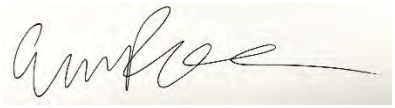
Minnesota Wetland Conservation Act
NOTICE OF DECISION

Date this Notice was sent:	**January 9, 2026**
Local Government Unit:	**City of Golden Valley**
County:	**Hennepin**
Applicant and (if applicable) Applicant's Representative:	**Michael Jones, Minneapolis Parks and Recreation Board** **Susan Mayer, Kimley Horn and Associates, Inc.**
Project Name/Number:	**Theodore Wirth Regional Park Trail Improvements**
Type of Decision (check all that apply): **Note:** Boundary/type, sequencing, replacement plan, and bank plan decisions require an associated notice of application prior to the decision being made.	☒ Boundary/Type ☐ Sequencing (submitted separately from a replacement plan) ☐ Replacement Plan ☐ Bank Plan ☐ Exemption Identify which exemption by Rule or Statute Citation: ☐ No-Loss Identify which provision by Rule or Statute Citation:
Decision: **Note:** All replacement plan approvals are conditional upon confirmation from BWSR of withdrawal of specified credits and/or financial assurance received for project-specific replacement.	☐ Denied ☐ Approved. Valid for ☐ 5 yrs (default); ☐ Other. Specify: ☒ Approved with Conditions List Conditions: **The revised wetland delineation report (December 2025 update) received from Kimley Horn on December 4, 2025 reflects the final approved report.** Valid for ☒ 5 yrs (default); ☐ Other. Specify:
LGU Representative Name & Signature:	 **Emma Rakestraw** **Environmental Manager** **City of Golden Valley**

Decision Timeline

An LGU must approve or deny a request within 60 days of receiving a complete application per MINN. STAT. § 15.99.

Date Complete Application Received:	**November 18, 2025**
Date of Decision:	**January 9, 2026**
If applicable, date of *written extension* to 60-day decision timeline & number of days extended:	**N/A**

Reason for Extension (check one):	☐ Other process or decision required to occur before WCA decision. Describe: **N/A** ☐ Additional information and/or revision to application submitted. ☐ Applicant request. ☐ Other. Describe: **N/A**
Date & number of days extended for any *additional written extensions* agreed to by the applicant:	**N/A**

Decision Summary

Technical Evaluation Panel Recommendation (check one):	☐ No recommendation ☒ Approval or approval with conditions (attach recommendation) **The city recommends approval of the revised wetland delineation attached herein.** ☐ Denial (attach recommendation)
LGU Findings (check all that apply):	☐ Findings attached ☒ Findings: **A TEP site review was conducted on 11/25/25 and was attended by Emma Rakestraw (City of Golden Valley), Shawn Williams (WSB for Golden Valley), (Karen Wold (Barr Engineering for the City of Minneapolis), and Susan Mayer (Kimley-Horn for the applicant).** **Several additional data collection points were requested by the TEP panel, which were completed and are included in the revised delineation report.** **Both the City of Minneapolis and Golden Valley are submitting separate notices related to this delineation as it spans both cities.** ☒ Other attachments. Specify: **Revised wetland delineation report, prepared Kimley Horm received December 4, 2025.**
For Replacement Plan Decisions *Only*:	Total wetland impacts requiring replacement (acres): **N/A** Type of wetland replacement (check all that apply): ☐ Project-Specific. Number of Credits: **N/A** ☐ Banking. Number of Credits by Bank Account #: **N/A**

Notice Distribution

Notice Recipients (check all that apply):	☒ SWCD TEP Member (if different from LGU): **Stacey Lijewski, Lily Kingsley** ☒ BWSR TEP Member: **Jed Chesnut** ☒ DNR Representative: **Ryan Toot** ☒ Watershed District or WMO (if applicable): **BCWMC – Laura Jester** ☐ bank.administrator.bwsr@state.mn.us (Bank Plan Decisions Only) ☒ Applicant: **Michael Jones** ☒ Applicant's Representative (if applicable): **Susan Mayer – Kimley Horn**

	☐ Members of the Public Requesting Notices (if applicable): **N/A** ☒ Others: **Michael Ryan - City of Golden Valley** **Shawn Williams - WSB** **Emily Brown - WSB** **Karen Wold- Barr Engineering**

Appeal Process

Appeal Process (check one):	☐ Local Appeal Process (if established). Specify How to Appeal: **N/A** ☒ Board of Water & Soil Resources (see instructions below)
If there is no established Local Appeal Process indicated above, an appeal of this decision may be made to BWSR per the instructions to the right. **Note:** Decisions are not final until the 30-day appeal window ends.	Mail or email written request to appeal sent to BWSR within 30 days of date this notice was sent. Include copy of this notice, name and contact information of appellant(s) and their representative(s) (if applicable), a statement clarifying intent to appeal, and supporting information as to why the decision is in error. Mail check payable to MN Board of Water & Soil Resources for $500. Send to: Appeals & Regulatory Compliance Coordinator Minnesota Board of Water & Soil Resources 520 Lafayette Road North St. Paul, MN 55155 travis.germundson@state.mn.us.

Wetland Delineation Report

Theodore Wirth Regional Park Trail Improvements

Cities of Minneapolis and Golden Valley

Hennepin County, Minnesota

Prepared for:

Minneapolis Parks and Recreation Board
2117 West River Road
Minneapolis, MN 55411

Prepared by:

Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100
Saint Paul, MN 55114

October 2025

Revised December 2025

Kimley»Horn

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Appendices

1 Introduction

Wetland scientists Susan Mayer (CMWP 1447) and Madeline Roess with Kimley-Horn and Associates, Inc. conducted a wetland investigation and field delineation for Minneapolis Parks and Recreation Board and the Theodore Wirth Regional Park Trail Improvements project in the cities of Minneapolis and Golden Valley, Hennepin County, Minnesota. The wetland investigation and delineation included a 10-foot buffer from locations of proposed trail improvements within Theodore Wirth Park (the "study area"). The study area is shown in **Figure 1**. The study area consists of regional parkland, with existing areas of gravel trail.

A routine level 2 (onsite) wetland delineation, as outlined in the *1987 Corps of Engineers Wetlands Delineation Manual* (January 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0) (August 2010)* occurred on July 2, 2025. A routine level 1 (desktop) wetland delineation was also prepared to provide additional information regarding the extent of delineated resources in the vicinity of trail improvements. The purpose of this delineation report was to identify the extent of wetlands within the study area. The information will be used to facilitate project design and determine if aquatic resource impacts are avoidable and/or if minimization of impacts can result from design modifications.

2 Project Description

Minneapolis Parks and Recreation Board is proposing to improve or construct several trail segments within Theodore Wirth Regional Park. Some segments of existing trails will be replaced in-kind, some would be widened, and some connections and extensions will be constructed within a new trail footprint.

3 Statement of Qualifications

Kimley-Horn has extensive experience completing wetland investigations and delineations across the United States. Kimley-Horn's personnel has been trained to use the *1987 Corps of Engineers Wetlands Delineation Manual (USACE, 1987)* along with the applicable regional supplements. Kimley-Horn has experience completing off-site hydrology analysis, historic aerial reviews, and difficult or atypical situation delineations.

Susan Mayer earned a Bachelor of Science degree in Environmental Sciences, Policy, and Management from the University of Minnesota and has over seven years of professional experience in environmental consulting. Susan is a certified delineator in the state of Minnesota and has led field teams in the delineation of thousands of aquatic resources for public sector and private sector clients. She has prepared wetland permit applications for projects throughout the Midwest.

Madeline Roess earned a Bachelor of Science degree in Environmental Science and Geoscience from the University of Wisconsin-Madison. She has over two years of professional experience in environmental consulting, specializing in environmental compliance and documentation for public and private sector clients. She has experience with wetland delineation, permitting, GIS mapping, and species due diligence.

4 Regulatory Requirements

A summary of the permit requirements that may pertain to the project is provided below. Any activity planned within areas identified as wetland must be coordinated with and approved by the appropriate agencies prior to commencement of such activities.

Agencies in Minnesota that regulate activities that affect lakes, rivers, streams, and wetlands include:

- U.S. Army Corps of Engineers (USACE)
  - Section 404 of the Clean Water Act
- Local Governmental Units (LGUs)
  - Wetland Conservation Act (WCA)

The LGUs for this project are the cities of Minneapolis and Golden Valley for the areas within their respective city limits. The WCA applies to nearly all wetlands not regulated by the DNR.

The regulatory authority of the U.S. Army Corps of Engineers (USACE) covers Waters of the United States (WOTUS) in accordance with Section 404 of the Clean Water Act. Generally, the USACE reviews delineations to determine whether wetlands are jurisdictional (i.e., WOTUS). The regulatory authority of the U.S. Army Corps of Engineers (USACE) covers Waters of the United States (WOTUS) in accordance with Section 404 of the Clean Water Act (CWA). Generally, the USACE reviews delineations to determine whether wetlands are jurisdictional (i.e., WOTUS). On March 12, 2025, the U.S. Environmental Protection Agency (EPA) and Department of the Army ("the agencies") announced a joint memorandum issuing guidance to field staff on implementation of the continuous surface connection requirement under the CWA. The final ruling is pending as of the date of this report.

Based on the March 2025 ruling, the Clean Waters Act's use of "waters" encompasses only relatively permanent, standing, or continuously flowing bodies, ordinarily called streams, oceans, rivers, and lakes. Wetlands qualify as WOTUS only if "indistinguishable from waters of the United States," having a continuous surface connection to bodies that are waters of the United States in their own right, with no clear division between waters and wetlands. USACE retains the authority to make final decisions regarding federal jurisdiction of aquatic resources. Obtaining a jurisdictional determination (JD) from the USACE clarifies the scope of federal jurisdiction over delineated aquatic resources and identifies which resources are subject to CWA regulations.

Section 10 of the Rivers and Harbors Act requires that regulated activities conducted below the ordinary high-water mark elevation of navigable Waters of the U.S. or mean high water mark for tidal waters be approved/permitted by the USACE. Regulated activities include the placement/removal of structures, work involving dredging, disposal of dredged material, filling, excavation, or any other disturbance of soils/sediments or modification of a navigable waterway. Navigable Waters of the U.S. are those waters that are subject to the ebb and flow of the tide shoreward to the mean high-water mark and/or are presently used or have been used in the past or may be susceptible to use to transport interstate or foreign commerce.

In Minnesota, a joint application process has been developed for projects with anticipated wetland impacts. Applications are coordinated between the USACE, DNR, and LGU.

5 Mapping and Background Information

Prior to field reconnaissance, potential wetland areas within the project study areas were identified through a desktop review of United States Geological Survey (USGS) Topographic maps, National Wetlands Inventory (NWI), National Hydrography Dataset (NHD) Department of Natural Resources (DNR) Public Waters Inventory (PWI), LiDAR, the soil survey for Hennepin County, aerial photography (2025), and antecedent precipitation for a location near the study area. The selected resources are described below:

The 2022 Minneapolis South, MN 7.5-minute USGS topographic map and LiDAR mapping from the DNR were reviewed for the study area. According to the USGS topographic map (see **Figure 2**), the study area is mostly forested land within Theodore Wirth Park. Several aquatic resources are depicted in the vicinity of the study area.

LiDAR mapping from the DNR depicts the topography of the study area as variable, with low areas meeting steeper slopes and rolling hills. This area ranges from 824 feet (above mean sea level) to 884 feet. Contour data is shown in **Appendix A**.

NWI mapping, available from the Minnesota DNR (updated in 2024), depicts potential wetland areas and waterbodies based on stereoscopic analysis of high altitude and aerial photographs and was reviewed for the study area. According to the NWI map, portions of eight wetlands intersect the study area. This includes five freshwater forested/shrub wetlands (PFO1A) and three freshwater emergent wetlands (PEM1A, PEM1C), which comprise three larger wetland complexes. The USGS NHD shapefiles (2023) were reviewed and no NHD flowlines were mapped within the study area or study area vicinity. The Minnesota DNR PWI shapefiles (2024) were reviewed and no DNR Public waterbasins or watercourses were mapped within the study area or study area. NWI and PWI features are mapped in **Appendix A**.

According to the Natural Resources Conservation Service's (NRCS) Web Soil Survey, the majority of the study area was mapped with a non-hydric soil rating of 0%. Some portions of the study area were mapped with a hydric soil rating of 100%, or a predominantly hydric soil rating of 95%. Maps and information obtained from the NRCS online web soil survey are included in **Appendix B.**

6 Field Investigation

A routine level 2 (onsite) wetland delineation, as outlined in the *1987 Corps of Engineers Wetlands Delineation Manual* (January 1987) along with the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0) (August 2010)* occurred on July 2, 2025.

Precipitation data for the study area were obtained from the U.S. Army Corps of Engineers Antecedent Precipitation Tool. WETS (Wetlands) tables were reviewed for climate stations within the vicinity of the study area to determine the current hydrologic conditions for the site and if those conditions are typical for this time of year. Ninety-day rolling precipitation levels leading up to the field review were compared to historical data. In summary, the field visit constituted wetter than normal precipitation conditions. This information is included in **Appendix C**.

During the onsite delineation, vegetation, soils, and current hydrologic characteristics were evaluated at each wetland area and area of investigation identified within the study area. Wetland boundaries were flagged with wetland flags and/or digitally recorded with a Geode GPS until one or more of the three criteria were no longer present. The sample point locations, wetland boundaries, and aquatic features were surveyed with a GPS with sub-meter accuracy and are shown in **Figure 3**.

In addition to wetlands that were investigated and delineated, non-wetland aquatic features were delineated. Non-wetland aquatic features are defined based on the observation of the following characteristics:

- Flow
    - Perennial: contains water at all times of the year except during extreme drought
    - Intermittent: contains water occasionally or seasonally
    - Ephemeral: contains water only during and immediately after periods of rainfall or snowmelt
- Ordinary High Water Mark (OHWM): The limit line on the shore established by the fluctuation of the water surface. It is shown by such things as a clear line impressed on the bank, shelving, changes in soil character, destruction of terrestrial vegetation, the presence of litter and debris, or other features influenced by the surrounding area
- Bank Shape
    - Undercut: banks that overhang the stream channel
    - Steep: bank slope of approximately greater than 30 degrees
    - Gradual: bank slope of approximately 30 degrees or less

Sample points were completed for all observed wetland and upland plant communities. Some wetlands exhibited similar wetland and upland plant communities and were in close proximity to one another; these wetlands were documented with representative sample points. The field data sheets are included in **Appendix D**. Site photos and a photo locations map can be found in **Appendix E**.

To supplement the field delineation and provide additional context to the location of wetlands within the vicinity surrounding the study area, a level 1 (desktop) wetland delineation was completed for areas of the field-delineated wetlands that extended beyond the immediate vicinity of the study area. These features are shown in **Figure 3** to provide a more detailed view of the landscape surrounding the study area. Field observations were made in several locations along level 1 wetland boundaries to support the desktop delineation.

7 Summary of Results

Table 1: Wetland Delineation Summary

Resource ID	HGM Classification[1]	Wetland Plant Community[2]	C-39 Type[3]	Cowardin Classification[4]	Total Basin Size (acres)	NWI?	Hydric Soils?[5]	LGU	Notes
Wetland 1	Depression	Floodplain forest	Type 1	PFO1A	0.20	N/A	No	City of Minneapolis	Wetland 1 is an isolated basin located in the southeastern portion of Theodore Wirth Park. Two wetland sample points (SP-1, SP-2) and one upland sample point (SP-3) were documented at this wetland. Several inches of standing water were observed at the lowest point of the basin. Vegetation within the wetland was dominated by small-spike false nettle, sedges, green ash, and boxelder. The wetland boundary was established based on topography and the dominance of hydrophytic vegetation.
Wetland 2	Depression	Floodplain forest	Type 1	PFO1A	0.42	N/A	No	City of Minneapolis	Wetland 2 is an isolated basin located in the southeastern portion of Theodore Wirth Park. Vegetation within the wetland was dominated by small-spike false nettle and Pennsylvania smartweed. The wetland boundary was established based on topography and the dominance of hydrophytic vegetation.
Wetland 3	Depression	Coniferous bog, fresh wet meadow	Type 8, Type 2	PFO2B, PEM1B	3.93	PFO1A, PEM1A	No	City of Minneapolis / City of Golden Valley	Wetland 3 is an isolated basin located in the western portion of Theodore Wirth Park. This wetland is referred to as the "Quaking Bog". One wetland sample point (SP-6) and one upland sample point (SP-7) were documented during a site review with the LGUs on November 25, 2025. Across the two site visits, dominant vegetation observed in this wetland include tamarack, sedges, cattails, sensitive fern, and broad-leaf arrowhead. Adjacent uplands were dominated by buckthorn, red oak, and white oak. The wetland boundary was based on

[1] The Hydrogeomorphic (HGM) classification system is described here: https://bwsr.state.mn.us/sites/default/files/2022-07/HGM%20Wetland%20Classification%20System%20for%20MN.pdf
[2] The Wetland Plant Communities are found here: https://usace.contentdm.oclc.org/digital/collection/p266001coll1/id/2801
[3] The Circular 39 wetland types are found here: https://bwsr.state.mn.us/sites/default/files/2018-12/WETLANDS_delin_Circular_39_MN.pdf
[4] The Cowardin Classification System codes are found here: https://www.fws.gov/wetlands/documents/Wetlands-and-Deepwater-Habitats-Classification-chart.pdf
[5] Areas identified as hydric contain partially hydric soils (equal to or greater than 33% of soil component) mapped within the resource area.

Resource ID	HGM Classification[1]	Wetland Plant Community[2]	C-39 Type[3]	Cowardin Classification[4]	Total Basin Size (acres)	NWI?	Hydric Soils?[5]	LGU	Notes
									topography and the dominance of hydrophytic vegetation.
Wetland 4	Depression	Shallow marsh	Type 3	PEM1C	0.18	PFO1A	No	City of Minneapolis / City of Golden Valley	Wetland 4 is an isolated basin located in the western portion of Theodore Wirth Park. Vegetation within the wetland basin included rice cut grass and fowl manna grass, and standing water was observed. The wetland boundary was established based on topography, the presence of standing water, and dominance of hydrophytic vegetation.
Wetland 5	Depression	Floodplain forest, shallow marsh	Type 1, Type 3	PFO1A, PEM1C	0.74	PFO1A	No	City of Minneapolis / City of Golden Valley	Wetland 5 is a complex comprised of floodplain forest and shallow marsh located near the Eloise Butler trail. Vegetation within this basin as dominated by cattails and reed canary grass with a fringe of buckthorn and wood nettle. Standing water was observed at the lowest points in the basin. Adjacent uplands were dominated by buckthorn and common burdock. The wetland boundary was established based on topography and the dominance of hydrophytic vegetation
Wetland 6	Depression	Floodplain forest, shallow marsh, shallow open water	Type 1, Type 3, Type 5	PFO1A, PEM1C, PABH	5.28	PFO1A, PEM1F, PABH, PEM1C	Yes	City of Minneapolis / City of Golden Valley	Wetland 6 is a wetland complex located near the Eloise Butler trail. Shallow open water was observed in the northern portion of this basin. Dominant vegetation included sandbar willow, cattails, swamp milkweed, and sedges. Uplands adjacent to this wetland included black walnut, Canada goldenrod, buckthorn, and raspberry. The wetland boundary was established based on topography and the dominance of hydrophytic vegetation.
Wetland 7	Depression	Floodplain forest	Type 1	PFO1A	1.38	PFO1A	Yes	City of Minneapolis / City of Golden Valley	Wetland 7 is a floodplain forested wetland located near the Learning Corridor and Eloise Butler trails. Dominant vegetation in this basin included buckthorn, black willow, American elm, and adjacent uplands included black walnut and elderberry. The wetland boundary was established based on topography and dominance of hydrophytic vegetation.
Wetland 8	Depression	Floodplain forest	Type 1	PFO1A	1.04	PFO1A	Yes	City of Minneapolis / City of Golden Valley	Wetland 8 is a floodplain forested wetland located near the Learning Corridor and Eloise Butler trails. Dominant vegetation in this basin included jewelweed, buckthorn, American elm, and green ash, and adjacent uplands included black walnut, red oak, and garlic mustard. One wetland sample point (SP-4) and one upland sample point (SP-5) were recorded at the southern end of the wetland.

Resource ID	HGM Classification[1]	Wetland Plant Community[2]	C-39 Type[3]	Cowardin Classification[4]	Total Basin Size (acres)	NWI?	Hydric Soils?[5]	LGU	Notes
									The wetland boundary was established based on topography, with a distinct slope on the southeastern portion of the basin, and dominance of hydrophytic vegetation.
Wetland 9	Depression	Floodplain forest, shallow marsh, shallow open water	Type 1, Type 3, Type 5	PFO1A, PEM1C, PABH	6.16	PFO1A, PEM1C, PABH	Yes	City of Minneapolis / City of Golden Valley	Wetland 9 is a wetland complex located near the Learning Corridor and Eloise Butler trails. Shallow open water was observed in the northern portion of this wetland. Dominant vegetation included sandbar willow, cattails, sedges, and buckthorn. Adjacent upland areas were dominated by basswood, black walnut, red oak, Canada goldenrod, and Virginia creeper. The wetland boundary was established based on topography and the dominance of hydrophytic vegetation.
Wetland 10	Depression	Shallow marsh	Type 3	PEM1C	0.11	PEM1C	No	City of Golden Valley	Wetland 10 is a stormwater basin located west of the Wirth Beach House parking area. Vegetation was dominated by cattails. The wetland boundary was established using offsite methodology.

Table 2: Linear Feature Delineation Summary

Resource ID	Cowardin Classification	Size (linear feet)[6]	NWI?	NOTES
Stream 1	R4SBC	69	N/A	Stream 1 is an intermittent stream. The stream extends through a culvert, beneath an existing gravel trail. The stream drains generally north towards Wetland 6. At the time of the site visit, several inches of swiftly flowing water were observed within steep banks, approximately 5 feet wide and 2 feet deep.

[6] Size of non-wetland, linear features provided in linear feet within the study area.

8 Report Preparation

The procedures followed for this wetland delineation are in accordance with the *Corps of Engineers Wetlands Delineation Manual* and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0) (August 2010).

This report describes site conditions for a specific date in time and is generally valid for a period of five years from the date of the final field investigation and delineation, which was July 2, 2025.

9 Conclusion

The field delineation identified 10 wetlands and 1 intermittent stream within the study area. Each of the delineated resources is described in Table 1 and Table 2. All 10 of the wetlands are expected to be regulated under the WCA. The stream is not regulated under the WCA.

10 Disclaimer

Kimley-Horn has prepared this document based on limited field observations and our interpretation, as scientists, of applicable regulations and agency guidance. While Kimley-Horn believes our interpretation to be accurate, final authority to interpret the regulations lies with the appropriate regulatory agencies. Regulatory agencies occasionally issue guidance that changes the interpretation of published regulations. Guidance issued after the date of this report has the potential to invalidate our conclusions and/or recommendations and may cause a need to reevaluate our conclusions and/or recommendations.

Because Kimley-Horn has no regulatory authority, the Client understands that proceeding based solely upon this document does not protect the Client from potential sanction or fines from the applicable regulatory agencies. The Client acknowledges that they have the opportunity to submit documentation to the regulatory agencies for concurrence prior to proceeding with any work. If the Client elects not to do so, then the Client proceeds at their sole risk.

References

Minnesota Board of Water and Soil Resources. Information regarding Minnesota wetland regulations (includes links to other regulatory websites). Available at http://www.bwsr.state.mn.us/wetlands/index.html, accessed October 2025.

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U.S. Geological Survey. *Topographical Map*. Accessed via ESRI at http://www.arcgis.com/home/item.html?id=30e5fe3149c34df1ba922e6f5bbf808f and via Topo View at https://ngmdb.usgs.gov/topoview/viewer/#4/40.01/-100.06, accessed October 2025.

Figures

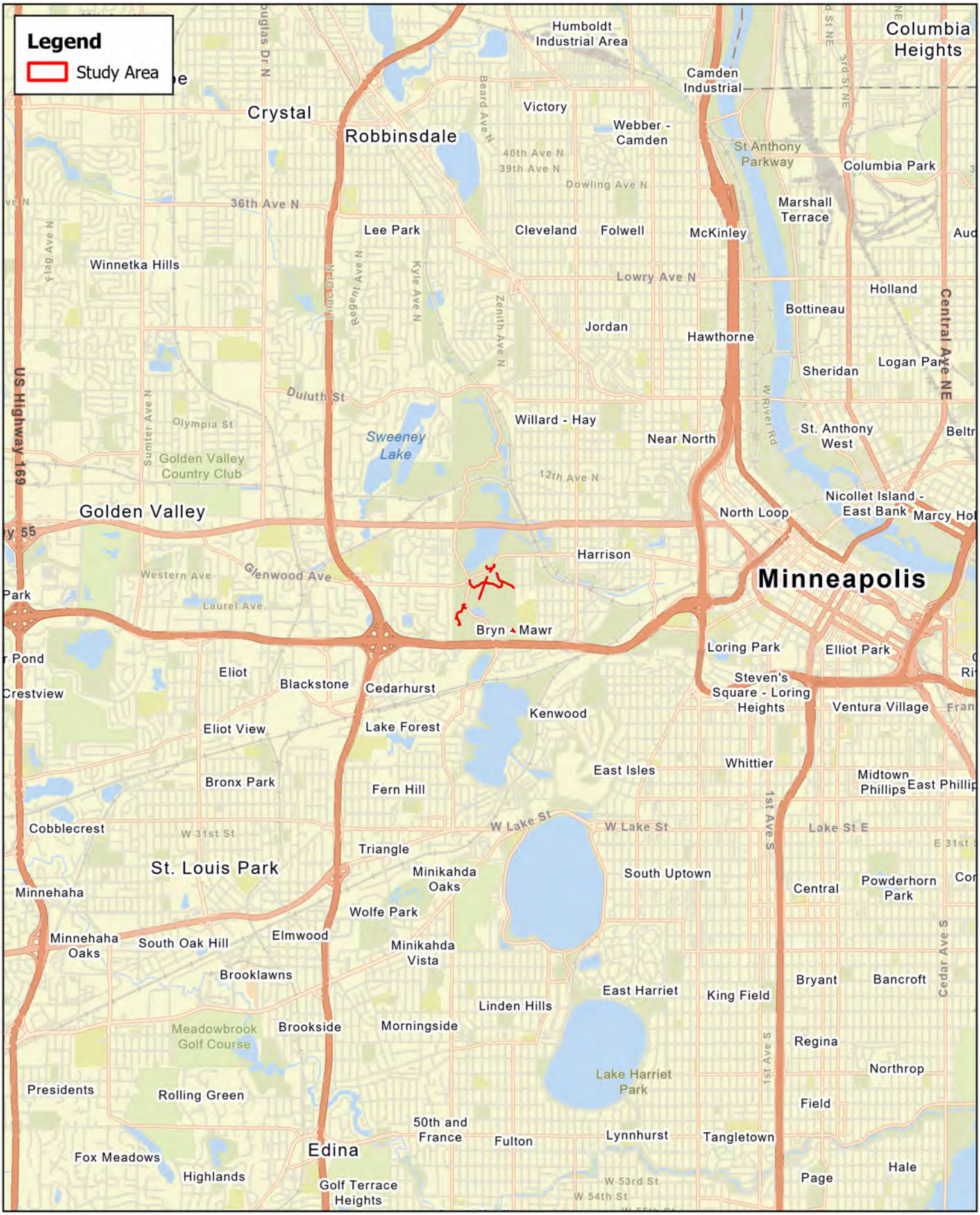

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Figure 1. Project Location
Theodore Wirth Regional Park, Hennepin County
Minneapolis Parks and Recreation Board

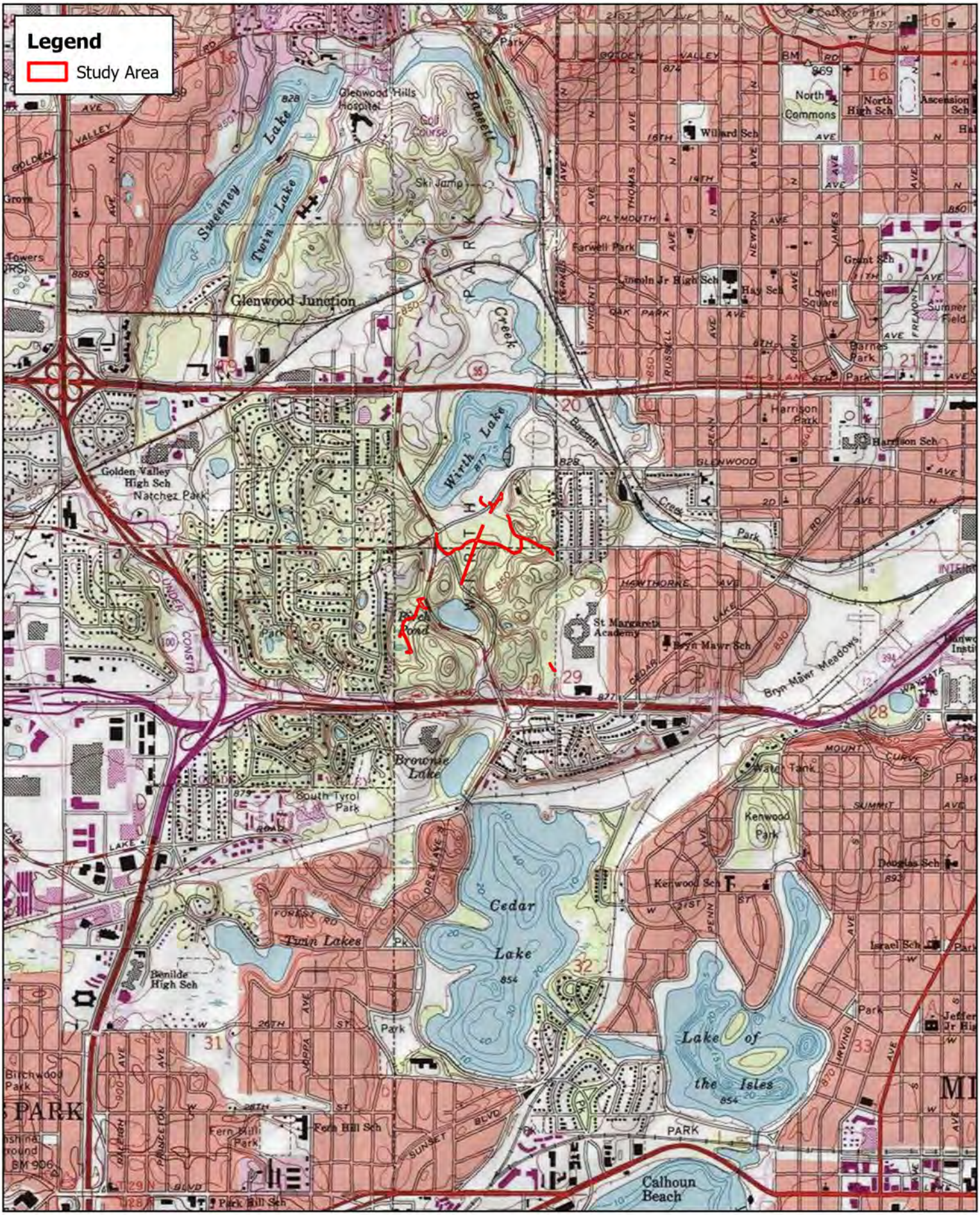

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Figure 2. USGS Topographic Map
Theodore Wirth Regional Park, Hennepin County
Minneapolis Parks and Recreation Board

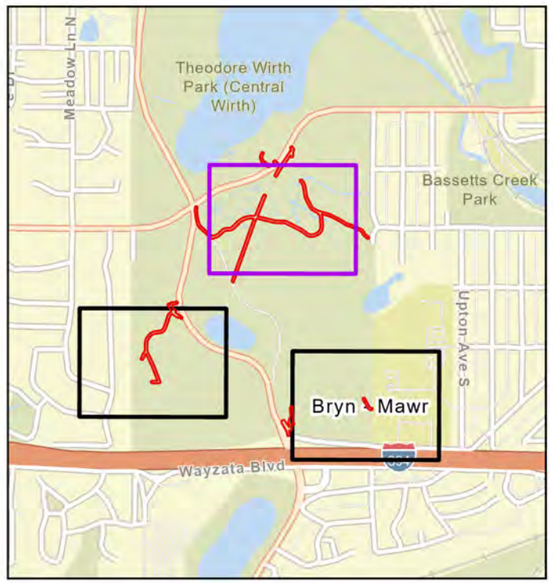
Legend

- Study Area
- City Boundary
- Sample Point

Wetland Delineation

- Field Delineated Wetland Boundary
- Desktop Delineated Wetland Boundary
- HGM Class - Depression
- Delineated Stream

*Feature extends beyond delineated boundary



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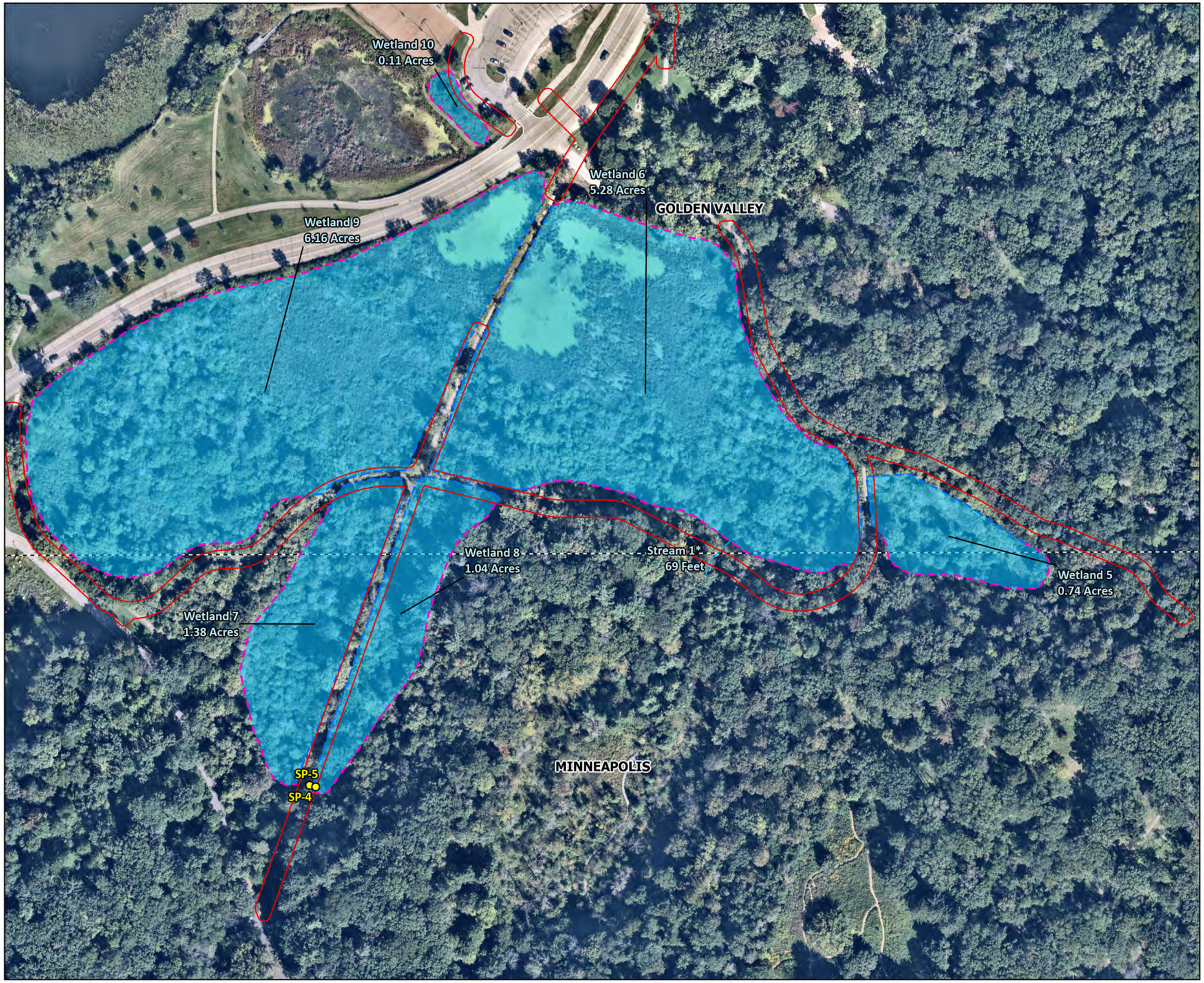

Figure 3. Delineated Resources Map
Theodore Wirth Regional Park, Hennepin County
Minneapolis Parks and Recreation Board

Kimley»Horn

Legend

- Study Area
- City Boundary
- Sample Point

Wetland Delineation

- Field Delineated Wetland Boundary
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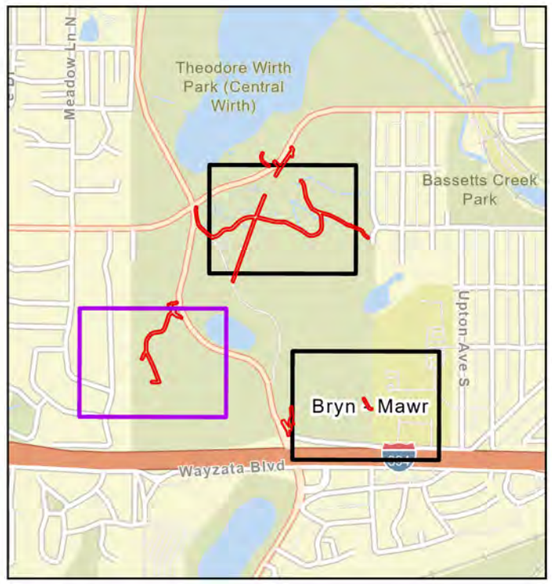
*Feature extends beyond delineated boundary



0 75 150 Feet

N

Figure 3. Delineated Resources Map
Theodore Wirth Regional Park, Hennepin County
Minneapolis Parks and Recreation Board

Kimley»Horn

Legend

- Study Area
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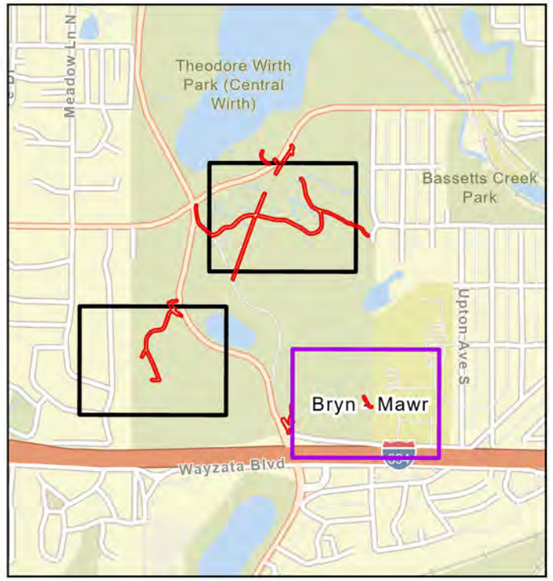
- HGM Class - Depression
- Delineated Stream

*Feature extends beyond delineated boundary



0 75 150 Feet

N

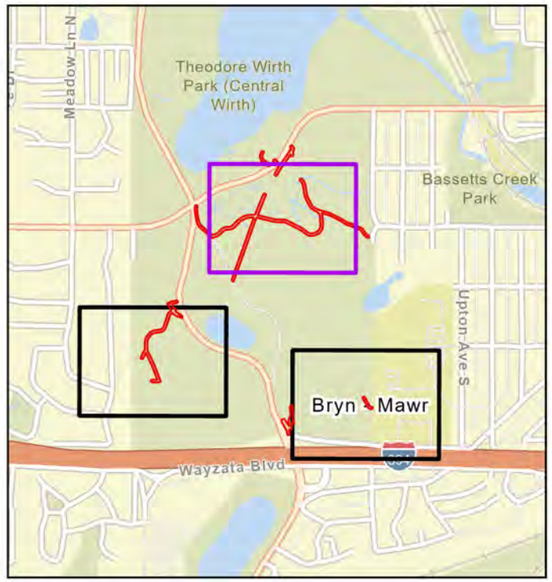
Figure 3. Delineated Resources Map
Theodore Wirth Regional Park, Hennepin County
Minneapolis Parks and Recreation Board

Kimley»Horn

Appendix A: National Wetlands Inventory/DNR Public Waters Inventory/Contours

Legend

- Study Area
- NWI
- Public Waterbasin
- 2-ft Contours



0 100 200 Feet

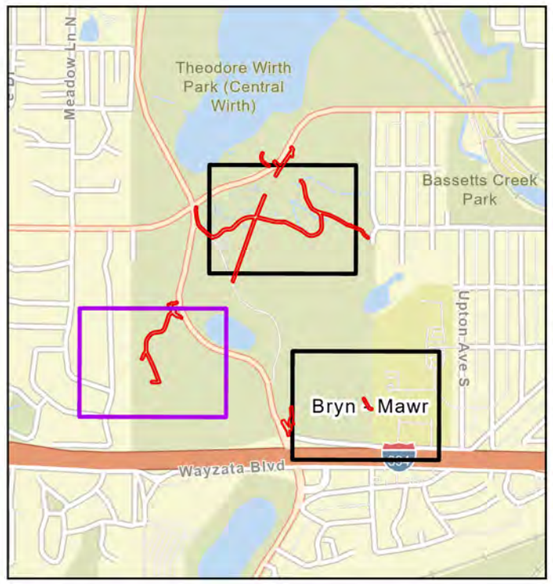
N

Appendix A: National Wetlands Inventory/ DNR Public Waters Inventory/Contours
Theodore Wirth Regional Park, Hennepin County
Minneapolis Parks and Recreation Board

Kimley»Horn

Legend

- Study Area
- NWI
- Public Waterbasin
- 2-ft Contours



0 100 200 Feet

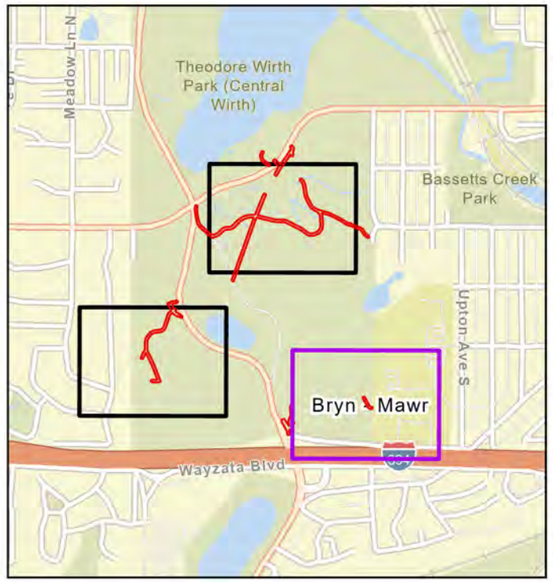
N

Appendix A: National Wetlands Inventory/ DNR Public Waters Inventory/Contours
Theodore Wirth Regional Park, Hennepin County
Minneapolis Parks and Recreation Board

Kimley»Horn

Legend

- Study Area
- NWI
- Public Waterbasin
- 2-ft Contours



0 100 200 Feet

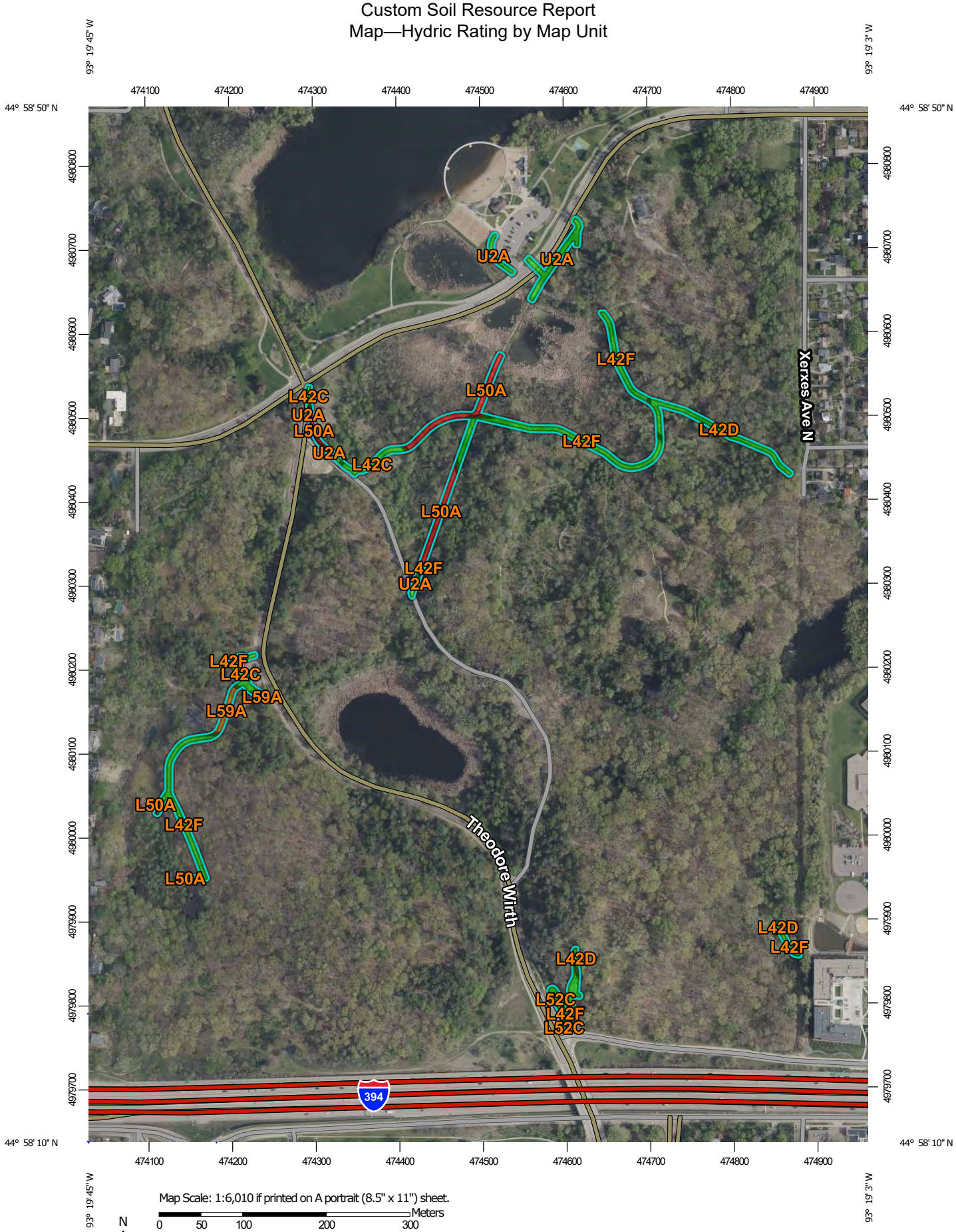
N

Appendix A: National Wetlands Inventory/ DNR Public Waters Inventory/Contours
Theodore Wirth Regional Park, Hennepin County
Minneapolis Parks and Recreation Board

Kimley»Horn

Appendix B: Hydric Soils Information

Map—Hydric Rating by Map Unit



Map Scale: 1:6,010 if printed on A portrait (8.5" x 11") sheet.

Meters: 0 50 100 200 300

Feet: 0 250 500 1000 1500

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

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

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

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

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

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

Soil Survey Area: Hennepin County, Minnesota
Survey Area Data: Version 21, Sep 10, 2025

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

Date(s) aerial images were photographed: Mar 1, 2024—Jul 1, 2024

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

Table—Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
L42C	Kingsley-Gotham complex, 6 to 12 percent slopes	0	0.5	10.5%
L42D	Kingsley-Gotham complex, 12 to 18 percent slopes	0	0.5	12.3%
L42F	Kingsley-Gotham complex, 25 to 35 percent slopes	0	1.9	42.2%
L50A	Muskego and Houghton soils, 0 to 1 percent slopes	100	0.8	17.5%
L52C	Urban land-Lester complex, 2 to 18 percent slopes	0	0.0	0.1%
L59A	Forestcity-Lundlake, depressional, complex, 0 to 3 percent slopes	95	0.2	3.5%
U2A	Udorthents, wet substratum, 0 to 2 percent slopes	0	0.6	13.8%
Totals for Area of Interest			**4.4**	**100.0%**

Rating Options—Hydric Rating by Map Unit

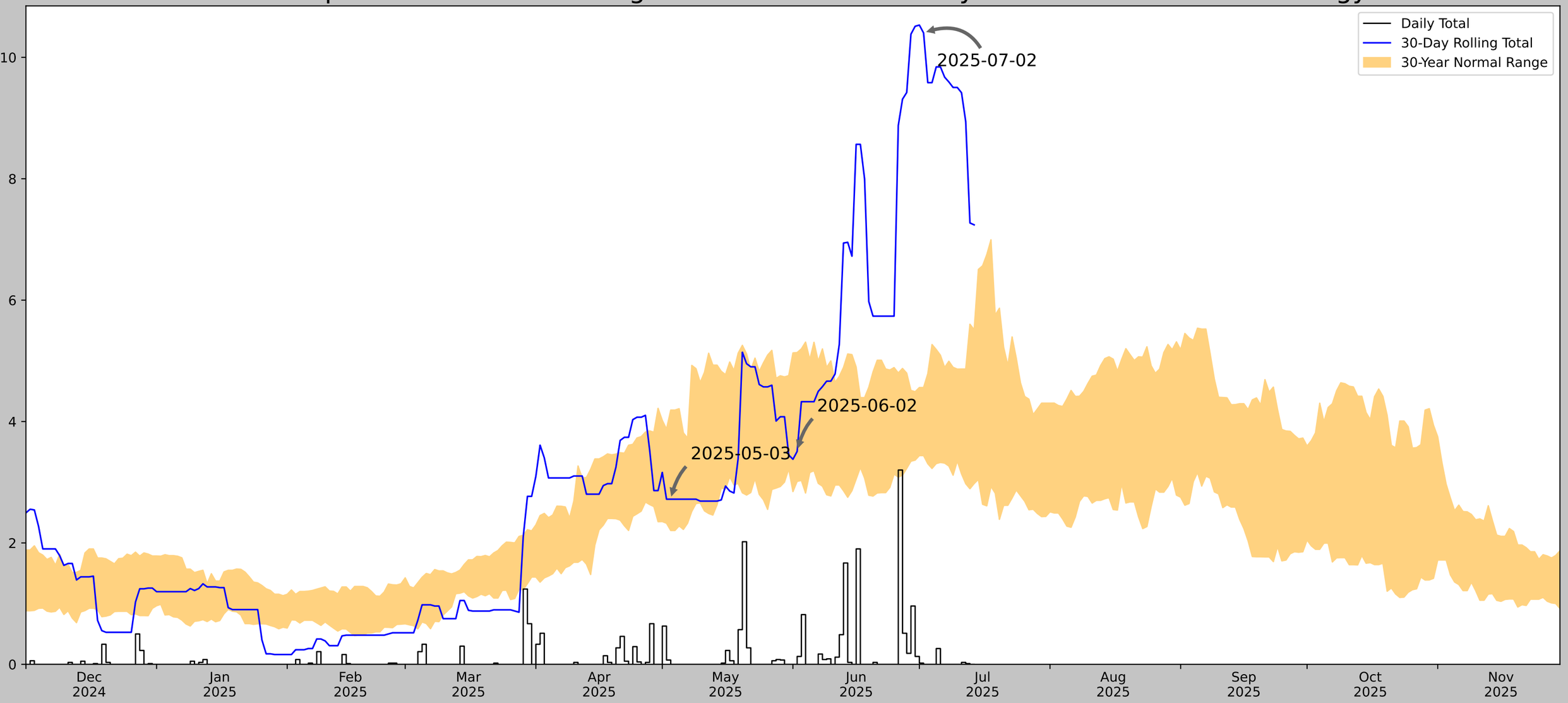
Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Appendix C: Precipitation Data

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



Coordinates	44.973374, -93.323690
Observation Date	2025-07-02
Elevation (ft)	852.655
Drought Index (PDSI)	Mild drought (2025-06)
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
2025-07-02	3.438583	4.56063	10.401575	Wet	3	3	9
2025-06-02	3.014173	5.136614	3.507874	Normal	2	2	4
2025-05-03	2.204331	4.188977	2.720473	Normal	2	1	2
Result							Wetter than Normal - 15

US Army Corps of Engineers

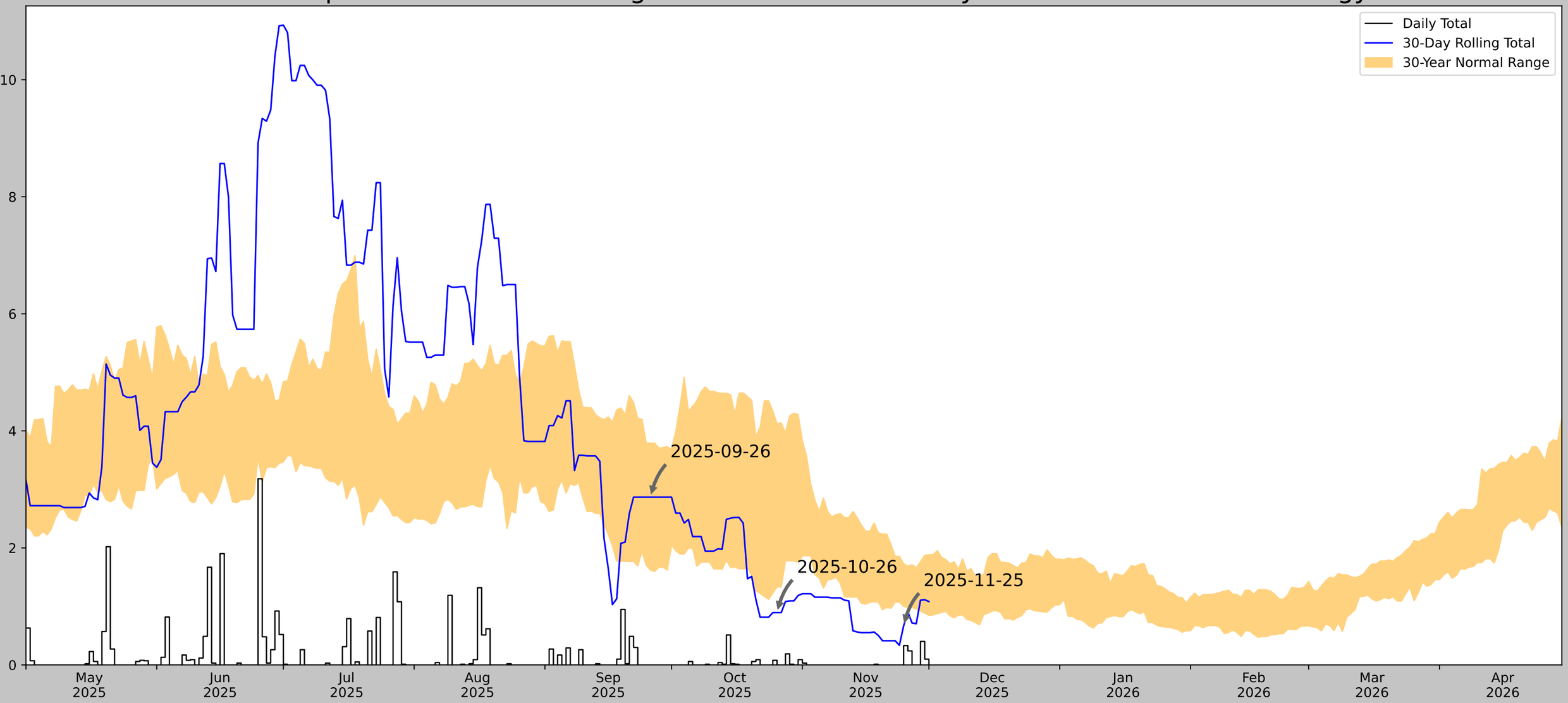
ERDC

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
NEW HOPE	45.01, -93.3792	910.105	3.71	57.45	1.882	11085	80
GOLDEN VALLEY 1.0 NW	45.0007, -93.3733	888.123	0.704	21.982	0.332	0	10
MINNEAPOLIS 3.3 SW	44.9289, -93.3163	913.058	6.392	2.953	2.895	7	0
LOWER ST ANTHONY FALLS	44.9786, -93.2469	753.937	6.819	156.168	4.133	255	0
VADNAIS LAKE	45.0483, -93.0958	890.092	14.09	20.013	6.622	6	0

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



Coordinates	44.97282, -93.32791
Observation Date	2025-11-25
Elevation (ft)	874.896
Drought Index (PDSI)	Moderate drought (2025-10)
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
2025-11-25	1.001575	1.730709	0.665354	Dry	1	3	3
2025-10-26	1.332284	4.12126	0.893701	Dry	1	2	2
2025-09-26	1.62126	3.790158	2.866142	Normal	2	1	2
Result							Drier than Normal - 7

Figures and tables made by the Antecedent Precipitation Tool Version 3.0

US Army Corps of Engineers.

ERDC

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
NEW HOPE	45.01, -93.3792	910.105	3.589	35.209	1.741	11138	89
PLYMOUTH 2.6 E	45.0162, -93.4096	983.924	1.545	73.819	0.809	0	1
MINNEAPOLIS 3.3 SW	44.9289, -93.3163	913.058	6.392	2.953	2.895	7	0
LOWER ST ANTHONY FALLS	44.9786, -93.2469	753.937	6.819	156.168	4.133	202	0
U OF MN ST PAUL	44.9903, -93.18	970.144	9.827	60.039	5.012	6	0

Appendix D: Field Data Sheets

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Theodore Wirth Regional Park Trail Improvements City/County: Hennepin County Sampling Date: 2025-07-02

Applicant/Owner: Minneapolis Parks and Recreation Board State: Minnesota Sampling Point: SP-1

Investigator(s): S. Mayer, M. Roess Section, Township, Range: S29 T29N R24W

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

Slope (%): 1 Lat: 44.97173617 Long: -93.31874708 Datum: WGS 84

Soil Map Unit Name: L42F - Kingsley-Gotham complex, 25 to 35 percent slopes NWI classification:

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:
Sample point documented at foot slope, approximately 1 foot upslope from edge of surface water. Antecedent precipitation conditions wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer negundo	15	✔	FAC
2. Acer saccharinum	10	✔	FACW
3. Fraxinus pennsylvanica	10	✔	FACW
4.			
5.			
	35	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Fraxinus pennsylvanica	15	✔	FACW
2. Frangula alnus	5	✔	FACW
3.			
4.			
5.			
	20	=Total Cover	
Herb Stratum (Plot size: 5 ft r)			
1. Boehmeria cylindrica	20	✔	OBL
2. Carex radiata	20	✔	FAC
3. Ageratina altissima	15	✔	FACU
4. Arisaema triphyllum	5		FACW
5. Erigeron annuus	5		FACU
6. Galium triflorum	5		FACU
7. Oxalis dillenii	5		FACU
8.			
9.			
10.			
	75	=Total Cover	
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 87.50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	45	x 2 =	90
FAC species	35	x 3 =	105
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	130 (A)		335 (B)

Prevalence Index = B/A = 2.57

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: SP-1

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 24	10YR 3/1	95	10YR 3/4	5	C	M	Silt Loam	
-								
-								
-								
-								
-								

[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)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ 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]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ 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:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): ___

Water Table Present? Yes ___ No ✔ Depth (inches): ___

Saturation Present? Yes ✔ No ___ Depth (inches): 6

(includes capillary fringe)

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Theodore Wirth Regional Park Trail Improvements City/County: Hennepin County Sampling Date: 2025-07-02

Applicant/Owner: Minneapolis Parks and Recreation Board State: Minnesota Sampling Point: SP-2

Investigator(s): S. Mayer, M. Roess Section, Township, Range: S29 T29N R24W

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

Slope (%): 1 Lat: 44.9718107 Long: -93.3187305 Datum: WGS 84

Soil Map Unit Name: L42F - Kingsley-Gotham complex, 25 to 35 percent slopes NWI classification:

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 ____
Hydric Soil Present? Yes ✔ No ____
Wetland Hydrology Present? Yes ✔ No ____

Is the Sampled Area within a Wetland? **Yes** ✔ **No** ____

Remarks:
Sample point documented approximately 1 ft upslope of SP-4. Antecedent precipitation conditions wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer negundo	30	✔	FAC
2. Ulmus americana	25	✔	FACW
3.			
4.			
5.			
	55	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Fraxinus pennsylvanica	15	✔	FACW
2.			
3.			
4.			
5.			
	15	=Total Cover	
Herb Stratum (Plot size: 5 ft r)			
1. Glechoma hederacea	30	✔	FACU
2. Carex trisperma	15	✔	OBL
3. Ageratina altissima	10		FACU
4. Laportea canadensis	10		FACW
5. Parthenocissus quinquefolia	10		FACU
6. Menispermum canadense	5		FAC
7.			
8.			
9.			
10.			
	80	=Total Cover	
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
		=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: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	50	x 2 =	100
FAC species	35	x 3 =	105
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	150 (A)		420 (B)

Prevalence Index = B/A = 2.80

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: SP-2

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0 - 7	10YR 3/1	100					Silt Loam	
7 - 11	10YR 3/1	92	10YR 3/4	8	C	M	Silt Loam	
11 - 14	10YR 4/2	85	10YR 3/4	15	C	M	Silt Loam	
14 - 24	10YR 4/2	80	10YR 3/6	20	C	M	Silty Clay	
-								
-								

[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)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ 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]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ 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:

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): 8

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:

Saturation was observed from 8 inches to 11 inches.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Theodore Wirth Regional Park Trail Improvements City/County: Hennepin County Sampling Date: 2025-07-02

Applicant/Owner: Minneapolis Parks and Recreation Board State: Minnesota Sampling Point: SP-3

Investigator(s): S. Mayer, M. Roess Section, Township, Range: S29 T29N R24W

Landform (hillside, terrace, etc.): Hill Local relief (concave, convex, none): Convex

Slope (%): 0 Lat: 44.97202904 Long: -93.31881179 Datum: WGS 84

Soil Map Unit Name: L42D - Kingsley-Gotham complex, 12 to 18 percent slopes NWI classification:

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 ✔
Hydric Soil Present? Yes ____ No ✔
Wetland Hydrology Present? Yes ____ No ✔

Is the Sampled Area within a Wetland? **Yes** ____ **No** ✔

Remarks:
Sample point documented in vegetated area between two wetland basins. Antecedent precipitation conditions wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5 ft r)			
1. Ageratina altissima	20	✔	FACU
2. Cinna arundinacea	20	✔	FACW
3. Poa annua	20	✔	FACU
4. Symphyotrichum lateriflorum	20	✔	FACW
5. Plantago rugelii	15		FAC
6. Taraxacum officinale	10		FACU
7.			
8.			
9.			
10.			
	105	=Total Cover	
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	15	x 3 =	45
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	105 (A)		325 (B)

Prevalence Index = B/A = 3.09

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: SP-3

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
-								
-								
-								
-								
-								
-								

[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)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ 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]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ 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 soils were assumed not present due to landscape position and dominant non-hydrophytic vegetation observed.

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:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Theodore Wirth Regional Park Trail Improvements City/County: Hennepin Sampling Date: 2025-07-02

Applicant/Owner: Minneapolis Parks and Recreation Board State: Minnesota Sampling Point: SP-4

Investigator(s): S. Mayer, M. Roess Section, Township, Range: S29 T29N R24W

Landform (hillside, terrace, etc.): Toeslope Local relief (concave, convex, none): Concave

Slope (%): 1 Lat: 44.97613116 Long: -93.32413273 Datum: WGS 84

Soil Map Unit Name: L50A - Muskego and Houghton soils, 0 to 1 percent slopes NWI classification: PFO1A

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 ____
Hydric Soil Present? Yes ✔ No ____
Wetland Hydrology Present? Yes ✔ No ____

Is the Sampled Area within a Wetland? **Yes** ✔ **No** ____

Remarks:
Sample point documented at toeslope of depression, adjacent to existing trail. Antecedent precipitation conditions wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Ulmus americana	40	✔	FACW
2.			
3.			
4.			
5.			
	40	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Frangula alnus	15	✔	FACW
2. Fraxinus pennsylvanica	10	✔	FACW
3.			
4.			
5.			
	25	=Total Cover	
Herb Stratum (Plot size: 5 ft r)			
1. Alliaria petiolata	25	✔	FAC
2. Impatiens capensis	20	✔	FACW
3. Arisaema triphyllum	10		FACW
4. Circaea alpina	5		FACW
5. Parthenocissus quinquefolia	5		FACU
6.			
7.			
8.			
9.			
10.			
	65	=Total Cover	
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	25	x 3 =	75
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	130 (A)		295 (B)

Prevalence Index = B/A = 2.26

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: SP-4

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0 - 6	10YR 2/1	100					Mucky Sand	
6 - 12	10YR 2/1	95	7.5YR 3/3	5	C	M	Mucky Sand	
-								
-								
-								
-								

[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)
- ___ Iron Monosulfide (A18)
- ✔ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ 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]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ 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:

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): 10
Saturation Present? (includes capillary fringe)	Yes ✔	No ___	Depth (inches): 0

Wetland Hydrology Present? **Yes** ✔ **No** ___

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Theodore Wirth Regional Park Trail Improvements City/County: Hennepin Sampling Date: 2025-07-02

Applicant/Owner: Minneapolis Parks and Recreation Board State: Minnesota Sampling Point: SP-5

Investigator(s): S. Mayer, M. Roess Section, Township, Range: S29 T29N R24W

Landform (hillside, terrace, etc.): Shoulder Local relief (concave, convex, none): Convex

Slope (%): 5 Lat: 44.97612636 Long: -93.32417744 Datum: WGS 84

Soil Map Unit Name: L50A - Muskego and Houghton soils, 0 to 1 percent slopes NWI classification: PFO1A

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:
Sample point documented at edge of trail, approximately 1 foot upslope of SP-4. Antecedent precipitation conditions wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Juglans nigra	15	✔	FACU
2.			
3.			
4.			
5.			
	15	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
Herb Stratum (Plot size: 5 ft r)			
1. Alliaria petiolata	30	✔	FAC
2. Glechoma hederacea	25	✔	FACU
3. Ageratina altissima	10		FACU
4. Parthenocissus quinquefolia	5		FACU
5.			
6.			
7.			
8.			
9.			
10.			
	70	=Total Cover	
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
		=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	x 1 =	0
FACW species	0	x 2 =	0
FAC species	30	x 3 =	90
FACU species	55	x 4 =	220
UPL species	0	x 5 =	0
Column Totals:	85 (A)		310 (B)

Prevalence Index = B/A = 3.64

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: SP-5

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
-								
-								
-								
-								
-								
-								

[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)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ 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]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ 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 soils assumed not present due to landscape position, dominant non-hydrophytic vegetation observed, and assumption that fill from construction of trail is present.

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:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Theodore Wirth Regional Park Trail Improvements City/County: Hennepin County Sampling Date: 2025-11-25

Applicant/Owner: Minneapolis Parks and Recreation Board State: Minnesota Sampling Point: SP-6

Investigator(s): S. Mayer Section, Township, Range: S29 T29N R24W

Landform (hillside, terrace, etc.): Toeslope Local relief (concave, convex, none): Concave

Slope (%): 0 Lat: 44.9728167 Long: -93.3279128 Datum: WGS 84

Soil Map Unit Name: L42F - Kingsley-Gotham complex, 25 to 35 percent slopes NWI classification: PEM1A

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:
Sample point documented at toeslope within the Quaking Bog. Sample point recorded at request of agent representatives from Minneapolis and Golden Valley during TEP site walk. Based on the USACE antecedent precipitation tool, antecedent precipitation was drier than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Larix laricina	10	✔	FACW
2.			
3.			
4.			
5.			
	10	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
Herb Stratum (Plot size: 5 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
		=Total Cover	
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
		=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: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 10	x 2 = 20
FAC species 0	x 3 = 0
FACU species 0	x 4 = 0
UPL species 0	x 5 = 0
Column Totals: 10 (A)	20 (B)

Prevalence Index = B/A = 2.00

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.)
Sample point documented at end of growing season. Work crews have recently cleared vegetation from low areas. Tamaracks visible, identifiable, and within sample plot radius.

SOIL

Sampling Point: SP-6

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0 - 7	10YR 2/1	100					Muck	
7 - 14	10YR 5/1	100					Silt Loam	
-								
-								
-								
-								

[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)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ 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]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ 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:

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): 7
Saturation Present? (includes capillary fringe)	Yes ✔	No ___	Depth (inches): 0

Wetland Hydrology Present? **Yes** ✔ **No** ___

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

Remarks:

VEGETATION Continued – Use scientific names of plants.

Sampling Point: SP-6

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
	10	=Total Cover	
Sapling/Shrub Stratum			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
		=Total Cover	
Herb Stratum			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
21.			
22.			
		=Total Cover	
Woody Vine Stratum			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

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

Sample point documented at end of growing season. Work crews have recently cleared vegetation from low areas. Tamaracks visible, identifiable, and within sample plot radius.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Theodore Wirth Regional Park Trail Improvements City/County: Hennepin County Sampling Date: 2025-11-25

Applicant/Owner: Minneapolis Parks and Recreation Board State: Minnesota Sampling Point: SP-7

Investigator(s): S. Mayer Section, Township, Range: S29 T29N R24W

Landform (hillside, terrace, etc.): Shoulder Local relief (concave, convex, none): Convex

Slope (%): 3 Lat: 44.9728288 Long: -93.3278793 Datum: WGS 84

Soil Map Unit Name: L42F - Kingsley-Gotham complex, 25 to 35 percent slopes NWI classification: PEM1A

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:
Sample point documented approximately 2 feet upslope from SP-6. Sample point located on shoulder just above basin. Based on the USACE antecedent precipitation tool, antecedent precipitation was drier than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus rubra	20	✔	FACU
2. Quercus alba	15	✔	FACU
3.			
4.			
5.			
	35	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
Herb Stratum (Plot size: 5 ft r)			
1. Solidago canadensis	15	✔	FACU
2. Parthenocissus quinquefolia	10	✔	FACU
3. Rubus idaeus	10	✔	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	35	=Total Cover	
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
		=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: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	70	x 4 =	280
UPL species	0	x 5 =	0
Column Totals:	70 (A)		280 (B)

Prevalence Index = B/A = 4.00

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: SP-7

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0 - 12	10YR 3/1	100					Silt Loam	
-								
-								
-								
-								
-								

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

[2]Location: PL=Pore Lining, M=Matrix.

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- ___ Histosol (A1)
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- ___ 2 cm Muck (A10)
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- ___ Sandy Mucky Mineral (S1)
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- ___ Loamy Mucky Mineral (F1)
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Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ 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:

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)
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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:

VEGETATION Continued – Use scientific names of plants. Sampling Point: SP-7

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status
6.			
7.			
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Woody Vine – All woody vines greater than 3.28 ft in height.

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

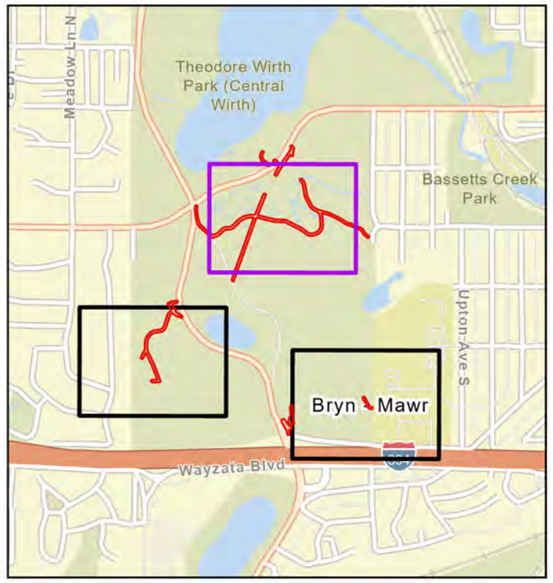
Appendix E: Photos

Legend

- Study Area
- City Boundary
- Sample Point
- Photo Points

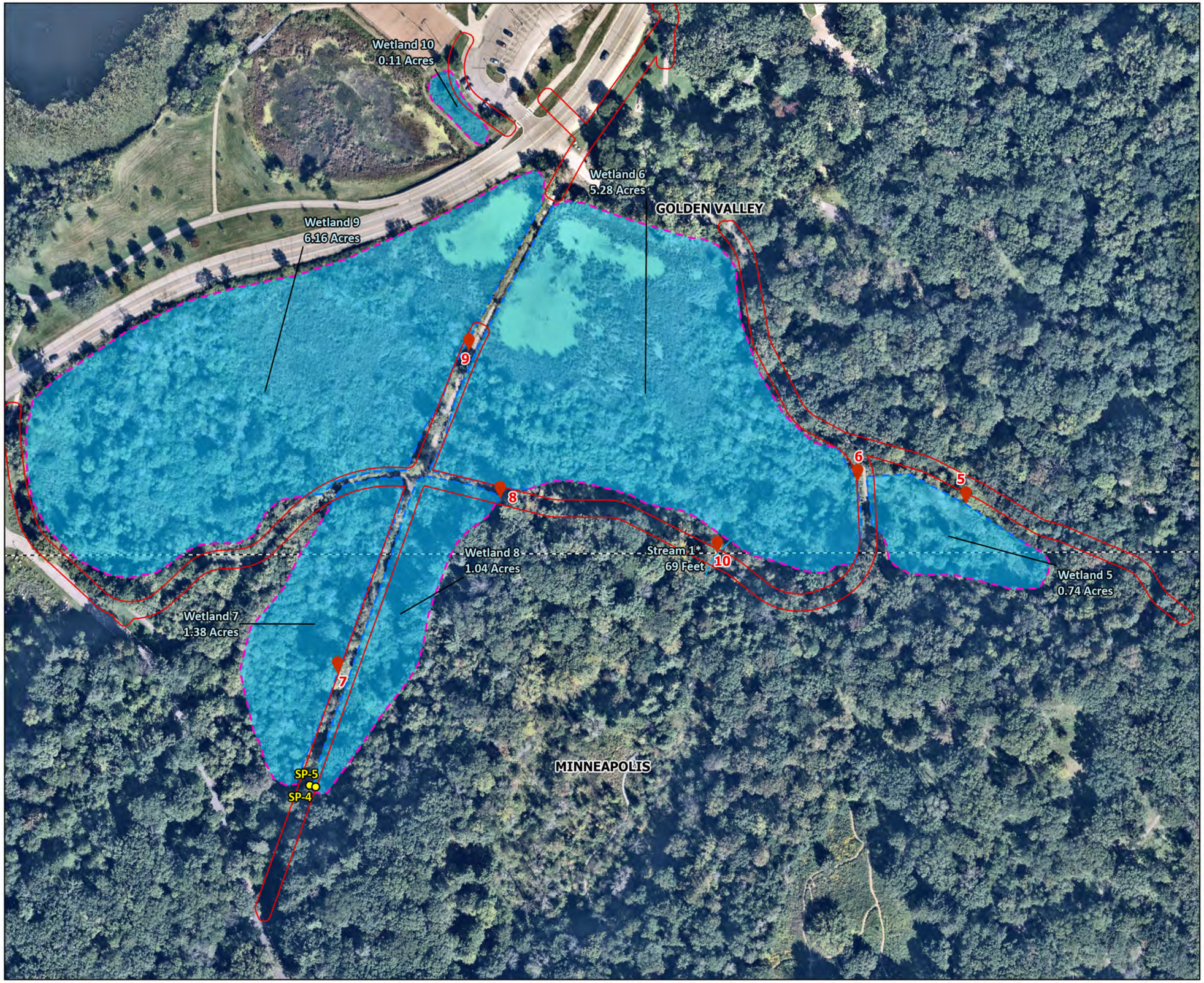
Wetland Delineation

- Field Delineated Wetland Boundary
- Desktop Delineated Wetland Boundary
- HGM Class - Depression
- Delineated Stream



0 75 150 Feet

N



Appendix E: Photo Locations
Theodore Wirth Regional Park, Hennepin County
Minneapolis Parks and Recreation Board

Kimley»Horn

Legend

- Study Area
- City Boundary
- Sample Point
- Photo Points

Wetland Delineation

- Field Delineated Wetland Boundary
- Desktop Delineated Wetland Boundary
- HGM Class - Depression
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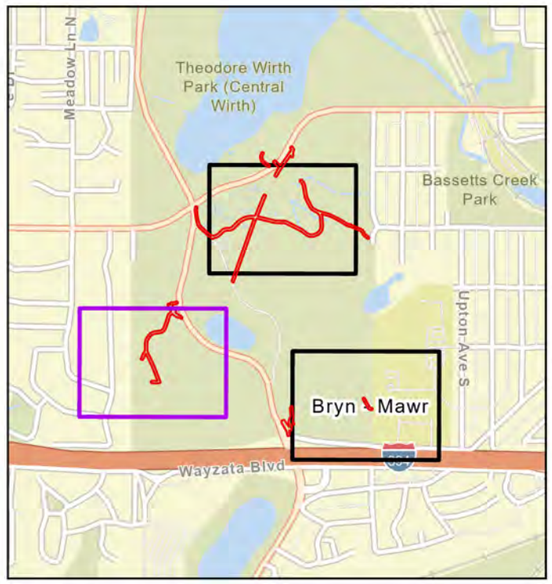

0 75 150 Feet

N

Appendix E: Photo Locations
Theodore Wirth Regional Park, Hennepin County
Minneapolis Parks and Recreation Board

Kimley»Horn

Legend

- Study Area
- City Boundary
- Sample Point
- Photo Points

Wetland Delineation

- Field Delineated Wetland Boundary
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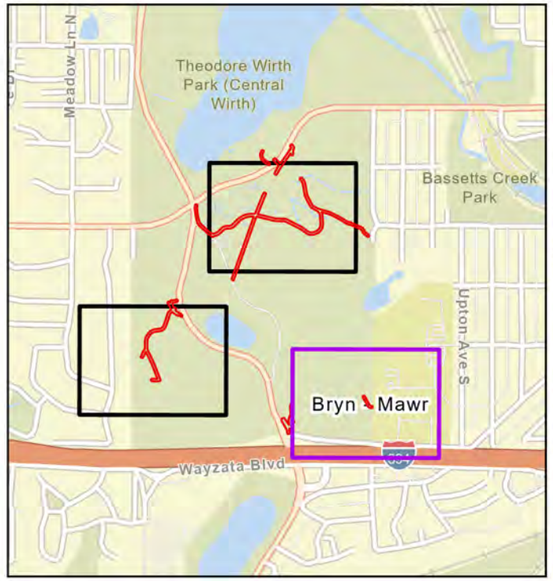

0 75 150 Feet

N

Appendix E: Photo Locations
Theodore Wirth Regional Park, Hennepin County
Minneapolis Parks and Recreation Board

Kimley»Horn

Photo 1 – Wetland 1

Photo 2 – Wetland 2

Title	Photo Pages	
Project	Theodore Wirth Regional Park Trail Improvements Minneapolis, Hennepin County, Minnesota	**Prepared By**
Date		Kimley»Horn
7/2/2025		

Photo 3 – Wetland 3

Photo 4 – Wetland 4

Title	Photo Pages	
Project	Theodore Wirth Regional Park Trail Improvements Minneapolis, Hennepin County, Minnesota	**Prepared By**
Date		Kimley»Horn
7/2/2025		

Photo 5 – Wetland 5

Photo 6 – Wetland 6

Title	Photo Pages	
Project	Theodore Wirth Regional Park Trail Improvements Minneapolis, Hennepin County, Minnesota	**Prepared By**
Date		Kimley»Horn
7/2/2025		

Photo 7 – Wetland 7

Photo 8 – Wetland 8

Title	Photo Pages	
Project	Theodore Wirth Regional Park Trail Improvements Minneapolis, Hennepin County, Minnesota	**Prepared By**
Date		Kimley»Horn
7/2/2025		

Photo 9 – Wetland 9

Photo 10 – Stream 1

Title	Photo Pages	
Project	Theodore Wirth Regional Park Trail Improvements Minneapolis, Hennepin County, Minnesota	**Prepared By**
Date		Kimley»Horn
7/2/2025		