

Minnesota Wetland Conservation Act Notice of Application

Local Government Unit: City of Plymouth	County: Hennepin
Applicant Name: Stantec Consulting Services Inc	
Applicant Representative: Matt Summers	
Project Name: 10000 Highway 55	
LGU Project No. (if any): 2021-11	
Date Complete Application Received by LGU: 6/29/2021	
Date this Notice was Sent by LGU: 8/3/2021	
Date that Comments on this Application Must Be Received By LGU¹: 8/25/2021	

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:
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Application Materials

<input checked="" type="checkbox"/> Attached <input type="checkbox"/> Other ¹ (specify):

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, Water Resources Supervisor
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: Melissa Collins, 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): Doran RE Partners, LLC. 7803 Glenroy Road, Suite 200, Bloomington MN 55439
<input checked="" type="checkbox"/> Agent/Consultant (notice only): Matt Summers, Stantec, 2080 Wooddale Drive, Suite 100, Woodbury MN 55125

Optional or As Applicable:

<input checked="" type="checkbox"/> Corps of Engineers: US Army Corps of Engineers c/o Meghan Brown, 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 type="checkbox"/> Members of the Public (notice only):	<input type="checkbox"/> Other:

Signature: 	Date: 08/04/2021
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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

10000 Highway 55
Plymouth, Minnesota
Stantec Project #:227703917

Lead Delineator: Matt Summers, PSS

June 29, 2021

Prepared for:

Doran RE Partners, LLC
7803 Glenroy Road, Suite 200
Bloomington, MN 55439

Prepared by:

Stantec Consulting Services Inc.
2080 Wooddale Drive Suite 100
Woodbury, MN 55125
Phone: 612-227-0017



WETLAND DELINEATION REPORT

Doran Plymouth Wetland Delineation
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JUNE 29, 2021

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Doran Plymouth Wetland Delineation
Introduction
June 29, 2021

1.0 INTRODUCTION

Stantec Consulting Services, Inc. (Stantec) performed a wetland delineation at 10000 Highway 55 in Plymouth, MN (PIDs 3611822130010 and 3611822420018) on behalf of Doran Companies (Doran). The delineation was performed in relation to proposed property development efforts.

The Project Area is approximately 7.5 acres in size and located in the Southeast $\frac{1}{4}$ of Section 36, Township 118, Range 22 in Hennepin County, Minnesota (See Appendix A, Figure 1). The purpose and objective of the wetland delineation was to identify the extent of wetlands within the Project Area for re-development purposes.

The Project Area is comprised primarily of an existing office building and associated parking lots. The Project Area was significantly altered for urban development in the 1970s. Bassett Creek was realigned to the east to create additional buildable land, and the stream's current alignment runs along the north and east property boundaries. Approximately half of the Project Area is covered by impervious surface, and the remaining open areas have been disturbed by grading, filling, and excavating. Vegetation is primarily manicured lawn. A public trunk sewer runs under the eastern edge of the Project Area.

Wetlands and waterways are subject to federal regulation under Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act, which is administered by the U.S. Army Corps of Engineers (USACE). The State of Minnesota regulates wetlands and waterways via Section 401 of the CWA (administered by the Minnesota Pollution Control Agency), Minnesota Department of Natural Resources Public Waters (MN Statute 103G and Rule 6115), and the Wetland Conservation Act (WCA) that are enforced by Local Government Units (LGU). For this Project, the WCA LGU is City of Plymouth.



WETLAND DELINEATION REPORT

Doran Plymouth Wetland Delineation
Methods
June 29, 2021

2.0 METHODS

2.1 WETLANDS

Wetland delineations were based on the criteria and methods outlined in the *1987 Corps of Engineers Wetlands Delineation Manual*, Technical Report Y-87-1 (1987 Manual) and subsequent guidance documents (USACE 1991a, 1991b, 1992), and the 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Regional Supplement).

The wetland delineation involved the use of available resources to assist in the assessment such as U.S. Geological Survey (USGS) topographic maps, U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) soil survey, Minnesota Department of Natural Resources (MNDNR) Minnesota National Wetland Inventory Update mapping, MNDNR Protected/Public Waters mapping, MNDNR LiDAR digital elevation mapping, and aerial photography.

On-site wetland delineations were made using the three criteria (vegetation, soil, and hydrology) and technical approach defined in the USACE 1987 Manual and Regional Supplement. According to procedures described in the 1987 Manual and Regional Supplement, areas that under normal circumstances reflect a predominance of hydrophytic vegetation, hydric soils, and wetland hydrology (e.g., inundated or saturated soils) are considered wetlands.

As recent weather patterns influence the visibility and presence of some wetland hydrology indicators, the antecedent precipitation in the three months leading up to the field investigation was reviewed. The current year's precipitation data were compared to long-term precipitation averages and standard deviation to determine if precipitation was normal, wet, or dry for the area.

The wetland boundaries and sampling points were identified and flagged using pink "WETLAND DELINEATION" flags as well as surveyed with a Global Positioning System (GPS) capable of sub-meter accuracy.



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3.0 RESULTS

3.1 SITE DESCRIPTION

The Project Area is comprised primarily of an existing office building, manicured lawn, and associated parking lots. The Project Area was significantly altered for urban development in the 1970s. Bassett Creek was realigned to the east to create additional buildable land, and the stream's current alignment runs along the north and east property boundaries. Approximately half of the Project Area is covered by impervious surface, and the remaining open areas have been disturbed by grading, filling, and excavating. Vegetation is primarily manicured lawn. A public trunk sewer runs under the eastern edge of the Project Area.

Soils present within the Project Area and their hydric status are summarized in Table 1 below and presented in Appendix A, Figure 2. The site features one map unit with anticipated hydric soil (L30A Medo soils, depressional) and three non-hydric map units (L2B and L2A Malardi-Hawick complexes and U2A Udorthent, wet substratum).

Table 1. Summary of Mapped Hydric Soils within the Project Area

Soil symbol: Soil map Unit Name	Hydric Soil Unit Component	Soil Unit Component Percentage	Landform	Hydric status
L30A Medo soils, depressional	Medo	85	Depressions	Yes
L30A Medo soils, depressional	Unnamed mineral soils	15	Depressions	Yes

The MNDNR Protected/Public Waters map identified Bassett Creek running along the northern and eastern edge of the Project Area (Appendix A, Figure 3).

The Minnesota National Wetlands Inventory Update map identifies three potential wetlands within the Project Area. See Appendix A, Figure 4. The mapped features approximately coincide with the field delineated wetlands, however, any field delineated wetlands supersede the validity of any publicly available database information.

3.2 CLIMATIC CONDITIONS

Average precipitation and measured precipitation data for the investigation area were obtained from the nearest Minnesota Climatology Working Group MNGage weather station and used to determine general hydrologic conditions at the time of the field delineation. Daily precipitation data were incorporated into a table showing average precipitation ranges, daily precipitation totals, and a 30-day rolling precipitation total (Appendix B). The data show the area was within the normal precipitation range.

3.3 WETLANDS AND WATERBODIES

Three wetlands and one waterbody were identified and delineated within the Project Area. See Appendix A, Figure 5. Wetland determination data forms were completed for four sample points at two locations and are included in Appendix C. The wetlands are summarized in Table 2 below and described in detail in the following sections. See Appendix A, Figure 6 for pre-development conditions.



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Doran Plymouth Wetland Delineation
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Table 2. Summary of Wetlands and Waterbodies Identified within the Project Area

Wetland ID	Observed Wetland or Waterbody Type*	Mapped NWI Wetland Type	Adjacent Surface Waters	Acreage or Length (on-site)
Wetland 1	Fresh Meadow/Type 2/PEM1B	None	Bassett Creek	0.08 ac
Wetland 2	Shallow Open Water/Type 5/PUBHx	PUBHx	None	0.11 ac
Wetland 3	Shallow Open Water/Type 5/PUBHx	PUBHx	None	0.46 ac
Stream 1 (Bassett Creek)	Perennial stream			1,014 linear feet
WETLAND TOTAL				0.65 ac

Wetland type based on Eggers & Reed 2015 / Circular 39 (Shaw & Fredine 1971) / Cowardin 1979

3.3.1 Wetland 1

Wetland 1 is a 0.08-acre riparian wetland adjacent to Bassett Creek along the northern edge of the Project Area.

Vegetation

Dominant plant species identified at sample points and observed throughout Wetland 1 consisted of reed canary grass (*Phalaris arundinacea*, FACW). Other observed species included stinging nettle (*Urtica dioica*, FACW), and jewelweed (*Impatiens capensis*, FACW).

Hydrology

The wetland can experience prolonged periods of inundation, depending on water levels in Bassett Creek. Bassett Creek had a relatively low water level on the day of the site visit, and no primary indicators of wetland hydrology were observed. Secondary indicators of wetland hydrology observed included Geomorphic Position (D2) and FAC-Neutral Test (D5).

Soils

Soils within the wetland are mapped by the NRCS as Medo soils, an organic soil. Field observations confirmed the wetland soils are organic and meet the definition of Hydric Soil Indicator Histosol (A1). The deep organic soils are also a strong indicator that the wetland has historically experienced prolonged periods of inundation or saturation, though site hydrology was significantly altered with the realignment of Bassett Creek in the 1970s.

Wetland Boundary

The wetland boundary was determined based on distinct differences in vegetation and topography. The transition from wetland to upland characteristics generally correlated with a well-defined topographic break.



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Wetland 1, looking south:



3.3.2 Wetland 2

Wetland 2 is a 0.11-acre excavated stormwater pond that coincides with the former alignment of Bassett Creek (see Appendix A, Figure 6). Based on soil observations and historic aerial imagery, this basin was created within a natural wetland area.

Vegetation

The pond was holding water at the time of the site visit, with no significant observable vegetation present. The pond features steep, abrupt banks leading to the upland manicured lawn area. Upland vegetation was entirely mowed lawn.

Hydrology

The wetland receives directed stormwater from nearby parking lots but is also likely influenced by local groundwater conditions. The hydric pond bottom soils appeared natural with no observed clay or artificial pond liner and are a remnant of pre-development wetland or stream area. Observed primary indicators of wetland hydrology included Surface Water (A1), High Water Table (A2), and Saturation (A3).

Soils

Soils within the wetland are mapped by the NRCS as Medo soils, an organic wetland soil. Field observations confirmed the wetland soils are partially organic and meet the definition of hydric soil Indicator Histic Epipedon (A2). Other hydric soil indicators included Hydrogen Sulfide (A4), and 2 cm Muck (A10). Subsoils also featured a significant amount of very small old shells, likely deposited when this area was within the active Bassett Creek alignment. Upland soils were characterized by buried organic soils under 14 inches of loamy dredge spoil fill.



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Wetland Boundary

The wetland boundary was determined based on abrupt, steep, eroded banks around the entire pond.

Wetland 2, looking south:



3.3.3 Wetland 3

Wetland 3 is a 0.46-acre excavated stormwater pond that also coincides with the former alignment of Bassett Creek (see Appendix A, Figure 6). Based on soil observations and historic aerial imagery, this basin was created within a natural wetland area.

Vegetation

The pond was holding water at the time of the site visit, with no significant observable vegetation present. The pond features steep, abrupt banks leading to the upland manicured lawn area. Upland vegetation was entirely mowed lawn.

Hydrology

The wetland receives directed stormwater from nearby parking lots and an office building but is also likely influenced by local groundwater conditions. The hydric pond bottom soils appeared natural with no observed clay or artificial pond liner and are a remnant of pre-development wetland or stream area. Observed primary indicators of wetland hydrology included Surface Water (A1), High Water Table (A2), and Saturation (A3).

Soils

Soils within the wetland are mapped by the NRCS as Medo soils, an organic wetland soil. Field observations confirmed the wetland soils are partially organic and meet the definition of hydric soil Indicator Histic Epipedon (A2).



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Other hydric soil indicators included Hydrogen Sulfide (A4), and 2 cm Muck (A10). Subsoils also featured a significant amount of very small old shells, likely deposited when this area was within the active Bassett Creek alignment. Upland soils were characterized by buried organic soils under 17 inches of loamy dredge spoil fill.

Wetland Boundary

The wetland boundary was determined based on abrupt, steep, eroded banks and constructed features like walls and impervious cover.

Wetland 3, looking south:



3.3.4 Stream 1 (Bassett Creek)

Approximately 1,014 feet of Bassett Creek run along the north and east Project Area boundary. Bassett Creek is a perennial, manipulated waterway that eventually enters a subsurface tunnel system before discharging to the Mississippi River near downtown Minneapolis. The water level appeared low for a typical late-April date, but local gage data was not available.

Within the Project Area, the stream channel and OHWL were generally characterized by abrupt banks, except along the north Project Area boundary where Wetland 1 is adjacent to the stream.



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Stream 1, Bassett Creek:



WETLAND DELINEATION REPORT

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4.0 CONCLUSION

Three wetlands and one waterbody were identified and delineated within the Project Area in accordance with state and federal guidelines. The wetlands were flagged, surveyed with GPS, and mapped using GIS software. A total of 0.65 acres of wetlands were delineated within the Project Area, and 1014 linear feet of stream.

Stantec recommends this report be submitted to the WCA LGU (City of Plymouth) and USACE for a for final jurisdictional review and concurrence. The delineation was performed by experienced and qualified professionals using standard practices and sound professional judgment. The ultimate decision on wetland boundaries rests with the City of Plymouth and USACE. As a result, there may be adjustments to boundaries based upon review by a regulatory agency.



WETLAND DELINEATION REPORT

Doran Plymouth Wetland Delineation
References
June 29, 2021

5.0 REFERENCES

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USACE St. Paul District and BWSR. 2016. Guidance for Offsite Hydrology/Wetland Determinations, ed C. Koniskson and J1. Jaschke.



WETLAND DELINEATION REPORT

Doran Plymouth Wetland Delineation

References

June 29, 2021

U.S. Department of Agriculture, Natural Resource Conservation Service (USDA, NRCS). 2018. *Field Indicators of Hydric Soils in the United States*, Version 8.2. L.M. Vasilas, G.W. Hurt, and J.F. Berkowitz (eds.). USDA, NRCS in cooperation with the National Technical Committee for Hydric Soils.



WETLAND DELINEATION REPORT

Doran Plymouth Wetland Delineation
Figures
June 29, 2021

Appendix A FIGURES

Figure 1. Project Location

Figure 2. Soil Survey

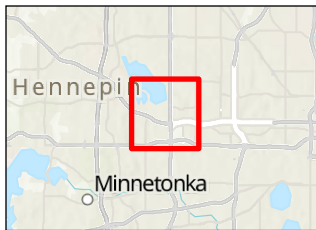
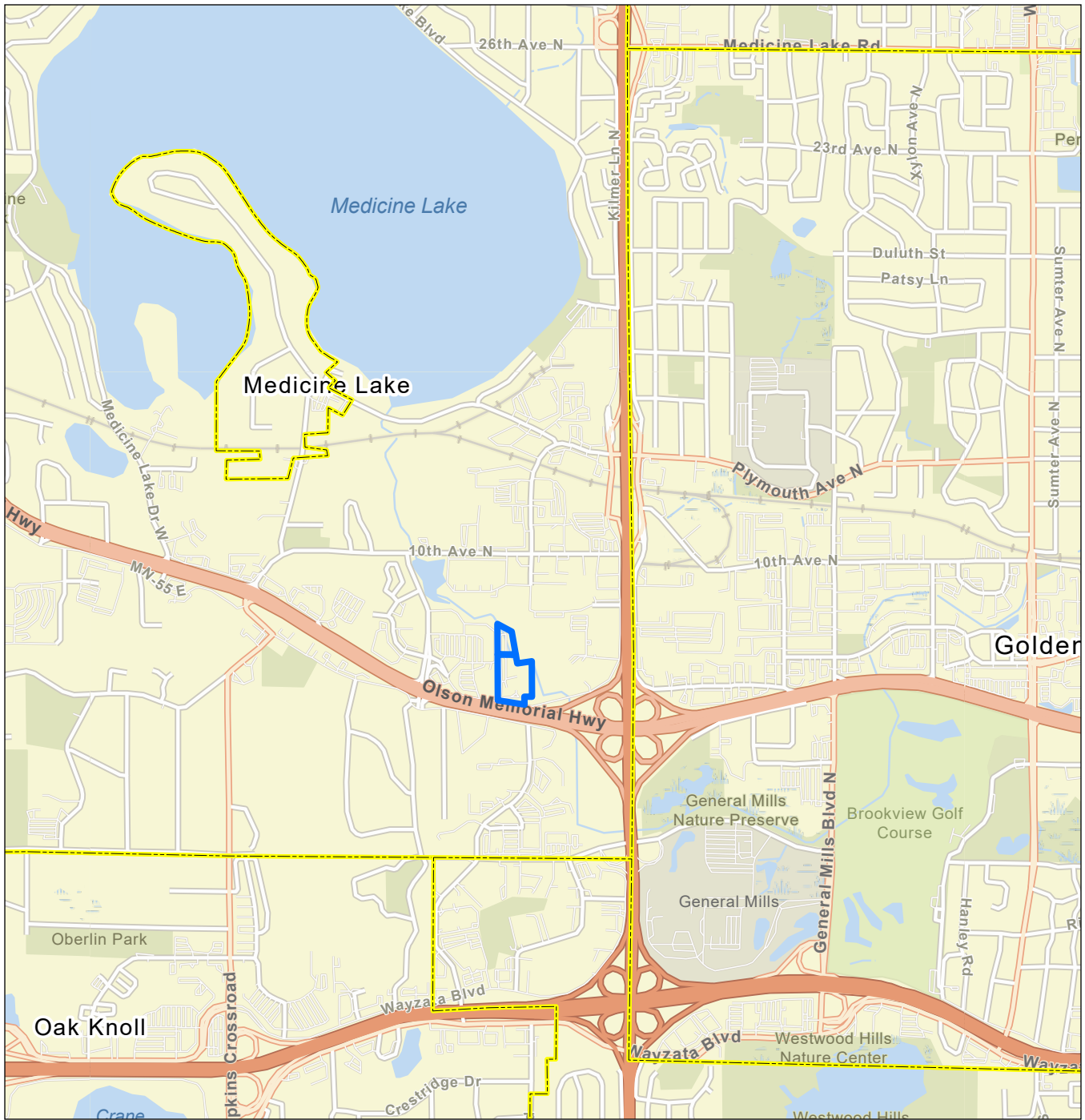
Figure 3. Minnesota Protected Waters

Figure 4. Minnesota National Wetland Inventory

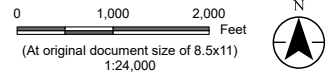
Figure 5. Field Collected Data

Figure 6. Historic Aerial Photograph





Legend
 Project Area



Project Location
 T118, R22, S36
 Plymouth, Hennepin Co., MN

Prepared by AH on 2021-04-29
 TR by XXX on 2021-XX-XX
 IR by XXX on 2021-XX-XX

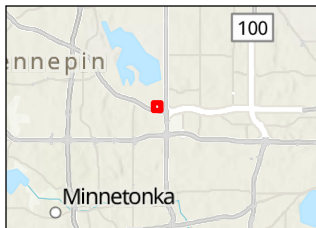
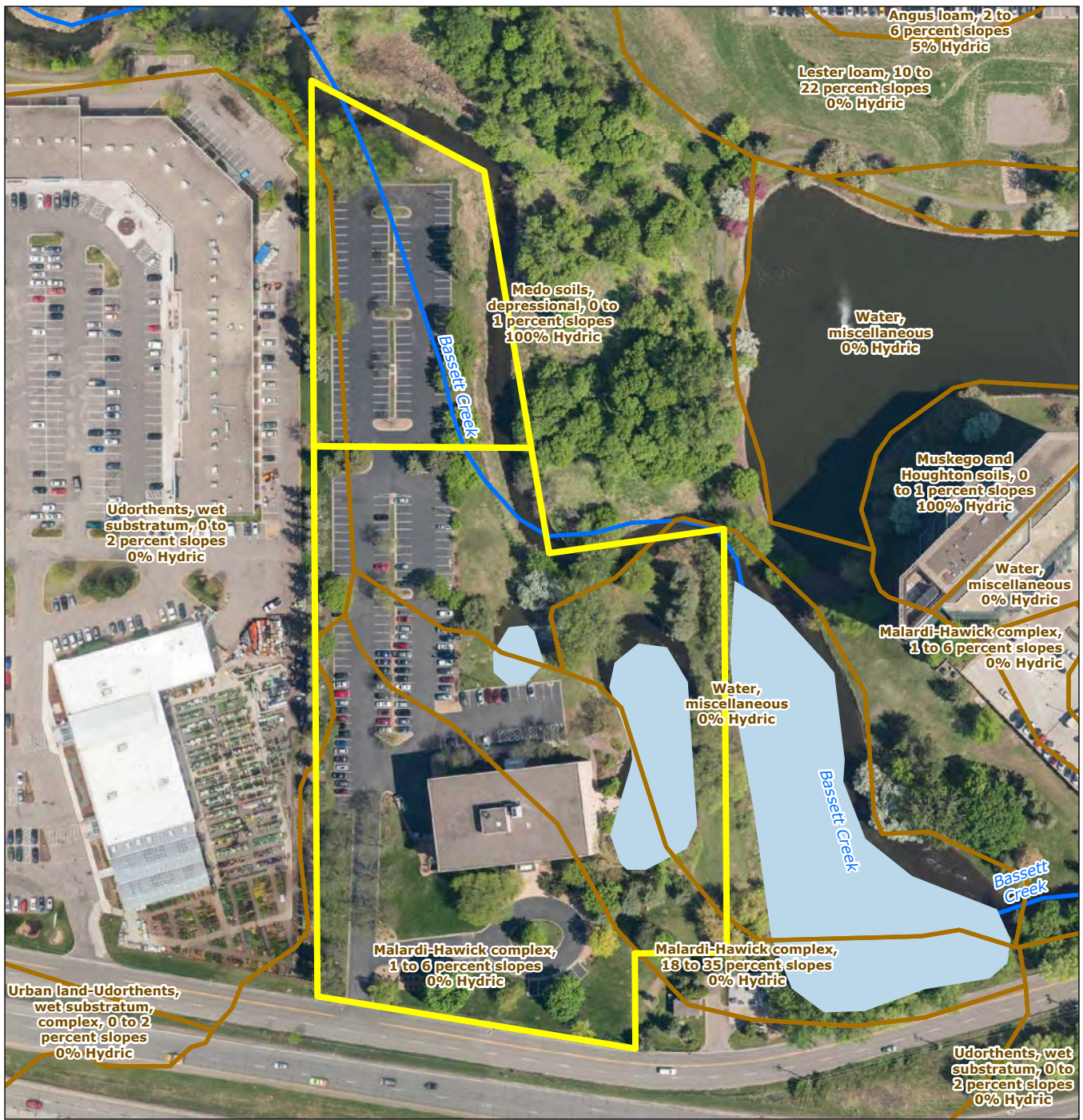
Client/Project
 Doran Development LLC
 Plymouth Wetland Delineation

227703917

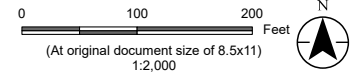
Figure No.
1

Title
Project Location

Notes
 1. Coordinate System: NAD 1983 HARN Adj MN
 Hennepin Feet
 2. Data Sources: Stantec, USGS
 3. Background: World Street Map



- Legend**
- Project Area
 - Soil Map Unit & Hydric Rating
 - National Hydrography Dataset
 - ~ Stream
 - Waterbody



Project Location
T118, R22, S36
Plymouth, Hennepin Co., MN

Prepared by AH on 2021-04-29
TR by XXX on 2021-XX-XX
IR by XXX on 2021-XX-XX

Client/Project
Doran Development LLC
Plymouth Wetland Delineation

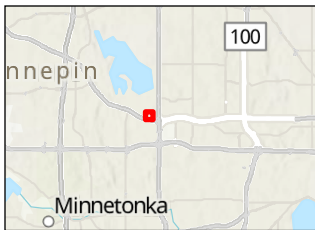
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Figure No.
2

Title
Soil Survey Data Hydric Ratings

- Notes**
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 2. Data Sources: Stantec, SSURGO, NHD
 3. Background: 2018 color Hennepin 3 in

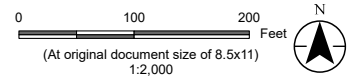
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Notes
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 2. Data Sources: Stantec, PWI
 3. Background: 2018 color Hennepin 3 in

Legend

- Project Area
- Minnesota Public Waters Delineations
- Public Water Watercourse
- Public Ditch/Altered Natural Watercourse
- Public Waters Basins



Project Location
 T118, R22, S36
 Plymouth, Hennepin Co., MN

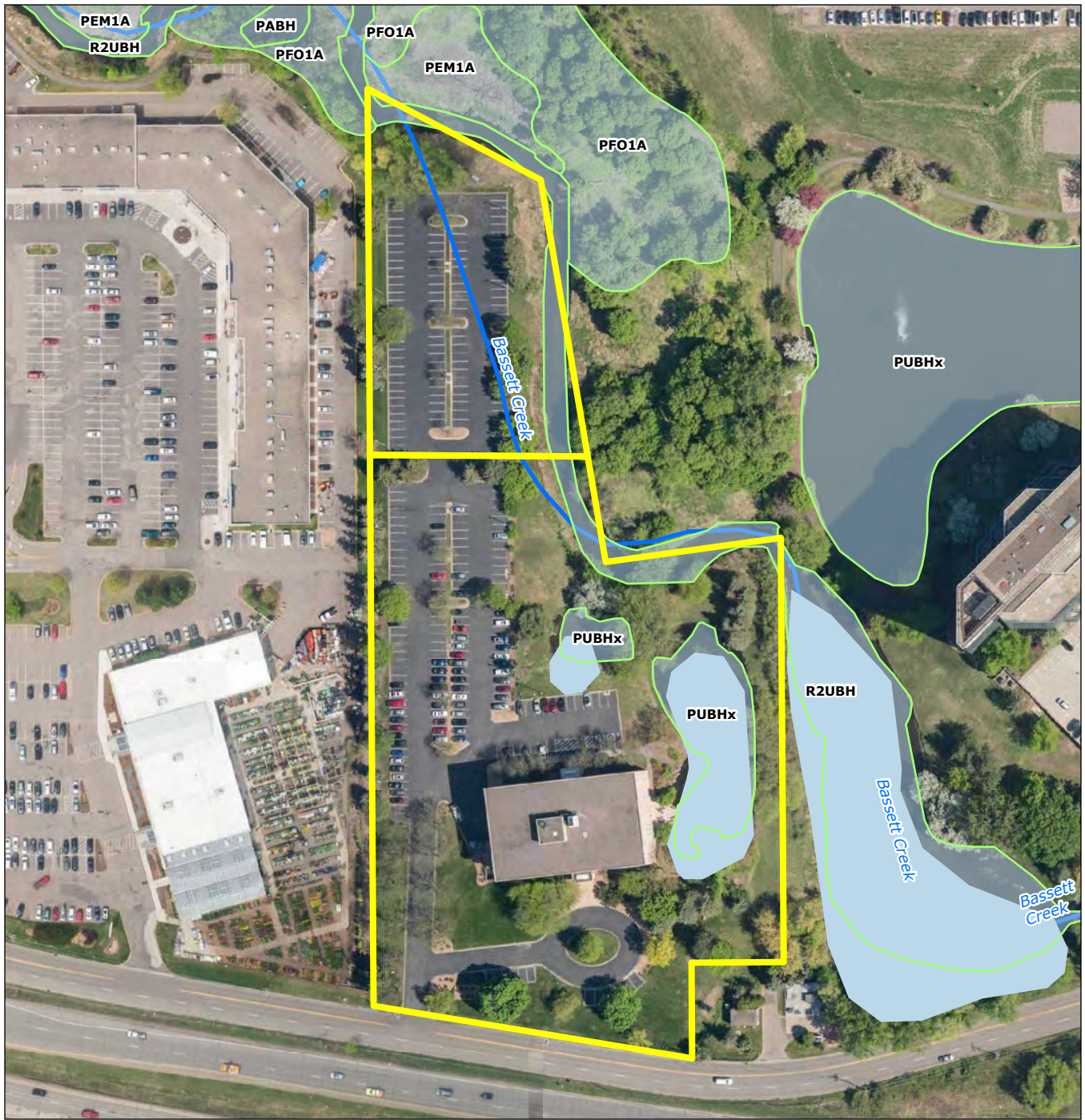
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 Doran Development LLC
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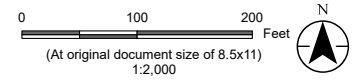
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Figure No.
3

Title
MN Protected & Public Waters



- Legend**
- Project Area
 - National Wetlands Inventory Feature
 - National Hydrography Dataset
 - ~ Stream
 - Waterbody



Project Location
T118, R22, S36
Plymouth, Hennepin Co., MN

Prepared by AH on 2021-04-29
TR by XXX on 2021-XX-XX
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Client/Project
Doran Development LLC
Plymouth Wetland Delineation

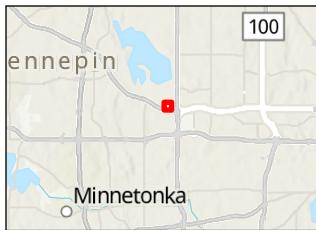
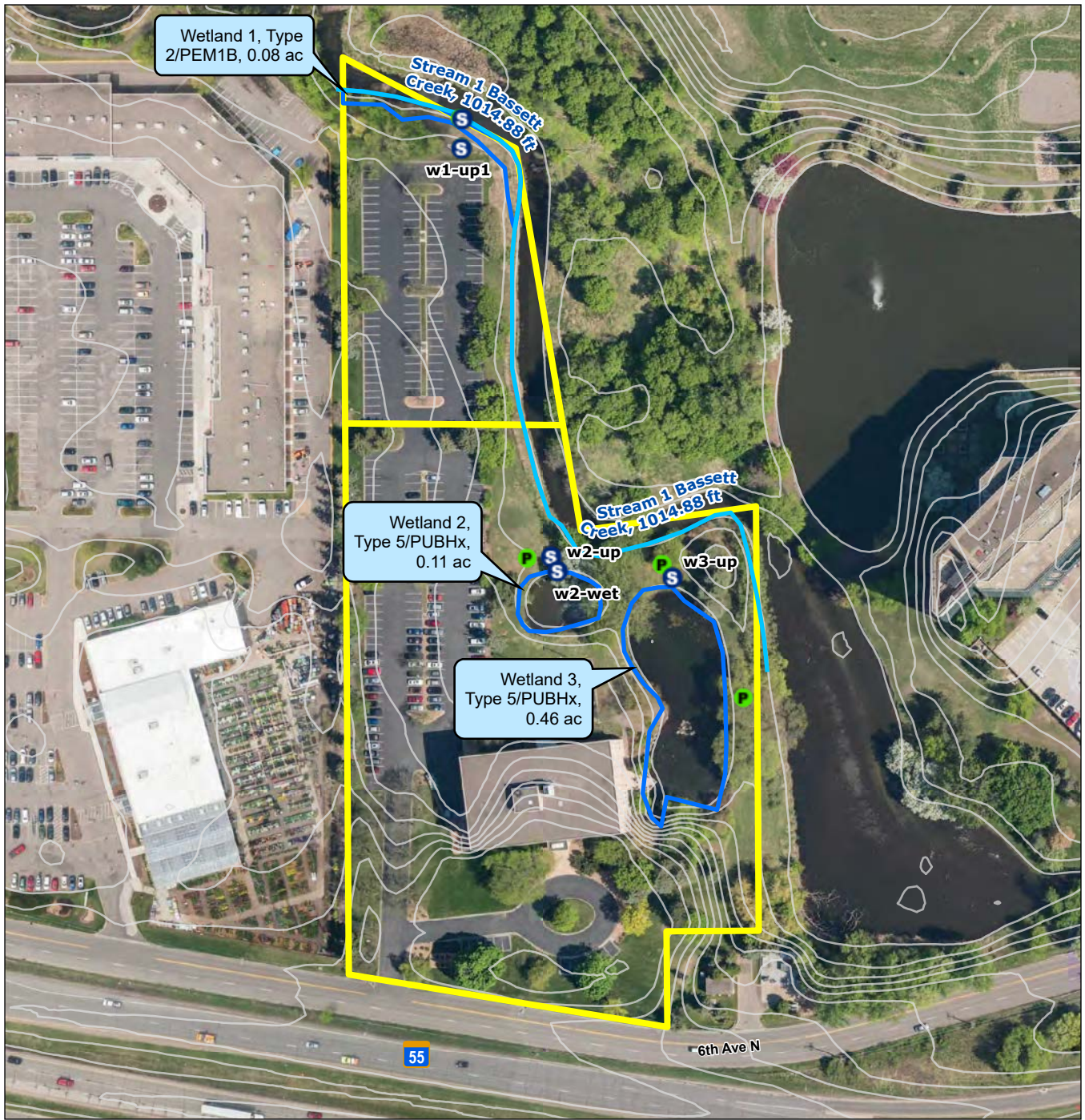
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Figure No.
4

Title
National Wetlands Inventory Data

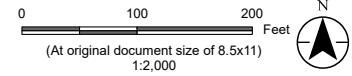
- Notes**
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 2. Data Sources: Stantec, NHD, NWI
 3. Background: 2018 color Hennepin 3 in

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Notes
 1. Coordinate System: NAD 1983 HARN Adj MN Hennepin Feet
 2. Data Sources: Stantec, NHD, MNTopo
 3. Background: 2018 color Hennepin 3 in

- Legend**
- Project Area
 - Delineated Wetland Boundary
 - S Sample Point
 - P Photo Location
 - Linear Water Feature - Top-of-Bank
 - Contour 2ft



Project Location
 T118, R22, S36
 Plymouth, Hennepin Co., MN

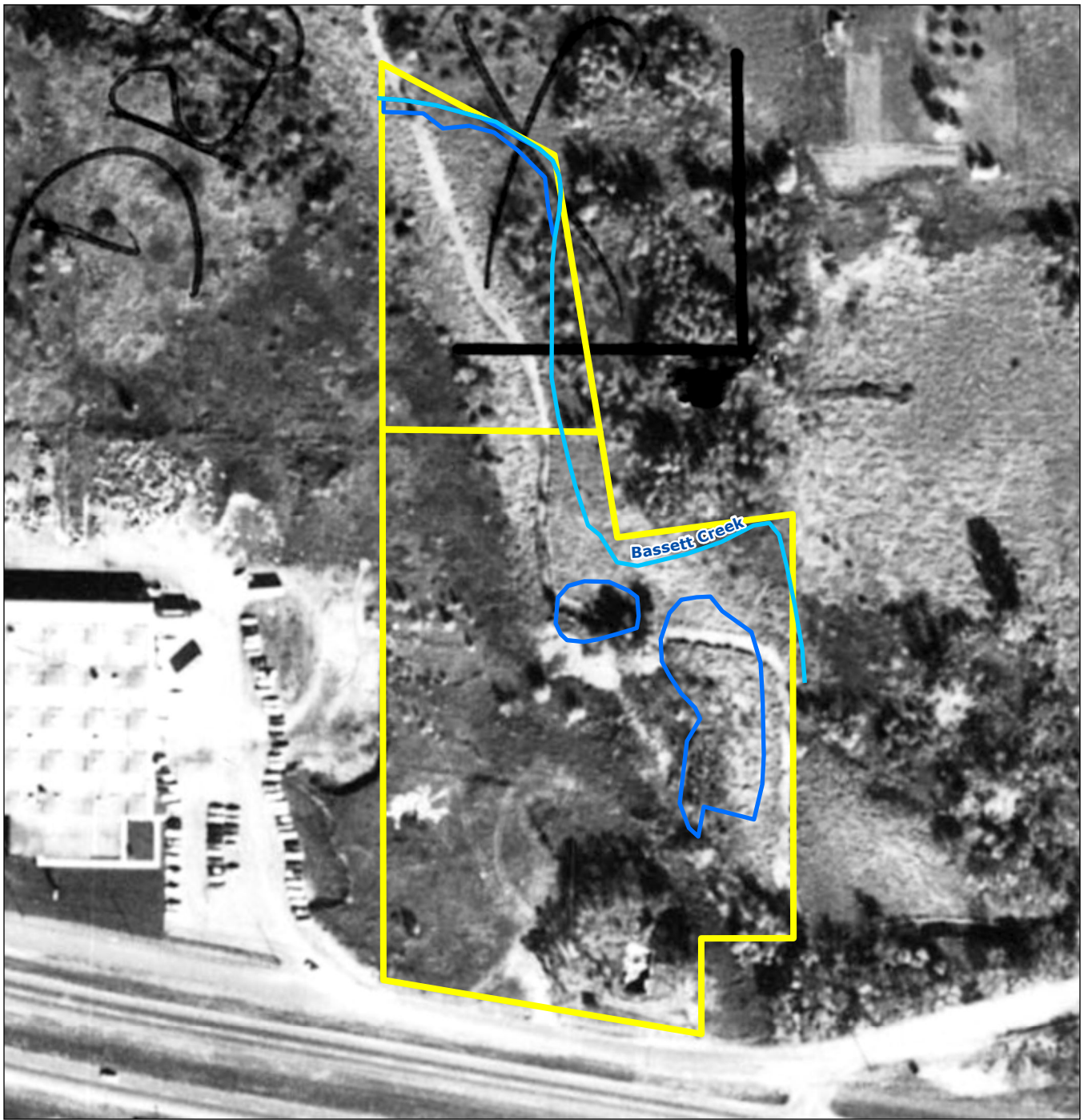
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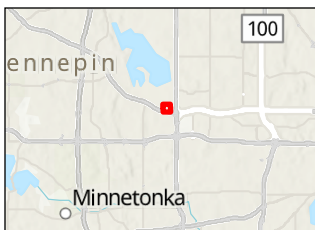
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Figure No.
5

Title
Field Collected Data



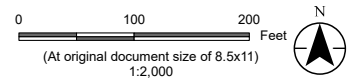
L:\2277\03917\Pro\Wetland Delineation\Wetland Delineation.aprx Revised: 2021-05-20 By: HyaAR1126



- Notes**
1. Coordinate System: NAD 1983 UTM Zone 15N
 2. Data Sources: Stantec, Hennepin Co GIS
 3. Background: Hennepin UTM Aerial 1964

Legend

- Project Area
- Delineated Wetland Boundary
- Current Bassett Creek West Top-of-Bank



Project Location T118, R22, S36
 Plymouth, Hennepin Co., MN

Prepared by AH on 2021-04-29
 TR by XXX on 2021-XX-XX
 IR by XXX on 2021-XX-XX

Client/Project Doran Development LLC
 Plymouth Wetland Delineation

227703917

Figure No.
6

Title
Historical Imagery

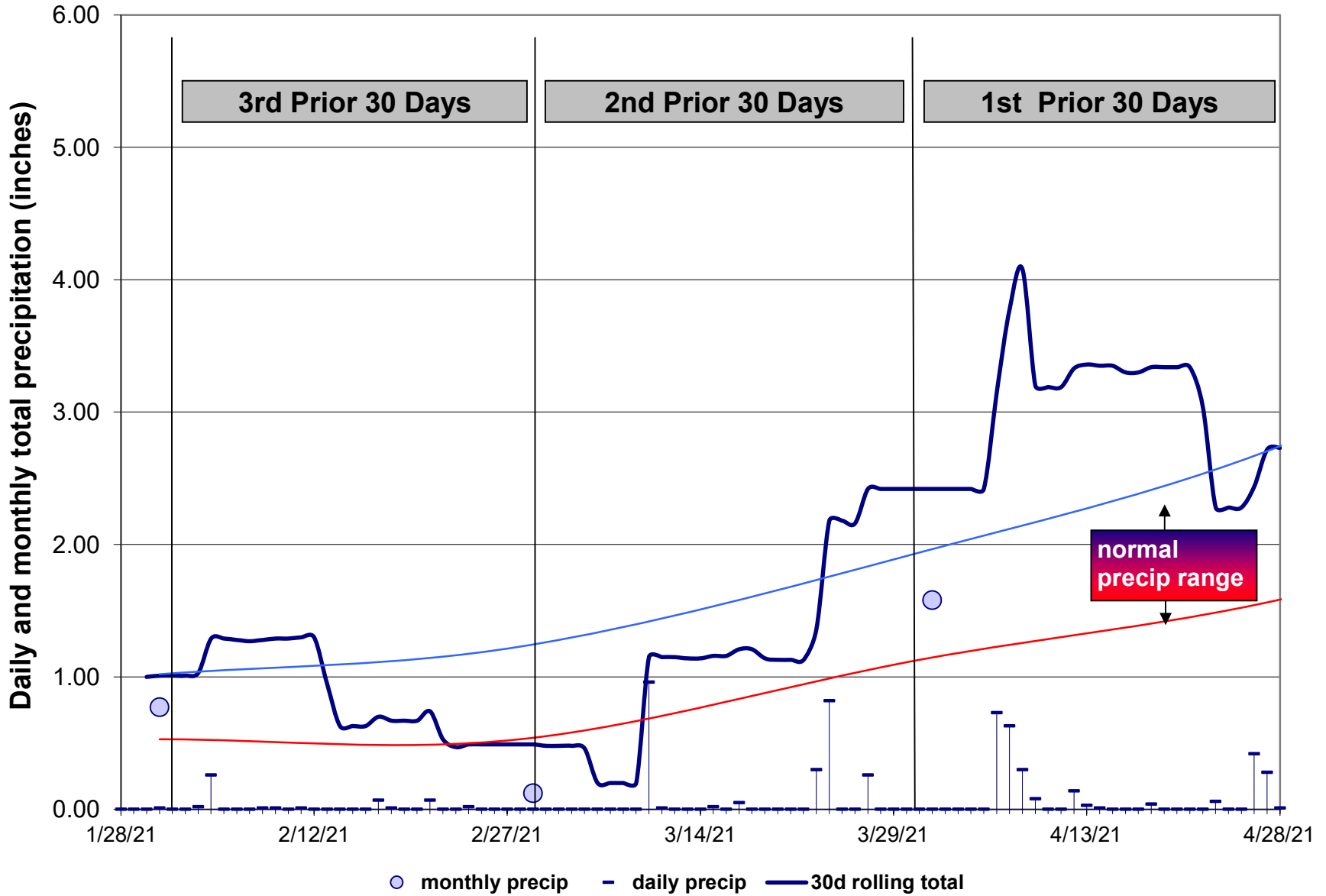
WETLAND DELINEATION REPORT

Doran Plymouth Wetland Delineation
Precipitation Analysis
June 29, 2021

Appendix B PRECIPITATION ANALYSIS




All precipitation data were obtained from the Minnesota Climatology Working Group website for the Plymouth, MN MNGage station.



Minnesota State Climatology Office

State Climatology Office - DNR Division of Ecological and Water Resources

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Nearest Station Precipitation Data Retrieval

Minnesota's [precipitation data archive](#) is searched for data closest to a selected target location for each month. Values from the site closest to the target location are returned below after clicking the **retrieve monthly data** or **retrieve daily data** buttons. The precipitation data are made up of measured rainfall and the measured liquid content of snowfall.

Temperature, **snowfall**, and **snow depth** data from National Weather Service reporting stations are no longer retrieved from this application. To obtain those data, see our newest [data retrieval tool](#) (May 2014). National Weather Service precipitation data continue to be available from this application.

[Obtaining data for legal purposes](#)

[Guide for column headers in the data table](#)

target location: Hennepin-Plymouth-Plymouth 118N 22W S15 (latitude: 45.02438 longitude: 93.46121)

years: 2021 to 2021

number of **missing days** allowed per month:

results:

Target: T118 R22 S15

mon	dy,	year	pre	cc	tttN	rrw	ss	nnnn	ooooo	pre (inches)	dis
Jan	1,	2021	0	27	118N	21W	20	NWS	NEW HOPE	1.01	4 mi.
Jan	2,	2021	0								
Jan	3,	2021	0								
Jan	4,	2021	T								
Jan	5,	2021	0								
Jan	6,	2021	0								
Jan	7,	2021	.01								
Jan	8,	2021	.01								
Jan	9,	2021	T								
Jan	10,	2021	T								
Jan	11,	2021	0								
Jan	12,	2021	0								
Jan	13,	2021	0								
Jan	14,	2021	.35								
Jan	15,	2021	.32								
Jan	16,	2021	T								
Jan	17,	2021	T								
Jan	18,	2021	T								
Jan	19,	2021	.04								
Jan	20,	2021	0								
Jan	21,	2021	0								
Jan	22,	2021	0								
Jan	23,	2021	.21								
Jan	24,	2021	.06								
Jan	25,	2021	0								
Jan	26,	2021	T								
Jan	27,	2021	T								
Jan	28,	2021	0								
Jan	29,	2021	T								
Jan	30,	2021	T								
Jan	31,	2021	.01								
Feb	1,	2021	m	27	118N	21W	20	NWS	NEW HOPE	.48	4 mi.
Feb	2,	2021	T								
Feb	3,	2021	.02								
Feb	4,	2021	.26								
Feb	5,	2021	0								
Feb	6,	2021	0								
Feb	7,	2021	T								
Feb	8,	2021	.01								
Feb	9,	2021	.01								
Feb	10,	2021	0								
Feb	11,	2021	.01								

Feb 12, 2021	T							
Feb 13, 2021	0							
Feb 14, 2021	0							
Feb 15, 2021	0							
Feb 16, 2021	0							
Feb 17, 2021	.07							
Feb 18, 2021	.01							
Feb 19, 2021	T							
Feb 20, 2021	0							
Feb 21, 2021	.07							
Feb 22, 2021	0							
Feb 23, 2021	0							
Feb 24, 2021	.02							
Feb 25, 2021	0							
Feb 26, 2021	0							
Feb 27, 2021	0							
Feb 28, 2021	m							
Mar 1, 2021	T	27 118N 21W 4	NWS CRYSTAL	2.42				5 mi .
Mar 2, 2021	0							
Mar 3, 2021	0							
Mar 4, 2021	0							
Mar 5, 2021	0							
Mar 6, 2021	0							
Mar 7, 2021	0							
Mar 8, 2021	0							
Mar 9, 2021	0							
Mar 10, 2021	.96							
Mar 11, 2021	.01							
Mar 12, 2021	0							
Mar 13, 2021	0							
Mar 14, 2021	0							
Mar 15, 2021	.02							
Mar 16, 2021	T							
Mar 17, 2021	.05							
Mar 18, 2021	0							
Mar 19, 2021	0							
Mar 20, 2021	0							
Mar 21, 2021	T							
Mar 22, 2021	0							
Mar 23, 2021	.30							
Mar 24, 2021	.82							
Mar 25, 2021	0							
Mar 26, 2021	0							
Mar 27, 2021	.26							
Mar 28, 2021	0							
Mar 29, 2021	0							
Mar 30, 2021	0							
Mar 31, 2021	0							
Apr 1, 2021	0	27 118N 21W 20	NWS NEW HOPE	2.73				4 mi .
Apr 2, 2021	0							
Apr 3, 2021	0							
Apr 4, 2021	0							
Apr 5, 2021	0							
Apr 6, 2021	.73							
Apr 7, 2021	.63							
Apr 8, 2021	.30							
Apr 9, 2021	.08							
Apr 10, 2021	T							
Apr 11, 2021	0							
Apr 12, 2021	.14							
Apr 13, 2021	.03							
Apr 14, 2021	.01							
Apr 15, 2021	T							
Apr 16, 2021	0							
Apr 17, 2021	0							
Apr 18, 2021	.04							
Apr 19, 2021	T							
Apr 20, 2021	T							
Apr 21, 2021	T							
Apr 22, 2021	0							
Apr 23, 2021	.06							
Apr 24, 2021	m							
Apr 25, 2021	0							
Apr 26, 2021	.42							
Apr 27, 2021	.28							
Apr 28, 2021	.01							
Apr 29, 2021	0							
Apr 30, 2021	0							
May 1, 2021	m							999 mi .
May 2, 2021	m							

Minnesota State Climatology Office

State Climatology Office - DNR Division of Ecological and Water Resources

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Wetland Delineation Precipitation Data Retrieval from a Gridded Database

Obtaining a long-term precipitation data time-series for wetland delineation efforts can be a difficult and time-consuming process. Locating the nearest precipitation monitoring station to the wetland often proves challenging. Once a nearby monitoring location is identified, retrieving the data, accounting for gaps in the record, and generating the summary statistics can provide further challenges.

By offering access to "synthetic" data, this application assists users in overcoming some the challenges inherent in assembling a precipitation data set. The synthetic data are made up of regularly-spaced grid nodes whose values were calculated using data interpolated from Minnesota's outstanding, but spatially and temporally irregular, precipitation data base.

Click to learn more about [Precipitation Grids](#).

select a wetland location

Precipitation data for target wetland location:

county: **Hennepin**

township name:
Plymouth

nearest community:
Plymouth

township number:
118N

range number:
22W

section number:
16

To create a **precipitation documentation worksheet** using the three-prior-month (NRCS) method, select the date of the site visit or aerial photograph and click on "create worksheet".

2021 May 1

create worksheet

precipitation totals are in inches

color key:

total is in lowest 30th percentile of the period-of-record distribution

total is => 30th and <= 70th percentile

total is in highest 30th percentile of the period-of-record distribution

multi-month totals:

WARM = warm season (May thru September)

ANN = calendar year (January thru December)

WAT = water year (Oct. previous year thru Sep. present year)

A 'R' following a monthly total indicates a provisional value derived from [radar-based estimates](#).

Period-of-Record Summary Statistics															
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	WARM	ANN	WAT
30%	0.53	0.53	1.13	1.63	2.57	3.27	2.41	2.97	1.92	1.26	0.77	0.61	16.22	26.36	26.29
70%	1.02	1.23	1.94	2.82	4.36	5.53	4.52	4.44	3.75	2.74	1.92	1.34	21.31	32.57	32.29
mean	0.89	0.92	1.63	2.42	3.73	4.46	3.86	3.73	3.09	2.25	1.51	1.04	18.87	29.54	29.58
1981-2010 Summary Statistics															
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	WARM	ANN	WAT
30%	0.51	0.41	1.28	1.99	2.71	3.41	2.52	3.17	2.14	1.30	1.06	0.67	17.05	28.22	27.30
70%	1.02	0.91	1.95	2.90	4.19	5.61	4.56	5.10	3.69	3.33	2.04	1.44	21.52	33.98	34.44
mean	0.81	0.78	1.79	2.69	3.57	4.46	4.13	4.15	3.37	2.46	1.70	1.16	19.68	31.06	30.86
Year-to-Year Data															
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	WARM	ANN	WAT

WETLAND DELINEATION REPORT

Doran Plymouth Wetland Delineation
Wetland Determination Data Forms
June 29, 2021

Appendix C WETLAND DETERMINATION DATA FORMS



WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site Doran Plymouth City/County: Plymouth Sampling Date: 4/28/21
 Applicant/Owner: Doran Companies State: MN Sampling Point: W1-up
 Investigator(s): Matt Summers, Nick Omodt Section, Township, Range: S36 T118N R22W
 Landform (hillslope, terrace, etc.): Backslope (fill) Local relief (concave, convex, none): convex
 Slope (%): <5 Lat: 44.98661963 Long: -93.40676583 Datum: _____
 Soil Map Unit Name L30A Medo muck NWI Classification: None

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

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: _____
Hydric soil present? <u>N</u>	
Indicators of wetland hydrology present? <u>N</u>	

Remarks: (Explain alternative procedures here or in a separate report.)
 The overall project area is significantly disturbed due to development activities. Bassett Creek used to flow through this project area but was re-aligned in the 1970s for urban development. Much of the project area has been graded, filled, and paved. Lawn areas are mowed.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species	Indicator Staus	Dominance Test Worksheet	
1 _____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A)	
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>)	Absolute % Cover	Dominant Species	Indicator Staus	Prevalence Index Worksheet	
1 <u>Rhamnus cathartica</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	Total % Cover of:	
2 _____	_____	_____	_____	OBL species <u>0</u> x 1 = <u>0</u>	
3 _____	_____	_____	_____	FACW species <u>0</u> x 2 = <u>0</u>	
4 _____	_____	_____	_____	FAC species <u>20</u> x 3 = <u>60</u>	
5 _____	_____	_____	_____	FACU species <u>0</u> x 4 = <u>0</u>	
<u>10</u> = Total Cover				UPL species <u>0</u> x 5 = <u>0</u>	
				Column totals <u>20</u> (A) <u>60</u> (B)	
				Prevalence Index = B/A = <u>3.00</u>	
Herb stratum (Plot size: <u>5</u>)	Absolute % Cover	Dominant Species	Indicator Staus	Hydrophytic Vegetation Indicators:	
1 <u>Carex sp.</u>	<u>90</u>	<u>Y</u>	<u>NI</u>	____ Rapid test for hydrophytic vegetation	
2 <u>Alliaria petiolata</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	____ Dominance test is >50%	
3 _____	_____	_____	_____	<u>X</u> Prevalence index is ≤3.0*	
4 _____	_____	_____	_____	Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)	
5 _____	_____	_____	_____	____ Problematic hydrophytic vegetation* (explain)	
6 _____	_____	_____	_____		
7 _____	_____	_____	_____		
8 _____	_____	_____	_____		
9 _____	_____	_____	_____		
10 _____	_____	_____	_____		
<u>100</u> = Total Cover					
Woody vine stratum (Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Staus	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: W1-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**		
26	mixed	100					loamy and clayey fill	
32	N 2.5/	100					muck	buried topsoil, dry and compacted

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

<p>Hydric Soil Indicators:</p> <p><input type="checkbox"/> Histisol (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>Indicators for Problematic Hydric Soils:</p> <p><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)</p> <p><input type="checkbox"/> Dark Surface (S7) (LRR K, L)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (explain in remarks)</p>
--	---	---

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

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		
<p>Primary Indicators (minimum of one is required; check all that apply)</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>Secondary Indicators (minimum of two required)</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>

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

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

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site Doran Plymouth City/County: Plymouth Sampling Date: 4/28/21
 Applicant/Owner: Doran Companies State: MN Sampling Point: W1-wet
 Investigator(s): Matt Summers, Nick Omodt Section, Township, Range: S36 T118N R22W
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none
 Slope (%): <5 Lat: 44.98670794 Long: -93.40676178 Datum: _____
 Soil Map Unit Name L30A Medo muck NWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? _____ (If no, explain in remarks)
 Are vegetation X, soil X, or hydrology X 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: <u>Wetland 1</u>
Hydric soil present? <u>Y</u>	
Indicators of wetland hydrology present? <u>Y</u>	

Remarks: (Explain alternative procedures here or in a separate report.)
 The overall project area is significantly disturbed due to development activities. Bassett Creek used to flow through this project area but was re-aligned in the 1970s for urban development. Much of the project area has been graded, filled, and paved. Lawn areas are mowed.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet 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>100.00%</u> (A/B)
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	
3 _____	_____	_____	_____	
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
<u>0</u> = Total Cover				Prevalence Index Worksheet Total % Cover of: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>92</u> x 2 = <u>184</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>5</u> x 4 = <u>20</u> UPL species <u>0</u> x 5 = <u>0</u> Column totals <u>97</u> (A) <u>204</u> (B) Prevalence Index = B/A = <u>2.10</u>
Sapling/Shrub stratum (Plot size: <u>15</u>)	Absolute % Cover	Dominant Species	Indicator Status	
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	
3 _____	_____	_____	_____	
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
<u>0</u> = Total Cover				Hydrophytic Vegetation Indicators: ____ Rapid test for hydrophytic vegetation <u>X</u> Dominance test is >50% <u>X</u> 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
Herb stratum (Plot size: <u>5</u>)	Absolute % Cover	Dominant Species	Indicator Status	
1 <u>Phalaris arundinacea</u>	<u>85</u>	<u>Y</u>	<u>FACW</u>	
2 <u>Urtica dioica</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
3 <u>Cirsium arvense</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
4 <u>Impatiens capensis</u>	<u>2</u>	<u>N</u>	<u>FACW</u>	
5 _____	_____	_____	_____	
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
8 _____	_____	_____	_____	
9 _____	_____	_____	_____	
10 _____	_____	_____	_____	
<u>97</u> = Total Cover				Hydrophytic vegetation present? <u>Y</u>
Woody vine stratum (Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Status	
1 _____	_____	_____	_____	
2 _____	_____	_____	_____	
<u>0</u> = Total Cover				

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

SOIL

Sampling Point: W1-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**		
24	N 2.5/	100					muck	

*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 X Depth (inches): _____
 Water table present? Yes _____ No X Depth (inches): _____
 Saturation present? Yes _____ No X Depth (inches): _____
 (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 Doran Plymouth City/County: Plymouth Sampling Date: 4/28/21
 Applicant/Owner: Doran Companies State: MN Sampling Point: W2-up
 Investigator(s): Matt Summers, Nick Omodt Section, Township, Range: S36 T118N R22W
 Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): convex
 Slope (%): <5 Lat: 44.98540558 Long: -93.40638949 Datum: _____
 Soil Map Unit Name L30A Medo muck NWI Classification: None

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

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: _____
Hydic soil present? <u>N</u>	
Indicators of wetland hydrology present? <u>N</u>	

Remarks: (Explain alternative procedures here or in a separate report.)
 The overall project area is significantly disturbed due to development activities. Bassett Creek used to flow through this project area but was re-aligned in the 1970s for urban development. Much of the project area has been graded, filled, and paved. Lawn areas are mowed.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species	Indicator Staus	Dominance Test Worksheet	
1 _____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A)	
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</u>)	Absolute % Cover	Dominant Species	Indicator Staus	Prevalence Index Worksheet	
1 _____	_____	_____	_____	Total % Cover of:	
2 _____	_____	_____	_____	OBL species <u>0</u> x 1 = <u>0</u>	
3 _____	_____	_____	_____	FACW species <u>0</u> x 2 = <u>0</u>	
4 _____	_____	_____	_____	FAC species <u>90</u> x 3 = <u>270</u>	
5 _____	_____	_____	_____	FACU species <u>0</u> x 4 = <u>0</u>	
<u>0</u> = Total Cover				UPL species <u>0</u> x 5 = <u>0</u>	
<u>0</u> = Total Cover				Column totals <u>90</u> (A) <u>270</u> (B)	
<u>90</u> = Total Cover				Prevalence Index = B/A = <u>3.00</u>	
Herb stratum (Plot size: <u>5</u>)	Absolute % Cover	Dominant Species	Indicator Staus	Hydrophytic Vegetation Indicators:	
1 <u>Poa pratensis</u>	<u>90</u>	<u>Y</u>	<u>FAC</u>	____ Rapid test for hydrophytic vegetation	
2 _____	_____	_____	_____	<u>X</u> Dominance test is >50%	
3 _____	_____	_____	_____	<u>X</u> Prevalence index is ≤3.0*	
4 _____	_____	_____	_____	Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)	
5 _____	_____	_____	_____	____ Problematic hydrophytic vegetation* (explain)	
6 _____	_____	_____	_____		
7 _____	_____	_____	_____		
8 _____	_____	_____	_____		
9 _____	_____	_____	_____		
10 _____	_____	_____	_____		
<u>90</u> = Total Cover				*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
Woody vine stratum (Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Staus	Hydrophytic vegetation present? <u>Y</u>	
1 _____	_____	_____	_____		
2 _____	_____	_____	_____		
<u>0</u> = Total Cover					

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

SOIL

Sampling Point: W2-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**		
14	mixed	100					loamy dredge spoil fill	lots of small shells
24	10YR 2/1	100					muck	buried topsoil, dry, small shells

*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 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? <u> N </u>
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Remarks:
 Buried hydric soil. Does not appear likely to meet hydric hydrology criteria. Bassett Creek and an associated wetland used to be in this location. Site was filled and graded for development in the 1970s.

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"/> 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 type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Gauge or Well Data (D9)	<input 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 _____ No <u> X </u> Depth (inches): _____ Water table present? Yes _____ No <u> X </u> Depth (inches): _____ Saturation present? Yes _____ No <u> X </u> Depth (inches): _____ (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 Doran Plymouth City/County: Plymouth Sampling Date: 4/28/21
 Applicant/Owner: Doran Companies State: MN Sampling Point: W2-wet
 Investigator(s): Matt Summers, Nick Omodt Section, Township, Range: S36 T118N R22W
 Landform (hillslope, terrace, etc.): Basin Local relief (concave, convex, none): concave
 Slope (%): n/a Lat: 44.98536221 Long: -93.40636365 Datum: _____
 Soil Map Unit Name L30A Medo muck NWI Classification: PUBHx

Are climatic/hydrologic conditions of the site typical for this time of the year? _____ (If no, explain in remarks)
 Are vegetation X, soil X, or hydrology X 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: <u>Wetland 2</u>
Hydric soil present? <u>Y</u>	
Indicators of wetland hydrology present? <u>Y</u>	

Remarks: (Explain alternative procedures here or in a separate report.)
 The overall project area is significantly disturbed due to development activities. Bassett Creek used to flow through this project area but was re-aligned in the 1970s for urban development. Much of the project area has been graded, filled, and paved. Lawn areas are mowed.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species	Indicator Staus	Dominance Test Worksheet	
1 _____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A)	
2 _____	_____	_____	_____	Total Number of Dominant Species Across all Strata: <u>0</u> (B)	
3 _____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: <u>0.00%</u> (A/B)	
4 _____	_____	_____	_____		
5 _____	_____	_____	_____		
<u>0</u> = Total Cover					
Sapling/Shrub stratum (Plot size: <u>15</u>)	Absolute % Cover	Dominant Species	Indicator Staus	Prevalence Index Worksheet	
1 _____	_____	_____	_____	Total % Cover of:	
2 _____	_____	_____	_____	OBL species <u>0</u> x 1 = <u>0</u>	
3 _____	_____	_____	_____	FACW species <u>0</u> x 2 = <u>0</u>	
4 _____	_____	_____	_____	FAC species <u>0</u> x 3 = <u>0</u>	
5 _____	_____	_____	_____	FACU species <u>0</u> x 4 = <u>0</u>	
	_____	_____	_____	UPL species <u>0</u> x 5 = <u>0</u>	
<u>0</u> = Total Cover				Column totals <u>0</u> (A) <u>0</u> (B)	
				Prevalence Index = B/A = _____	
Herb stratum (Plot size: <u>5</u>)	Absolute % Cover	Dominant Species	Indicator Staus	Hydrophytic Vegetation Indicators:	
1 _____	_____	_____	_____	____ Rapid test for hydrophytic vegetation	
2 _____	_____	_____	_____	____ Dominance test is >50%	
3 _____	_____	_____	_____	____ Prevalence index is ≤3.0*	
4 _____	_____	_____	_____	____ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)	
5 _____	_____	_____	_____	____ Problematic hydrophytic vegetation* <u>X</u> (explain)	
6 _____	_____	_____	_____	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
7 _____	_____	_____	_____		
8 _____	_____	_____	_____		
9 _____	_____	_____	_____		
10 _____	_____	_____	_____		
<u>0</u> = Total Cover					
Woody vine stratum (Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Staus	Hydrophytic vegetation present? <u>Y</u>	
1 _____	_____	_____	_____		
2 _____	_____	_____	_____		
<u>0</u> = Total Cover					

Remarks: (Include photo numbers here or on a separate sheet)
 Excavated open water basin. No vegetation within the basin. Abrupt, steep banks lead to mowed upland lawn area

SOIL

Sampling Point: W2-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**		
14	10YR 2/1	100					muck and sediment	
24	10YR 4/1	100					mucky silt loam	lots of small shells

*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:

Excavated basin, receives directed stormwater from nearby parking lot.

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 X No _____ Depth (inches): 10
 Water table present? Yes X No _____ Depth (inches): 0
 Saturation present? Yes X No _____ Depth (inches): 0
 (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 Doran Plymouth City/County: Plymouth Sampling Date: 4/28/21
 Applicant/Owner: Doran Companies State: MN Sampling Point: W3-up
 Investigator(s): Matt Summers, Nick Omodt Section, Township, Range: S36 T118N R22W
 Landform (hillslope, terrace, etc.): Rise (fill) Local relief (concave, convex, none): convex
 Slope (%): n/a Lat: 44.98534381 Long: -93.40588137 Datum: _____
 Soil Map Unit Name L30A Medo muck IWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? _____ (If no, explain in remarks)
 Are vegetation X, soil X, or hydrology X 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>N</u> If yes, optional wetland site ID: _____
Hydric soil present? <u>N</u>	
Indicators of wetland hydrology present? <u>N</u>	

Remarks: (Explain alternative procedures here or in a separate report.)
 The overall project area is significantly disturbed due to development activities. Bassett Creek used to flow through this project area but was re-aligned in the 1970s for urban development. Much of the project area has been graded, filled, and paved. Lawn areas are mowed.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet
1 _____	_____	_____	_____	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>100.00%</u> (A/B)
2 _____	_____	_____	_____	
3 _____	_____	_____	_____	
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
<u>0</u> = Total Cover				
Sapling/Shrub stratum (Plot size: <u>15</u>)				
1 _____	_____	_____	_____	Prevalence Index Worksheet Total % Cover of: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>90</u> x 3 = <u>270</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column totals <u>90</u> (A) <u>270</u> (B) Prevalence Index = B/A = <u>3.00</u>
2 _____	_____	_____	_____	
3 _____	_____	_____	_____	
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
<u>0</u> = Total Cover				
Herb stratum (Plot size: <u>5</u>)				
1 <u>Poa pratensis</u>	<u>90</u>	<u>Y</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: _____ Rapid test for hydrophytic vegetation <u>X</u> Dominance test is >50% <u>X</u> 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
2 _____	_____	_____	_____	
3 _____	_____	_____	_____	
4 _____	_____	_____	_____	
5 _____	_____	_____	_____	
6 _____	_____	_____	_____	
7 _____	_____	_____	_____	
8 _____	_____	_____	_____	
9 _____	_____	_____	_____	
10 _____	_____	_____	_____	
<u>90</u> = Total Cover				
Woody vine stratum (Plot size: _____)				
1 _____	_____	_____	_____	Hydrophytic vegetation present? <u>Y</u>
2 _____	_____	_____	_____	
<u>0</u> = Total Cover				

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

SOIL

Sampling Point: W3-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**		
17	mixed	100					loamy dredge spoil fill	
26	N 2.5/	100					muck	buried topsoil, shells present

*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? N

Remarks:

Buried hydric soil, likely no longer meets hydric hydrology criteria.

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): _____
 Saturation present? Yes No Depth (inches): _____
 (includes capillary fringe)

Indicators of wetland hydrology present? N

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

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site Doran Plymouth City/County: Plymouth Sampling Date: 4/28/21
 Applicant/Owner: Doran Companies State: MN Sampling Point: W3-wet
 Investigator(s): Matt Summers, Nick Omodt Section, Township, Range: S36 T118N R22W
 Landform (hillslope, terrace, etc.): Basin Local relief (concave, convex, none): concave
 Slope (%): n/a Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name L30A Medo muck IWI Classification: PUBHx

Are climatic/hydrologic conditions of the site typical for this time of the year? _____ (If no, explain in remarks)
 Are vegetation X, soil X, or hydrology X 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: <u>Wetland 3</u>
Hydric soil present? <u>Y</u>	
Indicators of wetland hydrology present? <u>Y</u>	

Remarks: (Explain alternative procedures here or in a separate report.)
 The overall project area is significantly disturbed due to development activities. Bassett Creek used to flow through this project area but was re-aligned in the 1970s for urban development. Much of the project area has been graded, filled, and paved. Lawn areas are mowed.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species	Indicator Staus	Dominance Test Worksheet	
1 _____	_____	_____	_____	Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A)	
2 _____	_____	_____	_____	Total Number of Dominant Species Across all Strata: <u>0</u> (B)	
3 _____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: <u>0.00%</u> (A/B)	
4 _____	_____	_____	_____		
5 _____	_____	_____	_____		
<u>0</u> = Total Cover					
Sapling/Shrub stratum (Plot size: <u>15</u>)	Absolute % Cover	Dominant Species	Indicator Staus	Prevalence Index Worksheet	
1 _____	_____	_____	_____	Total % Cover of:	
2 _____	_____	_____	_____	OBL species <u>0</u> x 1 = <u>0</u>	
3 _____	_____	_____	_____	FACW species <u>0</u> x 2 = <u>0</u>	
4 _____	_____	_____	_____	FAC species <u>0</u> x 3 = <u>0</u>	
5 _____	_____	_____	_____	FACU species <u>0</u> x 4 = <u>0</u>	
	_____	_____	_____	UPL species <u>0</u> x 5 = <u>0</u>	
<u>0</u> = Total Cover				Column totals <u>0</u> (A) <u>0</u> (B)	
Herb stratum (Plot size: <u>5</u>)	Absolute % Cover	Dominant Species	Indicator Staus	Prevalence Index = B/A = _____	
1 _____	_____	_____	_____	Hydrophytic Vegetation Indicators:	
2 _____	_____	_____	_____	___ Rapid test for hydrophytic vegetation	
3 _____	_____	_____	_____	___ Dominance test is >50%	
4 _____	_____	_____	_____	___ Prevalence index is ≤3.0*	
5 _____	_____	_____	_____	Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)	
6 _____	_____	_____	_____	___ Problematic hydrophytic vegetation* <u>X</u> (explain)	
7 _____	_____	_____	_____	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
8 _____	_____	_____	_____	Hydrophytic vegetation present? <u>Y</u>	
9 _____	_____	_____	_____		
10 _____	_____	_____	_____		
<u>0</u> = Total Cover					
Woody vine stratum (Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Staus		
1 _____	_____	_____	_____		
2 _____	_____	_____	_____		
<u>0</u> = Total Cover					

Remarks: (Include photo numbers here or on a separate sheet)
 Excavated open water basin. No vegetation within the basin. Abrupt, steep banks lead to mowed upland lawn area

SOIL

Sampling Point: W3-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**		
13	10YR 2/1	100					muck and sediment	
24	10YR 4/1	100					mucky silt 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:

Excavated basin

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 X No _____ Depth (inches): 12
 Water table present? Yes _____ No X Depth (inches): _____
 Saturation present? Yes _____ No X Depth (inches): _____
 (includes capillary fringe)

Indicators of wetland hydrology present? Y

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

Remarks:

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: Doran RE Partners, LLC

Mailing Address: 7803 Glenroy Road, Suite 200
Bloomington, MN 55439

Phone: 952-288-2089

E-mail Address:

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

Mailing Address: above

Phone: 952-288-2089

E-mail Address: Cody.dietrich@dorancompanies.com

Agent Name: Matthew Summers, Stantec

Mailing Address: 2080 Wooddale Drive, Suite 100, Woodbury, MN 55125

Phone: 612-227-0017

E-mail Address: matthew.summers@stantec.com

PART TWO: Site Location Information

County: Hennepin

City/Township: Plymouth

Parcel ID and/or Address: 10000 Highway 55 (PIDs 3611822130010 and 3611822420018)

Legal Description (Section, Township, Range): SE1/4 S36 T118 R22

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): 7.5 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.

This is an application for a wetland delineation type and boundary approval for re-development purposes.

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. I hereby authorize **STANTEC CONSULTING SERVICES INC.** to act on my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this application.

Signature:  Date: 6/24/2021

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 Boundary and 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

06/30/2021

Regulatory File No. MVP-2021-01253-MJB

THIS IS NOT A PERMIT

Matthew Summers
Stantec Consulting Services Inc.
2080 Wooddale Drive
Woodbury, MN 55125

Dear Mr. Summers:

We have received your submittal described below. You may contact the Project Manager with questions regarding the evaluation process. The Project Manager may request additional information necessary to evaluate your submittal.

File Number: MVP-2021-01253-MJB

Applicant: Cody Dietrich

Project Name: 10000 Highway 55

Project Location: Section 36 of Township 118 N North, Range 22 W, Hennepin County, Minnesota (Latitude: 44.9848495223683; Longitude: -93.4061604699005)

Received Date: 06/29/2021

Project Manager: Meghan Brown
(651) 290-5688
Meghan.J.Brown@usace.army.mil

Additional information about the St. Paul District Regulatory Program can be found on our web site at <http://www.mvp.usace.army.mil/missions/regulatory>.

Please note that initiating work in waters of the United States prior to receiving Department of the Army authorization could constitute a violation of Federal law. If you have any questions, please contact the Project Manager.

Thank you.

U.S. Army Corps of Engineers
St. Paul District
Regulatory Branch

Minnesota Wetland Conservation Act Notice of Application

Local Government Unit: City of Plymouth	County: Hennepin
Applicant Name: Hollydale Golf Course Development, Inc.	
Applicant Representative: Melissa Barrett, Kjolhaug Environmental Services	
Project Name: Hollydale Sanitary Sewer Connection	
LGU Project No. (if any): 2021-12	
Date Complete Application Received by LGU: 7-19-2021	
Date this Notice was Sent by LGU: 8-10-2021	
Date that Comments on this Application Must Be Received By LGU¹: 9-1-2021	

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 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 checked="" 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 checked="" 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:
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Application Materials

<input checked="" type="checkbox"/> Attached <input type="checkbox"/> Other ¹ (specify):

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, Water Resources Supervisor
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: Melissa Collins, 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 N, Eden Prairie MN 55346
<input checked="" type="checkbox"/> Applicant (notice only): Hollydale Golf Course Development, Inc. c/o Jake Walesch, 10850 Old County Road 15, suite 200, Plymouth MN 55441
<input checked="" type="checkbox"/> Agent/Consultant (notice only): Melissa Barrett, Kjolhaug Environmental Services, 2500 Shadyview Road, Suite 130, Orono MN 55331

Optional or As Applicable:

<input checked="" type="checkbox"/> Corps of Engineers:

<input type="checkbox"/> BWSR Wetland Mitigation Coordinator (required for bank plan applications only):
<input checked="" type="checkbox"/> Members of the Public (notice only): David & Janet Klis, 16710 45th Avenue North, Plymouth MN 55446 Fan Fan 16720 45th Avenue North, Plymouth MN 55446 Jean Bachman 16730 45th Avenue North, Plymouth MN 55446 <input checked="" type="checkbox"/> Other:

Signature: 	Date: 08/10/2021
--	----------------------------

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.



KJOLHAUG ENVIRONMENTAL SERVICES COMPANY

Providing Sound, Balanced, Comprehensive Natural Resource Solutions

Memorandum

Date: July 15, 2021

To: Ben Scharenbroich, City of Plymouth
Project Manager, U.S. Army Corps of Engineers (USACE)

Cc: Jake Walesch, Hollydale Golf Course Development, Inc.
Eric Johnson, Sathre-Berquist

From: Melissa Barrett, Kjolhaug Environmental Services Company

Re: WCA Utility Exemption Application
USACE Utility Regional General Permit Application
Hollydale Sanitary Sewer Connection, Plymouth (KES#2021-100)

The Hollydale Sanitary Sewer Connection project is located in Section 8, Township 118 North, Range 22 West, City of Plymouth, Hennepin County, Minnesota. The project site is generally situated north of MN State Highway 55 and west of Vicksburg Lane (**Figure 1**).

The Joint Application Form for Activities Affecting Water Resources in Minnesota is included as **Attachment A**.

Wetland Delineation

Nine (9) wetlands delineated on the project site by Kjolhaug Environmental Services (KES) in August of 2019 (**Figure 2**). The previously submitted ***Hollydale Golf Course Wetland Delineation Report*** discussed the delineation in more detail and included National Wetland Inventory (NWI) and soil survey mapping. Copies of the report and delineation approvals are available upon request.

Proposed Project

The purpose of the project is to connect sanitary sewer associated with the Hollydale residential development to existing sewer located along the south-central site boundary. Installation of the new sewer line will result in 20,482 sf (0.47-ac) of temporary excavation impact to Wetland 6 (**Figure 2 and Attachment B**). Once the new utilities have been installed, Wetland 6 will be restored to pre-existing grades and will be seeded with State Seed Mix 34-371 (Wet Meadow Northeast).

Requested Approvals

According to MN WCA Rule Mn WCA Rule 8420.0420 EXEPMTION STANDARDS Subp.6.
Utilities:

"A. A replacement plan is not required for impacts resulting from: (1) installation, maintenance, repair, or replacement of utility lines, including pipelines, if: (a) the impacts have been avoided and minimized to the extent possible; and (b) the proposed project significantly modifies or alters less than one-half acre of wetlands."

Proposed impact to Wetland 6 has been minimized to the extent possible by only excavating within that portion of Wetland 6 required for sewer installation. The temporary impact amount (0.47-ac) is less than one-half acre. With submission of this memo, we are requesting that the City of Plymouth provide concurrence that the proposed temporary impact to Wetland 6 qualifies for a WCA Utility Exemption.

The proposed plan also meets U.S. Army Corps of Engineers (USACE) Utility Regional General Permit (RGP) criteria. Because the 0.47-ac of temporary excavation impact to Wetland 6 will not result in the cumulative permanent loss of 0.5 acre or greater of waters of the U.S., a permit from the USACE is not required.

Thank you.

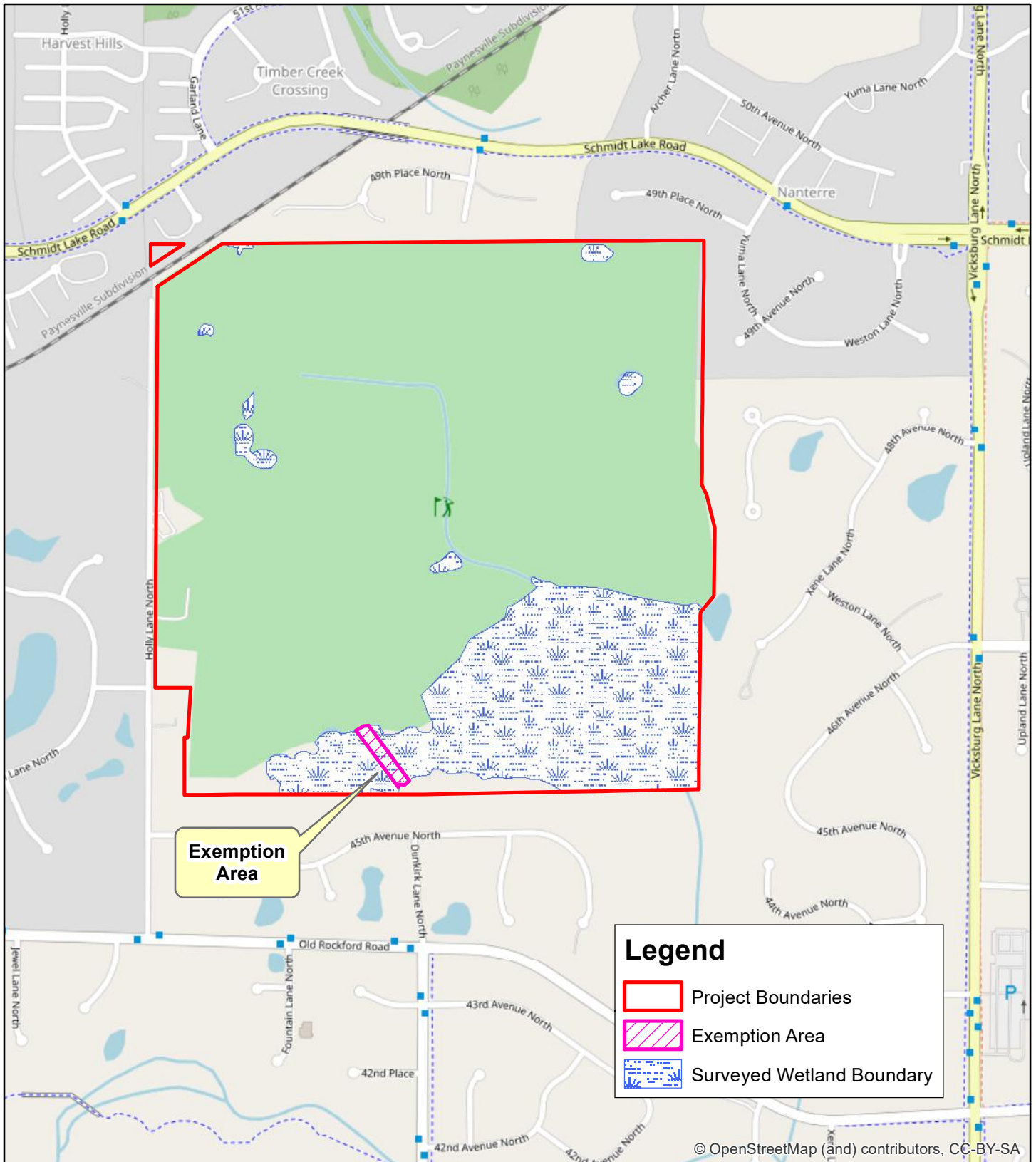


Figure 1 - Site Location & Exemption Area



KJOLHAUG ENVIRONMENTAL SERVICES COMPANY
Source: ESRI Streets Basemap

N



0 750
Feet



Hollydale Utility Exemption (KES 2021-100)
Plymouth, Minnesota

Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.

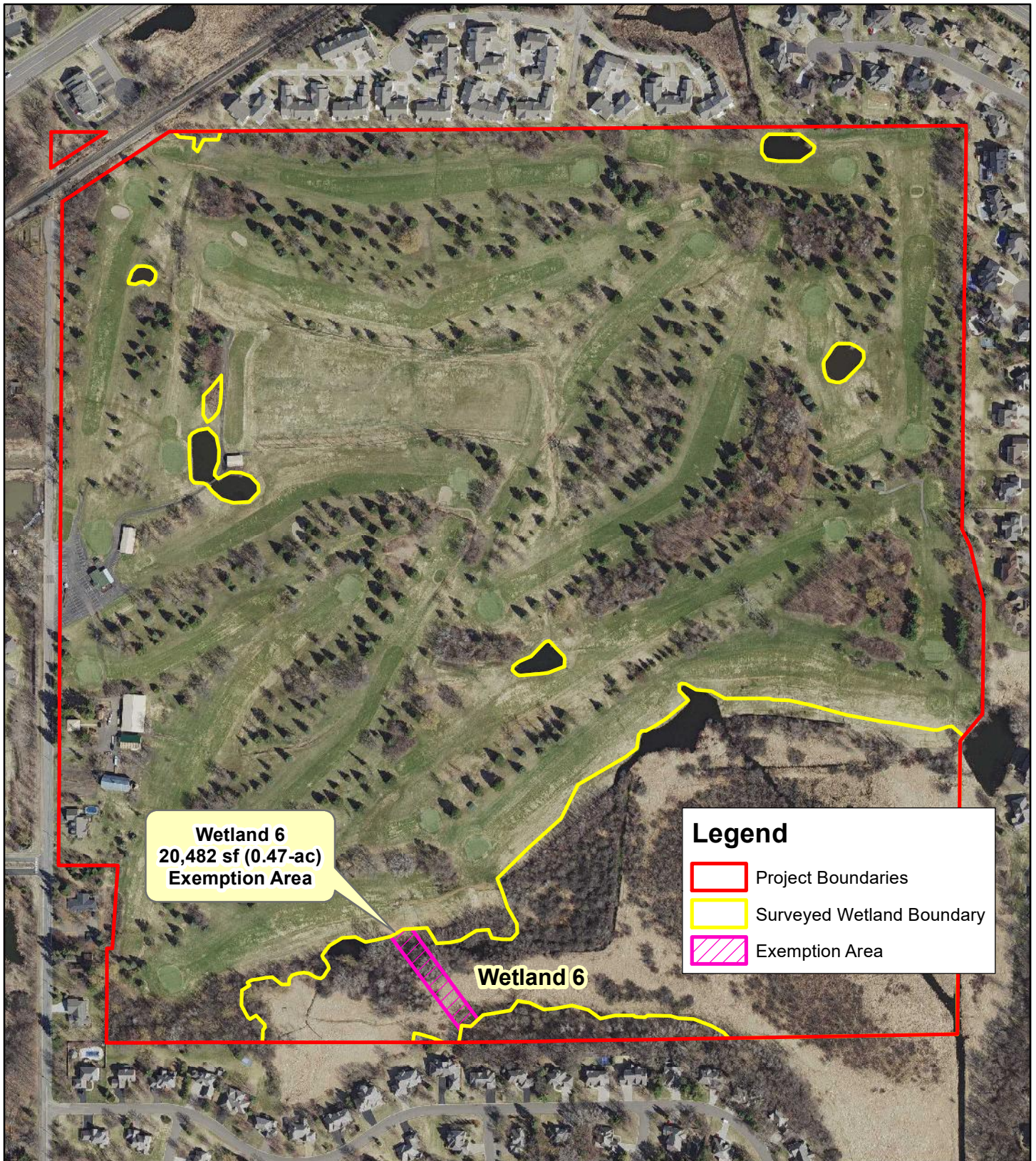


Figure 2 - Existing Conditions



N



0 500



Feet

Hollydale Utility Exemption (KES 2021-100)
Plymouth, Minnesota

Note: Boundaries indicated on this figure are approximate and do not constitute an official survey product.

KJOLHAUG ENVIRONMENTAL SERVICES COMPANY
Source: MNGEO Spatial Commons

Hollydale Sanitary Sewer Connection, Plymouth

Attachment A

Minnesota Joint Application Form for Activities Affecting Water Resources

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: Jake Walesch, Hollydale Golf Course Development, Inc.

Mailing Address: 10850 Old County Road 15, Suite 200, Plymouth MN 55441

Phone: 612-749-1360

E-mail Address: Jake@Jakewalesch.com

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

Mailing Address:

Phone:

E-mail Address:

Agent Name: Melissa Barrett, Kjolhaug Environmental Services

Mailing Address: 2500 Shadywood Road, Suite 130, Orono, MN 55331

Phone: 952-388-3752

E-mail Address: melissa@kjolhaugenv.com

PART TWO: Site Location Information

County: Hennepin

City/Township: Plymouth

Parcel ID and/or Address: 0811822340014, 0811822310001

Legal Description (Section, Township, Range): Sec 8, T118, R22

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): 0.47-ac

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.

See attached utility exemption memo.

Attachment B

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

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

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

MN WCA Rule Mn WCA Rule 8420.0420 EXEMPTION STANDARDS Subp.6. Utilities: "A. A replacement plan is not required for impacts resulting from: (1) installation, maintenance, repair, or replacement of utility lines, including pipelines, if: (a) the impacts have been avoided and minimized to the extent possible; and (b) the proposed project significantly modifies or alters less than one-half acre of wetlands."

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

See attached utility exemption memo.

Attachment C

Avoidance and Minimization

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

See attached utility exemption memo.

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

See attached utility exemption memo.

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

See attached utility exemption memo.

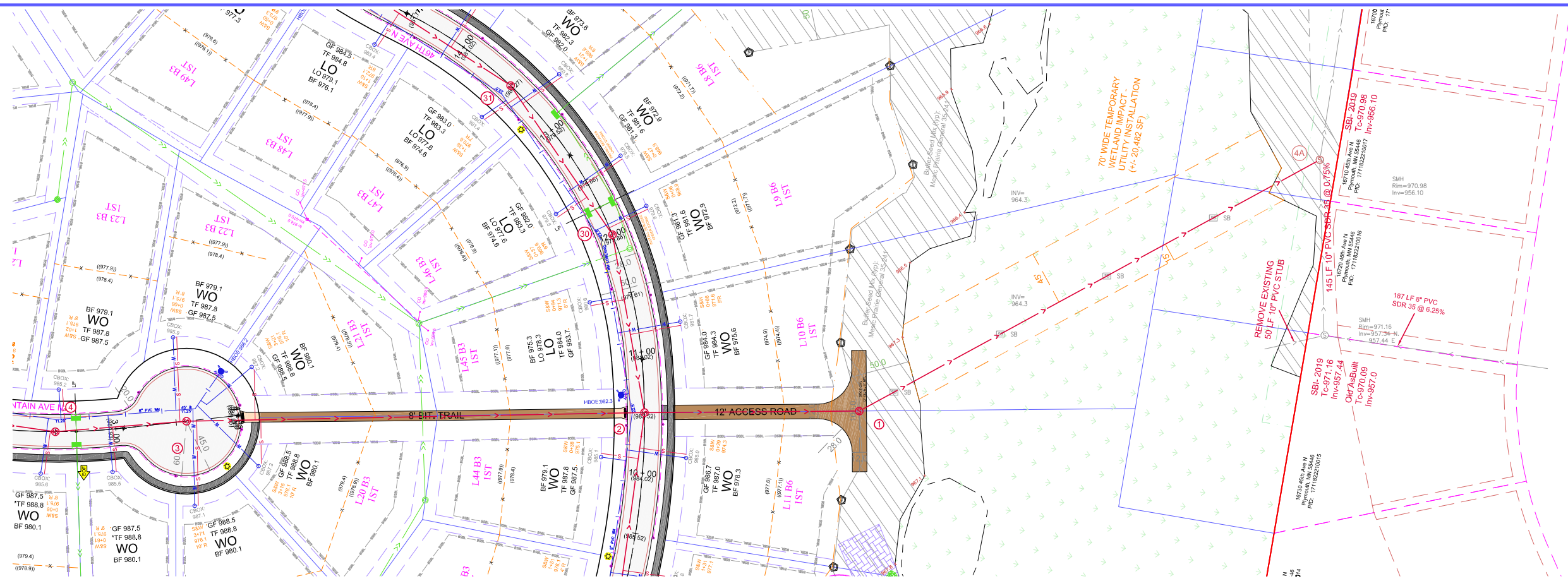
Off-Site Alternatives. An off-site alternatives analysis is not required for all permit applications. If you know that your proposal will require an individual permit (standard permit or letter of permission) from the U.S. Army Corps of Engineers, you may be required to provide an off-site alternatives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

NA

Hollydale Sanitary Sewer Connection, Plymouth

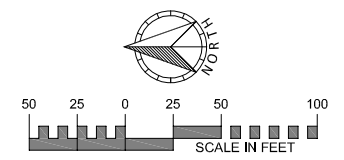
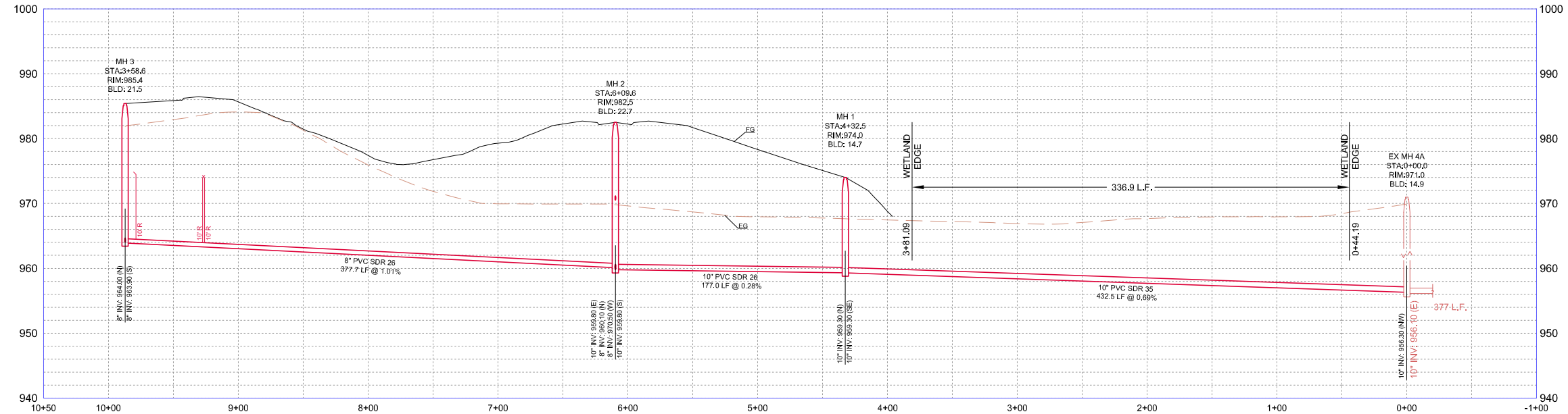
Attachment B

Sanitary Sewer Plan



SANITARY SEWER CONNECTION (SOUTH)

DESCRIPTION	PROPOSED	EXISTING
BUILDING SETBACK LINE	B'SBL	B'SBL
GARAGE SETBACK LINE	G'SBL	G'SBL
PARCEL BOUNDARY LINE		
DRAINAGE AND UTILITY EASEMENTS		
CURB AND GUTTER		
RIGHT-OF-WAY		
SAN/WM SERVICE		
BACKYARD CATCH BASIN		
CATCH BASIN		
STORM SEWER MANHOLE		
FLARED END SECTION WRIP-RAP		
STORM STRUCTURE LABEL	CS H3	CS H3
SANITARY STRUCTURE LABEL		
SANITARY SEWER MANHOLE		
WATERMAIN		
HYDRANT		
GATE VALVE		
DRAIN TILE / CLEANOUT		
PLASTIC CATCHBASIN		



EXISTING UTILITIES SHOWN ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ANY AND ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES ARISING OUT OF HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL EXISTING UTILITIES.

DRAWING NAME	NO.	BY	DATE	REVISIONS
HD - SW				
DRAWN BY				
CHECKED BY				
DATE				
06/30/21				

USE (INCLUDING COPYING, DISTRIBUTION, AND/OR CONVEYANCE OF INFORMATION) OF THIS PRODUCT IS STRICTLY PROHIBITED WITHOUT SATHRE-BERGQUIST, INC.'S EXPRESS WRITTEN AUTHORIZATION. USE WITHOUT SAID AUTHORIZATION CONSTITUTES AN ILLEGITIMATE USE AND SHALL THEREBY INDEMNIFY SATHRE-BERGQUIST, INC. OF ALL RESPONSIBILITY. SATHRE-BERGQUIST, INC. RESERVES THE RIGHT TO HOLD ANY ILLEGITIMATE USER OR PARTY LEGALLY RESPONSIBLE FOR DAMAGES OR LOSSES RESULTING FROM ILLEGITIMATE USE.

I HEREBY CERTIFY THAT THIS PLAN OR SPECIFICATION WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Robert S. Molstad
 ROBERT S. MOLSTAD, P.E.
 Date: 06/30/21 Lic. No. 26428

ENGINEERS SURVEYORS DESIGNERS PLANNERS

SATHRE-BERGQUIST, INC.
 150 SOUTH BROADWAY WAYZATA, MN. 55391 (952) 476-6000

CITY PROJECT NO.
 --
 PLYMOUTH, MINNESOTA

FINAL SANITARY SEWER & WATERMAIN PLAN
 HOLLYDALE
 HOLLYDALE GC DEVELOPMENT, INC

FILE NO.
 3120-077
 13
 48

Minnesota Wetland Conservation Act Notice of Decision

Local Government Unit: City of Plymouth	County: Hennepin
Applicant Name: Stan and Marlys Nederhoff	
Applicant Representative: Dylan Kruzel	
Project Name: 18005 30th Avenue North	
LGU Project No. (if any): 2021-09	
Date Complete Application Received by LGU: 6/11/2021	
Date of LGU Decision: 8/10/2021	
Date this Notice was Sent: 8/10/2021	

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 Wetland Impact Area:
Wetland Replacement Type: <input type="checkbox"/> Project Specific Credits: <input type="checkbox"/> Bank Credits:
Bank Account Number(s):

Technical Evaluation Panel Findings and Recommendations (attach if any)

<input type="checkbox"/> Approve <input type="checkbox"/> Approve w/Conditions <input type="checkbox"/> Deny <input checked="" type="checkbox"/> No TEP Recommendation
--

LGU Decision

<input type="checkbox"/> Approved with Conditions (specify below) ¹ List Conditions:	<input checked="" type="checkbox"/> Approved ¹	<input type="checkbox"/> Denied
Decision-Maker for this Application: <input checked="" type="checkbox"/> Staff <input type="checkbox"/> Governing Board/Council <input type="checkbox"/> Other:		
Decision is valid for: <input checked="" type="checkbox"/> 5 years (default) <input type="checkbox"/> Other (specify):		

¹ *Wetland Replacement Plan approval is not valid until BWSR confirms the withdrawal of any required wetland bank credits. For project-specific replacement a financial assurance per MN Rule 8420.0522, Subp. 9 and evidence that all required forms have been recorded on the title of the property on which the replacement wetland is located must be provided to the LGU for the approval to be valid.*

LGU Findings – Attach document(s) and/or insert narrative providing the basis for the LGU decision¹.

<input checked="" type="checkbox"/> Attachment(s) (specify):
<input checked="" type="checkbox"/> Summary: The wetland boundary is approved as presented in the report

¹ *Findings must consider any TEP recommendations.*

Attached Project Documents

<input checked="" type="checkbox"/> Site Location Map <input type="checkbox"/> Project Plan(s)/Descriptions/Reports (specify):
--

Appeals of LGU Decisions

If you wish to appeal this decision, you must provide a written request within 30 calendar days of the date you received the notice. All appeals must be submitted to the Board of Water and Soil Resources Executive Director along with a check payable to BWSR for \$500 *unless* the LGU has adopted a local appeal process as identified below. The check must be sent by mail and the written request to appeal can be submitted by mail or e-mail. The appeal should include a copy of this notice, name and contact information of appellant(s) and their representatives (if applicable), a statement clarifying the intent to appeal and supporting information as to why the decision is in error. Send to:

Appeals & Regulatory Compliance Coordinator
 Minnesota Board of Water & Soils Resources
 520 Lafayette Road North
 St. Paul, MN 55155
travis.germundson@state.mn.us

Does the LGU have a local appeal process applicable to this decision?

Yes¹ No

¹If yes, all appeals must first be considered via the local appeals process.

Local Appeals Submittal Requirements (LGU must describe how to appeal, submittal requirements, fees, etc. as applicable)

--


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 checked="" type="checkbox"/> LGU TEP Member (if different than LGU contact):	Ben Scharenbroich, 3400 Plymouth Blvd, Plymouth MN 55447
<input checked="" type="checkbox"/> DNR Representative:	Melissa Collins, 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.:	MCWD, 15320 Minnetonka Blvd Minnetonka MN 55345
<input checked="" type="checkbox"/> Applicant:	Stan and Marlys Nederhoff, 3 Quarry Road, Mason City IA 50410
<input checked="" type="checkbox"/> Agent/Consultant:	Dylan Kruzel, Anderson Engineering, 13605 1st Avenue N, Suite 100 Plymouth MN 55441

Optional or As Applicable:

<input checked="" type="checkbox"/> Corps of Engineers:	USACOE c/o Samantha Coungeris, 180 5th Street East, Suite 700, St. Paul MN 55101-1678
<input type="checkbox"/> BWSR Wetland Mitigation Coordinator (required for bank plan applications only):	
<input type="checkbox"/> Members of the Public (notice only):	<input type="checkbox"/> Other:

Signature: 	Date: 08/10/2021
--	----------------------------

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

Minnesota Wetland Conservation Act Notice of Application

Local Government Unit: City of Plymouth	County: Hennepin
Applicant Name: Stan & Marlys Nederhoff	
Applicant Representative: Dylan Kruzel	
Project Name: 18005 30th Avenue North	
LGU Project No. (if any): 2021-09	
Date Complete Application Received by LGU: 6/11/2021	
Date this Notice was Sent by LGU: 6/21/2021	
Date that Comments on this Application Must Be Received By LGU¹: 7/14/2021	

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 type="checkbox"/> Other ¹ (specify):

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, Water Resources Supervisor
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: Melissa Collins, 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.: MCWD, 15320 Minnetonka Blvd, Minnetonka MN 55345 BCWMC c/o Laura Jester, 16145 Hillcrest Lane, Eden Prairie MN 55346
<input checked="" type="checkbox"/> Applicant (notice only): Stan and Marlys Nederhoff, 3 Quarry Road, Mason City IA 50401
<input checked="" type="checkbox"/> Agent/Consultant (notice only): Dylan Kruzel, Anderson Engineering, 13605 1st Avenue N, Suite 100 Plymouth MN 55441

Optional or As Applicable:

<input checked="" type="checkbox"/> Corps of Engineers: USACOE c/o Samantha Coungeris, 180 5th Street East, Suite 700, St. Paul MN 55101-1678
--

<input type="checkbox"/> BWSR Wetland Mitigation Coordinator (required for bank plan applications only):	
<input type="checkbox"/> Members of the Public (notice only):	<input type="checkbox"/> Other:

Signature: 	Date: 6/21/2021
--	---------------------------

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 INVESTIGATION
NEDERHOFF PROPERTY

18005 30TH AVE N
(PID: 1911822420035)
PLYMOUTH, MINNESOTA

MAY 20TH, 2021
AE JOB NO. 16497



ANDERSON

13605 1st Avenue North #100, Plymouth, MN 55441

P 763.412.4000 F 763.412.4090

ae-mn.com

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- Appendix B ROUTINE ON-SITE DETERMINATION METHOD DATASHEETS
- Appendix C ANTECEDENT PRECIPITATION RECORD
- Appendix D MINNESOTA ROUTINE ASSESSMENT METHODOLOGY (MnRAM)
- Appendix E CREDENTIALS

CONTACT INFORMATION

PREPARED FOR:

Marlys Nederhoff
3 Quarry Road
Mason City, Iowa 50401
(641) 424-2375
nederhoff2003@yahoo.com

PREPARED BY:

Dylan Kruzel
Environmental Scientist

Alex Yellick
Senior Environmental Scientist
Certified MN Wetland Delineator #1354

Ben Hodapp
Environmental Services Manager
Certified MN Wetland Delineator #1016
bhodapp@ae-mn.com

Anderson Engineering of Minnesota, LLC
13605 1st Avenue North
Suite 100
Plymouth, MN 55441
Phone: (763) 412-4000
Fax: (763) 412-4090

EXECUTIVE SUMMARY

Anderson Engineering of Minnesota, LLC was retained to provide professional wetland services using the 1987 United States Army Corps of Engineers Wetland Delineation Manual (Technical Report Y-87-1; January 1987) and all supplemental guidance documents to identify areas meeting wetland criteria at Hennepin County parcel 1911822420035 located at 18005 30th Avenue North in Plymouth, Minnesota. The parcel is in Section 19, Township 118 North, Range 22 West.

One delineated aquatic resources or, portions thereof, was identified and delineated within the project area and summarized in Table 1 and depicted in Appendix A, Figure 5.

Table 1. Summary of delineated aquatic resources, corresponding sizes, and wetland type classifications.

WETLAND	APPROXIMATE SIZE (ac) within project area	WETLAND TYPE CLASSIFICATION			MnRAM Classification
		CIRCULAR 39	COWARDIN	EGGERS & REED	
1	0.01	Type 2	PEM1B	Fresh Wet Meadow	Manage 2

BACKGROUND

As requested by Marlys Nederhoff, Anderson Engineering of Minnesota, LLC completed a wetland investigation at Hennepin County parcel 1911822420035 located at 18005 30th Avenue North in Plymouth, Minnesota. (Appendix A, Figure 1). The parcel is in Section 19, Township 118 North, Range 22 West.

The wetland delineation was completed in accordance with the 1987 United States Army Corps of Engineers Wetland Delineation Manual and the published regional supplement to the Army Corps Wetland Delineation Manual, Midwest Regional Supplement.

The purpose of this study was to identify areas meeting the technical criteria for wetlands, delineate the jurisdictional extent of the wetland basins, and classify the wetland habitats in the project area.

Fieldwork for this site investigation was completed by Alex Yellick and Dylan Kruzel, on May 18, 2021. The weather was cloudy and 68 degrees Fahrenheit.

METHODOLOGY

U.S. Geologic Service 7.5" Topographic Quadrangle maps, U.S. Fish and Wildlife Service National Wetland Inventory (NWI) maps, Minnesota Department of Natural Resources Public Water Inventory (PWI) maps, U.S. Department of Agriculture Natural Resources Conservation Service Soil Survey, and available aerial photographs were consulted to initially locate potential wetland habitats.

Routine on-site Determination Method was used during this investigation. In this method, the following procedures were used:

1. The vegetative community was sampled in all present strata to determine whether it met hydrophytic vegetation criteria based on the indicators identified in the Midwest Regional Supplement.
2. Soil pits were dug using a Dutch auger to depths of sixteen to thirty-six inches. The soil profile was noted in addition to any hydric soil characteristics.
3. Signs of wetland hydrology were noted and compared to field criteria such as depth to shallow water table and depth of soil saturation found in the soil pits.

Data from sample points were recorded on Army Corps of Engineers Midwest Region Wetland Determination Data Forms (Appendix B). At least one sample point transect crosses the delineated wetland edge. This transect consists of an upland sample point and a wetland sample point. Other sample points may be in areas which have one or more other wetland criteria present; where questionable conditions exist; or to verify the absence of wetland criteria. Photographs of each resource is included in the resource review summary pages.

Sample points were marked in the field with orange flags. The identified aquatic resource was marked with sequentially numbered pink flags. All sample points and the delineated aquatic resource extent were located using a Trimble Geo XH sub-meter GPS unit.

Delineated resources were evaluated using Board of Soil and Water Resource's Minnesota Routine Assessment Method version 3.2 (MnRAM). Information from desktop and field assessment was evaluated in the system and a management classification ranging from exceptional quality to low quality is output as Preserve, Manage 1, Manage 2, and Manage 3. Resulting classifications are typically utilized in development planning.

RESOURCE REVIEW

The below described data were reviewed as part of the aquatic resource field delineation. A summary of each resource contained within the project area follows.

NATIONAL WETLANDS INVENTORY

The National Wetlands Inventory identifies one temporary flooded forested wetland in the southwest portion of the parcel (Appendix A, Figure 2).

USDA – NATURAL RESOURCES CONSERVATION SERVICE SOIL SURVEY

Soil survey data for Hennepin County was obtained and reviewed prior to the delineation. Table 2 provides a list of the mapped soils in the project area. Figure 3 in Appendix A is a map of the soil units with percent hydric components.

Table 2. Summary of mapped soil units in the project area.

MAP UNIT SYMBOL	MAP UNIT NAME	HYDRIC STATUS	HYDRIC RATING	DRAINAGE CLASSIFICATION	PERCENT COVER
L37B	Angus loam, 2 to 6 percent slopes	5%	Non-Hydric Soil Unit	Well drained	59%
L23A	Cordova loam, 0 to 2 percent slopes	95%	Hydric Soil Unit	Poorly drained	41%

Hydric soils are defined in the *Field Indicators of Hydric Soils in the United States: Guide for Identifying and Delineating Hydric Soils, version 8.2, 2018*; *The 1987 United States Army Corps of Engineers Wetlands Delineation Manual*; and *The Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)*.

MINNESOTA DEPARTMENT OF NATURAL RESOURCES PUBLIC WATER INVENTORY

The Minnesota Department of Natural Resources Public Water Inventory for Hennepin County does not identify public water in the project extent (Appendix A, Figure 4).

30-DAY ROLLING PRECIPITATION DATA

A review of the 30-day rolling precipitation data collected from the University of Minnesota Climatology Working Group (Appendix C) indicates that precipitation totals for the weeks prior to the site visit were below the range of average in the general project area. However, the overall hydrologic conditions were suitable for completing an accurate wetland determination and boundary delineation.

RESOURCE 1

FIELD DELINEATED 5/18/2021

FIELD INVESTIGATION CONCLUSION¹



Viewing East / Gradual Transition to Wetland

Wetland	RESOURCE TYPE
0.014-Acre	TOTAL AREA WITHIN ECB
0.016-Acre	TOTAL EST. AREA
Fresh Wet Meadow	EGGERS & REED
Type 2	CIRCULAR 39
PEM1B	COWARDIN
Manage 2	MnRAM ²
DOMINANT HYDROPHYTIC VEGETATION	
<i>Poa pratensis</i>	Kentucky blue grass
<i>Phalaris arundinacea</i>	Reed canary grass
<i>Carex lacustris</i>	Lakebank sedge
HYDRIC SOIL INDICATORS	
Depleted Below Dark Surface	A11
Depleted Matrix	F3
WETLAND HYDROLOGY DETERMINATION	
Sparsely Vegetated Concave-Surface	B8
Geomorphic Position	D2
FAC-Neutral Test	D5

DESKTOP REVIEW

HYDRIC RATING - SOIL UNIT	Hydric – Cordova loam, 0-2% slopes (L23A)
NATIONAL WETLAND INVENTORY	None
PUBLIC WATER INVENTORY	None

DISCUSSION

RATIONALE FOR DETERMINATION	The wetland is located in an isolated depression near the southeast portion of the parcel and extends off-site to the east. The upland sample point was supported with hydrophytic vegetation and hydric soils; however, the area lacked wetland hydrology and geomorphic position and therefore was determined upland.
ATYPICAL/PROBLEMATIC CONDITIONS	Review of antecedent precipitation on this day was dryer than normal; however, field conditions were adequate for reasonable vegetation and hydrology determinations.
CONSISTENCY WITH DESKTOP REVIEW	The field investigation identified a wetland in the southeast portion of the project parcel when dryland was expected with desktop review.

¹ Appendix B contains wetland determination data forms supporting this investigated resource: Wet Point(s): 1A
Up Point(s): 1B

² Appendix E contains MnRAM output

NWI MAPPED AREA

FIELD DELINEATED 5/18/2021



Viewing Southwest / Field Investigation of NWI Mapped Area

FIELD INVESTIGATION CONCLUSION¹

RESOURCE TYPE	None
---------------	------

DESKTOP REVIEW

HYDRIC RATING - SOIL UNIT(S)	Non-Hydric – Angus loam, 2-6% slopes (L37B)
NATIONAL WETLAND INVENTORY	PFO1A
PUBLIC WATER INVENTORY	None

DISCUSSION

RATIONALE FOR DETERMINATION	Field investigation identified the NWI mapped wetland located in the southwest portion of the parcel to be upland based on the absence of geomorphic position, hydrophytic vegetation, and soils being mapped non-hydric.
CONSISTENCY WITH DESKTOP REVIEW	Field investigation identified dryland located in the southwest portion of the parcel when a NWI mapped PFO1A wetland was expected with desktop review (Appendix A, Figure 2).

CONCLUSION


A total of one wetland, or portions thereof, was identified and delineated within the project area and in accordance with the 1987 United States Army Corps of Engineers Wetland Delineation Manual.

Project area aquatic resources may be regulated by several agencies at the local, state, and/or federal level. Activities which may potentially impact wetlands should be discussed in advance with the appropriate regulating agency regarding potential permit requirements. The Local Government Unit (LGU) responsible for implementing the Minnesota Wetland Conservation Act at this project location is the City of Plymouth.

The City may require vegetated buffers around all regulated wetland areas. Wetland buffers must meet the standards specified by the City for any project that is regulated under the Wetland Conservation Act.

This wetland investigation meets the standards and criteria described in the 1987 United States Army Corps of Engineers Wetland Delineation Manual and all applicable subsequent guidance for an on-site determination. The results reflect the conditions present at the time of the delineation.

I certify that I performed the field analysis and/or wrote the report for this wetland determination.

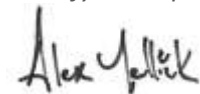


Dylan Kruzel
Environmental Scientist

May 20, 2021

Date

I certify that I performed the field analysis and/or wrote the report for this wetland determination.

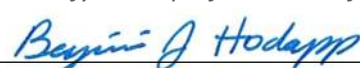


Alex Yellick
Senior Environmental Scientist
MN Certified Wetland Delineator #1354

May 20, 2021

Date

I certify that I performed the field analysis and/or reviewed work completed by above staff.



Benjamin J. Hodapp
Environmental Services Manager
MN Certified Wetland Delineator #1016

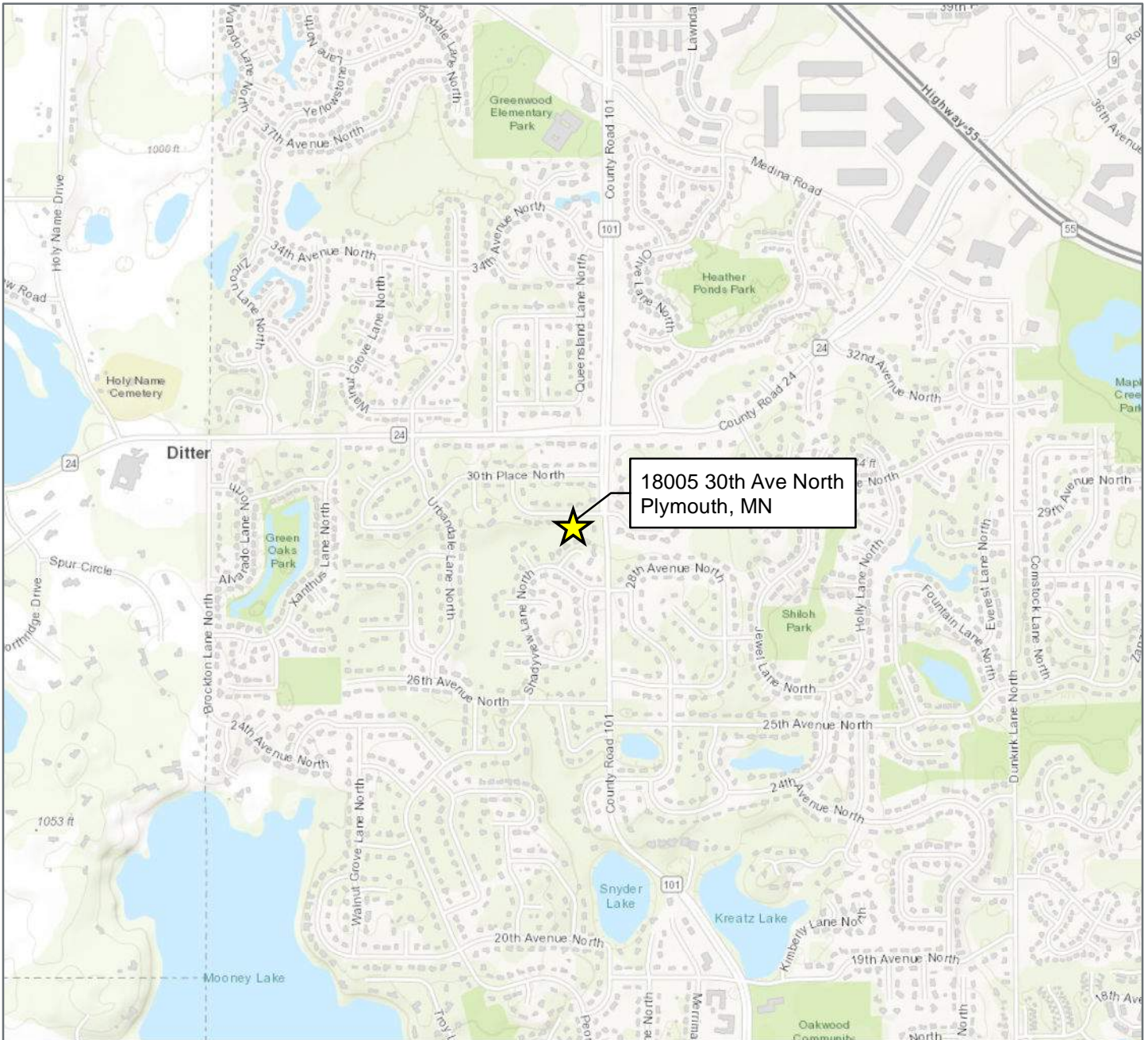
May 20, 2021

Date




Appendix A

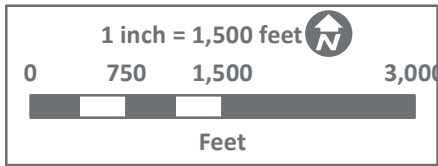
FIGURES



Legend

 Project Location

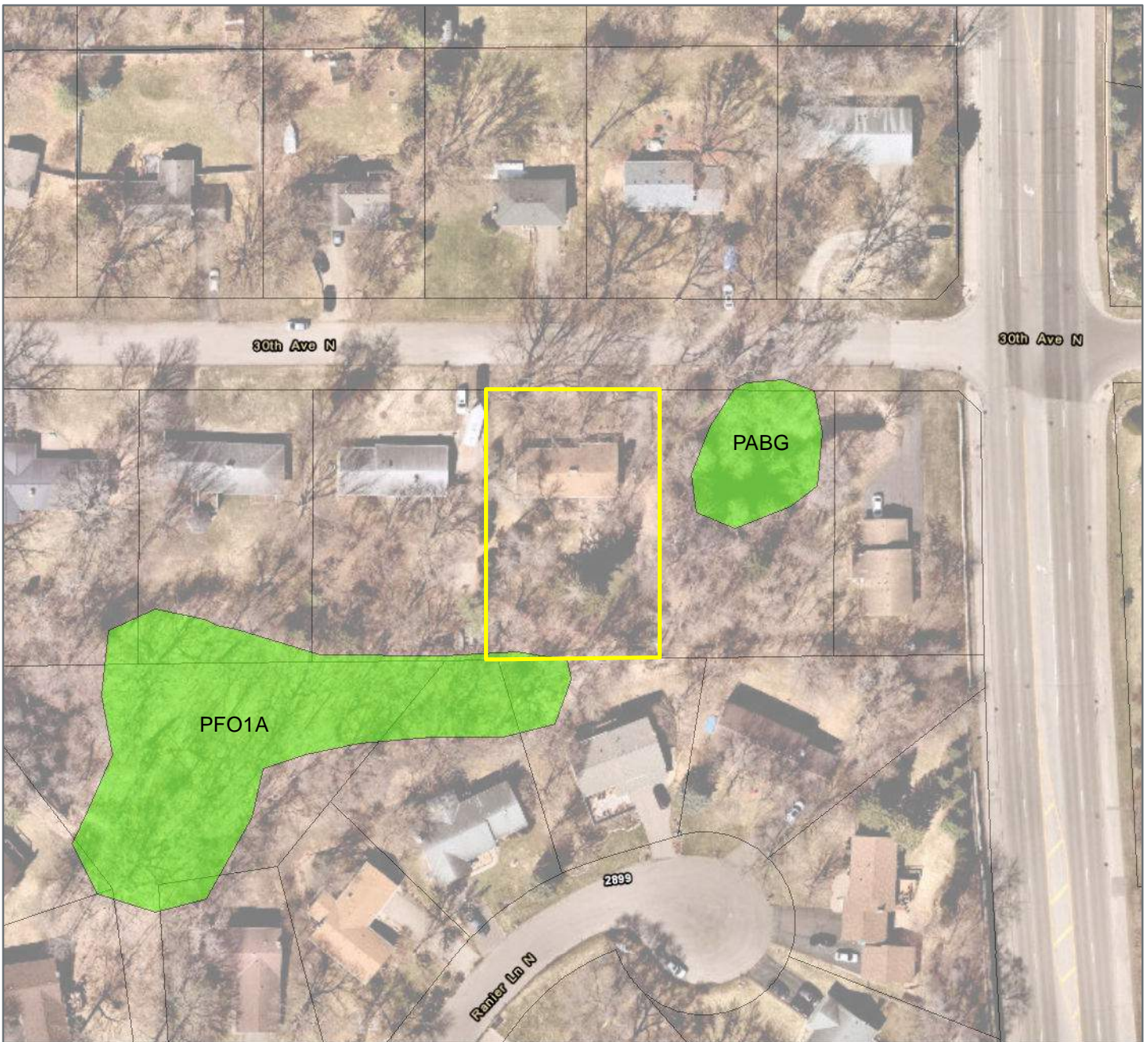
PID: 1911822420035
Project No: 16497
Date: 5.17.2021





ANDERSON
13605 1st Ave N #100, Plymouth, MN 55441
P 763.412.4000 F 763.412.4090 ae-mn.com

Project Location

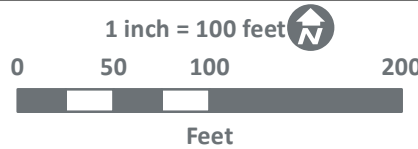
18005 30th Ave North
Plymouth, Hennepin County, MN



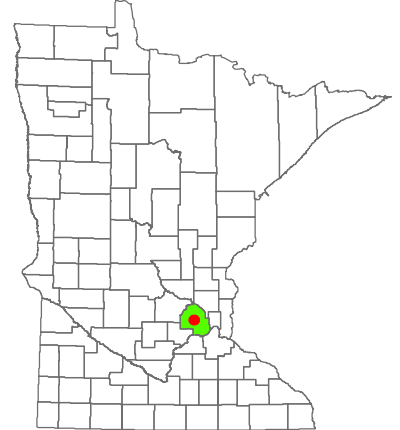
Legend

-  Project Parcel
-  Hennepin Co. Parcels
-  National Wetland Inventory

PID: 1911822420035
Project No: 16497
Date: 5.17.2021



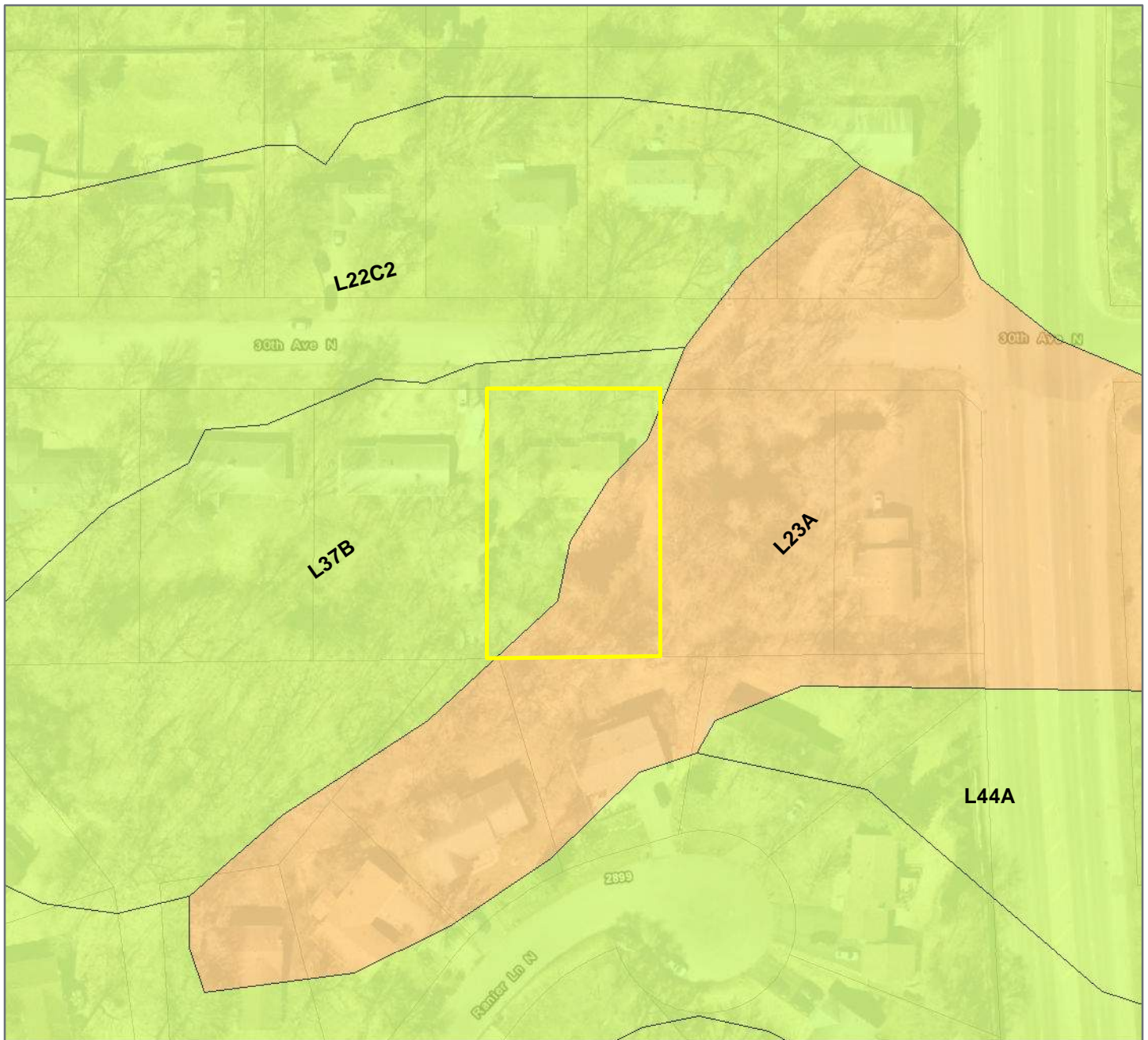
Project Location










18005 30th Ave North
Plymouth, Hennepin County, MN

ANDERSON

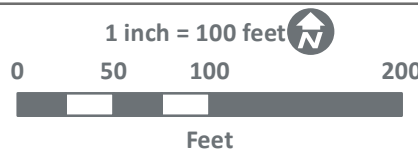
13605 1st Ave N #100, Plymouth, MN 55441
P 763.412.4000 F 763.412.4090 ae-mn.com



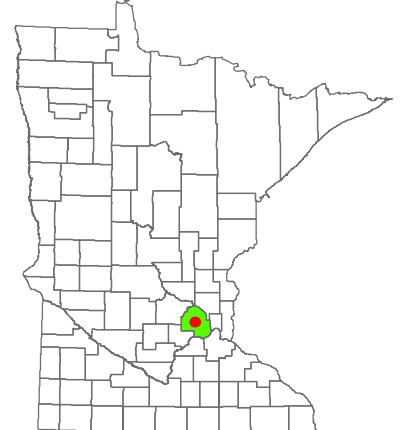
Legend

-  Project Parcel
-  Hennepin Co. Parcels
- Hydric Rating by Map Unit**
-  0% Hydric Components
-  1-32% Hydric Components
-  33-65% Hydric Components
-  66-99% Hydric Components
-  100% Hydric Components

PID: 1911822420035
Project No: 16497
Date: 5.17.2021



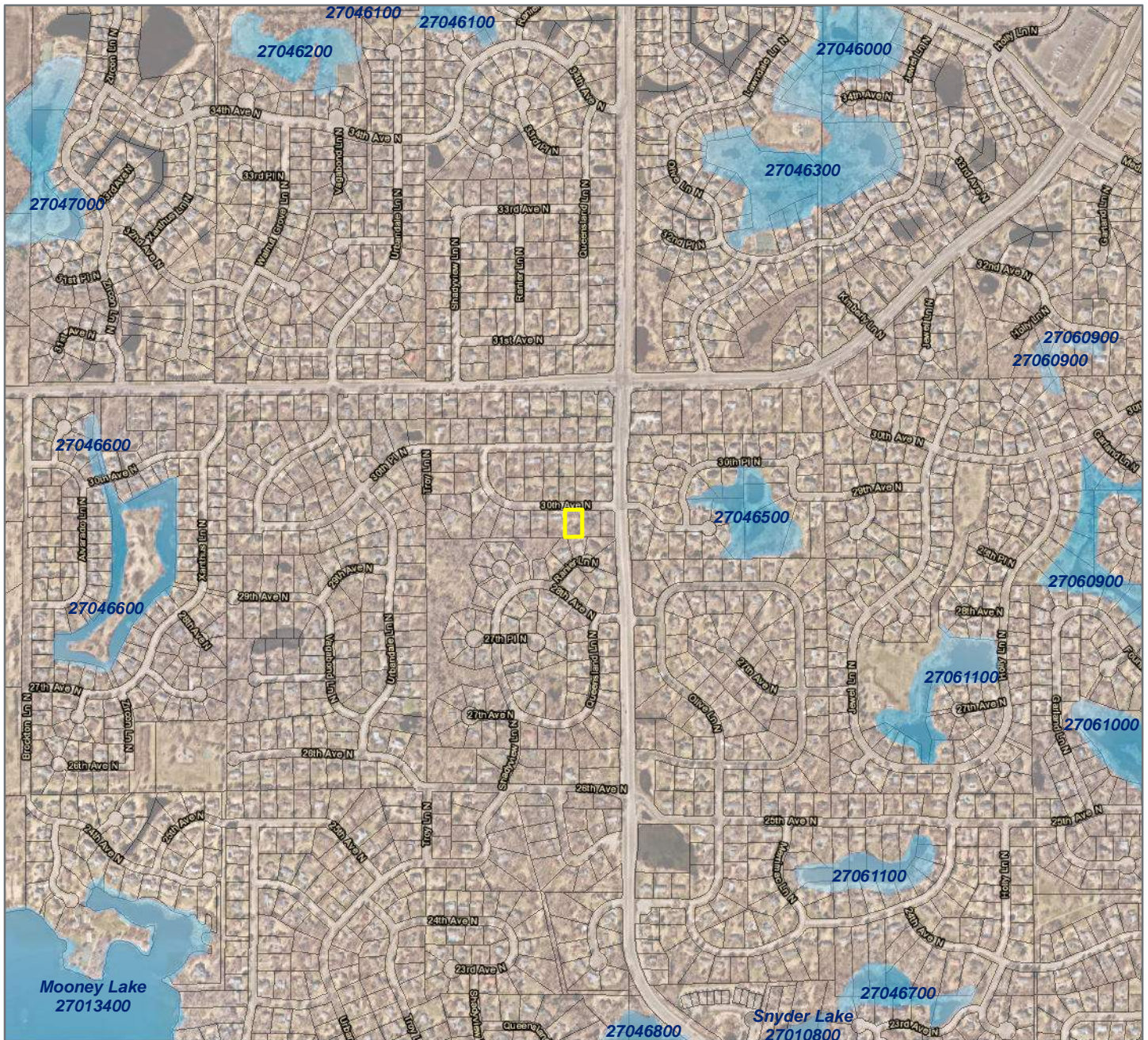
Project Location



18005 30th Ave North
Plymouth, Hennepin County, MN

ANDERSON

13605 1st Ave N #100, Plymouth, MN 55441
P 763.412.4000 F 763.412.4090 ae-mn.com



Legend

-  Project Parcel
-  Hennepin Co. Parcels
-  MN DNR Inventoried Public Waterbasin

PID: 1911822420035

Project No: 16497

Date: 5.17.2021

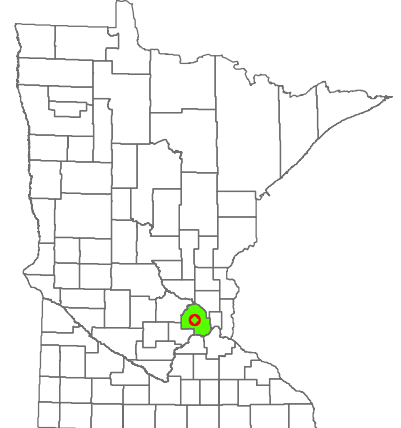
1 inch = 1,000 feet 

0 500 1,000 2,000



Feet

Project Location



18005 30th Ave North
Plymouth, Hennepin County, MN

ANDERSON

13605 1st Ave N #100, Plymouth, MN 55441
P 763.412.4000 F 763.412.4090 ae-mn.com



Wetland 1
Type 2
PEM1B
Fresh Wet Meadow
0.01 Ac.

Legend

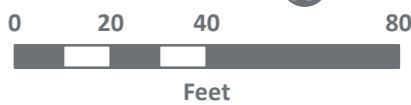
-  Project Parcel
-  Hennepin Co. Parcels
-  Wetland Field Delineated
May 18th, 2021
-  Sample Point

PID: 1911822420035

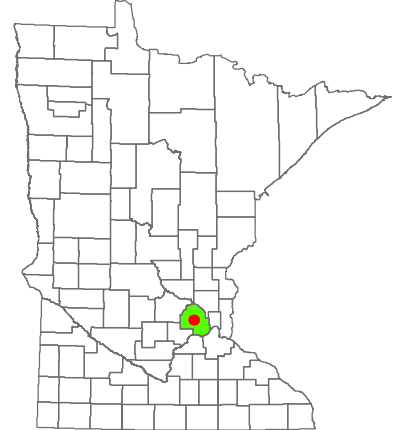
Project No: 16497

Date: 5.19.2021

1 inch = 40 feet



Project Location



18005 30th Ave North
Plymouth, Hennepin County, MN

ANDERSON

13605 1st Ave N #100, Plymouth, MN 55441
P 763.412.4000 F 763.412.4090 ae-mn.com

Appendix B

ROUTINE ON-SITE DETERMINATION METHOD DATASHEETS

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Nederhoff Property/18005 30th Ave N City/County: Plymouth/Hennepin Sampling Date: 05/18/2021
 Applicant/Owner: Marlys Nederhoff State: MN Sampling Point: 1A
 Investigator(s): Alex Yellick, Dylan Kruzel Section, Township, Range: S19, T118N, R22W
 Landform (hillslope, terrace, etc): Depressions Local relief (concave, convex, none): concave
 Slope(%): 0 Lat: 45.01196298 Long: -93.50847204 Datum: WGS 84
 Soil Map Unit Name: L23A NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	--

Remarks: Area meets wetland criteria. Wetland is a Type 2, PEM1B, Fresh Wet Meadow located in a isolated depression near the southeast portion of the parcel. Antecedent precipitation is below average for time of year.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>30-ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
<u>0</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15-ft</u>)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
<u>0</u> = Total Cover				
Herb Stratum (Plot size: <u>5-ft</u>)				
1. <u>Poa pratensis / Kentucky blue grass</u>	50	Yes	FAC	
2. <u>Phalaris arundinacea / Reed canarygrass, Reed canary gras</u>	25	Yes	FACW	
3. <u>Carex lacustris / Lakebank sedge</u>	25	Yes	OBL	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
<u>100</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30-ft</u>)				
1. _____				
2. _____				
<u>0</u> = Total Cover				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
 Total Number of Dominant Species Across All Strata: 3 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	25	x 1 =	<u>25</u>
FACW species	25	x 2 =	<u>50</u>
FAC species	50	x 3 =	<u>150</u>
FACU species	0	x 4 =	<u>0</u>
UPL species	0	x 5 =	<u>0</u>
Column Totals:	<u>100</u>	(A)	<u>225</u> (B)

Prevalence Index = B/A = 2.25

Hydrophytic Vegetation Indicators:
 1 - Rapid Test for Hydrophytic Vegetation
 2 - Dominance Test is >50%
 3 - Prevalence Index ≤3.0'
 4 - Morphological Adaptations¹ (Provide supporting Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes No

Remarks: (Include photo numbers here or on a separate sheet.)
 Sampled area's vegetation was recently mowed, however, species identification was possible.

SOIL

Sampling Point: 1A

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 ¹	Loc ²		
0-4	10YR 2/1	98	10YR 3/3	2	C	M	CL	Distinct Redox Concentration
4-12	10YR 4/2	80	10YR 4/6	20	C	M	C	Prominent Redox Concentration

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: 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 Marix (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 Soils³:

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

³Indicators 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 along 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): _____
 Saturation Present? Yes _____ No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No _____

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

Remarks:

Sparsely Vegetated Concave Surface (B8) was observed in drowned out portions of the sample area.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Nederhoff Property/18005 30th Ave N City/County: Plymouth/Hennepin Sampling Date: 05/18/2021
 Applicant/Owner: Marlys Nederhoff State: MN Sampling Point: 1B
 Investigator(s): Alex Yellick, Dylan Kruzel Section, Township, Range: S19, T118N, R22W
 Landform (hillslope, terrace, etc): Depressions Local relief (concave, convex, none): none
 Slope(%): 2 Lat: 45.01196309 Long: -93.5083574 Datum: WGS 84
 Soil Map Unit Name: L23A NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: The transition to upland was determined based on a gradual change in elevation and absence of wetland hydrology indicators. Antecedent precipitation is below average for time of year.	

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status																													
Tree Stratum (Plot size: <u>30-ft</u>)																																
1. <u><i>Fraxinus pennsylvanica</i> / Green ash</u>	20	Yes	FACW	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>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60.0</u> (A/B)																												
2. <u><i>Acer rubrum</i> / Red maple</u>	15	Yes	FAC																													
3. <u><i>Ulmus americana</i> / American elm</u>	10	No	FACW																													
4. <u><i>Populus deltoides</i> / Eastern cottonwood</u>	10	No	FAC																													
5. _____																																
	55	= Total Cover																														
Sapling/Shrub Stratum (Plot size: <u>15-ft</u>)																																
1. <u><i>Sambucus racemosa</i> / Red elderberry</u>	35	Yes	FACU	Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;">Total % Cover of:</td> <td></td> <td style="text-align: right;">Multiply by:</td> <td></td> </tr> <tr> <td>OBL species</td> <td style="text-align: center;">0</td> <td>x 1 =</td> <td style="text-align: center;">0</td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;">30</td> <td>x 2 =</td> <td style="text-align: center;">60</td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;">55</td> <td>x 3 =</td> <td style="text-align: center;">165</td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;">130</td> <td>x 4 =</td> <td style="text-align: center;">520</td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;">0</td> <td>x 5 =</td> <td style="text-align: center;">0</td> </tr> <tr> <td>Column Totals:</td> <td style="text-align: center;">215</td> <td>(A)</td> <td style="text-align: center;">745 (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.47</u>	Total % Cover of:		Multiply by:		OBL species	0	x 1 =	0	FACW species	30	x 2 =	60	FAC species	55	x 3 =	165	FACU species	130	x 4 =	520	UPL species	0	x 5 =	0	Column Totals:	215	(A)	745 (B)
Total % Cover of:		Multiply by:																														
OBL species	0	x 1 =	0																													
FACW species	30	x 2 =	60																													
FAC species	55	x 3 =	165																													
FACU species	130	x 4 =	520																													
UPL species	0	x 5 =	0																													
Column Totals:	215	(A)	745 (B)																													
2. <u><i>Rhamnus cathartica</i> / European buckthorn</u>	25	Yes	FAC																													
3. _____																																
4. _____																																
5. _____																																
	60	= Total Cover																														
Herb Stratum (Plot size: <u>5-ft</u>)																																
1. <u><i>Glechoma hederacea</i> / Ground ivy</u>	90	Yes	FACU																													
2. <u><i>Alliaria petiolata</i> / Garlic-mustard</u>	5	No	FAC																													
3. <u><i>Parthenocissus quinquefolia</i> / Virginia creeper</u>	5	No	FACU																													
4. _____																																
5. _____																																
6. _____																																
7. _____																																
8. _____																																
9. _____																																
10. _____																																
	100	= Total Cover																														
Woody Vine Stratum (Plot size: <u>30-ft</u>)																																
1. _____																																
2. _____																																
	0	= Total Cover																														

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

SOIL

Sampling Point: 1B

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 ¹	Loc ²		
0-8	10YR 2/1	100					CL	
8-24	10YR 4/2	80	10YR 4/6	20	C	M	C	Prominent Redox Concentration

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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- 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 Marix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
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- Loamy Gleyed Matrix (F2)
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- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

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

³Indicators 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 along 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)
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- 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): _____
 Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

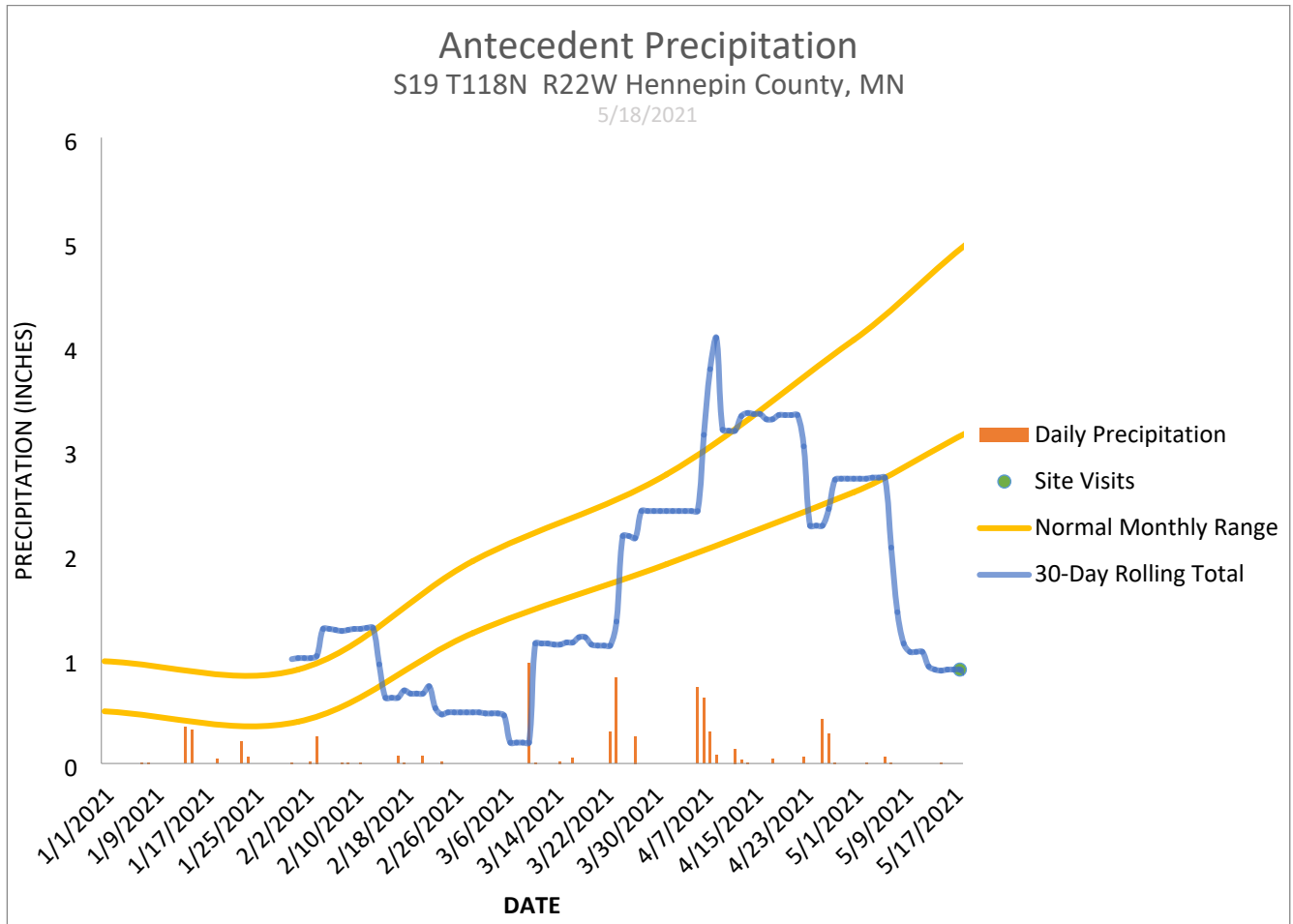
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix C

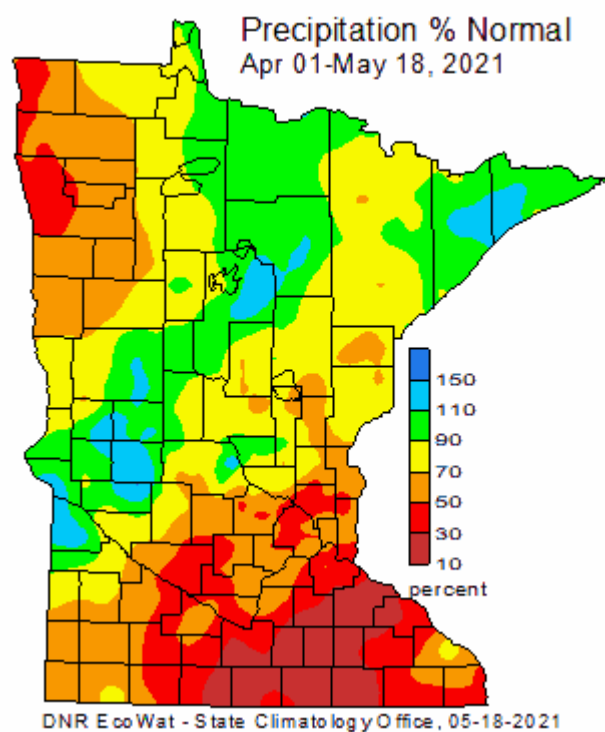
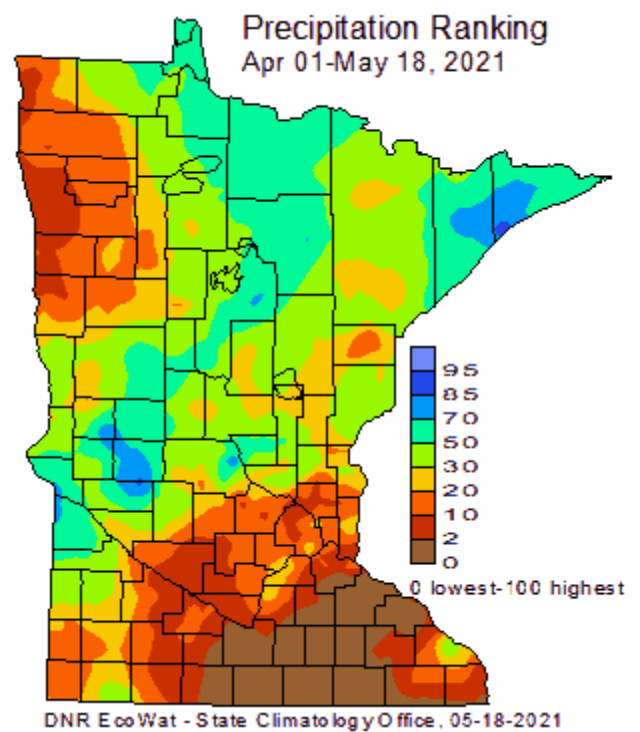
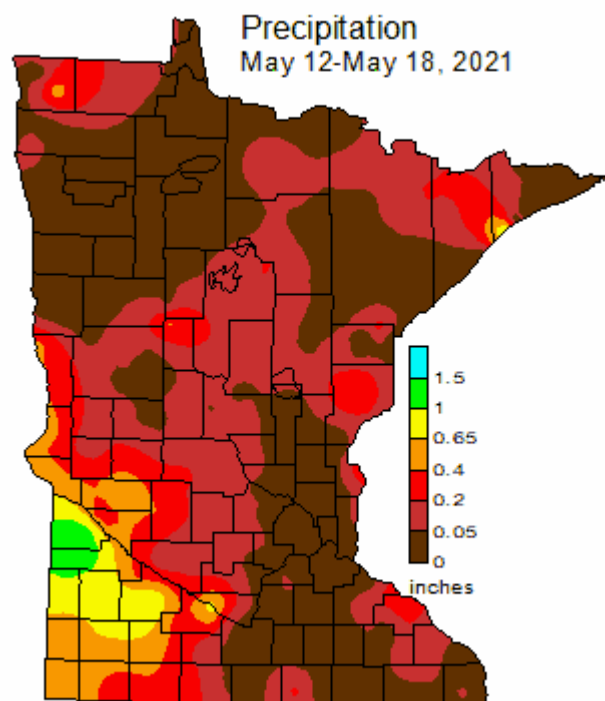
ANTECEDENT PRECIPITATION RECORD

Appendix C, Figure 1. Graph of recent precipitation in comparison with the normal range of precipitation in the general site location. Daily precipitation data is plotted independently and as a 30-day rolling total up to the date of the site visit. The normal range is plotted from precipitation data recorded from 1981 to 2010. The normal range is represented in this graph with two lines, the 30th percentile and the 70th percentile of the period-of-record data distribution.



Source: <http://climate.umn.edu/>

Appendix C, Figure 2. Minnesota State Climatology Office map depicting total precipitation for the week of the site visit.



Source: <https://www.dnr.state.mn.us/climate/weekmap/maps-produced-may-18-2021.html>

Appendix D

MINNESOTA ROUTINE ASSESSMENT METHODOLOGY (MnRAM)

Management Classification Report for 16497 Nederhoff 1

ID: 270

16497 Nederhoff Property

HENNEPIN County
Mississippi (Metro) Watershed, #20
Corps Bank Service Area 7

Based on the MnRAM data input from field and office review and using the classification settings as shown below, this wetland is classified as **Manage 2**

Functional rank of this wetland based on MnRAM data	Functional Category	Self-defined classification value settings for this management level
Not Applicable	Vegetative Diversity/Integrity	Moderate
Moderate	Habitat Structure (wildlife)	Moderate
Not Applicable	Amphibian Habitat	Low
Not Applicable	Fish Habitat	Moderate
Not Applicable	Shoreline Protection	Low
Low	Aesthetic/Cultural/Rec/Ed and Habitat	Moderate / Low
Moderate	Stormwater/Urban Sensitivity and Vegetative Diversity	- / -
Moderate	Wetland Water Quality and Vegetative Diversity	- / -
Moderate	Characteristic Hydrology and Vegetative Diversity	- / -
High	Flood/Stormwater Attenuation*	-
Not Applicable	Commercial use*	-
Moderate	Downstream Water Quality*	-

The critical function that caused this wetland to rank as **Manage 2** was **Maintenance of Characteristic Wildlife Habitat Structure**

Details of the formula for this action are shown below:

Maintenance of Characteristic Wildlife Habitat Str $(Q3e*2+Q39+Q40+Q41+(Q23+Q24+Q25)/3+Q13+Q20)/8$

Question	Value	Description
13	1	Outlet: hydrologic regime
20	0.5	Stormwater runoff
23	0.5	Buffer width
24	0.71	Adjacent area Management
25	0.61	Adjacent area diversity
39	0.5	Detritus
3e	0	<No Description Found>
40	0.1	Wetland interspersion/landscape

* The classification value settings for these functions are not adjustable

Management Classification Report for 16497 Nederhoff 1

ID: 270

16497 Nederhoff Property

HENNEPIN County
Mississippi (Metro) Watershed, #20
Corps Bank Service Area 7

41 0.1 Wildlife barriers

This report was printed on: Thursday, May 20, 2021

* The classification value settings for these functions are not adjustable

Appendix E

CREDENTIALS

CERTIFICATIONS

Professional Wetland Scientist #1832
MN Certified Wetland Delineator #1016

EDUCATION

MS Water Resources Management
University of Wisconsin-Madison

BS Biology; Ecology
Minnesota State University- Mankato

SPECIALIZED TRAINING

Wetland Delineation & Management Training
Richard Chinn Environmental Training, Inc.

Wetland Plant Identification
Biotic Consultants Inc.

Plant Identification for Wetland Delineation
University of Wisconsin-La Crosse

Watershed Academy Web Certificate
United States Environmental Protection Agency

PROFESSIONAL ASSOCIATIONS

Society of Wetland Scientists
MN Wetland Professionals Association (WPA)
MN WPA President 2010
Wisconsin Wetlands Association
Association of State Wetland Managers
Minnesota Native Plant Society
Ecological Society of America

TOTAL EXPERIENCE

19 years

YEARS WITH CURRENT FIRM

2004 to Present

PUBLICATIONS & PRESENTATIONS

The Future of Rowan Creek Watershed: Connecting Land Use and Management with Water Quality. 2003. Water Resources Management Workshop 2002, Gaylord Nelson Institute for Environmental Studies, University of Wisconsin, Madison.

The Tumultuous World of Drainage Districts: An Analysis of Existing Management Arrangements, with Recommendations. Working Paper Series 2002-1. Water Resources Institutions and Policies, Department of Urban and Regional Planning, University of Wisconsin, Madison.

South Shore Lake Bemidji Remediation & Restoration, Society of American Military Engineers meeting June 22, 2016, St Paul, MN.

SUMMARY OF EXPERIENCE

Benjamin Hodapp, an Environmental Specialist and Senior Project Manager, brings a broad background of knowledge and experience in the environmental field to the Anderson Engineering team. Benjamin has a unique combination of multi-disciplinary academic training and work experience at various levels of federal, state and local government and private consulting.

Benjamin's project experience includes natural resource inventory and assessment; wetland delineation, mitigation design and monitoring; regulatory permitting; agency and stakeholder coordination; environmental impact assessment, environmental document preparation and public outreach.

REPRESENTATIVE PROJECTS

Southwest Light Rail Transit- Metropolitan Council – Minneapolis, MN: Project manager for wetland delineation and permitting efforts in support of multi-disciplinary consultant team for preparation of Final Environmental Impact Statement for proposed 16 mile light rail alignment. Project tasks included completion of wetland delineations, preparation of all federal, state and local wetland permits and wetland mitigation plans, quality assurance and quality control of all deliverable products.

Harriet Island to South St. Paul Regional Trail – City of St Paul, City of South St. Paul and Dakota County – St Paul, MN: Project manager for wetland delineation, mapping and assessment efforts in support of multi-disciplinary consultant team responsible for preliminary engineering and final design. Project tasks included project management oversight and coordination, supervising field staff in completion of both off-site and on-site wetland determinations, boundary delineations, GPS mapping and functional assessments. Oversaw preparation of and responsible for quality assurance and quality control of all deliverable products.

Crosstown Blvd. Pedestrian Trail – City of Andover – Andover, MN: Project Manager for wetland delineation associated with proposed City trail improvements. Services included a wetland delineation, GPS mapping and functional assessment document findings and coordination and approval of findings with federal, state and local regulatory agencies.

Bennett Family Park Improvements – Minnetonka, MN: Project Manager for wetland delineation associated with proposed baseball complex improvements. Services included a wetland delineation, GPS mapping and functional assessment document findings and coordination and approval of findings with federal, state and local regulatory agencies.

Section 401/404 Wetland Permitting – Fort McCoy Commemorative Park Expansion – Fort McCoy, WI: Provided project management services for Section 401/404 permitting associated with proposed wetland impacts resulting from the Commemorative Park Expansion Project at the Fort McCoy U.S. Army installation. Project tasks included project management, developing a wetland mitigation strategy in compliance with Section 401/404 and state wetland permitting requirements and oversight and quality control in preparing Section 401/404 permit application.

EDUCATION

MS Environmental & Conservation
Sciences

North Dakota State University

BS Biological Sciences

North Dakota State University

CERTIFICATIONS

MN Wetland Delineator Certified

#1354

MnDNR Tree Inspector

#201005102

Erosion and Stormwater

Management Construction Site
Management

HAZWOPER 40-hour Training

TOTAL EXPERIENCE

7 years

YEARS WITH CURRENT FIRM

2018 to present

SUMMARY OF EXPERIENCE

Alex H. Yellick, a Senior Environmental Scientist, brings a broad range of knowledge and experience in the environmental field to the Anderson Engineering team. Prior to his employment with Anderson Engineering of MN, LLC, Alex worked as a certified wetland delineator and has background in biologic assessments and threatened and endangered species review, regulatory review/permitting and Phase I Environmental Site Assessments. The skills that Alex developed through his biological and conservation sciences advanced educational background and experience make him proficient in assessing and addressing a range of environmental issues, and clearly communicating solutions to clients and various regulatory agencies.

Alex's project experience includes biological assessments of urban and rural wetlands, environmental permitting, assistance with preparing Wetland Bank Plans, environmental compliance oversight, stormwater best management practices design and compliance, and Phase I Site Assessments. Alex has experience with Global Positioning Systems, Geographic Information Systems, and AutoCAD.

REPRESENTATIVE PROJECTS

National Environmental Policy Act Environmental Assessments – California, Illinois, Montana: Prepared National Environmental Policy Act-compliant Environmental Assessments for U.S Department of Veteran Affairs. Projects include cemetery expansion or hospital development at Sacramento Valley National Cemetery, Abraham Lincoln National Cemetery, and Fort Harrison Veteran Affairs Medical Center.

Minnesota Environmental Policy Act Categorical Exclusion Documentation and Wetland Delineation– Minnesota Department of Transportation Highway 63 and Interstate 90 Interchange Improvements. Through partnership with Short Elliott Hendrickson Inc. (SEH), and working with MnDOT District 6, a nonprogrammatic Long Form Categorical Exclusion document and supporting information was prepared and approval was obtained from the Federal Highway Administration. In addition, project area federal and state regulated water resources were inventoried and a wetland replacement plan was developed.

Wetland Delineation/Assessment – Various Locations: services included wetland delineation and assessment of permitting requirements in support of development and real-estate transactions. Project tasks included completion of wetland field delineations following the 1987 United States Army Corps of Engineers Wetland Manual and Regional Supplements, boundary delineations, GPS mapping, and preparation of reports to document findings and assess wetland impacts.

Permitting and Compliance Activities – Minnesota, Arkansas, Mississippi, Oklahoma, and Texas: Services included federal, state, and local environmental permitting and operational compliance assistance associated with energy infrastructure construction and maintenance activities.

Rare Species and Rare Plant Communities Review – Blufflands State Trail, Olmsted and Wabasha Counties: served as lead field biologist for the reconnaissance of rare species, rare plant communities, and protected animals along the proposed state trail alignment. Deliverables included an observations memo and rare features location data.

EDUCATION

Bachelor of Science: Wildlife Biology
Minor: Wetlands Ecology and Biology

Bemidji State University – Bemidji

SPECIALIZED TRAINING

S-130 Basic Wildland Firefighter

S-190 Introduction to Fire Behavior

L-180 Human Factors in the Wildland
Fire Service

Certified Open Water Diver

OSHA 10 Hour Training

PROFESSIONAL ASSOCIATIONS

MN Wetland Professionals
Association (WPA)

The Wildlife Society (TWS)

TOTAL EXPERIENCE

2 years

YEARS WITH CURRENT FIRM

2020 to present

SUMMARY OF EXPERIENCE

Dylan Kruzel, an Environmental Scientist, brings a broad background of knowledge and experience in the environmental field to the Anderson Engineering team. Prior to his employment with Anderson Engineering of MN, LLC, Dylan worked for the Soil and Water Conservation District (SWCD) of Becker County as a Conservation Technician. He conducted field evaluations for conservation plans, monitored conservation easements, and provided available natural resource program information to landowners with conservation concerns. He has also assisted in the design and installation of various native habitat, shoreline restoration, rain garden, and storm water mitigation projects. The skills that Dylan has developed through his educational background and experience make him proficient in assessing and addressing a range of ecological indications and environmental issues.

Dylan's project and educational experience includes conservation management practices, habitat management evaluations, species identification, regulatory permitting, environmental document preparation, wetland delineation and classifications. Dylan has experience with Collector for ArcGIS, Geographic Information Systems, Global Positioning Systems, and Realtime Landscape Architect.

REPRESENTATIVE PROJECTS

Wetland Delineation/Reporting – Various Locations: Services included wetland delineation and reporting in support of linear construction projects and real-estate transactions for federal, state, and local agencies, as well as private companies. Project tasks included completion of wetland field delineations following the 1987 Corps of Engineers Wetland Delineation Manual and Regional Supplement: Midwest Region, and Northcentral and Northeast Region, GPS mapping, and preparation of reports to document findings and assess wetland impacts.

Permitting Specialist – MN: Services include preparation of permit applications in accordance with the Minnesota Wetland Conservation Act to support the planning, design, and mitigation for residential, commercial, and state land development projects.

NEPA Documentation – MN: Services include preparation of Categorical Exclusion Determination documents in accordance with the Minnesota Department of Transportation Highway Project Development Process and the Department of Veteran Affairs (VA) NEPA Interim Guidance for Projects. Tasks include evaluation, coordination, and responding to assist project managers in environmental documentation for Minnesota highways and VA health care facilities.

Project Book – US Department of Veteran Affairs (VA) – Dallas VA Medical Center, TX: Project Coordinator to guide a multidisciplinary team in development of a project book for expansion of and upgrades to the Dallas VA Medical Center. The project consists of organizing and collection of pre-design information that will serve as the foundation of all future design work by defining project requirements and refining cost elements. Efforts involve close coordination with members of the design team.

Land Alterations and Field Monitoring – Becker County SWCD – MN: Services include performing the following general activities in compliance with federal, state, and local regulations: assisting in site evaluations and installing for various cost share projects like conservation easements, management practices, and shoreland alterations.

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: Marlys Nederhoff
Mailing Address: 3 Quarry Road, Mason City, Iowa 50401
Phone: (641) 424-2375
E-mail Address: Nederhoff2003@yahoo.com

Agent Name: Anderson Engineering of Minnesota, LLC, Ben Hodapp
Mailing Address: 13605 1st Avenue North, Suite 100, Plymouth, MN 55441
Phone: (763) 412-4000
E-mail Address: bhodapp@ae-mn.com

PART TWO: Site Location Information

County: Hennepin **City/Township:** Plymouth
Parcel ID and/or Address: 18005 30th Avenue North/PID: 1911822420035
Legal Description (Section, Township, Range): Section 19, Township 118 North, Range 22 West
Lat/Long (decimal degrees): 45.01196298, -93.50847204
Attach a map showing the location of the site in relation to local streets, roads, highways. See figure 1, Appendix A
Approximate size of site (acres) or if a linear project, length (feet): 0.46-Acre Lot

PART FIVE: Applicant Signature

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: Marlys Nederhoff Date: May 27, 2021

I hereby authorize **Anderson Engineering of Minnesota, LLC** 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.

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 4, 2021

Regulatory File No. MVP-2021-01045-SSC

Marlys Nederhoff
3 Quarry Road
Mason City, Iowa 50401

Dear Mr./Ms. Nederhoff:

We are responding to your request, submitted by Anderson Engineering of Minnesota, LLC on your behalf, for Corps of Engineers (Corps) concurrence with the delineation of aquatic resources completed on the Nederhoff Property site. The project site is in Section 19, Township 118 North, Range 22 West, Hennepin County, Minnesota.

We have conducted a preliminary review of the Nederhoff Property delineation report, dated May 20, 2021 and generally concur that Figure 5 (Delineation) 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 Corps permitting purposes. However, this "reasonable approximation" concurrence may not fulfill state or local delineation requirements. 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. MVP-2021-01045-SSC)

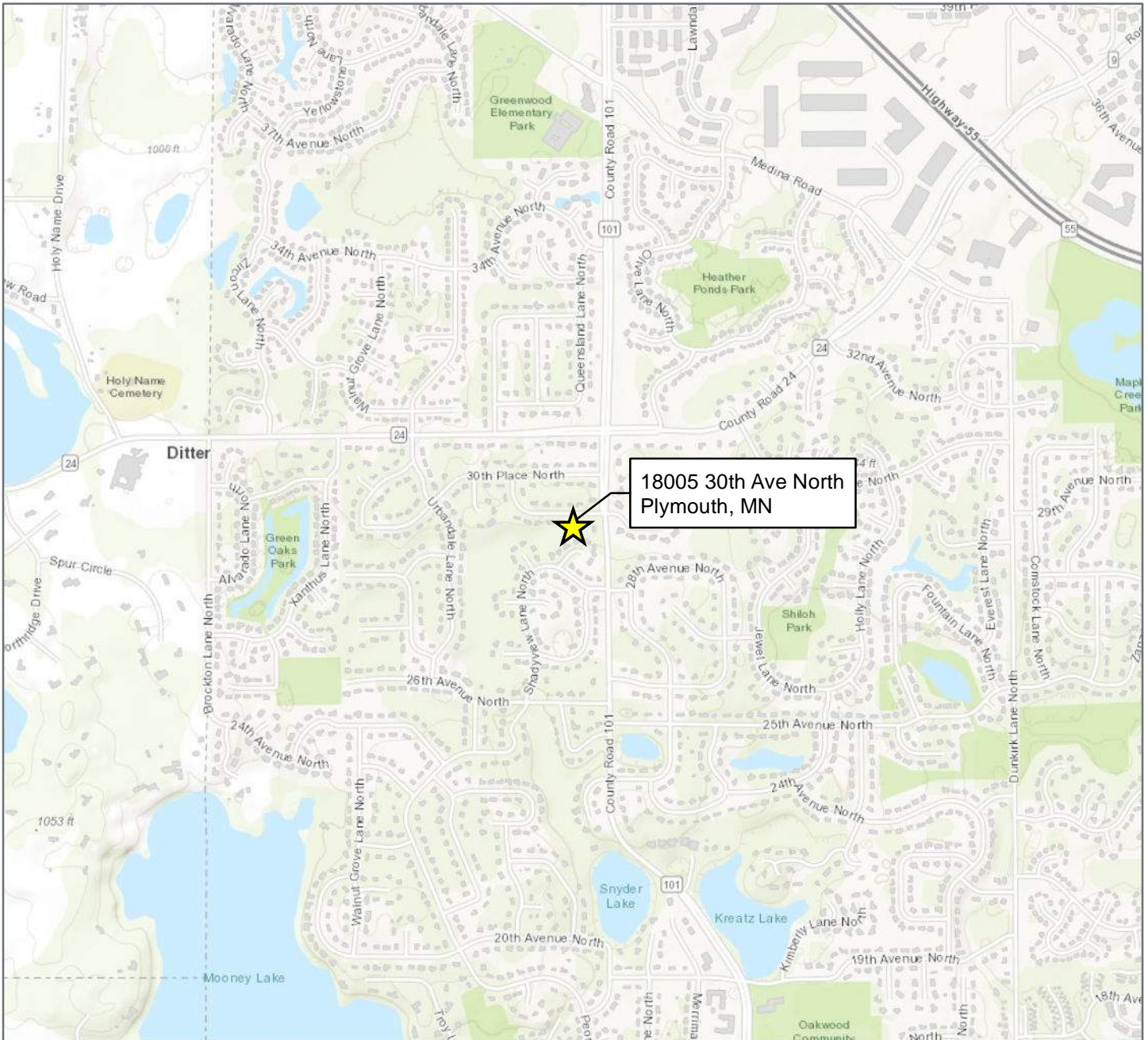
If you have any questions, please contact me in our St. Paul office at (651) 290-5268 or Samantha.S.Coungeris@usace.army.mil. In any correspondence or inquiries, please refer to the Regulatory file number shown above.

Sincerely,

A handwritten signature in cursive script that reads "Samantha Coungeris".

Samantha Coungeris
Project Manager

cc:
Ben Hodapp, Anderson Engineering of Minnesota
Ben Carlson, BWSR
Ben Scharenbroich, City of Plymouth



Legend

 Project Location

PID: 1911822420035

Project No: 16497

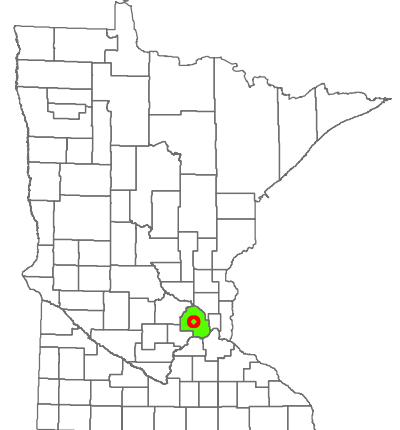
Date: 5.17.2021

1 inch = 1,500 feet 

0 750 1,500 3,000

Feet

Project Location



**18005 30th Ave North
Plymouth, Hennepin County, MN**

ANDERSON

13605 1st Ave N #100, Plymouth, MN 55441
P 763.412.4000 F 763.412.4090 ae-mn.com



Legend

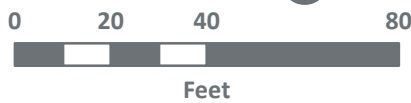
-  Project Parcel
-  Hennepin Co. Parcels
-  Wetland Field Delineated
May 18th, 2021
-  Sample Point

PID: 1911822420035

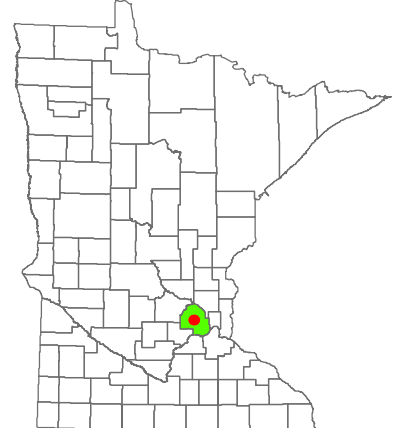
Project No: 16497

Date: 5.19.2021

1 inch = 40 feet



Project Location



18005 30th Ave North
Plymouth, Hennepin County, MN

ANDERSON

13605 1st Ave N #100, Plymouth, MN 55441
P 763.412.4000 F 763.412.4090 ae-mn.com