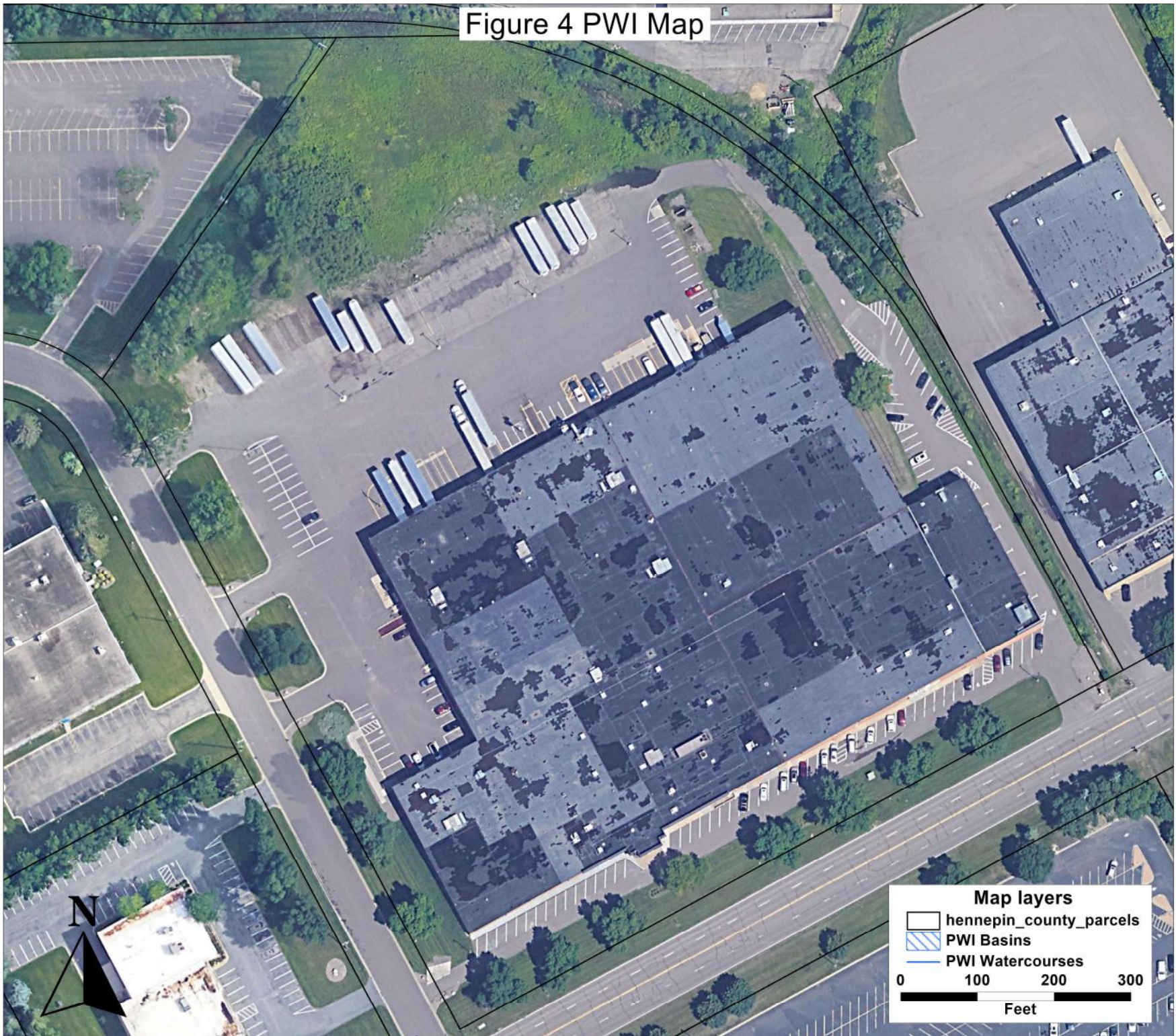


Figure 5 Delineation Map

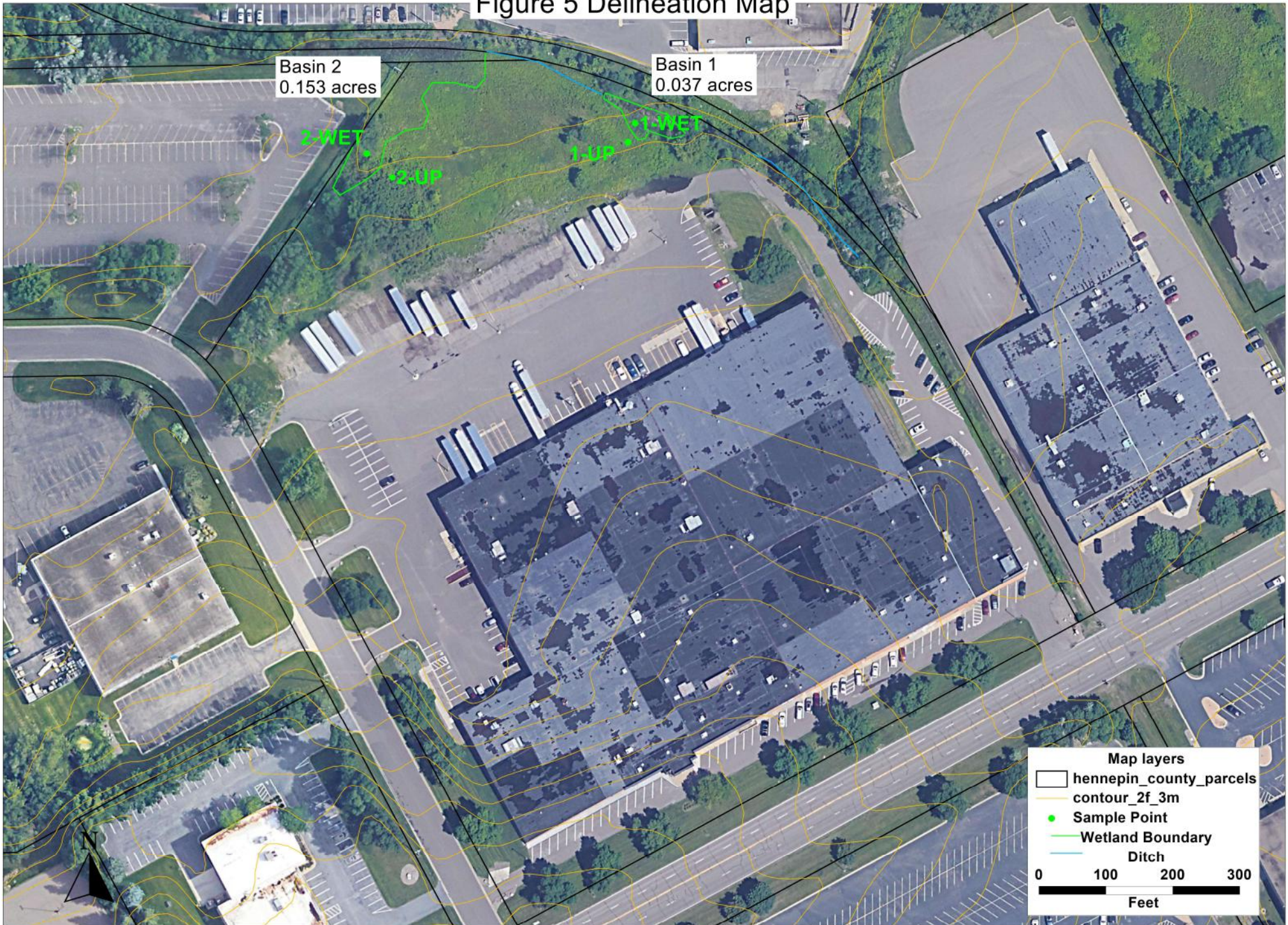
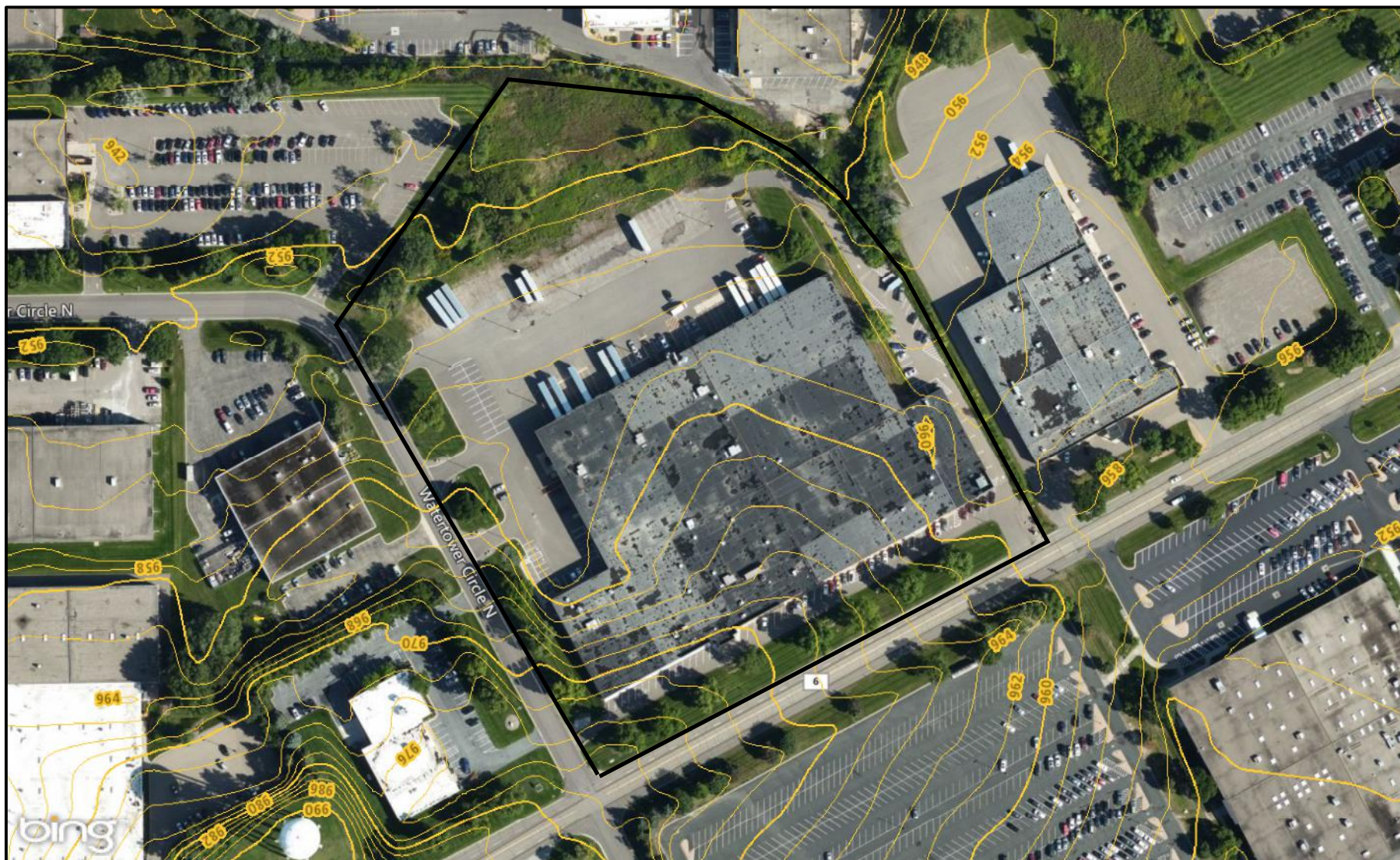


Figure 6 LiDAR Topographic Map



The State of Minnesota and the Minnesota Department of Natural Resources makes no representations or warranties expressed or implied, with respect to the use of maps or geographic data provided hereafter regardless of its format or the means of its transmission. There is no guarantee or representation to the user as to the accuracy, currency, suitability, or reliability of this data for any purpose. The user accepts the data "as is."

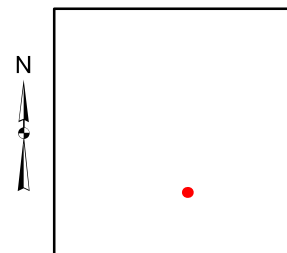
The State of Minnesota assumes no responsibility for loss or damage incurred as a result of any user reliance on this data. All maps and other material provided herein are protected by copyright.

Extreme care was used during the compilation of this product. However, due to changes in ownership and the need to rely on outside information, errors or omissions may exist. If you should discover an oversight, we encourage you to let us know by calling the DNR at 1-888-646-6367 or by e-mail at info.dnr@state.mn.us.

Note: Elevation images and contours were generated from LiDAR derived elevation surfaces acquired 2007-2012.

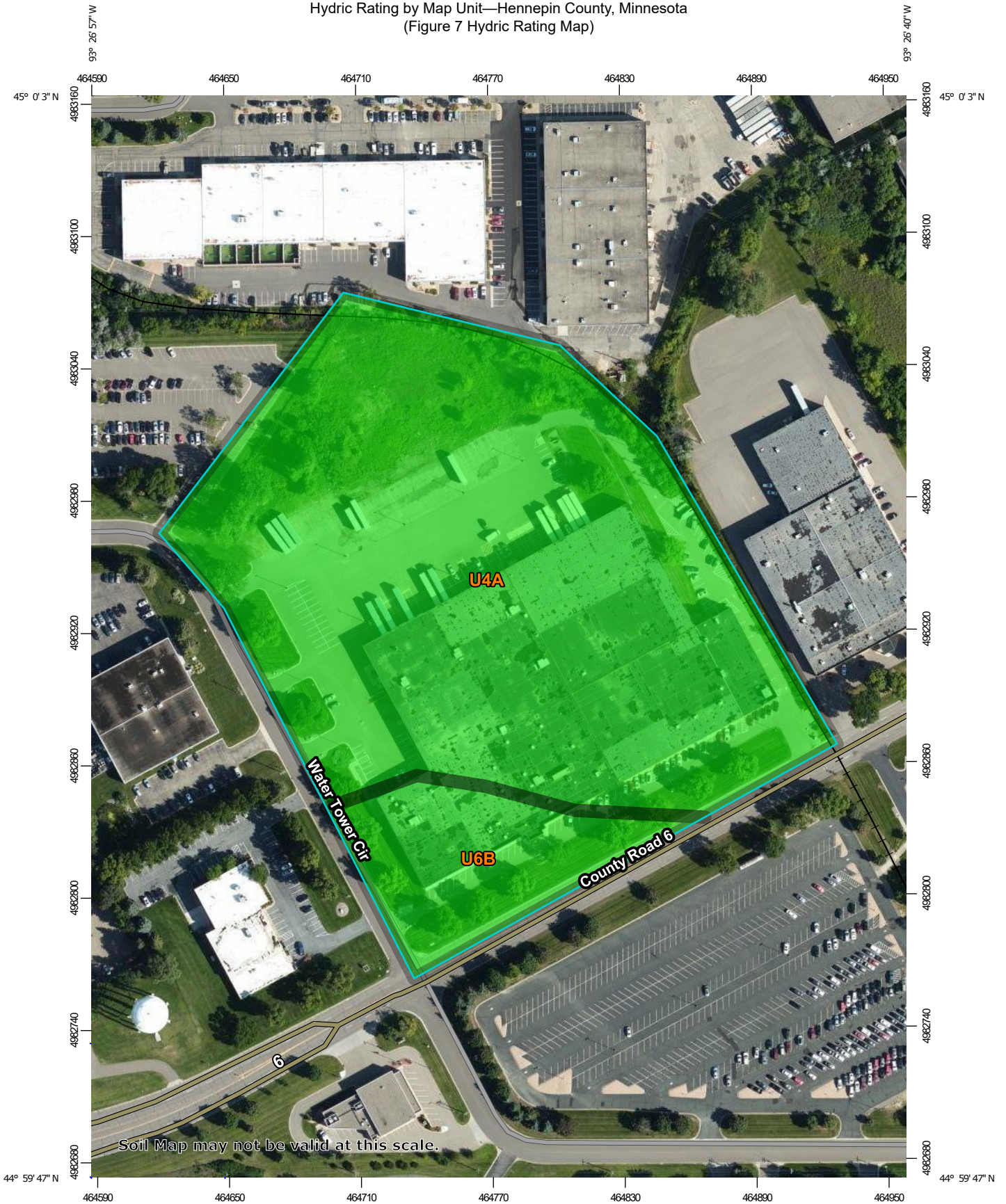


Scale: 1:3,381



Created on 4/9/2020

Hydric Rating by Map Unit—Hennepin County, Minnesota
(Figure 7 Hydric Rating Map)



Soil Map may not be valid at this scale.

Map Scale: 1:2,390 if printed on A portrait (8.5" x 11") sheet.




Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Hydric Rating by Map Unit—Hennepin County, Minnesota
(Figure 7 Hydric Rating Map)







MAP LEGEND

Area of Interest (AOI)







 Area of Interest (AOI)

Soils







Soil Rating Polygons

-  Hydric (100%)
-  Hydric (66 to 99%)
-  Hydric (33 to 65%)
-  Hydric (1 to 32%)
-  Not Hydric (0%)
-  Not rated or not available


Soil Rating Lines

-  Hydric (100%)
-  Hydric (66 to 99%)
-  Hydric (33 to 65%)
-  Hydric (1 to 32%)
-  Not Hydric (0%)
-  Not rated or not available






Soil Rating Points

-  Hydric (100%)
-  Hydric (66 to 99%)
-  Hydric (33 to 65%)
-  Hydric (1 to 32%)
-  Not Hydric (0%)
-  Not rated or not available


Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

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Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

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Soil Survey Area: Hennepin County, Minnesota
Survey Area Data: Version 15, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 19, 2019—Aug 29, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
U4A	Urban land-Udipsamments (cut and fill land) complex, 0 to 2 percent slopes	0	11.6	85.9%
U6B	Urban land-Udorthents (cut and fill land) complex, 0 to 6 percent slopes	0	1.9	14.1%
Totals for Area of Interest			13.4	100.0%

Rating Options

Aggregation Method: Percent Present

Component Percent Cutoff: None Specified


Tie-break Rule: Lower

Appendices

Appendix A

Minnesota State Climatology Office

State Climatology Office - DNR Division of Ecological and Water Resources

[home](#) | [current conditions](#) | [journal](#) | [past data](#) | [summaries](#) | [agriculture](#) | [other sites](#) | [about us](#) 

Precipitation Worksheet Using Gridded Database

Precipitation data for target wetland location:

county: **Hennepin** township number: **118N**
 township name: **Plymouth** range number: **22W**
 nearest community: **Plymouth** section number: **27**

Aerial photograph or site visit date:

Wednesday, April 8, 2020

Score using 1981-2010 normal period

values are in inches A 'R' following a monthly total indicates a provisional value derived from radar-based estimates .	first prior month: March 2020	second prior month: February 2020	third prior month: January 2020
estimated precipitation total for this location:	2.57	0.55	0.87
there is a 30% chance this location will have less than:	1.29	0.39	0.53
there is a 30% chance this location will have more than:	2.05	0.95	1.14
type of month: dry normal wet	wet	normal	normal
monthly score	3*3=9	2*2=4	1*2=2
multi-month score:			
6 to 9 (dry) 10 to 14 (normal) 15 to 18 (wet)	15 (wet)		

Other Resources:

- [retrieve daily precipitation data](#)
- [view radar-based precipitation estimates](#)
- [view weekly precipitation maps](#)
- [Evaluating Antecedent Precipitation Conditions](#) (BWSR)

Appendix B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site 13120 County Rd 6 City/County: Plymouth/Hennepin Sampling Date: 4/8/20
 Applicant/Owner: Kirt Woodhouse State: Minnesota Sampling Point: 1-UP
 Investigator(s): ACM Section, Township, Range: Sec. 27, T118N, R22W
 Landform (hillslope, terrace, etc.): footslope Local relief (concave, convex, none): linear
 Slope (%): 3 Lat: Long: Datum:
 Soil Map Unit Name Urban land-Udipsamments NWI Classification:

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
 Are vegetation , soil , or hydrology significantly disturbed? Are "normal circumstances"
 Are vegetation , soil , or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS (If needed, explain any answers in remarks.)

Hydrophytic vegetation present? <u>N</u>	Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: <u> </u>
Hydric soil present? <u>N</u>	
Indicators of wetland hydrology present? <u>N</u>	

Remarks: (Explain alternative procedures here or in a separate report.)
Antecedent precipitation data indicate wetter than normal conditions. See Appendix A.

VEGETATION -- Use scientific names of plants.

Tree Stratum	(Plot size: <u>30'</u> radius)	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet
1					
2					Total Number of Dominant Species Across all Strata: <u>2</u> (B)
3					Percent of Dominant Species that are OBL, FACW, or FAC: <u>50.00%</u> (A/B)
4					
5					
		<u>0</u>	= Total Cover		
Sapling/Shrub stratum	(Plot size: <u>15'</u> radius)				Prevalence Index Worksheet
1					
2					OBL species <u>0</u> x 1 = <u>0</u>
3					FACW species <u>35</u> x 2 = <u>70</u>
4					FAC species <u>8</u> x 3 = <u>24</u>
5					FACU species <u>53</u> x 4 = <u>212</u>
		<u>0</u>	= Total Cover		UPL species <u>0</u> x 5 = <u>0</u>
		<u>96</u>	= Total Cover		Column totals <u>96</u> (A) <u>306</u> (B)
					Prevalence Index = B/A = <u>3.19</u>
Herb stratum	(Plot size: <u>5'</u> radius)				Hydrophytic Vegetation Indicators: <u> </u> Rapid test for hydrophytic vegetation <u> </u> Dominance test is >50% <u> </u> Prevalence index is ≤3.0* <u> </u> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
1	<u>Solidago altissima</u>	<u>50</u>	<u>Y</u>	<u>FACU</u>	
2	<u>Phalaris arundinacea</u>	<u>35</u>	<u>Y</u>	<u>FACW</u>	
3	<u>Geum canadense</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
4	<u>Acer negundo</u>	<u>3</u>	<u>N</u>	<u>FAC</u>	
5	<u>Cirsium arvense</u>	<u>3</u>	<u>N</u>	<u>FACU</u>	
6					
7					
8					
9					
10					
		<u>96</u>	= Total Cover		
Woody vine stratum	(Plot size: <u>30'</u> radius)				Hydrophytic vegetation present? <u>N</u>
1					
2					
		<u>0</u>	= Total Cover		

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

SOIL

Sampling Point: 1-UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-10	10YR3/2	100					sandy loam	
10-16	10YR6/3	100					sandy clay loam	
16-24	10YR2/1	100					sandy clay loam	

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils:
<input type="checkbox"/> Histisol (A1)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (explain in remarks)
<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
 Type: _____
 Depth (inches): _____

Hydric soil present? N

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Water-Stained Leaves (B9)	
<input type="checkbox"/> Surface Soil Cracks (B6)	
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Crayfish Burrows (C8)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Stunted or Stressed Plants (D1)
	<input type="checkbox"/> Geomorphic Position (D2)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): <u> - </u>	Indicators of wetland hydrology present? <u> N </u>
Water table present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): <u> >24 </u>	
Saturation present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): <u> >24 </u>	

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site 13120 County Rd 6 City/County: Plymouth/Hennepin Sampling Date: 4/8/20
 Applicant/Owner: Kirt Woodhouse State: Minnesota Sampling Point: 1-WET
 Investigator(s): ACM Section, Township, Range: Sec. 27, T118N, R22W
 Landform (hillslope, terrace, etc.): toselope Local relief (concave, convex, none): concave
 Slope (%): 1 Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name Urban land-Udipsamments NWI Classification: PEM1C

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal circumstances" present? Yes
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? present? Yes

SUMMARY OF FINDINGS (If needed, explain any answers in remarks.)

Hydrophytic vegetation present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Hydric soil present? <u>Y</u>	
Indicators of wetland hydrology present? <u>Y</u>	

Remarks: (Explain alternative procedures here or in a separate report.)
 Antecedent precipitation data indicate wetter than normal conditions. See Appendix A.

VEGETATION -- Use scientific names of plants.

Tree Stratum	(Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet
1	_____	_____	_____	_____	
2	_____	_____	_____	_____	Total Number of Dominant Species Across all Strata: <u>1</u> (B)
3	_____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)
4	_____	_____	_____	_____	
5	_____	_____	_____	_____	
		<u>0</u>	= Total Cover		
Sapling/Shrub stratum	(Plot size: <u>15' radius</u>)				Prevalence Index Worksheet
1	_____	_____	_____	_____	
2	_____	_____	_____	_____	OBL species <u>85</u> x 1 = <u>85</u>
3	_____	_____	_____	_____	FACW species <u>0</u> x 2 = <u>0</u>
4	_____	_____	_____	_____	FAC species <u>2</u> x 3 = <u>6</u>
5	_____	_____	_____	_____	FACU species <u>10</u> x 4 = <u>40</u>
		<u>0</u>	= Total Cover		UPL species <u>0</u> x 5 = <u>0</u>
					Column totals <u>97</u> (A) <u>131</u> (B)
					Prevalence Index = B/A = <u>1.35</u>
Herb stratum	(Plot size: <u>5' radius</u>)				Hydrophytic Vegetation Indicators: _____ Rapid test for hydrophytic vegetation <input checked="" type="checkbox"/> Dominance test is >50% <input checked="" type="checkbox"/> Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) _____ Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
1	<u>Typha x glauca</u>	<u>75</u>	<u>Y</u>	<u>OBL</u>	
2	<u>Solidago altissima</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
3	<u>Lythrum salicaria</u>	<u>10</u>	<u>N</u>	<u>OBL</u>	
4	<u>Geum canadense</u>	<u>2</u>	<u>N</u>	<u>FAC</u>	
5	_____	_____	_____	_____	
6	_____	_____	_____	_____	
7	_____	_____	_____	_____	
8	_____	_____	_____	_____	
9	_____	_____	_____	_____	
10	_____	_____	_____	_____	
		<u>97</u>	= Total Cover		
Woody vine stratum	(Plot size: <u>30' radius</u>)				Hydrophytic vegetation present? <u>Y</u>
1	_____	_____	_____	_____	
2	_____	_____	_____	_____	
		<u>0</u>	= Total Cover		

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

SOIL

Sampling Point: 1-WET

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-12	10YR2/1	100					silty loam	
12-24	10YR5/2	98	7.5YR4/6	2	C	PL	sandy clay loam	

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 5 cm Mucky Peat or Peat (S3)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- Coast Prairie Redox (A16) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Very Shallow Dark Surface (TF12)
- Other (explain in remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)

- Aquatic Fauna (B13)
- True Aquatic Plants (B14)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Gauge or Well Data (D9)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)

Field Observations:

Surface water present? Yes No Depth (inches): -
 Water table present? Yes No Depth (inches): >24
 Saturation present? Yes No Depth (inches): 20
 (includes capillary fringe)

Indicators of wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site 13120 County Rd 6 City/County: Plymouth/Hennepin Sampling Date: 4/8/20
 Applicant/Owner: Kirt Woodhouse State: Minnesota Sampling Point: 2-UP
 Investigator(s): ACM Section, Township, Range: Sec. 27, T118N, R22W
 Landform (hillslope, terrace, etc.): footslope Local relief (concave, convex, none): linear
 Slope (%): 3 Lat: Long: Datum:
 Soil Map Unit Name Urban land-Udipsamments NWI Classification:

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
 Are vegetation , soil , or hydrology significantly disturbed? Are "normal circumstances"
 Are vegetation , soil , or hydrology naturally problematic? present? Yes

SUMMARY OF FINDINGS (If needed, explain any answers in remarks.)

Hydrophytic vegetation present? <u>Y</u>	Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: <u> </u>
Hydric soil present? <u>N</u>	
Indicators of wetland hydrology present? <u>N</u>	

Remarks: (Explain alternative procedures here or in a separate report.)
Antecedent precipitation data indicate wetter than normal conditions. See Appendix A.

VEGETATION -- Use scientific names of plants.

Tree Stratum	(Plot size: <u>30'</u> radius)	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across all Strata: <u>4</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>75.00%</u> (A/B)
1					
2					
3					
4					
5					
		<u>0</u> = Total Cover			
Sapling/Shrub stratum	(Plot size: <u>15'</u> radius)				Prevalence Index Worksheet Total % Cover of: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>50</u> x 2 = <u>100</u> FAC species <u>20</u> x 3 = <u>60</u> FACU species <u>15</u> x 4 = <u>60</u> UPL species <u>0</u> x 5 = <u>0</u> Column totals <u>85</u> (A) <u>220</u> (B) Prevalence Index = B/A = <u>2.59</u>
1	<u>Salix interior</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>	
2					
3					
4					
5					
		<u>30</u> = Total Cover			
Herb stratum	(Plot size: <u>5'</u> radius)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid test for hydrophytic vegetation <input checked="" type="checkbox"/> Dominance test is >50% <input checked="" type="checkbox"/> Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
1	<u>Geum canadense</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	
2	<u>Solidago altissima</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	
3	<u>Solidago gigantea</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>	
4	<u>Salix interior</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
5					
6					
7					
8					
9					
10					
		<u>55</u> = Total Cover			
Woody vine stratum	(Plot size: <u>30'</u> radius)				Hydrophytic vegetation present? <u>Y</u>
1					
2					
		<u>0</u> = Total Cover			

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

SOIL

Sampling Point: 2-UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-7	10YR2/2	100					sandy clay loam	
7-18	10YR2/1	100					silty clay loam	
18-24	10YR5/4	100					sand	

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils:	
<input type="checkbox"/> Histisol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in remarks)	
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)			

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric soil present? <u> N </u>
---	--

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Water-Stained Leaves (B9)	

Field Observations: Surface water present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> - </u> Water table present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> >24 </u> Saturation present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> >24 </u> (includes capillary fringe)	Indicators of wetland hydrology present? <u> N </u>
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Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site 13120 County Rd 6 City/County: Plymouth/Hennepin Sampling Date: 4/8/20
 Applicant/Owner: Kirt Woodhouse State: Minnesota Sampling Point: 2-WET
 Investigator(s): ACM Section, Township, Range: Sec. 27, T118N, R22W
 Landform (hillslope, terrace, etc.): toeslope Local relief (concave, convex, none): concave
 Slope (%): 1 Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name Urban land-Udipsamments NWI Classification: _____

Are climatic/hydrologic conditions of the site typical for this time of the year? N (If no, explain in remarks)
 Are vegetation _____, soil _____, or hydrology _____ significantly disturbed? Are "normal circumstances" present? Yes
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? present? Yes

SUMMARY OF FINDINGS (If needed, explain any answers in remarks.)

Hydrophytic vegetation present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Hydric soil present? <u>Y</u>	
Indicators of wetland hydrology present? <u>Y</u>	

Remarks: (Explain alternative procedures here or in a separate report.)
 Antecedent precipitation data indicate wetter than normal conditions. See Appendix A.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u> radius)	Absolute % Cover	Dominant Species	Indicator Status
1 <u>Populus deltoides</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>
2 _____	_____	_____	_____
3 _____	_____	_____	_____
4 _____	_____	_____	_____
5 _____	_____	_____	_____
<u>15</u> = Total Cover			
Sapling/Shrub stratum (Plot size: <u>15'</u> radius)			
1 <u>Salix interior</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>
2 <u>Rhamnus cathartica</u>	<u>7</u>	<u>Y</u>	<u>FAC</u>
3 <u>Cornus alba</u>	<u>5</u>	<u>N</u>	<u>FACW</u>
4 _____	_____	_____	_____
5 _____	_____	_____	_____
<u>32</u> = Total Cover			
Herb stratum (Plot size: <u>5'</u> radius)			
1 <u>Carex pellita</u>	<u>35</u>	<u>Y</u>	<u>OBL</u>
2 <u>Salix interior</u>	<u>10</u>	<u>N</u>	<u>FACW</u>
3 <u>Persicaria pensylvanica</u>	<u>10</u>	<u>N</u>	<u>FACW</u>
4 <u>Solidago gigantea</u>	<u>5</u>	<u>N</u>	<u>FACW</u>
5 <u>Cornus alba</u>	<u>5</u>	<u>N</u>	<u>FACW</u>
6 _____	_____	_____	_____
7 _____	_____	_____	_____
8 _____	_____	_____	_____
9 _____	_____	_____	_____
10 _____	_____	_____	_____
<u>65</u> = Total Cover			
Woody vine stratum (Plot size: <u>30'</u> radius)			
1 _____	_____	_____	_____
2 _____	_____	_____	_____
<u>0</u> = Total Cover			

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)
 Total Number of Dominant Species Across all Strata: 4 (B)
 Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	<u>35</u> x 1 = <u>35</u>
FACW species	<u>55</u> x 2 = <u>110</u>
FAC species	<u>22</u> x 3 = <u>66</u>
FACU species	<u>0</u> x 4 = <u>0</u>
UPL species	<u>0</u> x 5 = <u>0</u>
Column totals	<u>112</u> (A) <u>211</u> (B)

Prevalence Index = B/A = 1.88

Hydrophytic Vegetation Indicators:

____ Rapid test for hydrophytic vegetation
 Dominance test is >50%
 Prevalence index is ≤3.0*
 ____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)
 ____ Problematic hydrophytic vegetation* (explain)
 *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic vegetation present? Y

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

SOIL

Sampling Point: 2-WET

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-18	10YR2/1	100					silty loam	
18-24	2.5Y5/2	98	10YR4/6	2	C	PL	fine sand	

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators: <input type="checkbox"/> Histisol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input checked="" type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)		<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)		Indicators for Problematic Hydric Soils: <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) <input type="checkbox"/> Dark Surface (S7) (LRR K, L) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (explain in remarks)	
*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic					

Restrictive Layer (if observed):
 Type: _____
 Depth (inches): _____

Hydric soil present? Y

Remarks:

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u>			<u>Secondary Indicators (minimum of two required)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Surface Soil Cracks (B6)			
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Gauge or Well Data (D9)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)				
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)					
<input type="checkbox"/> Water-Stained Leaves (B9)					

Field Observations:

Surface water present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches):	<u>-</u>
Water table present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Depth (inches):	<u>>24</u>
Saturation present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Depth (inches):	<u>18</u>

Indicators of wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix C



1-UP



1-WET



1-Representative



Ditch between basins 1 & 2



2-UP



2-WET



2-Representative



Ditch southeast of basin 1

Appendix D

PART ONE: Applicant Information

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

Applicant/Landowner Name: Kirt Woodhouse, Wayzata Village Shoppes LLP
Mailing Address: 600 Highway 169, Suite 1660, Minneapolis, Minnesota 55426
Phone:
E-mail Address: Woodhouse18@aol.com

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

Mailing Address:
Phone:
E-mail Address:

Agent Name: Wayne Jacobson
Mailing Address: 5821 Humboldt Avenue North, Brooklyn Center, Minnesota 55430
Phone: (612)802-6619
E-mail Address: jacobsonenv@msn.com

PART TWO: Site Location Information

County: Hennepin **City/Township:** Plymouth
Parcel ID and/or Address: 2711822420001
Legal Description (Section, Township, Range): Sec. 27, T118N, R22W
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 (feet): 11.47 acres

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

http://www.mvp.usace.army.mil/Portals/57/docs/regulatory/RegulatoryDocs/engform_4345_2012oct.pdf

PART THREE: General Project/Site Information

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

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

PART FOUR: Aquatic Resource Impact¹ Summary

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

Aquatic Resource ID (as noted on overhead view)	Aquatic Resource Type (wetland, lake, tributary etc.)	Type of Impact (fill, excavate, drain, or remove vegetation)	Duration of Impact Permanent (P) or Temporary (T) ¹	Size of Impact ²	Overall Size of Aquatic Resource ³	Existing Plant Community Type(s) in Impact Area ⁴	County, Major Watershed #, and Bank Service Area # of Impact Area ⁵

¹If 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)".

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

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

⁴Use *Wetland Plants and Plant Community Types of Minnesota and Wisconsin* 3rd Ed. as modified in MN Rules 8420.0405 Subp. 2.

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

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

PART FIVE: Applicant Signature

Check here if you are requesting a pre-application consultation with the Corps and LGU based on the information you have provided. Regulatory entities will not initiate a formal application review if this box is checked.

By signature below, I attest that the information in this application is complete and accurate. I further attest that I possess the authority to undertake the work described herein.

Signature: _____ Date: _____

I hereby authorize Jacobson Environmental 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.

¹ The term "impact" as used in this joint application form is a generic term used for disclosure purposes to identify activities that may require approval from one or more regulatory agencies. For purposes of this form it is not meant to indicate whether or not those activities may require mitigation/replacement.

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>

PART FOUR: Aquatic Resource Impact¹ Summary

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

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¹If 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)".
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⁵Refer 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:

PART FIVE: Applicant Signature

Check here if you are requesting a pre-application consultation with the Corps and LGU based on the information you have provided. Regulatory entities will not initiate a formal application review if this box is checked.

By signature below, I attest that the information in this application is complete and accurate. I further attest that I possess the authority to undertake the work described herein.

Signature: Lindsay Kolrud Property Manager Date: 4/21/2020

I hereby authorize Jacobson Environmental 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.

¹ The term "impact" as used in this joint application form is a generic term used for disclosure purposes to identify activities that may require approval from one or more regulatory agencies. For purposes of this form it is not meant to indicate whether or not those activities may require mitigation/replacement.