Level 2 Wetland Delineation Report
SV CSG Mankato North 1, LLC
Blue Earth County, Minnesota

Prepared for:

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AREAM

July 2023

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I certify that, to the best of my knowledge, this wetland delineation and report were completed following current wetland standards as set forth by the USACE and BWSR. Findings in this report represent Area M's best judgement based on conditions and information available at the time of the wetland delineation.

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Principal Biologist/Wetland Specialist
MN Certified Wetland Delineator 1307

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APPENDICES

INTRODUCTION

Area M Consulting (Area M) conducted a wetland delineation for the SV CSG Granite Falls, LLC (Project) located within Blue Earth County, Minnesota. The Area M biologist conducted a routine Level 2 Delineation, as defined by the Board of Water and Soil Resources (BWSR), within the entire Project boundaries following procedures and methods outlined by the United States Army Corps of Engineers (USACE) Wetland Delineation Manual (USACE, 1987), Midwest Regional Supplement (USACE, 2012), and BWSR Guidance for Offsite Hydrology/Wetland Determinations (2016). This wetland delineation report is assembled to inform design and to assist the Client with meeting regulatory requirements necessary for permitting a community solar garden (CSG) in Blue Earth County.

PROJECT DESCRIPTION

The Project, encompassing approximately 8.08 acres, is located 3.3 miles north of Mankato, MN in Section 29, T109N:R26W (Study Area) (Appendix A). The Study Area encompasses a flat, agricultural field bounded on the south by a drainage ditch. The entire Study Area is typically cultivated annually, though the extent of successful crops within the wetland varies by year. Natural vegetation was present within the majority of the Study Area during the field survey. A conspicuous emergent wetland, mapped by Area M in 2022, is adjacent and to the west of the Study Area. Open fields border western and eastern boundaries of the Study Area. The surrounding landscape is a mosaic of farmland, gravel pits, wooded ravines, rivers, and infrastructure associated with Mankato. The entire Study Area is on private land.

OFF-SITE REVIEW

Prior to fieldwork, Area M conducted a comprehensive desktop review of data sources available within the public domain to identify the presence/absence and extent of wetlands that could occur within the Study Area. Areas with hydric signatures, suggesting potential wetland conditions, were evaluated in greater detail during the field investigation. The following data sources were reviewed; the analysis of each data set is discussed in greater detail later in this section.

- Hydrologic soil data
- Antecedent precipitation data
- 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)
- Elevation Data
  - MN Department of Natural Resources (MNDNR) Light Detection and Ranging (LiDAR) Data

- United States Geological Survey (USGS) topographic maps

Mapped Wetland Data

The NWI (USFWS, 2023), MN NWI update (MNDNR, 2023a), PWI (MNDNR, 2023b), and NHD data sets were reviewed for the presence of mapped wetlands and/or waterbodies within the Study Area. One large NWI wetland intersects the southern boundary of the Study Area (Appendix A).

Soils

The Web Soil Survey (NRCS, 2023) was accessed to summarize mapped soil types which occur within the Study Area. Soil units with hydric components are present within the majority of the Study Area (Appendix A). The full list of hydric soils components and attributes is presented in Appendix B.

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 includes a concave area in the northeastern corner of the Study Area (Appendix A). The total topographic relief of the Study Area is approximately 10 feet.

Historic Aerial Photography Review

Historic aerial photographs were analyzed for hydric signatures in conjunction with antecedent precipitation, following the procedures outlined in the Guidance for Offsite Hydrology/Wetland Determinations (BWSR and USACE 2016). Upon review, two areas (Area 1 and Area 2) showing potential wetland signatures in the historic imagery was identified within the Study Area; these areas correspond to the concave landforms and NWI features intersecting the northeastern and southern portions of the Study Area (Appendix C). Exhibit 1 and Exhibit 2, which summarize the data reviewed for the offsite evaluation, are presented in Appendix D. Based on the Decision Matrix in Exhibit 2, one wetland and one potential wetland are present within the Study Area.

Off-site Summary

Overall, the off-site review suggests two wetlands are present within the Study Area (Appendix A). The entire Study Area was investigated in greater detail during the field survey.

FIELD DELINEATION

Methodology

Suspected wetlands identified during the off-site analysis were investigated in the field using routine on-site delineation methods in accordance with the USACE Wetlands Delineation Manual (USACE, 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0) (USACE, 2010). This included the characterization of vegetation, soils, and hydrology on-site. Wetlands are defined by the USACE as “areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.” For an area to be delineated as a regulated wetland, the vegetative, hydrologic, and soil characteristics must all be present and consistent with federal and state classification criteria.

Transects were established in representative transition zones, perpendicular between suspected wetland and upland areas. Survey Points were recorded along each transect, moving from upland to wetland to identify the wetland boundary. Wetland criteria were evaluated at each Survey Point and a Wetland Determination Form – Midwest Region (Form) was completed. Additional Survey Points were collected within unique vegetation communities (if present) to document and characterize baseline hydrology, soils, and vegetation within the Study Area. Determination of wetland type was based on the classification system developed by Cowardin et al. (1979) and the USFWS Circular 39 system (Shaw & Fredine 1956). Plant communities were classified using Wetland Plants and Plant Communities of Minnesota and Wisconsin system (Eggers and Reed, 1997). The entire Study Area was surveyed in the field to confirm the absence of additional wetlands.

The location and boundaries of wetland features identified by Area M during field surveys were recorded in the field using a Trimble Geoexplorer 6000 which typically achieves accuracy within 2 feet. A map depicting wetland boundaries, survey points, and transects is included in Appendix A. Representative photographs of the Study Area are included in Appendix E. Field Forms are included in Appendix F.

Antecedent Precipitation Analysis

Antecedent Precipitation conditions were evaluated using the NRCS Method for Evaluating Antecedent Moisture Conditions. Data from the Minnesota Climatology Working Group and Natural Resources Conservation Service. WETS Tables suggest moisture conditions were wetter than normal during the field survey on June 20, 2023 (Table 1). These conditions were taken into consideration when conducting the delineation.

Table 1. Study Area precipitation data.

Value	First Prior Month **May**	Second Prior Month **April**	Third Prior Month **March**
estimated precipitation total for this location:	5.84R	2.94R	1.99R
30% chance this location will have less than:	3.38	1.86	1.38
30% chance this location will have more than:	4.93	3.63	2.19
type of month	wet	normal	normal
monthly score	3 * 3 = 9	2 * 2 = 4	1 * 2 = 2
Multi-Month Score:			**15 (Wet)**

Field Conditions

Area M conducted the field delineation on June 20, 2023. Field conditions were dry. The temperature was approximately 75 degrees Fahrenheit and mostly sunny with minimal wind. The southern portion of the Study Area was not planted.

Field Review Summary

Based upon this routine Level 2 Wetland Delineation, it is the professional opinion of Area M that one wetland is present within the Study Area (Appendix A).

Wetland 1: Type 1/Type 2 - Fresh (Wet) Meadow/Seasonally Flooded Basin – 0.12 acres

Wetland 1, within Area 2, is a small Type 1/Type 2 wetland located in a shallow depression in the northeastern corner of the Study Area. Area 2 was flagged as a wetland based on the off-site Hydrology Determination (BWSR 2016). At SP 1-1, located just inside of the Wetland 1 boundary, soils were hydric, with redox present within a 12-inch stratum (F6). Secondary hydrology indicators were present, including Saturation Visible on Aerial Imagery (C9), FAC-Neutral Test (D5), and Geomorphic Position (D2). The plant community was hydric and dominated by a monoculture of reed canary grass (*Phalaris arundinacea*) At SP 1-2, adjacent and upland of Wetland 1, the vegetation was evaluated as upland and dominated by reed canary grass, smooth brome (*Bromus inermis*), yarrow (*Achillea millefolium*), and dandelion (*Taraxacum officinale*). Soils were non-hydric, with similar matrix coloration but no redox. Wetland hydrology indicators were absent. Wetland 1 was mapped by following the slight topographic transition between concave and convex landform and dominance of reed canary grass. Aerial imagery and lidar review was used to amend the line to coincide with the average of wetland extent during years with normal antecedent precipitation.

Area 1 – Upland

Area 1, identified during off-site review, is located along an irrigation drainage on the southern boundary of the Study Area. Area 1 was flagged as a wetland based on the off-site Hydrology Determination (BWSR 2016) and keyed out as a wetland. However, Area M determined that an on-site determination was required within Area 1 because the altered cropping patterns were difficult to verify via imagery. Many of the images collected in May and June showed Area 1 as not planted yet, potentially due to typical soggy Spring conditions. At SP 2, collected in the center of Area 1, soils were hydric meeting the Thick Dark Surface indicator (A12). The plant community was not hydric, dominated by reed canary grass and smooth brome along the edges and by milkweed (*Aesclepias syriaca*) throughout the center. Wetland hydrology indicators were absent. Therefore, Area 1 was confirmed as upland.

RESULTS AND RECOMMENDATIONS

Based upon this routine Level 2 Wetland Delineation, it is the professional opinion of Area M that the Study Area does contains one feature (Wetland 1) that satisfies the criteria to be a wetland 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 administer the Wetland Conservation Act (WCA) and Clean Water Act (CWA), respectively. The wetlands and wetland boundaries described within this report are described based on the conditions in the field at the time of the survey and 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.

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Minnesota Department of Natural Resources. 2019b. Public Waters Inventory Shapefiles. Downloaded from: https://gisdata.mn.gov/dataset/water-mn-public-waters

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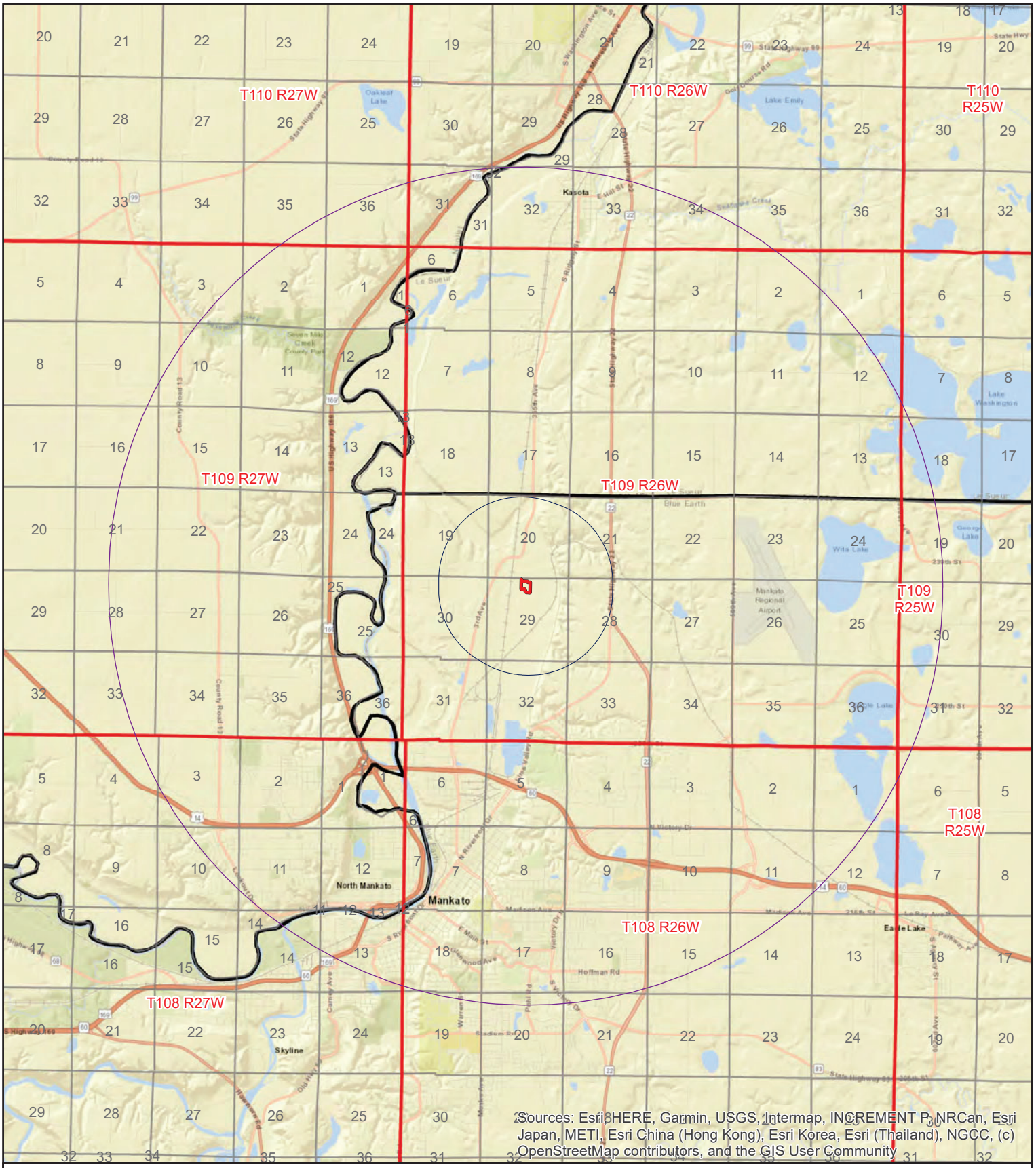
United States Fish and Wildlife Service (USFWS). 2019. National Wetland Inventory: Wetlands Online Mapper. Retrieved from http://www.fws.gov/wetlands/data/mapper.HTML

Appendix A: Maps



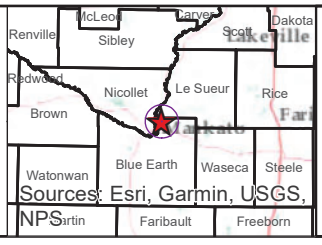
SV CSG Mankato North 1

Map 1. Location Map

Blue Earth County, MN

S29 T109N:R26W
8.08 Acres
44.224097 Lat
-93.981633 Long

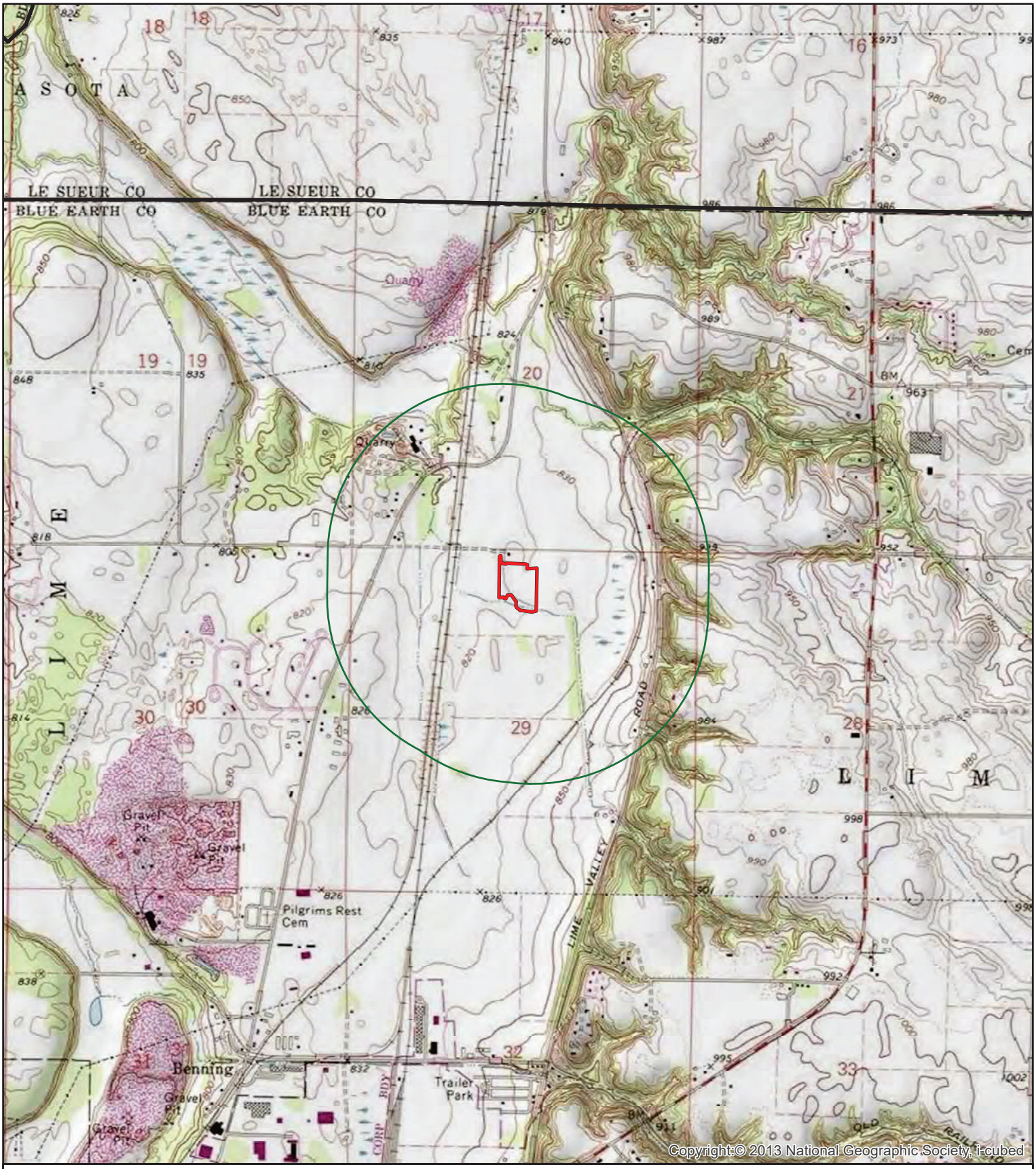
- Project Location
- Study Area
- 1-Mile Buffer
- 5-Mile Buffer
- County Boundary
- Township Boundary
- Section Boundary



N
W
E
S

AREA M

0 2,600 5,200 10,400 Feet
1:100,000



SV CSG Mankato North 1

Map 2. 1:24,000 Topographic Map

Blue Earth County, MN

Study Area

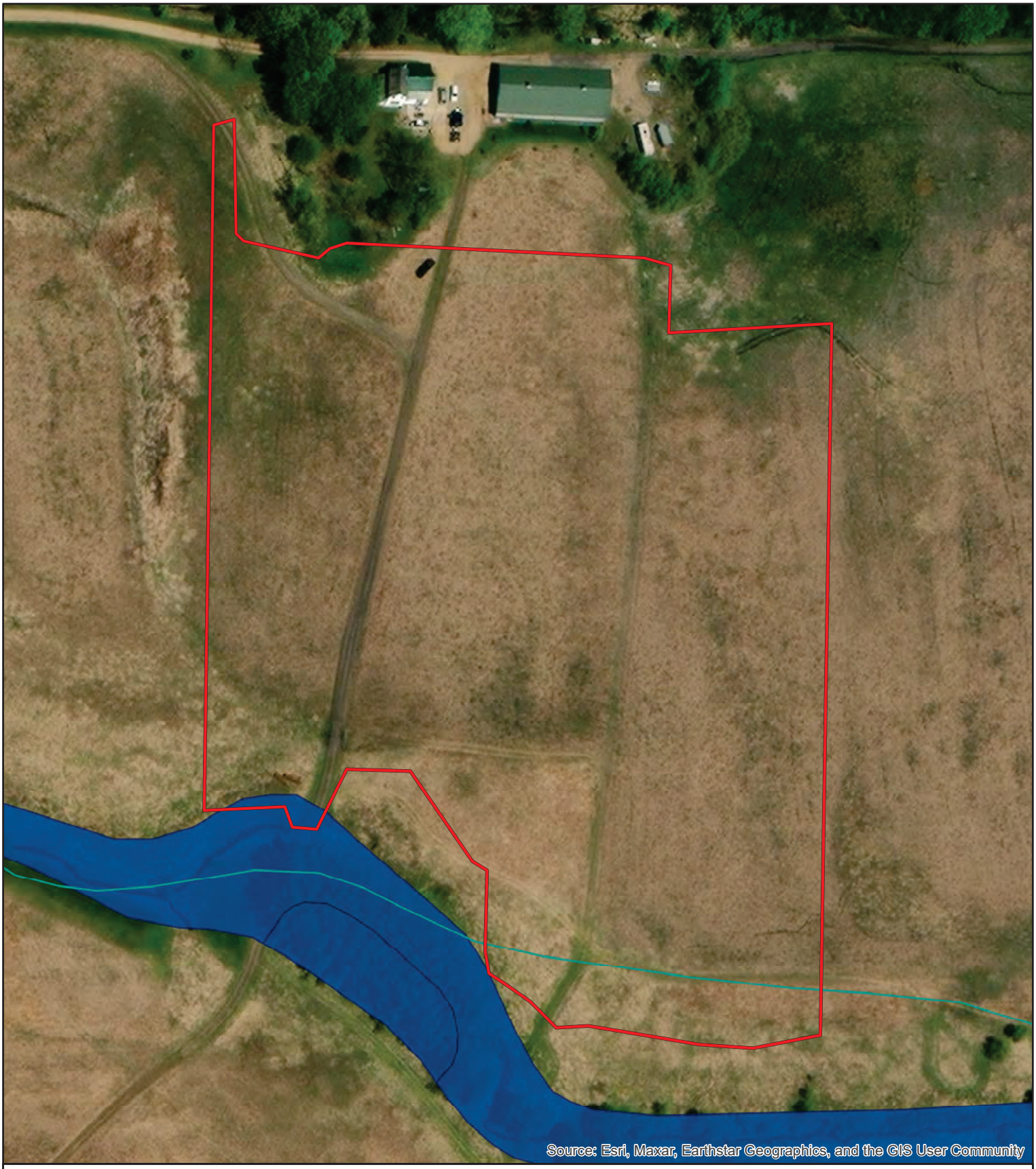
County Boundary

0.5-Mile Buffer

N
W E
S

AREA M

0 625 1,250 2,500 Feet
1:24,000



SV CSG Mankato North 1

Map 3. Wetland Resources Map

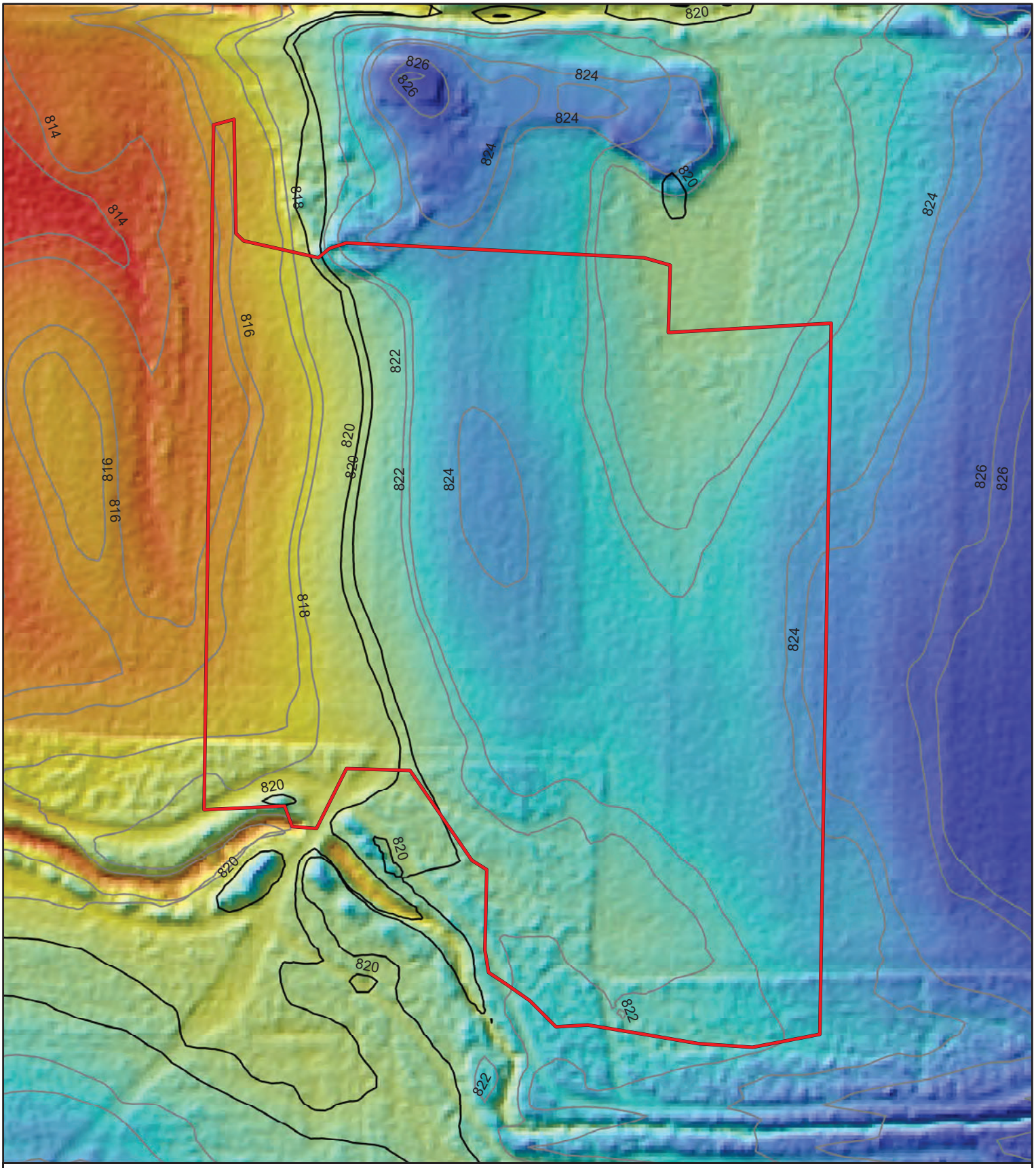
Blue Earth County, MN

NHD Flowline
NHD Waterbody
NWI
PWI Flowlline
PWI Waterbody
Floodway
100-Year Floodplain

N
W
E
S

AREA M

0 37.5 150 Feet



SV CSG Mankato North 1

Map 4. Lidar Map

Blue Earth County, MN

Study Area

Contour Interval

Index (10-ft)

Intermediate (2-ft)

High

Low

N

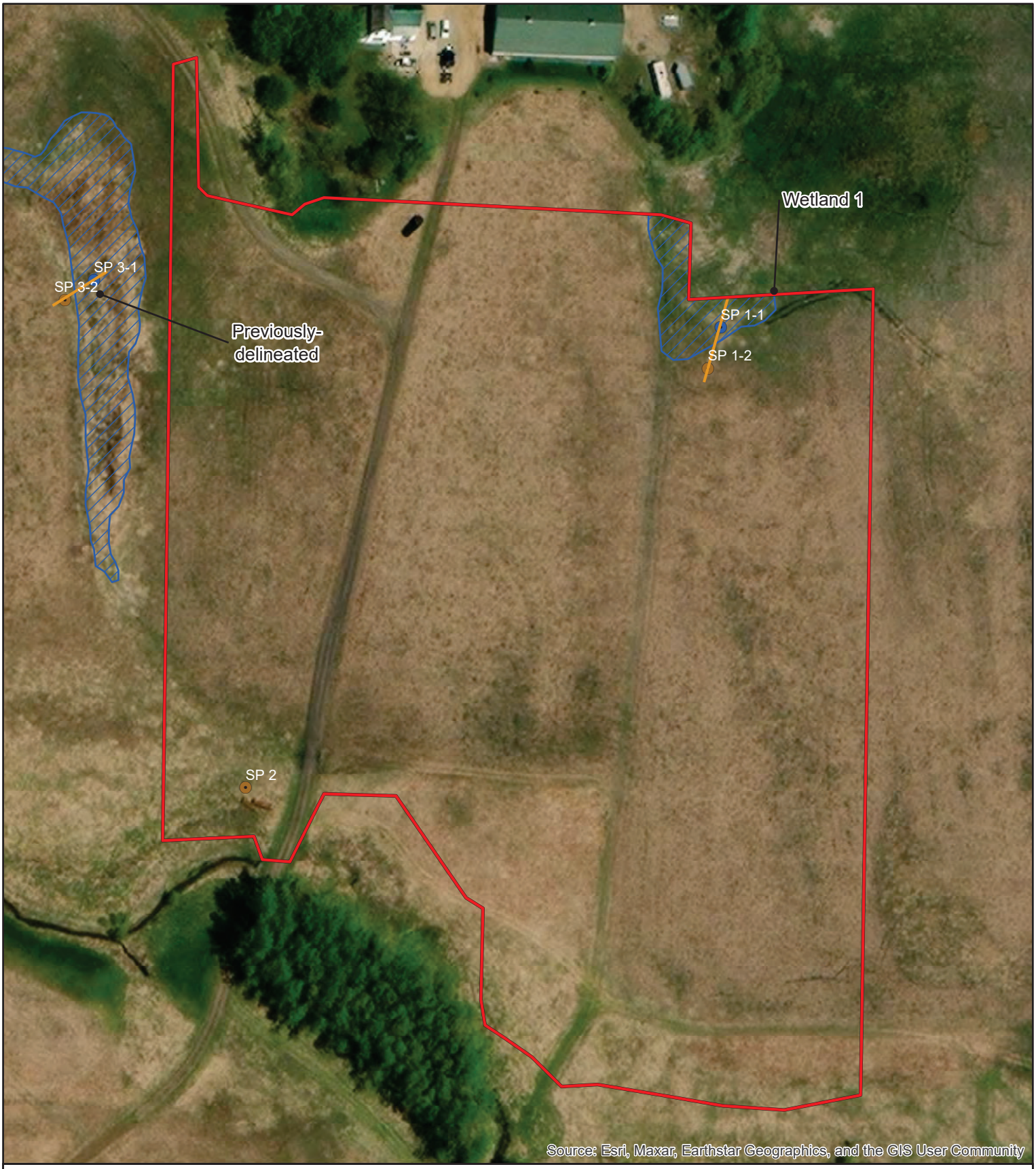
W E

S

AREA M

0 37.5 75 150 Feet

40



SV CSG Mankato North 1

Map 5. Delineation Map

Blue Earth County, MN

- Study Area
- Waterway
- Delineated Wetland
- Upland Sampling Point
- Wetland Sampling Point
- Wetland Transect

N
W E
S

AREA M

Appendix B: Soils Report

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

Hydric Rating by Map Unit—Blue Earth County, Minnesota
(SV_CSG_MankatoNorth1)

Map Scale: 1:1,520 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

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: Blue Earth County, Minnesota
Survey Area Data: Version 20, Sep 6, 2022

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

Date(s) aerial images were photographed: Jul 30, 2020—Oct 8, 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
35	Blue Earth mucky silt loam, 0 to 1 percent slopes	100	0.3	4.0%
85	Calco silty clay loam, 0 to 2 percent slopes, occasionaly flooded	95	3.8	46.6%
160	Fieldon loam, 0 to 2 percent slopes	100	2.1	25.7%
181	Litchfield loamy fine sand, 1 to 3 percent slopes	4	1.7	21.2%
321	Tilfer silty clay loam	100	0.2	2.5%
Totals for Area of Interest			**8.1**	**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

Hydric Soil List - All Components

This table lists the map unit components and their hydric status in the survey area. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site (National Research Council, 1995; Hurt and others, 2002).

The three essential characteristics of wetlands are hydrophytic vegetation, hydric soils, and wetland hydrology (Cowardin and others, 1979; U.S. Army Corps of Engineers, 1987; National Research Council, 1995; Tiner, 1985). Criteria for all of the characteristics must be met for areas to be identified as wetlands. Undrained hydric soils that have natural vegetation should support a dominant population of ecological wetland plant species. Hydric soils that have been converted to other uses should be capable of being restored to wetlands.

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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).

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Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

Map units that are dominantly made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units dominantly made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

The criteria for hydric soils are represented by codes in the table (for example, 2). Definitions for the codes are as follows:

1. All Histels except for Folistels, and Histosols except for Folists.
2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Pachic subgroups, or Cumulic subgroups that:
   A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
   B. Show evidence that the soil meets the definition of a hydric soil;
3. Soils that are frequently ponded for long or very long duration during the growing season.
   A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
   B. Show evidence that the soil meets the definition of a hydric soil;
4. Map unit components that are frequently flooded for long duration or very long duration during the growing season that:
   A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
   B. Show evidence that the soil meets the definition of a hydric soil;

Hydric Condition: Food Security Act information regarding the ability to grow a commodity crop without removing woody vegetation or manipulating hydrology.

References:

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

Federal Register. Doc. 2012-4733 Filed 2-28-12. February, 28, 2012. Hydric soils of the United States.

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Vasilas, L.M., G.W. Hurt, and C.V. Noble, editors. Version 7.0, 2010. Field indicators of hydric soils in the United States.

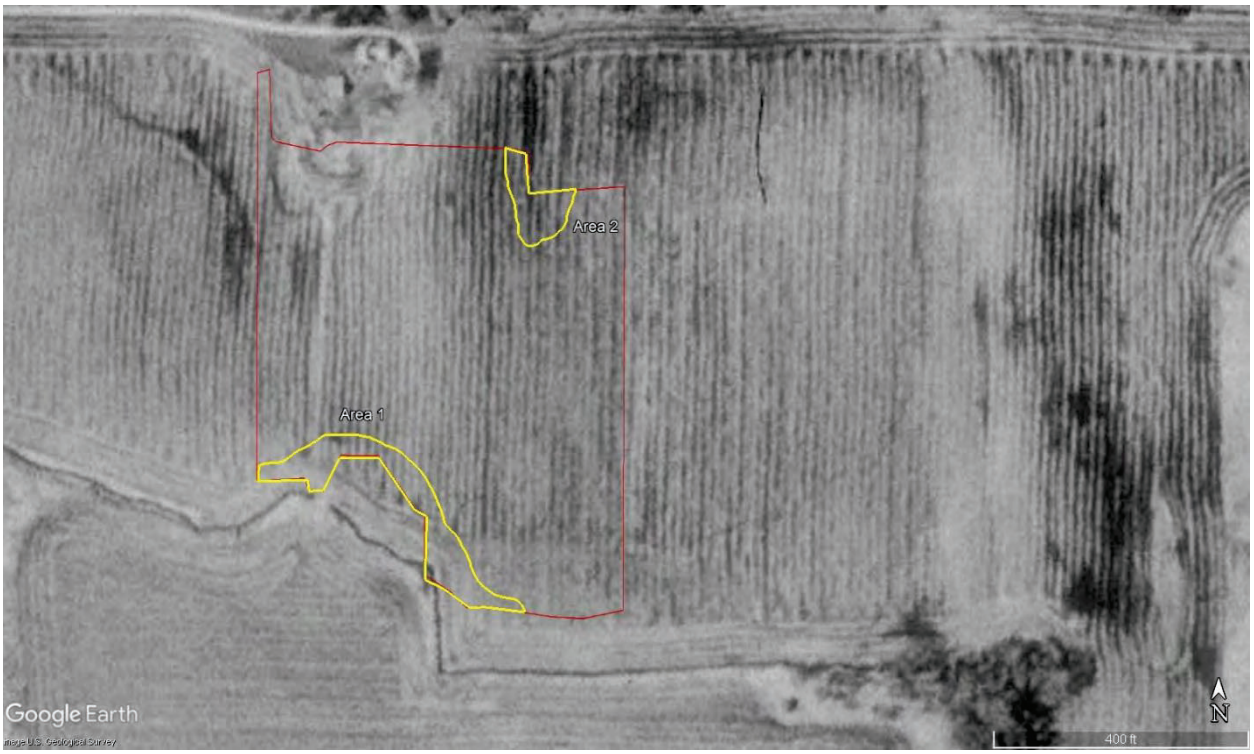
Report—Hydric Soil List - All Components

Hydric Soil List - All Components–MN013-Blue Earth County, Minnesota					
Map symbol and map unit name	**Component/Local Phase**	**Comp. pct.**	**Landform**	**Hydric status**	**Hydric criteria met (code)**
35: Blue Earth mucky silt loam, 0 to 1 percent slopes	Blue Earth	75-90	Depressions	Yes	2
	Canisteo	5-15	Rims on depressions,ground moraines	Yes	2
	Harps	1-8	Rims on depressions	Yes	2
	Lemond	0-2	Outwash plains,terraces	Yes	2
85: Calco silty clay loam, 0 to 2 percent slopes, occasionaly flooded	Calco-Occasionally flooded	75-95	Flood plains	Yes	2
	Colo-Occasionally flooded	5-15	Flood plains	Yes	2
	Spillville-Occasionally flooded	0-10	Flood plains	No	—
160: Fieldon loam, 0 to 2 percent slopes	Fieldon	75-95	Lake plains,outwash plains,terraces	Yes	2
	Biscay	5-15	Outwash plains,terraces	Yes	2
	Okoboji	0-10	Lake plains,depressions	Yes	2
181: Litchfield loamy fine sand, 1 to 3 percent slopes	Litchfield	90	Outwash plains	No	—
	Darfur	4	Flats	Yes	2
	Dickinson	3	Outwash plains	No	—
	Estherville	3	Outwash plains	No	—
321: Tilfer silty clay loam	Tilfer	90	Flats on benches	Yes	2
	Joliet	10	Outwash plains	Yes	2

Data Source Information

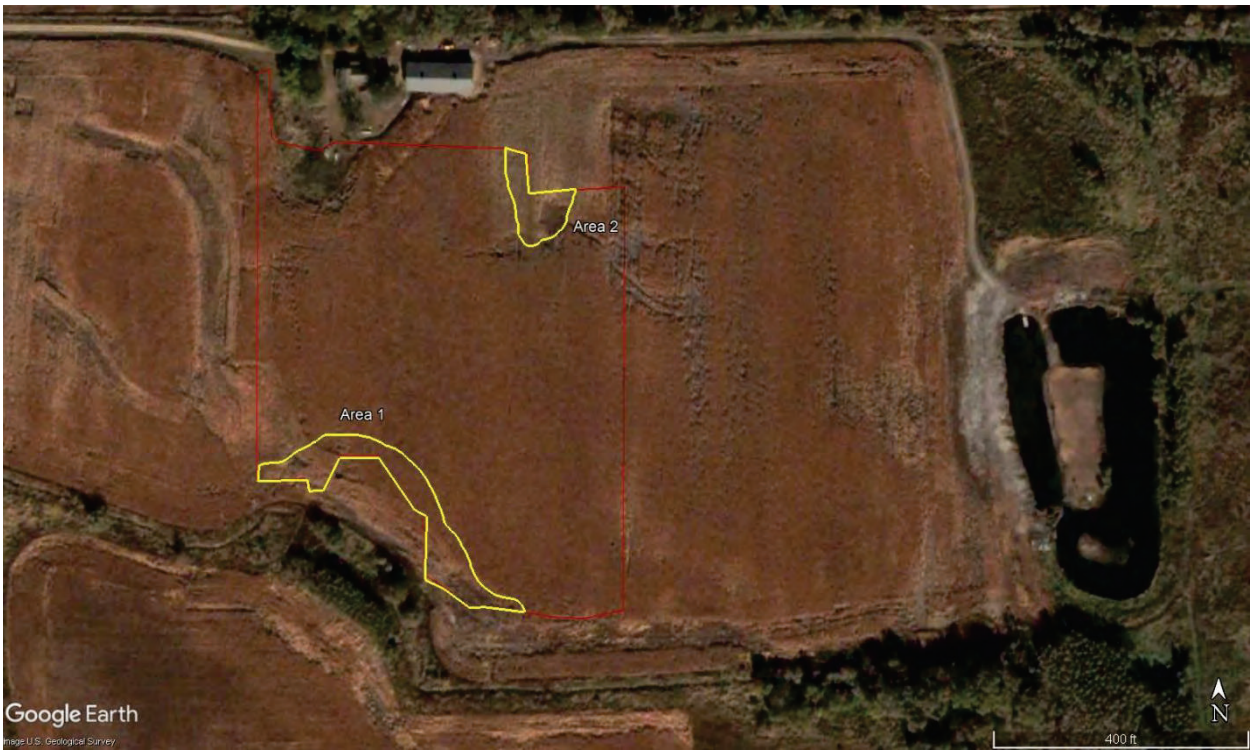
Soil Survey Area: Blue Earth County, Minnesota
Survey Area Data: Version 20, Sep 6, 2022

Appendix C: Aerial Imagery Slides



April 1991

June 2003



September 2003

August 2004

May 2006

June 2008

June 2009

May 2010

June 2010

September 2011

April 2015

August 2020

May 2021

June 2021

June 2023

Appendix D: Wetland Hydrology from Aerial Imagery – Recording Form

Exhibits 1 & 2

Exhibit 1 Field data sheet reference (if applicable): _____

Wetland Hydrology from Aerial Imagery – Recording Form

Project Name: SV CSG Mankato North 1 Date: 7/5/2023 County: Blue Earth

Investigator: J Knudsen Legal Description (T, R, S): 109N 26W 29

Summary Table

Date Image Taken (M-D-Y)	Image Source	Climate Condition (wet, dry, normal)[i]	Image Interpretation(s)				
			Area: 1	Area: 2	Area:	Area:	Area:
4/1991	USGS	Normal	NSS/NV	SS			
6/2003	USDA	Normal	CS	WS			
11/03	Google Earth	Dry	CS	CS			
8/2004	USDA	Wet	WS	NV			
5/2006	USDA	Normal	NV	CS			
6/2008	USDA	Normal	NV	DO/CS			
6/2009	USDA	Dry	AP	NV/NSS			
5/2010	USDA	Dry	AP	SS			
6/2010	USDA	Normal	NV	DP			
9/2011	Google Earth	Normal	AP	CS			
4/2015	Google Earth	Dry	AP	SS			
8/2020	Google Earth	Wet	NV	CS			
5/2021	Google Earth	Normal	NV	NV			
6/2021	Google Earth	Dry	NV	NV			
6/2023	Google Earth	Wet	NC	WS			

Normal Climate Condition	Area: 1	Area: 2	Area:	Area:	Area:
Number	7	7			
Number with wet signatures	2	6			
Percent with wet signatures	29	86			

KEY		
WS - wetland signature	SS - soil wetness signature	CS - crop stress
NC - not cropped	AP - altered pattern	NV - normal vegetative cover
DO - drowned out	SW - standing water	NSS – no soil wetness signature
Other labels or comments:		

- Use above key to label image interpretations. It is imperative that the reviewer read and understand the guidance associated with the use of these labels. If alternate labels are used, indicate in box above.
- If less than five (5) images taken during normal climate conditions are available, use an equal number of images taken during wet and dry climate conditions and use as many images as you have available. Describe the results using this methodology in your report.

[i] Use MN State Climatology website to determine climate condition when image was taken.

Exhibit 2 Field data sheet reference (if applicable): _____

Wetland Determination from Aerial Imagery – Recording Form

Project Name: SV CSG Mankato North 1 Date: 7/5/2023 County: Blue Earth

Investigator: J Knudsen Legal Description (T, R, S): 109N 26W 29

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	Yes	Yes	29	No	Field
2	Yes	No	86	Yes	Yes

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

Appendix E: Field Photographs

General upland Project landscape viewed to the southeast from the northwestern corner of the Study Area

General upland landscape viewed to the southwest from the center of the Study Area

General upland, mixed prairie landscape viewed to the west from the east-central portion of the Study Area

Wetland 1 viewed to the east from the northeastern portion of the Study Area

Area 1, along the berm containing a waterway, viewed to the east from the southwestern corner of the Study Area

Area 1, viewed to the south towards the berm from the southwestern portion of the Study Area

Appendix F: Wetland Data Sheets

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: SV CSG Mankato North 1 City/County: Blue Earth Sampling Date: 6/20/2023

Applicant/Owner: Sunvest Solar State: MN Sampling Point: SP 1-1

Investigator(s): J Knudsen Section, Township, Range: 20, 109N, 26W

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

Slope (%): 2 Lat: 44.224221 Long: -93.979026 Datum: NAD 83

Soil Map Unit Name: 85 - Calco silty clay loam, 0-2 percent slopes, occassionally flooded NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
SP within Area 2 in a depression. Climactic conditions were wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15ft)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5ft)			
1. *Phalaris arundinacea*	70	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	70 =Total Cover		
Woody Vine Stratum (Plot size: 30ft)			
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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	70	x 2 =	140
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	70 (A)		140 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 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** X **No** ____

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

SOIL

Sampling Point: SP 1-1

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 2/1	95	10YR 5/6	5	C	M	silty loam	Redox in shallow strata
10-20	10YR 3/1	98	10YR 5/6	2	C	M	Silty loam	Slightly lighter - fewer redox

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

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ 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** X **No** ___

Remarks:
Redox at surface

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)
- X Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

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

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

Saturation Present? Yes ___ No X Depth (inches): ___

(includes capillary fringe)

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

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

Remarks:
offsite aerial review indicated this area is a wetland.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: SV CSG Mankato North 1 City/County: Blue Earth Sampling Date: 6/20/2023

Applicant/Owner: Sunvest Solar State: MN Sampling Point: SP 1-2

Investigator(s): J Knudsen Section, Township, Range: 20, 109N, 26W

Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): None

Slope (%): 1 Lat: 44.224128 Long: -93.979066 Datum: NAD 83

Soil Map Unit Name: 85 - Calco silt clay loams, 0-2 percent slopes, occassionally flooded NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
SP on edge of Area 2 adjacent to monoculture of reed canaray grass. Antecedent precipitation condition were wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15ft)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5ft)			
1. *Phalaris arundinacea*	30	Yes	FACW
2. *Bromus inermis*	30	Yes	FACU
3. *Achillea millefolium*	10	No	FACU
4. *Taraxacum officinale*	10	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	80 =Total Cover		
Woody Vine Stratum (Plot size: 30ft)			
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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	0	x 3 =	0
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	80 (A)		260 (B)

Prevalence Index = B/A = 3.25

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** X

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

SOIL

Sampling Point: SP 1-2

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 2/1	100					Silty loam	No redox here
10-20	10YR 3/1	100					Silty loam	No redox here

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

Hydric Soil Indicators:

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

- ___ Coast Prairie Redox (A16)
- ___ 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** X

Remarks:
Mucky

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** X

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

Remarks:
Mucky, greasy soils

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: SV CSG Mankato North 1 City/County: Blue Earth Sampling Date: 6/20/2023

Applicant/Owner: Sunvest Solar State: MN Sampling Point: SP 2

Investigator(s): J Knudsen Section, Township, Range: 20, 109N, 26W

Landform (hillside, terrace, etc.): Field Local relief (concave, convex, none): Flat

Slope (%): 0 Lat: 44.223175 Long: -93.980493 Datum: NAD 83

Soil Map Unit Name: 321 - Tilfer silty clay loam NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
SP within Area 1 adjacent to drainage. Antecent precipitation conditions were wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Sapling/Shrub Stratum (Plot size: 15ft)			
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Herb Stratum (Plot size: 5ft)			
1. *Phalaris arundinacea*	20	Yes	FACW
2. *Bromus inermis*	20	Yes	FACU
3. *Asclepias syriaca*	10	Yes	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	50 =Total Cover		
Woody Vine Stratum (Plot size: 30ft)			
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: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	0	x 3 =	0
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	50 (A)		160 (B)

Prevalence Index = B/A = 3.20

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 X

Remarks: (Include photo numbers here or on a separate sheet.)
Sparse vegetation - milkweed growing where crops were not planted.

SOIL

Sampling Point: SP 2

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 2/1	100					Loamy/Clayey	Dark and deep
20-25	10YR 4/1	95	10YR 5/6	5	C	M	Loamy/Clayey	Reduced with redox

[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)
- X Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ 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]:

- ___ Coast Prairie Redox (A16)
- ___ 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** X **No** ___

Remarks:
Redox in depleted stratum

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)
- X Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

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

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

Remarks:
offsite aerial review indicated this area as potentially a wetland - site visit did not yield any additional indicators.