Appendix I

Wetland Resources

BOARD OF WATER AND SOIL RESOURCES

Minnesota Wetland Conservation Act
Notice of Decision

Local Government Unit: Olmsted SWCD	**County:** Olmsted
Applicant Name: Snowshoe BESS, LLC	**Applicant Representative:** Westwood-Malia Stone
Project Name: Snowshoe BESS	**LGU Project No:** 04-24
Date Complete Application Received by LGU: July 1. 2024	
Date of LGU Decision: 08/09/2024	
Date this Notice was Sent: 08/09/2024	

WCA Decision Type - check all that apply

☒ Wetland Boundary/Type ☐ Sequencing ☐ Replacement Plan ☐ Bank Plan (not credit purchase)
☐ No-Loss (8420.0415) ☐ Exemption (8420.0420)
Part: ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H Subpart: ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9

Replacement Plan Impacts (replacement plan decisions only)

Total WCA Wetland Impact Area: N/A
Wetland Replacement Type: ☐ Project Specific Credits: ☐ Bank Credits:
Bank Account Number(s):

Technical Evaluation Panel Findings and Recommendations (attach if any)

☒ Approve ☐ Approve w/Conditions ☐ Deny ☐ No TEP Recommendation

LGU Decision

☐ Approved with Conditions (specify below)[1] ☒ Approved[1] ☐ Denied
List Conditions:

Decision-Maker for this Application: ☒ Staff ☐ Governing Board/Council ☐ Other:

Decision is valid for: ☒ 5 years (default) ☐ 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 decision[1].

☐ Attachment(s) (specify):
☒ Summary: The Olmsted County TEP discussed the project and field reviewed the project site during our monthly TEP meeting on July 10, 2024. The focus was primarily to look at SA-02/NW-01. After field review, the TEP concurs with Westwood's findings. As wet as it has been in Olmsted Co with spring and summer precipitation, the area did not show any wet signatures that were identified in some aerial photo years. The site is tiled and it appears subsurface drain tile is removing the hydrology that provided crop stress seen in some photo years. The wetland delineation is approved.

[1] *Findings must consider any TEP recommendations.*

Attached Project Documents

☐ Site Location Map ☒ Project Plan(s)/Descriptions/Reports: Can be downloaded via link in body of NoD email as desired.

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?

☒ Yes[1] ☐ No

[1]*If 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)

To appeal an LGU staff decision, please send petition and $411.00 fee payable to: Olmsted County to: Olmsted SWCD 2122 Campus Drive SE, Suite 200 Rochester, MN 55904

Notice Distribution:

Required on all notices:

☒ SWCD TEP Member: Angela White	☒ BWSR TEP Member: Jed Chesnut
☒ LGU TEP Member: Skip Langer	
☒ DNR Representative: Nicole Lehman – DNR Hydrologist	
☒ Watershed District or Watershed Mgmt. Org.: N/A	
☒ Applicant: Mary Matze-Spearmint Energy	☒ Agent/Consultant: Audrey McTaggart/Malia Stone-Westwood

Optional or As Applicable:

☒ Corps of Engineers: David Studenski or general contact	
☐ BWSR Wetland Mitigation Coordinator (required for bank plan applications only):	
☐ Members of the Public (notice only):	☐ Other:

Signature: Skipton Langer	**Date:** 8/9/2024 | 4:26 PM CDT

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.

Westwood

12701 Whitewater Drive, Suite 300
Minnetonka, MN 55343

Main (952) 937-5150
Fax (952) 937-5822

westwoodps.com
(888) 937-5150

MEMORANDUM

Date: June 11, 2024

Re: No-Wetland Determination Report
Snowshoe BESS Project, Kalmar Township, Olmsted County

Westwood File R0046088.00

To: Skip Langer, Olmsted Soil & Water Conservation District
USACE PM for Olmsted County

Cc: Mary Matze, Snowshoe BESS, LLC

From: Malia Stone

Please find enclosed the Joint Application form for Activities Affecting Water Resources in Minnesota and the No-Wetland Determination Report for the Snowshoe BESS Project located in Olmsted County, Minnesota. With this submittal the Applicant is requesting concurrence from the WCA LGU and USACE that the extent of water resources have been accurately identified on the Site.

Please review the enclosed report and feel free to contact me with questions at (507) 412-3292.

Joint Application Form for Activities Affecting Water Resources in Minnesota

This joint application form is the accepted means for initiating review of proposals that may affect a water resource (wetland, tributary, lake, etc.) in the State of Minnesota under state and federal regulatory programs. Applicants for Minnesota Department of Natural Resources (DNR) Public Waters permits **MUST** use the MPARS online permitting system for submitting applications to the DNR. Applicants can use the information entered into MPARS to substitute for completing parts of this joint application form (see the paragraph on MPARS at the end of the joint application form instructions for additional information). This form is only applicable to the water resource aspects of proposed projects under state and federal regulatory programs; other local applications and approvals may be required. Depending on the nature of the project and the location and type of water resources impacted, multiple authorizations may be required as different regulatory programs have different types of jurisdiction over different types of resources.

Regulatory Review Structure

Federal

The St. Paul District of the U.S. Army Corps of Engineers (Corps) is the federal agency that regulates discharges of dredged or fill material into waters of the United States (wetlands, tributaries, lakes, etc.) under Section 404 of the Clean Water Act (CWA) and regulates work in navigable waters under Section 10 of the Rivers and Harbors Act. Applications are assigned to Corps project managers who are responsible for implementing the Corps regulatory program within a particular geographic area.

State

There are three state regulatory programs that regulate activities affecting water resources. The Wetland Conservation Act (WCA) regulates most activities affecting wetlands. It is administered by local government units (LGUs) which can be counties, townships, cities, watershed districts, watershed management organizations or state agencies (on state-owned land). The Minnesota DNR Division of Ecological and Water Resources issues permits for work in specially-designated public waters via the Public Waters Work Permit Program (DNR Public Waters Permits). The Minnesota Pollution Control Agency (MPCA) under Section 401 of the Clean Water Act certifies that discharges of dredged or fill material authorized by a federal permit or license comply with state water quality standards. One or more of these regulatory programs may be applicable to any one project.

Required Information

Prior to submitting an application, applicants are **strongly encouraged** to seek input from the Corps Project Manager and LGU staff to identify regulatory issues and required application materials for their proposed project. Project proponents can request a pre-application consultation with the Corps and LGU to discuss their proposed project by providing the information required in Sections 1 through 5 of this joint application form to facilitate a meaningful discussion about their project. Many LGUs provide a venue (such as regularly scheduled technical evaluation panel meetings) for potential applicants to discuss their projects with multiple agencies prior to submitting an application. Contact information is provided below.

The following bullets outline the information generally required for several common types of determinations/authorizations.

- For delineation approvals and/or jurisdictional determinations, submit Parts 1, 2 and 5, and Attachment A.
- For activities involving CWA/WCA exemptions, WCA no-loss determinations, and activities not requiring mitigation, submit Parts 1 through 5, and Attachment B.
- For activities requiring compensatory mitigation/replacement plan, submit Parts 1 thru 5, and Attachments C and D.
- For local road authority activities that qualify for the state's local road wetland replacement program, submit Parts 1 through 5, and Attachments C, D (if applicable), and E to both the Corps and the LGU.

Submission Instructions

Send the completed joint application form and all required attachments to:

U.S Army Corps of Engineers. Applications may be sent directly to the appropriate Corps Office. For a current listing of areas of responsibilities and contact information, visit the St. Paul District's website at: http://www.mvp.usace.army.mil/Missions/Regulatory.aspx and select "Minnesota" from the contact Information box. Alternatively, applications may be sent directly to the St. Paul District Headquarters and the Corps will forward them to the appropriate field office.

Section 401 Water Quality Certification: Applicants do not need to submit the joint application form to the MPCA unless specifically requested. The MPCA will request a copy of the completed joint application form directly from an applicant when they determine an individual 401 water quality certification is required for a proposed project.

Wetland Conservation Act Local Government Unit: Send to the appropriate Local Government Unit. If necessary, contact your county Soil and Water Conservation District (SWCD) office or visit the Board of Water and Soil Resources (BWSR) web site (www.bwsr.state.mn.us) to determine the appropriate LGU.

DNR Public Waters Permitting: In 2014 the DNR will begin using the Minnesota DNR Permitting and Reporting System (MPARS) for submission of Public Waters permit applications (https://webapps11.dnr.state.mn.us/mpars/public/authentication/login). Applicants for Public Waters permits **MUST** use the MPARS online permitting system for submitting applications to the DNR. To avoid duplication and to streamline the application process among the various resource agencies, applicants can use the information entered into MPARS to substitute for completing parts of this joint application form. The MPARS print/save function will provide the applicant with a copy of the Public Waters permit application which, at a minimum, will satisfy Parts one and two of this joint application. For certain types of activities, the MPARS application may also provide all of the necessary information required under Parts three and four of the joint application. However, it is the responsibility of the Applicant to make sure that the joint application contains all of the required information, including identification of all aquatic resources impacted by the project (see Part four of the joint application). After confirming that the MPARS application contains all of the required information in Parts one and two the Applicant may attach a copy to the joint application and fill in any missing information in the remainder of the joint application.

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: Mary Matze, Snowshoe BESS, LLC
Mailing Address: 2916 N Miami Ave, Suite 830
Miami, FL 33127
Phone: (786) 321 9379
E-mail Address: mmatze@spearmintenergy.com

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

Agent Name: Malia Stone, Westwood Professional Services
Mailing Address: 12701 Whitewater Drive, Suite 300
Minnetonka, MN 55343
Phone: (507) 412-3292
E-mail Address: Malia.Stone@westwoodps.com

PART TWO: Site Location Information

County: Olmsted **City/Township:** Kalmar Township
Parcel ID and/or Address: PIN# 052806

Legal Description (Section, Township, Range): Section 35, T107 R15W
Lat/Long (decimal degrees): 44.0309498, -92.5864193
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): ~27.2 acres

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

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

PART THREE: General Project/Site Information

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

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

PART FOUR: Aquatic Resource 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: Andrew Waranch [Jun 6, 2024 12:19 MDT] Date: June 6, 2024

I hereby authorize Westwood Professional Services 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

NO-WETLAND DETERMINATION REPORT

Snowshoe BESS Project

Kalmar Township, Olmsted County, Minnesota

JUNE 11, 2024

PREPARED FOR:
Snowshoe BESS, LLC
2916 N Miami Ave, Suite 830
Miami, FL 33127

PREPARED BY:
Westwood

Westwood

No-Wetland Determination Report

Snowshoe BESS Project

Kalmar Township, Olmsted County, Minnesota

Prepared For:

Snowshoe BESS, LLC
2916 N Miami Ave, Suite 830
Miami, FL 33127

Prepared By:

Westwood Professional Services, Inc.
12701 Whitewater Drive
Suite 300
Minnetonka, MN 55343
(952) 937-5150

Project Number: R0046088.00
Date: June 11, 2024

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1.0 Introduction and Purpose

Spearmint Renewable Development Company, LLC contracted Westwood Professional Services to delineate wetlands and watercourses within the Snowshoe BESS Project (Project). A delineation was completed within an approximately 27-acre Project Area (Exhibit 1). The purpose of this report, the attached exhibits, data forms and appendices, is to identify and document the location and extent of the regulated aquatic resources under state and federal regulatory programs within the Project Area for the Project. This report provides the required documentation for wetland boundary determinations in conformance with the United States Army Corps of Engineers (USACE) Wetlands Delineation Manual (Environmental Laboratory, Waterways Experiment Station, 1987) and the Regional Supplement to the USACE Wetland Delineation Manual: Midwest Supplement (US Army Engineer Research and Development Center, 2010). This report also addresses determinations for "Ordinary High-Water Marks" (OHWM) related to Clean Water Act and Rivers and Harbors Act jurisdiction.

2.0 Site Location and Description

The Site is located in Section 35, T107N, R15W, Kalmar Township, Olmsted County, Minnesota (Exhibit 1). The property consists entirely of agricultural field. Topography generally slopes down towards the southern and southeastern border of the Site with the high point of the Site located along the western boundary. Elevations range from 1,140 feet to 1,204 feet above mean sea level (msl). Adjacent land use consists of primarily of agricultural land, with some rural homesteads. The Site is located just north of US Highway 14 E.

The Project Area is situated in Rochester/Paleozoic Plateau Upland (Level IV Ecoregion 52c) of the Driftless Area Ecoregion (White, 2020). The topography is gently rolling and the soils are a mix of forest Udalfs and moist prairie Udolls. The landscape at presettlement was a mixture of tallgrass prairie, brush prairie, and oak openings and savannas. The land today is extensively farmed with row crops, primarily corn and soybeans, and some pasture and hay.

3.0 Field Delineation Methodology

3.1 Mapping

Prior to delineating wetland boundaries in the field, the National Wetlands Inventory (NWI) mapping (Exhibit 2), the National Hydrography Dataset (NHD) (Exhibit 2), the Federal Emergency Management Agency Flood Insurance Rate Map (FIRM) (Exhibit 2), the Minnesota DNR Public Waters Inventory (PWI), and the Natural Resource Conservation Service (NRCS) Soil Survey Geographic database (SSURGO2) for Olmsted County (Exhibit 3) were reviewed. Elevation mapping was completed using LiDAR contours from the USGS 3D Elevation Program (Exhibit 4).

3.2 Offsite Hydrology Review

Westwood reviewed historical aerial photography to identify potential wetlands in cultivated portions of the property using the July 1st, 2016, Minnesota Board of Water and Soil Resources (BWSR)/USACE-accepted protocol for conducting off-site wetland determinations, *Guidance for Offsite Hydrology/Wetland Determinations*. A total of 13 different years were reviewed.

3.3 Wetland Delineation Methodology

Westwood conducted the wetland delineation on April 30, 2024. Wetlands in the Project Area, if present, were delineated using a level two routine determination method set forth in the USACE Wetlands Delineation Manual (Corps of Engineers, 1987) and the supplemental methods set forth in the Regional Supplement to the USACE Wetland Delineation Manual: Midwest Region (Corps of Engineers, 2010). Potential wetland areas were evaluated for the presence of hydric soils, wetland hydrology, and a predominance of hydrophytic vegetation.

Wetlands, if encountered, were classified according to *Classification of Wetlands and Deepwater Habitats of the United States* (FWS/OBS Publication 79/31; Cowardin et. al. 1979). Wetland plant community types were classified according to *Wetland Plants and Plant Communities of Minnesota and Wisconsin* (Eggers and Reed, 2015). Data sample locations and wetland boundaries were located and recorded using a Panasonic Toughbook Tablet paired with an EOS Arrow 100 global positioning system (GPS) device capable of sub-meter accuracy.

Common names and scientific names for vegetation identified in this report and on the attached data forms generally correspond with the nomenclature used in the 2022 National Wetland Plant List (NWPL) (U.S. Army Corps of Engineers, 2024). Plant wetland indicator status was based upon the Midwest rankings. Species dominance for vegetation measurements were based on the percent absolute coverage visually estimated within a 30-foot radius of the sample point location for the tree and vine layers, a 15-foot radius for the shrub layer, and a five-foot radius for the herbaceous layer.

Soil and hydrology data were collected in soil pits or soil borer holes to a minimum depth of 24 inches within each sample plot. Procedures for identifying hydric soils as outlined in the Field Indicators of Hydric Soils in the United States Version 8.2 (USDA NRCS 2018) were utilized. Soil colors were evaluated using a Munsell Soil Color Chart. Primary and secondary indicators of hydrology were also noted at each sample plot.

"Non-wetland sample points" were gathered in areas identified on the NWI, PWI, and/or NHD datasets, or areas that appeared as aerial signatures in reviews of historical imagery. These areas did not exhibit all three parameters (vegetation, hydrology, soils) to be considered wetland. Photographs and data forms documenting upland characteristics are included in Appendix A.

3.4 Ordinary High Water Mark Determinations

Some drainages within the Project Area may be considered non-wetland, non-potential Waters of the United States (WOTUS,) as they may not exhibit all parameters required for regulatory wetlands (i.e., predominance of hydrophytes, hydric soils, and jurisdictional hydrology). Accordingly, their boundaries were delineated in the field by documenting their "ordinary high-water marks" (OHWMs), as determined according to the USACE Regulatory Guidance Letter No. 05-05 (U.S. Army Corps of Engineers, 2005).

USACE regulations set forth at 33 CFR 328.3(e) defines the OHWM for purposes of Clean Water Act lateral jurisdiction:

> The term "ordinary high-water mark" means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of

terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

USACE Regulatory Guidance Letter No. 05-05 (U.S. Army Corps of Engineers, 2005) indicates the following physical characteristics are deemed reasonably reliable, and therefore presence of these characteristics was evaluated in the field when making OHWM determinations for drainages in the Project Area:

- Natural line impressed on the bank
- Changes in the character of soil
- Presence of litter and debris
- Vegetation matted down, bent, or absent
- Leaf litter disturbed or washed away
- Deposition
- Bed and banks
- Change in plant community
- Shelving
- Destruction of terrestrial vegetation
- Wracking
- Sediment sorting
- Scour
- Multiple observed flow events
- Water staining

Delineated watercourse boundaries, if present, were mapped in the field using a Panasonic Toughbook® tablet and EOS Arrow 100® unit capable of sub-meter accuracy (Exhibit 5).

4.0 Results

4.1 Mapping

NWI data did not map any features within the Project Area (Exhibit 2, *Water Resources*). Additionally, no NHD Flowlines or Waterbodies were mapped within the Project Area.

No 100- or 500-year floodplains were mapped within the Project Area (Exhibit 2, *Water Resources*).

The NRCS SSURGO2 for Olmsted County indicates that the soils listed in Table 4.1 are mapped within the Project Area (Exhibit 3). Based on the NRCS Web Soil Survey Hydric Rating, one soil unit within the Project Area was classified as predominantly hydric (Exhibit 3).

Table 4.1: Soil Summary Table

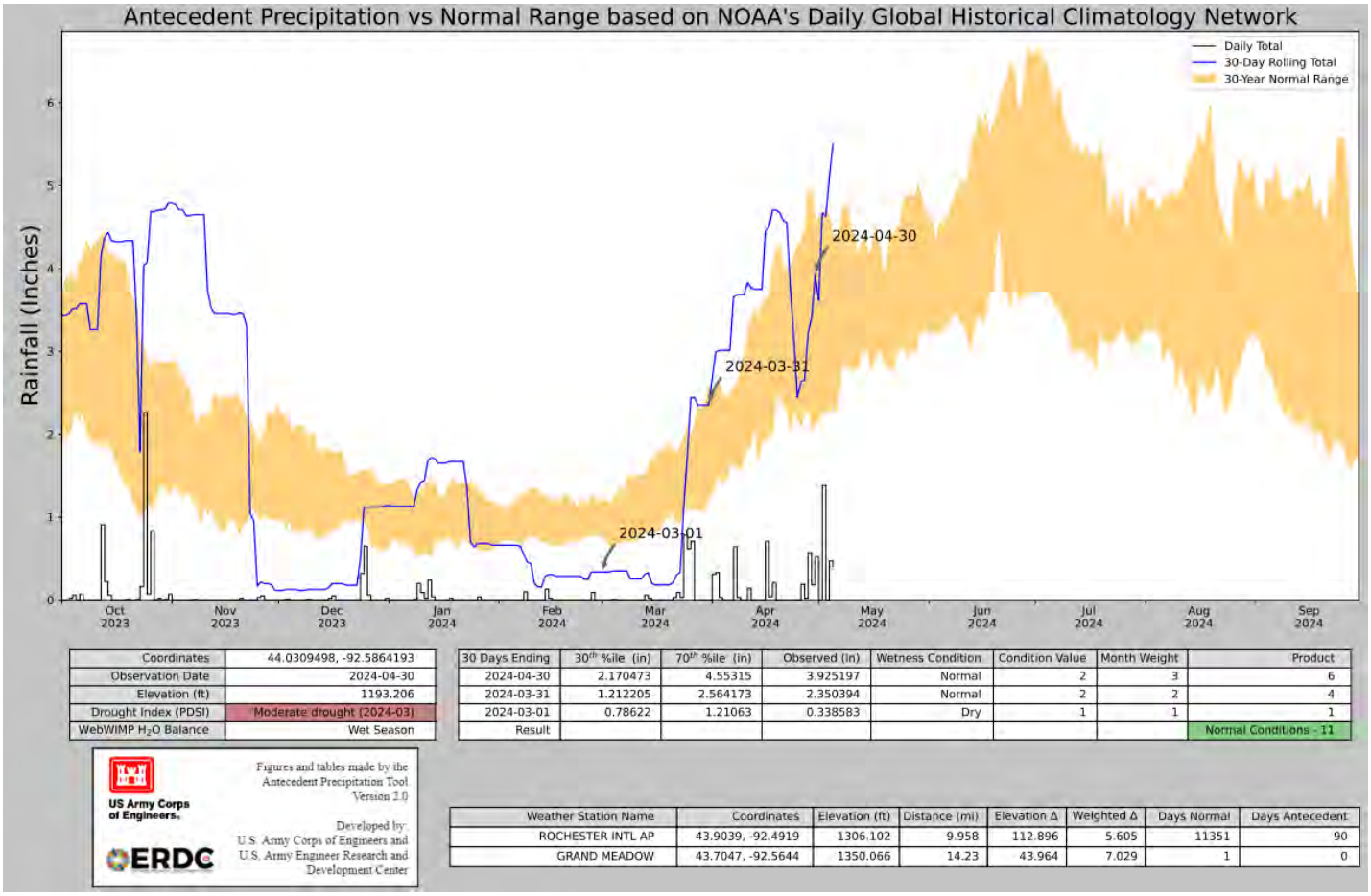
Map Symbol[1]	Map Unit Name[2]	Percent Hydric Soil[3]	Rating[2]
176	Garwin silty clay loam	95	Predominantly Hydric
203	Joy silt loam, 1 to 4 percent slopes	5	Predominantly Non-Hydric
19	Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes	0	Non-Hydric
N518B	Lindstrom silt loam, 2 to 6 percent slopes	0	Non-Hydric
401B	Mt. Carroll silt loam, 2 to 6 percent slopes, moderately eroded	0	Non-Hydric
285C	Port Byron silt loam, 6 to 12 percent slopes, moderately eroded	0	Non-Hydric
322C2	Timula silt loam, 6 to 12 percent slopes, moderately eroded	0	Non-Hydric
401B	Mt. Carroll silt loam, 2 to 6 percent slopes, moderately eroded	0	Non-Hydric

[1] – Soils determined using GIS geospatial query clipping the NRCS Soil Survey Geographic (SSURGO2) spatial data by Project boundaries.
[2] – As indicated in the SSURGO2 database.
[3] – Where percentages are small (e.g., < 15 %) the hydric soil is likely an inclusion that is not recognized in the map unit name. The absence of a value does not necessarily indicate the absence of hydric soils, but that the relative percentages of included minor soils have not been determined.

4.2 Antecedent Precipitation

Antecedent precipitation data was available for the 90 days prior to the site visit using data from the U.S. Army Corps of Engineers Antecedent Precipitation Tool V2.0. Figure 4.2 displays the tool's output. The tool indicates that antecedent precipitation was considered normal for the 90 days prior to the delineation.

Figure 4.2: Antecedent Precipitation Graph for April 30, 2024



Coordinates	44.0309498, -92.5864193
Observation Date	2024-04-30
Elevation (ft)	1193.206
Drought Index (PDSI)	Moderate drought (2024-03)
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-04-30	2.170473	4.55315	3.925197	Normal	2	3	6
2024-03-31	1.212205	2.564173	2.350394	Normal	2	2	4
2024-03-01	0.78622	1.21063	0.338583	Dry	1	1	1
Result							Normal Conditions - 11

US Army Corps of Engineers.
ERDC
Figures and tables made by the Antecedent Precipitation Tool Version 2.0
Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
ROCHESTER INTL AP	43.9039, -92.4919	1306.102	9.958	112.896	5.605	11351	90
GRAND MEADOW	43.7047, -92.5644	1350.066	14.23	43.964	7.029	1	0

4.3 Offsite Hydrology Review

The Site was reviewed against 13 years of aerial imagery prior to the field delineation. A total of two suspect areas were identified (Areas 1-2) in the cropped portions of the Site (Exhibit 4). The results of the offsite hydrology review are included in Appendix C.

4.4 On-Site Delineation Results

On April 30, 2024, Westwood determined there are no wetlands or waterways within the Project Area (Exhibit 5).

Non-Wetlands

A total of two (2) non-wetland sample points were gathered within the Project Area (NW-01 and NW-02) and are identified on Exhibit 5. Data forms and photographs were gathered at each non-wetland sample location and are included in Appendix A. Additional photographs were gathered to document Project Area characteristics and are included in Appendix B.

5.0 Conclusions

Westwood determined there are no wetlands or waterways within the Snowshoe BESS Site.

Westwood requests that the LGU and the USACE review and process this report with the provided Joint Application Form and provide written concurrence that the extent of potentially jurisdictional water resources have been accurately identified. Please consider this report a formal Wetland Boundary request pursuant to Minn. Rules 8420.0405 and the CWA.

6.0 Certification

I certify that, to the best of my knowledge and belief, the wetland delineation completed for this Site is consistent with current wetland delineation practices and guidelines. I have the specific qualifications, education, training, and experience to complete wetland delineations and determinations in accordance with federal and state requirements.

Sincerely,

WESTWOOD PROFESSIONAL SERVICES

Malia Stone
Wetland Scientist

7.0 Literature Cited

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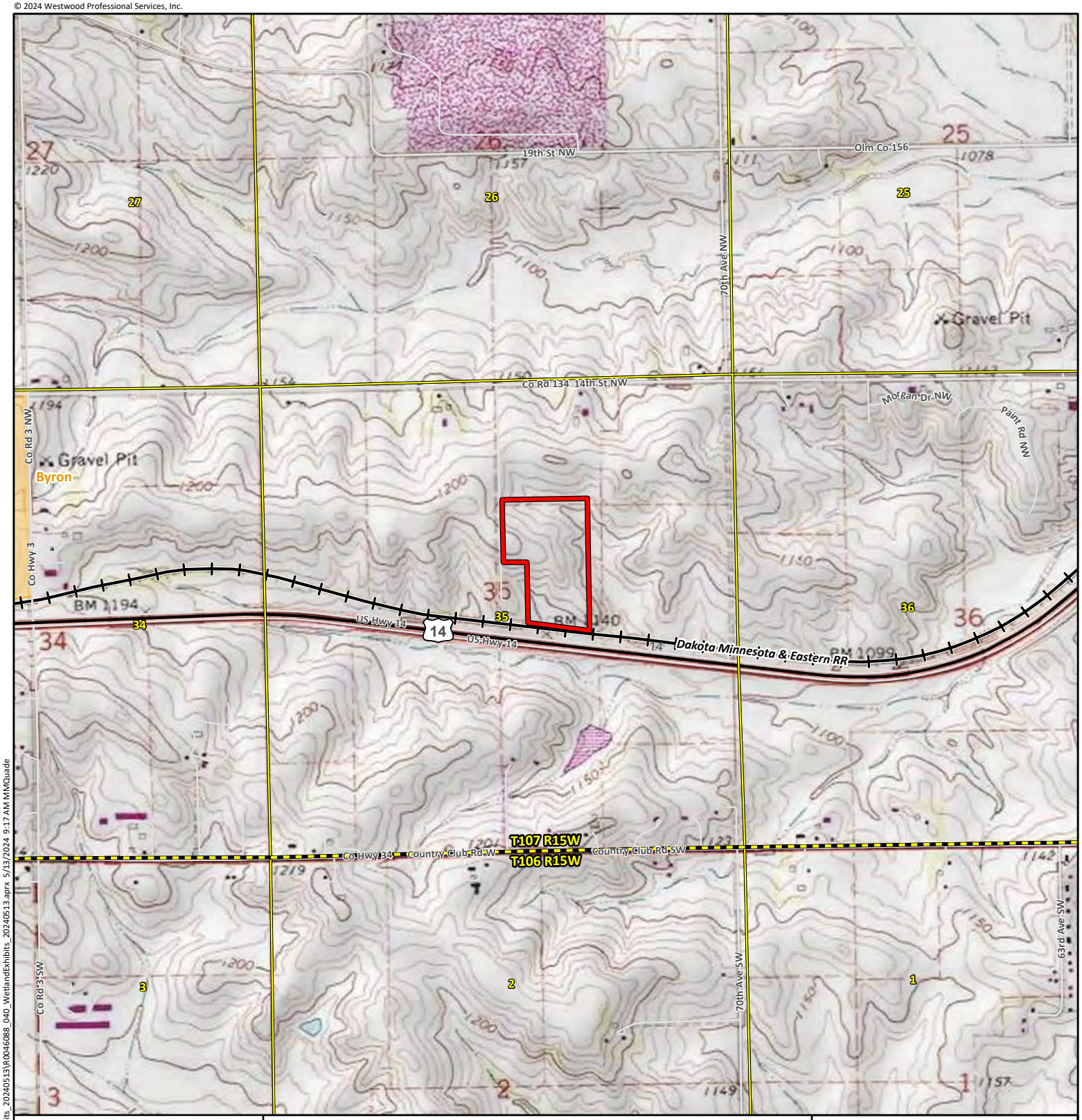
Exhibits

Snowshoe BESS Project

Kalmar Township, Olmsted County, Minnesota



Data Source(s): Westwood (2024); ESRI WMS USA Topo & World Streets Basemaps (Accessed 2024); PLSS (2022); U.S. Census Bureau (2021 & 2023).

N

0 1,500 Feet

Snowshoe BESS Project

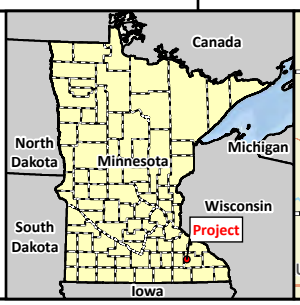
Olmsted County, Minnesota

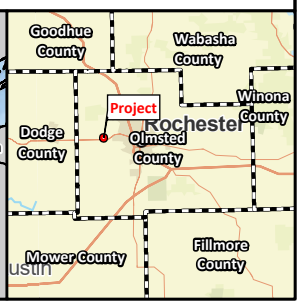
Project Area & USGS Topography

Exhibit 1

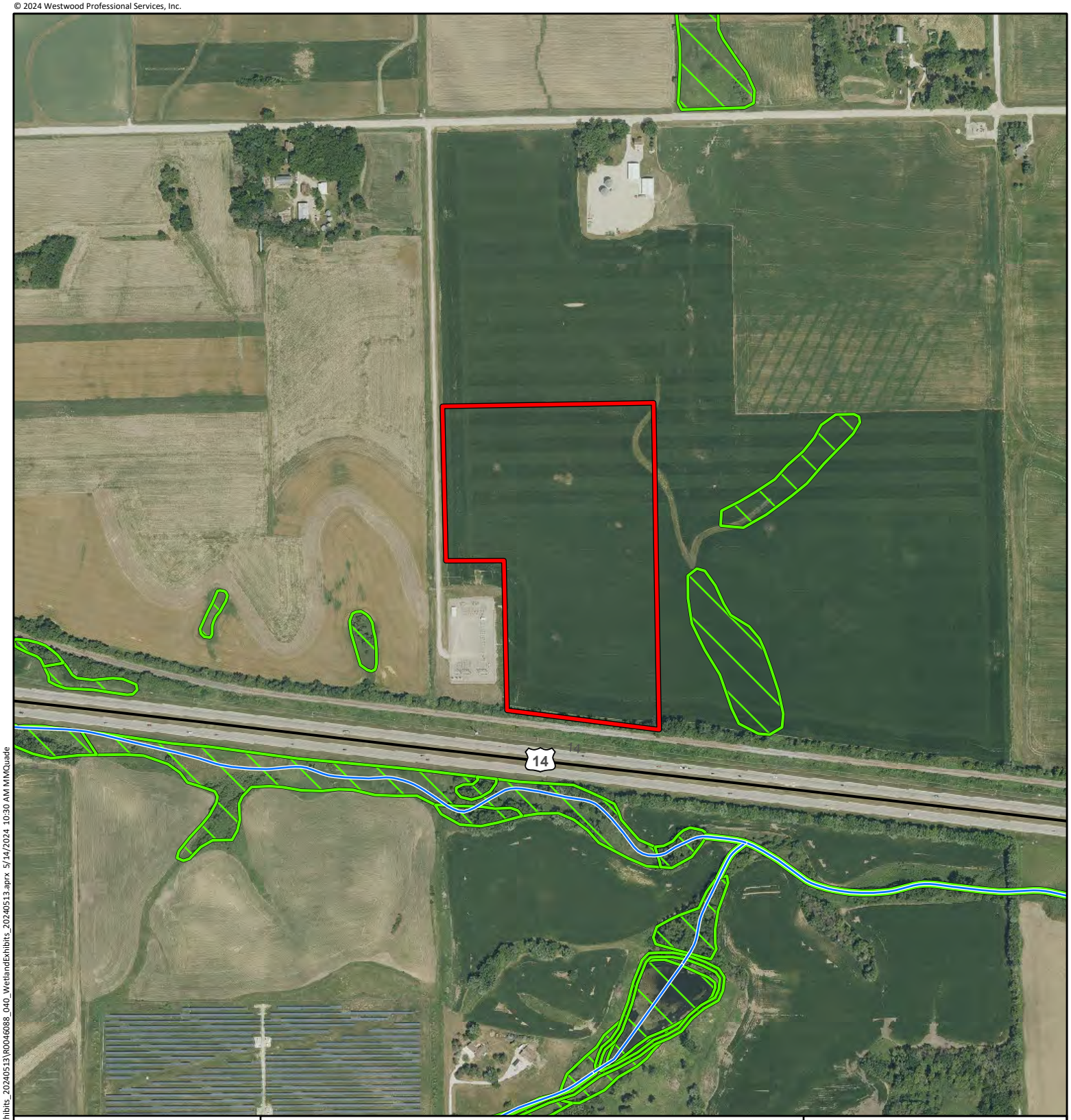
Legend

- Project Area
- State Boundary
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary
- Municipal Boundary
- Major Road
- Road
- Railroad





Westwood
Toll Free (888) 937-5150 westwoodps.com



Data Source(s): Westwood (2024); NAIP (2023); NWI (2023); NHD (2024).

N

0 600 Feet

Snowshoe BESS Project

Olmsted County, Minnesota

Water Resources

Exhibit 2

Legend

- Project Area
- NWI Wetland
- NHD Flowline
- Major Road

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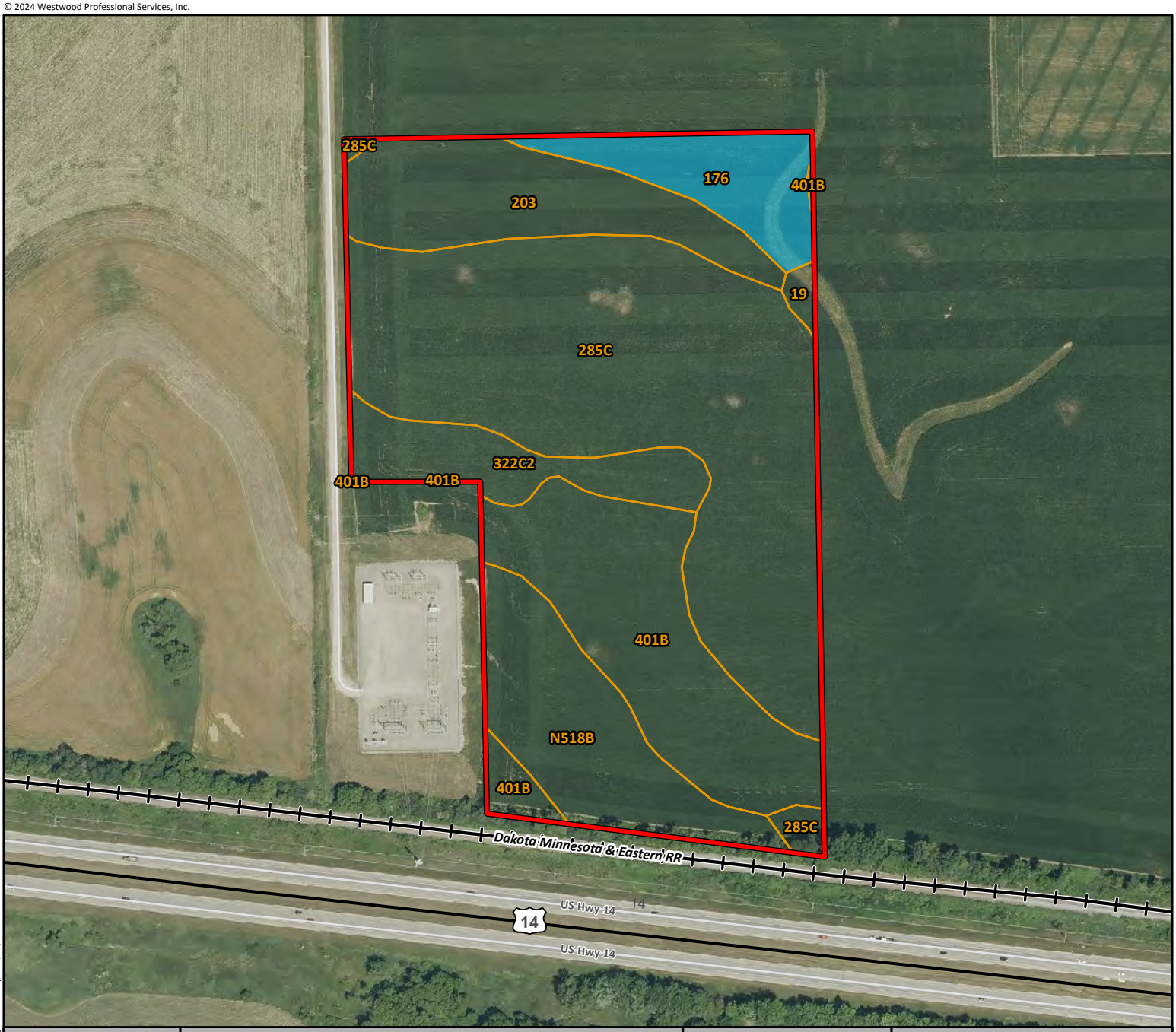

Map Unit Symbol	Map Unit Name	Hydric Classification	Percent Hydric Classification
19	Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes	Non-Hydric	0
285C	Port Byron silt loam, 6 to 12 percent slopes, moderately eroded	Non-Hydric	0
322C2	Timula silt loam, 6 to 12 percent slopes, moderately eroded	Non-Hydric	0
401B	Mt. Carroll silt loam, 2 to 6 percent slopes, moderately eroded	Non-Hydric	0
N518B	Lindstrom silt loam, 2 to 6 percent slopes	Non-Hydric	0
203	Joy silt loam, 1 to 4 percent slopes	Predominantly Non-Hydric	5
176	Garwin silty clay loam	Predominantly Hydric	95

Data Source(s): Westwood (2024); NAIP (2023); U.S. Census Bureau (2021 & 2023) NRCS Web Soil Survey (Accessed 2024).

N

0 300 Feet

Snowshoe BESS Project

Olmsted County, Minnesota

Soils

Exhibit 3

Legend

- Project Area
- Soil Unit Boundary
- Major Road
- Road
- Railroad

Hydric Classification

- Predominantly Hydric

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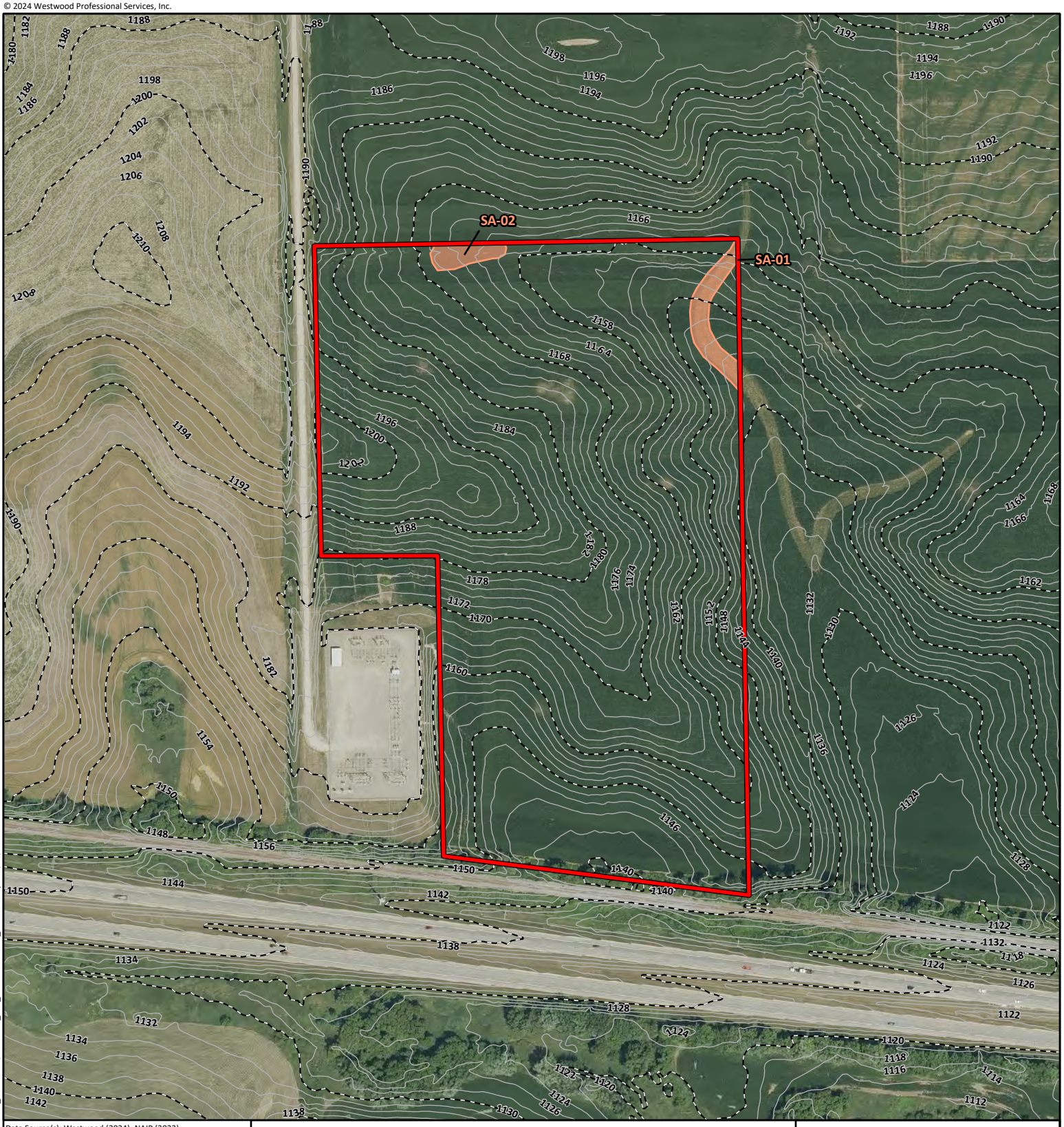

Data Source(s): Westwood (2024); NAIP (2023).

N

0 300 Feet

Snowshoe BESS Project

Olmsted County, Minnesota

Suspect Areas & LiDAR Contours

Exhibit 4

Legend

- Project Area
- Suspect Area
- 10ft Contour
- 2ft Contour

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Data Source(s): Westwood (2024); NAIP (2023).

N

0 300 Feet

Snowshoe BESS Project

Olmsted County, Minnesota

Sample Point Locations

Exhibit 5

Legend

Project Area

Non-Wetland Sample Point

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Appendix A

Non-Wetland Data Forms & Photographs

Snowshoe BESS Project

Kalmar Township, Olmsted County, Minnesota

Snowshoe BESS Project
Delineation Site Photograph

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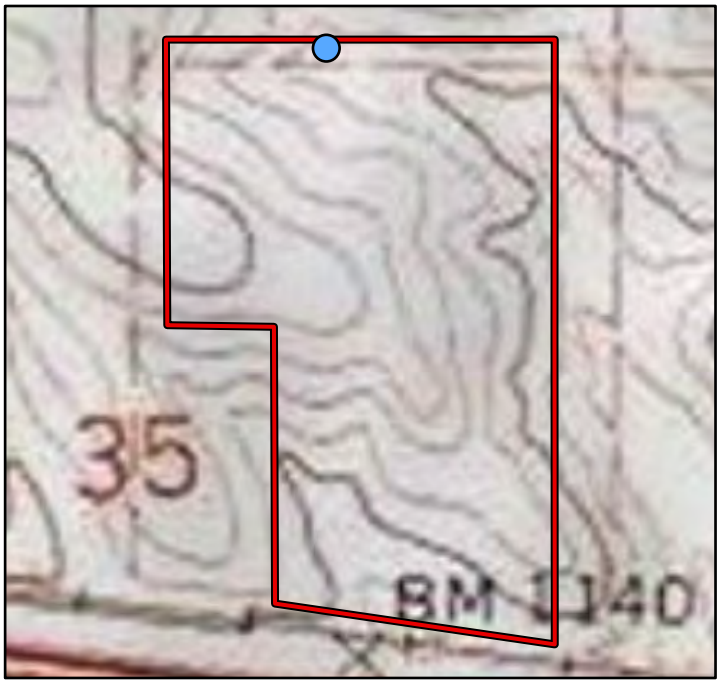

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Snowshoe BESS City/County: Olmsted County Sampling Date: 2024-04-30

Applicant/Owner: Spearmint Renewable Development Company, LLC State: Minnesota Sampling Point: NW-01

Investigator(s): M. Stone Section, Township, Range: sec 35 T107N R015W

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

Slope (%): 3-7 Lat: 44.032577 Long: -92.586507 Datum: WGS84

Soil Map Unit Name: Garwin silty clay loam 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 _____	No ✔	**Is the Sampled Area within a Wetland?** Yes _____ No ✔
Hydric Soil Present?	Yes _____	No ✔	
Wetland Hydrology Present?	Yes _____	No ✔	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5)			
1. *Dactylis glomerata*	2	N	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	2.0 = Total Cover		
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0.00	x 1 =	0.00
FACW species	0.00	x 2 =	0.00
FAC species	0.00	x 3 =	0.00
FACU species	2.00	x 4 =	8.00
UPL species	0.00	x 5 =	0.00
Column Totals:	2.00 (A)		8.00 (B)

Prevalence Index = B/A = 4.0

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators 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.)

Non cropped corn field.

SOIL

Sampling Point: NW-01

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[1]	Loc[2]	Texture	Remarks
0-2	10YR 2/2	100					SICL	
2-12	2.5Y 4/3	50	7.5YR 4/6	10	C	M/PL	SICL	Mixed matrix
	10YR 2/2	40					SICL	
12-18	10YR 2/1	95	7.5YR 4/6	5	C	PL	SICL	
18-24	10YR 3/2	60					SICL	Mixed matrix
	2.5YR 4/3	40					SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✔

Remarks:
Hydric soil unit

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

Wetland Hydrology Present? Yes _____ No ✔

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

Remarks:
None observed.

Snowshoe BESS Project
Delineation Site Photograph

Westwood
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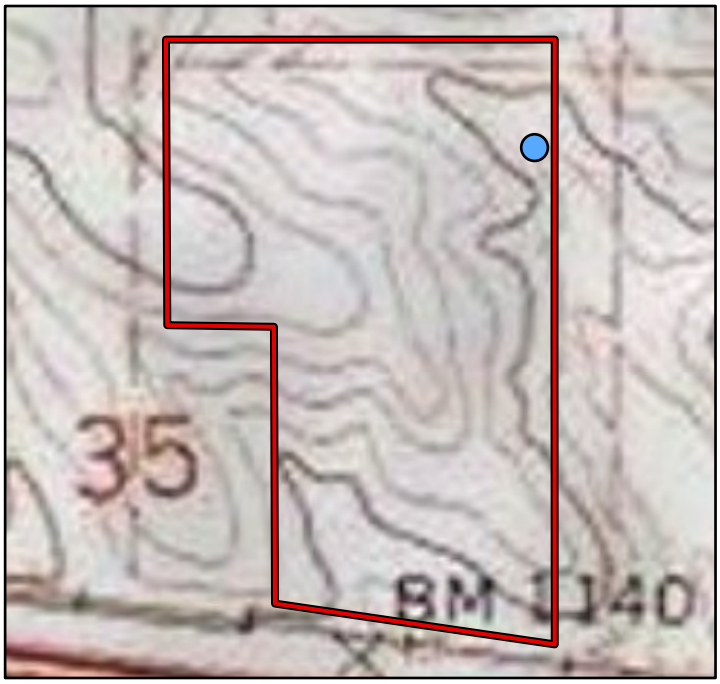

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Snowshoe BESS City/County: Olmsted County Sampling Date: 2024-04-30

Applicant/Owner: Spearmint Renewable Development Company, LLC State: Minnesota Sampling Point: NW-02

Investigator(s): M. Stone Section, Township, Range: sec 35 T107N R015W

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

Slope (%): 0-2 Lat: 44.031904 Long: -92.584554 Datum: WGS84

Soil Map Unit Name: Garwin silty clay loam 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 _____	No ✔	**Is the Sampled Area within a Wetland?** Yes _____ No ✔
Hydric Soil Present?	Yes _____	No ✔	
Wetland Hydrology Present?	Yes _____	No ✔	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5)			
1. *Bromus inermis*	50	Y	FACU
2. *Dactylis glomerata*	20	Y	FACU
3. *Poa pratensis*	20	Y	FAC
4. *Medicago sativa*	10	N	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	100.0 = Total Cover		
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0.00	x 1 =	0.00
FACW species	0.00	x 2 =	0.00
FAC species	20.00	x 3 =	60.00
FACU species	80.00	x 4 =	320.00
UPL species	0.00	x 5 =	0.00
Column Totals:	100.00 (A)		380.00 (B)

Prevalence Index = B/A = 3.8

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators 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.)

SOIL

Sampling Point: NW-02

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[1]	Loc[2]	Texture	Remarks
0-4	10YR 2/1	100					SIL	
4-16	10YR 3/3	100					SIL	
16-24	10YR 4/4	100					SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✔

Remarks:

Hydric soil unit

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

Wetland Hydrology Present? Yes _____ No ✔

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

Remarks:

None but D2 observed

Appendix B

Additional Site Photographs

Snowshoe BESS Project

Kalmar Township, Olmsted County, Minnesota

Snowshoe BESS Project
Delineation Site Photograph

Westwood
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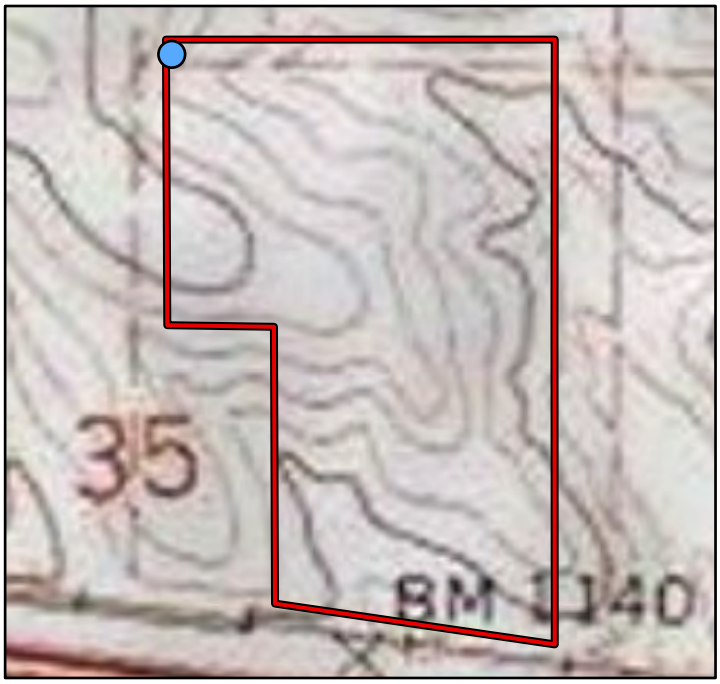

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Delineation Site Photograph

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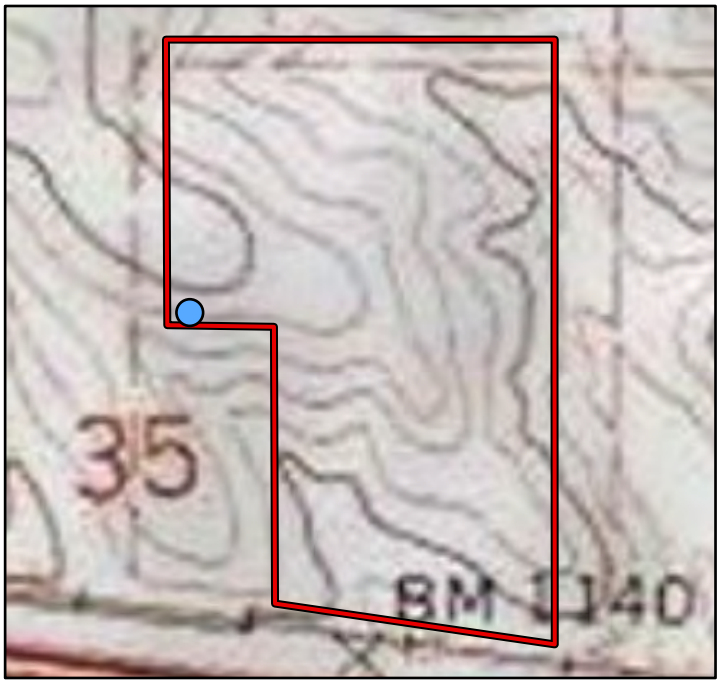

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Delineation Site Photograph

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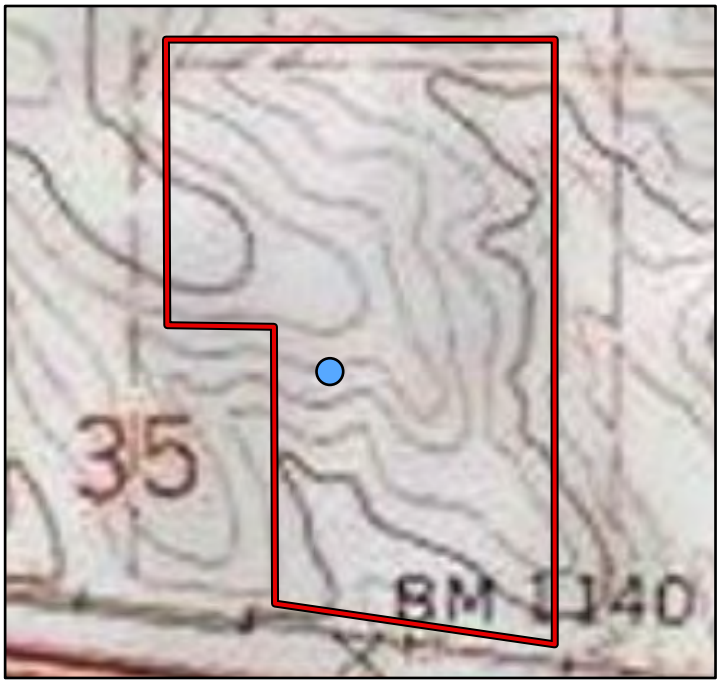
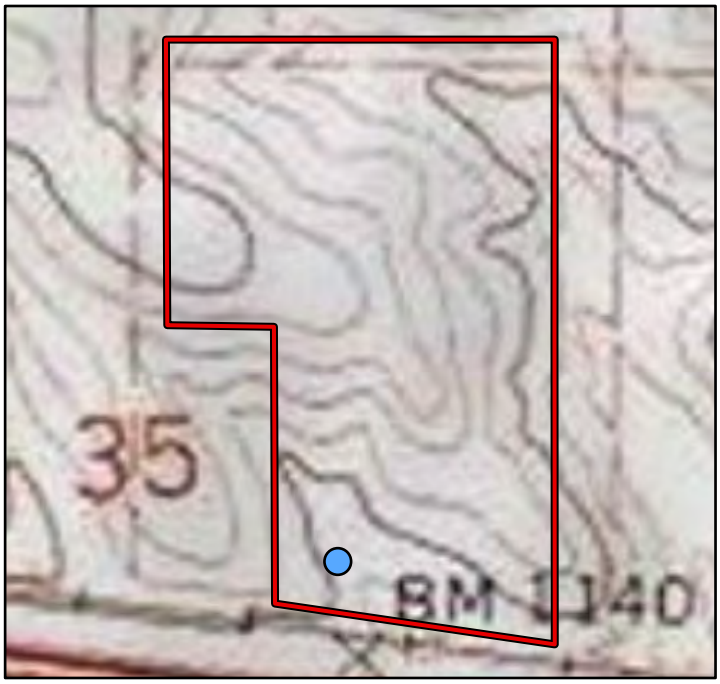


Snowshoe BESS Project
Delineation Site Photograph

Westwood
Toll Free (888) 937-5150 westwoodps.com

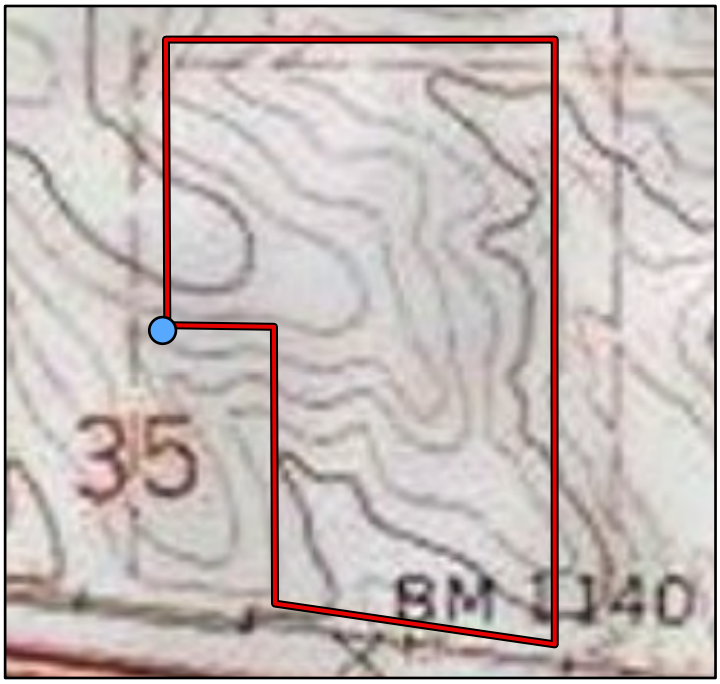


Snowshoe BESS Project
Delineation Site Photograph

Westwood
Toll Free (888) 937-5150 westwoodps.com

Snowshoe BESS Project
Delineation Site Photograph

Westwood
Toll Free (888) 937-5150 westwoodps.com



Appendix C

Offsite Hydrology Review

Snowshoe BESS Project

Kalmar Township, Olmsted County, Minnesota

Hydrology Assessment with Aerial Imagery-Recording Form[1]

Project Name: Snowshoe BESS Date: 03/11/2024 County: Olmsted

Investigator: M. Stone Legal Description (S, T, R): 35-107N-15W

Summary Table

Photo Year[2]	Image Source[2]	Actual/ Estimated Photo Date[3]	Climate condition (wet, dry, normal)[4,5]	Interpretation (list hydrology indicators observed, e.g. crop stress, drowned out, etc.)[6]					
				SA-01	SA-02				
2023	Google Earth	05/28/2023	Normal	NC, DP	CS				
2022*	Google Earth	06/20/2022	Normal	NC, DP	SS				
2021	Google Earth	07/03/2021	Dry	NV	NC (sm)				
2019	NAIP	07/27/2019	Wet	NC, DP	CS, SS				
2017	NAIP	08/31/2017	Normal	NV	CS				
2015	NAIP	10/11/2015	Dry	NV	NV				
2013	NAIP	07/18/2013	Wet	DP (sm)	CS (sm)				
2010	NAIP	07/01/2010	Normal	NV	NV				
2009	NAIP	06/26/2009	Normal	NV	NV				
2008	NAIP	07/12/2008	Normal	CS (sm)	NV				
2006	NAIP	07/28/2006	Dry	NV	NV				
2005	NAIP	06/23/2005	Normal	NV	NV				
2003	NAIP	07/29/2003	Wet	NV	NV				

Summary Table

	SA-01	SA-02
# Years of aerial photography	13	13
# Normal Years (1991-2017)	7	7
# signatures in Normal years	3	3
# signatures in Wet years	2	2
# Signatures in Dry years	0	1
# signatures in all years	5	6
% Usable Yrs with wet signatures[7]	3/7 = 43%	3/7 = 43%

(sm)= smaller area than whole area showed signature

[1] Form adapted from BWSR/USACE Technical Guidance, July 1, 2016.

[2]Photo selection for historical aerial photography review are from the MnGEO WMS GIS server, Google Earth, and GIS sources such as County, watersheds, or cities.

[3]July 1 was used as the date for aerial photographs when determining antecedent precipitation when an actual date could not be determined. Other aerial photography from County GIS, Google imagery, NAIP, etc. was dated based on available information.

[4]MN State Climatology website used to produce three-prior-month (NRCS) method for parcel being investigated.

[5]Photo dates at the end of the month were advanced to the next month to determine climate conditions using the NRCS/3-prior-month method if the daily precipitation data from that month warranted it.

[6]Key below is used label photo interpretations. It is imperative the reviewer read and understand the guidance associated with the use of the labels.

[7]Equal number of most recent wet and dry years used if 5 normal years were not available. Otherwise only Normal years.

*Base photo for suspect areas

Definitions

WS-wetland signature CS-crop stress SGO-something going on	DO-drowned out NC-not cropped SS- soil wetness signature	SW-standing water AP-altered pattern DP-drainage pattern	NV-normal vegetative cover DNC-dry not cropped NSS- no soil wetness (sm)- smaller area
WS is typically used for interpretation in non-cropped areas or green areas in dry conditions			

Field data sheet reference (if applicable): _____

Wetland Determination from Aerial Imagery – Recording Form

Project Name: Snowshoe BESS Date: 03/11/2024 County: Olmsted

Investigator: M. Stone Legal Description (T, R, S): 107N 15W 35

Use the Decision Matrix below to complete Table 1.

Hydric Soils present[1]	Identified on NWI or other wetland map[2]	Percent with wet signatures from Exhibit 1	Field verification required[3]	Wetland?
Yes	Yes	>50%	No	Yes
Yes	Yes	30-50%	No	Yes
Yes	Yes	<30%	Yes	Yes, if other hydrology indicators present
Yes	No	>50%	No	Yes
Yes	No	30-50%	Yes	Yes, if other hydrology indicators present
Yes	No	<30%	No	No
No	Yes	>50%	No	Yes
No	Yes	30-50%	No	Yes
No	Yes	<30%	No	No
No	No	>50%	Yes	Yes, if other hydrology indicators present
No	No	30-50%	Yes	Yes, if other hydrology indicators present
No	No	<30%	No	No

[1] The presence of hydric soils can be determined from the "Hydric Rating by Map Unit Feature" under "Land Classifications" from the Web Soil Survey. "Not Hydric" is the only category considered to not have hydric soils. Field sampling for the presence/absence of hydric soil indicators can be used in lieu of the hydric rating if appropriately documented by providing completed field data sheets.

[2] At minimum, the most updated NWI data available for the area must be reviewed for this step. Any and all other local or regional wetland maps that are publically available should be reviewed.

[3] Area should be reviewed in the field for the presence/absence of wetland hydrology indicators per the applicable 87 Manual Regional Supplement, including the D2 indicator (geomorphic position).

Table 1.

Suspect Area	Hydric Soils Present	Identified on NWI or other wetland map	Percent with wet signatures from Exhibit 1	Other hydrology indicators present[1]	Wetland?
1	Yes	No	43%		Yes, if other hydrology indicators present
2	Yes	No	43%		Yes, if other hydrology indicators present

[1] Answer "N/A" if field verification is not required and was not conducted.

Data Source(s): Westwood (2024); Google Earth (2023).

N

0 300 Feet

Snowshoe BESS Project

Olmsted County, Minnesota

Offsite Hydrology Review

2023

Legend

Project Area

Suspect Area

Westwood

Toll Free (888) 937-5150 westwoodps.com

Data Source(s): Westwood (2024); Google Earth (2022).

N

0 300 Feet

Snowshoe BESS Project

Olmsted County, Minnesota

Offsite Hydrology Review

2022

Legend

Project Area

Suspect Area

Westwood

Toll Free (888) 937-5150 westwoodps.com

Data Source(s): Westwood (2024); Google Earth (2021).

N

0 300 Feet

Snowshoe BESS Project | Olmsted County, Minnesota

Offsite Hydrology Review | 2021

Legend

Project Area

Suspect Area

Westwood
Toll Free (888) 937-5150 westwoodps.com

Data Source(s): Westwood (2024); NAIP (Accessed via MNGEO WMS 2024).

N

0 300 Feet

Snowshoe BESS Project

Olmsted County, Minnesota

Offsite Hydrology Review

2019

Legend

Project Area

Suspect Area

Westwood

Toll Free (888) 937-5150 westwoodps.com

Data Source(s): Westwood (2024); NAIP (Accessed via MNGEO WMS 2024).

N

0 300 Feet

Snowshoe BESS Project | Olmsted County, Minnesota

Offsite Hydrology Review | 2017

Legend

Project Area

Suspect Area

Westwood

Toll Free (888) 937-5150 westwoodps.com

Data Source(s): Westwood (2024); NAIP (Accessed via MNGEO WMS 2024).

N

0 300 Feet

Snowshoe BESS Project

Olmsted County, Minnesota

Offsite Hydrology Review

2015

Legend

Project Area

Suspect Area

Westwood

Toll Free (888) 937-5150 westwoodps.com

Data Source(s): Westwood (2024); NAIP (Accessed via MNGEO WMS 2024).

N

0 300 Feet

Snowshoe BESS Project

Olmsted County, Minnesota

Offsite Hydrology Review

2013

Legend

Project Area

Suspect Area

Westwood

Toll Free (888) 937-5150 westwoodps.com

Data Source(s): Westwood (2024); NAIP (Accessed via MNGEO WMS 2024).

N

0 300 Feet

Snowshoe BESS Project | Olmsted County, Minnesota

Offsite Hydrology Review | 2009

Legend

Project Area

Suspect Area

Westwood
Toll Free (888) 937-5150 westwoodps.com

Data Source(s): Westwood (2024); NAIP (Accessed via MNGEO WMS 2024).

N

0 300 Feet

Snowshoe BESS Project

Olmsted County, Minnesota

Offsite Hydrology Review

2008

Legend

Project Area

Suspect Area

Westwood

Toll Free (888) 937-5150 westwoodps.com

Data Source(s): Westwood (2024); NAIP (2006).

N

0 300 Feet

Snowshoe BESS Project

Olmsted County, Minnesota

Offsite Hydrology Review

2006

Legend

Project Area

Suspect Area

Westwood

Toll Free (888) 937-5150 westwoodps.com

Data Source(s): Westwood (2024); NAIP (2005).

N

0 300 Feet

Snowshoe BESS Project

Olmsted County, Minnesota

Offsite Hydrology Review

2005

Legend

Project Area

Suspect Area

Westwood

Toll Free (888) 937-5150 westwoodps.com

Data Source(s): Westwood (2024); NAIP (Accessed via MNGEO WMS 2024).

N

0 300 Feet

Snowshoe BESS Project

Olmsted County, Minnesota

Offsite Hydrology Review

2003

Legend

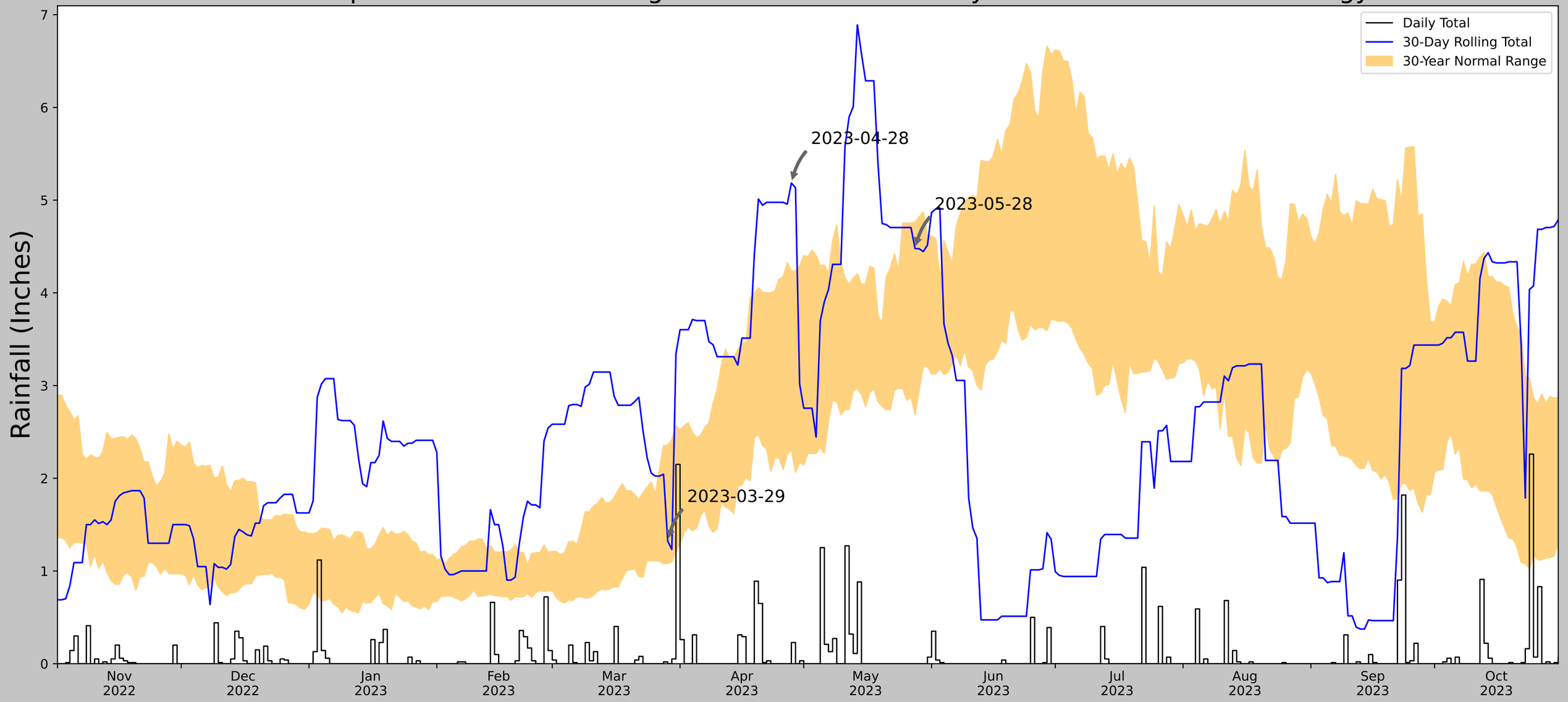
Project Area

Suspect Area

Westwood

Toll Free (888) 937-5150 westwoodps.com

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	44.0305195, -92.5855122
Observation Date	2023-05-28
Elevation (ft)	1176.605
Drought Index (PDSI)	Normal
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2023-05-28	2.685433	4.761417	4.476378	Normal	2	3	6
2023-04-28	2.311024	4.230709	5.18504	Wet	3	2	6
2023-03-29	1.08189	2.357874	1.322835	Normal	2	1	2
Result							Normal Conditions - 14

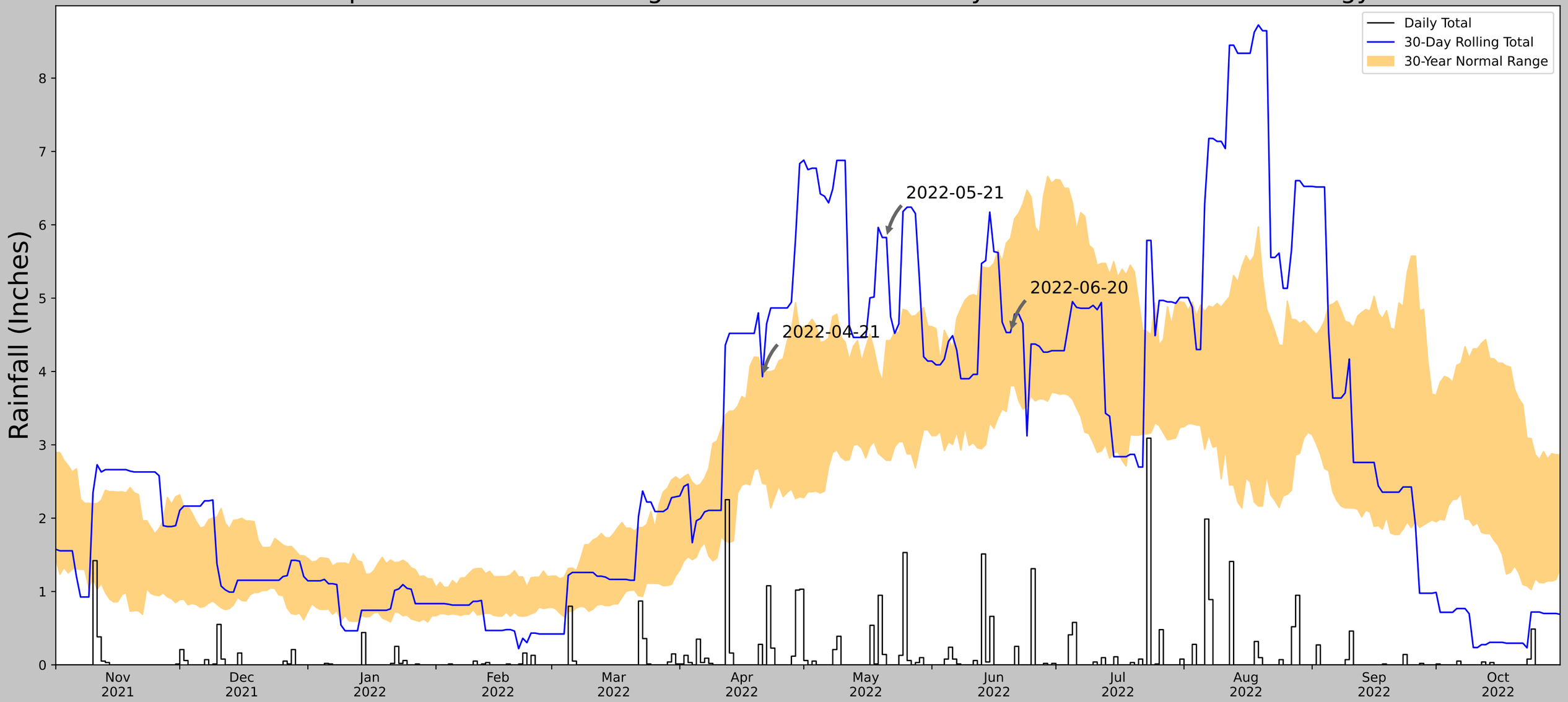
US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
ROCHESTER INTL AP	43.9039, -92.4919	1306.102	9.91	129.497	5.743	11352	90
GRAND MEADOW	43.7047, -92.5644	1350.066	14.23	43.964	7.029	1	0



Coordinates	44.0305195, -92.5855122
Observation Date	2022-06-20
Elevation (ft)	1176.605
Drought Index (PDSI)	Incipient wetness
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2022-06-20	3.805906	5.814961	4.531496	Normal	2	3	6
2022-05-21	2.787795	4.421654	5.826772	Wet	3	2	6
2022-04-21	2.475591	4.010236	3.929134	Normal	2	1	2
Result							Normal Conditions - 14

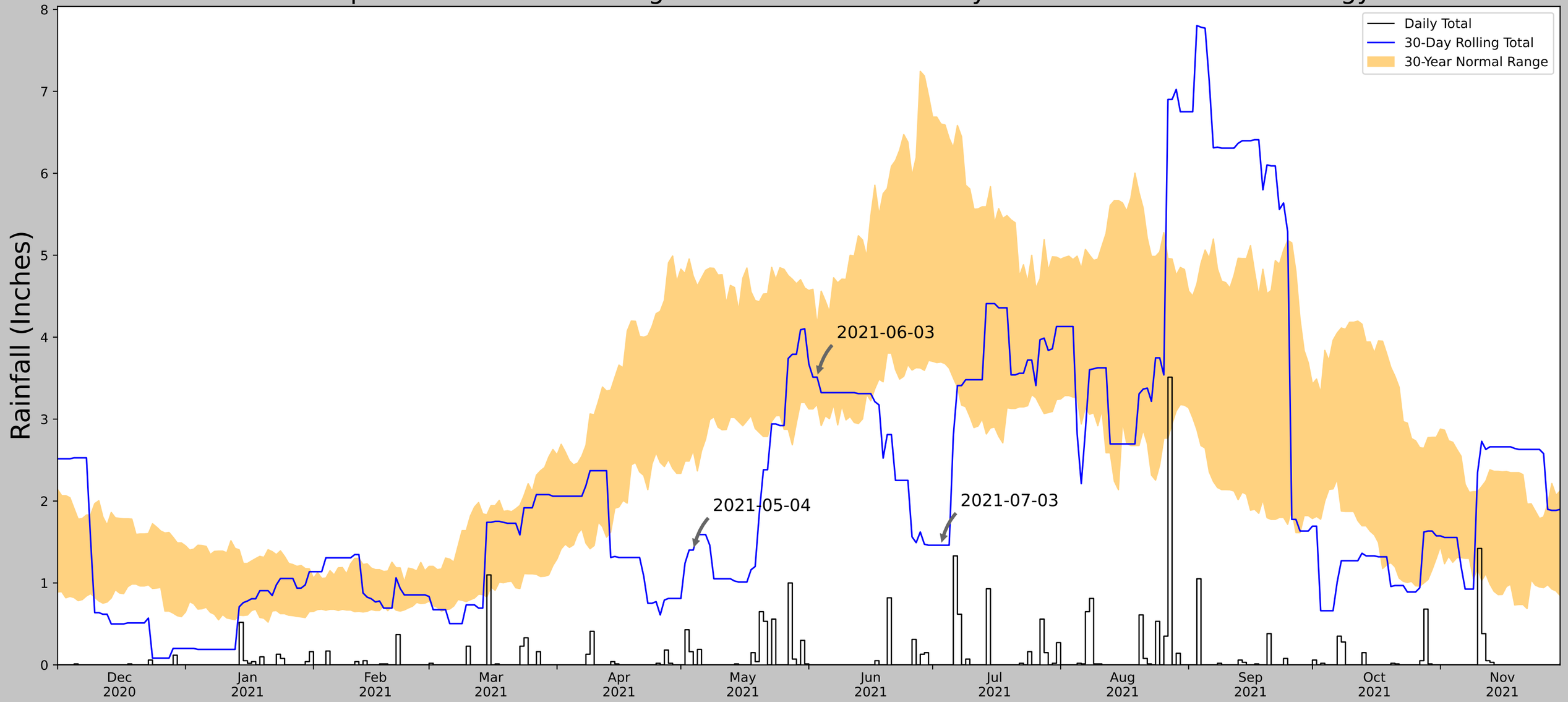
US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
ROCHESTER INTL AP	43.9039, -92.4919	1306.102	9.91	129.497	5.743	11352	90
GRAND MEADOW	43.7047, -92.5644	1350.066	14.23	43.964	7.029	1	0



Coordinates	44.0305195, -92.5855122
Observation Date	2021-07-03
Elevation (ft)	1176.605
Drought Index (PDSI)	Mild drought
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2021-07-03	3.696457	6.602362	1.46063	Dry	1	3	3
2021-06-03	3.180709	4.148032	3.511811	Normal	2	2	4
2021-05-04	2.614961	4.745276	1.401575	Dry	1	1	1
Result							Drier than Normal - 8

US Army Corps of Engineers

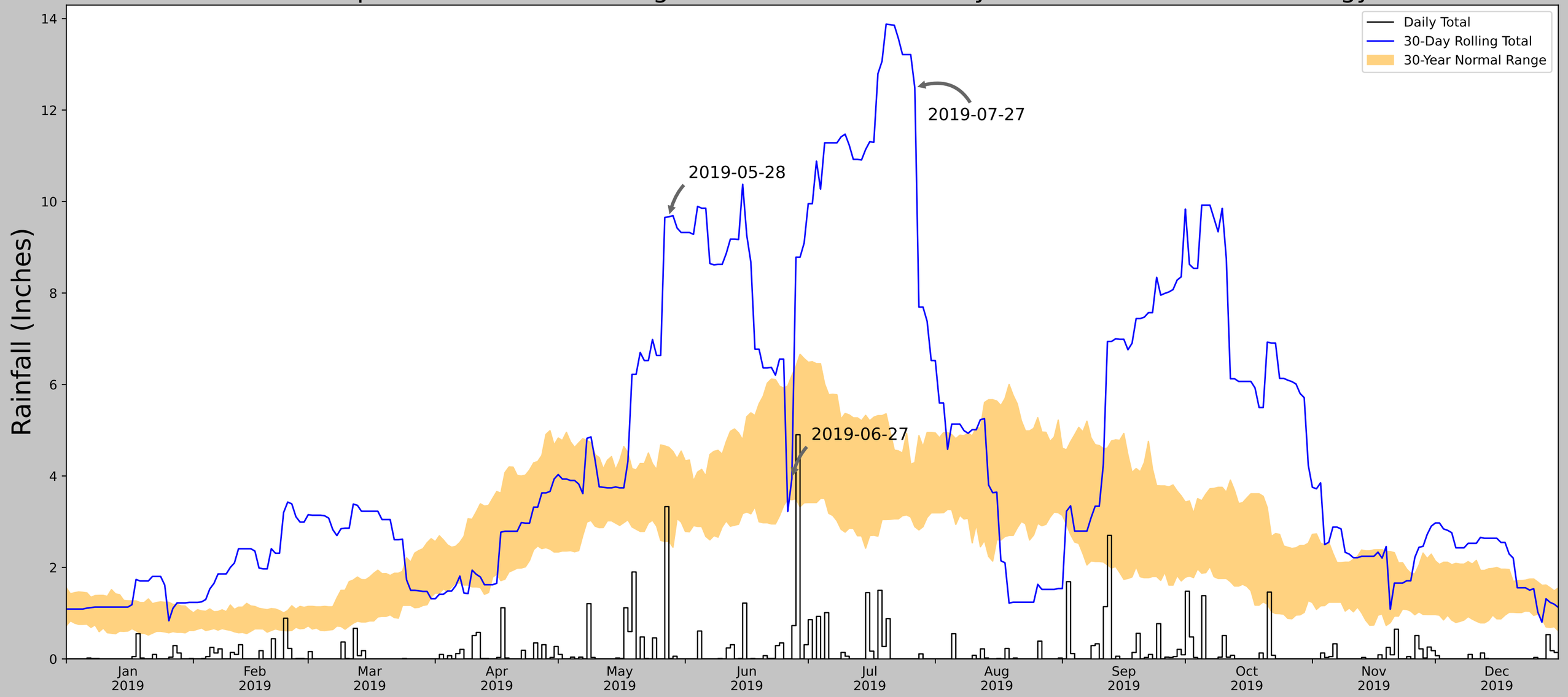
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
ROCHESTER INTL AP	43.9039, -92.4919	1306.102	9.91	129.497	5.743	11352	90
GRAND MEADOW	43.7047, -92.5644	1350.066	14.23	43.964	7.029	1	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	44.0305195, -92.5855122
Observation Date	2019-07-27
Elevation (ft)	1176.605
Drought Index (PDSI)	Extreme wetness
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2019-07-27	2.890158	4.293307	12.484252	Wet	3	3	9
2019-06-27	3.480315	6.195276	3.940945	Normal	2	2	4
2019-05-28	2.572835	4.625984	9.665355	Wet	3	1	3
Result							Wetter than Normal - 16

US Army Corps of Engineers

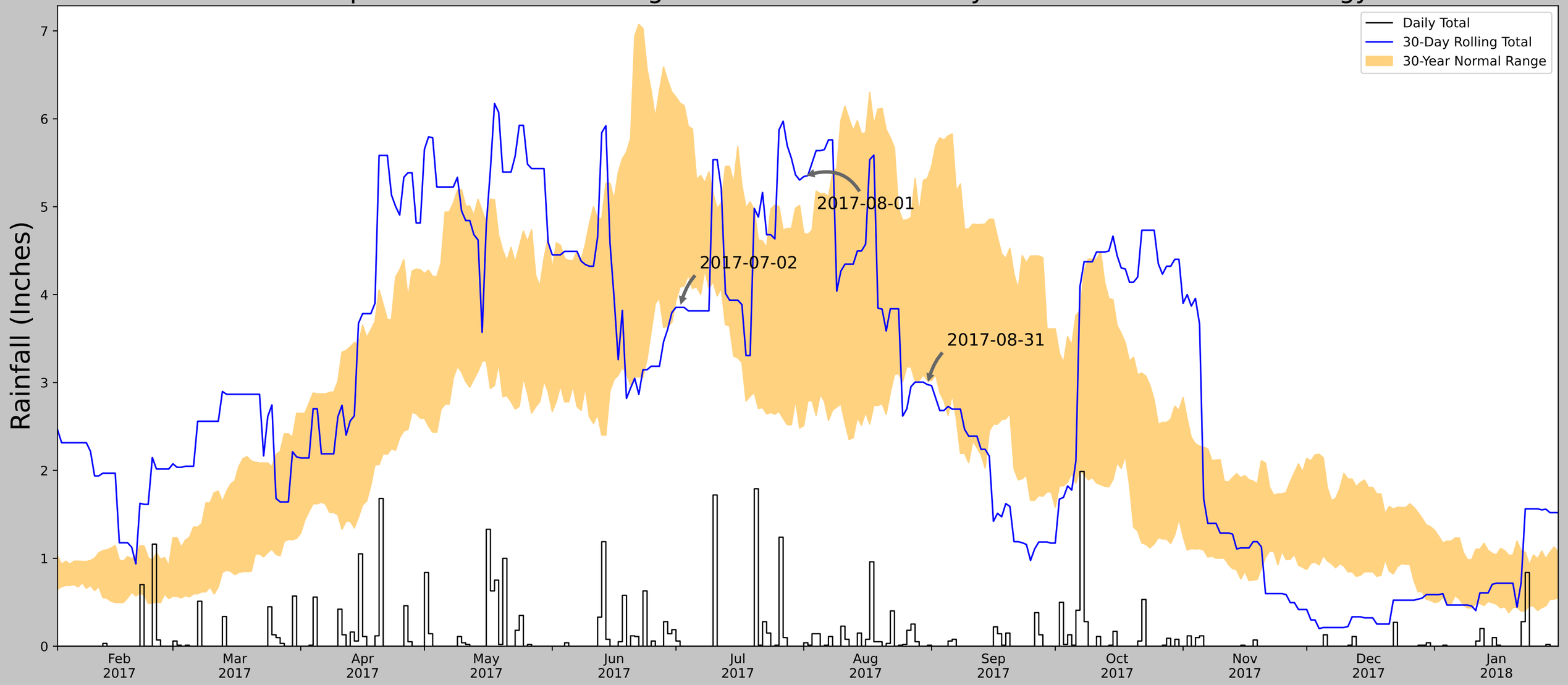
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
ROCHESTER INTL AP	43.9039, -92.4919	1306.102	9.91	129.497	5.743	11352	90
GRAND MEADOW	43.7047, -92.5644	1350.066	14.23	43.964	7.029	1	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	44.0305195, -92.5855122
Observation Date	2017-08-31
Elevation (ft)	1176.605
Drought Index (PDSI)	Extreme wetness
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2017-08-31	3.02126	5.322441	2.976378	Dry	1	3	3
2017-08-01	2.509449	4.698425	5.34252	Wet	3	2	6
2017-07-02	4.086614	6.178347	3.854331	Dry	1	1	1
Result							Normal Conditions - 10

US Army Corps of Engineers

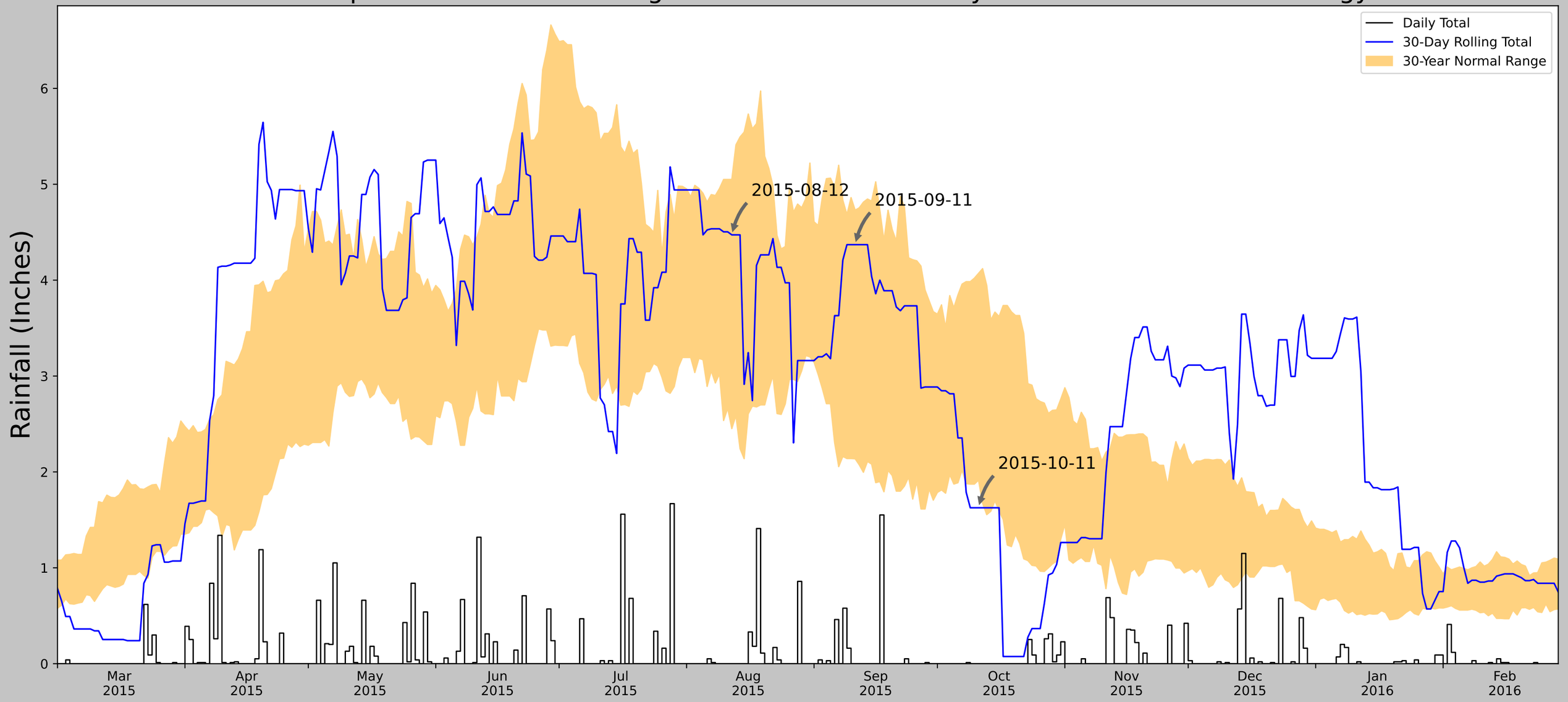
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
BYRON 4NORTH	44.0908, -92.64	1041.011	4.966	135.594	2.908	8132	90
MANTORVILLE 1.9 ESE	44.0504, -92.7214	1209.974	4.911	168.963	3.04	9	0
ROCHESTER 3.9 ESE	43.9929, -92.4074	1032.152	13.387	8.859	6.143	6	0
ZUMBROTA	44.2997, -92.6656	979.987	14.489	61.024	7.404	3191	0
ROCHESTER AP 2NE	43.9336, -92.4728	1233.924	13.675	192.913	8.792	2	0
ELGIN 2SSW	44.0969, -92.2703	1109.908	18.35	68.897	9.522	13	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	44.0305195, -92.5855122
Observation Date	2015-10-11
Elevation (ft)	1176.605
Drought Index (PDSI)	Mild wetness
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2015-10-11	1.914173	4.070866	1.625984	Dry	1	3	3
2015-09-11	2.137008	4.729921	4.370079	Normal	2	2	4
2015-08-12	2.451575	5.050394	4.472441	Normal	2	1	2
Result							Drier than Normal - 9

US Army Corps of Engineers

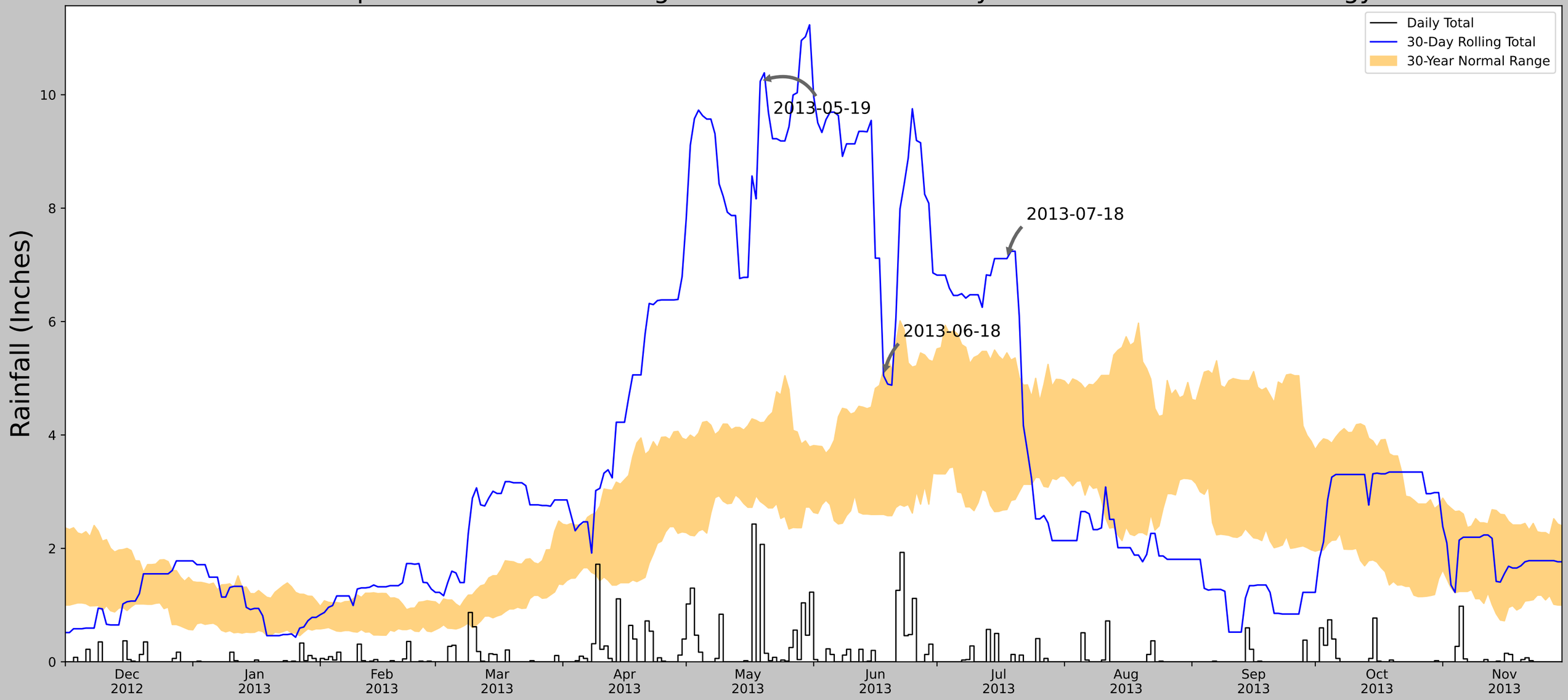
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
ROCHESTER INTL AP	43.9039, -92.4919	1306.102	9.91	129.497	5.743	11351	90
GRAND MEADOW	43.7047, -92.5644	1350.066	14.23	43.964	7.029	1	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	44.0305195, -92.5855122
Observation Date	2013-07-18
Elevation (ft)	1176.605
Drought Index (PDSI)	Extreme wetness
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2013-07-18	2.684252	5.448819	7.110236	Wet	3	3	9
2013-06-18	2.598819	5.149213	5.047244	Normal	2	2	4
2013-05-19	2.828347	4.216142	10.236221	Wet	3	1	3
Result							Wetter than Normal - 16

US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
ROCHESTER INTL AP	43.9039, -92.4919	1306.102	9.91	129.497	5.743	11352	90
GRAND MEADOW	43.7047, -92.5644	1350.066	14.23	43.964	7.029	1	0

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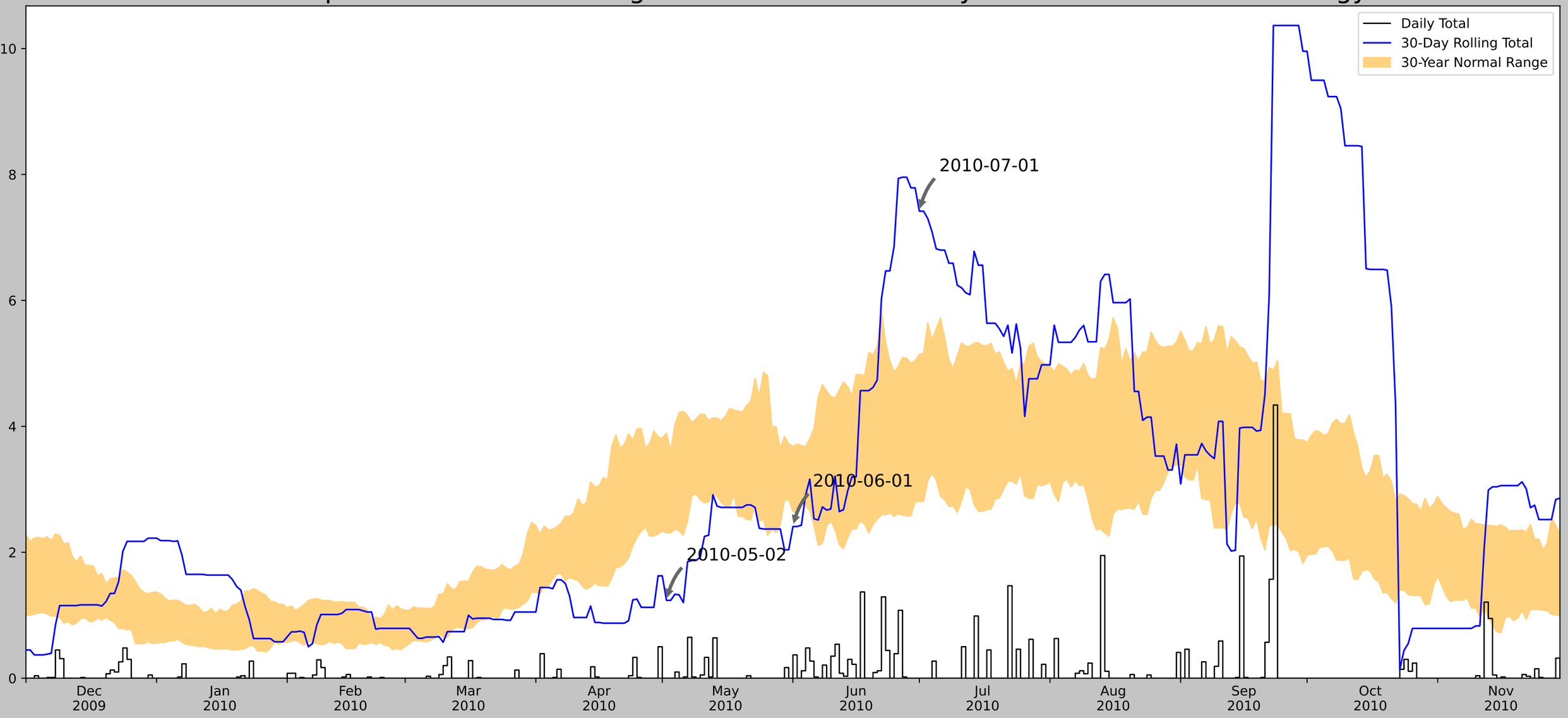


Coordinates	44.0305195, -92.5855122
Observation Date	2010-07-01
Elevation (ft)	1176.605
Drought Index (PDSI)	Mild wetness
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2010-07-01	2.806693	5.148032	7.417323	Wet	3	3	9
2010-06-01	2.647638	3.684646	2.409449	Dry	1	2	2
2010-05-02	2.31063	3.890945	1.236221	Dry	1	1	1
Result							Normal Conditions - 12

US Army Corps of Engineers

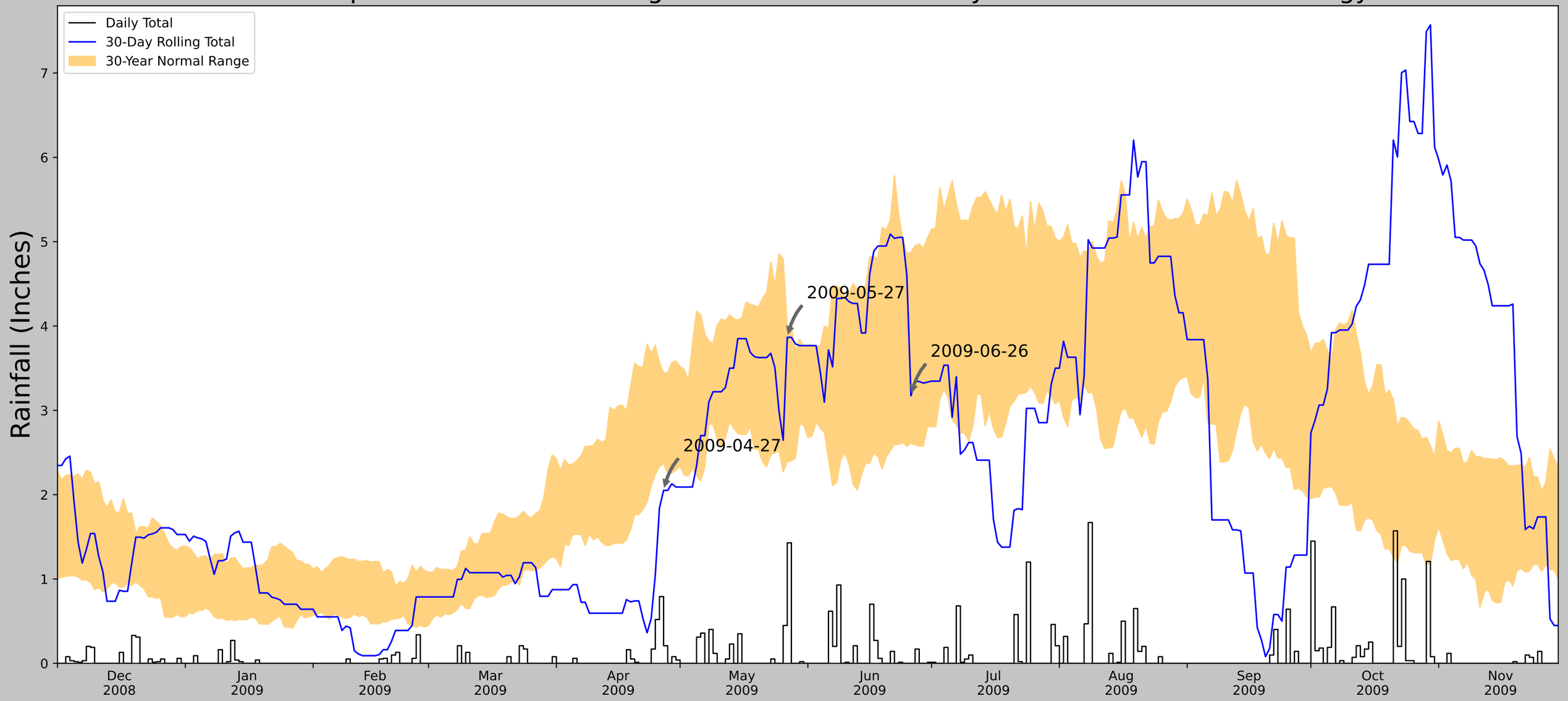
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
ROCHESTER INTL AP	43.9039, -92.4919	1306.102	9.91	129.497	5.743	11352	90
GRAND MEADOW	43.7047, -92.5644	1350.066	14.23	43.964	7.029	1	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	44.0305195, -92.5855122
Observation Date	2009-06-26
Elevation (ft)	1176.605
Drought Index (PDSI)	Incipient drought
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2009-06-26	2.610236	4.873622	3.173228	Normal	2	3	6
2009-05-27	2.393701	3.992914	3.866142	Normal	2	2	4
2009-04-27	2.369291	3.444488	2.051181	Dry	1	1	1
Result							Normal Conditions - 11

US Army Corps of Engineers

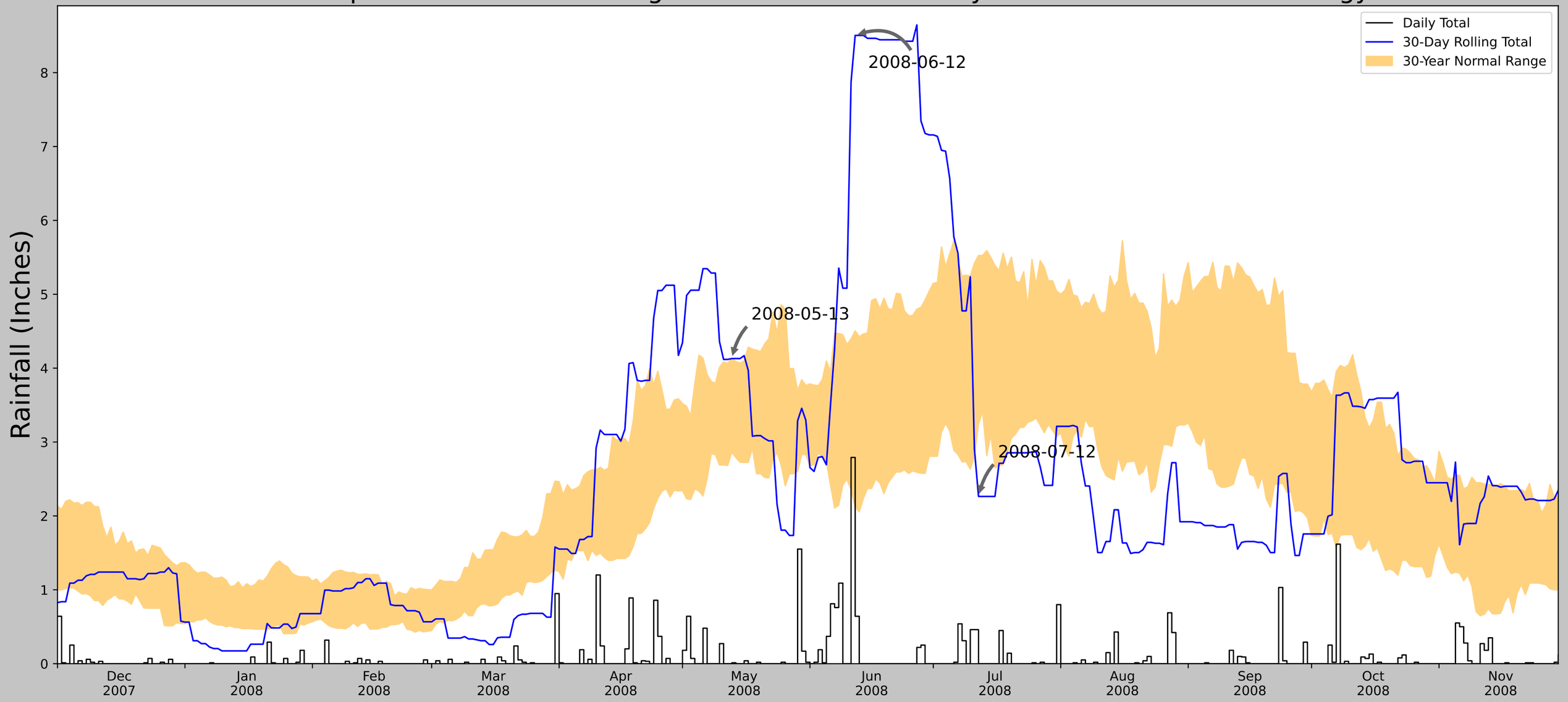
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
ROCHESTER INTL AP	43.9039, -92.4919	1306.102	9.91	129.497	5.743	11352	90
GRAND MEADOW	43.7047, -92.5644	1350.066	14.23	43.964	7.029	1	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	44.0305195, -92.5855122
Observation Date	2008-07-12
Elevation (ft)	1176.605
Drought Index (PDSI)	Normal
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2008-07-12	3.244488	5.525591	2.26378	Dry	1	3	3
2008-06-12	2.120079	4.505512	8.503937	Wet	3	2	6
2008-05-13	2.862205	4.130709	4.129921	Normal	2	1	2
Result							Normal Conditions - 11

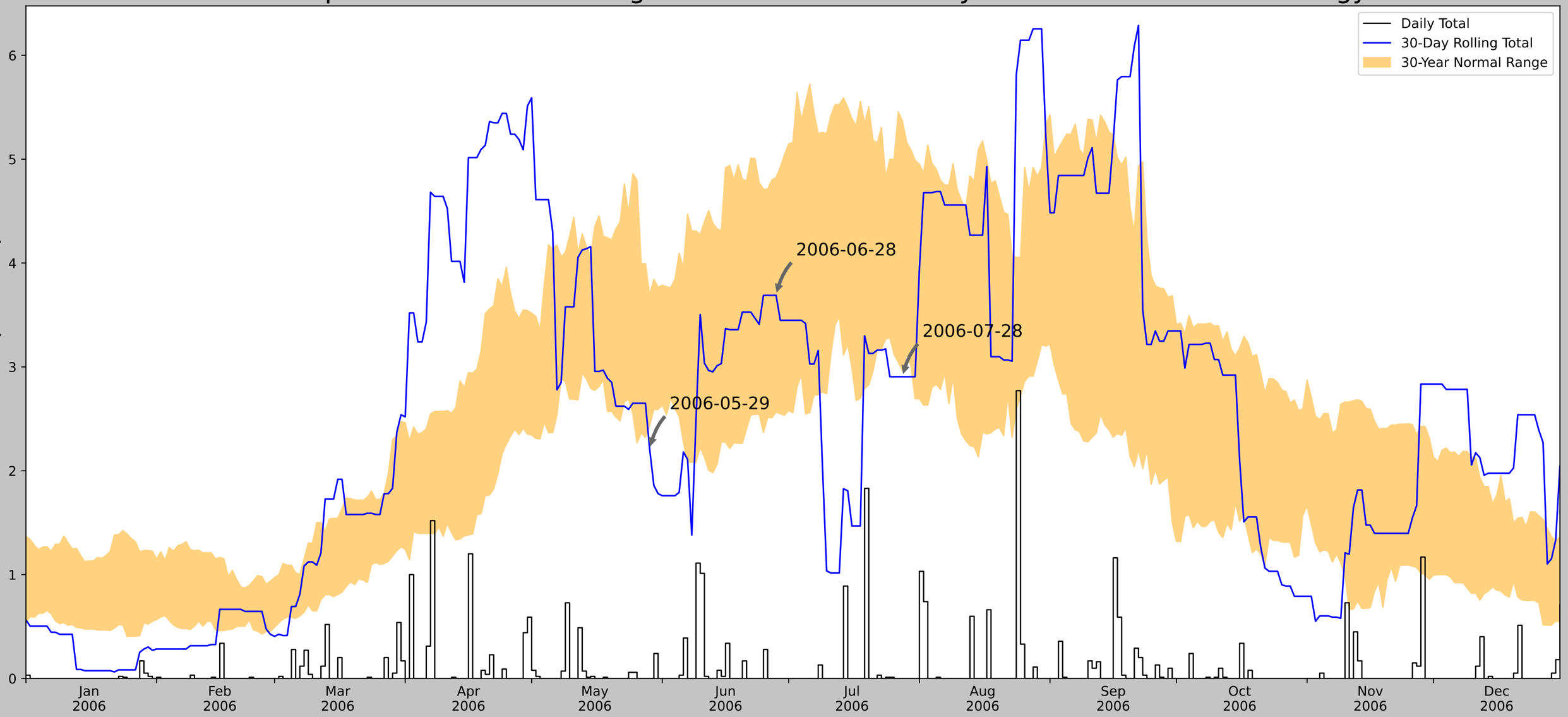
US Army Corps of Engineers

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

ERDC

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
ROCHESTER INTL AP	43.9039, -92.4919	1306.102	9.91	129.497	5.743	11351	90
GRAND MEADOW	43.7047, -92.5644	1350.066	14.23	43.964	7.029	1	0



Coordinates	44.0305195, -92.5855122
Observation Date	2006-07-28
Elevation (ft)	1176.605
Drought Index (PDSI)	Incipient wetness
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2006-07-28	2.966142	5.366142	2.905512	Dry	1	3	3
2006-06-28	2.565748	4.822441	3.688976	Normal	2	2	4
2006-05-29	2.435827	3.695276	2.208661	Dry	1	1	1
Result							Drier than Normal - 8

US Army Corps of Engineers

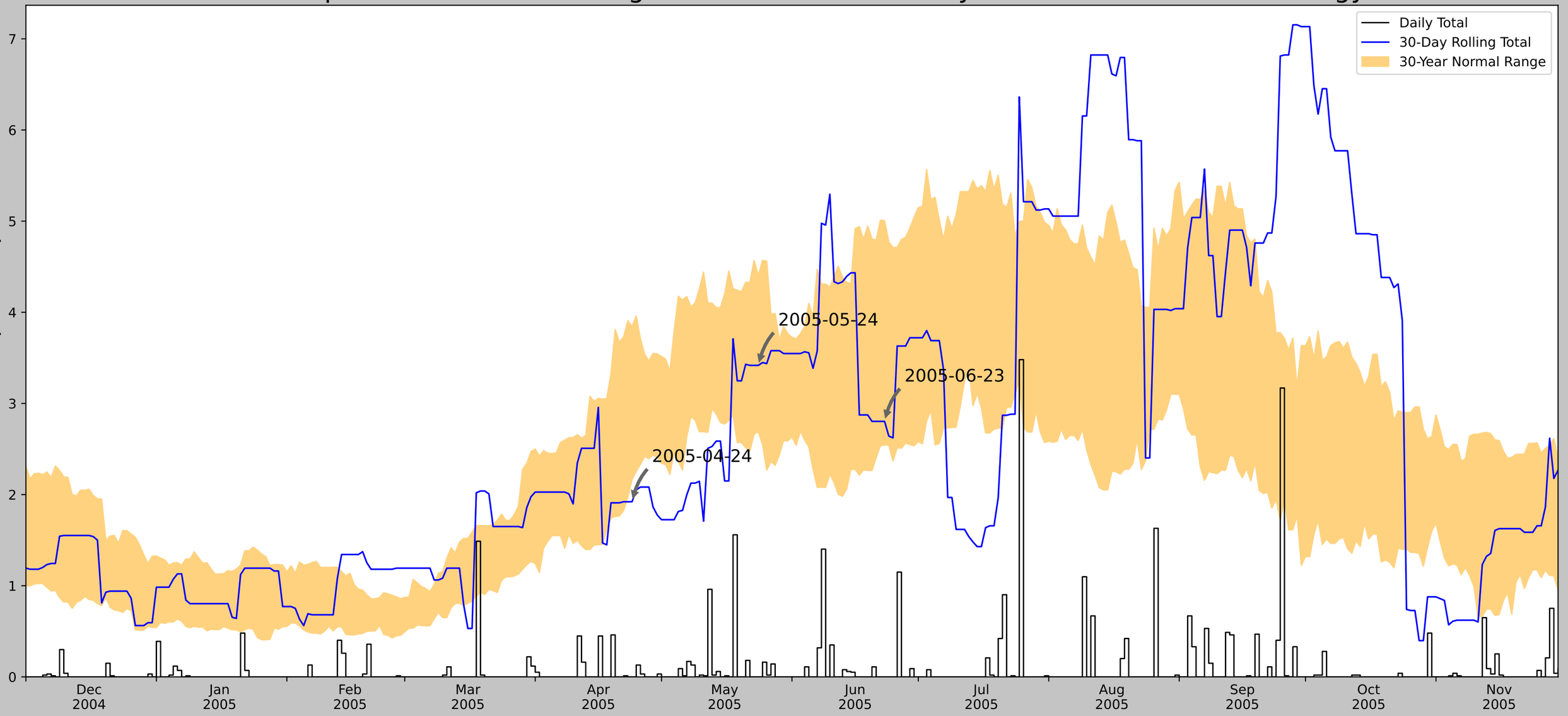
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
ROCHESTER INTL AP	43.9039, -92.4919	1306.102	9.91	129.497	5.743	11352	90
GRAND MEADOW	43.7047, -92.5644	1350.066	14.23	43.964	7.029	1	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	44.0305195, -92.5855122
Observation Date	2005-06-23
Elevation (ft)	1176.605
Drought Index (PDSI)	Mild wetness
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2005-06-23	2.543307	5.004725	2.80315	Normal	2	3	6
2005-05-24	2.688583	4.402362	3.417323	Normal	2	2	4
2005-04-24	2.164173	3.843307	1.92126	Dry	1	1	1
Result							Normal Conditions - 11

US Army Corps of Engineers

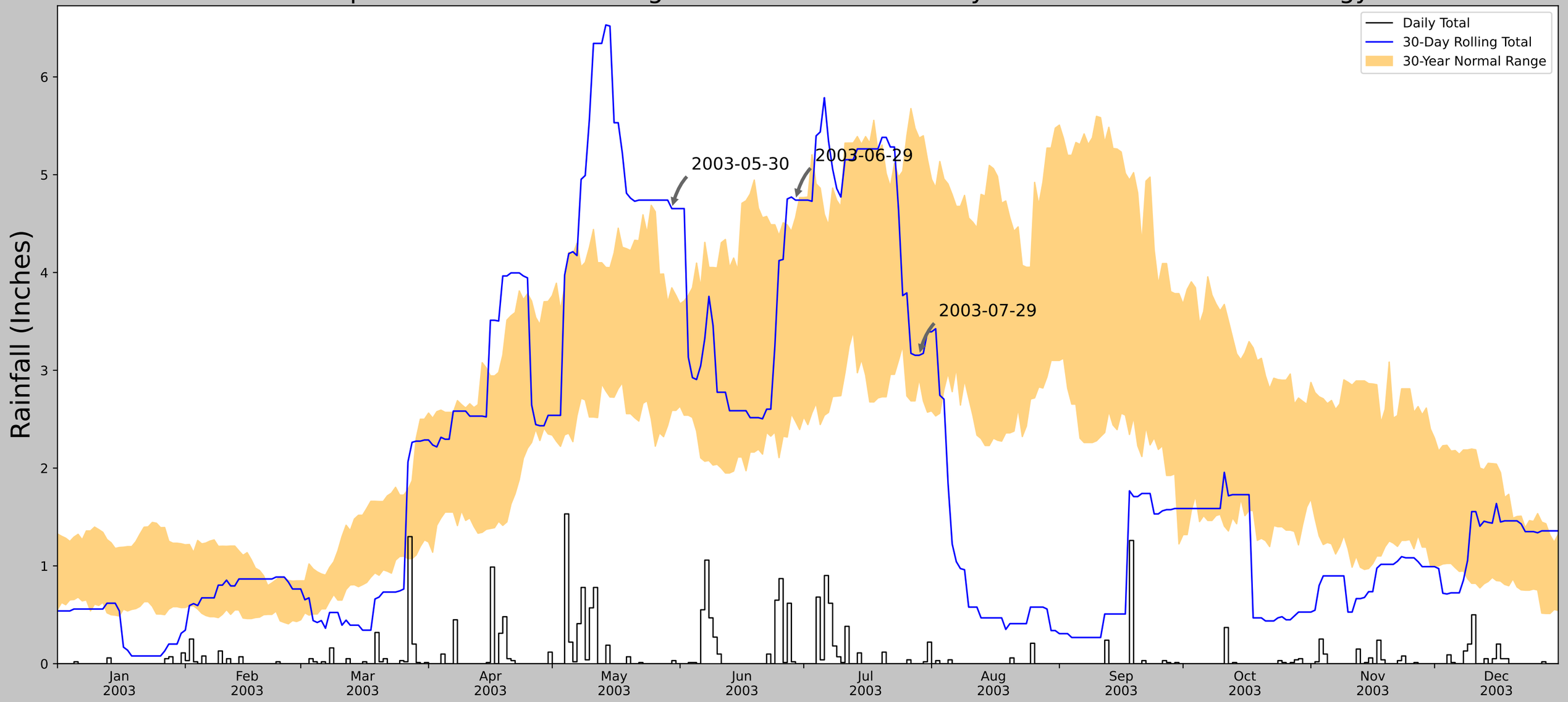
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
ROCHESTER INTL AP	43.9039, -92.4919	1306.102	9.91	129.497	5.743	11352	90
GRAND MEADOW	43.7047, -92.5644	1350.066	14.23	43.964	7.029	1	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	44.0305195, -92.5855122
Observation Date	2003-07-29
Elevation (ft)	1176.605
Drought Index (PDSI)	Normal
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2003-07-29	2.912992	5.374803	3.153543	Normal	2	3	6
2003-06-29	2.477953	4.561417	4.740158	Wet	3	2	6
2003-05-30	2.590158	3.843701	4.653543	Wet	3	1	3
Result							Wetter than Normal - 15

US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
ROCHESTER INTL AP	43.9039, -92.4919	1306.102	9.91	129.497	5.743	11352	90
GRAND MEADOW	43.7047, -92.5644	1350.066	14.23	43.964	7.029	1	0