

Minnesota Wetland Conservation Act Notice of Decision

Local Government Unit: City of Plymouth	County: Hennepin
Applicant Name: Hennepin County Property Services c/o Leah Hiniker	
Applicant Representative: Jonathan Knudsen	
Project Name: Hennepin County ACF Solar Project	LGU Project No. (if any): 2021-02
Date Complete Application Received by LGU: 2/16/2021	
Date of LGU Decision: 03/15/2021	
Date this Notice was Sent: 5/14/2021	

WCA Decision Type - check all that apply

<input type="checkbox"/> Wetland Boundary/Type	<input type="checkbox"/> Sequencing	<input type="checkbox"/> Replacement Plan	<input type="checkbox"/> Bank Plan (not credit purchase)
<input checked="" type="checkbox"/> No-Loss (8420.0415)	<input type="checkbox"/> Exemption (8420.0420)		
Part: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/> F <input type="checkbox"/> G <input type="checkbox"/> H	Subpart: <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9		

Replacement Plan Impacts (replacement plan decisions only)

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

Technical Evaluation Panel Findings and Recommendations (attach if any)

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

LGU Decision

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

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

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

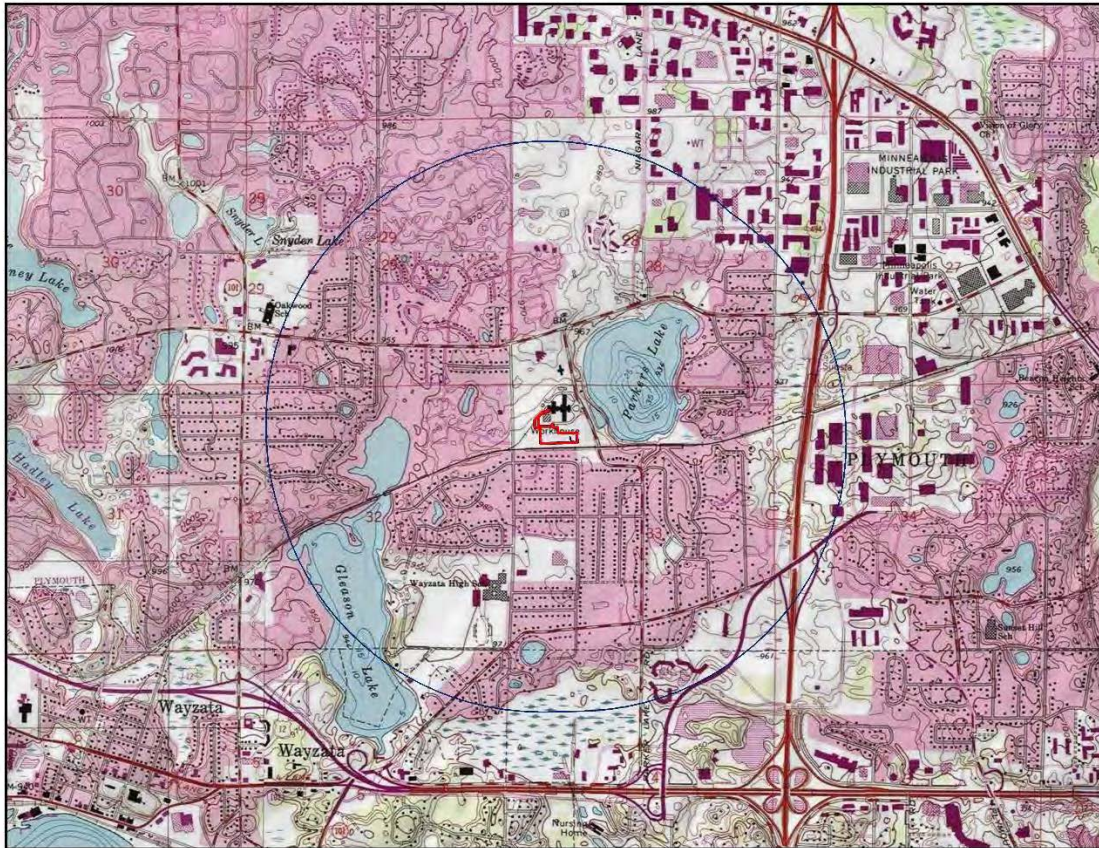
<input checked="" type="checkbox"/> Attachment(s) (specify): Wetland Delineation Report, HC ACF Plans, Joint Application Form
<input checked="" type="checkbox"/> Summary: The proposed project will not be built in an upland area through the use of ground mount PW arrays

¹ Findings must consider any TEP recommendations.

Attached Project Documents

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.

Level 1 Wetland Delineation Report
HCACF Solar Project
Hennepin County, Minnesota



Prepared for:

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Prepared by:

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AREAM

January 2021

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SUMMARY

Area M Consulting (Area M), on behalf of Impact Power Solutions (Client), conducted a wetland delineation for the Hennepin County Adult Correctional Facility (HCACF) Solar Project (Project) located within Hennepin County, Minnesota. The Area M biologist conducted a routine Level 1 delineation, as defined by the Board of Water and Soil Resources (BWSR), which includes only a desktop component (BWSR, 2010). The off-site delineation was conducted following general procedures and methods outlined by the United States Army Core of Engineers (USACE) Wetland Delineation Manual (USACE, 1987), Midwest Regional Supplement (USACE, 2010), and BWSR Guidance for Offsite Hydrology/Wetland Determinations (2016). This wetland delineation report is assembled to assist the Client with obtaining the appropriate federal, state, and local permits for constructing a community solar garden (CSG). Due to the Project not being agricultural, Area M understands a Level 2 Delineation may be required to verify wetland presence and extent.

PROJECT DESCRIPTION

The Study Area, encompassing approximately 4.7 acres, is located west of Parkers Lake in Plymouth, MN within Section 33, T118N:R22W (Study Area) (Appendix A). The Project is proposed adjacent to the southern boundary and along the eastern edge of the HCACF. The Study Area includes an agricultural field/tree nursery area and a walled area containing an out-building. A golf course with engineered wetlands is located adjacent and to the west of the Study Area. Parker's Lake is located 700 feet to the east.

LEVEL 1 DELINEATION METHODOLOGY

Wetland biologists conducted a comprehensive desktop review of data available within the public domain to identify the presence/absence and extent of wetland/waterbodies that could occur within Study Area. This data was analyzed by identifying wetland signatures which indicate the potential presence of wetland/waterbody features. The following data sources were reviewed; the analysis of each data set is discussed in greater detail in the results section.

- Hydrologic soil data
- Elevation Data
 - MN Department of Natural Resources (MNDNR) Light Detection and Ranging (LiDAR) Data
 - United States Geological Survey (USGS) topographic maps
- Mapped Wetlands/Waterbodies
 - U.S. Fish and Wildlife Services (USFWS) National Wetland Inventory (NWI)
 - MNDNR updated NWI
 - MNDNR Public Waters Inventory (PWI)
 - National Hydrography Dataset (NHD)

- Historic and current aerial photographs

LEVEL 1 DELINEATION RESULTS

Soils

The Web Soil Survey (NRCS, 2021) was accessed to summarize mapped soil types and their hydric attributes which occur within the Study Area, and area summarized here (Table 1).

Table 1. NRCS soil components, acreages, and hydric qualities within Study Area.

Map Unit	Soil type	% Slope	Ponding/ Flooding Frequency	Hydrologic Group/ Hydric Rating	Hydric Soil	Acres within Study Area
L2B	Malardi-Hawick complex	1-6	None/None	A/0	No	4.7

Source: (NRCS, 2021)

Non-hydric soil units are found throughout the entire Study Area (Appendix A). The full list of hydric soils components and attributes are listed in Appendix B.

Mapped Wetland Data

The NWI (USFWS, 2021), MN NWI update (MNDNR, 2021a), PWI (MNDNR, 2021b) and NHD data sets were reviewed for the presence of mapped wetlands and/or waterbodies within the Study Area. Aquatic features from these datasets do not occur within the Study Area.

Topographic Data

Elevation and topographic data from the USGS and MNDNR were reviewed within the Study Area to identify potential basins and depressional areas which could be indicative of wetlands. The Study Area occurs on a relatively flat terrace with few locally concave landforms (Appendix A). The total topographic relief of the Study Area is approximately 5 feet.

Historic Aerial Photography Review

Historic aerial imagery was analyzed for hydric signatures, following the procedures outlined in the Guidance for Offsite Hydrology/Wetland Determinations (BWSR and USACE 2016). Upon review, one area with potentially hydric signatures (Area 1) was identified with the Study Area (Appendix A). Area 1 appears to have historically been upland but may have been converted into an infiltration basin for stormwater management due to ongoing development in the vicinity. Exhibit 1 and Exhibit 2, which summarize the data reviewed for the offsite evaluation, are presented in Appendix C.

Area 1

Area 1, a potential infiltration basin located in the southeastern portion of the Study Area, was historically an upland field. However, development within the property may have required the addition of an infiltration basin at this location. Based on the off-site hydrology review, this this area needs to be investigated to confirm this feature (Appendix D).

General Upland Area

The remainder of the Study Area (excluding Area 1) appears to be upland due to the absence of hydric soils, wetland database features, photo review, and topography.

CONCLUSIONS AND RECOMMENDATIONS

Based upon this routine Level 1 Wetland Delineation, it is the professional opinion of Area M that the Study Area may contain one area that satisfies the criteria to be a wetlands/waterways pursuant to the Army Corps of Engineers' 1987 Manual with subsequent clarification memoranda and pursuant to confirmation by the USACE (Appendix A). Activities impacting wetlands and waterways are regulated through both the Local Government Unit (LGU) and USACE, which administers the Wetland Conservation Act and Clean Water Act, respectively. The off-site hydrology review was inconclusive for Area 1, which needs to be investigated in the field. The wetlands/waterways described within this report are subject to verification by state, federal, and local agencies, which have final authority over wetland presence, extent, and jurisdictional status.

REFERENCES

Board of Water and Soil Resources. 2010. Wetland Conservation Act: Choosing the Appropriate Method. BWSR Technical Guidance July 1, 2010.

BWSR and USACE. 2016. Guidance for Offsite Hydrology/Wetland Determination. St. Paul District.

Environmental Laboratory. 1987. *Corp of Engineers Wetlands Delineation Manual*. Wetlands Research Program. Technical Report Y-87-1. Department of the Army, Waterways Experiment Station, US Army Corp of Engineers. Vicksburg, Mississippi, USA.

Environmental Laboratory. 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)*. U.S. Army Corps of Engineers, U.S. Army Engineer Research and Development Center, Vicksburg, Mississippi, USA.

Natural Resources Conservation Service (NRCS). 2021. Web Soil Survey. (United States Department of Agriculture) Retrieved from <http://www.websoilsurvey.nrcs.usda.gov>

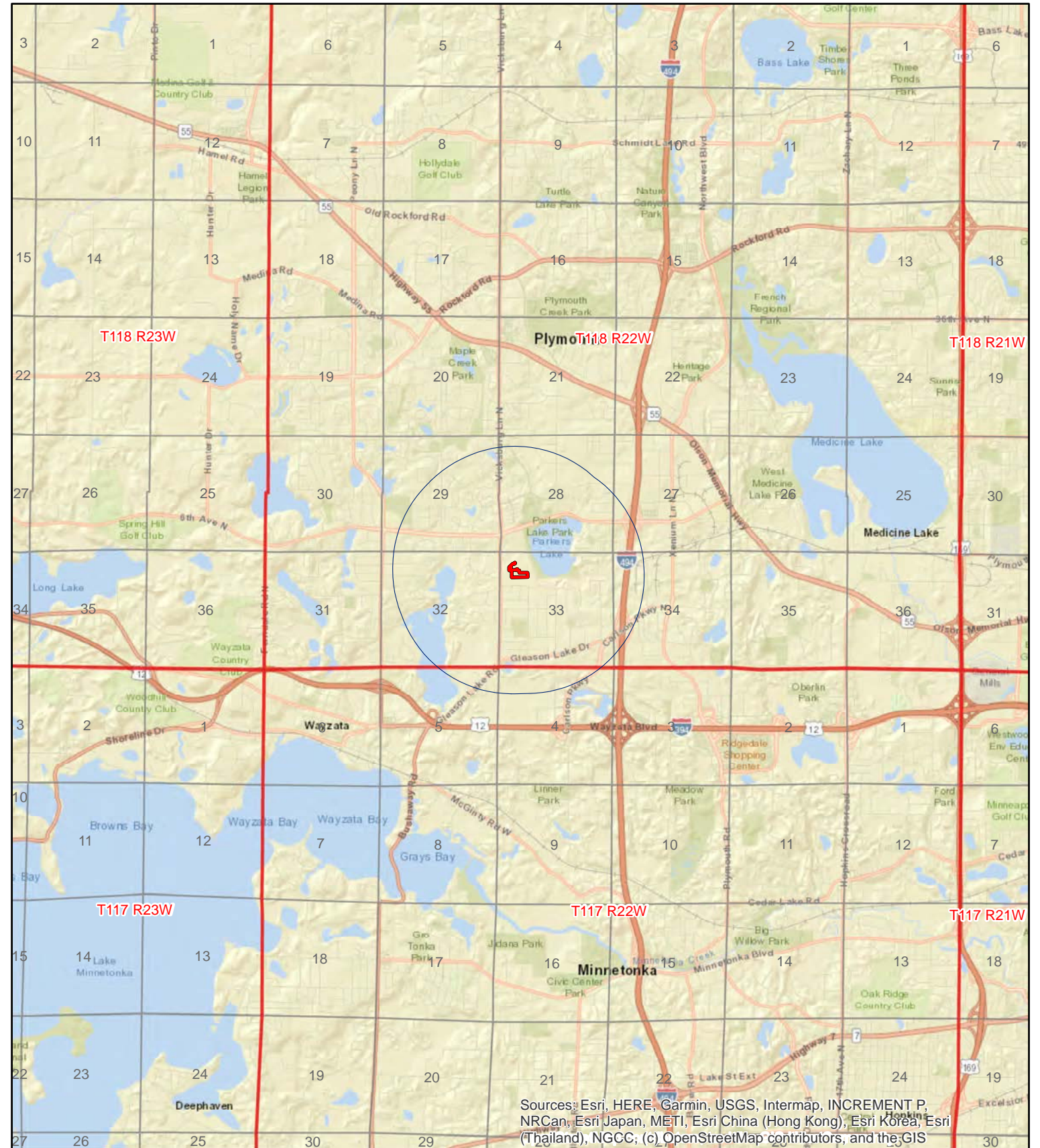
Minnesota Department of Natural Resources. 2021a. National Wetland Inventory Update: Wetlands online map viewer. Downloaded from: <http://mndnr.maps.arcgis.com/apps/OnePane/basicviewer/index.html>

Minnesota Department of Natural Resources. 2021b. Public Waters Inventory Shapefiles. Downloaded from: <https://gisdata.mn.gov/dataset/water-mn-public-waters>

Minnesota Department of Natural Resources (MNDNR). 2021c. MN State Climatology Website. MNDNR Ecological and Water Resources Division. State Climatology Office. Retrieved from: http://climate.umn.edu/gridded_data/precip/monthly/monthly_gridded_precip.asp

United States Fish and Wildlife Service (USFWS). 2021. National Wetland Inventory: Wetlands Online Mapper. Retrieved from <http://www.fws.gov/wetlands/data/mapper.HTML>

Appendix A: Maps



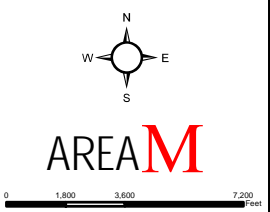
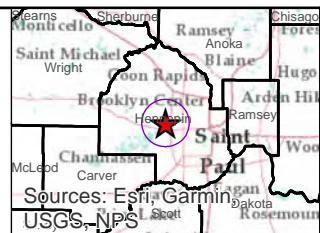
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC; (c) OpenStreetMap contributors, and the GIS

HCACF Solar Project

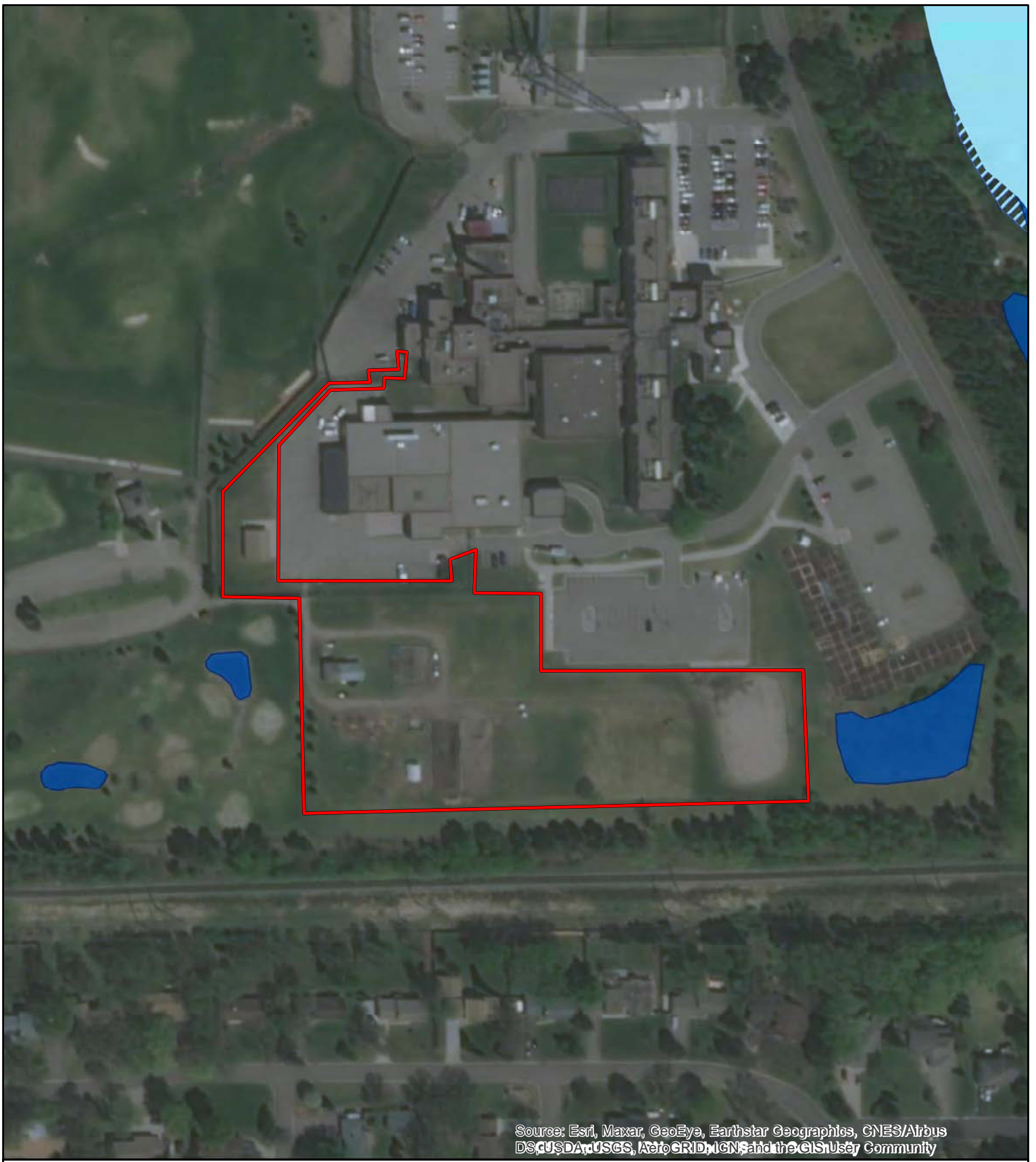
Map 1. Location Map

Hennepin County,
 S33 T118N:R22W
 4.67 Acres
 44.989765 Lat
 -93.477811 Long

- Study Area
- County Boundary
- 1-Mile Buffer
- Township Boundary
- 5-Mile Buffer
- Section Boundary



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
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

HCACF Solar Project

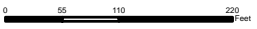
Map 2. Aerial Map

Hennepin County, MN
4.686734 Acres

 Study Area	 NWI	 Floodway
 NHD Flowline	 PWI Flowline	 100-Year Floodplain
 NHD Waterbody	 PWI Waterbody	



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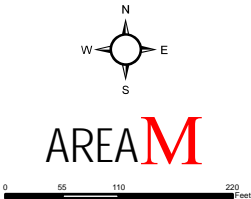
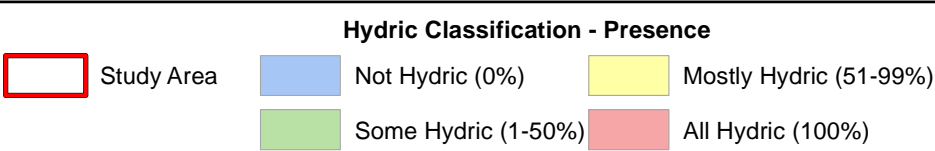


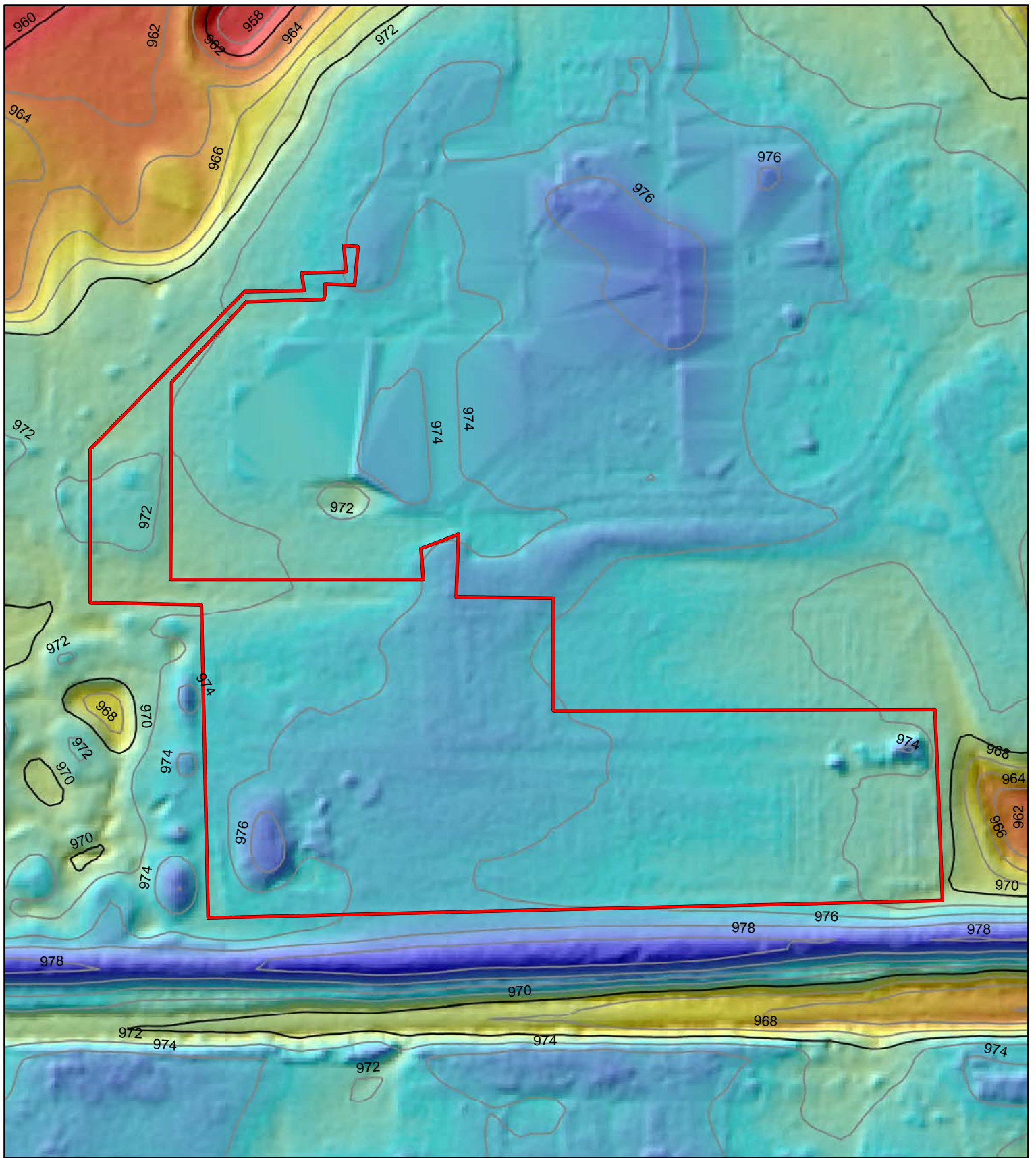
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

HCACF Solar Project

Map 2. Aerial Map

Hennepin County, MN
4.686734 Acres





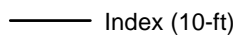
HCACF Solar Project

Map 4. Lidar Map

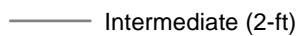
Hennepin County, MN



Study Area



Index (10-ft)

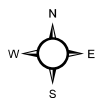


Intermediate (2-ft)



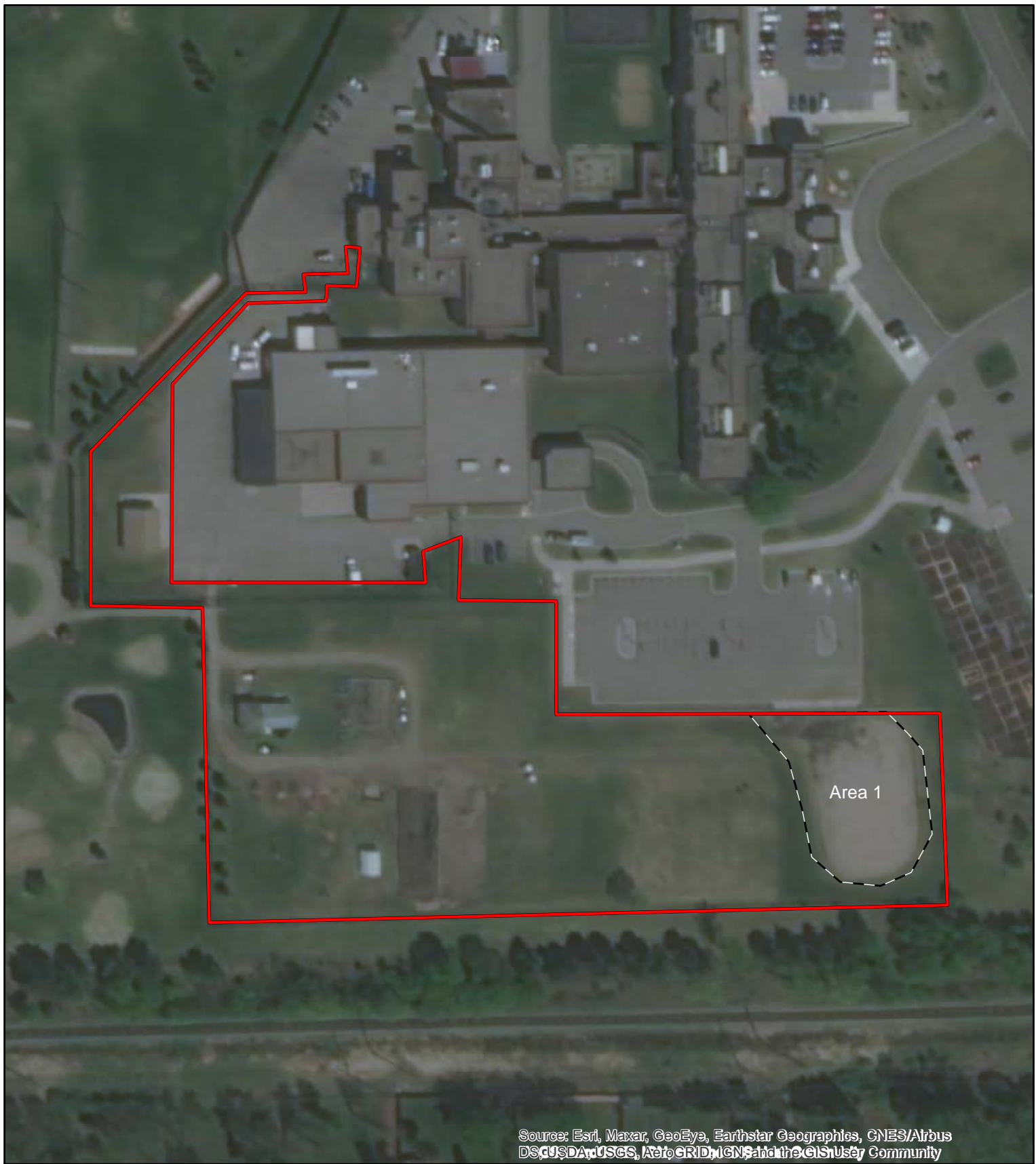
High : 587.82

Low : 359.3



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Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

HCACF Solar Project

Map 5. L1 Delineation Map

Hennepin County, MN
4.686734 Acres



Study Area



Wetland Transect



2020 Wetland
NOD Boundary



Area M -
Delineated
Wetland



Potential Wetland
(possible
infiltration basin)



Sampling Point -
Upland



Sampling Point -
Wetland



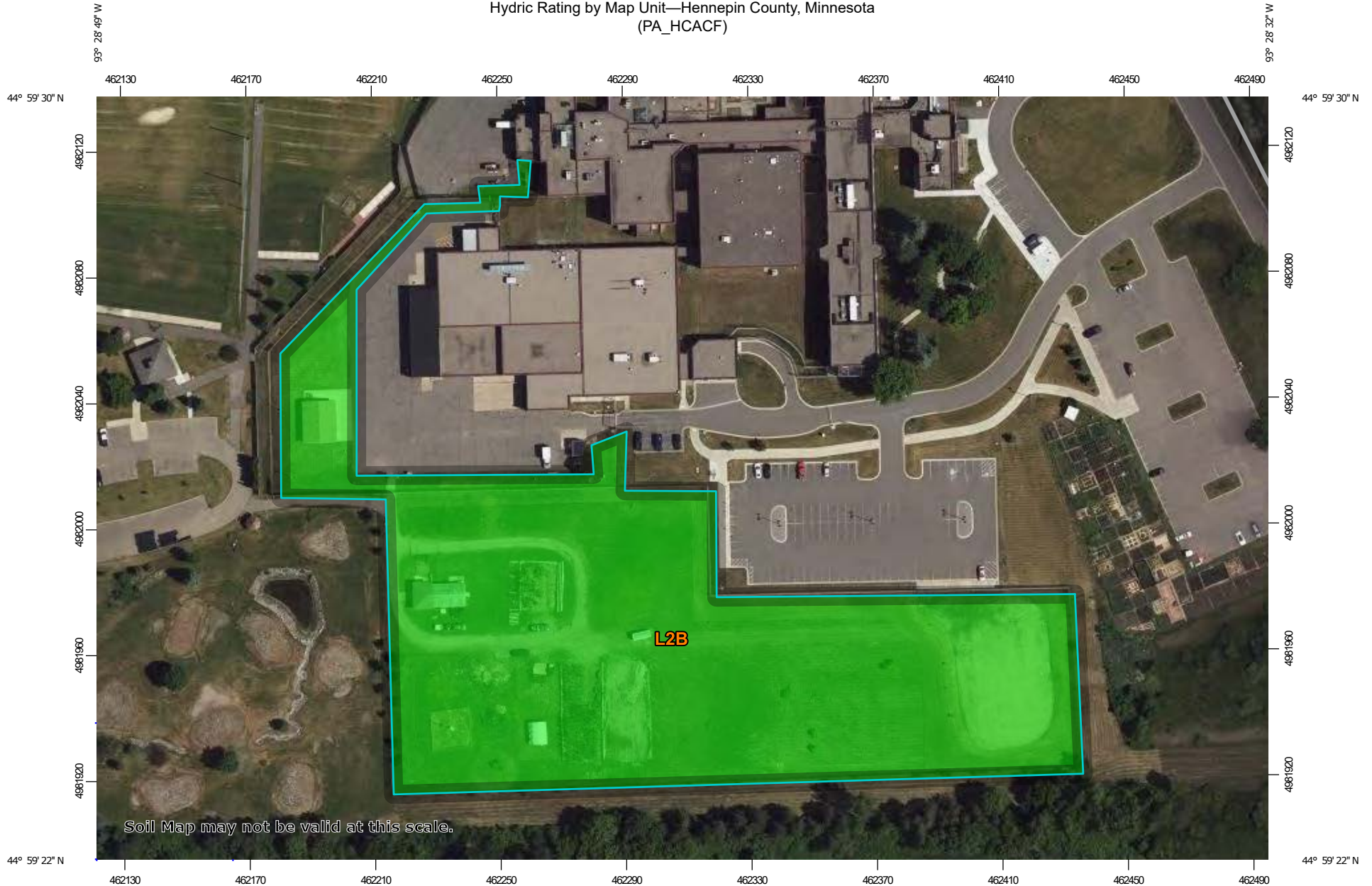
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Appendix B: Soils Report

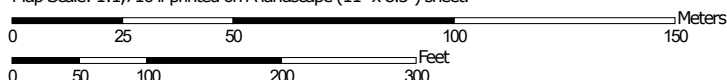
Hydric Rating by Soils Unit and Hydric Soil List – All components

Hydric Rating by Map Unit—Hennepin County, Minnesota
(PA_HCACF)



Soil Map may not be valid at this scale.

Map Scale: 1:1,710 if printed on A landscape (11" x 8.5") sheet.




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.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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 16, Jun 5, 2020

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

Date(s) aerial images were photographed: May 30, 2020—Jul 3, 2020

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.

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
L2B	Malardi-Hawick complex, 1 to 6 percent slopes	0	4.7	100.0%
Totals for Area of Interest			4.7	100.0%

Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

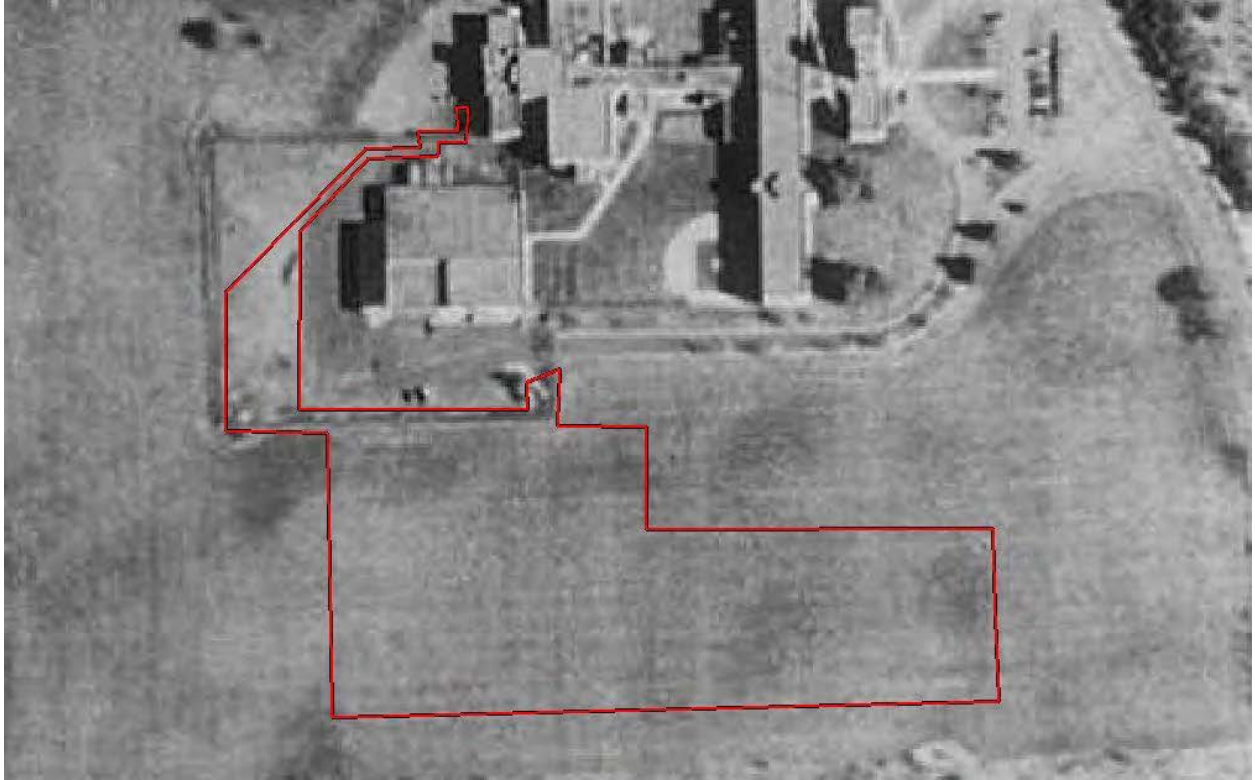
Rating Options

Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Appendix C: Aerial Imagery Slides



7/1991



6/2003

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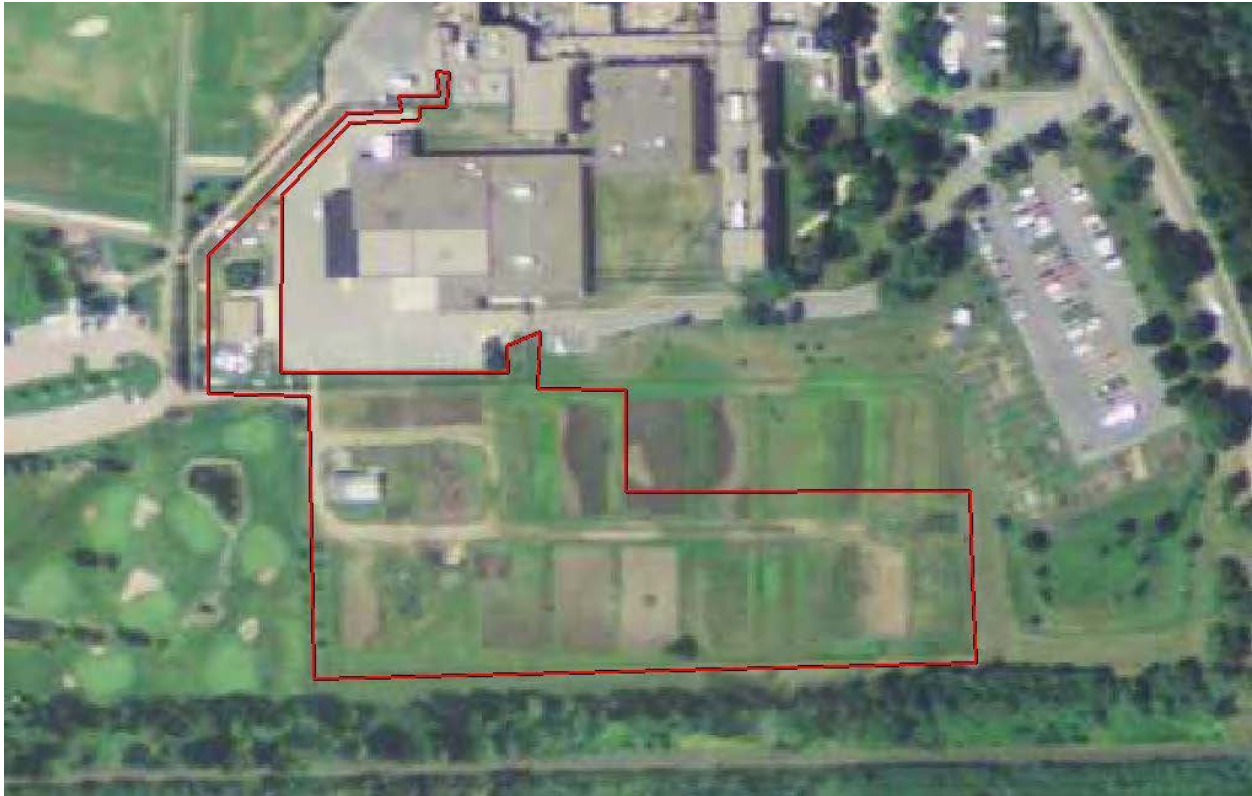
6/2008



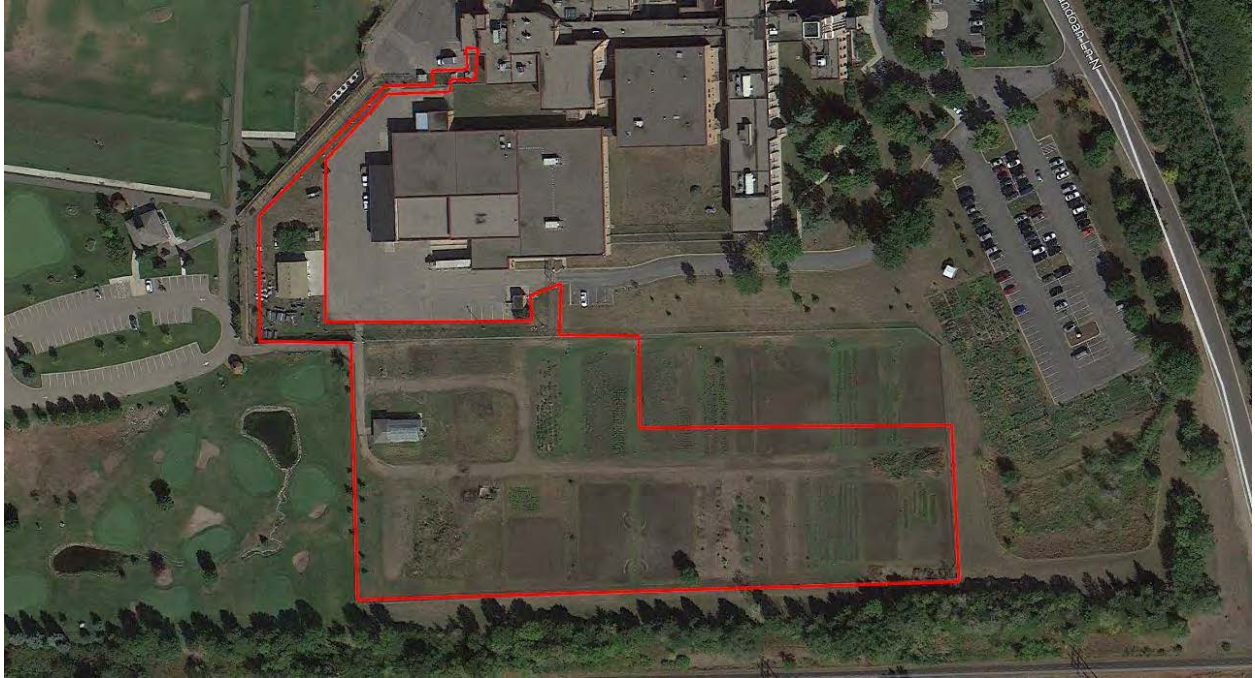
6/2009



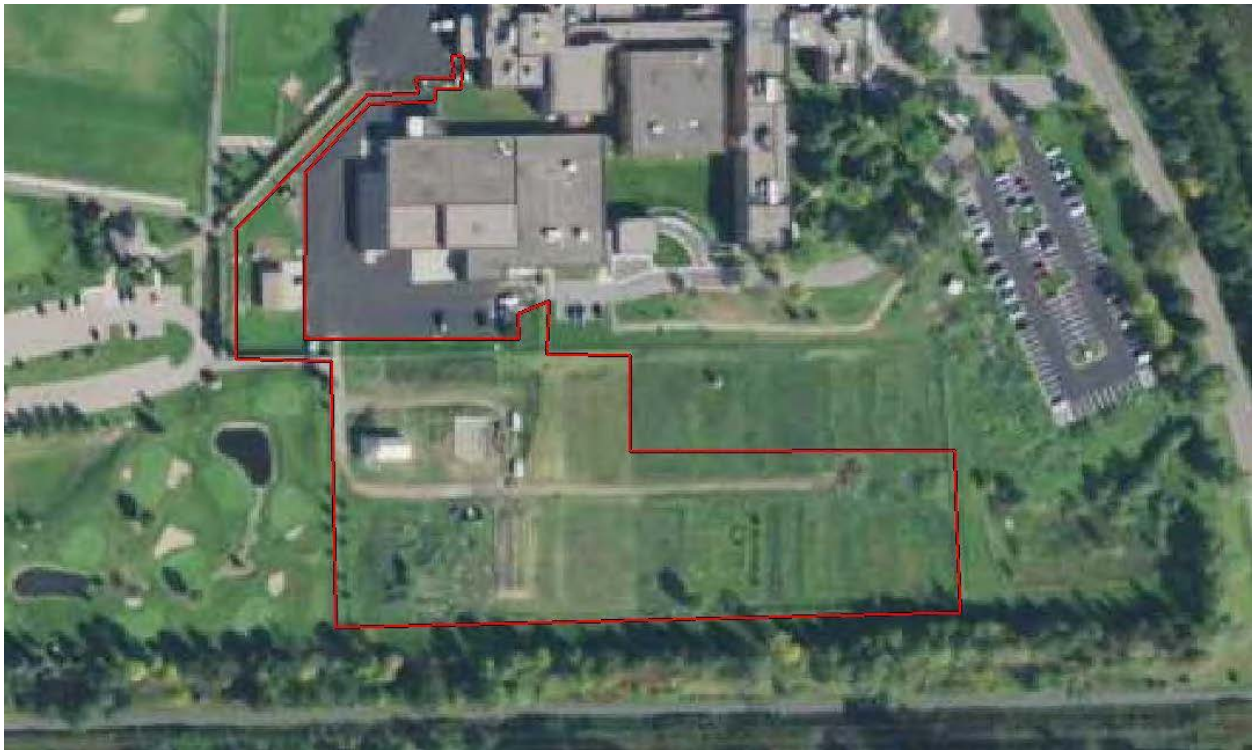
6/2010



6/2013



9/2013



6/2015



6/2017



5/2020

Appendix D: Wetland Hydrology from Aerial Imagery – Recording Form:

Exhibits 1 & 2

Exhibit 2

Field data sheet reference (if applicable): _____

Wetland Determination from Aerial Imagery – Recording Form

Project Name: HCACF Date: 12/30/2020 County: Hennepin
 Investigator: J Knudsen Legal Description (T, R, S): 118N 22W 33

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.

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	No	No	40	N/A	Possible Need to verify what Area 1 is - infiltration basin or const. debris or lot

¹ Answer “N/A” if field verification is not required and was not conducted.

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: Hennepin County Property Service
Mailing Address: 1145 Shenandoah Ln N, Plymouth, MN 55447
Phone: (612) 348-3076
E-mail Address: leah.hiniker@hennepin.us

Authorized Contact (do not complete if same as above): Rachael Acevedo-Hoffmann
Mailing Address: 2670 Patton Rd, Roseville, MN 55113
Phone: (262) 321-8950
E-mail Address: rachaela@ips-solar.com

Agent Name: Jonathan Knudsen
Mailing Address: 2023 Alameda Street, Roseville, MN 55113
Phone: 208-241-5280
E-mail Address: Jknudsen@areamconsulting.com

PART TWO: Site Location Information

County: Hennepin **City/Township:** Plymouth
Parcel ID and/or Address: 1145 SHENANDOAH LN N
PLYMOUTH, MN 55447
Legal Description (Section, Township, Range): S33, T118N:R22W
Lat/Long (decimal degrees): 44.989765, -93.477811
Attach a map showing the location of the site in relation to local streets, roads, highways. (in report)
Approximate size of site (acres) or if a linear project, length (feet): 4.7 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.

The proposed project is a 438 kW AC solar facility. It will occupy less than 4 contiguous acres located adjacent and to the south/west of the Hennepin County Adult Correctional Facility, in Plymouth, MN. The intended project site covers a plant/tree nursery devoid of aquatic features. An infiltration basin is within the eastern extent of the Project Site but will be completely avoided.
Project

components include steel i-beam pylons to support the photo-voltaic array, a security fence and gate, small equipment pads, and a perimeter fence (see Site Plan). All project components will avoid aquatic features, as mapped by the L1 Delineation. During construction, the project shall utilize erosion control measures to mitigate any silt or material leaving the project site. Upon completion of the project, the site will be seeded using a native grass blend which will be consistent with other fields in the area.

PART FOUR: Aquatic Resource Impact¹ Summary

If your proposed project involves a direct or indirect impact to an aquatic resource (wetland, lake, tributary, etc.) identify each impact in the table below. Include all anticipated impacts, including those expected to be temporary. Attach an overhead view map, aerial photo, and/or drawing showing all of the aquatic resources in the project area and the location(s) of the proposed impacts. Label each aquatic resource on the map with a reference number or letter and identify the impacts in the following table.

Aquatic Resource ID (as noted on overhead view)	Aquatic Resource Type (wetland, lake, tributary etc.)	Type of Impact (fill, excavate, drain, or remove vegetation)	Duration of Impact Permanent (P) or Temporary (T) ¹	Size of Impact ²	Overall Size of Aquatic Resource ³	Existing Plant Community Type(s) in Impact Area ⁴	County, Major Watershed #, and Bank Service Area # of Impact Area ⁵

¹If impacts are temporary; enter the duration of the impacts in days next to the "T". For example, a project with a temporary access fill that would be removed after 220 days would be entered "T (220)".

²Impacts less than 0.01 acre should be reported in square feet. Impacts 0.01 acre or greater should be reported as acres and rounded to the nearest 0.01 acre. Tributary impacts must be reported in linear feet of impact and an area of impact by indicating first the linear feet of impact along the flowline of the stream followed by the area impact in parentheses). For example, a project that impacts 50 feet of a stream that is 6 feet wide would be reported as 50 ft (300 square feet).

³This is generally only applicable if you are applying for a de minimis exemption under MN Rules 8420.0420 Subp. 8, otherwise enter "N/A".

⁴Use *Wetland Plants and Plant Community Types of Minnesota and Wisconsin* 3rd Ed. as modified in MN Rules 8420.0405 Subp. 2.

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

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

PART FIVE: Applicant Signature

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

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

Signature: *Rachael Acevedo-Hoffmann* Date: 01/26/2021

I hereby authorize **Jonathan Knudsen** 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>

Attachment B

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

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

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

[MN Rule 8420.0415 Part A – No Loss](#)

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

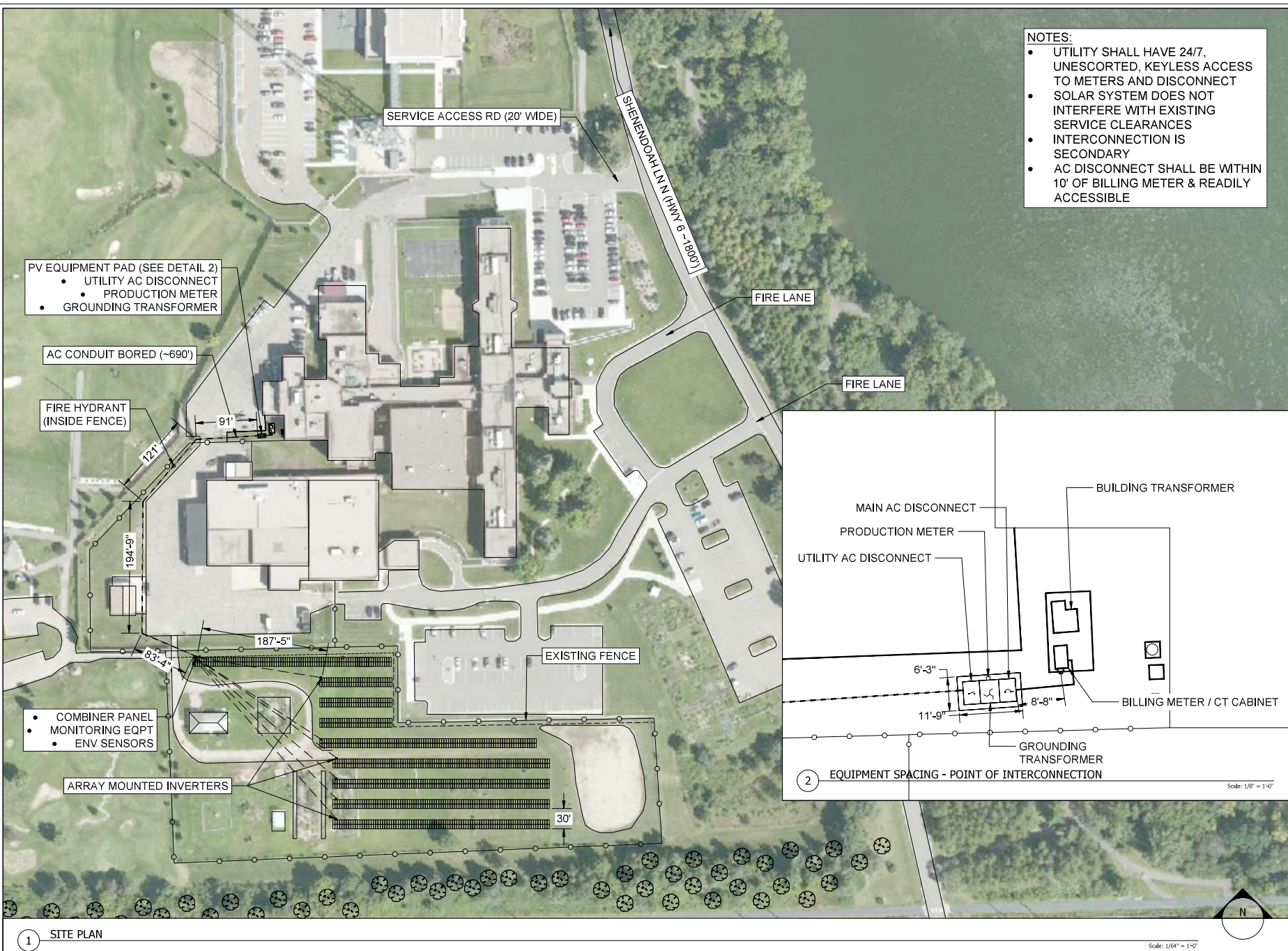
[Pilings and permanent disturbance, such as access roads and pads, will avoid Wetlands. Under the MN Rule 8420.0415 No-Loss Criteria Part A, this activity will not impact the existing wetland because there will be no dredging or filling. Although posts and pilings may sometimes be excluded under the "fill" definition, under the WCA \(Commercial Solar Siting Guidance, MDNR 2016\), they will still be placed outside of wetlands to avoid potential future impacts. All roads and pads \(both temporary and permanent\) will be constructed outside of the approved wetland boundaries. During construction, standard BMPs such as silt fences or waddles will be employed around surface disturbance to prevent run-off or sedimentation into wetlands or adjacent ditches. Construction equipment and foot and mechanical traffic will not disturb wetlands. Mowing practices to mitigate vegetation growth will not occur within the mapped wetlands. The same measures will be taken during deconstruction. Due to the above mitigation and avoidance strategies, future impacts to nearby wetlands will be avoided.](#)

MPCA Solar Water Quality Volume - Hennepin County Adult Corrections Facility

User Defined Calculation **Results** Legend

	Overall	Table cross-section		Units
		Fig. 1 Runoff over pervious	Fig. 2 Runoff over impervious	
Runoff Analysis Per Solar Table				
Site Specific Variables				
Length of table	3.3			ft
Width of road	15			ft
Y distance		17.00	18.50	ft
Z distance	6.60			ft
Soil Type	D			
Impervious area		22	71	ft2
Pervious area		77	33	ft2
Impervious to Pervious (I/P) ratio		0.280	2.139	ft2/ft2
Total area (per table profile)		99	104	ft2
Pre-disconnection Runoff				
Runoff depth from solar table	22.50			inches
Runoff depth from pervious area	7.20			inches
Runoff from impervious		41	133	ft3
Runoff from pervious		46	20	ft3
Total runoff		87	153	ft3
Post-disconnection Runoff				
Runoff depth from solar table		8.12	13.82	inches
Total runoff		67	120	ft3
Runoff from pervious		46	20	ft3
Runoff reduced from BMP		20	33	ft3
Runoff from impervious		21	100	ft3
Impervious area		11	53	ft2
Impervious area reduced by		51%	75%	%
Performance Goal Summary				
Runoff depth performance goal	1.10			inch(es)
Runoff volume performance goal		1.98	6.49	ft3
BMP volume credit		0.98	1.61	ft3
Remaining water quality volume to be treated		1.01	4.88	ft3
% of performance goal achieved by BMP		49%	25%	%
Runoff Analysis For Solar Array				
Performance Goal Summary				
Number of solar tables in array	1,328	1,328	0	tables
Impervious area (pre-disconnection)	28,749	28,749	0	ft2
Impervious area (post-disconnection)	14,570	14,570	0	ft2
Remaining water quality volume to be treated	1,336	1,336	0	ft3

- 0 Proposed Area of Gravel Road SF
- 0 Proposed Area of Inverters SF
- 0 Proposed Impervious SF
- 0.66 Acres of Proposed Impervious Solar Modules
- 1,336 Remaining Water Quality Volume to be Treated Total
- V_m = 0 CF for Roads & Pads
- V_n = 1,336 CF Total Water Quality Volume to be Treated**



- NOTES:**
- UTILITY SHALL HAVE 24/7, UNESCORTED, KEYLESS ACCESS TO METERS AND DISCONNECT
 - SOLAR SYSTEM DOES NOT INTERFERE WITH EXISTING SERVICE CLEARANCES
 - INTERCONNECTION IS SECONDARY
 - AC DISCONNECT SHALL BE WITHIN 10' OF BILLING METER & READILY ACCESSIBLE

HENNEPIN COUNTY ADULT CORRECTIONS FACILITY

SYSTEM DESCRIPTION:

SYSTEM SIZE DC: 517.9KW
 SYSTEM SIZE AC: 437.5KW
 DC/AC RATIO: 1.18
 TILT: 25°
 AZIMUTH: 180°
 MODULE: (1328) HANWHA 390W
 INVERTER: (7) SMA 62.5KW 480V_3#
 RACKING: 25° FIXED TILT RBL GM2

CASE # 03773463

CUSTOMER ADDRESS:
 1145 SHENANDOAH LN N
 PLYMOUTH, MN 55447

PROFESSIONAL CERTIFICATION

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

Poojip Kumar Gupta

PRACIP: GUPTA, PE
 DATE: 5/11/2020
 REGISTRATION NUMBER: 15049

NOT FOR CONSTRUCTION

REVISIONS

#	DESCRIPTION	BY	DATE
1	50% DESIGN	TMP	5/11/2020
2	UNDERGROUND PLAN	TMP	5/26/2020
3	MODULE EDITS	TMP	7/7/2020
4			
5			
6			
7			
8			
9			

IPS IMPACT POWER SOLUTIONS

IMPACT POWER SOLUTIONS
 2670 PATTON RD
 ROSEVILLE, MN 55113
 651-789-5305

DRAWING TITLE

SITEPLAN

DRAWING SCALE

AS NOTED

SHEET

SP1

1 SITE PLAN

Scale: 1/8" = 1'-0"