

## Minnesota Wetland Conservation Act Notice of Application

<b>Local Government Unit:</b> City of Plymouth	<b>County:</b> Hennepin
<b>Applicant Name:</b> City of Plymouth Abernathy	<b>Applicant Representative:</b> Jessica
<b>Project Name:</b> Plymouth Fire Station II	
<b>LGU Project No. (if any):</b> 2020-11	
<b>Date Complete Application Received by LGU:</b> 5/8/2020	
<b>Date this Notice was Sent by LGU:</b> 6/19/2020	
<b>Date that Comments on this Application Must Be Received By LGU<sup>1</sup>:</b> July 13, 2020	

<sup>1</sup> 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)

<b>Total WCA Impact Area Proposed:</b>
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**Application Materials**

<input checked="" type="checkbox"/> Attached <input type="checkbox"/> Other <sup>1</sup> (specify):
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<sup>1</sup> Link to ftp or other accessible file sharing sites is acceptable.

**Comments on this application should be sent to:**

<b>LGU Contact Person:</b> Ben Scharenbroich, Interim Water Resources Manager
<b>E-Mail Address:</b> bscharenbroich@plymouthmn.gov
<b>Address and Phone Number:</b> 3400 Plymouth Blvd, Plymouth, MN 55447
<b>Decision-Maker for this Application:</b>
<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: <b>Ms. Stacey Lijewski, HCA, 701 Fourth Avenue South, Suite 700, Minneapolis, MN 55415-1600</b>
<input checked="" type="checkbox"/> BWSR TEP Member: <b>Ben Carlson, BWSR, 520 Lafayette Road North, St. Paul, MN 55401</b>
<input type="checkbox"/> LGU TEP Member (if different than LGU contact):
<input checked="" type="checkbox"/> DNR Representative: <b>Melissa Collins, MnDNR, 1200 Warner Road, St. Paul, MN 55106</b> <b>Lucas Youngsma, MnDNR, 1200 Warner Road, St. Paul, MN 55106</b>
<input checked="" type="checkbox"/> Watershed District or Watershed Mgmt. Org.: <b>BCWMC 16145 Hillcrest Lane, Eden Prairie MN 55346</b>
<input checked="" type="checkbox"/> Applicant (notice only): <b>Amy Hanson, City of Plymouth, 3400 Plymouth Blvd, Plymouth MN 55447</b>
<input checked="" type="checkbox"/> Agent/Consultant (notice only): <b>Jessica Abernathy, 12800 Whitewater Drive, Suite 300, Minnetonka MN 55343</b>

*Optional or As Applicable:*

<input checked="" type="checkbox"/> Corps of Engineers: <b>US Army Corps of Engineering, C/O Jonathan Bakken, 180 Fifth Street East, Suite 700, St. Paul, MN 55101-1678</b>
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<input type="checkbox"/> BWSR Wetland Mitigation Coordinator (required for bank plan applications only):
<input checked="" type="checkbox"/> Members of the Public (notice only): <b>Todd Ullom, 12800 Whitewater Drive, Suite 300, Minnetonka MN 55343</b>
<input type="checkbox"/> Other:

<b>Signature:</b> 	<b>Date:</b> 6/19/2020
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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.

May 7, 2020

Amy Hanson  
City of Plymouth  
3400 Plymouth Blvd.  
Plymouth, Minnesota 55447

SUBJECT: Wetland Delineation Report  
Plymouth Fire Station II  
Plymouth, Hennepin County, Minnesota

Dear Ms. Hanson,

Sambatek has prepared this wetland delineation report for the Plymouth Fire Station II, located at 12000 Old Rockford Road and within Section 14, T118N, R22W, City of Plymouth, Hennepin County, Minnesota.

The Subject Property is approximately 3.59 acres and consists of Plymouth Fire Station II. The current project involves the redevelopment of the existing fire station. The topography of the Subject Property slopes to the west and north. The Subject Property is bordered by Old Rockford Road to the south, residential developments to the east, a wetland to the north, and Larch Lane to the west. The Subject Property is located within the Mississippi River – Twin Cities (20) major watershed and Bank Service Area 7.

#### **WETLAND DELINEATION METHODOLOGY**

Available wetland resources and aerial photographs were utilized to determine if wetland conditions are currently present on the site. In addition, a site visit was completed on April 17, 2020 to examine the site for the presence of wetland conditions in accordance to the *1987 Corps of Engineers Wetland Delineation Manual*, the *Midwestern Region Supplement to the Corps of Engineers Wetland Delineation Manual*, and the *2015 Guidance for Submittal of Delineation Reports to the St. Paul District Army corps of Engineers and Wetland Conservation Act Local Governmental Units in Minnesota*, Version 2.0. Wetland Resources that were reviewed included:

- Hennepin County Soil Survey;
- Wetlands Inventory Map (NWI);
- DNR Public Waters Map; and,

### ***Hennepin County Soil Survey***

The *Hennepin County Soil Survey* was utilized to identify areas of mapped hydric soils within the Subject Property. Hydric soil is an indicator of potential wetland conditions. Based on the Hydric Rating obtained from the Soil Survey soil types can be categorized into six categories:

- All hydric – all components listed for a given map unit are rated as being hydric,
- Predominantly hydric – more than 66% to less than 100% of components are hydric,
- Partially hydric – more than 33% to less than 65% of components are hydric,
- Predominantly non-hydric – more than 0% and less than 32% of components are hydric,
- Not hydric – all components are rated as not hydric, and
- Unknown hydric – at least one component is not rated so a definitive rating for the map unit cannot be made.

Table 1 provides a list of the mapped soils within the Subject Property.

**Table 1. Summary of Mapped Soils within the Subject Property**

Map Unit Symbol	Map Unit Name	Hydric Soil Rating (%)	Hydric Soil	Drainage Classification
L22C2	Lester loam, 6-10% slopes, moderately eroded	2	Predominantly non-hydric	Well drained
L22D2	Lester loam, 10-16% slopes, moderately eroded	0	Not hydric	Well drained
L36A	Hamel, overwash-Hamel complex, 0-3% slopes	45	Partially hydric	Somewhat poorly drained
L37B	Angus loam, 2-6% slopes	5	Predominantly non-hydric	Well drained
L50A	Muskego and Houghton soils, 0-1% slopes	100	All hydric	Very poorly drained

### ***National Wetland Inventory***

NWI maps are utilized as an off-site tool in identifying areas of potential wetlands. The NWI map for the Hennepin County does not identify any wetlands on the Subject Property.

### ***DNR Public Waters and Wetlands***

DNR Public Waters are waterbodies which meet the definition of Minnesota Statue 103G.005, Subdivision 15 and are regulated by the DNR. The DNR Public Waters Map for Hennepin County does not identify any public waters within the Subject Property.

### ***MN DNR LiDAR Contour Map***

The LiDAR Contour Map was utilized to approximate water flow patterns and identify potential depressional areas. The topographic map indicates that the Subject Property generally slopes to the north and west.

### ***Precipitation Data***

Analysis of precipitation data pertinent to the Subject Property is important to understand the wetland hydrology indicators observed during the field work activities.

A non-normal precipitation is considered to be that below the 30<sup>th</sup> percentile (drier than normal) and above the 70<sup>th</sup> percentile (wetter than normal). Normal precipitation is based on the 30-year average for the period of 1981-2010. Precipitation data were obtained from the Minnesota State Climatology Office webpage, which provides “synthetic” data for a chosen project location. The synthetic data are made up of regularly-spaced grid nodes whose values were calculated using data interpolated from Minnesota’s precipitation database. For the purpose of this study, Sambatek utilized Section 14, Township 118N, Range 22W as the project location for the precipitation data. Table 2 summarizes the precipitation data for the past 12 months (April 2019 – March 2020). In addition, the table provides a comparison of the actual precipitation compared to the 30-year average (1981-2010). Sambatek also utilized the NRCS Method to determine the hydrologic conditions during the three month period prior to the site visit.

**Table 2. Precipitation Data for Section 14, T118N, R22W**

Month/Year	30-Year Average (Inches)	Actual (Inches)	Difference (Inches)	
April 2019	2.78	3.45	+0.67	
May 2019	3.66	7.39	+3.73	
June 2019	4.57	2.72	-1.85	
July 2019	4.2	7.34	+3.14	
August 2019	1.18	6.26	+5.08	
September 2019	3.41	4.63	+1.22	
October 2019	2.51	5.19	+2.68	
November 2019	1.75	1.53	-0.22	
December 2019	1.19	2.12	+0.93	<b>NRCS Method Condition</b>
January 2020	0.84	0.87	+0.03	Normal
February 2020	0.79	0.57	-0.22	Normal
March 2020	1.85	2.57	+0.72	Wet
<b>Total</b>	<b>28.73</b>	<b>44.64</b>	<b>+15.91</b>	<b>Wet</b>

Based on the NRCS Method the antecedent precipitation was experiencing wetter than normal conditions at the time of the site visit. Precipitation for the past 12 months is above normal.

### ***Field Delineation***

The delineation of wetlands within the subject property consisted of a review of published resources and a site delineation of wetlands per the “three-parameter” (Level 2) methodology set forth in *The 1987 Manual* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* (hereafter, *The Regional Supplement*) (U.S. Army Corps of Engineers, Version 2.0, August 2010).

The wetland boundaries were staked with pink “Wetland Boundary” pinflags. Sambatek utilized a Trimble Geoexplorer 6000 GPS unit to locate the wetland boundaries. The surveyed wetland boundaries are illustrated

on the Wetland Delineation Map. Future site plans should include the surveyed wetland boundaries to ensure that proper measures are taken to avoid, minimize, or mitigate potential wetland impacts.

### **BASIN CHARACTERISTICS**

Two wetlands were identified and staked during the April 17, 2020 site visit. Table 3 and the following paragraphs provide a summary of the wetlands identified and delineated by Sambatek.

**Table 3. Wetland Type and Size**

Wetland	Classification	Type	Wetland Community	Area (sq. ft.)*	Area (acres)*
1	PEM1B/C	2/3	Fresh (wet) Meadow/ Shallow Marsh	903* SF	0.02* acres
2	PEM1B	2	Fresh (wet) Meadow	2,255 SF	0.05 acres

\* Area within Subject Property

**Wetland 1** is classified as a Palustrine (P-) type wetland exhibiting Emergent Vegetation (-EM-) and Saturated (-B-) and Seasonally Flooded (-C-) moisture regimes or a Type 2/3 (PEM1B/C) wetland type. According to the *Hennepin County Soil Survey*, Wetland 1 is mapped as L36A – Hamel, overwash – Hamel complex, which is listed as a partially hydric soil. The NWI and PWI maps do not identify Wetland 1.

Wetland 1 encompasses approximately 903 SF of the Subject Property. Wetland 1 appears to be supported by surface water from slight slopes to the south.

One transect, consisting of two sample locations, was established along the south side of Wetland 1. Dominant vegetation, the soil profile and wetland hydrologic indicators were observed and noted at each sample location. Data collected from the sample locations are presented in the Field Data Sheets (SP1-1 WET and SP1-1 UP), which are included with this report.

A majority of Wetland 1 exhibits emergent vegetation. Dominant vegetation within Wetland 1 is Reed Canary Grass (FACW) and Cattail sp. The boundary of Wetland 1 was placed along the contour where the vegetation transitions from a dominance of Reed Canary Grass (FACW) on the wetland side of the boundary to a dominance of Creeping Charlie (FACU) along the upland side of the boundary.

**Wetland 2** is classified as a Palustrine (P-) type wetland exhibiting Emergent Vegetation (-EM-) and a Seasonally Saturated (-B-) moisture regime or a Type 2 (PEM1B) wetland type. According to the *Hennepin County Soil Survey*, Wetland 2 is mapped as L36A – Hamel, overwash – Hamel complex, which is listed as a partially hydric soil. The NWI and PWI maps do not identify Wetland 2.

Wetland 2 encompasses approximately 2,255 SF of the Subject Property. Wetland 2 appears to be supported by surface water from the slope to the east.

One transect, consisting of two sample locations, was established along the west side of Wetland 2. Dominant vegetation, the soil profile and wetland hydrologic indicators were observed and noted at each sample location. Data collected from the sample locations are presented in the Field Data Sheets (SP2-1 WET and SP2-1 UP), which are included with this report.

A majority of Wetland 2 exhibits emergent vegetation. Dominant vegetation within Wetland 2 is Reed Canary Grass (FACW). The boundary of Wetland 2 was placed along the toe of the slope where the soil transitions from the presence of hydric soil indicators on the wetland side of the boundary to a lack of hydric soil indicators on the upland side of the boundary.

If you have any questions or need additional information, please feel free to contact me at (763) 476-6010. Sambatek appreciates the opportunity to provide you with our wetland services. If you have any additional needs for our services for this or other projects in the future, please give us a call.

Sincerely,

Sambatek

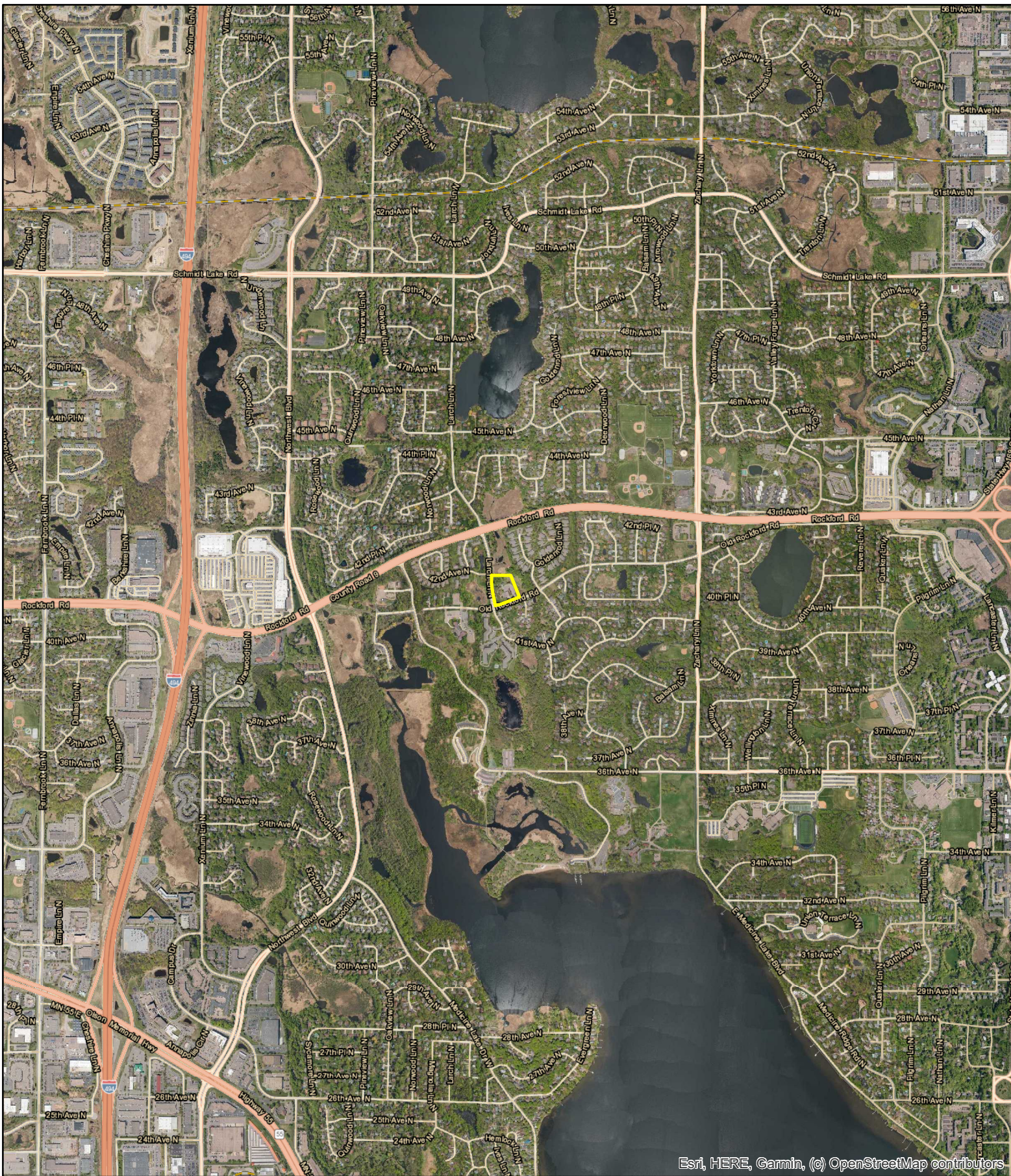


JD Donath

Environmental Scientist, WDC #1105

**List of Attachments**


- Location Map
- Hennepin County Soil Survey Map
- NWI Map
- DNR Public Waters Map
- Contour Map
- Wetland Delineation Map
- Field Data Sheets
- Photo Log

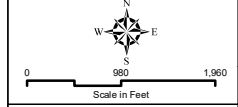


Esri, HERE, Garmin, (c) OpenStreetMap contributors

# Location Map

Plymouth Fire Station II  
Plymouth, Minnesota

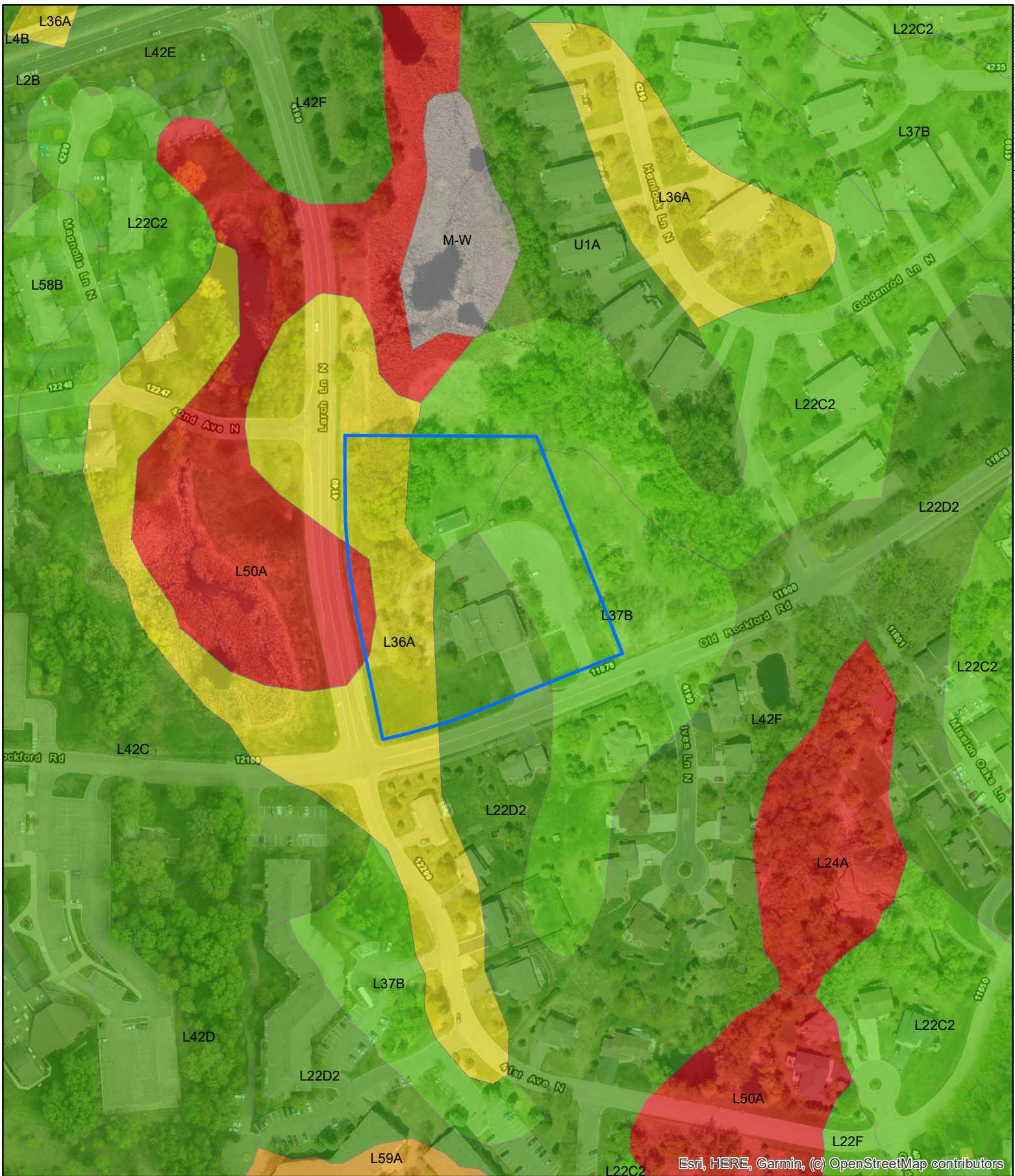
- Legend**
-  Project Boundary



Date: 04/21/2020  
 Project Number: 22199  
 Notes:

This map was created using Sambatek's Geographic Information Systems (GIS), it is a compilation of information and data from various sources. This map is not a surveyed or legally recorded map and is intended to be used as a reference. Sambatek is not responsible for any inaccuracies contained herein.





# Hennepin County Soil Survey

Plymouth Fire Station II  
Plymouth, Minnesota

### Legend

Project Boundary

### Hydric Rating

- Not hydric
- Predominately non-hydric
- Partially hydric
- Predominately hydric
- All hydric
- Not rated



0 100 200  
Scale in Feet

Date: 04/21/2020

Project Number: 22199

Notes:



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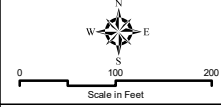
PEM1C Est. HERE, Garmin, (c) OpenStreetMap contributors

# National Wetland Inventory

Plymouth Fire Station II  
Plymouth, Minnesota

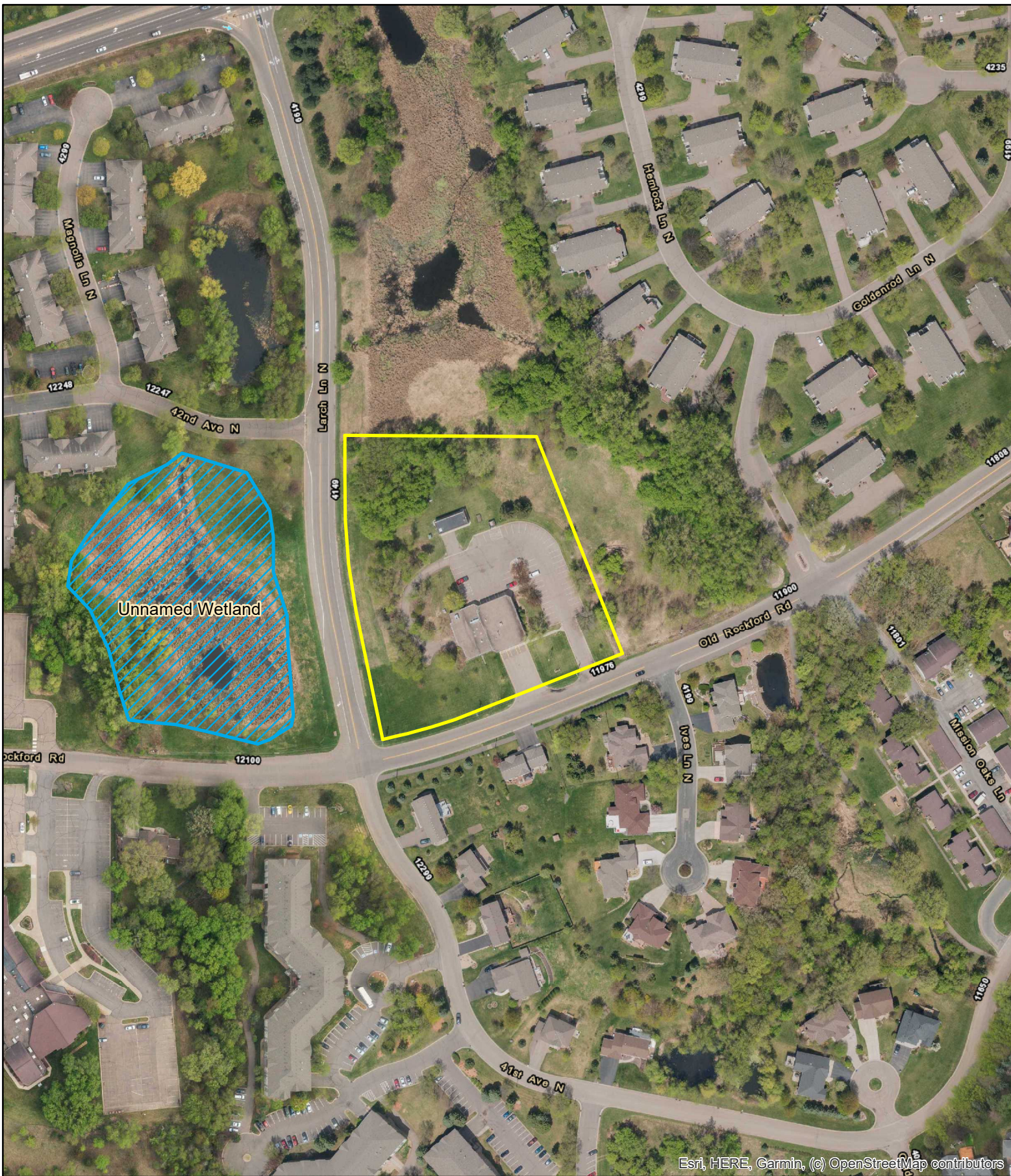
### Legend

- Project Boundary
- NWI mapped wetland



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Date: 04/21/2020  
Project Number: 22199  
Notes:

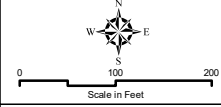


Esri, HERE, Garmin, (c) OpenStreetMap contributors

# DNR Public Water Inventory

Plymouth Fire Station II  
Plymouth, Minnesota

- Legend**
-  Public Watercourses
  -  Public Water Basins
  -  Project Boundary



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Date: 04/21/2020  
Project Number: 22199  
Notes:

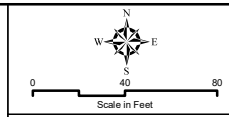


Esri, HERE, Garmin, (c) OpenStreetMap contributors

# LiDAR Contour Map

Plymouth Fire Station II  
Plymouth, Minnesota

- Legend**
-  2' Contour
  -  Project Boundary



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Date: 04/21/2020  
 Project Number: 22199  
 Notes:

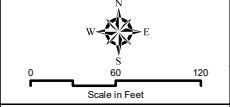


Esri, HERE, Garmin, (c) OpenStreetMap contributors

# Wetland Delineation Map

Plymouth Fire Station II  
Plymouth, Minnesota

- Legend**
-  Sample Transect
  -  Wetland Boundaries
  -  Project Boundary



This map was created using Sambatek's Geographic Information Systems (GIS), it is a compilation of information and data from various sources. This map is not a surveyed or legally recorded map and is intended to be used as a reference. Sambatek is not responsible for any inaccuracies contained herein.

Date: 04/21/2020  
 Project Number: 22199  
 Notes:

## WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Plymouth Fire Station II City/County: Plymouth Sampling Date: April 17, 2020  
 Applicant/Owner: City of Plymouth State: Minnesota Sampling Point: WL1-1UP  
 Investigator(s): Sambatek – JD Donath Section, Township, Range: Section 14, T118N, R22W  
 Landform (hillslope, terrace, etc.): Ground moraines Local relief (concave, convex, none): none  
 Slope (%): 0-2% slopes Lat: 45.030434 Long: -93.433422 Datum: \_\_\_\_\_  
 Soil Map Unit Name: L36A – Hamel, overwash-Hamel complex NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>
Remarks: The site was experiencing wetter than normal precipitation conditions at the time of the field visit.	

### VEGETATION - Use scientific names of plants.

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: <u>30'</u> )				Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>40</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>20</u> X 2 = <u>40</u> FAC species <u>20</u> X 3 = <u>60</u> FACU species <u>80</u> X 4 = <u>320</u> UPL species <u>10</u> X 5 = <u>50</u> Column Totals: <u>130</u> (A) <u>470</u> (B)  Prevalence Index = B/A = <u>3.62</u>
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				
1. <i>Rhamnus cathartica</i> (Common Buckthorn)	20	Y	FAC	
2. <i>Sambucus canadensis</i> (Common Elderberry)	10	Y	UPL	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is > 50% ___ 3 - Prevalence Test is ≤ 3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <i>Glechoma hederacea</i> (Creeping Charlie)	60	Y	FACU	
2. <i>Phalaris arundinacea</i> (Reed Canary Grass)	20	Y	FACW	
3. <i>Arctium minus</i> (Common Burdock)	20	Y	FACU	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
_____ = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				

**SOIL**

Sampling Point: WL1-1 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 <sup>1</sup>	Loc <sup>2</sup>		
0-6	10YR 2/1	100					Clay Loam	
6-12	10YR 4/4	100					Clay Loam	
12-18	10YR 2/2	100					Clay Loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

<p><b>Hydric Soil Indicators:</b></p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)</p>	<p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p>	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b></p> <p><input type="checkbox"/> Coast Prairie Redox (A16)</p> <p><input type="checkbox"/> Dark Surface (S7)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12)</p> <p><input type="checkbox"/> Very Shallow Dark Surfaces (TF12)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<p><b>Restrictive Layer (if observed):</b></p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p><b>Hydric Soil Present?</b>      Yes _____ No <u>X</u></p>
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Remarks:  
No hydric soil indicators were met.

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1)</p> <p><input type="checkbox"/> Sediment Deposits (B2)</p> <p><input type="checkbox"/> Drift Deposits (B3)</p> <p><input type="checkbox"/> Algal Mat or Crust (B4)</p> <p><input type="checkbox"/> Iron Deposits (B5)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p> <p><input type="checkbox"/> Aquatic Fauna (B13)</p> <p><input type="checkbox"/> True Aquatic Plants (B14)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Gauge or Well Data (D9)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p><u>Secondary Indicators (minimum of two required)</u></p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Stunted or Stressed Plants (D1)</p> <p><input type="checkbox"/> Geomorphic Position (D2)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
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<p><b>Field Observations:</b></p> <p>Surface Water Present?    Yes ___ No <u>X</u>    Depth (inches): _____</p> <p>Water Table Present?      Yes ___ No <u>X</u>    Depth (inches): _____</p> <p>Saturation Present?      Yes ___ No <u>X</u>    Depth (inches): _____ (includes capillary fringe)</p>	<p><b>Wetland Hydrology Present?</b>      Yes _____ No <u>X</u></p>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
No wetland hydrology indicators were met.

## WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Plymouth Fire Station II City/County: Plymouth Sampling Date: April 17, 2020  
 Applicant/Owner: City of Plymouth State: Minnesota Sampling Point: WL1-1WET  
 Investigator(s): Sambatek – JD Donath Section, Township, Range: Section 14, T118N, R22W  
 Landform (hillslope, terrace, etc.) Ground moraines Local relief (concave, convex, none): none  
 Slope (%): 0-2% slopes Lat: 45.030434 Long: -93.433422 Datum: \_\_\_\_\_  
 Soil Map Unit Name: L36A – Hame, overwash-Hamel complex NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_ No X (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_, Soil \_\_\_\_, or Hydrology \_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_  
 Are Vegetation \_\_\_\_, Soil \_\_\_\_, or Hydrology \_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No ___ Hydric Soil Present? Yes <u>X</u> No ___ Wetland Hydrology Present? Yes <u>X</u> No ___	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No ___
Remarks: The site was experiencing wetter than normal precipitation conditions at the time of the field visit.	

### VEGETATION - Use scientific names of plants.

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: <u>30'</u> )				Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	_____	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>90</u> X 2 = <u>180</u> FAC species <u>0</u> X 3 = <u>0</u> FACU species <u>10</u> X 4 = <u>40</u> UPL species <u>0</u> X 5 = <u>0</u> Column Totals: <u>100</u> (A) <u>220</u> (B)  Prevalence Index = B/A = <u>2.20</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	_____	= Total Cover		
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is > 50% <u>X</u> 3 - Prevalence Test is ≤ 3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <i>Phalaris arundinacea</i> (Reed Canary Grass)	90	Y	FACW	
2. <i>Glechoma hederacea</i> (Creeping Charlie)	5	N	FACU	
3. <i>Arctium minus</i> (Common Burdock)	5	N	FACU	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
	20	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No ___
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	_____	= Total Cover		

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



**SOIL**

Sampling Point: WL1-1 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 <sup>1</sup>	Loc <sup>2</sup>		
0-6	10YR 2/1	100					Clay Loam	
6-18	10YR 2/1	92	10YR 4/6	8	C	M	Clay Loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (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<sup>3</sup>:**

- Coast Prairie Redox (A16)
- Dark Surface (S7)
- Iron-Manganese Masses (F12)
- Very Shallow Dark Surfaces (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**      Yes       No

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):      8

Saturation Present?        Yes     No         Depth (inches):      4  
(includes capillary fringe)

**Wetland Hydrology Present?**      Yes       No

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

Remarks:

## WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Plymouth Fire Station II City/County: Plymouth Sampling Date: April 17, 2020  
 Applicant/Owner: City of Plymouth State: Minnesota Sampling Point: WL2-1UP  
 Investigator(s): Sambatek – JD Donath Section, Township, Range: Section 14, T118N, R22W  
 Landform (hillslope, terrace, etc.): Ground moraines Local relief (concave, convex, none): none  
 Slope (%): 0-2% slopes Lat: 45.029473 Long: -93.433429 Datum: \_\_\_\_\_  
 Soil Map Unit Name: L36A – Hamel, overwash-Hamel complex NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>
Remarks: The site was experiencing wetter than normal precipitation conditions at the time of the field visit.	

### VEGETATION - Use scientific names of plants.

Stratum	Absolute % Cover	Dominant Species?	Indicator Status															
<b>Tree Stratum</b> (Plot size: <u>30'</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Total % Cover of:</td> <td style="width: 40%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>100</u></td> <td>X 2 = <u>200</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>X 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>X 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>X 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u></td> <td>(A) <u>200</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>100</u>	X 2 = <u>200</u>	FAC species <u>0</u>	X 3 = <u>0</u>	FACU species <u>0</u>	X 4 = <u>0</u>	UPL species <u>0</u>	X 5 = <u>0</u>	Column Totals: <u>100</u>	(A) <u>200</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>100</u>	X 2 = <u>200</u>																	
FAC species <u>0</u>	X 3 = <u>0</u>																	
FACU species <u>0</u>	X 4 = <u>0</u>																	
UPL species <u>0</u>	X 5 = <u>0</u>																	
Column Totals: <u>100</u>	(A) <u>200</u> (B)																	
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover																		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover																		
<b>Herb Stratum</b> (Plot size: <u>5'</u> )																		
1. <i>Phalaris arundinacea</i> (Reed Canary Grass)	100	Y	FACW															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
_____ = Total Cover																		
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
_____ = Total Cover																		
<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is > 50% <input checked="" type="checkbox"/> 3 - Prevalence Test is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																		
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																		
<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

**SOIL**

Sampling Point: WL2-1 UP

<b>Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)</b>								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-9	10YR 2/1	100					Clay Loam	
9-16	10YR 2/2	100					Clay Loam	
16-20	10YR 2/2	95	10YR 4/4	5	C	M	Clay Loam	
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.								
<b>Hydric Soil Indicators:</b>						<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Coast Prairie Redox (A16)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Dark Surface (S7)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Iron-Manganese Masses (F12)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1)			<input type="checkbox"/> Very Shallow Dark Surfaces (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)			<sup>3</sup> Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<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)								
<b>Restrictive Layer (if observed):</b>					<b>Hydric Soil Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Type: _____ Depth (inches): _____								
Remarks: No hydric soil indicators are met.								

**HYDROLOGY**

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

<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?      Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present?        Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: No wetland hydrology indicators were observed.	

## WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Plymouth Fire Station II City/County: Plymouth Sampling Date: April 17, 2020  
 Applicant/Owner: City of Plymouth State: Minnesota Sampling Point: WL2-1WET  
 Investigator(s): Sambatek – JD Donath Section, Township, Range: Section 14, T118N, R22W  
 Landform (hillslope, terrace, etc.) Ground moraines Local relief (concave, convex, none): none  
 Slope (%): 0-2% slopes Lat: 45.029473 Long: -93.433429 Datum: \_\_\_\_\_  
 Soil Map Unit Name: L36A – Hamel, overwash-Hamel complex NWI Classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_ No X (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_, Soil \_\_\_\_, or Hydrology \_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_  
 Are Vegetation \_\_\_\_, Soil \_\_\_\_, or Hydrology \_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No ___ Hydric Soil Present? Yes <u>X</u> No ___ Wetland Hydrology Present? Yes <u>X</u> No ___	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No ___
Remarks: The site was experiencing wetter than normal precipitation conditions at the time of the field visit.	

### VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status															
<b>Tree Stratum (Plot size: 30')</b>																		
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover																		
<b>Sapling/Shrub Stratum (Plot size: 15')</b>																		
1. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Total % Cover of:</td> <td style="width: 50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>100</u></td> <td>X 2 = <u>200</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>X 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>X 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>X 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u></td> <td>(A) <u>200</u> (B)</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>100</u>	X 2 = <u>200</u>	FAC species <u>0</u>	X 3 = <u>0</u>	FACU species <u>0</u>	X 4 = <u>0</u>	UPL species <u>0</u>	X 5 = <u>0</u>	Column Totals: <u>100</u>	(A) <u>200</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>100</u>	X 2 = <u>200</u>																	
FAC species <u>0</u>	X 3 = <u>0</u>																	
FACU species <u>0</u>	X 4 = <u>0</u>																	
UPL species <u>0</u>	X 5 = <u>0</u>																	
Column Totals: <u>100</u>	(A) <u>200</u> (B)																	
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover																		
<b>Herb Stratum (Plot size: 5')</b>																		
1. <i>Phalaris arundinacea</i> (Reed Canary Grass)	100	Y	FACW	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is > 50% <u>X</u> 3 - Prevalence Test is ≤ 3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
_____ = Total Cover																		
<b>Woody Vine Stratum (Plot size: 30')</b>																		
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No ___														
2. _____	_____	_____	_____															
_____ = Total Cover																		

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

**SOIL**

Sampling Point: WL2-1 WET

<b>Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)</b>								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	10YR 2/1	100					Loam	
6-12	10YR 2/1	90	10YR 4/6	10	C	M	Clay Loam	
12-18	10YR 2/1	80	10YR 4/6	20	C	M	Clay Loam	
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.								
<b>Hydric Soil Indicators:</b>						<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Coast Prairie Redox (A16)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Dark Surface (S7)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Iron-Manganese Masses (F12)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1)			<input type="checkbox"/> Very Shallow Dark Surfaces (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)			<sup>3</sup> Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input checked="" 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)								
<b>Restrictive Layer (if observed):</b>					<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Type: _____								
Depth (inches): _____								
Remarks:								

**HYDROLOGY**

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

<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?      Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>19</u> Saturation Present?        Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>10</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

<b>Project Name:</b> Plymouth Fire Station II	<b>Site Location:</b> Plymouth, Minnesota	<b>Project ID:</b> 22199
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<b>Photo No. 1</b>	
<b>Location of Photo:</b> Along southwest wetland boundary	
<b>Description:</b> Facing northwest along the wetland boundary	

<b>Photo No. 2</b>	
<b>Location of Photo:</b> SP 1-1	
<b>Description:</b> Facing north across the wetland	

<b>Project Name:</b> Plymouth Fire Station II	<b>Site Location:</b> Plymouth, Minnesota	<b>Project ID:</b> 22199
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<b>Photo No. 3</b>	
<b>Location of Photo:</b> Along east wetland boundary	
<b>Description:</b> Facing west across wetland	

<b>Photo No. 102</b>	
<b>Location of Photo:</b> West wetland boundary	
<b>Description:</b> Facing east across wetland	

<b>Project Name:</b> Plymouth Fire Station II	<b>Site Location:</b> Plymouth, Minnesota	<b>Project ID:</b> 22199
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<b>Photo No. 104</b>	
<b>Location of Photo:</b> South wetland boundary	
<b>Description:</b> Facing north across wetland	

<b>Photo No. 107</b>	
<b>Location of Photo:</b> North wetland boundary	
<b>Description:</b> Facing south	



Project Name and/or Number: 22199 Plymouth Fire Department

## 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:** City of Plymouth – Amy Hanson  
**Mailing Address:** 3400 Plymouth Boulevard, Plymouth Minnesota 55447  
**Phone:**  
**E-mail Address:**

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

**Mailing Address:**  
**Phone:**  
**E-mail Address:**

**Agent Name:** Todd Ullom  
**Mailing Address:** 12800 Whitewater Drive, Suite 300, Minnetonka, MN 55343  
**Phone:** 763.476.6010  
**E-mail Address:** [tullom@sambatek.com](mailto:tullom@sambatek.com)

## PART TWO: Site Location Information

**County:** Hennepin **City/Township:** Plymouth  
**Parcel ID and/or Address:** 12000 Old Rockford Road  
**Legal Description (Section, Township, Range):** Section 14, T118N, R22W  
**Lat/Long (decimal degrees):** 45.030434, -93.433422  
**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):** 3.59 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](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.

**Please see that attached narrative.**

## 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.)	Type of Impact (fill, excavate, drain, or remove vegetation)	Duration of Impact Permanent (P) or Temporary (T) <sup>1</sup>	Size of Impact <sup>2</sup>	Overall Size of Aquatic Resource <sup>3</sup>	Existing Plant 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.

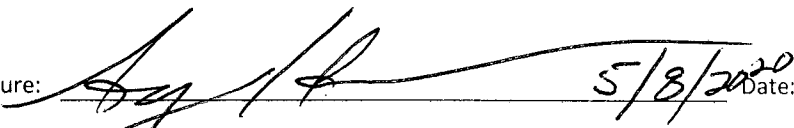
<sup>5</sup>Refer to Major Watershed and Bank Service Area maps in MN Rules 8420.0522 Subp. 7.

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

## 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: 5/8/2020

I hereby authorize \_\_\_\_\_ to act on my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this application.

<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>



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

June 15, 2020

Regulatory File No. 2020-00759-JMB

Jessica Abernathy, Sambatek Inc.  
C/o Amy Hanson, City of Plymouth  
3400 Plymouth Blvd.  
Plymouth, Minnesota 55447

Dear Ms. Hansen:

We are responding to your request, submitted by Sambatek, Inc. on your behalf, for Corps of Engineers (Corps) concurrence with the delineation of aquatic resources completed on the Plymouth Fire Station II property. The project site is located in Section 14, Township 118 North, Range 22 West, Hennepin County, Minnesota.

We have conducted a preliminary review of the delineation report, dated May 7, 2020 and generally concur that the 'Wetland Delineation Map' in the report depicts a reasonable approximation of the location and boundaries of aquatic resources on the property. This delineation can be used for planning, and will generally be sufficient for permitting purposes. It may be necessary to review this determination in response to changing site conditions or new information.

**Additional Information regarding Jurisdiction and Permitting:**

No jurisdictional determination was prepared for this project, nor is one required to support a permit application. If you submit a permit application, we will assist you in identifying aquatic resources that are not subject to Corps regulation to exclude those resources from the permit evaluation. A permit application should include this delineation, any subsequent revisions, and any state or local delineation approvals. You are advised that receipt of a permit or exemption from a state or local agency does not satisfy the requirement to obtain a Corps permit where one is needed.

Please note that the Corps has issued Nationwide General Permits and Regional General Permits that provide authorization for many minor activities. Many of those general permits require a pre-construction notification and Corps verification prior to starting work. However, several general permits also have "self-certifying" provisions that eliminate the need to provide notice to the Corps, provided the permittee complies with the terms and conditions of the general permit. Current general permit terms and conditions can be found at:  
<https://www.mvp.usace.army.mil/Missions/Regulatory/Permitting-Process-Procedures/>.

Regulatory Branch (File No. 2020-00759-JMB)

If you have any questions, please contact me in our Hayward office at (651) 290-5884 or [jonathan.m.bakken@usace.army.mil](mailto:jonathan.m.bakken@usace.army.mil). In any correspondence or inquiries, please refer to the Regulatory file number shown above.

Sincerely,

Jonathan M. Bakken  
Project Manager

cc: Todd Ullom, Sambatek ([tullom@sambatek.com](mailto:tullom@sambatek.com))  
Vanessa Strong, City of Plymouth ([vstrong@plymouthmn.gov](mailto:vstrong@plymouthmn.gov))  
Ben Meyer, BWSR ([ben.meyer@state.mn.us](mailto:ben.meyer@state.mn.us))