Minnesota Wetland Conservation Act
Notice of Application

Local Government Unit (LGU)	Address
City of Plymouth	**3400 Plymouth Blvd.** **Plymouth, MN 55447**

1. PROJECT INFORMATION

Applicant Name	Project Name	Date of Application	Application Number
City of Plymouth	**Old Rockford Road Trail**	**March 18, 2016**	**NA**

Type of Application (check all that apply):

☒ Wetland Boundary or Type ☐ No-Loss ☐ Exemption ☐ Sequencing
☐ Replacement Plan ☐ Banking Plan

Summary and description of proposed project (attach additional sheets as necessary):

The City of Plymouth is proposing a trail on the south side of Old Rockford Road between Dunkirk Lane and Vicksburg Lane in Section 17, T118N, R22W. Wetland 1 is a Type 1 (PEMA) seasonally flooded basin sparsely vegetated by reed canary grass, common buckthorn, and American elm.

2. APPLICATION REVIEW AND DECISION

Signing and mailing of this completed form to the appropriate recipients in accordance with 8420.0255, Subp. 3 provides notice that an application was made to the LGU under the Wetland Conservation Act as specified above. A copy of the application is attached. Comments can be submitted to:

Name and Title of LGU Contact Person	Comments must be received by (minimum 15 business-day comment period):
Derek Asche **Water Resources Manager**	**April 14, 2016**
Address (if different than LGU) **City of Plymouth** **3400 Plymouth Blvd.** **Plymouth, MN, 55447**	Date, time, and location of decision: **April 15, 2016** **9am** **Plymouth City Hall**
Phone Number and E-mail Address **763-509-5526** **dasche@plymouthmn.gov**	Decision-maker for this application: ☒ Staff ☐ Governing Board or Council

Signature: Derek Asche **Date:** 3/21/16

3. LIST OF ADDRESSEES

☒ SWCD TEP member: **Ms. Stacey Lijewski, HCD, 701 Fourth Avenue South, Suite 700, Minneapolis, MN, 55415-1600** (sent electronically)

☒ BWSR TEP member: **Ben Meyer, BWSR, 520 Lafayette Road North, St. Paul, MN, 55401-1397** (sent electronically)
☐ LGU TEP member (if different than LGU Contact):
☒ DNR TEP member: **Leslie Parris, MN DNR, 1200 Warner Road, St. Paul, MN, 55106** (sent electronically)
☒ DNR Regional Office (if different than DNR TEP member)
Kate Drewry, Area Hydrologist, MN DNR, 1200 Warner Road, St. Paul, MN, 55106 (sent electronically)
☒ WD or WMO (if applicable):
BCWMC, c/o Laura Jester, Keystone Waters LLC, 16145 Hillcrest Lane, Eden Prairie, MN, 553467 (sent electronically)
☒ Applicant (notice only) and Landowner (if different):
Sonya Rippe, City of Plymouth (sent electronically)
☒ Members of the public who requested notice (notice only):
Andrew Krinke – KES (sent electronically)
☒ Corps of Engineers Project Manager (notice only): **Melissa Jenny, Army Corps of Engineers, 180 5th Street East, Suite 700, St. Paul, MN, 55101-1678** (sent electronically)
☐ BWSR Wetland Bank Coordinator (wetland bank plan applications only)

4. MAILING INFORMATION

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

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

➢Department of Natural Resources Regional Offices:

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

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

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

➢

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

➢For Wetland Bank Plan applications, also send a copy of the application to:
Minnesota Board of Water and Soil Resources
Wetland Bank Coordinator
520 Lafayette Road North
St. Paul, MN 55155

5. ATTACHMENTS

In addition to the application, list any other attachments:
☒ **Wetland Delineation Report for Old Rockford Road dated March 18, 2016 by KES**

Old Rockford Road

Plymouth, Hennepin County, Minnesota

Wetland Delineation Report

Prepared for

The City of Plymouth

by

Kjolhaug Environmental Services Company, Inc.
(KES Project No. 2016-021)

March 18, 2016

Old Rockford Road

Plymouth, Hennepin County, Minnesota

Wetland Delineation Report

TABLE OF CONTENTS

Title Page

1. WETLAND DELINEATION SUMMARY 1
2. OVERVIEW 2
3. METHODS 2
4. RESULTS 3
4.1 Review of NWI, Soils, Public Waters, and NHD Information 3
4.2 Wetland Determinations and Delineations 4
4.3 Other Areas 4
4.4 Request for Wetland Boundary and Jurisdictional Determination 5
5. CERTIFICATION OF DELINEATION 6

TABLES

Table 1. Soil types mapped on the Old Rockford Road project 3

FIGURES

1. Site Location
2. Existing Conditions
3. National Wetlands Inventory
4. Soil Survey
5. DNR Public Waters Inventory
6. National Hydrography Dataset

APPENDICES

A. Joint Application Form for Activities Affecting Water Resources in Minnesota
B. Wetland Delineation Data Forms
C. Precipitation Data

Old Rockford Road

Plymouth, Hennepin County, Minnesota

Wetland Delineation Report

1. WETLAND DELINEATION SUMMARY

- The 0.5-mile stretch of Old Rockford Road was inspected on March 2, 2016 for the presence and extent of wetland.
- The National Wetlands Inventory (NWI) map showed no wetlands within the project area.
- The soil survey showed that hydric and partially hydric soil types on and near the project area included Hamel, Hamel-Glencoe, and Minnetonka soils.
- The DNR Public Waters Inventory showed the DNR Watercourse Bassett Creek located approximately 200 feet south of the project area.
- The National Hydrography Dataset showed one perennial stream/river located within the project area.
- One Type 1 (PEMA) seasonally flooded basin was identified and delineated within the project area.

2. OVERVIEW

The 0.5-mile stretch of Old Rockford Road was inspected on March 2, 2016 for the presence and extent of wetland. The project area was located in Section 17, Township 118 North, Range 22 West, City of Plymouth, Hennepin County, Minnesota. The project area encompassed the southern right-of-way of Old Rockford Road between Vicksburg Lane North and Dunkirk Lane North (**Figure 1**).

The project area consisted primarily of mowed Kentucky bluegrass with lesser amounts of common plantain, smooth brome, and dandelion. Many deciduous and coniferous trees and shrubs were planted along the right-of-way. A wooded area was located in the eastern portion of the project area. The woodland was dominated by green ash and American elm trees, and common buckthorn shrubs.

The property was bordered on the north by Old Rockford Road and on the south by single-family homes.

One wetland was delineated within the site boundary. The delineated wetland boundary and existing conditions are shown on **Figure 2**.

Appendix A of this report includes a Joint Application Form for Activities Affecting Water Resources in Minnesota, which is submitted in request for: (1) a wetland boundary and type determination under the Minnesota Wetland Conservation Act (WCA), and (2) delineation concurrence and a Preliminary Jurisdictional Determination (PJD) under Section 404 of the Federal Clean Water Act.

3. METHODS

Wetlands were identified using the Routine Determination method described in the Corps of Engineers Wetlands Delineation Manual (Waterways Experiment Station, 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0) as required under Section 404 of the Clean Water Act and the Minnesota Wetland Conservation Act.

Wetland boundaries were identified as the upper-most extent of wetland that met criteria for hydric soils, hydrophytic vegetation, and wetland hydrology. Wetland-upland boundaries were marked with pin flags that were GPS located by Kjolhaug Environmental Services.

Soils, vegetation, and hydrology were documented at a representative location along the wetland-upland boundary. Plant species dominance was estimated based on the percent aerial or basal coverage visually estimated within a 30-foot radius for trees and vines, a 15-foot radius for the shrub layer, and a 5-foot radius for the herbaceous layer within the community type sampled.

Soils were characterized to a minimum depth of 24 inches (unless otherwise noted) using a Munsell Soil Color Book and standard soil texturing methodology. Hydric soil indicators used

are from Field Indicators of Hydric Soils in the United States (USDA Natural Resources Conservation Service (NRCS) in cooperation with the National Technical Committee for Hydric Soils, Version 7, 2010).

Plants were identified using standard regional plant keys. Taxonomy and indicator status of plant species was taken from the 2015 National Wetland Plant List (U.S. Army Corps of Engineers 2014. National Wetland Plant List, version 3.2, Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory, Hanover, NH).

4. RESULTS

4.1 Review of NWI, Soils, Public Waters, and NHD Information

The National Wetlands Inventory (NWI) (Minnesota Geospatial Commons 2009-2014 and U.S. Fish and Wildlife Service) showed no wetlands within the project area (**Figure 3**).

The Soil Survey (USDA NRCS 2015) showed that hydric and partially hydric soil types on and near the project area included Hamel, Hamel-Glencoe, and Minnetonka soils. Soil types mapped within the project area are listed in **Table 1** and a map showing soil types is included in **Figure 4**.

Table 1. Soil types mapped on the Old Rockford Road project

Symbol	Soil Name	Acres	% of Area	% Hydric	Hydric Category
L9A	Minnetonka silty clay loam, 0 to 2 percent slopes	0.27	10	100	Hydric
L22C2	Lester loam, 6 to 10 percent slopes, moderately eroded	0.13	5	2	Predominantly Non-hydric
L22E	Lester loam, 16 to 22 percent slopes	0.42	16	0	Non-hydric
L26B	Shorewood silty clay loam, 3 to 6 percent slopes	1.26	48	5	Predominantly Non-hydric
L36A	Hamel, overwash-Hamel complex, 0 to 3 percent slopes	0.14	5	45	Partially Hydric
L37B	Angus loam, 2 to 6 percent slopes	0.29	11	5	Predominantly Non-hydric
L132A	Hamel-Glencoe complex, 0 to 2 percent slopes	0.12	5	90	Predominantly Hydric

The Minnesota DNR Public Waters Inventory (Minnesota Department of Natural Resources 2015) showed DNR Watercourse Bassett Creek located approximately 200 feet south of the project area (**Figure 5**).

The National Hydrography Dataset (U.S. Geological Survey 2015) showed one perennial stream/river located within the project area (**Figure 6**).

4.2 Wetland Determinations and Delineations

Potential wetlands were evaluated during field observations on March 2, 2016. One wetland was identified and delineated near but outside of the project area (**Figure 2**). Corresponding data forms are included in **Appendix B**. The following description of the wetland and adjacent upland reflects conditions observed at the time of the field visit. At the time, herbaceous vegetation was not actively growing, but vegetation from the previous growing season was present and identifiable. Snow cover was not present, but soils were still frozen. Precipitation conditions were within the normal range based on available 30-day rolling total precipitation and three-month antecedent precipitation data (**Appendix C**) and field observations.

Wetland 1 was a Type 1 (PEMA) seasonally flooded basin located just south of the project area in the eastern portion of the review area. The wetland was sparsely vegetated with reed canary grass, common buckthorn shrubs, and American elm trees. No surface saturation or ponded water was observed within Wetland 1.

Adjacent upland consisted of woodland dominated by American elm and green ash trees and common buckthorn shrubs. Secondary hydrology indicators were not observed outside the wetland.

The wetland boundary corresponded to a slight topographic rise and transition in vegetation. The wetland was not shown on the NWI map, but was located in an area mapped with predominantly hydric soil (Hamel-Glencoe) on the soil survey. Wetland 1 appeared to extend outside of the review area to the south.

4.3 Other Areas

A drainageway flowing south toward Bassett Creek (DNR Public Watercourse) was observed in the eastern portion of the project area. The drainageway was steeply sloped and was approximately 6 to 8 feet from the top of bank to the water. The adjacent banks were non-wetland and were sparsely vegetated with American elm and green ash trees and common buckthorn shrubs. This drainageway is non-wetland; however, it is a Water of the U.S.

View of drainageway; looking from north to south. March 2, 2016

No other areas with hydrophytic vegetation or wetland hydrology were observed on the site. No other areas were shown as hydric soil on the soil survey or as wetland on the NWI map.

4.4 Request for Wetland Boundary and Jurisdictional Determination

Appendix A of this report includes a Joint Application Form for Activities Affecting Water Resources in Minnesota, which is submitted in request for: (1) a wetland boundary and type determination under the Minnesota Wetland Conservation Act (WCA), and (2) delineation concurrence and an Preliminary Jurisdictional Determination (PJD) under Section 404 of the Federal Clean Water Act.

5. CERTIFICATION OF DELINEATION

The procedures utilized in the described delineation are based on the U.S. Army Corps of Engineers 1987 Wetlands Delineation Manual as required under Section 404 of the Clean Water Act and the Minnesota Wetland Conservation Act. This wetland delineation and report were prepared in compliance with the regulatory standards in place at the time the work was performed.

Site boundaries indicated on figures within this report are approximate and do not constitute an official survey product.

Delineation completed by: Andrew Krinke, Ecologist/GIS Specialist
Certified In-Training Wetland Delineator No. 1085

Report prepared by: Andrew Krinke, Ecologist/GIS Specialist
Certified In-Training Wetland Delineator No. 5197

Report reviewed by: _____ Date: March 9, 2016
Mark Kjolhaug, Professional Wetland Scientist No. 000845

Old Rockford Road

Wetland Delineation Report

FIGURES

1. Site Location
2. Existing Conditions
3. National Wetlands Inventory
4. Soil Survey
5. DNR Protected Waters Inventory
6. National Hydrography Dataset

Figure 1 - Site Location

N

0 1,250 Feet

KJOLHAUG ENVIRONMENTAL SERVICES COMPANY

Source: ESRI Streets Basemap

Old Rockford Road (KES 2016-021)
Plymouth, Minnesota

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

Figure 2 - Existing Conditions

N

0 300 Feet

KJOLHAUG ENVIRONMENTAL SERVICES COMPANY

Source: Minnesota DNR (2013)

Culvert

Flow Path

Drainageway

Wetland Boundary

Project Boundary

Old Rockford Road (KES 2016-021)
Plymouth, Minnesota

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

Figure 2A - West Alignment Section

N

0 150 Feet

KJOLHAUG ENVIRONMENTAL SERVICES COMPANY

Source: Minnesota DNR (2013)

Culvert

Flow Path

Drainageway

Wetland Boundary

Project Boundary

Old Rockford Road (KES 2016-021)
Plymouth, Minnesota

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

Figure 2B - East Alignment Section

N

0 150 Feet

KJOLHAUG ENVIRONMENTAL SERVICES COMPANY

Source: Minnesota DNR (2013)

Culvert

Flow Path

Drainageway

Wetland Boundary

Project Boundary

Old Rockford Road (KES 2016-021)
Plymouth, Minnesota

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

Figure 3 - National Wetlands Inventory

N

0 300 Feet

KJOLHAUG ENVIRONMENTAL SERVICES COMPANY

Source: Minnesota DNR (2013), USFWS

PABG
PABGx
PEM1A
PEM1Ad
PEM1C
PFO1Ad
PSS1C
PUBGx
R2UBFx

Old Rockford Road (KES 2016-021)
Plymouth, Minnesota

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

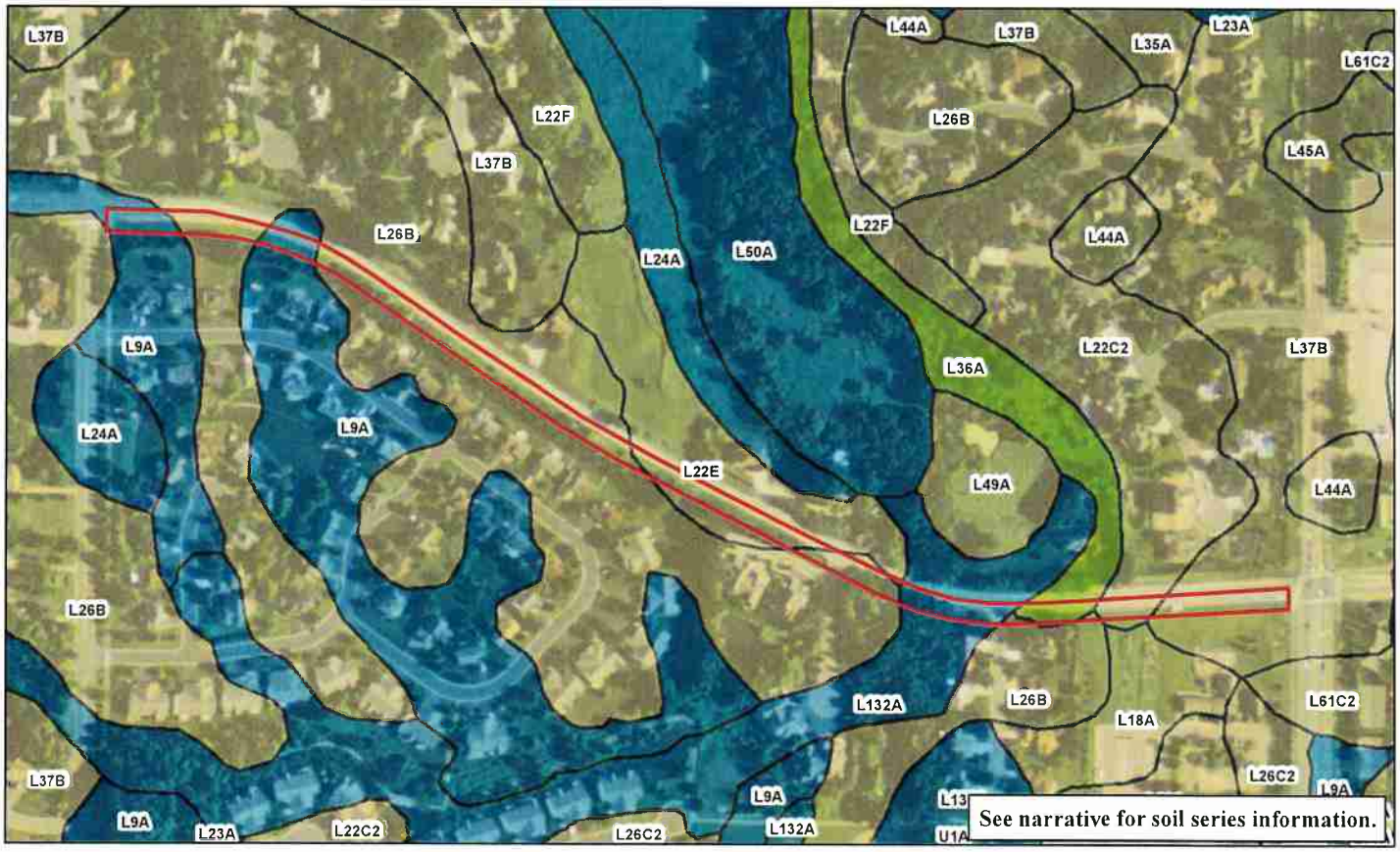


Figure 4 - Soil Survey

N

0 400 Feet

KJOLHAUG ENVIRONMENTAL SERVICES COMPANY

Source: USDA, NRCS

Hydric/Predominantly Hydric

Partially Hydric

Non-Hydric/Predominantly Non-Hydric

Old Rockford Road (KES 2016-021)
Plymouth, Minnesota

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

Figure 5 - DNR Public Waters Inventory

N

0 300 Feet

KJOLHAUG ENVIRONMENTAL SERVICES COMPANY

Source: Minnesota DNR

Protected Waters

Public Watercourse

Old Rockford Road (KES 2016-021)
Plymouth, Minnesota

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

Plymouth Creek

Figure 6 - National Hydrography Dataset

N

0 300 Feet

KJOLHAUG ENVIRONMENTAL SERVICES COMPANY

Source: USGS

StreamRiver

LakePond

Old Rockford Road (KES 2016-021)
Plymouth, Minnesota

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

Old Rockford Road

Wetland Delineation Report

APPENDIX A

Joint Application Form for Activities Affecting Water Resources in Minnesota

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: Sonya Rippe – City of Plymouth
Mailing Address: 14900 23rd Avenue North Plymouth, MN 55447
Phone: 763-509-5943
E-mail Address: srippe@plymouthmn.gov

Authorized Contact (do not complete if same as above):
Mailing Address:
Phone:
E-mail Address:

Agent Name: Andrew Krinke
Mailing Address: 26105 Wild Rose Lane Shorewood, MN 55331
Phone: (952)-401-8757
E-mail Address: Andrew@kjolhaugenv.com

PART TWO: Site Location Information

County: Hennepin **City/Township: Plymouth**
Parcel ID and/or Address: Old Rockford Road (between Vicksburg Lane N and Dunkirk Lane N)
Legal Description (Section, Township, Range): S17 T118N R22W
Lat/Long (decimal degrees):
Attach a map showing the location of the site in relation to local streets, roads, highways.
Approximate size of site (acres) or if a linear project, length (feet): ~2,640 feet

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

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

PART THREE: General Project/Site Information

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

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

PART FOUR: Aquatic Resource Impact[1] 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]

[1]If impacts are temporary; enter the duration of the impacts in days next to the "T". For example, a project with a temporary access fill that would be removed after 220 days would be entered "T (220)".
[2]Impacts less than 0.01 acre should be reported in square feet. Impacts 0.01 acre or greater should be reported as acres and rounded to the nearest 0.01 acre. Tributary impacts must be reported in linear feet of impact and an area of impact by indicating first the linear feet of impact along the flowline of the stream followed by the area impact in parentheses). For example, a project that impacts 50 feet of a stream that is 6 feet wide would be reported as 50 ft (300 square feet).
[3]This is generally only applicable if you are applying for a de minimis exemption under MN Rules 8420.0420 Subp. 8, otherwise enter "N/A".
[4]Use *Wetland Plants and Plant Community Types of Minnesota and Wisconsin* 3rd Ed. as modified in MN Rules 8420.0405 Subp. 2.
[5]Refer to Major Watershed and Bank Service Area maps in MN Rules 8420.0522 Subp. 7.

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

PART FIVE: Applicant Signature

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

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

Signature: _____ Date: 3-18-16

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

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

Attachment A
Request for Delineation Review, Wetland Type Determination, or Jurisdictional Determination

By submission of the enclosed wetland delineation report, I am requesting that the U.S. Army Corps of Engineers, St. Paul District (Corps) and/or the Wetland Conservation Act Local Government Unit (LGU) provide me with the following (check all that apply):

☒ **Wetland Type Confirmation**

☒ **Delineation Concurrence**. Concurrence with a delineation is a written notification from the Corps and a decision from the LGU concurring, not concurring, or commenting on the boundaries of the aquatic resources delineated on the property. Delineation concurrences are generally valid for five years unless site conditions change. Under this request alone, the Corps will not address the jurisdictional status of the aquatic resources on the property, only the boundaries of the resources within the review area (including wetlands, tributaries, lakes, etc.).

☒ **Preliminary Jurisdictional Determination**. A preliminary jurisdictional determination (PJD) is a non-binding written indication from the Corps that waters, including wetlands, identified on a parcel may be waters of the United States. For purposes of computation of impacts and compensatory mitigation requirements, a permit decision made on the basis of a PJD will treat all waters and wetlands in the review area as if they are jurisdictional waters of the U.S. PJDs are advisory in nature and may not be appealed.

☐ **Approved Jurisdictional Determination**. An approved jurisdictional determination (AJD) is an official Corps determination that jurisdictional waters of the United States are either present or absent on the property. AJDs can generally be relied upon by the affected party for five years. An AJD may be appealed through the Corps administrative appeal process.

In order for the Corps and LGU to process your request, the wetland delineation must be prepared in accordance with the 1987 Corps of Engineers Wetland Delineation Manual, any approved Regional Supplements to the 1987 Manual, and the *Guidelines for Submitting Wetland Delineations in Minnesota* (2013).
http://www.mvp.usace.army.mil/Missions/Regulatory/DelineationJDGuidance.aspx

Old Rockford Road

Wetland Delineation Report

APPENDIX B

Wetland Delineation Data Forms

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Old Rockford Road | City/County: Plymouth | Sampling Date: 3/16/2016

Applicant/Owner: City of Plymouth | State: MN | Sampling Point: SP1-1U

Investigator(s): A. Krinke | Section, Township, Range: S17 T118N R22W

Landform (hillslope, terrace, etc.): Hillslope | Local relief (concave, convex, none): None

Slope (%): 4 to 5 | Lat: | Long: | Datum:

Soil Map Unit Name: Hamel-Glencoe | NWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances" present? Yes

Are vegetation ____, soil ____, or hydrology ____ naturally problematic? (If needed, explain any answers in remarks.)

SUMMARY OF FINDINGS

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

Remarks: (Explain alternative procedures here or in a separate report.)

Hydrologic conditions typical based on gridded database method (3-month antecedent conditions) and within the normal range (30-70%) based on 30-day rolling precipitation total.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species	Indicator Staus
1 *Ulmus americana*	30	Y	FACW
2 *Fraxinus pennsylvanica*	10	Y	FACW
3			
4			
5			
	40	= Total Cover	
Sapling/Shrub stratum (Plot size: 15-ft radius)			
1 *Rhamnus cathartica*	40	Y	FAC
2			
3			
4			
5			
	40	= Total Cover	
Herb stratum (Plot size: 5-ft radius)			
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
	0	= Total Cover	
Woody vine stratum (Plot size: 30-ft radius)			
1			
2			
	0	= 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: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	40	x 3 =	120
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	80 (A)		200 (B)

Prevalence Index = B/A = 2.50

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

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

Hydrophytic vegetation present? Y

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

SOIL

Sampling Point: SP1-1U

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks

*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 weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: -

Depth (inches): _____

Hydric soil present? Y

Remarks:

Unable to auger due to frozen soils. Hydric soils are assumed based upon present hydrophytic vegetation and mapped hydric soils on the soil survey.

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)
- X FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes	___	No	___	Depth (inches): ___
Water table present?	Yes	___	No	___	Depth (inches): ___
Saturation present? (includes capillary fringe)	Yes	___	No	___	Depth (inches): ___

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: Old Rockford Road | City/County: Plymouth | Sampling Date: 3/16/2016

Applicant/Owner: City of Plymouth | State: MN | Sampling Point: SP1-1W

Investigator(s): A. Krinke | Section, Township, Range: S17 T118N R22W

Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave

Slope (%): 0 to 2 | Lat: | Long: | Datum:

Soil Map Unit Name: Hamel-Glencoe | NWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances" present? Yes

Are vegetation ____, soil ____, or hydrology ____ naturally problematic? (If needed, explain any answers in remarks.)

SUMMARY OF FINDINGS

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

Remarks: (Explain alternative procedures here or in a separate report.)

Hydrologic conditions typical based on gridded database method (3-month antecedent conditions) and within the normal range (30-70%) based on 30-day rolling precipitation total.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species	Indicator Staus
1 *Ulmus americana*	20	Y	FACW
2 *Fraxinus pennsylvanica*	20	Y	FACW
3			
4			
5			
	40	= Total Cover	
Sapling/Shrub stratum (Plot size: 15-ft radius)			
1 *Rhamnus cathartica*	40	Y	FAC
2			
3			
4			
5			
	40	= Total Cover	
Herb stratum (Plot size: 5-ft radius)			
1 *Phalaris arundinacea*	50	Y	FACW
2			
3			
4			
5			
6			
7			
8			
9			
10			
	50	= Total Cover	
Woody vine stratum (Plot size: 30-ft radius)			
1			
2			
	0	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across all Strata: 4 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	90	x 2 =	180
FAC species	40	x 3 =	120
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	130 (A)		300 (B)

Prevalence Index = B/A = 2.31

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

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

Hydrophytic vegetation present? Y

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

SOIL

Sampling Point: SP1-1W

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks

*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 weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: -

Depth (inches): ___

Hydric soil present? Y

Remarks:

Unable to auger due to frozen soils. Hydric soils are assumed based upon present hydrophytic vegetation and mapped hydric soils on the soil survey.

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)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes ___	No ___	Depth (inches):	___
Water table present?	Yes ___	No ___	Depth (inches):	___
Saturation present? (includes capillary fringe)	Yes ___	No ___	Depth (inches):	___

Indicators of wetland hydrology present? Y

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

Remarks:

Old Rockford Road

Wetland Delineation Report

APPENDIX C

Precipitation Data

Old Rockford Road, Plymouth: Precipitation Summary
Source: Minnesota Climatology Working Group

Monthly Totals: 2015

Target: T118N R22W S17, Lat: 45.02934 Lon: 93.49200

mon	year	cc	tttN	rrW	ss	nnnn	oooooooo	pre
Jan	2016	27	119N	22W	33	SWCD		.26
Feb	2016	27	119N	22W	33	SWCD		.72

January/February/March Daily Records

Date	Precip.
Jan 1, 2016	T
Jan 2, 2016	0
Jan 3, 2016	0
Jan 4, 2016	0
Jan 5, 2016	0
Jan 6, 2016	0
Jan 7, 2016	.06
Jan 8, 2016	.10
Jan 9, 2016	.02
Jan 10, 2016	0
Jan 11, 2016	0
Jan 12, 2016	.02
Jan 13, 2016	0
Jan 14, 2016	.01
Jan 15, 2016	T
Jan 16, 2016	0
Jan 17, 2016	T
Jan 18, 2016	T
Jan 19, 2016	0
Jan 20, 2016	.03
Jan 21, 2016	0
Jan 22, 2016	T
Jan 23, 2016	T
Jan 24, 2016	T
Jan 25, 2016	T
Jan 26, 2016	.02
Jan 27, 2016	T
Jan 28, 2016	0
Jan 29, 2016	0
Jan 30, 2016	-
Jan 31, 2016	T

Date	Precip.
Feb 1, 2016	0
Feb 2, 2016	0
Feb 3, 2016	.36
Feb 4, 2016	.01
Feb 5, 2016	.02
Feb 6, 2016	0
Feb 7, 2016	.01
Feb 8, 2016	.02
Feb 9, 2016	T
Feb 10, 2016	0
Feb 11, 2016	0
Feb 12, 2016	.02
Feb 13, 2016	0
Feb 14, 2016	T
Feb 15, 2016	.03
Feb 16, 2016	0
Feb 17, 2016	0
Feb 18, 2016	0
Feb 19, 2016	.03
Feb 20, 2016	.20
Feb 21, 2016	0
Feb 22, 2016	T
Feb 23, 2016	.02
Feb 24, 2016	T
Feb 25, 2016	0
Feb 26, 2016	0
Feb 27, 2016	0
Feb 28, 2016	T
Feb 29, 2016	T

Date	Precip.	
Mar 1, 2016	0	
Mar 2, 2016	0	
Mar 3, 2016	0	
Mar 4, 2016	0	
Mar 5, 2016	0	
Mar 6, 2016	0	
Mar 7, 2016	0	
Mar 8, 2016	0	
Mar 9, 2016	0	site visit

1981-2010 Summary Statistics

	Jan	*Feb*	*Mar*	*Apr*	*May*	*Jun*	*Jul*	*Aug*	*Sep*	*Oct*	*Nov*	*Dec*	*WARM*	*ANN*	*WAT*
30%	0.49	0.40	1.27	1.96	2.66	3.47	2.49	3.18	2.11	1.30	1.06	0.66	16.69	27.63	26.85
70%	0.96	0.90	1.92	2.84	4.10	5.50	4.69	5.08	3.66	3.25	1.99	1.44	21.25	33.88	34.29
mean	0.80	0.77	1.75	2.65	3.52	4.41	4.10	4.14	3.36	2.43	1.67	1.14	19.51	30.73	30.53

Minnesota Climatology Working Group

Precipitation Worksheet Using Gridded Database

Precipitation data for target wetland location:

county: **Hennepin** township number: **118N**
township name: **Plymouth** range number: **22W**
nearest community: **Hamel** section number: **17**

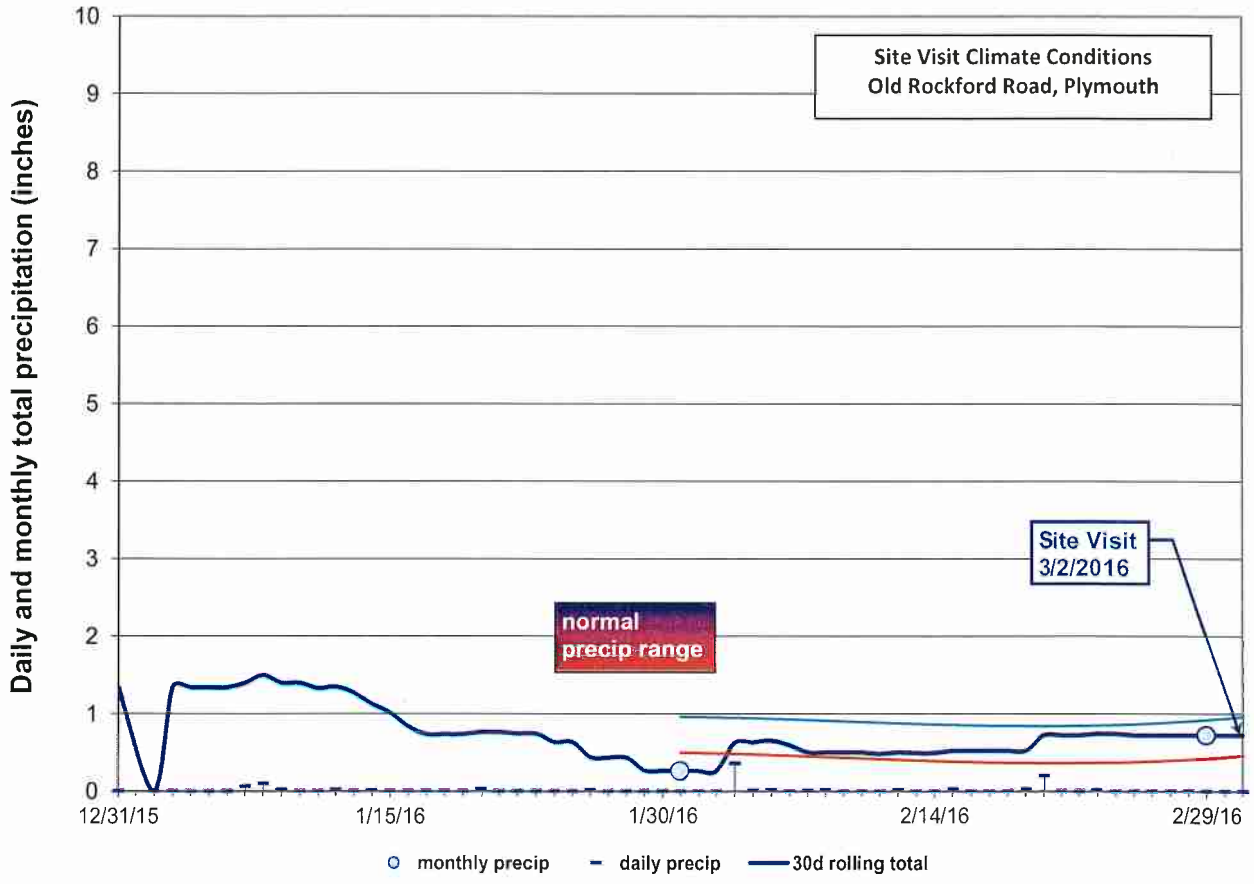
Aerial photograph or site visit date:
Wednesday, March 02, 2016

Score using 1981-2010 normal period

values are in inches A 'R' following a monthly total indicates a provisional value derived from radar-based estimates.	first prior month: **February 2016**	second prior month: **January 2016**	third prior month: **December 2015**
estimated precipitation total for this location:	0.72	0.26	**1.78**
there is a 30% chance this location will have less than:	0.40	0.49	0.66
there is a 30% chance this location will have more than:	0.90	0.96	1.44
type of month: dry normal wet	normal	dry	**wet**
monthly score	3 * 2 = 6	2 * 1 = 2	**1 * 3 = 3**
multi-month score: 6 to 9 (dry) 10 to 14 (normal) 15 to 18 (wet)	normal (11)		

Other Resources:

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


Site Visit Climate Conditions
Old Rockford Road, Plymouth
Daily and monthly total precipitation (inches)
10
9
8
7
6
5
4
3
2
1
0
12/31/15
1/15/16
1/30/16
2/14/16
2/29/16
Site Visit
3/2/2016
normal
precip range
monthly precip
daily precip
30d rolling total