# **Appendix H**

# **Wetland Delineation Reports**

Lake Charlotte Solar Facility and Battery Energy Storage System Joint Site Permits Application June 2025 MPUC Docket Nos. IP-7159/GS-25-206 and IP-7159/ESS-25-205

# Wetlands and Waters Survey

# Lake Charlotte Solar Martin County, Minnesota



June 16, 2023

#### PRESENTED TO

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#### EXECUTIVE SUMMARY

This report presents the findings of a Wetlands and Waters Survey completed on behalf of Lake Charlotte Solar, LLC, for the proposed Lake Charlotte Solar project in Martin County, Minnesota (the Project). The Survey Area includes approximately 1,508 acres of land where solar energy facilities may be developed.

The field surveys completed for the Project identified 33 wetland and water features totaling approximately 20.5 acres within the Survey Area. Each of the identified wetlands and waters in the Survey Area was reviewed for potential jurisdiction with one or more of the following regulating entities:

- U.S. Army Corps of Engineers (USACE) waters of the U.S. (WOTUS) under Section 404 of the Clean Water Act (CWA).
- The Minnesota Wetland Conservation Act (WCA) administered locally by the Martin County Soil and Water Conservation District (SWCD).
- Mapped resources in the Public Waters Inventory (PWI) regulated by the Minnesota Department of Natural Resources (MN DNR) under the Public Waters Work Program.

Table ES-1 summarizes the identified wetland and water resources and their recommended jurisdictional status. However, only the USACE, Martin County SWCD, and MN DNR can make the final determination on the regulatory jurisdiction of wetlands and waters.

|  | Cowardin<br>Classification   | Surve | ey Area                     | MN    | E and<br>NCA<br>liction |       | E and:<br>DNR             |       | WCA<br>diction             |       | ACE<br>liction |       | lot<br>ictional |
|--|------------------------------|-------|-----------------------------|-------|-------------------------|-------|---------------------------|-------|----------------------------|-------|----------------|-------|-----------------|
| Aquatic Resource                                 | Code(s) <sup>1</sup>         | Count | Acres                       | Count | Acres                   | Count | Acres                     | Count | Acres                      | Count | Acres          | Count | Acres           |
| Seasonally Flooded<br>Basin Wetland              | PEMA, PFOA                   | 24    | 17.107 <sup>2</sup>         | 2     | 0.211                   | 1     | 0.353 <sup>2</sup>        | 21    | 16.543 <sup>2</sup>        | 0     | 0              | 0     | 0               |
| Wetland Complex<br>Composed of Multiple<br>Types | PEMA, PEMAx,<br>PEMCx, PSSA, | 3     | 1.737 <sup>2</sup>          | 1     | 1.389 <sup>2</sup>      | 1     | 0.283 <sup>2</sup>        | 1     | 0.065 <sup>2</sup>         | 0     | 0              | 0     | 0               |
| 1  | Wetlands Subtotal            | 27    | 1 <b>8.844</b> <sup>2</sup> | 3     | 1.6                     | 2     | <b>0.636</b> <sup>2</sup> | 22    | <b>16.608</b> <sup>2</sup> | 0     | 0              | 0     | 0               |
| Pond   | PUBGx                        | 1     | 0.217                       | 0     | 0                       | 1     | 0.217                     | 0     | 0                          | 0     | 0              | 0     |                 |
|  | Ponds Subtotal               | 1     | 0.217                       | 0     | 0                       | 1     | 0.217                     | 0     | 0                          | 0     | 0              | 0     | 0               |
| Lake   | L2UBH                        | 2     | 1.159 <sup>2</sup>          | 0     | 0                       | 2     | 1.159 <sup>2</sup>        | 0     | 0                          | 0     | 0              | 0     |                 |
| Lakes Subtotal                                   |                              | 2     | 1.159 <sup>2</sup>          | 0     | 0                       | 2     | 1.159 <sup>2</sup>        | 0     | 0                          | 0     | 0              | 0     | 0               |
| Intermittent Stream                              | R4SBC                        | 1     | 0.237                       | 0     | 0                       | 0     | 0                         | 0     | 0                          | 1     | 0.237          | 0     | 0               |
| Ephemeral Stream                                 | R4SBA                        | 2     | 0.009                       | 0     | 0                       | 0     | 0                         | 0     | 0                          | 0     | 0              | 2     | 0.009           |
| Streams Subtotal                                 |                              | 3     | 0.246                       | 0     | 0                       | 0     | 0                         | 0     | 0                          | 1     | 0.237          | 2     | 0.009           |
| Total of All Aquatic Resources                   |                              | 33    | <b>20.466</b> <sup>2</sup>  | 3     | <b>1.6</b> <sup>2</sup> | 5     | <b>2.012</b> <sup>2</sup> | 22    | 16.608 <sup>2</sup>        | 1     | 0.237          | 2     | 0.009           |

Table ES-1: Summary of Wetlands and Waters in the Survey Area and Probable Regulatory Jurisdiction

<sup>1</sup> Cowardin wetland classification codes are defined in Appendix F of the report.
 <sup>2</sup> Acres depicted on Figures 4 and 5 in Appendix A and detail maps in Appendix C may include acreage outside the Survey Area.

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# **1.0 INTRODUCTION**

# **1.1 PURPOSE**

Lake Charlotte Solar, LLC proposes to develop the Lake Charlotte Solar project (the Project) in Martin County, Minnesota. Tetra Tech, Inc. (Tetra Tech) has completed surveys to identify and delineate wetlands and waters for the proposed Project within an approximately 1,508-acre area (Survey Area) where the proposed solar energy facility may be developed. The wetlands and waters survey included desktop and field investigations of the Survey Area to identify the presence and location of wetlands and other surface waters and determine which, if any, may be subject to U.S. Army Corps of Engineers (USACE) jurisdiction, Minnesota Department of Natural Resources (MN DNR) jurisdiction, or regulation under the Minnesota Wetland Conservation Act (WCA). This report describes the Survey Area, regulatory framework, methods, survey results and conclusions, and references used to support the conclusions. Appendices include figures illustrating the Survey Area, select reviewed reference materials, survey results, wetland determination data forms, and photographs.

# **1.2 SITE LOCATION AND ENVIRONMENTAL SETTING**

The Survey Area includes approximately 1,508 acres of land where the proposed solar energy facilities may be developed (Appendix A: Figure 1). The Survey Area is located approximately 2 miles north of the city of Fairmont in Martin County, Minnesota and encompasses portions of Sections 7, 8, 16, 17, 18, and 21 in Rutland Township (Township 103 North, Range 30 West).

The landscape of Martin County was affected by the last glacial period, and topography is characterized by gently undulating slopes with small hills and ridges and broad lowland areas with many depressions. The Survey Area is located within a glacial till plain adjacent to one of three chains of lakes located within Martin County. The chains of lakes are thought to be part of a major drainage system that flowed south prior to the last glacial period. As the last glaciers melted, soil partially filled the valley forming the chain of lakes (USDA 1989).

# **1.3 REGULATORY FRAMEWORK**

#### 1.3.1 U.S. Army Corps of Engineers

The U.S. Army Corps of Engineers (USACE) has regulatory jurisdiction over waters of the U.S. (WOTUS) under Section 404 of the Clean Water Act (CWA) as defined by 33 CFR Part 328. The extent of the USACE regulatory jurisdiction over WOTUS was defined by the USACE and U.S. Environmental Protection Agency (EPA) in a final rule published in the Federal Register on January 18, 2023, which became effective on March 20, 2023 (88 FR 3004, January 18, 2023). However, the U.S. Supreme Court's May 25, 2023, decision in the case of *Sackett v. EPA*, 598 U.S. (2023) found that only wetlands with a continuous surface connection to bodies that are WOTUS in their own right are WOTUS. As of May 26, 2023, USACE has indicated that they will be interpreting the definition of WOTUS consistent with the Supreme Court's decision (USACE 2023).

The 2023 definition of WOTUS as interpreted consistent with the *Sackett* decision indicates that the USACE has regulatory jurisdiction over traditional navigable waters; tributaries of traditional navigable waters that are relatively permanent; and wetlands adjacent to another jurisdictional water such that the wetland is an indistinguishable part of the jurisdictional water. Relatively permanent tributaries have flowing or standing water year-round or continuously during certain times of the year. Relatively permanent waters do not include surface waters with flowing or standing water for only a short duration in direct response to precipitation.

The USACE is the sole authority in determining whether federal jurisdiction extends to specific wetlands or waters. Suggestions regarding the USACE jurisdiction of wetlands and waters in this report are preliminary and based on Tetra Tech's interpretation of the guidance issued by the USACE and EPA, review of available desktop data, and evidence observed in the field. There are two types of jurisdictional determinations (JDs) that can be requested from USACE to determine the jurisdiction of wetlands and waters. A preliminary JD (PJD) is a nonbinding written indication that for purposes of calculating impacts and determining compensatory mitigation requirements all waters and wetlands in the review area are treated as jurisdictional WOTUS. An approved JD (AJD) is an official USACE determination that jurisdictional WOTUS are either present or absent in the review area. An AJD precisely identifies the limits of those wetlands and waters determined to be jurisdictional under the CWA.

The USACE determines the type of permit, if any, that may be required under the CWA for projects that affect WOTUS. The USACE authorizes certain activities in WOTUS with pre-issued Nationwide Permits (NWPs) and Regional General Permits (RGPs). Impacts of up to 0.5 acres for utility projects such as solar farms may be authorized by NWP 51 for Land-Based Renewable Energy Generation Facilities and/or the Utility RGP with mitigation usually being required if impacts exceed 0.1 acre. In order to use a NWP or RGP, all general and regional conditions must be met. The Minnesota Pollution Control Agency (MPCA) is responsible for issuing 401 Water Quality Certifications in Minnesota (see Section 1.3.4). The USACE St. Paul District has regulatory jurisdiction over the Survey Area.

#### **1.3.2 Minnesota Wetland Conservation Act**

The State of Minnesota regulates wetlands under the Minnesota Wetland Conservation Act (WCA) of 1991, currently implemented under MN Rules Chapter 8420. The WCA generally does not apply to public waters and public waters wetlands that have been inventoried by the Minnesota Department of Natural Resources (MN DNR) (see Section 1.3.3) or to "incidental wetlands", which are wetlands created in non-wetland areas by actions that were not intended to create the wetland such as certain ditches or other excavations.

The WCA requires anyone proposing to drain, fill, or excavate a wetland first to try to avoid disturbing the wetland; second, to try to minimize any impact on the wetland; and, finally, to replace any lost wetland acres, functions, and values. The WCA also establishes eight exempt activities that do not require wetland replacement. One of these exemptions is the "de minimis" exemption for minor wetland impacts. The de minimis exemption threshold ranges from 20 square-feet to 10,000 square-feet depending on the impacted wetland's location in the state, the type of wetland, and location inside or outside of a shoreland wetland protection zone (see Section 1.3.6). Impacts below the relevant threshold do not require wetland replacement. The WCA is administered by Local Government Units

(LGU). The Martin County Soil and Water Conservation District (SWCD) is the LGU responsible for administering the WCA for the Project.

#### **1.3.3 Minnesota Department of Natural Resources**

The MN DNR Public Waters Work Permit Program applies to those lakes, wetlands, and streams identified on MN DNR Public Water Inventory maps. Proposed projects affecting the course, current, or cross-section of these water bodies require a Public Waters Work Permit from the MN DNR. There are two types of Public Waters Work Permits available from the MN DNR: general and individual permits. General permits are "pre-issued" permits issued on a statewide or county level. If work proposed in public waters or public waters wetlands meets the requirements of a specific general permit, an individual permit is not required. There are also several categories of projects that are excluded from the Public Waters Work Permit requirement; however, these exclusions would not typically apply to solar energy projects.

Minnesota Regulations, Parts 6120.2500 - 6120.3900 provide minimum standards and criteria to be incorporated into local government shoreland management controls that apply to shorelands of public waters of the state (see Section 1.3.3) that are subject to local government land use controls. Each local government is responsible for the administration and enforcement of its shoreland management controls adopted in compliance with these standards and criteria. These standards establish that the minimum shoreland zone is the area within 1,000 feet of the ordinary high water level of all public lakes; and 300 feet from a river or stream, or the landward extent of a floodplain, whichever is greater. The WCA de minimis exemption thresholds for wetlands within the shoreland zone are less than those outside the shoreland zone (see Section 1.3.2).

#### **1.3.4 Minnesota Pollution Control Agency**

Section 401 of the CWA requires certification from the state that any discharge authorized by an NWP or RGP does not violate state water quality standards. The MPCA issues 401 Water Quality Certifications for NWPs and RGPs in Minnesota. The MPCA granted water quality certification with conditions for NWP 51 in a letter dated December 21, 2020, and for the Utility RGP in a letter dated February 13, 2018.

#### 2.0 METHODS

#### 2.1 EXISTING INFORMATION REVIEW

Tetra Tech reviewed available information to identify potential wetlands and waters areas within the Survey Area. The following data sources were reviewed:

- National Wetlands Inventory (NWI) (U.S. Fish and Wildlife Service [USFWS] 2022);
- National Hydrography Dataset (NHD) (United States Geological Survey [USGS] 2022);
- MN DNR Public Waters Inventory (PWI) (MN DNR 2020);
- Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL) (FEMA 2023);
- FEMA Flood Insurance Rate Map (FIRM) Panel 270641B (FEMA 1988);

- Natural Resources Conservation Service (NRCS) Soil Survey Geographic (gSSURGO) Soils (NRCS 2022);
- MN DNR 2-foot elevation contours (MN DNR 2022);
- Aerial photography from 2010, 2013, 2015, 2017, and 2019 from U.S. Department of Agriculture (USDA) Farm Service Agency (FSA) National Agricultural Imagery Program (NAIP); and
- Historical precipitation data from the Minnesota State Climatology Office (Minnesota State Climatology Office 2023).

# 2.2 DESKTOP WETLANDS AND WATERS MAPPING

Tetra Tech reviewed aerial photographs, elevation data, NWI, NHD, PWI, and SSURGO soils data to identify potential wetlands and waters within the Survey Area. Using methods described by USACE and the Minnesota Board of Water and Soil Resources (BWSR) (USACE and BWSR 2016), the aerial photographs were reviewed for wetland signatures, and antecedent precipitation was evaluated to determine if the conditions preceding each photograph were normal, wet, or dry. Signatures at locations of potential wetlands and waters on aerial photographs were classified using eight codes (Table 1). The locations of desktop wetlands and waters were digitized using ArcGIS mapping software.

#### Table 1. Aerial Photograph Wetland Signature Codes

| Code | Classification | Implication | Code   | Classification                              | Implication |
|------|----------------|-------------|--------|---|-------------|
| CS   | Crop Stress    | Wetland     | WS     | Wetland Signature                           | Wetland     |
| DO   | Drowned Out    | Wetland     | AP     | Altered Pattern                             | Wetland     |
| NC   | Not Cropped    | Wetland     | SS     | Soil Wetness Signature                      | Wetland     |
| SW   | Standing Water | Wetland     | NV/NSS | Normal Vegetative Cover/<br>No Soil Wetness | Non-wetland |

#### 2.3 WETLANDS AND WATERS SURVEY

The wetlands and waters survey included field investigations of all areas of the Survey Area and offsite hydrology review using aerial photography to verify the presence or absence of wetlands and other surface waters in the Survey Area.

#### 2.3.1 Field Survey

Wetlands were delineated in the Survey Area using the level two on-site routine determination method set forth in the Corps of Engineers Wetlands Delineation Manual (USACE 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region, Version 2.0 (USACE 2010). Potential wetlands were identified based on the review of existing data and observations made at the time of the survey. A transect was established in a representative transition zone of each potential wetland. The transect consisted of one sample point in the potential wetland, and if wetland criteria were met, one point in non-wetland. Vegetation, soils, and hydrology data were recorded on data forms. Plant species dominance at sample points was based on the percent

cover visually estimated within a 5-foot radius of the sample point for the herbaceous layer, a 15-foot radius for the shrub layer, and a 30-foot radius for tree and vine layers. Wetland indicator status for all plant species followed the National Wetland Plant List, Version 3.5 (USACE 2020). The wetland/non-wetland boundary was established based on the recorded sample point information. If a potential wetland did not meet all three wetland delineation criteria (hydrophytic vegetation, hydric soils, and hydrology) based on observations made at the time of the field visit it was determined to be non-wetland.

Boundaries for non-wetland waters (i.e., ponds and streams) were established based on observations of the ordinary high water mark (OHWM), which is defined as the "line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" (51 FR 41251, November 13, 1986).

Wetlands and waters boundaries were established only within the Survey Area. If the boundary extended outside of the Survey Area, generally only that portion of the boundary within the Survey Area was delineated, and observations regarding that portion of the feature extending outside of the Survey Area were recorded. Wetlands and waters were classified according to Circular 39 (Shaw and Fredine 1971), Cowardin (Federal Geographic Data Committee [FGDC] 2013), and plant community (Eggers and Reed 2015) methods.

An Arrow 100 GPS receiver with sub-meter accuracy paired with a tablet running ESRI's Survey123 for ArcGIS application was used in the field to survey the locations of sample points, the wetland/non-wetland boundaries, and OHWM boundaries. Upon completion of the survey, the wetland specialist who captured the field data conducted a quality control review to ensure the spatial and attribute data of the features collected correspond with field observations.

#### 2.3.2 Offsite Hydrology Assessment of Non-Wetland Areas

Historical precipitation records and aerial photography were used to evaluate the long-term history of wetland hydrology in accordance with the USACE and BWSR guidance concerning offsite wetland mapping conventions for agricultural land (USACE and BWSR 2016) for those desktop wetlands and waters within the Survey Area that were determined to be non-wetlands during the field survey. Antecedent precipitation conditions were evaluated for readily available aerial photographs of the Survey Area to determine which aerial photographs were taken following periods of normal precipitation. Antecedent precipitation was classified as normal, wet, or dry by comparing the precipitation during the three months preceding aerial photography dates to the 30-year average using the Minnesota Climatology Office tool (Minnesota State Climatology Office 2023).

The offsite hydrology assessment method generally applies a wetland determination when wetland signatures appear in at least 50 percent of aerial photographs from normal years, and a non-wetland determination when wetland signatures are lacking in more than 70 percent of aerial photographs from those years. The desktop wetlands and waters with a non-wetland field survey determination were reviewed in each of the available aerial photographs with normal antecedent precipitation for wetland signatures as described above in Section 2.2 to verify that wetland hydrology is absent at those locations (i.e., wetland signatures observed in less than 50 percent of

aerial photographs). If aerial photography from at least five normal years was not available, equal numbers of aerial photographs from wet and dry years were selected so that aerial photography from at least five years was reviewed.

The review of historical precipitation records and aerial photography to evaluate the long-term history of wetland hydrology is most effective in agricultural fields planted with annual row crops. Therefore, the assessment was conducted with caution for any areas that did not appear to be planted with annual row crops in one or more of the reviewed aerial photographs.

# 3.0 RESULTS

#### 3.1 EXISTING INFORMATION REVIEW AND DESKTOP MAPPING

#### 3.1.1 National Wetlands Inventory (NWI)

There are 18 NWI mapped wetlands within the Survey Area totaling approximately 10.3 acres (Appendix A: Figure 2). Freshwater emergent wetlands (PEM1A, PEM1Af, PEM1C) are the dominant wetland type within the Survey Area, with 13 mapped wetlands totaling approximately 9.3 acres. Additionally, 2 freshwater forested/shrub wetlands (PFO1C) totaling approximately 0.3 acre, 1 freshwater pond (PUBF) totaling approximately 0.1 acre, 1 lake (L2UBH) totaling approximately 0.5 acre, and 1 riverine wetland (R2UBFx) less than 0.1 acre in size are mapped by the NWI throughout the Survey Area. Many of the NWI mapped features appear isolated; however, several features appear to connect in larger, multi-community complexes that extend beyond the boundaries of the Survey Area.

#### 3.1.2 National Hydrography Dataset (NHD)

There are three NHD-mapped stream or connector segments totaling approximately 165 feet located within the west-central portion of the Survey Area (Appendix A: Figure 2). Two of the three segments are unnamed perennial streams, and the remaining segment is an unnamed connector. Several other unnamed perennial and intermittent streams, connectors, canal ditches, and artificial paths are also mapped in the vicinity of the Survey Area, most of which are tributaries to one of the lakes located adjacent to the Survey Area. The lakes eventually discharge to Elm Creek, which is located approximately 1.5 miles north of the Survey Area.

Two NHD-mapped waterbodies totaling 0.8 acre are located along the western boundary of the Survey Area (Appendix A: Figure 2). The southeastern shore of Martin Lake is located on the northwestern edge of the Survey Area; Martin Lake extends beyond the Survey Area to the west and northwest. A portion of the eastern shore of High Lake is located within the west-central portion of the Survey Area; High Lake extends to the northwest, west, and southwest of the Survey Area. Additional NHD-mapped waterbodies in the vicinity of the Survey Area include Lake Charlotte, located adjacent to the southwest of the Survey Area, and two unnamed waterbodies enveloped by the west-central portion of the Survey Area between Martin Lake and Lake Charlotte.

# 3.1.3 Public Waters Inventory (PWI)

There are two Public Waters basins totaling approximately 0.6 acre mapped within the Survey Area (Appendix A: Figure 2). The two Public Waters basins, Martin Lake and High Lake, correspond with the NHD-mapped waterbodies. An approximately 165-foot-long segment of a Public Watercourse identified as County Ditch 72 is also mapped in the west-central portion of the Survey Area and corresponds with the three NHD-mapped streams or connector segments.

Additional Public Waters basins mapped in the vicinity include Lake Charlotte, located adjacent to the southwest of the Survey Area, and one unnamed waterbody enveloped by the west-central portion of the Survey Area between Martin Lake and Lake Charlotte. The Public Waters watercourse also extends south from the Survey Area through Lake Charlotte, and north from the Survey Area through the unnamed public water basin enveloped by the Survey Area and Martin Lake.

The approximate shoreland wetland protection zone for these public waters was determined based on the areas defined in Minnesota Regulations, Parts 6120.2500 - 6120.3900 (see Section 1.3.5). This includes a 1,000-foot buffer around all PWI basins and a 300-foot buffer around all PWI watercourses. Approximately 306 acres of the Survey Area are located within the approximate shoreland wetland protection zone (Appendix A: Figure 2).

#### 3.1.4 Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL) and Flood Insurance Rate Maps (FIRM)

FEMA NFHL data was not available for the Survey Area (FEMA 2023). FEMA FIRM, Map Number 270641B, effective September 1, 1988, was reviewed and compared to the Survey Area. Based on a review of the FIRM, approximately 1,575 square feet of 100-year floodplain associated with Lake Charlotte are located within the Survey Area.

# 3.1.5 Soil Survey Geographic (SSURGO) Soils

Soils data for the Survey Area were obtained from the USDA NRCS (NRCS 2022). This information was used to study the distribution of hydric soils within the Survey Area. Soils were categorized according to the five hydric classes listed below based on the hydric rating of the soil series.

- Non-hydric all soils series components rated as non-hydric
- Predominantly non-hydric minority of soil components that are considered hydric accounting for 1 to 32 percent of the series
- Partially hydric a mix of hydric and non-hydric soil components with hydric components accounting for 33 to 65 percent of the series
- Predominantly hydric majority of soil components that are considered hydric accounting for 66 to 99 percent of the series
- Hydric all soils series components rated as hydric

The majority of soils within the Survey Area are classified as predominantly hydric (59 percent of the Survey Area). Soils are also classified as predominantly non-hydric (37 percent of the Survey Area), hydric (3 percent of the

Survey Area), non-hydric (less than 1 percent of the Survey Area), and water (less than 1 percent of the Survey Area). Hydric and predominantly hydric soils are found throughout the Survey Area (Appendix A: Figure 3).

#### 3.1.6 Desktop Wetlands and Waters Mapping

Aerial photographs in combination with antecedent precipitation data from the Minnesota State Climatology Office (2023), MN DNR 2-foot elevation contours (MN DNR 2022), and the NWI were reviewed to identify potential wetlands and waters in the Survey Area. Reviewed aerial photographs included images from July 1, 2010 (USDA FSA APFO 2010), July 12, 2013 (USDA FSA APFO 2013), August 1, 2015 (USDA FSA APFO 2015), September 20, 2017 (USDA FSA APFO 2017), and August 19, 2019 (USDA FSA APFO 2019). The antecedent precipitation review showed that all of the reviewed aerial photographs were taken during periods with normal antecedent precipitation.

The desktop data review found 113 potential wetlands and waters within the Survey Area, totaling approximately 54.4 acres (Appendix A: Figure 2). Several of these features at least partially overlap features in the NWI or NHD datasets: 13 potential wetlands and waters intersect NWI mapped resources, and 1 potential wetland/water intersects both NWI and NHD mapped resources. There were 99 potential wetlands and waters at locations that did not have any previously mapped resources in the NWI or NHD and were identified based on aerial photo interpretation and/or elevation data.

#### 3.2 WETLANDS AND WATERS SURVEY

The wetlands and waters field surveys of the Survey Area were conducted from October 18-26, 2022, during a period with normal antecedent precipitation based on methods described in technical guidance (USACE and BWSR 2016) and data from the Minnesota State Climatology Office (2023). Antecedent precipitation data are presented in Table 2.

Each of the 113 desktop potential wetland and water areas in the Survey Area were reviewed during the site visit. Wetlands or waters were confirmed to be present at 29 of the 113 reviewed desktop wetlands and waters locations in the field and were delineated based on the observations made at the time of the field surveys. The remaining 84 field-checked desktop potential wetlands and waters were determined to be non-wetlands within the Survey Area. A total of 33 aquatic resources were identified and delineated including 27 wetlands, 1 pond, 2 lakes, and 3 streams in the Survey Area at the completion of the field surveys<sup>1</sup>. The delineated resources are depicted on Figure 4 (Appendix A) and tables with additional details for each of the delineated wetlands and ponds are included in Appendix B. The following sections include summaries of general field survey results and observations.

<sup>&</sup>lt;sup>1</sup> The total recorded wetlands and waters reflects that some desktop wetlands and waters were mapped as multiple wetlands and/or waters, while others were combined into a single wetland or water; and some wetlands were delineated at locations not identified during the desktop mapping.

| Precipitation data for target wetland location:   |                                      |                                    |                                 |      |  |  |  |  |
|---|--------------------------------------|------------------------------------|---------------------------------|------|--|--|--|--|
| County: Martin Township Numl  |                                      | ber: 103N                          | Site visit dates:               |      |  |  |  |  |
| Township Name: Ruthland Range Number:   |                                      | r: <b>30W</b>                      |                                 |      |  |  |  |  |
| Nearest Community: Northrop   | Section Numbe                        | er: <b>17</b>                      | October 18-26, 2022             |      |  |  |  |  |
| Score using 1991-2020 normal period   | 1                                    |                                    |                                 |      |  |  |  |  |
| Values are in inches<br>A 'R' following a monthly total indicates a prov<br>derived from radar-based estimate | first prior month:<br>September 2022 | second prior month:<br>August 2022 | third prior month:<br>July 2022 |      |  |  |  |  |
| estimated precipitation total for this lo   | 0.59                                 | 4.94                               | 4.09                            |      |  |  |  |  |
| there is a 30% chance this location will have   | ve less than:                        | 1.86                               | 2.72                            | 2.49 |  |  |  |  |
| there is a 30% chance this location will hav  | e more than:                         | 3.03                               | 4.77                            | 5.10 |  |  |  |  |
| type of month: dry normal wet   | dry                                  | wet                                | normal                          |      |  |  |  |  |
| monthly score   | 3 * <mark>1</mark> = 3               | 2 * <mark>3</mark> = 6             | 1 * 2 = 2                       |      |  |  |  |  |
| multi-month score:<br>6 to 9 (dry) 10 to 14 (normal) 15 to 18   | 11 (Normal)                          |                                    |                                 |      |  |  |  |  |

#### Table 2. Antecedent Precipitation Analysis

#### 3.2.1 Wetlands

The wetlands delineated in the Survey Area include 24 Type 1, seasonally flooded basin wetlands (PEMA, PEMAf, PEMAx, PFOA<sup>2</sup>) and 3 wetland complexes composed of multiple wetland types (PEMA, PEMAx, PEMCx, PSSA, PFOA) (Appendix B: Table B-1). Most Type 1, seasonally flooded basins were isolated depressional wetlands and wholly delineated within the Survey Area boundaries.

Wetland determination data forms and photographs for delineated wetlands are provided in Appendix C. General observations of wetland vegetation, soils, and hydrology conditions recorded during the field surveys are summarized below.

#### 3.2.1.1 Vegetation

Natural and weedy vegetation observed in seasonally flooded basin wetlands with undisturbed vegetation consisted primarily of grasses including reed canary grass (*Phalaris arundinacea*) and prairie cordgrass (*Spartina pectinata*). Seasonally flooded basin wetlands within agricultural fields were observed to consist mostly of corn (*Zea mays*) with weedy vegetation including barnyard grass (*Echinochloa crus-galli*) and yellow bristle grass (*Setaria pumila*). Shallow marsh wetlands were observed to consist primarily of reed canary grass and cattails (*Typha* spp.).

Vegetation in shrub swamp wetlands consisted primarily of shrubs including sandbar willow (*Salix interior*). The understory in shrub swamp wetlands frequently included reed canary grass. Seasonally flooded forested wetlands within the Survey Area consisted primarily of black willow (*Salix nigra*). The understory in seasonally flooded forested wetlands forested wetlands consisted of reed canary grass.

Uplands observed near wetlands within the Survey Area were documented in agricultural fields and unmanaged grassland. Upland sample points in agricultural fields consisted mostly of recently harvested corn and soybean

<sup>&</sup>lt;sup>2</sup> A key to the Cowardin wetland classification systems is provided in Appendix F.

fields or unharvested corn with weedy vegetation, including yellow bristle grass. Upland sample points documented in unmanaged grassland areas were observed to be dominated by grasses including smooth brome (*Bromus inermis*) and flat-stem bluegrass (*Poa compressa*).

#### 3.2.1.2 Soils

Soils observed within the Survey Area were predominantly fine textures ranging from clay to loam. A thick (greater than 12 inches), black (10YR 2/1) A horizon was observed in most locations. The layers below the thick, black A horizon frequently were observed to be depleted and ranged from dark gray (10YR 4/1) with redoximorphic concentrations to light brownish gray (2.5Y 6/2). As a result, the thick dark surface (A12) hydric soil indicator was documented frequently at wetland sample points or assumed to be present if the black A horizon was greater than 40 inches deep sample point.

#### 3.2.1.3 Hydrology

Wetland hydrology criteria established based on the observation of both primary and secondary hydrology indicators for approximately half of the delineated wetlands. Primary hydrology indicators were not frequently observed at wetland sample points; however, recent iron reduction in tilled soils (C6) was occasionally observed. When primary indicators were not observed, hydrology was established on the presence of two or more secondary hydrology indicators. The secondary hydrology indicators that were documented most frequently were geomorphic position (D2), saturation visible on aerial imagery (C9), FAC-neutral test (D5), and stunted or stressed plants (D1), while surface soil cracks (B6) were infrequently observed.

#### 3.2.2 Ponds

One pond was documented in the Survey Area and was observed to consist of an excavated depression. Pond PA020 was collected as part of a larger wetland complex (WA019), had an estimated water depth of 3 feet, and was classified as PUBGx (Appendix B: Table B-2). The pond approximately aligns with a previously mapped resource in the NWI and PWI databases (Section 3.1). Photo documentation of the surveyed pond is provided in Appendix D.

#### 3.2.3 Lakes

Two lakes were documented in the Survey Area. Lake LA029 correlates with the southeast shore of Martin Lake, had an estimated water depth of at least 10 feet, and was classified as L2UBH. Lake LA046 correlates with the northeast shore of Lake Charlotte, had an estimated water depth of at least 10 feet, and was classified as L2UBH (Appendix B: Table B-3). The lakes approximately align with a previously mapped resource in the NWI, NHD, and PWI database (Section 3.1). Photo documentation of the surveyed lakes is provided in Appendix D.

#### 3.2.4 Streams

Three streams were documented in the Survey Area. Stream SA001 was observed to be an ephemeral stream with an average width of 6 feet and an average depth of 3 feet. The stream was dry at the time of survey and appeared to be a tributary to Martin Lake. Stream SA005 was observed to be an intermittent stream with an average

width of 12 feet and an average depth of 4 feet. The stream was dry at the time of the survey and appeared to be a surface connection between High Lake and Martin Lake. Stream SA016 was observed to be an ephemeral stream with an average width of 3 feet and an average depth of 2 feet. The stream was dry at the time of the survey and appeared to be a tributary to High Lake. Streams SA001 and SA016 were classified as R4SBA, and SA005 was classified as R4SBC (Appendix B: Table B-4). Stream SA005 approximately aligns with a previously mapped resource in the NWI database (Section 3.1.1). Photo documentation of the surveyed streams is provided in Appendix D.

#### **3.2.5 Non-Wetland Areas**

During the field surveys, several areas that did not meet wetland determination criteria were recorded at desktop potential wetlands and waters locations. Wetland determination data forms were completed at all potential wetland and water locations. In agricultural areas, the non-wetland features were reviewed for wetland signatures in each of the aerial photographs from the following five years with normal antecedent precipitation: July 1, 2010 (USDA FSA APFO 2010), July 12, 2013 (USDA FSA APFO 2013), August 1, 2015 (USDA FSA APFO 2015), September 20, 2017 (USDA FSA APFO 2017), and August 19, 2019 (USDA FSA APFO 2019). Aerial photograph review is most effective in agricultural fields planted with annual row crops; therefore, aerial photograph review was not completed for uncultivated areas, most of which were wooded or unmanaged grassland. Locations of non-wetland sample points are included in Appendix A, Figure 4. Wetland determination data forms, reviewed historical aerial photographs with antecedent precipitation worksheets, and site visit photographs for non-wetland sample points are provided in Appendix E.

#### 3.2.5.1 Agricultural Non-Wetland Areas

During the field surveys 79 sample points that did not meet wetland determination criteria were recorded at 78 desktop potential wetlands and waters locations within agricultural areas. The 78 non-wetland features were reviewed for wetland signatures, and the results are summarized in Table E-1 in Appendix E.

Forty-four of the 78 areas exhibited a wetland signature in more than 50 percent of reviewed aerial photographs. However, field observations did not support a wetland determination at these locations. These areas are discussed in detail below.

Of the 44 areas that exhibited wetland signature in more than 50 percent of reviewed aerial photographs, 42 sample point locations within 41 potential desktop wetland areas did not meet hydric soil criteria, and therefore were determined to be non-wetland.

Soils were not observed at two sample point locations due to landscape position and absence of wetland hydrology indictors observed in the field. Sample point location NWA021A was observed to be on a 20 percent slope near the top of a hill and wetland hydrology was not observed. The air photo signature in some years was likely due to crops being washed out due to the steep slope. Therefore, the area was determined to be non-wetland. Sample point location NWA043A was observed to be a convex location on a slight rise along the edge of a field adjacent to a farmstead. Although the corn had been harvested prior to the field visit, it did not appear to have been stressed

based on stalk diameter and abundant leaf litter. Therefore, wetland hydrology and hydrophytic vegetation were not met, and the area was determined to be non-wetland.

At sample point location NWB103A, one hydric soil indicator (Thick Dark Surface [A12]) was assumed to be present due to presence of an overthickened A horizon; however, based on the presence of upland vegetation (smooth brome and *Setaria faberi* [Japanese bristle grass]) in the adjacent undisturbed ditch; best professional judgement was used to determine the area was non-wetland.

#### 3.2.5.2 Uncultivated Non-Wetland Areas

During the field surveys six sample points within five potential desktop wetland features that did not meet wetland determination criteria were recorded at desktop potential wetlands and waters locations within uncultivated areas.

Sample point NWA006A was documented on a steep slope (15 percent) approximately 10 feet above High Lake in the northwest part of the Survey Area. At the time of the survey, tree canopy vegetation at the sample point was dominated by ash-leaf maple (*Acer negundo*). The understory included eastern prickly gooseberry (*Ribes cynosbati*) and green ash (*Fraxinus pennsylvanica*). The remaining understory was observed to be dead or dormant. The hydrophytic vegetation criteria was met; however, no wetland hydrology indicators were documented at the sample point; therefore, NWA006A was determined to be non-wetland. Wetland vegetation dominated by cattails was observed at the base of the slope along the shore of High Lake, approximately 30 feet south of the sample point.

Sample points NWA022A and NWA022B were documented on a steep slope (20 percent) between 8 and 10 feet above High Lake in the northwestern part of the Survey Area. At the time of the survey, tree canopy vegetation at sample point NWA022A was dominated by green ash and ash-leaf maple. The understory included eastern prickly gooseberry and European buckthorn (*Rhamnus cathartica*). The remaining understory was observed to be dead or dormant. The hydrophytic vegetation criteria was met; however, no primary wetland hydrology indicators and only one secondary wetland hydrology indicator (FAC-neutral test [D5]) were documented at the sample point. Therefore, NWA0022A was determined to be non-wetland. At the time of the survey, tree canopy vegetation at sample point NWA022B was dominated by white oak (*Quercus alba*), American basswood (*Tilia americana*), and common hackberry (*Celtis occidentalis*). The remaining understory was observed to be dead or dormant. The hydrophytic vegetation criteria was not met, and no wetland hydrology indicators were documented at the sample point. Therefore, NWA0022B was determined to be non-wetland. Wetland vegetation dominated by cattails was observed at the base of the slope along the shore of High Lake, approximately 15 to 20 feet west of sample points NWA022B.

Sample point NWA024A was documented on a steep convex hillslope (15 percent) overlooking the valley containing documented stream SA005. At the time of the survey, tree canopy vegetation at sample point NWA024A was dominated by green ash and ash-leaf maple. The understory included eastern prickly gooseberry and smooth brome. The remaining understory was observed to be dead or dormant. The hydrophytic vegetation criteria was met; however, no wetland hydrology indicators were documented at the sample point. Therefore, NWA0024A was

determined to be non-wetland. Similar vegetation was observed throughout the entire wooded portion of the valley along SA005.

Sample point NWA036A was documented within a swale adjacent to an agricultural field. At the time of the survey, vegetation within the swale was dominated by smooth brome. The hydrophytic vegetation criteria was not met, and no primary wetland hydrology indicators and only one secondary wetland hydrology indicator (geomorphic position [D2]) was documented at the sample point. Therefore, sample point NWA036A was determined to be non-wetland.

Sample point NWA037A was documented within a ditch adjacent to an agricultural field and a road. At the time of the survey, vegetation within the ditch was dominated by smooth brome with a small amount (2 percent) of reed canary grass. The hydrophytic vegetation criteria was not met, and no primary wetland hydrology indicators and only one secondary wetland hydrology indicator (geomorphic position [D2]) was documented at the sample point. Therefore, sample point NWA037A was determined to be non-wetland.

# **3.3 REGULATORY REVIEW**

#### 3.3.1 U.S. Army Corps of Engineers

Each of the identified wetlands and waters in the Survey Area was reviewed for potential USACE jurisdiction and an initial jurisdictional determination was recommended. The USACE jurisdictional recommendations for each feature are depicted on Figure 5 (Appendix A) and are listed in Table B-1, B-2, B-3, and B-4 in Appendix B. Only the USACE can make the final determination on their regulatory jurisdiction of wetlands and waters.

The review of delineated wetlands and waters found that 5 of the 27 wetlands, 1 pond, 2 lakes, and 1 of the 3 streams may be considered WOTUS because they are relatively permanent waterbodies or are adjacent to a jurisdictional water. Therefore, these wetlands, pond, lakes, and stream would likely be subject to USACE regulatory jurisdiction under Section 404 of the CWA. The remaining 22 wetlands and 2 streams do not appear to meet the definition of WOTUS as they do not appear to be relatively permanent and are not adjacent to a jurisdictional water. Therefore, these wetlands and streams would not likely be subject to USACE regulatory jurisdiction under Section 404 of the CWA.

#### 3.3.2 Minnesota Wetland Conservation Act

The review of wetlands found that 25 of the 27 wetlands identified in the Survey Area are regulated under the WCA, and 3 of these wetlands (WA004, WA007, and WA045) are located at least partially within the approximate shoreland zone (i.e., within 1,000 feet of a public water basin or 300 feet of a public watercourse). Project activities affecting these wetlands would require approval from the LGU. The WCA jurisdictional recommendations for each feature are depicted on Figure 5 (Appendix A) and are listed in Table B-1, B-2, and B-3 in Appendix B.

Certain activities are exempt from the wetland replacement provisions of WCA. Tetra Tech reviewed the WCA de minimis exemption standards (MN Rules 8420.0420, Subp. 8) and found that up to 10,000 square-feet of Type 1, Type 2, Type 6, or Type 7 wetland outside of the shoreland zone may be permanently impacted by the Project to qualify for the de minimis exemption and would not require a replacement plan for wetlands. Within the shoreland

zone, the de minimis exemption for permanent impacts to Type 1, Type 2, Type 6, or Type 7 wetlands is reduced to 400 square feet. The de minimis exemption for permanent impacts to all Type 3, Type 5, or Type 8 wetlands and ponds is limited to 100 square-feet. The de minimis exemption amount is determined by considering all wetland impacts associated with a project. If the impacted wetlands have more than one de minimis amount, the exemption amount for the entire project is the smallest of the applicable thresholds. If the total project impacts associated with the project are subject to the replacement plan provisions of WCA (8420.0500 to 8420.0630).

#### **3.3.3 Minnesota Department of Natural Resources**

A review of the delineated wetlands and waters within the Survey Area against the PWI found 2 wetlands, 1 pond, and 2 lakes, may be public waters subject to the requirements of the DNR Public Waters Work Program. The MN DNR jurisdictional recommendations for each feature are depicted on Figure 5 (Appendix A) and are listed in Tables B-1, B-2, B-3, and B-4 in Appendix B.

Wetlands WA018 and WA019, and pond PA020 are located in the northwest portion of the Survey Area, adjacent to Lake Charlotte, which is a PWI public water basin, and County Ditch 72, which is a PWI public water watercourse. Lake LA029 is the Martin Lake public water basin located along the northwestern boundary of the Survey Area. Lake LA046 is the Lake Charlotte public water basin located along the west-central boundary of the Survey Area. A permit from the MN DNR may be required if the Project will impact or cross wetlands WA018 and WA019, pond PA020, or lakes LA029 and LA046.

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APPENDIX A: FIGURES 1 – 5



Source: Map adapted from USA Topo Maps Server and Project Data by Lake Charlotte Solar, LLC. Scale: 1:24,000





Source: Map adapted from NAIP Hybrid Server; Project Data by Lake Charlotte Solar, LLC; NWI by USFWS; NHD by USGS; Floodplains by FEMA; PWI by MN DNR; Desktop wetlands and waters by Tetra Tech. Scale: 1:16,000



| 15  |
|---|
|   |
| 44  |
| ches - ches   |
| 39  |
| 2   |
| $\sim$  |
|   |
| Fairmont  |
|   |
| Survey Area   |
| Desktop Potential Wetlands and  |
| Waters  |
| 100-year Floodplain (Lake<br>Charlotte only)                                |
| Approximate Shoreland Zone*   |
| NHD Classification  |
| Intermittent Stream   |
| Perennial Stream/River  |
| Canal/Ditch   |
| Artificial Path   |
| NHD Lake/Pond   |
| Public Waters Inventory   |
| Public Water Watercourse  |
| Public Water Basin  |
| NWI Wetlands  |
| Freshwater Emergent Wetland   |
| Freshwater Forested/Shrub<br>Wetland  |
| Freshwater Pond   |
| C Lake  |
| Riverine  |
| *300 feet from PWI watercourses and<br>1,000 feet from PWI basins/wetlands. |
| 0 0.25 Mile   |
| Figure 2  |
| <b>Desktop Wetlands</b>   |
| and Waters Mapping  |
|   |
| Lake Charlotte Solar<br>Martin County, Minnesota                            |
|   |
|   |
| TETRA TECH  |
|   |



Source: Map adapted from NAIP Hybrid Server; Project Data by Lake Charlotte Solar, LLC; gSSURGO by USDA. Scale: 1:16,000







Source: Map adapted from NAIP Hybrid Server; Project Data by Lake Charlotte Solar, LLC; gSSURGO by USDA. Scale: 1:6,500





Source: Map adapted from NAIP Hybrid Server; Project Data by Lake Charlotte Solar, LLC; gSSURGO by USDA. Scale: 1:6,500



| A1 Northrop<br>B2 B3<br>C3                                 |
|--|
| Survey Area  |
| Desktop Potential Wetlands and<br>Waters                   |
| Non-Wetland Sample Plot                                    |
| Delineated Wetlands and Waters                             |
| Surveyed Wetland   |
| Surveyed Pond  |
| <ul> <li>Surveyed Lake</li> <li>Surveyed Stream</li> </ul> |
|  |
| 0 250 500 750  |
| Figure 4 - A2<br>Wetlands and Waters<br>Survey Results     |
| Lake Charlotte Solar<br>Martin County, Minnesota           |
| TETRA TECH   |





Source: Map adapted from NAIP Hybrid Server; Project Data by Lake Charlotte Solar, LLC; gSSURGO by USDA. Scale: 1:6,500







| A1 A2 Northrop<br>B2 B3<br>C3                          |
|--|
| Survey Area  |
| Desktop Potential Wetlands and     Waters              |
| Non-Wetland Sample Plot                                |
| Delineated Wetlands and Waters                         |
| Surveyed Wetland                                       |
| Surveyed Pond  |
| Surveyed Lake  |
| Surveyed Stream  |
|  |
| 0 250 500 750  |
| Figure 4 - C3<br>Wetlands and Waters<br>Survey Results |
| Lake Charlotte Solar<br>Martin County, Minnesota       |
| TETRA TECH   |



Source: Map adapted from NAIP Hybrid Server; Project Data by Lake Charlotte Solar, LLC; Field Wetlands and Waters by Tetra Tech; Approximate Shoreland Zone by Tetra Tech based off MN DNR PWI. Scale: 1:16,000





APPENDIX B: SURVEYED WETLANDS AND WATERS

|               | Wetland           | Classification <sup>1</sup> | Total                       | Surveyed                              | Regulat | ory Jurisdic           | tion                  |
|---------------|-------------------|-----------------------------|-----------------------------|---------------------------------------|---------|------------------------|-----------------------|
| Wetland<br>ID | Circular<br>39    | Cowardin<br>Class           | Surveyed<br>Area<br>(acres) | Area within<br>Survey Area<br>(acres) | USACE   | MN<br>WCA <sup>2</sup> | MN<br>Public<br>Water |
| WA004         | Type 1            | PEMAx/PEMAf                 | 0.088                       | 0.088                                 | Yes     | Yes - SZ               | No                    |
| WA007         | Type 1            | PEMA                        | 0.123                       | 0.123                                 | Yes     | Yes - SZ               | No                    |
| WA018         | Type 6,<br>Type 1 | PSSA/ PEMA/<br>PFOA         | 0.343                       | 0.283                                 | Yes     | No                     | Yes                   |
| WA019         | Type 1            | PFOA/PEMA                   | 0.416                       | 0.353                                 | Yes     | No                     | Yes                   |
| WA045         | Type 1,<br>Type 6 | PEMA/PSSA                   | 1.393                       | 1.389                                 | Yes     | Yes - SZ               | No                    |
| WA051         | Type 1            | PEMAf/PEMAx                 | 0.202                       | 0.202                                 | No      | Yes                    | No                    |
| WA056         | Type 1,<br>Type 3 | PEMAx/PEMCx                 | 0.454                       | 0.065                                 | No      | Yes                    | No                    |
| WA057         | Type 1            | PEMAf/PEMAx                 | 0.432                       | 0.423                                 | No      | Yes                    | No                    |
| WB068         | Type 1            | PEMAf                       | 0.361                       | 0.361                                 | No      | Yes                    | No                    |
| WB069         | Type 1            | PEMAf                       | 0.253                       | 0.253                                 | No      | Yes                    | No                    |
| WB072         | Type 1            | PEMAx                       | 0.052                       | 0.052                                 | No      | Yes                    | No                    |
| WB073         | Type 1            | PEMAx                       | 0.197                       | 0.192                                 | No      | Yes                    | No                    |
| WB079         | Type 1            | PEMAf                       | 0.384                       | 0.384                                 | No      | Yes                    | No                    |
| WB080         | Type 1            | PEMAx                       | 0.444                       | 0.444                                 | No      | Yes                    | No                    |
| WB081         | Type 1            | PEMAx                       | 0.056                       | 0.056                                 | No      | Yes                    | No                    |
| WB084         | Type 1            | PEMAf                       | 0.159                       | 0.159                                 | No      | Yes                    | No                    |
| WB085         | Type 1            | PEMAf/PEMAx                 | 5.489                       | 5.489                                 | No      | Yes                    | No                    |
| WB087         | Type 1            | PEMAf                       | 2.974                       | 2.974                                 | No      | Yes                    | No                    |
| WB088         | Type 1            | PEMAf                       | 2.754                       | 2.754                                 | No      | Yes                    | No                    |
| WB089         | Type 1            | PEMAf                       | 0.698                       | 0.698                                 | No      | Yes                    | No                    |
| WB090         | Type 1            | PEMAf                       | 0.713                       | 0.713                                 | No      | Yes                    | No                    |
| WB092         | Type 1            | PEMAf                       | 0.063                       | 0.063                                 | No      | Yes                    | No                    |
| WB095         | Type 1            | PEMAf                       | 0.114                       | 0.114                                 | No      | Yes                    | No                    |
| WB096         | Type 1            | PEMAf                       | 0.062                       | 0.062                                 | No      | Yes                    | No                    |
| WB102         | Type 1            | PEMAf                       | 0.282                       | 0.282                                 | No      | Yes                    | No                    |
| WB105         | Type 1            | PEMAf                       | 0.278                       | 0.278                                 | No      | Yes                    | No                    |
| WB109         | Type 1            | PEMAf                       | 0.590                       | 0.590                                 | No      | Yes                    | No                    |

Table B-1: Surveyed Wetlands

 $<sup>^1</sup>$  See Appendix F for a key to the Circular 39 and Cowardin wetland classification system.  $^2$  "Yes – SZ" indicates wetland is within the approximate shoreland zone

| Wetland<br>ID | Wetland Cl  | assification <sup>3</sup> | Surveyed        | Regulatory Jurisdiction |         |                    |  |  |
|---------------|-------------|---------------------------|-----------------|-------------------------|---------|--------------------|--|--|
|               | Circular 39 | Cowardin<br>Class         | Area<br>(acres) | USACE                   | MN WCA⁴ | MN Public<br>Water |  |  |
| PA020         | Туре 5      | PUBGx                     | 0.217           | Yes                     | No      | Yes                |  |  |

#### Table B-3: Surveyed Lake

|            |                   |                   | Total                    | Surveyed                              | Regulatory Jurisdiction |           |                    |  |
|------------|-------------------|-------------------|--------------------------|---------------------------------------|-------------------------|-----------|--------------------|--|
| Lake<br>ID | Lake<br>Name      | Cowardin<br>Class | Surveyed<br>Area (acres) | Area within<br>Survey Area<br>(acres) | USACE<br>Jurisdiction   | MN<br>WCA | MN Public<br>Water |  |
| LA029      | Martin<br>Lake    | L2UBH             | 15.277                   | 0.683                                 | Yes                     | No        | Yes                |  |
| LA046      | Lake<br>Charlotte | L2UBH             | 35.650                   | 0.476                                 | Yes                     | No        | Yes                |  |

#### Table B-4: Surveyed Streams

| Stream<br>ID | Flow<br>Regime | Cowardin<br>Class <sup>1</sup> | Stream<br>Name | Average<br>Width<br>(feet) | Surveyed<br>Length<br>(feet) | Surveyed<br>Area<br>(acres) | Regulatory<br>Jurisdiction |                    |
|--------------|----------------|--------------------------------|----------------|----------------------------|------------------------------|-----------------------------|----------------------------|--------------------|
|              |                |                                |                |                            |                              |                             | USACE                      | MN Public<br>Water |
| SA001        | Ephemeral      | R4SBA                          |                | 6                          | 70                           | 0.007                       | No                         | No                 |
| SA005        | Intermittent   | R4SBC                          |                | 12                         | 870                          | 0.237                       | Yes                        | No                 |
| SA016        | Ephemeral      | R4SBA                          |                | 3                          | 47                           | 0.002                       | No                         | No                 |

 $<sup>^{\</sup>rm 3}$  See Appendix F for a key to the Circular 39 and Cowardin wetland classification system.

 $<sup>^4</sup>$  "Yes – SZ" indicates wetland is within the approximate shoreland zone

# APPENDIX C: WETLAND DETERMINATION DATA FORMS AND PHOTOGRAPHS
| Project/Site:         Lake Charlotte         City/County:         Marin         Sampling Date:         10/18/2022           Applicant/Owner:         Lake Charlotte         State:         NN         Sampling Date:         WMOAA           Investigator(s):         Apryl Jennich         Secton, Township, Range:         Sec.7 T103N R30W           Landform (hillstope, terrace, etc.):         Ditch         Local relief (concave, convex, rone):         Concave           Solid Map Unit Name:         Clarion-Swanlake complex, 2 to 6 percent slopes         NWI Classification:         NA           Are expetition         , soli         , or hydrology         Significantly disturbed?         Are 'mematics'           Are vegetation         , soli         , or hydrology         international constances present?         Yes           SUMMARY OF FINDINGS         Hydrophylic Vagetation Present?         Yes         If the sampled area within a wetland?         Yes           Hydrophylic Vagetation Present?         Yes         If yes, optional wetland site ID:         WA004           1  |                                       | WE            | TLAND D      | ETERN       | /INAT     | ION DATA      | FORM -        | Midwe       | st Region       |             |                |         |
|---|---------------------------------------|---------------|--------------|-------------|-----------|---------------|---------------|-------------|-----------------|-------------|----------------|---------|
| Investigator(s):       Apryl Jannich       Saction, Township, Range:       Sact.7 T103N R30W         Landform (fillslope, terrace, etc.):       Ditch       Local relif (concave, convex, none):       Concave         Soli Map Unit Name:       Clarion-Swantake complex, 21 6 percent slopes       NWI Classification:       NA         Are dimatichydologic conditions of the site typical for this time of the year?       Yes       (If no, explain in remarks.)         Are vegetation       _, soll       _, or hydrology       Significantly disturbed?       Are inormal circumstances present?       Yes         Are vegetation       _, soll       _, or hydrology       It yes, optional wetland site ID:       WA004         Remarks:       Absolute Dominant Indicator       Manota       Manota       Networksheet         Tree Stratum       (Plot size:       30       )       % Cover Species       Status         1.   | Project/Site:                         | Lake C        | Charlotte    |             | City      | County:       | Marti         | n           | Sampling D      | ate:        | 10/18/2022     | 2       |
| Landform (hillslope, terrace, etc.):       Dich       Local relief (concave, convex, none):       Concave         Stope (%):       5       Lat       43.73889       Long:       -94.46966       Detum:       WGS84         Sol Map Unit Newnake complex.       2 to percent stopes       WVI (Casefication:       NA         Are citinaticitydrologic conditions of the site typical for this time of the year?       Yes       (If needed, explain in remarks)         Are vagetation       , aoil       , or hydrology       Significantly disturbed?       Are "normal circumstances present?       Yes         Hydrophytic Vegetation Present?       Yes       Is the sampled area within a wetland?       Yes         Watland Hydrology Present?       Yes       If yes, optional wetland site ID:       WA004         Remarks:       Absolute Dominant       Indicator       Number of Dominant Species       1         1.  | Applicant/Owner:                      |               | Lake Cha     | rlotte Sola | ar, LLC   |               | State:        | MN          | Sampling P      | oint:       | WA004A         |         |
| Slope (%):         5         Lat:         43.73889         Long:         -94.46866         Datum:         WGS84           Solt Map Unit Name:         Clarion-Swanlake complex, 21 of percent slopes         NVII Classification:         NA           Are climatichydrologic conditions of the site typical for this time of the year?         Yess         (If no, explain in remarks)           Are vegetation         , soll         , or hydrology         institutional incumstances present?         Yes           Hydrophytic Vegetation Present?         Yes         Is the sampled area within a wetland?         Yes           Hydrophytic Vegetation Present?         Yes         If yes, optional wetland site ID:         WA004           VEGETATION Use scientific names of plants.         Dominance Test Worksheet         Number of Dominant Species         Trad Stratum         (Plot size:         30         )         % Cover Species         Status         Number of Dominant Species         Trad Number of Dominant Species         1         (A)           4.   | Investigator(s):                      |               | Apryl Jenn   | rich        |           | Sectio        | on, Townshi   | p, Range:   |                 | Sec.7 T1    | 03N R30W       |         |
| Soli Map Unit Name:       Clarion-Swanlake complex, 2 to 6 percent slopes       NWI Classification:       NA         Are elimatichydrologic conditions of the site typical for this time of the year?       Yes       (fine, explain in remarks)         Are vegetation       , soil       , or hydrology       Significantly disturbed?       Are 'normal circumstances present?       Yes         Are vegetation       , soil       , or hydrology       Is the sampled area within a wetland?       Yes         Hydrophytic Vegetation Present?       Yes       Is the sampled area within a wetland?       Yes         Hydrophytic Vegetation Present?       Yes       If yes, optional wetland site ID:       WA004         Remarks:       Absolute Dominant       Indicator       Dominance Test Worksheet         Number of Dominant Species       Number of Dominant Species       Number of Dominant Species       Number of Dominant Species         1.   | Landform (hillslope, ter              | race, etc.):  |              | Ditch       |           | Local r       | elief (conca  | ve, conve   | x, none):       |             | Concave        |         |
| Are climatichydrologic conditions of the site typical for this time of the year?       Yes       (If no, explain in remarks)         Are vegetation       , soil       , or hydrology       Significantly disturbed?       Are "normal circumstances present?       Yes         Are vegetation       , soil       , or hydrology  | Slope (%): 5                          | Lat:          | 43.          | 73889       |           | Long:         | -94.469       | 966         | Datum:          |             | WGS84          |         |
| Are vegetation  | Soil Map Unit Name:                   | Clarion-S     | wanlake co   | mplex, 2    | to 6 per  | cent slopes   | NW            | I Classific | cation:         |             | NA             |         |
| Are vegetation       , soil       , or hydrology       naturally problematic?       (If needed, explain any answers in remarks.)         SUMMARY OF FINDINGS       Hydrophytic Vegetation Present?       Yes       Is the sampled area within a wetland?       Yes         Hydrophytic Vegetation Present?       Yes       If yes, optional wetland site ID:       WA004         Remarks:       VEGETATION Use scientific names of plants.       Dominance Test Worksheet       Number of Dominant Species         1.   | Are climatic/hydrologic               | conditions of | the site typ | ical for th | is time o | of the year?  | Yes (         | lf no, expl | lain in remarl  | ks)         |                |         |
| SUMMARY OF FINDINGS         Hydrophytic Vegetation Present?       Yes         Hydrophytic Vegetation Present?       Yes         Wetland Hydrology Present?       Yes         If yes, optional wetland site ID:       WA004         Remarks:       Absolute Dominant Indicator         Image: Stratum       (Plot size: 30 )       % Cover Species Status         1.   | Are vegetation                        | , soil        | , or hyd     | Irology     |           | Significantly | disturbed?    | Are '       | "normal circu   | mstances    | present?       | Yes     |
| Hydrophytic Vegetation Present?       Yes       Is the sampled area within a wetland?       Yes         Hydrophytic Vegetation Present?       Yes       If yes, optional wetland site ID:       WA004         Remarks:       Wetland Hydrology Present?       Yes       If yes, optional wetland site ID:       WA004         VEGETATION Use scientific names of plants.       Dominance Test Worksheet       Number of Dominant Species       Number of Dominant Species         1.       .       .       .       .       .       .         2.       .       .       .       .       .       .         3.       .       .       .       .       .       .       .         3.       .       .       .       .       .       .       .       .         3.       . </td <td>Are vegetation</td> <td>, soil</td> <td>, or hyd</td> <td>Irology</td> <td></td> <td>naturally pro</td> <td>blematic?</td> <td>(lf ne</td> <td>eeded, expla</td> <td>ain any an</td> <td>swers in rem</td> <td>narks.)</td> | Are vegetation                        | , soil        | , or hyd     | Irology     |           | naturally pro | blematic?     | (lf ne      | eeded, expla    | ain any an  | swers in rem   | narks.) |
| Hydric Soil Present?       Yes       Is the sampled area within a wetland?       Yes         Wetland Hydrology Present?       Yes       If yes, optional wetland site ID:       WA004         Remarks:       Absolute Dominant       Indicator       Dominance Test Worksheet         Tree Stratum       (Plot size: 30 )       % Cover       Species       Status         1.   | SUMMARY OF FI                         | NDINGS        |              |             |           |               |               |             |                 |             |                |         |
| Wetland Hydrology Present?       Yes       If yes, optional wetland site ID:       WA004         Remarks:       Absolute Dominant Indicator       Dominance Test Worksheet         Tree Stratum       (Plot size: 30 )       % Cover Species       Status         1.  | Hydrophytic Vege                      | tation Preser | nt? _        | Yes         |           |               |               |             |                 |             |                |         |
| Remarks:         VEGETATION Use scientific names of plants.         Tree Stratum       (Plot size:30)       % Cover       Species       Status         1  | Hydric Soil Preser                    | nt?           | _            | Yes         |           | Is the sa     | ampled area   | a within a  | wetland?        |             | Yes            |         |
| VEGETATION Use scientific names of plants.           Absolute Dominant         Indicator           Tree Stratum         (Plot size:30)         % Cover Species         Status           1.  | Wetland Hydrology Present?            |               | _            | Yes         |           | lf yes, op    | otional wetla | nd site ID  | ):              | WA004       |                |         |
| Absolute Dominant       Indicator       Dominance Test Worksheet         I  | Remarks:                              |               |              |             |           |               |               |             |                 |             |                |         |
| Absolute Dominant       Indicator       Dominance Test Worksheet         1.   |                                       |               |              |             |           |               |               |             |                 |             |                |         |
| Absolute Dominant       Indicator       Dominance Test Worksheet         I  |                                       |               |              |             |           |               |               |             |                 |             |                |         |
| Tree Stratum       (Plot size:30)       % Cover       Species       Status         1.   | VEGETATION U                          | Jse scienti   | fic names    | s of plar   | nts.      |               |               |             |                 |             |                |         |
| 1.  |                                       |               |              | A           | bsolute   | Dominant      | Indicator     | Domi        | nance Test      | Workshee    | et             |         |
| 1.       that are OBL, FACW, or FAC:       1       (A)         2.       Total Number of Dominant       Species Across All Strata:       1       (B)         4.       Species Across All Strata:       1       (B)         5.  | Tree Stratum                          | (Plot size:   | 30           | ) %         | 6 Cover   | Species       | Status        | Numb        | er of Dominar   | nt Species  |                |         |
| 3.       Total Number of Dominant Species Across All Strata:       1       (B)         4.       Percent of Dominant Species that are OBL, FACW, or FAC:       100% (A/B)         5.   |                                       |               |              |             |           |               |               |             |                 |             | <u> </u>       | 4)      |
| 4.       CPCode Notada       CPC (A/B)         5.   |                                       |               |              |             |           |               |               |             |                 |             |                |         |
| 5.  | · · · · · · · · · · · · · · · · · · · |               |              |             |           |               |               | Specie      | es Across All S | Strata:     | (t             | 3)      |
|   |                                       |               |              |             |           |               |               |             |                 |             | 100% (A        | /B)     |
| 1.       Total % Cover of:       Multiply by:         2.       OBL species       0       x 1 =       0         3.       FACW species       99       x 2 =       198         4.       FAC species       0       x 3 =       0         5.   |                                       |               |              |             |           | =Total Cove   | r             |             | e odl, i Aov    | v, or i AC. |                | _)      |
| 2.       OBL species       0       x1 =       0         3.       FACW species       99       x2 =       198         4.       FAC species       0       x3 =       0         5.       FACU species       0       x4 =       0         UPL species       0       x5 =       0         Column totals       99       Y       FACW         Prevalence Index = B/A =       2         3.       Hydrophytic Vegetation Indicators:         4.       X       Rapid test for hydrophytic vegetation         5.       Ominance test is >50%         6.       Prevalence index is <3.0*   | Sapling/Shrub Stratum                 | n (Plot size  | : 15         | )           |           | •             |               | Preva       | alence Index    | Workshe     | et             |         |
| 3.       FACW species       99       x 2 =       198         4.       FAC species       0       x 3 =       0         5.  | 1.                                    |               |              |             |           |               |               | Total       | % Cover of:     | I           | Multiply by:   |         |
| 4.       FAC species       0       x 3 =       0         5.   | 2.                                    |               |              |             |           |               |               | OBL         | species         | 0 x 1       | = 0            | _       |
| 5.  | 3                                     |               |              |             |           |               |               | FAC         | N species       | 99 x 2      | = 198          | -       |
| Herb Stratum       (Plot size: 5 )       5 )       Column totals 99 (A) 198 (B)         1. Phalaris arundinacea       99 Y FACW       Prevalence Index = B/A = 2         3.       Hydrophytic Vegetation Indicators:         4.       X Rapid test for hydrophytic vegetation         5.       Ominance test is >50%         6.       Prevalence index is \$3.0*         7.       Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)         9.       Problematic hydrophytic vegetation*         99 = Total Cover       (explain)         *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  | 4                                     |               |              |             |           |               |               |             |                 |             | -              | -       |
| Herb Stratum       (Plot size: 5 )         1. Phalaris arundinacea       99 Y         2.          3.          4.          5.          6.          7.          8.          9.          10.          99 = Total Cover          99 = Total Cover          Yoody Vine Stratum       (Plot size: 15 )         1.   | 5                                     |               |              |             |           |               |               |             | ·               |             | -              | -       |
| 1. Phalaris arundinacea       99       Y       FACW       Prevalence Index = B/A =2         2.  | Line Oteration                        |               | -            | 、 —         |           | = I otal Cove | r             |             | ' -             |             |                |         |
| 2.  |                                       |               | . 5          | )           | 00        | X             |               |             | -               | ``          | ·              | (B)     |
| 3.       Hydrophytic Vegetation Indicators:         4.       X       Rapid test for hydrophytic vegetation         5.       X       Dominance test is >50%         6.       Prevalence index is ≤3.0*         7.       Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)         9.       Problematic hydrophytic vegetation*         99       =Total Cover       (explain)         *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic  |                                       | cea           |              |             | 99        | ř             | FACW          | Preva       | alence Index    | = B/A = _   | Z              | -       |
| 4.       X       Rapid test for hydrophytic vegetation         5.       X       Dominance test is >50%         6.       Prevalence index is ≤3.0*         7.       Morphological adaptations* (provide supporting data in Remarks or on a         9.       separate sheet)         10.       Problematic hydrophytic vegetation*         99       =Total Cover         Woody Vine Stratum       (Plot size:15)         1.       *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic   |                                       |               |              |             |           |               |               | Hydr        | onhytic Vea     | etation In  | dicators       |         |
| 5.       X       Dominance test is >50%         6.       Prevalence index is <3.0*  | 4.                                    |               |              |             |           |               |               |             |                 |             |                | n       |
| 6.  | 5.                                    |               |              |             |           |               |               |             |                 | • •         |                |         |
| 7.       Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)         9.       Problematic hydrophytic vegetation*         10.       99 =Total Cover         Woody Vine Stratum       (Plot size: 15 )         1.       *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic   | 6                                     |               |              |             |           |               |               |             | Prevalence      | index is ≤3 | 3.0*           |         |
| 9.  | 7                                     |               |              |             |           |               |               |             | Morphologic     | al adaptat  | ions* (provide | e       |
| 10.       Problematic hydrophytic vegetation*         99       =Total Cover   | 8                                     |               |              |             |           |               |               |             | supporting c    | lata in Rer | marks or on a  |         |
| 99     =Total Cover   | · · · · · · · · · · · · · · · · · · · |               |              |             |           |               |               |             |                 | ,           |                |         |
| Woody Vine Stratum     (Plot size: 15 )     *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic   | 10                                    |               |              |             |           |               |               | _           |                 | hydrophy    | tic vegetation | *       |
| 1 present, unless disturbed or problematic  | Maadu Maa Otasta                      |               |              | `           | 99        | = I otal Cove | ſ             |             | ,               |             |                |         |
|   |                                       |               |              | )           |           |               |               |             |                 |             |                | nust be |
| =Total Cover Vegetation   | 2                                     |               |              |             |           | =Total Cove   | r             | Ve          | getation        | Var         |                |         |
| Remarks: (Include photo numbers here or on a separate sheet)  | Remarks: (Include phot                | numbere b     |              | senarato    | shaat)    |               |               |             |                 | 165         |                |         |
|   |                                       |               |              | Separate    | JICCI     |               |               |             |                 |             |                |         |
| Bare ground: 0%   | Bare ground: 0%                       |               |              |             |           |               |               |             |                 |             |                |         |

WA004A

| Depth<br>(Inches)  |   |  |   |   |   |   | or confirm the absence   | or mulcators.)  |  |  |  |  |  |  |  |
|--|---|--|---|---|---|---|--|---|--|--|--|--|--|--|--|
|  | Matrix  |  | Re  | dox Feat  | tures   |   |  |   |  |  |  |  |  |  |  |
| (Inches)   | Color (moist)   | %  | Color (moist)                             | %   | Type*   | Loc**   | Texture  | Remarks   |  |  |  |  |  |  |  |
| . ,  |   | 70   |   | 70  | . ) p o   | 200   |  |   |  |  |  |  |  |  |  |
|  |   |  |   |   |   |   |  |   |  |  |  |  |  |  |  |
|  |   |  |   |   |   |   |  |   |  |  |  |  |  |  |  |
|  |   |  |   |   |   |   |  |   |  |  |  |  |  |  |  |
| . <u></u>  |   |  |   |   |   |   |  |   |  |  |  |  |  |  |  |
|  |   |  |   |   |   |   |  |   |  |  |  |  |  |  |  |
|  |   |  |   |   |   |   |  |   |  |  |  |  |  |  |  |
|  |   |  |   |   |   |   |  |   |  |  |  |  |  |  |  |
|  |   |  |   |   |   |   |  |   |  |  |  |  |  |  |  |
|  |   |  |   |   |   |   |  |   |  |  |  |  |  |  |  |
|  |   |  |   |   |   |   |  |   |  |  |  |  |  |  |  |
| *Type: C =   | Concentration, D  | = Deple  | tion, RM = Redu                           | iced Mati   | rix, MS =   | Masked S  | Sand Grains. **Location  | on: PL = Pore Lining, M = Matrix  |  |  |  |  |  |  |  |
| Hydric Soil  | Indicators:   |  |   |   |   |   | Indicators for Proble  | ematic Hydric Soils*:   |  |  |  |  |  |  |  |
| His  | stosol (A1)   |  | Sa  | ndy Gley  | ed Matrix   | (S4)  | Coast Prairie Re   | dox (A16) (LRR K, L, R)   |  |  |  |  |  |  |  |
| His  | stic Epipedon (A2)  |  | Sa  | ndy Redo  | ox (S5)   |   | Dark Surface (S  | 7) (LRR K, L)   |  |  |  |  |  |  |  |
| Bla  | ack Histic (A3)   |  | Str                                       | ipped Ma  | atrix (S6)  |   | Iron-Manganese   | Masses (F12) (LRR K, L, R)  |  |  |  |  |  |  |  |
| Hy   | drogen Sulfide (A   | 4)   | Loa                                       | amy Muc   | ky Minera   | l (F1)  | Very Shallow Da  | rk Surface (TF12)   |  |  |  |  |  |  |  |
|  | ratified Layers (A5   |  |   | •   | ed Matrix   | . ,   | X Other (explain in  | . ,   |  |  |  |  |  |  |  |
|  | cm Muck (A10)   |  |   |   | atrix (F3)  | . ,   |  | ,   |  |  |  |  |  |  |  |
|  | pleted Below Dark   | Surfac   |   |   | Surface   | (F6)  |  |   |  |  |  |  |  |  |  |
|  | ick Dark Surface (  |  | · · · —                                   |   | ark Surfac  |   |  |   |  |  |  |  |  |  |  |
|  | indy Mucky Minera   | ,  |   |   | essions (   |   | <i>, , , ,</i>   | nytic vegetation and wetland esent, unless disturbed or   |  |  |  |  |  |  |  |
|  |   |  |   | uox Depi  | 65510115 (  | го)   | problematic  | esent, unless disturbed of  |  |  |  |  |  |  |  |
| 50   | cm Mucky Peat or  | Peat (5.   | 3)  |   |   |   | •  |   |  |  |  |  |  |  |  |
| Restrictive La   | ayer (if observed   | ):   |   |   |   |   |  |   |  |  |  |  |  |  |  |
| Туре:  |   |  |   |   | -   |   | Hydric Soil Preser   | t? Yes  |  |  |  |  |  |  |  |
| Depth (inches  | s):   |  |   |   | _   |   |  |   |  |  |  |  |  |  |  |
|  | eraround utility cor  | oflict Hy  | rdric soils assum                         | ed  |   |   | Remarks:   |   |  |  |  |  |  |  |  |
| Potential underground utility conflict. Hydric soils assumed.  |   |  |   |   |   |   |  |   |  |  |  |  |  |  |  |
|  | <b>0</b> Y  |  |   |   |   |   |  |   |  |  |  |  |  |  |  |
| HYDROLO  |   |  |   |   |   |   |  |   |  |  |  |  |  |  |  |
| Wetland Hyd  | rology Indicators   |  |   |   |   |   |  |   |  |  |  |  |  |  |  |
| Wetland Hyd  | rology Indicators<br>ators (minimum of  |  | equired; check a                          |   | <del></del>   |   |  | ators (minimum of two required)   |  |  |  |  |  |  |  |
| Wetland Hyd  | rology Indicators   |  | equired; check a                          |   | <u>ply)</u><br>Fauna (B   | 13)   |  | ators (minimum of two required)<br>Soil Cracks (B6)   |  |  |  |  |  |  |  |
| Wetland Hyd<br>Primary Indica<br>Surface   | rology Indicators<br>ators (minimum of  |  | equired; check a                          | Aquatic   | <del></del>   |   | Surface  |   |  |  |  |  |  |  |  |
| Wetland Hyd<br>Primary Indica<br>Surface<br>High W   | <b>rology Indicators</b><br>ators (minimum of<br>e Water (A1)   |  | equired; check a                          | Aquatic<br>True Aq  | Fauna (B  | nts (B14)   | Surface<br>Drainage  | Soil Cracks (B6)  |  |  |  |  |  |  |  |
| Wetland Hyd<br>Primary Indica<br>Surface<br>High W<br>Saturat  | <b>Irology Indicators</b><br>ators (minimum of<br>e Water (A1)<br>Vater Table (A2)  |  | equired; check a                          | Aquatic<br>True Aq<br>Hydroge   | Fauna (B<br>uatic Plar  | nts (B14)<br>Odor (C  | Surface<br>Drainag<br>1)Dry-Sea  | Soil Cracks (B6)<br>e Patterns (B10)  |  |  |  |  |  |  |  |
| Wetland Hyd<br>Primary Indica<br>Surface<br>High W<br>Satural<br>Water   | <b>Irology Indicators</b><br><u>ators (minimum of</u><br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)  |  | equired; check a<br><br>                  | Aquatic<br>True Aq<br>Hydroge   | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp   | nts (B14)<br>Odor (C  | Surface<br>Drainage<br>1) Dry-Sea<br>Living Crayfish   | Soil Cracks (B6)<br>e Patterns (B10)<br>son Water Table (C2)  |  |  |  |  |  |  |  |
| Wetland Hyd<br>Primary Indica<br>Surface<br>High W<br>Saturat<br>Water I<br>Sedime   | rology Indicators<br>ators (minimum of<br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)   |  | equired; check a<br><br>                  | Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (0   | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp   | nts (B14)<br>Odor (C<br>heres on  | Surface<br>Drainage<br>1) Dry-Sea<br>Living Crayfish<br>Saturatio  | Soil Cracks (B6)<br>e Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)  |  |  |  |  |  |  |  |
| Wetland Hyd<br>Primary Indica<br>Surfaca<br>High W<br>Saturat<br>Water I<br>Sedime<br>Drift De   | rology Indicators<br>ators (minimum of<br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)  |  | equired; check a                          | Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (0<br>Presenc  | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)<br>ce of Redu  | nts (B14)<br>Odor (C<br>heres on<br>uced Iron   | 1) Surface<br>Drainage<br>Dry-Sea<br>Living Crayfish<br>Saturation<br>(C4) Stunted                                     | Soil Cracks (B6)<br>e Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>on Visible on Aerial Imagery (C9)   |  |  |  |  |  |  |  |
| Wetland Hyd<br>Primary Indica<br>Surface<br>High W<br>Saturat<br>Water I<br>Sedime<br>Drift De<br>Algal M  | rology Indicators<br>ators (minimum of<br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)  |  | equired; check a                          | Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (0<br>Presenc  | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)<br>ce of Redu  | nts (B14)<br>Odor (C<br>heres on<br>uced Iron   | 1) Surface<br>Drainage<br>Dry-Sea<br>Living Crayfish<br>Saturate<br>(C4) Stunted<br>Filled Soils X Geomor              | Soil Cracks (B6)<br>e Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>on Visible on Aerial Imagery (C9)<br>or Stressed Plants (D1)  |  |  |  |  |  |  |  |
| Wetland Hyd<br>Primary Indica<br>Surface<br>High W<br>Saturat<br>Water I<br>Sedime<br>Drift De<br>Algal M<br>Iron De   | rology Indicators<br>ators (minimum of<br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Vat or Crust (B4)   | <u>one is r</u>                                  |   | Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc<br>Recent<br>(C6)                              | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)<br>ce of Redu  | nts (B14)<br>Odor (C<br>heres on<br>uced Iron<br>uction in T  | 1) Surface<br>Drainage<br>Dry-Sea<br>Living Crayfish<br>Saturate<br>(C4) Stunted<br>Filled Soils X Geomor              | Soil Cracks (B6)<br>e Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>on Visible on Aerial Imagery (C9)<br>or Stressed Plants (D1)<br>phic Position (D2)                                    |  |  |  |  |  |  |  |
| Wetland Hyd<br>Primary Indica<br>Surface<br>High W<br>Satural<br>Water I<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Inunda   | rology Indicators<br>ators (minimum of<br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Mat or Crust (B4)<br>eposits (B5)   | one is r<br>rial Imaç                            | Jery (B7)                                 | Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presend<br>(C6)<br>Thin Mu                             | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)<br>ce of Redu<br>Iron Redu   | nts (B14)<br>Odor (C<br>heres on<br>uced Iron<br>uction in T<br>ee (C7)   | 1) Surface<br>Drainage<br>Dry-Sea<br>Living Crayfish<br>Saturate<br>(C4) Stunted<br>Filled Soils X Geomor              | Soil Cracks (B6)<br>e Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>on Visible on Aerial Imagery (C9)<br>or Stressed Plants (D1)<br>phic Position (D2)                                    |  |  |  |  |  |  |  |
| Wetland Hyd<br>Primary Indica<br>Surface<br>High W<br>Satural<br>Water I<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Inunda   | rology Indicators<br>ators (minimum of<br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Vat or Crust (B4)<br>eposits (B5)<br>tion Visible on Ae   | one is r<br>rial Imag<br>cave Su                 | Jery (B7)                                 | Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc<br>Recent<br>(C6)<br>Thin Mu<br>Gauge C        | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)<br>ce of Redu<br>Iron Redu   | nts (B14)<br>Odor (C<br>heres on<br>uced Iron<br>action in T<br>he (C7)<br>ata (D9)                                 | 1) Surface<br>Drainage<br>1) Dry-Sea<br>Crayfish<br>Saturatie<br>(C4) Stunted<br>Filled Soils X Geomor<br>X FAC-Ne     | Soil Cracks (B6)<br>e Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>on Visible on Aerial Imagery (C9)<br>or Stressed Plants (D1)<br>phic Position (D2)                                    |  |  |  |  |  |  |  |
| Wetland Hyd<br>Primary Indica<br>Surface<br>High W<br>Satural<br>Water I<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Inunda   | rology Indicators<br>ators (minimum of<br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Mat or Crust (B4)<br>eposits (B5)<br>tion Visible on Aer<br>ely Vegetated Com-<br>Stained Leaves (B   | one is r<br>rial Imag<br>cave Su                 | Jery (B7)                                 | Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc<br>Recent<br>(C6)<br>Thin Mu<br>Gauge C        | Fauna (B<br>Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)<br>ce of Redu<br>Iron Redu<br>nck Surfac   | nts (B14)<br>Odor (C<br>heres on<br>uced Iron<br>action in T<br>e (C7)<br>ata (D9)                                  | 1) Surface<br>Drainage<br>Dry-Sea<br>Living Crayfish<br>Saturatio<br>(C4) Stunted<br>Filled Soils X Geomor<br>X FAC-Ne | Soil Cracks (B6)<br>e Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>on Visible on Aerial Imagery (C9)<br>or Stressed Plants (D1)<br>phic Position (D2)                                    |  |  |  |  |  |  |  |
| Wetland Hyd<br>Primary Indica<br>Surface<br>High W<br>Saturat<br>Water I<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Inunda<br>Sparse<br>Water-   | rology Indicators<br>ators (minimum of<br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Mat or Crust (B4)<br>eposits (B5)<br>tion Visible on Aer<br>ely Vegetated Com-<br>Stained Leaves (E<br>rations:   | one is r<br>rial Imag<br>cave Su                 | Jery (B7)                                 | Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc<br>Recent<br>(C6)<br>Thin Mu<br>Gauge C        | Fauna (B<br>Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)<br>ce of Redu<br>Iron Redu<br>nck Surfac   | nts (B14)<br>Odor (C<br>heres on<br>uced Iron<br>iction in T<br>e (C7)<br>ata (D9)<br>Remarks                       | Surface<br>Surface<br>Drainage<br>Dry-Sea<br>Crayfish<br>Saturation<br>(C4)<br>Filled Soils<br>X Geomor<br>X FAC-Ne    | Soil Cracks (B6)<br>e Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>on Visible on Aerial Imagery (C9)<br>or Stressed Plants (D1)<br>phic Position (D2)<br>utral Test (D5)                 |  |  |  |  |  |  |  |
| Wetland Hyd         Primary Indica         Surface         High W         Saturat         Water I         Sedime         Drift De         Algal M         Iron De         Inunda         Sparse         Water-                           | rology Indicators<br>ators (minimum of<br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Mat or Crust (B4)<br>eposits (B5)<br>tion Visible on Aer<br>ely Vegetated Com-<br>Stained Leaves (E<br>ations:<br>rr Present?   | one is r<br>rial Imaç<br>cave Su<br>39)          | gery (B7)                                 | Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc<br>(C6)<br>Thin Mu<br>Gauge C<br>Other (E      | Fauna (B<br>Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)<br>ce of Redu<br>Iron Redu<br>Iron Redu<br>ck Surfac<br>or Well Da   | nts (B14)<br>Odor (C<br>heres on<br>uced Iron<br>uction in T<br>e (C7)<br>ata (D9)<br>Remarks                       | Surface<br>Surface<br>Drainage<br>Dry-Sea<br>Crayfish<br>Saturation<br>(C4)<br>Filled Soils<br>X Geomor<br>X FAC-Ne    | Soil Cracks (B6)<br>Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>on Visible on Aerial Imagery (C9)<br>or Stressed Plants (D1)<br>phic Position (D2)<br>utral Test (D5)<br>Patternet (D5) |  |  |  |  |  |  |  |
| Wetland Hyd<br>Primary Indica<br>Surface<br>High W<br>Saturat<br>Water I<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Inunda<br>Sparse<br>Water-<br>Surface Wate   | rology Indicators<br>ators (minimum of<br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Mat or Crust (B4)<br>eposits (B5)<br>tition Visible on Aer<br>ely Vegetated Com<br>Stained Leaves (E<br>ations:<br>rr Present?  | one is r<br>rial Imag<br>cave Su<br>39)<br>Yes   | Jery (B7)<br>rface (B8)<br>No             | Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc<br>(C6)<br>Thin Mu<br>Gauge C<br>Other (E      | Fauna (B<br>Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>23)<br>ce of Redu<br>Iron Redu<br>iron Redu<br>ck Surfac<br>or Well Da<br>Explain in                             | hts (B14)<br>Odor (C<br>heres on<br>uced Iron<br>uction in T<br>e (C7)<br>ata (D9)<br>Remarks<br>nches):            | Surface<br>Surface<br>Drainage<br>Dry-Sea<br>Crayfish<br>Saturation<br>(C4)<br>Filled Soils<br>X Geomor<br>X FAC-Ne    | Soil Cracks (B6)<br>e Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>on Visible on Aerial Imagery (C9)<br>or Stressed Plants (D1)<br>phic Position (D2)<br>utral Test (D5)                 |  |  |  |  |  |  |  |
| Wetland Hyd<br>Primary Indica<br>Surface<br>High W<br>Saturat<br>Water I<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Inunda<br>Sparse<br>Water-<br>Field Observ<br>Surface Wate   | rology Indicators<br>ators (minimum of<br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Mat or Crust (B4)<br>eposits (B5)<br>tion Visible on Aer<br>ely Vegetated Com<br>Stained Leaves (E<br>rations:<br>or Present?<br>Present?                             | rial Imag<br>cave Su<br>39)<br>Yes<br>Yes        | gery (B7)<br>rface (B8)<br>No<br>No       | Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc<br>(C6)<br>Thin Mu<br>Gauge C<br>Other (E      | Fauna (B<br>Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>23)<br>ce of Redu<br>iron Redu<br>ck Surfac<br>or Well Da<br>Explain in<br>Depth (in<br>Depth (in                | hts (B14)<br>Odor (C<br>heres on<br>uced Iron<br>uction in T<br>e (C7)<br>ata (D9)<br>Remarks<br>nches):            | Surface<br>Surface<br>Drainage<br>Dry-Sea<br>Crayfish<br>Saturation<br>(C4)<br>Filled Soils<br>X Geomor<br>X FAC-Ne    | Soil Cracks (B6)<br>e Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>on Visible on Aerial Imagery (C9)<br>or Stressed Plants (D1)<br>phic Position (D2)<br>utral Test (D5)                 |  |  |  |  |  |  |  |
| Wetland Hyd<br>Primary Indica<br>Surface<br>High W<br>Saturat<br>Water I<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Inunda<br>Sparse<br>Water-<br>Field Observ.<br>Surface Wate<br>Water Table F<br>Saturation Pre<br>(includes capi | rology Indicators<br>ators (minimum of<br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Aat or Crust (B4)<br>eposits (B5)<br>tion Visible on Aer<br>ely Vegetated Con-<br>Stained Leaves (E<br>ations:<br>rr Present?<br>essent?<br>essent?<br>illary fringe) | rial Imag<br>cave Su<br>39)<br>Yes<br>Yes<br>Yes | gery (B7)<br>rface (B8)<br>No<br>No<br>No | Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots ((<br>Presenc<br>(C6)<br>Thin Mu<br>Gauge C<br>Other (E<br>X | Fauna (B<br>Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)<br>ce of Redu<br>iron Redu<br>iron Redu<br>iron Redu<br>iron Well Da<br>Explain in<br>Depth (in<br>Depth (in | nts (B14)<br>Odor (C<br>heres on<br>uced Iron<br>uction in 1<br>e (C7)<br>ata (D9)<br>Remarks<br>nches):<br>nches): | Surface<br>Surface<br>Drainage<br>Dry-Sea<br>Crayfish<br>Saturation<br>(C4)<br>Filled Soils<br>X Geomor<br>X FAC-Ne    | Soil Cracks (B6)<br>e Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>on Visible on Aerial Imagery (C9)<br>or Stressed Plants (D1)<br>phic Position (D2)<br>utral Test (D5)                 |  |  |  |  |  |  |  |
| Wetland Hyd<br>Primary Indica<br>Surface<br>High W<br>Saturat<br>Water I<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Inunda<br>Sparse<br>Water-<br>Field Observ.<br>Surface Wate<br>Water Table F<br>Saturation Pre<br>(includes capi | rology Indicators<br>ators (minimum of<br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Aat or Crust (B4)<br>eposits (B5)<br>tion Visible on Aer<br>ely Vegetated Con-<br>Stained Leaves (E<br>ations:<br>rr Present?<br>essent?<br>essent?<br>illary fringe) | rial Imag<br>cave Su<br>39)<br>Yes<br>Yes<br>Yes | gery (B7)<br>rface (B8)<br>No<br>No<br>No | Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots ((<br>Presenc<br>(C6)<br>Thin Mu<br>Gauge C<br>Other (E<br>X | Fauna (B<br>Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)<br>ce of Redu<br>iron Redu<br>iron Redu<br>iron Redu<br>iron Well Da<br>Explain in<br>Depth (in<br>Depth (in | nts (B14)<br>Odor (C<br>heres on<br>uced Iron<br>uction in 1<br>e (C7)<br>ata (D9)<br>Remarks<br>nches):<br>nches): | S) Surface Surface Surface Crainage Crayfish Saturation CC4) Stunted Siled Soils X FAC-Ne Sile We                      | Soil Cracks (B6)<br>e Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>on Visible on Aerial Imagery (C9)<br>or Stressed Plants (D1)<br>phic Position (D2)<br>utral Test (D5)                 |  |  |  |  |  |  |  |
| Wetland Hyd<br>Primary Indica<br>Surface<br>High W<br>Saturat<br>Water I<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Inunda<br>Sparse<br>Water-<br>Field Observ.<br>Surface Wate<br>Water Table F<br>Saturation Pre<br>(includes capi | rology Indicators<br>ators (minimum of<br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Aat or Crust (B4)<br>eposits (B5)<br>tion Visible on Aer<br>ely Vegetated Con-<br>Stained Leaves (E<br>ations:<br>rr Present?<br>essent?<br>essent?<br>illary fringe) | rial Imag<br>cave Su<br>39)<br>Yes<br>Yes<br>Yes | gery (B7)<br>rface (B8)<br>No<br>No<br>No | Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots ((<br>Presenc<br>(C6)<br>Thin Mu<br>Gauge C<br>Other (E<br>X | Fauna (B<br>Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)<br>ce of Redu<br>iron Redu<br>iron Redu<br>iron Redu<br>iron Well Da<br>Explain in<br>Depth (in<br>Depth (in | nts (B14)<br>Odor (C<br>heres on<br>uced Iron<br>uction in 1<br>e (C7)<br>ata (D9)<br>Remarks<br>nches):<br>nches): | S) Surface Surface Surface Crainage Crayfish Saturation CC4) Stunted Siled Soils X FAC-Ne Sile We                      | Soil Cracks (B6)<br>e Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>on Visible on Aerial Imagery (C9)<br>or Stressed Plants (D1)<br>phic Position (D2)<br>utral Test (D5)                 |  |  |  |  |  |  |  |
| Wetland Hyd<br>Primary Indica<br>Surface<br>High W<br>Saturat<br>Water I<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Inunda<br>Sparse<br>Water-<br>Field Observ<br>Surface Wate<br>Water Table F<br>Saturation Pre<br>(includes capi  | rology Indicators<br>ators (minimum of<br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Aat or Crust (B4)<br>eposits (B5)<br>tion Visible on Aer<br>ely Vegetated Con-<br>Stained Leaves (E<br>ations:<br>rr Present?<br>essent?<br>essent?<br>illary fringe) | rial Imag<br>cave Su<br>39)<br>Yes<br>Yes<br>Yes | gery (B7)<br>rface (B8)<br>No<br>No<br>No | Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots ((<br>Presenc<br>(C6)<br>Thin Mu<br>Gauge C<br>Other (E<br>X | Fauna (B<br>Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)<br>ce of Redu<br>iron Redu<br>iron Redu<br>iron Redu<br>iron Well Da<br>Explain in<br>Depth (in<br>Depth (in | nts (B14)<br>Odor (C<br>heres on<br>uced Iron<br>uction in 1<br>e (C7)<br>ata (D9)<br>Remarks<br>nches):<br>nches): | S) Surface Surface Surface Crainage Crayfish Saturation CC4) Stunted Siled Soils X FAC-Ne Sile We                      | Soil Cracks (B6)<br>e Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>on Visible on Aerial Imagery (C9)<br>or Stressed Plants (D1)<br>phic Position (D2)<br>utral Test (D5)                 |  |  |  |  |  |  |  |

| Date:         10/18/2022           Point:         WA004B           Sec.7 T103N R30W           None           WGS84           NA           rks)           umstances present?           No           ain any answers in remarks.)           WA004 |
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| Sec.7 T103N R30W None WGS84 NA rks) umstances present? No ain any answers in remarks.) NO WA004 Worksheet   |
| None         WGS84         NA         rks)         umstances present?       No         ain any answers in remarks.)   |
| WGS84<br>NA<br>rks)<br>umstances present? <u>No</u><br>ain any answers in remarks.)<br><u>No</u><br>WA004<br>WA004  |
| rks)<br>umstances present? <u>No</u><br>ain any answers in remarks.)<br><u>No</u><br>WA004<br>Worksheet   |
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| for hydrophytic vegetation  |
| e test is >50%  |
| index is ≤3.0*  |
| cal adaptations* (provide   |
| data in Remarks or on a   |
| neet)   |
| c hydrophytic vegetation*   |
|   |
|   |
| soil and wetland hydrology must be<br>bed or problematic  |
| f<br>e<br>gi  |

WA004B

| Profile Descr   | iption: (Describe   | to the   | depth needed to  | o docum     | ent the i  | ndicator               | or confirm the absence     | of indicators.)                   |  |  |  |
|---|---|----------|------------------|-------------|------------|------------------------|----------------------------|-----------------------------------|--|--|--|
| Depth   | Matrix  |          | Re               | dox Feat    | tures      |                        |                            |                                   |  |  |  |
| (Inches)  | Color (moist)   | %        | Color (moist)    | %           | Type*      | Loc**                  | Texture                    | Remarks                           |  |  |  |
| 0-5   | 10YR 2/1  | 100      |                  |             |            |                        | Clay Loam                  |                                   |  |  |  |
| 5-8   | 10YR 2/1  | 95       | 10YR 3/3         | 5           | С          | PL                     | Clay Loam                  | Distinct or Prominent             |  |  |  |
| -   |   |          | 10111 0/0        | 0           | Ű          |                        | -                          |                                   |  |  |  |
| 8-12  | 10YR 2/1  | 100      |                  |             |            |                        | Clay Loam                  |                                   |  |  |  |
| 12-16   | 10YR 2/1  | 90       | 10YR 5/3         | 10          | D          | М                      | Sandy Clay                 |                                   |  |  |  |
| 16-18   | 2.5Y 5/4  | 100      |                  |             |            |                        | Sandy Clay                 |                                   |  |  |  |
|   |   |          |                  |             |            |                        |                            |                                   |  |  |  |
|   |   |          |                  |             |            |                        |                            |                                   |  |  |  |
|   |   |          |                  |             |            |                        |                            |                                   |  |  |  |
|   |   |          |                  |             |            |                        |                            |                                   |  |  |  |
| *Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix |   |          |                  |             |            |                        |                            |                                   |  |  |  |
| -   | Hydric Soil Indicators: Indicators for Problematic Hydric Soils*: |          |                  |             |            |                        |                            |                                   |  |  |  |
|   | tosol (A1)  |          |                  |             | ed Matrix  | (S4)                   |                            | dox (A16) (LRR K, L, R)           |  |  |  |
|   | tic Epipedon (A2)   |          |                  | ndy Redo    |            |                        | Dark Surface (S7           |                                   |  |  |  |
|   | ck Histic (A3)  |          |                  | • •         | atrix (S6) |                        |                            | Masses (F12) (LRR K, L, R)        |  |  |  |
| ,   | drogen Sulfide (A   | ,        |                  | •           | ky Minera  | • •                    | ,                          | rk Surface (TF12)                 |  |  |  |
|   | atified Layers (A5  | )        |                  |             | ed Matrix  | : (F2)                 | Other (explain in          | remarks)                          |  |  |  |
|   | m Muck (A10)  | o (      | '                |             | atrix (F3) | (50)                   |                            |                                   |  |  |  |
|   | pleted Below Dark   |          | . ,              |             | Surface    | . ,                    |                            |                                   |  |  |  |
|   | ck Dark Surface (   | ,        | '                |             | ark Surfac | . ,                    |                            | nytic vegetation and wetland      |  |  |  |
|   | ndy Mucky Minera  | . ,      |                  | dox Depi    | ressions ( | F8)                    | problematic                | esent, unless disturbed or        |  |  |  |
| 50  | m Mucky Peat or   | Peat (S  | 3)               |             |            | n                      |                            |                                   |  |  |  |
| Restrictive La  | ayer (if observed   | ):       |                  |             |            |                        |                            |                                   |  |  |  |
|   | Compacted Soil  |          |                  |             | -          |                        | Hydric Soil Presen         | t? <u>No</u>                      |  |  |  |
| Depth (inches   | ): 18   |          |                  |             | -          |                        |                            |                                   |  |  |  |
| Remarks:  |   |          |                  |             |            |                        |                            |                                   |  |  |  |
|   |   |          |                  |             |            |                        |                            |                                   |  |  |  |
|   |   |          |                  |             |            |                        |                            |                                   |  |  |  |
|   |   |          |                  |             |            |                        |                            |                                   |  |  |  |
| HYDROLO   | GY  |          |                  |             |            |                        |                            |                                   |  |  |  |
| Wetland Hyd   | ology Indicators  | 5:       |                  |             |            |                        |                            |                                   |  |  |  |
| Primary Indica  | tors (minimum of  | one is r | equired; check a | II that ap  | ply)       |                        | Secondary Indica           | ators (minimum of two required)   |  |  |  |
| Surface   | e Water (A1)  |          |                  | Aquatic     | Fauna (B   | 13)                    | Surface                    | Soil Cracks (B6)                  |  |  |  |
| High W  | ater Table (A2)   |          |                  | True Aq     | uatic Plai | nts (B14)              | Drainage                   | Drainage Patterns (B10)           |  |  |  |
|   | ion (A3)  |          |                  |             | en Sulfide | . ,                    |                            | Dry-Season Water Table (C2)       |  |  |  |
|   | Marks (B1)  |          |                  |             | d Rhizosp  |                        |                            | Burrows (C8)                      |  |  |  |
| Sedime  | ent Deposits (B2)   |          |                  | Roots (0    | C3)        |                        | Saturatio                  | on Visible on Aerial Imagery (C9) |  |  |  |
| Drift De  | eposits (B3)  |          |                  | Presenc     | e of Red   | uced Iron              | n (C4) Stunted             | or Stressed Plants (D1)           |  |  |  |
|   | lat or Crust (B4)   |          |                  |             | Iron Redu  | iction in <sup>-</sup> |                            | phic Position (D2)                |  |  |  |
|   | posits (B5)   |          |                  | (C6)        |            |                        | FAC-Net                    | utral Test (D5)                   |  |  |  |
|   | tion Visible on Ae  |          |                  |             | ick Surfac |                        |                            |                                   |  |  |  |
| ·   | ly Vegetated Con  |          | irface (B8)      | -           | or Well Da |                        | <b>`</b>                   |                                   |  |  |  |
| Water-  | Stained Leaves (E   | 39)      | . <u> </u>       | Other (E    | Explain in | Remarks                | S)                         |                                   |  |  |  |
| Field Observa   | ations:   |          |                  |             |            |                        |                            |                                   |  |  |  |
| Surface Water   |   | Yes      | No               | X           | Depth (i   |                        |                            | tland Hydrology                   |  |  |  |
| Water Table F   |   | Yes      | No No            | X<br>       | Depth (i   |                        |                            | Present?                          |  |  |  |
| Saturation Pre<br>(includes capi  |   | Yes      | No               | Х           | Depth (i   | icnes):                |                            | Yes                               |  |  |  |
|   |   | m naura  | monitoring wel   | l aprial r  | hotos pr   | evioue in              | Ispections), if available: |                                   |  |  |  |
| Describe Neu  |   | n yauyt  |                  | i, acriai p | 210103, pi |                        |                            |                                   |  |  |  |
|   |   |          |                  |             |            |                        |                            |                                   |  |  |  |
| Remarks:  |   |          |                  |             |            |                        |                            |                                   |  |  |  |
|   |   |          |                  |             |            |                        |                            |                                   |  |  |  |
|   |   |          |                  |             |            |                        |                            |                                   |  |  |  |







Source: Map adapted from Hybrid NAIP Server; Elevation by MN DNR; Project data by Lake Charlotte Solar, LLC; Tetra Tech Wetlands. Scale: 1:1,000

| Project/Site:                                     | WETL<br>Lake Cha   |                 |              | ON DATA<br>County: | FORM - Martin  | idwest Regi<br>Sampli                   | <b>ion</b><br>ng Date: | 10/19/2022             |
|---|--------------------|-----------------|--------------|--------------------|----------------|---|------------------------|------------------------|
| Applicant/Owner:                                  |                    | ake Charlotte S |              |                    |                |   | ng Point:              | WA007A                 |
| Investigator(s):                                  |                    | pryl Jennrich   |              | Sectio             | on, Township   | · ·                                     | ·                      | 103N R30W              |
| Landform (hillslope, te                           |                    | Depres          | ssion        |                    |                | e, convex, none):                       |                        | Concave                |
| Slope (%): 2                                      |                    | 43.7385         | 551011       | Long:              | -94.4685       | ,                                       | -                      | WGS84                  |
| · · · · · · · · · · · · · · · · · · ·             |                    | loam, 0 to 2 pe | ercent slope | 0                  |                |   | ·                      |                        |
| Soil Map Unit Name:                               | flooded            |                 |              |                    |                | Classification:                         |                        | NA                     |
| Are climatic/hydrologic                           | c conditions of th |                 |              |                    | · `            | no, explain in re                       | ,                      |                        |
| Are vegetation                                    | , soil             | , or hydrology  |              | Significantly      |                | Are "normal o                           |                        | ·                      |
| Are vegetation                                    | , soil             | , or hydrology  |              | naturally pro      | blematic?      | (If needed, e                           | explain any a          | nswers in remarks.)    |
| SUMMARY OF F                                      | INDINGS            |                 |              |                    |                |   |                        |                        |
| Hydrophytic Veg                                   | etation Present?   | Yes             | -            |                    |                |   |                        |                        |
| Hydric Soil Prese                                 | ent?               | Yes             | _            | Is the sa          | mpled area     | within a wetland                        | d?                     | Yes                    |
| Wetland Hydrolo                                   | gy Present?        | Yes             |              | lf yes, op         | otional wetlan | d site ID:                              | WA007                  |                        |
| Remarks:  |                    |                 |              |                    |                |   |                        |                        |
| VEGETATION  | Use scientific     | names of p      | lants.       |                    |                |   |                        |                        |
|   |                    |                 | Absolute     |                    | Indicator      | Dominance T                             | est Workshe            | et                     |
| Tree Stratum<br>1.                                | (Plot size:        | 30 )            | % Cover      | Species            | Status         | Number of Don<br>that are OBL, F        |                        |                        |
| 2<br>3  |                    |                 |              |                    |                | - Total Number of Species Across        |                        | 1(B)                   |
| 4<br>5.   |                    |                 |              |                    |                | Percent of Dom<br>that are OBL, F       |                        |                        |
|   |                    |                 | :            | =Total Cove        | r              | ,                                       |                        | 、 ,                    |
| Sapling/Shrub Stratu                              | m (Plot size:      | 15 )            |              |                    |                | Prevalence I                            | ndex Worksh            | eet                    |
| 1   |                    |                 |              |                    |                | Total % Cove                            | r of:                  | Multiply by:           |
| 2   |                    |                 |              |                    |                | OBL species                             | 0 x 1                  | = 0                    |
| 3   |                    |                 |              |                    |                | FACW specie                             |                        |                        |
| 4   |                    |                 |              |                    |                | FAC species                             | <u> </u>               |                        |
| 5   |                    |                 |              | Total Cava         |                | FACU species                            |                        |                        |
| Llark Stratum                                     |                    | <b>F</b> )      |              | =Total Cove        | ſ              | UPL species                             | <u> </u>               |                        |
| Herb Stratum                                      | (Plot size: _      | 5)              | 100          | Y                  | FACW           | Column totals                           | `                      | A) <u>200</u> (B)<br>2 |
| <ol> <li>Phalaris arundina</li> <li>2.</li> </ol> | acea               |                 | 100          | I                  | FACW           | Prevalence In                           | uex = D/A =            | Ζ                      |
| 3.  |                    |                 |              |                    |                | Hydrophytic                             | Vegetation I           | ndicators:             |
| 4.  |                    |                 |              |                    |                |   | -                      | hytic vegetation       |
| 5.  |                    |                 |              |                    |                |   | nce test is >5         |                        |
| 6.  |                    |                 |              |                    |                | Prevale                                 | nce index is ≤         | 3.0*                   |
| 7.  |                    |                 |              |                    |                | Morpho                                  | logical adapta         | ations* (provide       |
| 8   |                    |                 |              |                    |                |   | 0                      | emarks or on a         |
| 9   |                    |                 |              |                    |                | ·                                       | e sheet)               |                        |
| 10  |                    |                 |              |                    |                | -                                       |                        | vtic vegetation*       |
| Woody Vine Stratum                                | -                  | 15 )            |              | =Total Cove        | r              | *Indicators of hyd<br>present, unless d | ric soil and wet       | land hydrology must be |
| 1<br>2.   |                    |                 |              |                    |                | •                                       |                        |                        |
| 2   |                    |                 | ;            | =Total Cove        | r              | Hydrophyt<br>Vegetation<br>Present?     |                        |                        |
| Remarks: (Include pho                             | oto numbers ber    | e or on a senar | ate sheet)   |                    |                | 1                                       | 100                    |                        |
| tomano. (molude pric                              |                    | o or or a separ | ale oncelj   |                    |                |   |                        |                        |
| Bare ground: 0%                                   |                    |                 |              |                    |                |   |                        |                        |

WA007A

| Profile Descr                            | Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)             |   |                 |                 |                          |           |   |                                 |  |  |  |
|--|---|---|-----------------|-----------------|--------------------------|-----------|---|---------------------------------|--|--|--|
| Depth                                    | Matrix  |   | R               | edox Fea        | tures                    |           |   |                                 |  |  |  |
| (Inches)                                 | Color (moist)   | %                                       | Color (moist)   | %               | Type*                    | Loc**     | Texture   | Remarks                         |  |  |  |
| 0-6                                      | 10YR 2/1  | 100                                     |                 |                 |                          |           | Clay Loam   |                                 |  |  |  |
| 6-20                                     | 10YR 2/1  | 100                                     |                 |                 |                          |           | Clay  |                                 |  |  |  |
| 20-38                                    | 10YR 2/1  | 100                                     |                 |                 |                          |           | Sandy Clay  |                                 |  |  |  |
|  |   |   |                 |                 |                          |           |   |                                 |  |  |  |
| 38-40                                    | 2.5Y 3/1  | 100                                     |                 |                 |                          |           | Sandy Clay  |                                 |  |  |  |
|  |   |   |                 |                 |                          |           |   |                                 |  |  |  |
|  |   |   |                 |                 |                          |           |   |                                 |  |  |  |
|  |   |   |                 |                 |                          |           |   |                                 |  |  |  |
|  |   |   |                 |                 |                          |           |   |                                 |  |  |  |
| *Type: C =                               | *Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix |   |                 |                 |                          |           |   |                                 |  |  |  |
| Hydric Soil Indicators: Indicators:      |   |   |                 |                 |                          |           |   |                                 |  |  |  |
| -  | stosol (A1)   |   | S               | andy Gley       | ed Matrix                | (S4)      |   | dox (A16) (LRR K, L, R)         |  |  |  |
|  | stic Epipedon (A2)  |   |                 | andy Redo       |                          | . ,       | Dark Surface (S7  |                                 |  |  |  |
|  | ack Histic (A3)   |   |                 | ripped Ma       |                          |           |   | Masses (F12) (LRR K, L, R)      |  |  |  |
| Hyo                                      | drogen Sulfide (A   | 4)                                      | Lo              | amy Muc         | ky Minera                | al (F1)   |   | rk Surface (TF12)               |  |  |  |
|  | atified Layers (A5  |   | Lo              | amy Gley        | /ed Matrix               | (F2)      | X Other (explain in   | remarks)                        |  |  |  |
| 2 c                                      | m Muck (A10)  |   | D               | epleted M       | atrix (F3)               |           |   |                                 |  |  |  |
| De                                       | pleted Below Darl   | Surface                                 | e (A11) R       | edox Dark       | Surface                  | (F6)      |   |                                 |  |  |  |
| Thi                                      | ick Dark Surface (  | A12)                                    | D               | epleted Da      | ark Surfac               | ce (F7)   | *Indicators of hydrophytic vegetation and wetland<br>hydrology must be present, unless disturbed or |                                 |  |  |  |
| Sai                                      | ndy Mucky Minera  | al (S1)                                 | R               | edox Depi       | ressions (               | F8)       |   |                                 |  |  |  |
| 5 cm Mucky Peat or Peat (S3) problematic |   |   |                 |                 |                          |           |   |                                 |  |  |  |
| Restrictive La                           | ayer (if observed   | ):                                      |                 |                 |                          |           |   |                                 |  |  |  |
| Type:                                    |   |   |                 |                 |                          |           | Hydric Soil Presen  | t? Yes                          |  |  |  |
| Depth (inches                            | ):  |   |                 |                 | -                        |           |   |                                 |  |  |  |
| Remarks:<br>A12 Assumed                  | d   |   |                 |                 |                          |           |   |                                 |  |  |  |
| HYDROLOG                                 | GY  |   |                 |                 |                          |           |   |                                 |  |  |  |
| Wetland Hydi                             | rology Indicators   | :                                       |                 |                 |                          |           |   |                                 |  |  |  |
| Primary Indica                           | ators (minimum of   | one is r                                | equired; check  | all that ap     | oply)                    |           | Secondary Indica  | ators (minimum of two required) |  |  |  |
| Surface                                  | e Water (A1)  |   |                 | Aquatic         | Fauna (B                 | 313)      | Surface   | Soil Cracks (B6)                |  |  |  |
| High W                                   | /ater Table (A2)  |   |                 | True Aq         | uatic Plar               | nts (B14) | Drainage  | e Patterns (B10)                |  |  |  |
| Saturat                                  | tion (A3)   |   |                 | Hydroge         | en Sulfide               | Odor (C   | C1) Dry-Season Water Table (C2)   |                                 |  |  |  |
| Water I                                  | Marks (B1)  |   |                 | Oxidize         | d Rhizosp                | heres on  | n Living Crayfish Burrows (C8)  |                                 |  |  |  |
|  | ent Deposits (B2)   |   |                 | _ Roots (0      |                          |           | Saturation Visible on Aerial Imagery (C9)   |                                 |  |  |  |
|  | eposits (B3)  |   |                 |                 | ce of Redu               |           | . ,   | or Stressed Plants (D1)         |  |  |  |
|  | lat or Crust (B4)   |   |                 |                 | Iron Redu                | iction in |   | phic Position (D2)              |  |  |  |
|  | eposits (B5)<br>tion Visible on Ae  | rial Ima                                |                 | (C6)<br>Thin Mu | uck Surfac               |           | X FAC-Nei   | utral Test (D5)                 |  |  |  |
|  | ly Vegetated Con  |   |                 | _               | uck Surfac<br>or Well Da | . ,       |   |                                 |  |  |  |
|  | Stained Leaves (E   |   |                 | _ ~             | Explain in               | · · /     | 3)  |                                 |  |  |  |
| Field Observa                            | `   | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |                 |                 |                          | rtomana   | .,  |                                 |  |  |  |
| Surface Water                            |   | Yes                                     | No              | х               | Depth (ii                | nches).   |   |                                 |  |  |  |
| Water Table P                            |   | Yes                                     | No              | X               | Depth (ii<br>Depth (ii   | · · -     | We  | tland Hydrology                 |  |  |  |
| Saturation Pre                           |   | Yes                                     | No              | X               | Depth (ii                | · -       |   | Present?<br>Yes                 |  |  |  |
| (includes capi                           | llary fringe)   |   |                 |                 | `                        | · _       |   |                                 |  |  |  |
| Describe Reco                            | orded Data (strear  | n gauge                                 | e, monitoring w | ell, aerial p   | photos, pr               | evious in | spections), if available:   |                                 |  |  |  |
|  |   |   |                 |                 |                          |           |   |                                 |  |  |  |
| Damaral                                  |   |   |                 |                 |                          |           |   |                                 |  |  |  |
| Remarks:                                 |   |   |                 |                 |                          |           |   |                                 |  |  |  |
|  |   |   |                 |                 |                          |           |   |                                 |  |  |  |

| Project/Site:                            | WET<br>Lake Ch             |                 |                  | ION DATA<br>County: | <b>FORM - N</b><br>Martin | Iidwest Region<br>Sampling                                  |   | 10/19/2022      |
|--|----------------------------|-----------------|------------------|---------------------|---------------------------|---|---|-----------------|
| Applicant/Owner:                         |                            | Lake Charlott   |                  |                     |                           | MN Sampling   |   | WA007B          |
| Investigator(s):                         |                            | Apryl Jennrich  |                  | Secti               | on, Township              |   | Sec.7 T10   | 3N R30W         |
| Landform (hillslope, ter                 |                            |                 | llslope          |                     |                           | e, convex, none):   |   | oncave          |
| Slope (%): 10                            | · · ·                      | 43.738          |                  | Long:               | -94.4685                  | · · · · · ·   | N   | VGS84           |
| Soil Map Unit Name:                      |                            | y loam, 0 to 2  | percent slope    | es, frequently      | NWI                       | Classification:   | PE  | M1C             |
| Are climatic/hydrologic                  | flooded<br>conditions of t | he site typical | for this time of | of the vear?        | Yes (If                   | no, explain in rema   | irks)   |                 |
| Are vegetation                           | , soil                     | , or hydrold    |                  | Significantly       | · `                       | Are "normal circ  | ,   | resent? Yes     |
| Are vegetation                           | , soil                     | , or hydrold    |                  | naturally pro       |                           |   |   | wers in remarks |
|  |                            |                 |                  |                     |                           | (   |   |                 |
| Hydrophytic Vege                         | tation Present             | ? No            | D                |                     |                           |   |   |                 |
| Hydric Soil Prese                        |                            | Ye              | es .             | Is the sa           | ampled area               | within a wetland?   |   | No              |
| Wetland Hydrolog                         |                            | N               | <br>C            |                     | •<br>otional wetlan       |   | WA007   | ,               |
| Remarks:                                 | y r rooont.                |                 |                  |                     |                           |   | 1111001   |                 |
| VEGETATION L                             | Jse scientifi              | c names of      | plants.          |                     |                           |   |   |                 |
|  |                            |                 | Absolute         | Dominant            | Indicator                 | Dominance Tes   | t Worksheet   |                 |
| Tree Stratum                             | (Plot size:                | 30 )            | % Cover          | Species             | Status                    | Number of Domina that are OBL, FAC                          |   | 0 (A)           |
| 2<br>3                                   |                            |                 |                  |                     |                           | - Total Number of D<br>Species Across Al                    |   | 1 (B)           |
| 4<br>5                                   |                            |                 |                  |                     |                           | <ul> <li>Percent of Domina<br/>that are OBL, FAC</li> </ul> |   | 0% (A/B)        |
|  |                            |                 |                  | =Total Cove         | r                         | ,,  | ,   | ` ` `           |
| Sapling/Shrub Stratur                    | n (Plot size:              | 15              | )                |                     |                           | Prevalence Inde   | ex Workshee   | et              |
| 1  |                            |                 |                  |                     |                           | Total % Cover of  |   | ultiply by:     |
| 2  |                            |                 |                  |                     |                           | OBL species   | 0 x 1 =   |                 |
| 3  |                            |                 |                  |                     |                           | FACW species  | $\begin{array}{c} 0 \\ 0 \\ x 2 = \\ x 3 = \end{array}$ |                 |
| 4<br>5.                                  |                            |                 |                  |                     |                           | FAC species<br>FACU species                                 | $0 \times 3 =$<br>100 x 4 =                             |                 |
| 3  |                            |                 |                  | =Total Cove         | r                         | UPL species   | $\frac{100}{0} \times 4 =$                              |                 |
| Herb Stratum                             | (Plot size:                | 5               | )                |                     |                           | Column totals   | 100 (A)   | 400 (B)         |
| 1. Bromus inermis                        | •                          | <u> </u>        | 100              | Y                   | FACU                      | Prevalence Inde   | x = B/A =   | 4               |
| 2.                                       |                            |                 |                  |                     |                           |   |   |                 |
| 3  |                            |                 |                  |                     |                           | Hydrophytic Ve  | -   |                 |
| 4  |                            |                 |                  |                     |                           |   |   | tic vegetation  |
| 5  |                            |                 |                  |                     |                           |   | e test is >50%  |                 |
| 6<br>7                                   |                            |                 |                  |                     |                           |   | e index is ≤3.<br>ical adaptatio                        |                 |
| 8.                                       |                            |                 |                  |                     |                           |   | data in Rem   |                 |
| 9.                                       |                            |                 |                  |                     |                           | separate s  |   |                 |
| 10.                                      |                            |                 |                  |                     |                           | Problemat   | ic hydrophytio  | c vegetation*   |
|  |                            |                 | 100              | =Total Cove         | er                        | (explain)   |   |                 |
| Woody Vine Stratum<br>1.                 | (Plot size:                | 15              | )                |                     |                           | *Indicators of hydric<br>present, unless distu              |   |                 |
| 2.                                       |                            |                 |                  |                     |                           | Hydrophytic   |   |                 |
|  |                            |                 |                  | =Total Cove         | er -                      | Vegetation<br>Present?                                      | <u>No</u>   |                 |
| Remarks: (Include pho<br>Bare ground: 0% | to numbers he              | re or on a sep  | parate sheet)    |                     |                           |   |   |                 |

WA007B

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |                    |          |                 |               |            |                        |                                     |                                   |  |  |
|---|--------------------|----------|-----------------|---------------|------------|------------------------|-------------------------------------|-----------------------------------|--|--|
| Depth   | Matrix             |          | F               | Redox Fea     | tures      |                        |                                     |                                   |  |  |
| (Inches)  | Color (moist)      | %        | Color (moist)   | %             | Type*      | Loc**                  | Texture                             | Remarks                           |  |  |
| 0-12  | 10YR 2/2           | 100      |                 |               |            |                        | Loam                                |                                   |  |  |
| 12-22   | 10YR 2/1           | 100      |                 |               |            |                        | Clay                                |                                   |  |  |
|   |                    |          |                 | _             |            |                        | -                                   |                                   |  |  |
| 22-36   | 10YR 2/1           | 100      |                 |               |            |                        | Clay                                |                                   |  |  |
| 36-39   | 10YR 2/1           | 95       | 2.5Y 5/3        | 5             | D          | М                      | Sandy Clay                          |                                   |  |  |
|   |                    |          |                 |               |            |                        |                                     |                                   |  |  |
|   |                    |          |                 |               |            |                        |                                     |                                   |  |  |
|   |                    |          |                 |               |            |                        |                                     |                                   |  |  |
|   |                    |          |                 |               |            |                        |                                     |                                   |  |  |
|   |                    |          |                 |               |            |                        |                                     |                                   |  |  |
| ,,  | Concentration, D   | = Deple  | etion, RM = Rec | duced Mat     | rix, MS =  | Masked                 |                                     | on: PL = Pore Lining, M = Matrix  |  |  |
| Hydric Soil   |                    |          | -               |               |            | ( <b>-</b> ))          |                                     | ematic Hydric Soils*:             |  |  |
|   | stosol (A1)        |          |                 | andy Gley     |            | (S4)                   |                                     | dox (A16) (LRR K, L, R)           |  |  |
|   | stic Epipedon (A2) |          |                 | andy Red      |            |                        | Dark Surface (S                     |                                   |  |  |
|   | ack Histic (A3)    |          |                 | tripped Ma    |            |                        |                                     | Masses (F12) (LRR K, L, R)        |  |  |
|   | drogen Sulfide (A  |          |                 | oamy Muc      | -          |                        |                                     | rk Surface (TF12)                 |  |  |
|   | atified Layers (A5 | )        |                 | oamy Gley     |            | (F2)                   | X Other (explain in                 | remarks)                          |  |  |
|   | m Muck (A10)       |          |                 | epleted M     | . ,        | ( <b>—</b> - )         |                                     |                                   |  |  |
|   | pleted Below Darl  |          |                 | edox Dark     |            | . ,                    |                                     |                                   |  |  |
|   | ick Dark Surface ( | ,        |                 | epleted D     |            | . ,                    |                                     | hytic vegetation and wetland      |  |  |
|   | ndy Mucky Minera   | ` '      |                 | edox Dep      | ressions ( | F8)                    | hydrology must be pr<br>problematic | esent, unless disturbed or        |  |  |
| 50  | m Mucky Peat or    | Peat (S  | 3)              |               |            |                        | problemate                          |                                   |  |  |
| Restrictive L   | ayer (if observed  | ):       |                 |               |            |                        |                                     |                                   |  |  |
| Туре:   |                    |          |                 |               | _          |                        | Hydric Soil Preser                  | nt? Yes                           |  |  |
| Depth (inches   | s):                |          |                 |               | _          |                        |                                     |                                   |  |  |
| Remarks:  |                    |          |                 |               |            |                        |                                     |                                   |  |  |
|   |                    |          |                 |               |            |                        |                                     |                                   |  |  |
| A12 Assume  | d                  |          |                 |               |            |                        |                                     |                                   |  |  |
|   |                    |          |                 |               |            |                        |                                     |                                   |  |  |
| HYDROLO   | GY                 |          |                 |               |            |                        |                                     |                                   |  |  |
| Wetland Hyd   | rology Indicators  | 5:       |                 |               |            |                        |                                     |                                   |  |  |
| Primary Indica  | ators (minimum of  | one is r | equired; check  | all that ap   | oply)      |                        | Secondary Indica                    | ators (minimum of two required)   |  |  |
| Surface   | e Water (A1)       |          |                 | Aquatic       | Fauna (B   | 313)                   | Surface                             | Soil Cracks (B6)                  |  |  |
| High W  | /ater Table (A2)   |          |                 | True Ac       | uatic Plar | nts (B14)              | Drainag                             | e Patterns (B10)                  |  |  |
| Satura  | tion (A3)          |          |                 | Hydroge       | en Sulfide | Odor (C                |                                     |                                   |  |  |
| Water   | Marks (B1)         |          |                 | Oxidize       | d Rhizosp  | heres or               |                                     | Burrows (C8)                      |  |  |
| Sedime  | ent Deposits (B2)  |          |                 | Roots (       | C3)        |                        | Saturati                            | on Visible on Aerial Imagery (C9) |  |  |
|   | eposits (B3)       |          |                 |               | ce of Redu |                        | · · ·                               | or Stressed Plants (D1)           |  |  |
|   | lat or Crust (B4)  |          |                 |               | Iron Redu  | uction in <sup>-</sup> |                                     | phic Position (D2)                |  |  |
|   | eposits (B5)       |          | (DD)            | (C6)          |            | (0-)                   | FAC-Ne                              | utral Test (D5)                   |  |  |
|   | tion Visible on Ae |          |                 |               | ick Surfac | . ,                    |                                     |                                   |  |  |
| ·   | ly Vegetated Con   |          | irface (B8)     | _             | or Well Da | • •                    | - )                                 |                                   |  |  |
|   | Stained Leaves (E  | o9)      |                 |               | Explain in | Remarks                | زة<br>ا                             |                                   |  |  |
| Field Observ  |                    |          |                 |               | <b>.</b>   |                        |                                     |                                   |  |  |
| Surface Wate  |                    | Yes      | No              | <u> </u>      | Depth (ii  |                        | We                                  | etland Hydrology                  |  |  |
| Water Table F<br>Saturation Pre   |                    | Yes      | No              | $\frac{x}{x}$ | Depth (ii  | -                      |                                     | Present?                          |  |  |
| (includes capi  |                    | Yes      | No              | ^             | Depth (ii  |                        |                                     | No                                |  |  |
|   |                    | m ຕອບຕ   | e. monitorina w | ell, aerial i | photos, pr | evious in              | spections), if available:           |                                   |  |  |
|   |                    | 97-9     | ,               | ,             |            |                        | -,,                                 |                                   |  |  |
|   |                    |          |                 |               |            |                        |                                     |                                   |  |  |
| Remarks:  |                    | -        |                 |               |            |                        |                                     |                                   |  |  |
|   |                    |          |                 |               |            |                        |                                     |                                   |  |  |
|   |                    |          |                 |               |            |                        |                                     |                                   |  |  |







Source: Map adapted from Hybrid NAIP Server; Elevation by MN DNR; Project data by Lake Charlotte Solar, LLC; Tetra Tech Wetlands. Scale: 1:1,000

|  | WET         | LAND D       | ETEF           | RMINAT       | ION DATA      | FORM -       | Midwe       | st Regior                         | า           |                                  |
|--|-------------|--------------|----------------|--------------|---------------|--------------|-------------|-----------------------------------|-------------|----------------------------------|
| Project/Site:                                | Lake C      | harlotte     |                | City         | County:       | Marti        | n           | Sampling                          | Date:       | 10/19/2022                       |
| Applicant/Owner:                             |             | Lake Char    | rlotte S       | olar, LLC    |               | State:       | MN          | Sampling I                        | Point:      | WA018A                           |
| Investigator(s):                             |             | Apryl Jenn   | rich           |              | Sectio        | on, Townshi  | p, Range:   |                                   | Sec.17 T    | 103N R30W                        |
| Landform (hillslope, terrace                 | e, etc.):   | [            | Depres         | sion         | Local re      | elief (conca | ve, conve   | x, none):                         |             | Concave                          |
| Slope (%): 2                                 | Lat:        | 43.          | 72884          |              | Long:         | -94.462      | 275         | Datum:                            |             | WGS84                            |
| Soil Map Unit Name:                          | Delft clay  | loam, 0 to 2 | 2 perce        | ent slopes   |               | NW           | I Classific | cation:                           |             | NA                               |
| Are climatic/hydrologic con                  | ditions of  | the site typ | ical for       | this time of | of the year?  | Yes          | If no, exp  | lain in rema                      | rks)        |                                  |
| Are vegetation                               | , soil      | , or hyd     | rology         |              | Significantly | disturbed?   | Are         | "normal circ                      | umstances   | present? Yes                     |
| Are vegetation                               | , soil      | , or hyd     | rology         |              | naturally pro | blematic?    | (lf ne      | eeded, exp                        | lain any ar | nswers in remarks.)              |
| SUMMARY OF FIND                              | INGS        |              |                |              |               |              |             |                                   |             |                                  |
| Hydrophytic Vegetatio                        | on Presen   | t? _         | Yes            |              |               |              |             |                                   |             |                                  |
| Hydric Soil Present?                         |             |              | Yes            |              | Is the sa     | mpled area   | a within a  | wetland?                          |             | Yes                              |
| Wetland Hydrology P                          | resent?     | -            | Yes            |              | lf yes, op    | tional wetla | and site ID | ):                                | WA018       |                                  |
| Remarks:                                     |             |              |                |              |               |              |             |                                   |             |                                  |
|  |             |              |                |              |               |              |             |                                   |             |                                  |
|  |             |              |                |              |               |              |             |                                   |             |                                  |
| VEGETATION Use                               | scientif    | ic names     | ofnl           | ants         |               |              |             |                                   |             |                                  |
|  | ooloriu     |              |                |              | Dominant      | Indicator    | Domi        | nance Test                        | Workshe     | et                               |
| Tree Stratum (Plo                            | ot size:    | 30           | )              | % Cover      | Species       | Status       |             |                                   |             |                                  |
| 1. Juniperus virginiana                      |             |              |                | 5            | Y             | FACU         |             | er of Domina<br>re OBL, FAC       |             | 2 (A)                            |
| 2.   |             |              |                |              |               |              |             | Number of D                       |             | 、、                               |
| 3.   |             |              |                |              |               |              |             | es Across All                     |             | 3 (B)                            |
| 4  |             |              |                |              |               |              | - Perce     | nt of Domina                      | nt Species  |                                  |
| 5  |             |              |                |              |               |              |             | re OBL, FAC                       |             | 67% (A/B)                        |
| Quality (Ohmuh Quartum                       |             | 45           | , <del>-</del> | 5            | =Total Cove   | r            | Dura        | -1                                |             | 4                                |
| Sapling/Shrub Stratum 1. Salix interior      | (Plot size: | 15           | )              | 5            | Y             | FACW         | _           | alence Inde<br>% Cover of         |             |                                  |
| 2.   |             |              |                | 5            | I             | FACW         |             | species                           | 0 x 1       | Multiply by:<br>= 0              |
| 3.   |             |              |                |              |               |              |             | N species                         | 100 x 2     |                                  |
| 4.   |             |              |                |              |               |              |             | species                           | 0 x 3       |                                  |
| 5.   |             |              |                |              |               |              |             | J species                         | 5 x 4       | = 20                             |
|  |             |              |                | 5            | =Total Cove   | r            | UPL         | species                           | 0 x 5       | = 0                              |
| Herb Stratum                                 | (Plot size: | 5            | )              |              | -             |              | Colur       | mn totals                         | 105 (A      | ) 220 (B)                        |
| 1. Phalaris arundinacea                      |             |              |                | 95           | Y             | FACW         | Preva       | alence Inde                       | k = B/A =   | 2.1                              |
| 2.   |             |              |                |              |               |              |             |                                   |             |                                  |
| 3.   |             |              |                |              |               |              | Hydr        | ophytic Ve                        | getation Ir | dicators:                        |
| 4  |             |              |                |              |               |              |             |                                   | • •         | nytic vegetation                 |
| 5  |             |              |                |              |               |              | <u> </u>    | Dominance                         |             |                                  |
| 6<br>7                                       |             |              |                |              |               |              |             | Prevalence                        |             |                                  |
| 8.   |             |              |                |              |               |              |             |                                   |             | tions* (provide<br>marks or on a |
| 9.   |             |              |                |              |               |              |             | separate sl                       |             |                                  |
| 10.  |             |              |                |              |               |              |             |                                   | ,           | tic vegetation*                  |
|  |             |              |                | 95           | =Total Cove   | r            |             | (explain)                         | 5 . 5       | J.                               |
| Woody Vine Stratum 1.                        | (Plot size: |              | )              |              |               |              |             | ors of hydric s<br>, unless distu |             | and hydrology must be<br>lematic |
| 2  |             |              | . <u>-</u>     |              | =Total Cove   | r            | Ve          | drophytic<br>getation<br>esent?   | Yes         |                                  |
| Remarks: (Include photo n<br>Bare ground: 0% | umbers he   | ere or on a  | separa         | te sheet)    |               |              |             |                                   |             |                                  |

WA018A

| Profile Descr               | ription: (Describe | to the     | depth needed to           | o docum     | ent the i        | ndicator  | or confirm the absence           | of indicators.)                   |
|-----------------------------|--------------------|------------|---------------------------|-------------|------------------|-----------|----------------------------------|-----------------------------------|
| Depth Matrix Redox Features |                    |            |                           |             |                  |           |                                  |                                   |
| (Inches)                    | Color (moist)      | %          | Color (moist)             | %           | Type*            | Loc**     | Texture                          | Remarks                           |
| 0-40                        | 10YR 2/1           | 100        |                           |             |                  |           | Clay Loam                        |                                   |
|                             |                    |            |                           |             |                  |           |                                  |                                   |
|                             |                    |            |                           |             |                  |           |                                  |                                   |
|                             |                    |            |                           |             |                  |           |                                  |                                   |
|                             |                    |            |                           |             |                  |           |                                  |                                   |
|                             |                    |            |                           |             |                  |           |                                  |                                   |
|                             |                    |            |                           |             |                  |           |                                  |                                   |
|                             |                    |            |                           |             |                  |           |                                  |                                   |
|                             |                    |            |                           |             |                  |           |                                  |                                   |
|                             |                    |            |                           |             |                  |           |                                  |                                   |
| *Type: C =                  | Concentration, D   | = Deple    | tion RM = Redu            | ced Mati    | rix MS =         | Masked 3  | Sand Grains **Locatio            | on: PL = Pore Lining, M = Matrix  |
| Hydric Soil                 |                    | Dopic      |                           |             | ix, mo           | Mashea    | Indicators for Proble            |                                   |
| -                           | stosol (A1)        |            | Sa                        | ndv Glev    | ed Matrix        | (S4)      |                                  | dox (A16) (LRR K, L, R)           |
|                             | stic Epipedon (A2) |            |                           | ndy Redo    |                  | (04)      | Dark Surface (S7                 |                                   |
|                             |                    |            |                           | -           |                  |           |                                  |                                   |
|                             | ack Histic (A3)    |            |                           | pped Ma     | • •              |           |                                  | Masses (F12) (LRR K, L, R)        |
|                             | drogen Sulfide (A  |            |                           | •           | ky Minera        | . ,       |                                  | rk Surface (TF12)                 |
|                             | atified Layers (A5 | )          |                           |             | ed Matrix        | (FZ)      | X Other (explain in              | remarks)                          |
|                             | m Muck (A10)       | . <i>.</i> |                           |             | atrix (F3)       | (==)      |                                  |                                   |
|                             | pleted Below Darl  |            | · · ·                     |             | Surface          |           |                                  |                                   |
|                             | ick Dark Surface ( | ,          |                           |             | ark Surfac       |           |                                  | nytic vegetation and wetland      |
|                             | ndy Mucky Minera   |            |                           | dox Depr    | essions (        | F8)       | hydrology must be proproblematic | esent, unless disturbed or        |
| 5 c                         | m Mucky Peat or    | Peat (S    | 3)                        |             |                  |           | problematic                      |                                   |
| Restrictive La              | ayer (if observed  | ):         |                           |             |                  |           |                                  |                                   |
| Туре:                       |                    |            |                           |             |                  |           | Hydric Soil Presen               | t? Yes                            |
| Depth (inches               | s):                |            |                           |             | -                |           |                                  |                                   |
| Description                 |                    |            |                           |             |                  |           |                                  |                                   |
| Remarks:                    |                    |            |                           |             |                  |           |                                  |                                   |
| 440 4                       | -1                 |            |                           |             |                  |           |                                  |                                   |
| A12 Assume                  | a                  |            |                           |             |                  |           |                                  |                                   |
| HYDROLO                     | <u></u>            |            |                           |             |                  |           |                                  |                                   |
|                             |                    |            |                           |             |                  |           |                                  |                                   |
| -                           | rology Indicators  |            | a au sina alu alu a alu a |             |                  |           | Conservations, las dise          |                                   |
|                             | ators (minimum of  | one is r   | equired; check a          |             |                  |           | · · · · ·                        | ators (minimum of two required)   |
|                             | e Water (A1)       |            |                           |             | Fauna (B         |           |                                  | Soil Cracks (B6)                  |
|                             | /ater Table (A2)   |            |                           | True Aq     | e Patterns (B10) |           |                                  |                                   |
|                             | tion (A3)          |            |                           |             | en Sulfide       |           |                                  | son Water Table (C2)              |
|                             | Marks (B1)         |            |                           |             | d Rhizosp        | heres on  |                                  | Burrows (C8)                      |
|                             | ent Deposits (B2)  |            |                           | Roots (0    |                  |           |                                  | on Visible on Aerial Imagery (C9) |
|                             | eposits (B3)       |            |                           |             | e of Red         |           | ( )                              | or Stressed Plants (D1)           |
|                             | Mat or Crust (B4)  |            |                           |             | Iron Redu        | iction in |                                  | phic Position (D2)                |
|                             | eposits (B5)       |            | (D-7)                     | (C6)        |                  | (07)      | X FAC-Nei                        | utral Test (D5)                   |
|                             | tion Visible on Ae |            |                           |             | ick Surfac       |           |                                  |                                   |
|                             | ly Vegetated Con   |            | irface (B8)               |             | or Well Da       |           |                                  |                                   |
| Water-                      | Stained Leaves (E  | 39)        |                           | Other (E    | Explain in       | Remarks   | S)                               |                                   |
| Field Observ                | ations:            |            |                           |             |                  |           |                                  |                                   |
| Surface Wate                |                    | Yes        | No                        | Х           | Depth (ii        |           |                                  | tland Hydrology                   |
| Water Table F               |                    | Yes        | No                        | Х           | Depth (ii        |           |                                  | Present?                          |
| Saturation Pre              |                    | Yes        | No                        | Х           | Depth (ii        | nches):   |                                  | Yes                               |
| (includes capi              |                    |            |                           |             |                  |           |                                  |                                   |
| Describe Rec                | orded Data (strea  | m gauge    | e, monitoring wel         | i, aerial p | onotos, pr       | evious in | spections), if available:        |                                   |
|                             |                    |            |                           |             |                  |           |                                  |                                   |
| Devez                       |                    |            |                           |             |                  |           |                                  |                                   |
| Remarks:                    |                    |            |                           |             |                  |           |                                  |                                   |
|                             |                    |            |                           |             |                  |           |                                  |                                   |

| Project/Site:              | WEI<br>Lake Ch            |              | ETERMIN        | City/Count  | DATA FOR         | M - Midwes<br>⁄Iartin | st Region<br>Sampling Date:                            | 10/19/202       | 22      |
|----------------------------|---------------------------|--------------|----------------|-------------|------------------|-----------------------|--|-----------------|---------|
| Applicant/Owner:           |                           | Lake Charl   | otte Solar, I  | -           | State:           | MN                    | Sampling Point:  | WA018E          |         |
| Investigator(s):           |                           | Apryl Jennri | ich            |             | Section, Tow     | nship, Range:         | Sec.17   | T103N R30W      |         |
| Landform (hillslope, terr  |                           |              | Hillslope      |             | Local relief (co |                       |  | Concave         |         |
| Slope (%): 2               | Lat:                      | 43.          | 7288           | Lor         | ng: -94          | 1.46279               | Datum:   | WGS84           |         |
| Soil Map Unit Name:        | Clarion-Sto<br>moderately | orden comp   | olex, 6 to 10  | percent slo | opes,            | NWI Classific         | ation:   | NA              |         |
| Are climatic/hydrologic    |                           |              | cal for this t | ime of the  | year? Yes        | s (If no, expl        | lain in remarks)                                       |                 |         |
| Are vegetation             | , soil                    | , or hydr    |                |             | ficantly disturb | ed? Are "             | normal circumstance                                    | es present?     | Yes     |
| Are vegetation             | , soil                    | , or hydr    | ology          | natur       | ally problemati  | ic? (If ne            | eeded, explain any a                                   | answers in re   | marks.) |
| SUMMARY OF FI              | NDINGS                    | —            | _              |             |                  |                       |  |                 |         |
| Hydrophytic Veget          | ation Present             | ?            | No             |             |                  |                       |  |                 |         |
| Hydric Soil Preser         | ıt?                       |              | Yes            | Is          | the sampled      | area within a         | wetland?   | No              |         |
| Wetland Hydrology Present? |                           |              | No             | lf          | yes, optional v  | vetland site ID       | : WA018  |                 |         |
| Remarks:                   |                           |              |                |             |                  |                       |  |                 |         |
|                            |                           |              |                |             |                  |                       |  |                 |         |
| VEGETATION U               | se scientifi              | c names      |                |             |                  |                       |  |                 |         |
| Trop Strotum               | (Plot cize:               | 20           |                | lute Domi   |                  |                       | nance Test Worksh                                      | eet             |         |
| Tree Stratum<br>1.         | (Plot size:               | 30 )         | ) %0           | over Spe    | cies Stat        | Numbe                 | er of Dominant Specie<br>e OBL, FACW, or FAC           |                 | (A)     |
| 2<br>3                     |                           |              |                |             |                  |                       | Number of Dominant<br>es Across All Strata:            | 1               | (B)     |
| 4<br>5.                    |                           |              |                |             |                  |                       | nt of Dominant Specie<br>e OBL, FACW, or FAC           |                 | A/B)    |
|                            |                           |              |                | =Tota       | al Cover         |                       | ,  | (               | ,       |
| Sapling/Shrub Stratum      | n (Plot size:             | 15           | )              |             |                  | Preva                 | alence Index Works                                     | heet            |         |
|                            |                           |              |                |             |                  |                       | % Cover of:  | Multiply by:    |         |
|                            |                           |              |                |             |                  |                       | ·  | 1 = 0           |         |
| 3<br>4.                    |                           |              |                |             |                  |                       | ·  | 2 = 0<br>3 = 6  | _       |
| 5.                         |                           |              |                |             |                  |                       | · · · · · · · · · · · · · · · · · · ·                  | 4 = 400         | _       |
| ·                          |                           |              |                | =Tota       | al Cover         |                       |  | 5 = 0           |         |
| Herb Stratum               | (Plot size:               | 5            | )              |             |                  | Colur                 | mn totals 102 (  | (A) 406         | (B)     |
| 1. Bromus inermis          |                           |              | 70             | ) Y         | FAC              | U Preva               | alence Index = $B/A$ =                                 | 3.98            | _       |
| 2. Poa compressa           |                           |              | 20             | ) N         | I FAC            | U                     |  |                 |         |
| 3. Trifolium pratense      |                           |              | 10             |             |                  |                       | ophytic Vegetation                                     |                 |         |
| 4. Setaria pumila          |                           |              | 2              | . N         | I FAC            | <u> </u>              | Rapid test for hydro                                   |                 | ion     |
| 5<br>6.                    |                           |              |                |             |                  |                       | Dominance test is ><br>Prevalence index is             |                 |         |
| 0<br>7                     |                           |              |                |             |                  |                       | Morphological adapt                                    |                 | de      |
| 8.                         |                           |              |                |             |                  |                       | supporting data in R                                   |                 |         |
| 9.                         |                           |              |                |             |                  |                       | separate sheet)  |                 |         |
| 10.                        |                           |              |                |             |                  |                       | Problematic hydroph                                    | nytic vegetatio | n*      |
|                            |                           |              | 10             | 2 =Tota     | al Cover         |                       | (explain)  |                 |         |
|                            | (Plot size:               |              | )              |             |                  |                       | ors of hydric soil and we<br>, unless disturbed or pro |                 | must be |
| Woody Vine Stratum 1.      |                           |              |                |             |                  |                       |  |                 |         |
|                            |                           |              |                |             |                  | Hve                   | drophytic  |                 |         |
| 1                          |                           |              |                | =Tota       | al Cover         | Ve                    | getation   |                 |         |
| 1                          |                           |              |                |             | al Cover         | Ve                    |  | _               |         |

WA018B

| Profile Descr               | ription: (Describe  | to the    | depth needed to   | o docum     | ent the i   | ndicator               | or confirm the absence              | of indicators.)                   |  |  |
|-----------------------------|---------------------|-----------|-------------------|-------------|-------------|------------------------|-------------------------------------|-----------------------------------|--|--|
| Depth Matrix Redox Features |                     |           |                   |             |             |                        |                                     |                                   |  |  |
| (Inches)                    | Color (moist)       | %         | Color (moist)     | %           | Type*       | Loc**                  | Texture                             | Remarks                           |  |  |
| 0-23                        | 10YR 2/1            | 100       |                   | ,,,         | . , po      |                        | Clay Loam                           |                                   |  |  |
| 0-23                        | 1011(2/1            | 100       |                   |             |             |                        |                                     |                                   |  |  |
|                             |                     |           |                   |             |             |                        |                                     |                                   |  |  |
|                             |                     |           |                   |             |             |                        |                                     |                                   |  |  |
|                             |                     |           |                   |             |             |                        |                                     |                                   |  |  |
|                             |                     |           |                   |             |             |                        |                                     |                                   |  |  |
|                             |                     |           |                   |             |             |                        |                                     |                                   |  |  |
|                             |                     |           |                   |             |             |                        |                                     |                                   |  |  |
|                             |                     |           |                   |             |             |                        |                                     |                                   |  |  |
|                             |                     |           |                   |             |             |                        |                                     |                                   |  |  |
|                             |                     |           |                   |             |             |                        |                                     |                                   |  |  |
| *Type: C =                  | Concentration, D    | = Deple   | tion, RM = Redu   | ced Mati    | rix, MS =   | Masked                 | Sand Grains. **Location             | on: PL = Pore Lining, M = Matrix  |  |  |
| Hydric Soil                 | Indicators:         |           |                   |             |             |                        | Indicators for Proble               | ematic Hydric Soils*:             |  |  |
| His                         | stosol (A1)         |           | Sai               | ndy Gley    | ed Matrix   | (S4)                   | Coast Prairie Re                    | dox (A16) (LRR K, L, R)           |  |  |
| His                         | stic Epipedon (A2)  |           | Sa                | ndy Redo    | ox (S5)     |                        | Dark Surface (S7                    | 7) (LRR K, L)                     |  |  |
|                             | ack Histic (A3)     |           |                   | -           | atrix (S6)  |                        |                                     | Masses (F12) (LRR K, L, R)        |  |  |
|                             | drogen Sulfide (A   | 4)        |                   |             | ky Minera   | al (F1)                |                                     | rk Surface (TF12)                 |  |  |
|                             | ratified Layers (A5 | ,         |                   | •           | ed Matrix   | . ,                    | X Other (explain in                 |                                   |  |  |
|                             | cm Muck (A10)       | )         |                   |             | atrix (F3)  | (i <u>2</u> )          |                                     | Ternandy                          |  |  |
|                             | . ,                 | . Curto o | ·                 |             | ( )         |                        |                                     |                                   |  |  |
|                             | pleted Below Darl   |           | . ,               |             | Surface     |                        |                                     |                                   |  |  |
|                             | ick Dark Surface (  | ,         |                   |             | ark Surfac  |                        | , , ,                               | nytic vegetation and wetland      |  |  |
|                             | indy Mucky Minera   |           |                   | dox Depr    | ressions (  | F8)                    | hydrology must be pr<br>problematic | esent, unless disturbed or        |  |  |
| 5 c                         | cm Mucky Peat or    | Peat (S   | 3)                |             |             |                        | problematic                         |                                   |  |  |
| Restrictive L               | ayer (if observed   | ):        |                   |             |             |                        |                                     |                                   |  |  |
| Type: Rocl                  | k                   |           |                   |             |             |                        | Hydric Soil Presen                  | t? Yes                            |  |  |
| Depth (inches               | s): 23              |           |                   |             | -           |                        | -                                   |                                   |  |  |
|                             |                     |           |                   |             | -           |                        |                                     |                                   |  |  |
| Remarks:                    |                     |           |                   |             |             |                        |                                     |                                   |  |  |
|                             |                     |           |                   |             |             |                        |                                     |                                   |  |  |
| A12 Assume                  | d                   |           |                   |             |             |                        |                                     |                                   |  |  |
|                             |                     |           |                   |             |             |                        |                                     |                                   |  |  |
| HYDROLO                     | -                   |           |                   |             |             |                        |                                     |                                   |  |  |
| -                           | rology Indicators   |           |                   |             |             |                        |                                     |                                   |  |  |
| -                           | ators (minimum of   | one is r  | equired; check a  | II that ap  | <u>ply)</u> |                        | Secondary Indica                    | ators (minimum of two required)   |  |  |
| Surfac                      | e Water (A1)        |           |                   | Aquatic     | Fauna (B    | 313)                   | Surface                             | Soil Cracks (B6)                  |  |  |
| High W                      | Vater Table (A2)    |           |                   | True Aq     | uatic Plar  | nts (B14)              | Drainage                            | Drainage Patterns (B10)           |  |  |
| Satura                      | tion (A3)           |           |                   | Hydroge     | en Sulfide  | Odor (C                | 1) Dry-Sea                          | Dry-Season Water Table (C2)       |  |  |
| Water                       | Marks (B1)          |           |                   | Oxidized    | d Rhizosp   | heres or               | Living Crayfish                     | Burrows (C8)                      |  |  |
| Sedime                      | ent Deposits (B2)   |           |                   | Roots (0    | C3)         |                        | Saturatio                           | on Visible on Aerial Imagery (C9) |  |  |
| Drift De                    | eposits (B3)        |           |                   | Presenc     | e of Redu   | uced Iron              | (C4) Stunted                        | or Stressed Plants (D1)           |  |  |
| Algal N                     | /lat or Crust (B4)  |           |                   | Recent      | Iron Redu   | uction in <sup>-</sup> | Tilled Soils Geomor                 | phic Position (D2)                |  |  |
| Iron De                     | eposits (B5)        |           |                   | (C6)        |             |                        | FAC-Ne                              | utral Test (D5)                   |  |  |
| Inunda                      | tion Visible on Ae  | rial Imag | gery (B7)         | Thin Mu     | ick Surfac  | ce (C7)                |                                     |                                   |  |  |
| Sparse                      | ely Vegetated Con   | cave Su   | Irface (B8)       | Gauge o     | or Well Da  | ata (D9)               |                                     |                                   |  |  |
| Water-                      | Stained Leaves (E   | 39)       |                   | Other (E    | Explain in  | Remarks                | 5)                                  |                                   |  |  |
| Field Observ                | ations              |           |                   |             |             |                        |                                     |                                   |  |  |
| Surface Wate                |                     | Yes       | No                | Х           | Depth (ii   | nches):                |                                     |                                   |  |  |
| Water Table F               |                     | Yes       | No                | X           | Depth (ii   |                        | We                                  | tland Hydrology                   |  |  |
| Saturation Pre              |                     | Yes       | No                | X           | Depth (ii   |                        |                                     | Present?<br>No                    |  |  |
| (includes capi              |                     | -         |                   |             |             | -/                     |                                     |                                   |  |  |
| · · ·                       |                     | n gaude   | e, monitorina wel | l, aerial r | photos, pr  | evious in              | spections), if available:           |                                   |  |  |
|                             | <b>,</b>            | 5.5       | 3                 |             | , 1.        |                        | . ,,                                |                                   |  |  |
|                             |                     |           |                   |             |             |                        |                                     |                                   |  |  |
| Remarks:                    |                     |           |                   |             |             |                        |                                     |                                   |  |  |
|                             |                     |           |                   |             |             |                        |                                     |                                   |  |  |
|                             |                     |           |                   |             |             |                        |                                     |                                   |  |  |









Source: Map adapted from Hybrid NAIP Server; Elevation by MN DNR; Project data by Lake Charlotte Solar, LLC; Tetra Tech Wetlands. Scale: 1:1,000

| Project/Site:                             | WETI<br>Lake Ch  |               |                 | ION DAT      | A FORM - I<br>Martin   |               | Region<br>Sampling Date:                          | 10/19/2022                            |
|---|------------------|---------------|-----------------|--------------|------------------------|---------------|---|---------------------------------------|
| Applicant/Owner:                          |                  |               | e Solar, LLC    |              |                        |               | Sampling Point:                                   | WA019A                                |
| Investigator(s):                          |                  | pryl Jennrich |                 | Sect         | ion, Township          |               | · · · · _   | T103N R30W                            |
| Landform (hillslope, te                   |                  |               | eslope          |              | relief (concav         | -             |   | Concave                               |
| Slope (%): 2                              | · · ·            | 43.728        |                 | Long:        | -94.461                |               | Datum:  | WGS84                                 |
| Soil Map Unit Name:                       | Clarion-Sto      | rden comple:  | x, 6 to 10 perc | . ° _        |                        | Classificat   | ion:  | NA                                    |
|   | moderately       |               | for this time.  | of the year? |                        |               |   |                                       |
| Are climatic/hydrologic<br>Are vegetation |                  | , or hydrold  |                 |              | Yes (I<br>y disturbed? |               | n in remarks)<br>ormal circumstance               | es present? Yes                       |
| Are vegetation                            | , soil<br>, soil | , or hydrold  |                 |              | oblematic?             |               |   | answers in remarks.                   |
|   |                  | , or mydroid  |                 |              | obiematic              |               | deu, explain any a                                |                                       |
| Hydrophytic Vege                          |                  | γ Ye          | 26              |              |                        |               |   |                                       |
| Hydric Soil Prese                         |                  | Ye            |                 | le the e     | ampled area            | within a w    | otland?   | Yes                                   |
| 2   |                  |               |                 |              | -                      |               | WA019   |                                       |
| Wetland Hydrolog<br>Remarks:              | gy Present?      |               |                 | ii yes, c    | ptional wetlar         | id site ID.   |   |                                       |
| VEGETATION (                              | Use scientifi    | c names of    | f plants.       |              |                        |               |   |                                       |
|   |                  |               | Absolute        | Dominant     | Indicator              | Domina        | ance Test Worksh                                  | eet                                   |
| Tree Stratum                              | (Plot size:      | 30 )          | % Cover         | •            | Status                 | Number        | of Dominant Specie                                | es                                    |
| 1. Salix nigra                            |                  |               | 30              | Y            | OBL                    | that are      | OBL, FACW, or FAC                                 | C: <u>2</u> (A)                       |
| 2<br>3                                    |                  |               |                 |              |                        |               | mber of Dominant<br>Across All Strata:            | 2 (B)                                 |
| 4.  |                  |               |                 |              |                        |               |   | 、 ,                                   |
| 5.  |                  |               |                 |              |                        |               | of Dominant Specie<br>OBL, FACW, or FA            |                                       |
|   |                  |               | 30              | =Total Cov   | er                     |               |   |                                       |
| Sapling/Shrub Stratur                     | m (Plot size:    | 15            | )               |              |                        |               | ence Index Works                                  |                                       |
| 1   |                  |               |                 |              |                        |               | Cover of:   | Multiply by:                          |
| 2<br>3                                    |                  |               |                 |              |                        | OBL sp        |   | 1 = 30<br>2 = 180                     |
| 4.  |                  |               |                 |              |                        | FAC sp        | •   | 3 = 0                                 |
| 5.  |                  |               |                 |              |                        | FACUs         |   | 4 = 0                                 |
|   |                  |               |                 | =Total Cov   | er                     | UPL sp        | ecies 0 x   | 5 = 0                                 |
| Herb Stratum                              | (Plot size:      | 5             | )               | -            |                        | Column        | totals 120 (                                      | (A) 210 (B)                           |
| 1. Phalaris arundina                      | acea             |               | 90              | Y            | FACW                   | Prevale       | ence Index = B/A =                                | 1.75                                  |
| 2   |                  |               |                 |              |                        |               |   |                                       |
| 3   |                  |               |                 |              |                        |               | ohytic Vegetation                                 |                                       |
| 4<br>5                                    |                  |               |                 |              |                        |               | apid test for hydro                               |                                       |
| 5<br>6                                    |                  |               |                 |              |                        |               | revalence index is                                |                                       |
| 7.  |                  |               |                 |              |                        |               | lorphological adapt                               |                                       |
| 8.  |                  |               |                 |              |                        | s             | upporting data in R                               | emarks or on a                        |
| 9.  |                  |               |                 |              |                        | S6            | eparate sheet)                                    |                                       |
| 10  |                  |               |                 |              |                        | P             | roblematic hydropl                                | nytic vegetation*                     |
|   |                  |               | 90              | =Total Cov   | er                     | (e            | explain)  |                                       |
| Woody Vine Stratum                        | (Plot size:      | 15            | )               |              |                        |               | s of hydric soil and we<br>nless disturbed or pro | etland hydrology must be<br>oblematic |
| 2   |                  |               |                 |              |                        |               | ophytic   |                                       |
|   |                  |               |                 | =Total Cov   | er                     | Vege<br>Prese | etation<br>ent?                                   |                                       |
| Remarks: (Include pho                     | to numbers has   |               | arato choot     |              |                        |               | Yes   |                                       |
| Remarks. (include pric                    |                  | c or on a set | שומום שוופנו)   |              |                        |               |   |                                       |
| Bare ground: 0%                           |                  |               |                 |              |                        |               |   |                                       |

WA019A

| Profile Descr  | iption: (Describe        | e to the  | depth needed to   | o docum   | ent the i                         | ndicator  | or confirm the absence    | of indicators.)  |  |  |  |
|----------------|--------------------------|-----------|-------------------|---|-----------------------------------|-----------|---------------------------|--|--|--|--|
| Depth          | Matrix                   | Re        | dox Feat          | tures   |                                   |           |                           |  |  |  |  |
| (Inches)       | Color (moist)            | %         | Color (moist)     | %   | Type*                             | Loc**     | Texture                   | Remarks  |  |  |  |
| 0-30           | 10YR 2/1                 | 100       |                   |   |                                   |           | Clay Loam                 |  |  |  |  |
| 30-39          | 2.5Y 5/1                 | 98        | 2.5Y 5/6          | 2   | С                                 | PL        | Sandy Clay                | Distinct or Prominent                                      |  |  |  |
|                |                          |           |                   |   |                                   |           |                           |  |  |  |  |
|                |                          |           |                   |   |                                   |           |                           |  |  |  |  |
|                |                          |           |                   |   |                                   |           |                           |  |  |  |  |
|                |                          |           |                   |   |                                   |           |                           |  |  |  |  |
|                |                          |           |                   |   |                                   |           |                           |  |  |  |  |
|                |                          |           |                   |   |                                   |           |                           |  |  |  |  |
|                |                          |           |                   |   |                                   |           |                           |  |  |  |  |
| *Type: C =     | Concentration, D         | – Dople   | tion PM - Podu    | Lood Mate   | iv MS –                           | Mackad    | Sand Grains **Locatic     | Dn: PL = Pore Lining, M = Matrix                           |  |  |  |
| Hydric Soil    |                          | = Depie   | Rivi = Redu       | iced Mat  | 11X, IVIS =                       | wasked a  | Indicators for Proble     | 0  |  |  |  |
| -              | stosol (A1)              |           | Sa                | ndv Glev  | ed Matrix                         | (\$4)     |                           | dox (A16) (LRR K, L, R)                                    |  |  |  |
|                | stic Epipedon (A2)       |           |                   | ndy Redo  |                                   | (04)      | Dark Surface (S7          |  |  |  |  |
|                | ack Histic (A3)          |           |                   | -   | atrix (S6)                        |           |                           | Masses (F12) (LRR K, L, R)                                 |  |  |  |
|                | drogen Sulfide (A        | 4)        |                   | •••   | ky Minera                         | al (E1)   |                           | rk Surface (TF12)  |  |  |  |
|                | atified Layers (A5       |           |                   | •   | ved Matrix                        | . ,       | Other (explain in         | , ,  |  |  |  |
|                | m Muck (A10)             | )         |                   |   | atrix (F3)                        | (12)      |                           | remarkey   |  |  |  |
|                | pleted Below Darl        | k Surfac  |                   |   | Surface                           | (F6)      |                           |  |  |  |  |
|                | ick Dark Surface (       |           | · · · _           |   | ark Surfac                        | . ,       | *Indiantara of hydroph    | autic versitation and watland                              |  |  |  |
|                | ndy Mucky Minera         | · ·       |                   |   | ressions (                        |           |                           | nytic vegetation and wetland<br>esent, unless disturbed or |  |  |  |
|                | m Mucky Peat or          | . ,       |                   |   |                                   | ,         | problematic               |  |  |  |  |
|                | -                        |           | - /               |   |                                   |           |                           |  |  |  |  |
| Type:          | ayer (if observed        | I):       |                   |   |                                   |           | Hydric Soil Presen        | <b>*2</b> Voc  |  |  |  |
| Depth (inches  | ·)·                      |           |                   |   | -                                 |           | nyunc son riesen          | it? Yes  |  |  |  |
|                |                          |           |                   |   | -                                 |           |                           |  |  |  |  |
| Remarks:       |                          |           |                   |   |                                   |           |                           |  |  |  |  |
|                |                          |           |                   |   |                                   |           |                           |  |  |  |  |
|                |                          |           |                   |   |                                   |           |                           |  |  |  |  |
|                | <u>cv</u>                |           |                   |   |                                   |           |                           |  |  |  |  |
| HYDROLO        | G I<br>rology Indicators |           |                   |   |                                   |           |                           |  |  |  |  |
| •              | ators (minimum of        |           | equired: check a  | II that an  | (vla                              |           | Secondary Indica          | ators (minimum of two required)                            |  |  |  |
|                | e Water (A1)             | 0110 13 1 | equired, check a  |   | Fauna (B                          | 13)       | · · · · ·                 |  |  |  |  |
|                | /ater Table (A2)         |           |                   |   | uatic Plai                        | ,         |                           | Surface Soil Cracks (B6)<br>Drainage Patterns (B10)        |  |  |  |
| 0              | tion (A3)                |           |                   | . '   | en Sulfide                        | · · ·     |                           | son Water Table (C2)                                       |  |  |  |
|                | Marks (B1)               |           |                   |   | d Rhizosp                         |           |                           | Burrows (C8)   |  |  |  |
|                | ent Deposits (B2)        |           |                   | Roots (0  | on Visible on Aerial Imagery (C9) |           |                           |  |  |  |  |
|                | eposits (B3)             |           |                   | Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) |                                   |           |                           |  |  |  |  |
|                | lat or Crust (B4)        |           |                   |   |                                   |           | · · ·                     | phic Position (D2)   |  |  |  |
| Iron De        | eposits (B5)             |           |                   | (C6)  |                                   |           | X FAC-Net                 | utral Test (D5)  |  |  |  |
| Inunda         | tion Visible on Ae       | rial Imag | gery (B7)         | Thin Mu   | ick Surfac                        | ce (C7)   |                           |  |  |  |  |
| Sparse         | ly Vegetated Con         | cave Su   | Irface (B8)       | Gauge   | or Well Da                        | ata (D9)  |                           |  |  |  |  |
| Water-         | Stained Leaves (E        | 39)       |                   | Other (E  | Explain in                        | Remarks   | 6)                        |  |  |  |  |
| Field Observ   |                          |           |                   |   |                                   |           |                           |  |  |  |  |
| Surface Wate   |                          | Yes       | No                | Х   | Depth (i                          | · · -     | We                        | tland Hydrology  |  |  |  |
| Water Table F  |                          | Yes       | No                | X   | Depth (i                          | · -       |                           | Present?   |  |  |  |
| Saturation Pre |                          | Yes       | No                | Х   | Depth (i                          | nches):   |                           | Yes  |  |  |  |
| (includes capi |                          | manua     |                   | Laorial   | botos n                           | ovious is | spections) if availables  |  |  |  |  |
| Describe Rec   | ordeu Dala (Sliedi       | in yaugi  | e, morntoring wei | i, acital f   | ποιοs, ρι                         | EVIOUS IN | spections), if available: |  |  |  |  |
|                |                          |           |                   |   |                                   |           |                           |  |  |  |  |
| Remarks:       |                          |           |                   |   |                                   |           |                           |  |  |  |  |
|                |                          |           |                   |   |                                   |           |                           |  |  |  |  |
|                |                          |           |                   |   |                                   |           |                           |  |  |  |  |

| Project/Site:             | Lake Ch                   |              |                 | /County:           | A FORM - I<br>Martin | Vidwest Region<br>Sampling Date:                                    | 10/19/2022          |
|---------------------------|---------------------------|--------------|-----------------|--------------------|----------------------|---|---------------------|
| Applicant/Owner:          |                           | Lake Charlot | te Solar, LLC   |                    | State:               | MN Sampling Point:  | WA019B              |
| nvestigator(s):           | A                         | pryl Jennric | h               | Section            | on, Township         | , Range: Sec.17   | T103N R30W          |
| _andform (hillslope, terr | ace, etc.):               | Н            | illslope        | Local r            | elief (concave       | e, convex, none):   | Convex              |
| Slope (%): 10             | Lat:                      | 43.72        | 879             | Long:              | -94.461              | 6 Datum:  | WGS84               |
| oil Map Unit Name:        | Clarion-Sto<br>moderately |              | ex, 6 to 10 per | cent slopes,       | NWI                  | Classification:   | NA                  |
| re climatic/hydrologic    |                           |              | I for this time | of the year?       | Yes (If              | no, explain in remarks)   |                     |
| Are vegetation            | , soil                    | , or hydrol  | ogy             | Significantly      | disturbed?           | Are "normal circumstance  | es present? Yes     |
| Are vegetation            | , soil                    | , or hydrol  | ogy             | _<br>naturally pro | blematic?            | (If needed, explain any a   | answers in remarks. |
|                           | DINGS                     | _            |                 | _                  |                      |   |                     |
| Hydrophytic Veget         | ation Present?            | ? N          | lo              |                    |                      |   |                     |
| Hydric Soil Presen        | t?                        | N            | lo              | Is the sa          | ampled area          | within a wetland?   | No                  |
| Wetland Hydrology         | / Present?                | N            | lo              | If yes, or         | otional wetlan       | nd site ID: WA019   |                     |
| Remarks:                  |                           |              |                 |                    |                      |   |                     |
|                           |                           |              |                 |                    |                      |   |                     |
|                           |                           |              |                 |                    |                      |   |                     |
| /EGETATION U              | se scientific             | c names o    | f plants.       |                    |                      |   |                     |
|                           |                           |              | -               | Dominant           | Indicator            | Dominance Test Worksh   | eet                 |
| Tree Stratum              | (Plot size:               | 30)          | % Cove          | r Species          | Status               | Number of Dominant Specie   | 6                   |
| 1                         |                           |              |                 |                    |                      | that are OBL, FACW, or FAC  |                     |
| 2                         |                           |              |                 |                    |                      | - Total Number of Dominant  |                     |
| 3                         |                           |              |                 |                    |                      | Species Across All Strata:  | (B)                 |
| 4<br>5.                   |                           |              |                 |                    |                      | Percent of Dominant Species   |                     |
| J                         |                           |              |                 | =Total Cove        | r                    | that are OBL, FACW, or FAC  | <u> </u>            |
| Sapling/Shrub Stratum     | (Plot size:               | 15           | )               | _                  |                      | Prevalence Index Works  | heet                |
| 1                         | -                         |              |                 |                    |                      | Total % Cover of:   | Multiply by:        |
| 2                         |                           |              |                 |                    |                      | - '   | 1 =0                |
| 3.                        |                           |              |                 |                    |                      | - '   | 2 = 0               |
| 4                         |                           |              |                 |                    |                      | - '   | 3 = 15              |
| 5                         |                           |              |                 | =Total Cove        | r                    |   | 4 = 360<br>5 = 0    |
| Herb Stratum              | (Plot size:               | 5            | )               |                    | 1                    |   | A) 375 (B)          |
| 1. Bromus inermis         | (1.101.01201              | 0            | , 70            | Y                  | FACU                 | Prevalence Index = $B/A$ =  | 3.95                |
| 2. Poa compressa          |                           |              | 20              | Y                  | FACU                 |   |                     |
| 3. Setaria pumila         |                           |              | 5               | Ν                  | FAC                  | Hydrophytic Vegetation  | Indicators:         |
| 4.                        |                           |              |                 |                    |                      | Rapid test for hydror   | ohytic vegetation   |
| 5                         |                           |              |                 |                    |                      | Dominance test is >   |                     |
| 6                         |                           |              |                 |                    |                      | Prevalence index is   |                     |
| 7<br>8.                   |                           |              |                 |                    |                      | Morphological adapt<br>supporting data in R                         |                     |
| 9.                        |                           |              |                 |                    |                      | separate sheet)   | omanto or on a      |
| 10.                       |                           |              |                 |                    |                      | Problematic hydroph   | vtic vegetation*    |
|                           |                           |              | 95              | =Total Cove        | r                    | (explain)   | ·                   |
| Woody Vine Stratum 1.     | (Plot size:               | 15           | )               |                    |                      | *Indicators of hydric soil and we present, unless disturbed or pro- |                     |
|                           |                           |              |                 |                    |                      | Hydrophytic   |                     |
| 2.                        |                           |              |                 | Tatal Caus         | r                    | Vegetation  |                     |
| 2                         |                           |              |                 | =Total Cove        | 1                    | Present?  |                     |

WA019B

| Profile Descr               | iption: (Describe  | e to the  | depth needed to                       | o docum     | ent the i  | ndicator    | or confirm the absence    | of indicators.)  |  |  |  |
|-----------------------------|--------------------|-----------|---------------------------------------|-------------|------------|-------------|---------------------------|--|--|--|--|
| Depth Matrix Redox Features |                    |           |                                       |             |            |             |                           |  |  |  |  |
| (Inches)                    | Color (moist)      | %         | Color (moist)                         | %           | Type*      | Loc**       | Texture                   | Remarks  |  |  |  |
| 0-6                         | 10YR 2/1           | 100       |                                       |             |            |             | Clay Loam                 |  |  |  |  |
|                             | 10YR 2/1           |           | 2.57.5/4                              | 15          | С          | PL/M        | Clay                      | Distinct or Prominent                                  |  |  |  |
| 6-12                        |                    | 85        | 2.5Y 5/4                              | 15          |            |             |                           | Distinct or Prominent                                  |  |  |  |
| 12-20                       | 2.5Y 6/4           | 99        | 10YR 5/6                              | 1           | С          | PL          | Sandy Clay Trace Gravel   | Distinct or Prominent                                  |  |  |  |
|                             |                    |           |                                       |             |            |             |                           |  |  |  |  |
|                             |                    |           |                                       |             |            |             |                           |  |  |  |  |
|                             |                    |           |                                       |             |            |             |                           |  |  |  |  |
|                             |                    |           |                                       |             |            |             |                           |  |  |  |  |
|                             |                    |           |                                       |             |            |             |                           |  |  |  |  |
|                             |                    |           |                                       |             |            |             |                           |  |  |  |  |
| *Type: C =                  | Concentration, D   | = Deple   | tion, RM = Redu                       | ced Mat     | rix, MS =  | Masked \$   | Sand Grains. **Location   | on: PL = Pore Lining, M = Matrix                       |  |  |  |
| Hydric Soil                 | Indicators:        |           |                                       |             |            |             | Indicators for Proble     | ematic Hydric Soils*:                                  |  |  |  |
| His                         | tosol (A1)         |           |                                       |             | ed Matrix  | (S4)        |                           | dox (A16) (LRR K, L, R)                                |  |  |  |
| His                         | tic Epipedon (A2)  | )         | Sai                                   | ndy Redo    | ox (S5)    |             | Dark Surface (S7          | 7) (LRR K, L)  |  |  |  |
| Bla                         | ick Histic (A3)    |           | Stri                                  | ipped Ma    | atrix (S6) |             | Iron-Manganese            | Masses (F12) (LRR K, L, R)                             |  |  |  |
| Hye                         | drogen Sulfide (A  | 4)        | Loa                                   | amy Muc     | ky Minera  | al (F1)     | Very Shallow Da           | rk Surface (TF12)                                      |  |  |  |
|                             | atified Layers (A5 | 5)        | Loa                                   | amy Gley    | ed Matrix  | : (F2)      | Other (explain in         | remarks)   |  |  |  |
| 2 c                         | m Muck (A10)       |           | De                                    | pleted Ma   | atrix (F3) |             |                           |  |  |  |  |
|                             | pleted Below Darl  |           | · · · · · · · · · · · · · · · · · · · |             | Surface    | . ,         |                           |  |  |  |  |
|                             | ck Dark Surface (  |           | De                                    | pleted Da   | ark Surfac | ce (F7)     | *Indicators of hydropl    | nytic vegetation and wetland                           |  |  |  |
|                             | ndy Mucky Minera   |           |                                       | dox Depr    | ressions ( | F8)         | , , ,                     | esent, unless disturbed or                             |  |  |  |
| 5 c                         | m Mucky Peat or    | Peat (S   | 3)                                    |             |            |             | problematic               |  |  |  |  |
| Restrictive La              | ayer (if observed  | l):       |                                       |             |            |             |                           |  |  |  |  |
| Туре:                       |                    |           |                                       |             |            |             |                           |  |  |  |  |
| Depth (inches               | Depth (inches):    |           |                                       |             |            |             |                           |  |  |  |  |
| Remarks:                    |                    |           |                                       |             |            |             |                           |  |  |  |  |
| Remarks.                    |                    |           |                                       |             |            |             |                           |  |  |  |  |
|                             |                    |           |                                       |             |            |             |                           |  |  |  |  |
|                             |                    |           |                                       |             |            |             |                           |  |  |  |  |
| HYDROLO                     | GY                 |           |                                       |             |            |             |                           |  |  |  |  |
|                             | rology Indicators  | s:        |                                       |             |            |             |                           |  |  |  |  |
| -                           | ators (minimum of  |           | equired: check a                      | II that ap  | (vla       |             | Secondary Indica          | ators (minimum of two required)                        |  |  |  |
|                             | e Water (A1)       |           |                                       |             | Fauna (B   | (13)        |                           | · · · ·  |  |  |  |
|                             | ater Table (A2)    |           |                                       |             | uatic Plai |             |                           | Surface Soil Cracks (B6)                               |  |  |  |
| °                           | ion (A3)           |           |                                       |             | en Sulfide |             |                           | Drainage Patterns (B10)<br>Dry-Season Water Table (C2) |  |  |  |
|                             | Marks (B1)         |           |                                       |             | d Rhizosp  |             | · ·                       | Burrows (C8)   |  |  |  |
|                             | ent Deposits (B2)  |           |                                       | Roots (C    | •          |             | · _ ·                     | on Visible on Aerial Imagery (C9)                      |  |  |  |
|                             | eposits (B3)       |           |                                       |             | e of Red   | uced Iron   |                           | or Stressed Plants (D1)                                |  |  |  |
|                             | lat or Crust (B4)  |           |                                       | Recent      | Iron Redu  | uction in T |                           | phic Position (D2)                                     |  |  |  |
| Iron De                     | posits (B5)        |           |                                       | (C6)        |            |             | FAC-Ne                    | utral Test (D5)  |  |  |  |
| Inundat                     | tion Visible on Ae | rial Imag | gery (B7)                             | Thin Mu     | ick Surfac | ce (C7)     |                           |  |  |  |  |
| Sparse                      | ly Vegetated Con   | cave Su   | Irface (B8)                           | Gauge of    | or Well Da | ata (D9)    |                           |  |  |  |  |
| Water-                      | Stained Leaves (E  | 39)       |                                       | Other (E    | Explain in | Remarks     | 5)                        |  |  |  |  |
| Field Observa               | ations:            |           |                                       |             |            |             |                           |  |  |  |  |
| Surface Water               | r Present?         | Yes       | No                                    | Х           | Depth (i   | nches):     |                           |  |  |  |  |
| Water Table P               | Present?           | Yes       | No                                    | Х           | Depth (i   | nches):     |                           | tland Hydrology<br>Present?                            |  |  |  |
| Saturation Pre              |                    | Yes       | No                                    | Х           | Depth (i   | nches):     |                           | No   |  |  |  |
| (includes capil             |                    |           |                                       |             | - I 1      |             |                           |  |  |  |  |
| Describe Reco               | orded Data (strea  | m gauge   | e, monitoring wel                     | i, aerial p | onotos, pr | evious in   | spections), if available: |  |  |  |  |
|                             |                    |           |                                       |             |            |             |                           |  |  |  |  |
| Remarks:                    |                    |           |                                       |             |            |             |                           |  |  |  |  |
| Nelliaiks.                  |                    |           |                                       |             |            |             |                           |  |  |  |  |
|                             |                    |           |                                       |             |            |             |                           |  |  |  |  |







Source: Map adapted from Hybrid NAIP Server; Elevation by MN DNR; Project data by Lake Charlotte Solar, LLC; Tetra Tech Wetlands. Scale: 1:1,000

|  | WET          | LAND D       | DETER     | MINAT       | ON DAT        | FORM -        | Midwes       | t Region                           |                      |                |         |
|--|--------------|--------------|-----------|-------------|---------------|---------------|--------------|------------------------------------|----------------------|----------------|---------|
| Project/Site:                              | Lake C       | harlotte     |           | City/       | County:       | Marti         | n            | Sampling Da                        | ate:                 | 10/20/2022     | 2       |
| Applicant/Owner:                           |              | Lake Cha     | rlotte So | olar, LLC   |               | State:        | MN           | Sampling Po                        | pint:                | WA045A         |         |
| Investigator(s):                           |              | Apryl Jenn   | rich      |             | Secti         | on, Townshij  | p, Range:    |                                    | Sec.17 T1            | 03N R30W       |         |
| Landform (hillslope, terra                 | ce, etc.):   |              | Depres    | sion        | Local         | elief (concav | ve, convex   | , none):                           | C                    | Concave        |         |
| Slope (%): 2                               | Lat:         | 43.          | 72606     |             | Long:         | -94.458       | 355          | Datum:                             |                      | WGS84          |         |
| Soil Map Unit Name:                        | Delft clay   | loam, 0 to 2 | 2 perce   | nt slopes   |               | NW            | I Classifica | ation:                             |                      | NA             |         |
| Are climatic/hydrologic co                 | onditions of | the site typ | ical for  | this time o | of the year?  | Yes (         | lf no, expla | ain in remark                      | s)                   |                |         |
| Are vegetation                             | , soil       | , or hyd     | Irology   |             | Significantly | disturbed?    | Are "ı       | normal circur                      | nstances p           | present?       | Yes     |
| Are vegetation                             | , soil       | , or hyd     | Irology   |             | naturally pro | oblematic?    | (If ne       | eded, expla                        | in any ans           | swers in rem   | narks.) |
| SUMMARY OF FIN                             | DINGS        |              |           |             |               |               |              |                                    |                      |                |         |
| Hydrophytic Vegeta                         | tion Presen  | t?           | Yes       |             |               |               |              |                                    |                      |                |         |
| Hydric Soil Present?                       | ?            | -            | Yes       |             | Is the s      | ampled area   | a within a   | wetland?                           | •                    | Yes            |         |
| Wetland Hydrology                          | Present?     | -            | Yes       |             | lf yes, o     | ptional wetla | nd site ID:  | ,                                  | NA045                |                |         |
| Remarks:                                   |              |              |           |             |               | •             |              |                                    |                      |                |         |
| VEGETATION Us                              | e scientif   | ic names     |           |             | Dominant      | Indicator     | Domir        | nance Test V                       | Vorksheet            |                |         |
| Tree Stratum (F                            | Plot size:   | 30           | )         |             | Species       | Status        | Numbe        | er of Dominan<br>OBL, FACW         | t Species            |                | ۹)      |
| 2<br>3                                     |              |              |           |             |               |               | Total N      | lumber of Dor<br>s Across All S    | ninant               | 1 (E           | 3)      |
| 4<br>5                                     |              |              |           |             |               |               |              | t of Dominant<br>e OBL, FACW       |                      | <u>100%</u> (A | /B)     |
|  |              |              | -         |             | =Total Cove   | er            |              |                                    |                      |                |         |
| Sapling/Shrub Stratum                      | (Plot size:  | 15           | )         |             |               |               |              | lence Index                        |                      |                |         |
| 1  |              |              |           |             |               |               |              | % Cover of:                        |                      | fultiply by:   |         |
| 2<br>3                                     |              |              |           |             |               |               |              | pecies<br>/ species                | 0 x1=<br>95 x2=      |                |         |
| 4.   |              |              |           |             |               |               |              | pecies                             | $\frac{35}{0}$ x 3 = | -              |         |
| 5.   |              |              |           |             |               |               |              | species                            | 1 x 4 =              |                | •       |
|  |              |              |           |             | =Total Cove   | er            |              | pecies                             | 0 x 5 =              |                | •       |
| Herb Stratum                               | (Plot size:  | 5            | )         |             |               |               | Colum        | n totals                           | 96 (A)               | 194            | (B)     |
| 1. Phalaris arundinace                     | a            |              |           | 95          | Y             | FACW          | Preva        | lence Index :                      | = B/A =              | 2.02           |         |
| 2. Asclepias syriaca                       |              |              |           | 1           | Ν             | FACU          |              |                                    |                      |                |         |
| 3.   |              |              |           |             |               |               | Hydro        | phytic Vege                        | etation Ind          | licators:      |         |
| 4.   |              |              |           |             |               |               |              | Rapid test fo                      | r hydrophy           | tic vegetatio  | 'n      |
| 5  |              |              |           |             |               |               |              | Dominance t                        |                      |                |         |
| 6  |              |              |           |             |               |               | _            | Prevalence i                       |                      |                |         |
| 7  |              |              |           |             |               |               |              | Morphologic                        |                      |                |         |
| 8  |              |              |           |             |               |               |              | supporting d                       |                      | arks or on a   |         |
| 9<br>10.                                   |              |              |           |             |               |               |              | separate she<br>Problematic        | ,                    | c vegetation   | *       |
| 10   |              |              |           | 96          | =Total Cove   | ar.           |              | (explain)                          | nyaropnya            | c vegetation   |         |
| <u>Woody Vine Stratum</u><br>1             | (Plot size:  |              | )         |             |               | -1            | *Indicato    | ors of hydric so<br>unless disturb |                      |                | nust be |
| 2  |              |              | -         |             | =Total Cove   | 9r            | Veg          | Irophytic<br>Jetation<br>sent?     | Yes                  |                |         |
| Remarks: (Include photo<br>Bare ground: 0% | numbers he   | ere or on a  | separa    | te sheet)   |               |               |              |                                    |                      |                |         |

WA045A

| Profile Descr          | iption: (Describe                      | to the    | depth needed to   | o docum     | ent the i                              | ndicator  | or confirm the absence    | of indicators.)  |  |  |
|------------------------|--|-----------|-------------------|-------------|--|-----------|---------------------------|--|--|--|
| Depth                  | Matrix                                 | Re        | dox Feat          | tures       |  |           |                           |  |  |  |
| (Inches)               | Color (moist)                          | %         | Color (moist)     | %           | Type*                                  | Loc**     | Texture                   | Remarks  |  |  |
| 0-36                   | 10YR 2/1                               | 100       |                   |             |  |           | Clay Loam                 |  |  |  |
| 36-39                  | 10YR 2/1                               | 95        | 10YR 4/1          | 5           | D                                      | м         | Clay                      |  |  |  |
|                        | 1011(2/1                               |           |                   |             | D                                      | 101       | City                      |  |  |  |
|                        |  |           |                   |             |  |           |                           |  |  |  |
|                        |  |           |                   |             |  |           |                           |  |  |  |
|                        |  |           |                   |             |  |           |                           |  |  |  |
|                        |  |           |                   |             |  |           |                           |  |  |  |
|                        |  |           |                   |             |  |           |                           |  |  |  |
|                        |  |           |                   |             |  |           |                           |  |  |  |
| *** 0                  |  |           |                   |             |  |           |                           |  |  |  |
| 31                     | Concentration, D                       | = Deple   | tion, RM = Redu   | ced Mati    | rix, MS =                              | Masked    |                           | on: PL = Pore Lining, M = Matrix                           |  |  |
| Hydric Soil            |  |           | Sec.              |             | od Motrix                              |           |                           | ematic Hydric Soils*:                                      |  |  |
|                        | stosol (A1)                            |           |                   |             | ed Matrix                              | (34)      |                           | dox (A16) (LRR K, L, R)                                    |  |  |
|                        | stic Epipedon (A2)<br>ack Histic (A3)  |           |                   | ndy Redo    |  |           | Dark Surface (S7          | Masses (F12) (LRR K, L, R)                                 |  |  |
|                        | drogen Sulfide (A3)                    | 4)        |                   | • •         | atrix (S6)<br>ky Minera                | N (E1)    |                           | rk Surface (TF12)  |  |  |
|                        | atified Layers (A5                     | ,         |                   | •           | red Matrix                             | . ,       | X Other (explain in       |  |  |  |
|                        | m Muck (A10)                           | )         |                   |             | atrix (F3)                             | (12)      |                           | Temarks)   |  |  |
|                        | pleted Below Darl                      | Surfac    |                   |             | Surface                                | (F6)      |                           |  |  |  |
|                        | ick Dark Surface (                     |           | · · · <u> </u>    |             | ark Surfac                             | · · /     |                           |  |  |  |
|                        | ndy Mucky Minera                       | ,         |                   |             | essions (                              | ` '       | <i>j</i> 1                | nytic vegetation and wetland<br>esent, unless disturbed or |  |  |
|                        | m Mucky Peat or                        | . ,       |                   |             | 00010110 (                             | 10)       | problematic               |  |  |  |
|                        |  |           |                   |             |  | 1         |                           |  |  |  |
|                        | ayer (if observed                      | ):        |                   |             |  |           | Undrie Seil Dresse        |  |  |  |
| Type:<br>Depth (inches | .).                                    |           |                   |             | -                                      |           | Hydric Soil Presen        | t? Yes   |  |  |
| Deptil (menes          |  |           |                   |             | -                                      |           |                           |  |  |  |
| Remarks:               |  |           |                   |             |  |           |                           |  |  |  |
|                        |  |           |                   |             |  |           |                           |  |  |  |
| A12 Assumed            | d                                      |           |                   |             |  |           |                           |  |  |  |
|                        | <u>cv</u>                              |           |                   |             |  |           |                           |  |  |  |
| HYDROLO                |  |           |                   |             |  |           |                           |  |  |  |
| -                      | rology Indicators<br>ators (minimum of |           | aquirad: abaak a  | ll that an  | nh ()                                  |           | Sacandary Indias          | ators (minimum of two required)                            |  |  |
| -                      |  | one is i  | equired; check a  |             |  | 40)       |                           |  |  |  |
|                        | e Water (A1)                           |           |                   |             | c Fauna (B13) Surface Soil Cracks (B6) |           |                           |  |  |  |
|                        | /ater Table (A2)                       |           |                   |             | uatic Plar                             |           |                           | Drainage Patterns (B10)                                    |  |  |
|                        | tion (A3)<br>Marks (B1)                |           |                   |             | en Sulfide                             |           |                           | son Water Table (C2)<br>Burrows (C8)                       |  |  |
|                        | ent Deposits (B2)                      |           |                   | Roots (C    | d Rhizosp<br>33)                       |           |                           | on Visible on Aerial Imagery (C9)                          |  |  |
|                        | eposits (B3)                           |           |                   |             | ce of Redu                             | uced Iron |                           | or Stressed Plants (D1)                                    |  |  |
|                        | At or Crust (B4)                       |           |                   |             |  |           | ( )                       | phic Position (D2)   |  |  |
|                        | eposits (B5)                           |           |                   | (C6)        |  |           |                           | utral Test (D5)  |  |  |
|                        | tion Visible on Ae                     | rial Imag | gery (B7)         | Thin Mu     | ick Surfac                             | ce (C7)   |                           |  |  |  |
| Sparse                 | ly Vegetated Con                       | cave Su   | Irface (B8)       | Gauge of    | or Well Da                             | ata (D9)  |                           |  |  |  |
| Water-                 | Stained Leaves (E                      | 39)       |                   | Other (E    | Explain in                             | Remarks   | 5)                        |  |  |  |
| Field Observ           | ations:                                |           |                   |             |  |           |                           |  |  |  |
| Surface Wate           | r Present?                             | Yes       | No                | Х           | Depth (ii                              | nches):   | Wo                        | tland Hudralagy  |  |  |
| Water Table F          |  | Yes       | No                | Х           | Depth (ii                              |           | vve                       | tland Hydrology<br>Present?                                |  |  |
| Saturation Pre         |  | Yes       | No                | Х           | Depth (ii                              | nches):   |                           | Yes  |  |  |
| (includes capi         |  |           | monitorio         | المعتادا    | hot                                    |           | operations) if and the    |  |  |  |
| Describe Rec           | orded Data (strea                      | n gauge   | e, monitoring wel | i, aeriai p | motos, pr                              | evious in | spections), if available: |  |  |  |
|                        |  |           |                   |             |  |           |                           |  |  |  |
| Remarks:               |  |           |                   |             |  |           |                           |  |  |  |
|                        |  |           |                   |             |  |           |                           |  |  |  |
|                        |  |           |                   |             |  |           |                           |  |  |  |
|  | WET            | LAND DE        | ETERMI      | NATI   | ON DATA       | FORM -       | Midwes      | st Region                          | I             |                         |         |
|--|----------------|----------------|-------------|--------|---------------|--------------|-------------|------------------------------------|---------------|-------------------------|---------|
| Project/Site:                            | Lake C         | harlotte       |             | City/  | County:       | Marti        | n           | Sampling [                         | Date:         | 10/20/202               | 22      |
| Applicant/Owner:                         |                | Lake Charlo    | otte Solar  | , LLC  |               | State:       | MN          | Sampling F                         | Point:        | WA045E                  | 3       |
| Investigator(s):                         |                | Apryl Jennri   | ch          |        | Sectio        | on, Townshi  | p, Range:   |                                    | Sec.17 T1     | 103N R30W               |         |
| Landform (hillslope, te                  | rrace, etc.):  |                | Terrace     |        | Local r       | elief (conca | ve, conve   | k, none):                          |               | Convex                  |         |
| Slope (%): 2                             | Lat:           | 43.7           | 2609        |        | Long:         | -94.458      | 344         | Datum:                             |               | WGS84                   |         |
| Soil Map Unit Name:                      | Delft clay     | loam, 0 to 2   | percent s   | lopes  |               | NW           | I Classific | ation:                             |               | NA                      |         |
| Are climatic/hydrologic                  | conditions of  | the site typic | al for this | time o | f the year?   | Yes (        | lf no, expl | ain in remar                       | ks)           |                         |         |
| Are vegetation                           | , soil         | , or hydro     | ology       |        | Significantly | disturbed?   | Are "       | normal circu                       | umstances     | present?                | Yes     |
| Are vegetation                           | , soil         | , or hydro     | ology       |        | naturally pro | blematic?    | (lf ne      | eded, expl                         | ain any an    | iswers in re            | marks.) |
| SUMMARY OF F                             | INDINGS        |                |             |        |               |              |             |                                    |               |                         |         |
| Hydrophytic Vege                         | etation Presen | t?             | No          |        |               |              |             |                                    |               |                         |         |
| Hydric Soil Prese                        | ent?           | `              | res         |        | Is the sa     | mpled area   | a within a  | wetland?                           |               | No                      |         |
| Wetland Hydrolog                         | gy Present?    |                | No          |        | If yes, op    | tional wetla | nd site ID: | :                                  | WA045         |                         |         |
| Remarks:                                 | 57             |                |             |        | ,,            |              |             |                                    |               |                         |         |
| VEGETATION                               | Use scientif   | ic names (     |             |        | Dominant      | Indicator    | Domi        | nance Test                         | Workshoe      |                         |         |
| Tree Stratum                             | (Plot size:    | 30 )           |             |        | Species       | Status       |             | er of Domina                       |               | 71                      |         |
| 1<br>2                                   |                |                |             |        |               |              |             | e OBL, FAC                         |               | 0                       | (A)     |
| 3.                                       |                |                |             |        |               |              |             | Number of Do<br>es Across All      |               | 1                       | (B)     |
| 4<br>5.                                  |                |                |             |        |               |              |             | nt of Dominar<br>e OBL, FAC\       |               | 0% (/                   | A/B)    |
|  |                |                |             |        | =Total Cove   | r            |             | 0 0 0 2 2, 1 7 10 1                | .,            | `                       | ,       |
| Sapling/Shrub Stratu                     | m (Plot size:  | 15             | )           |        |               |              | Preva       | alence Inde                        | x Workshe     | eet                     |         |
| 1  |                |                |             |        |               |              | Total       | % Cover of:                        | I             | Multiply by:            |         |
| 2  |                |                |             |        |               |              | OBL         | species                            | 0 x 1         | = 0                     |         |
| 3  |                |                |             |        |               |              | FACV        | V species                          | 0 x 2         | = 0                     |         |
| 4  |                |                |             |        |               |              |             | species                            | 0 x 3         |                         | _       |
| 5  |                |                |             |        |               |              |             | J species                          | <u>99</u> x 4 |                         |         |
|  |                | -              | 、 ——        |        | =Total Cove   | r            |             | species _                          | 0 x 5         |                         | _       |
| Herb Stratum                             | (Plot size:    | 5              | _ )         |        | V             | FAOL         |             | nn totals                          | 99 (A)        | ·                       | (B)     |
| 1. Bromus Inermis                        |                |                |             | 99     | Y             | FACU         | Preva       | lence Index                        | = B/A =       | 4                       | _       |
| 2  |                |                |             |        |               |              | Hydr        | ophytic Veg                        | notation In   | dicators                |         |
| 3<br>4                                   |                |                |             |        |               |              | -           |                                    |               | vtic vegetati           | ion     |
| 5  |                |                |             |        |               |              |             | Dominance                          | • •           |                         |         |
| 6.                                       |                |                |             |        |               |              |             | Prevalence                         | index is ≤3   | 3.0*                    |         |
| 7.                                       |                |                |             |        |               |              |             | Morphologi                         | cal adaptat   | tions* (provid          | de      |
| 8.                                       |                |                |             |        |               |              |             | supporting                         | data in Rer   | marks or on             | а       |
| 9  |                |                |             |        |               |              |             | separate sh                        | ieet)         |                         |         |
| 10                                       |                |                |             |        |               |              |             | Problematio                        | hydrophy      | tic vegetatio           | n*      |
|  |                |                | 1           | 99     | =Total Cove   | r            |             | (explain)                          |               |                         |         |
| Woody Vine Stratum<br>1.                 | (Plot size:    |                | )           |        |               |              |             | ors of hydric s<br>, unless distur |               | and hydrology<br>ematic | must be |
| 2  |                |                |             |        | =Total Cove   | r            | Veç         | drophytic<br>getation<br>esent?    | No            |                         |         |
| Remarks: (Include pho<br>Bare ground: 0% | oto numbers he | ere or on a s  | eparate s   | heet)  |               |              |             |                                    |               |                         |         |

WA045B

| Profile Descr                | ription: (Describe | e to the  | depth needed to   | o docum     | ent the i              | ndicator  | or confirm the absence    | of indicators.)                   |
|------------------------------|--------------------|-----------|-------------------|-------------|------------------------|-----------|---------------------------|-----------------------------------|
| Depth                        | Matrix             |           | Re                | dox Feat    | ures                   |           |                           |                                   |
| (Inches)                     | Color (moist)      | %         | Color (moist)     | %           | Type*                  | Loc**     | Texture                   | Remarks                           |
| 0-38                         | 10YR 2/1           | 100       |                   |             |                        |           | Loam                      |                                   |
| 0.00                         | 1011(2/1           | 100       |                   |             |                        |           | Loan                      |                                   |
|                              | -                  |           |                   |             |                        |           |                           |                                   |
|                              |                    |           |                   |             |                        |           |                           |                                   |
|                              |                    |           |                   |             |                        |           |                           |                                   |
|                              |                    |           |                   |             |                        |           |                           |                                   |
|                              |                    |           |                   |             |                        |           |                           |                                   |
|                              |                    |           |                   |             |                        |           |                           |                                   |
|                              |                    |           |                   |             |                        |           |                           |                                   |
|                              |                    |           |                   |             |                        |           |                           |                                   |
| *Type: C =                   | Concentration, D   | – Dopla   | tion PM - Podu    | cod Mat     | iv MS -                | Maskad 9  | Sand Grains **Location    | PL - Poro Lining M - Matrix       |
| ,,                           |                    | - Depie   | uon, Rivi – Redu  | ced Mati    | IX, IVIS –             | Masked    |                           | on: PL = Pore Lining, M = Matrix  |
| Hydric Soil                  |                    |           | <b>C</b> -1       |             | a al Massuito          | (04)      |                           | ematic Hydric Soils*:             |
|                              | stosol (A1)        |           |                   |             | ed Matrix              | (54)      |                           | dox (A16) (LRR K, L, R)           |
|                              | stic Epipedon (A2) |           |                   | ndy Redo    | . ,                    |           | Dark Surface (S7          |                                   |
|                              | ack Histic (A3)    |           |                   | • •         | trix (S6)              |           |                           | Masses (F12) (LRR K, L, R)        |
|                              | drogen Sulfide (A  | ,         |                   | •           | ky Minera              | • •       |                           | rk Surface (TF12)                 |
| Str                          | atified Layers (A5 | )         | Loa               | amy Gley    | ed Matrix              | (F2)      | X Other (explain in       | remarks)                          |
|                              | m Muck (A10)       |           |                   | oleted Ma   | atrix (F3)             |           |                           |                                   |
| De                           | pleted Below Darl  | k Surfac  | e (A11) Re        | dox Dark    | Surface                | (F6)      |                           |                                   |
| Th                           | ick Dark Surface ( | (A12)     | De                | oleted Da   | ark Surfac             | ce (F7)   | *Indicators of hydroph    | nytic vegetation and wetland      |
| Sa                           | ndy Mucky Minera   | al (S1)   | Re                | dox Depr    | essions (              | F8)       |                           | esent, unless disturbed or        |
| 5 c                          | m Mucky Peat or    | Peat (S   | 3)                |             |                        |           | problematic               |                                   |
| Postrictive L                | ayer (if observed  | N•        |                   |             |                        |           |                           |                                   |
| Type:                        | ayer (il observed  | <b>.</b>  |                   |             |                        |           | Hydric Soil Presen        | t? Yes                            |
| Depth (inches                | ·)·                |           |                   |             |                        |           | Tryunc Son Tresen         |                                   |
| Deptil (mones                | <i></i>            |           |                   |             |                        |           |                           |                                   |
| Remarks:                     |                    |           |                   |             |                        |           |                           |                                   |
|                              |                    |           |                   |             |                        |           |                           |                                   |
| A12 Assume                   | d                  |           |                   |             |                        |           |                           |                                   |
|                              |                    |           |                   |             |                        |           |                           |                                   |
| HYDROLO                      | GY                 |           |                   |             |                        |           |                           |                                   |
| Wetland Hyd                  | rology Indicators  | s:        |                   |             |                        |           |                           |                                   |
| Primary Indica               | ators (minimum of  | one is r  | equired; check a  | ll that ap  | <u>ply)</u>            |           | Secondary Indica          | ators (minimum of two required)   |
| Surface                      | e Water (A1)       |           |                   | Aquatic     | Fauna (B               | 13)       | Surface                   | Soil Cracks (B6)                  |
|                              | /ater Table (A2)   |           |                   |             | uatic Plar             |           |                           | e Patterns (B10)                  |
|                              | tion (A3)          |           |                   |             | en Sulfide             |           |                           | son Water Table (C2)              |
|                              | Marks (B1)         |           |                   |             | d Rhizosp              |           |                           | Burrows (C8)                      |
|                              | ent Deposits (B2)  |           |                   | Roots (C    |                        |           |                           | on Visible on Aerial Imagery (C9) |
|                              | eposits (B3)       |           |                   |             | e of Redu              | uced Iron |                           | or Stressed Plants (D1)           |
|                              | At or Crust (B4)   |           |                   |             |                        |           | · · ·                     | phic Position (D2)                |
|                              | eposits (B5)       |           |                   | (C6)        |                        |           | '                         | utral Test (D5)                   |
|                              | tion Visible on Ae | rial Imad | perv (B7)         |             | ck Surfac              | e (C7)    |                           |                                   |
|                              | ely Vegetated Con  |           |                   |             | or Well Da             |           |                           |                                   |
|                              | Stained Leaves (E  |           |                   | -           | xplain in              |           | 5)                        |                                   |
|                              | `                  | ,         |                   | - (         |                        |           | ,                         |                                   |
| Field Observ<br>Surface Wate |                    | Yes       | No                | х           | Depth (ir              | hches).   |                           |                                   |
| Water Table F                |                    | Yes       | No                | X           | Depth (ii<br>Depth (ii | · _       | We                        | tland Hydrology                   |
| Saturation Pre               |                    | Yes       | No                | X           | Depth (ii              |           |                           | Present?<br>No                    |
| (includes capi               |                    | 100       |                   | ~           | (ii                    |           |                           |                                   |
|                              |                    | m ຕອບດ    | e. monitoring wel | l, aerial r | hotos pr               | evious in | spections), if available: |                                   |
|                              |                    | gaugi     | .,                | .,          |                        |           |                           |                                   |
|                              |                    |           |                   |             |                        |           |                           |                                   |
| Remarks:                     |                    |           |                   |             |                        |           |                           |                                   |
|                              |                    |           |                   |             |                        |           |                           |                                   |
|                              |                    |           |                   |             |                        |           |                           |                                   |







Source: Map adapted from Hybrid NAIP Server; Elevation by MN DNR; Project data by Lake Charlotte Solar, LLC; Tetra Tech Wetlands. Scale: 1:1,000

ich

Wetland ID WA051

|   | WETLA          | ND DETER         | MINAT       | ION DATA      | FORM -        | Midwes      | st Regio                       | n                         |                        |
|---|----------------|------------------|-------------|---------------|---------------|-------------|--------------------------------|---------------------------|------------------------|
| Project/Site:   | Lake Charlo    | otte             | City        | County:       | Martir        | ۱ <u> </u>  | Sampling                       | Date:                     | 10/21/2022             |
| Applicant/Owner:  | Lak            | e Charlotte So   | olar, LLC   |               | State:        | MN          | Sampling                       | Point:                    | WA051A                 |
| Investigator(s):  | Apry           | l Jennrich       |             | Sectio        | on, Township  | o, Range:   |                                | Sec.16 7                  | 103N R30W              |
| Landform (hillslope, terrad                               | ce, etc.):     | Depress          | sion        | Local re      | elief (concav | e, conve    | k, none):                      |                           | Concave                |
| Slope (%): 1  | Lat:           | 43.71721         |             | Long:         | -94.435       | 12          | Datum:                         |                           | WGS84                  |
| Soil Map Unit Name:                                       | Canisteo-Glen  | -                |             |               |               | l Classific |                                |                           | NA                     |
| Are climatic/hydrologic co                                |                | site typical for | this time o | of the year?  | Yes (I        | · ·         | ain in rema                    | ,                         |                        |
| Are vegetation X  | , soil,        | or hydrology     |             | Significantly |               |             |                                |                           | s present? No          |
| Are vegetation SUMMARY OF FINE                            | _``            | or hydrology     |             | naturally pro | blematic?     | (lf ne      | eded, exp                      | olain any a               | nswers in remarks.)    |
| Hydrophytic Vegetat                                       | ion Present?   | Yes              |             |               |               |             |                                |                           |                        |
| Hydric Soil Present?                                      | ı              | Yes              |             | Is the sa     | mpled area    | within a    | wetland?                       |                           | Yes                    |
| Wetland Hydrology F                                       | Present?       | Yes              |             | lf yes, op    | tional wetla  | nd site ID  | :                              | WA051                     | _                      |
| Remarks:  |                |                  |             |               |               |             |                                |                           |                        |
| VEGETATION Use  | e scientific n | ames of pla      | ants.       |               |               |             |                                |                           |                        |
|   |                | ,                |             | Dominant      | Indicator     | Domi        | nance Tes                      | t Workshe                 | et                     |
| 1   | Plot size:     | )                | % Cover     | Species       | Status        |             |                                | ant Species<br>CW, or FAC | <b>0</b> (A)           |
| 2.<br>3.  |                |                  |             |               |               |             | Number of E<br>es Across A     |                           | (B)                    |
| 4<br>5  |                |                  |             |               |               |             |                                | ant Species<br>CW, or FAC |                        |
|   |                | -                |             | =Total Cove   | r             |             |                                |                           |                        |
| Sapling/Shrub Stratum                                     | (Plot size:    | )                |             |               |               |             |                                | ex Worksh                 |                        |
| 1   |                |                  |             |               |               |             | % Cover o                      |                           | Multiply by:           |
| 2<br>3  |                |                  |             |               |               |             | species<br>V species           |                           | l =<br>2 =             |
| 4.  |                |                  |             |               |               |             | species                        |                           | 3 =                    |
| 5.  |                |                  |             |               |               |             | J species                      |                           | ↓ =                    |
| · · · · · · · · · · · · · · · · · · ·                     |                |                  |             | =Total Cove   | r             |             | species                        |                           | ō =                    |
| Herb Stratum  | (Plot size:    | )                |             |               |               | Colun       | nn totals                      | (/                        | A) (B)                 |
| 1.<br>2.  |                |                  |             |               |               | Preva       | llence Inde                    |                           | · ·                    |
| 3.  |                |                  |             |               |               | Hydro       | ophytic Ve                     | getation I                | ndicators:             |
| 4.  |                |                  |             |               |               |             |                                | -                         | hytic vegetation       |
| 5.  |                |                  |             |               |               |             | Dominanc                       | e test is >5              | 0%                     |
| 6.  |                |                  |             |               |               |             | Prevalenc                      | e index is s              | ≤3.0*                  |
| 7   |                |                  |             |               |               |             | Morpholog                      | gical adapta              | ations* (provide       |
| 8   |                |                  |             |               |               |             |                                |                           | emarks or on a         |
| 9   |                |                  |             |               |               |             | separate s                     | ,                         |                        |
| 10  |                |                  |             |               |               |             |                                | ic hydroph                | ytic vegetation*       |
| Woody Vine Stratum  |                |                  |             | =Total Cove   | r             | *Indicate   |                                |                           | land hydrology must be |
| 1   |                |                  |             |               |               | present,    | uniess disti                   | urbed or prol             | Diematic               |
| 2   |                |                  |             | =Total Cove   | r             | Veç         | drophytic<br>getation<br>sent? | Yes                       |                        |
| Remarks: (Include photo )<br>Agricultural field. Bare gro |                | r on a separat   | e sheet)    |               |               |             |                                |                           |                        |

WA051A

| Profile Descr  | iption: (Describe                  | to the    | depth needed to  | o docum     | ent the i  | ndicator  | or confirm the absence           | of indicators.)                   |
|----------------|------------------------------------|-----------|------------------|-------------|------------|-----------|----------------------------------|-----------------------------------|
| Depth          | Matrix                             |           | Re               | dox Feat    | tures      |           |                                  |                                   |
| (Inches)       | Color (moist)                      | %         | Color (moist)    | %           | Type*      | Loc**     | Texture                          | Remarks                           |
| 0-40           | 10YR 2/1                           | 100       | . ,              |             |            |           | Clay                             |                                   |
| 0.0            |                                    |           |                  |             |            |           | City                             |                                   |
|                |                                    | ļ         |                  |             |            |           |                                  |                                   |
|                |                                    |           |                  |             |            |           |                                  |                                   |
|                |                                    |           |                  |             |            |           |                                  |                                   |
|                |                                    |           |                  |             |            |           |                                  |                                   |
|                |                                    | ł – – –   |                  |             |            |           |                                  |                                   |
|                |                                    | ļ         |                  |             |            |           |                                  |                                   |
|                |                                    |           |                  |             |            |           |                                  |                                   |
|                |                                    |           |                  |             |            |           |                                  |                                   |
| *Type: C =     | Concentration, D                   | = Deple   | tion RM = Redu   | iced Mati   | rix MS =   | Masked S  | Sand Grains **Locatio            | on: PL = Pore Lining, M = Matrix  |
| Hydric Soil    |                                    | Bopio     |                  | lood maa    | ix, me     |           | Indicators for Proble            | 0.                                |
| -              | stosol (A1)                        |           | Sa               | ndv Glev    | ed Matrix  | (S4)      |                                  | dox (A16) (LRR K, L, R)           |
|                | stic Epipedon (A2)                 |           |                  | ndy Redo    |            | (04)      | Dark Surface (S7                 |                                   |
|                | ack Histic (A3)                    |           |                  | •           | atrix (S6) |           |                                  | Masses (F12) (LRR K, L, R)        |
|                | ( )                                | 4)        |                  | • •         | • •        |           |                                  | ( )( ) )                          |
|                | drogen Sulfide (A                  | ,         |                  | •           | ky Minera  | . ,       | ·                                | rk Surface (TF12)                 |
|                | atified Layers (A5                 | )         |                  | • •         | ed Matrix  | (FZ)      | X Other (explain in              | Temarks)                          |
|                | m Muck (A10)                       |           |                  |             | atrix (F3) | (50)      |                                  |                                   |
|                | pleted Below Darl                  |           |                  |             | Surface    | . ,       |                                  |                                   |
|                | ick Dark Surface (                 | · ·       |                  |             | ark Surfac |           | <i>, , , ,</i>                   | nytic vegetation and wetland      |
|                | ndy Mucky Minera                   |           |                  | dox Depr    | essions (  | F8)       | hydrology must be proproblematic | esent, unless disturbed or        |
| 5 c            | m Mucky Peat or                    | Peat (S   | 3)               |             |            |           | problematio                      |                                   |
| Restrictive L  | ayer (if observed                  | l):       |                  |             |            |           |                                  |                                   |
| Туре:          |                                    |           |                  |             | _          |           | Hydric Soil Presen               | t? Yes                            |
| Depth (inches  | ):                                 |           |                  |             |            |           |                                  |                                   |
| Remarks:       |                                    |           |                  |             |            |           |                                  |                                   |
| Remarks.       |                                    |           |                  |             |            |           |                                  |                                   |
| A12 Assume     | 4                                  |           |                  |             |            |           |                                  |                                   |
| ATZ Assume     | J                                  |           |                  |             |            |           |                                  |                                   |
| HYDROLO        | GY                                 |           |                  |             |            |           |                                  |                                   |
|                | rology Indicators                  |           |                  |             |            |           |                                  |                                   |
| -              | ators (minimum of                  |           | oquirad: chack a | ll that an  |            |           | Secondary Indica                 | ators (minimum of two required)   |
| -              |                                    | one is r  | equired; check a |             |            | 10)       |                                  |                                   |
|                | e Water (A1)                       |           |                  |             | Fauna (B   |           |                                  | Soil Cracks (B6)                  |
|                | /ater Table (A2)                   |           |                  | •           | uatic Plar |           |                                  | e Patterns (B10)                  |
|                | tion (A3)                          |           |                  |             | en Sulfide |           |                                  | son Water Table (C2)              |
|                | Marks (B1)                         |           |                  |             | d Rhizosp  | heres on  |                                  | Burrows (C8)                      |
|                | ent Deposits (B2)                  |           |                  | Roots (C    |            |           |                                  | on Visible on Aerial Imagery (C9) |
|                | eposits (B3)                       |           |                  | •           | e of Redu  |           |                                  | or Stressed Plants (D1)           |
|                | lat or Crust (B4)                  |           |                  |             | Iron Real  | Iction in |                                  | phic Position (D2)                |
|                | eposits (B5)<br>tion Visible on As | rial Imag |                  | (C6)        | ok Surfor  |           |                                  | utral Test (D5)                   |
|                | tion Visible on Ae                 | -         |                  |             | ick Surfac |           |                                  |                                   |
|                | ly Vegetated Con                   |           | пасе (ве)        |             | or Well Da |           |                                  |                                   |
| vvater-        | Stained Leaves (E                  | 39)       |                  | Other (E    | Explain in | Remarks   | 5)                               |                                   |
| Field Observ   |                                    |           |                  |             | _          |           |                                  |                                   |
| Surface Wate   |                                    | Yes       | No               | X           | Depth (ii  | · _       | We                               | tland Hydrology                   |
| Water Table F  |                                    | Yes       | No No            | X           | Depth (ii  |           |                                  | Present?                          |
| Saturation Pre |                                    | Yes       | No               | Х           | Depth (ii  | ncnes):   |                                  | Yes                               |
| (includes capi |                                    | m co      | monitoria        |             | hotos -    | ovious :- | apostions) if sucilable          |                                   |
| Describe Kec   | urueu Data (střeal                 | m gauge   | , monitoring we  | i, aeriai p | motos, pr  | evious in | spections), if available:        |                                   |
|                |                                    |           |                  |             |            |           |                                  |                                   |
| Remarks:       |                                    |           |                  |             |            |           |                                  |                                   |
| INCINAINS.     |                                    |           |                  |             |            |           |                                  |                                   |
|                |                                    |           |                  |             |            |           |                                  |                                   |

| Project/Site:              |              | harlotte       |         | ION DATA<br>/County: | A FORM -<br>Marti | Midwest Region<br>Sampling Date:                                   | 10/21/2022             |
|----------------------------|--------------|----------------|---------|----------------------|-------------------|--|------------------------|
| Applicant/Owner:           |              | Lake Charlotte |         |                      | State:            | MN Sampling Point:   | WA051B                 |
| Investigator(s):           |              | Apryl Jennrich |         | Secti                | on, Townshi       |  | 6 T103N R30W           |
| Landform (hillslope, terra |              |                | ain     |                      |                   | ve, convex, none):   | None                   |
| Slope (%): 0               | Lat:         | 43.7172        | 8       | Long:                | -94.435           | · · · · · · · · · · · · · · · · · · ·                              | WGS84                  |
| Soil Map Unit Name:        | Canisteo-    | Glencoe comple |         |                      | NW                | I Classification:  | NA                     |
| Are climatic/hydrologic c  |              | -              |         | -                    |                   | If no, explain in remarks)   |                        |
|                            |              | , or hydrolog  |         | -                    | disturbed?        | Are "normal circumstan   | ces present? No        |
| Are vegetation             | , soil       | , or hydrolog  | y       | naturally pro        | oblematic?        | (If needed, explain any  | answers in remarks.    |
| SUMMARY OF FIN             | DINGS        |                | ·       |                      |                   |  |                        |
| Hydrophytic Vegeta         | ation Presen | t? No          |         |                      |                   |  |                        |
| Hydric Soil Present        | ?            | No             |         | Is the s             | ampled area       | a within a wetland?  | No                     |
| Wetland Hydrology          | Present?     | No             |         | lf yes, o            | ptional wetla     | nd site ID: WA05   | 1                      |
| Remarks:                   |              |                |         |                      |                   |  |                        |
| VEGETATION Us              | se scientif  | ic names of p  | plants. |                      |                   |  |                        |
|                            |              |                |         | Dominant             | Indicator         | Dominance Test Works   | heet                   |
|                            | Plot size:   | 30 )           | % Cover | Species              | Status            | Number of Dominant Spec  |                        |
| 1                          |              |                |         |                      |                   | that are OBL, FACW, or FA  | AC: 0 (A)              |
| 2<br>3                     |              |                |         |                      |                   | Total Number of Dominant Species Across All Strata:                | 1 (B)                  |
| 4<br>5                     |              |                |         |                      |                   | Percent of Dominant Spec<br>that are OBL, FACW, or F               |                        |
|                            |              |                |         | =Total Cove          | er                |  |                        |
| Sapling/Shrub Stratum      | (Plot size:  | 15 )           |         |                      |                   | Prevalence Index Work  |                        |
| 1                          |              |                |         |                      |                   | Total % Cover of:  | Multiply by:           |
| 2<br>3.                    |              |                |         |                      |                   | - · ·  | x 1 = 0<br>x 2 = 0     |
| 4                          |              |                |         |                      |                   |  | $x^2 = 0$<br>$x^3 = 0$ |
| 5.                         | -            |                |         |                      |                   | -  | x = 0                  |
|                            |              |                |         | =Total Cove          | er                |  | x 5 = 300              |
| Herb Stratum               | (Plot size:  | 5)             |         | -                    |                   | Column totals 60   | (A) 300 (B)            |
| 1. <i>Zea may</i> s        |              |                | 60      | Y                    | UPL               | Prevalence Index = B/A   | = 5                    |
| 2.                         |              |                |         |                      |                   |  |                        |
| 3                          |              |                |         |                      |                   | Hydrophytic Vegetation   | n Indicators:          |
| 4                          |              |                |         |                      |                   | Rapid test for hydr  |                        |
|                            |              |                |         |                      |                   | Dominance test is  |                        |
| 6                          |              |                |         |                      |                   | Prevalence index i   |                        |
| 7                          |              |                |         |                      |                   | Morphological ada  |                        |
| 8<br>9.                    |              |                |         |                      |                   | supporting data in separate sheet)                                 | Nemara UI UII à        |
| 10                         |              |                |         |                      |                   | Problematic hydro  | phytic vegetation*     |
|                            |              |                | 60      | =Total Cove          | er                | (explain)  | ,                      |
| Woody Vine Stratum 1.      | (Plot size:  | ,              |         |                      |                   | *Indicators of hydric soil and v<br>present, unless disturbed or p |                        |
| 2.                         |              |                |         | =Total Cove          |                   | Hydrophytic<br>Vegetation  |                        |

WA051B

| Profile Descr                  | iption: (Describe                     | to the            | depth needed to   | o docum     | ent the i                | ndicator  | or confirm the absence    | of indicators.)                   |
|--------------------------------|---------------------------------------|-------------------|-------------------|-------------|--------------------------|-----------|---------------------------|-----------------------------------|
| Depth                          | Matrix                                |                   | Re                |             |                          |           |                           |                                   |
| (Inches)                       | Color (moist)                         | %                 | Color (moist)     | %           | Type*                    | Loc**     | Texture                   | Remarks                           |
| 0-24                           | 10YR 2/1                              | 100               |                   |             | 51                       |           | Clay                      |                                   |
|                                |                                       |                   |                   | 40          |                          |           | -                         |                                   |
| 24-28                          | 10YR 2/1                              | 90                | 2.5Y 4/2          | 10          | D                        | M         | Clay                      |                                   |
| 28-36                          | 2.5Y 3/2                              | 99                | 2.5Y 4/2          | 1           | D                        | М         | Clay                      |                                   |
| 36-39                          | 2.5Y 5/4                              | 97                | 10YR 5/6          | 3           | С                        | PL        | Clay                      | Distinct or Prominent             |
|                                |                                       |                   |                   |             |                          |           |                           |                                   |
|                                |                                       |                   |                   |             |                          |           |                           |                                   |
|                                |                                       |                   |                   |             |                          |           |                           |                                   |
|                                |                                       |                   |                   |             |                          |           |                           |                                   |
|                                |                                       |                   |                   |             |                          |           |                           |                                   |
| *Type: C =                     | Concentration, D                      | = Deple           | tion, RM = Redu   | iced Mati   | rix, MS =                | Masked    | Sand Grains. **Location   | on: PL = Pore Lining, M = Matrix  |
| Hydric Soil                    | Indicators:                           |                   |                   |             |                          |           | Indicators for Proble     | ematic Hydric Soils*:             |
| His                            | stosol (A1)                           |                   | Sa                | ndy Gley    | ed Matrix                | (S4)      | Coast Prairie Re          | dox (A16) (LRR K, L, R)           |
| His                            | tic Epipedon (A2)                     |                   | Sa                | ndy Redo    | ox (S5)                  |           | Dark Surface (S7          | 7) (LRR K, L)                     |
| Bla                            | ack Histic (A3)                       |                   | Str               | ipped Ma    | atrix (S6)               |           | Iron-Manganese            | Masses (F12) (LRR K, L, R)        |
| Hy                             | drogen Sulfide (A                     | 4)                | Loa               | amy Muc     | ky Minera                | al (F1)   | Very Shallow Da           | rk Surface (TF12)                 |
| Str                            | atified Layers (A5                    | )                 | Loa               | amy Gley    | ed Matrix                | (F2)      | Other (explain in         | remarks)                          |
| 2 c                            | m Muck (A10)                          |                   | De                | pleted M    | atrix (F3)               |           |                           |                                   |
| De                             | pleted Below Darl                     | <pre>surfac</pre> | e (A11) Re        | dox Dark    | Surface                  | (F6)      |                           |                                   |
| Thi                            | ick Dark Surface (                    | A12)              | De                | pleted Da   | ark Surfac               | ce (F7)   | *Indicators of hydroph    | nytic vegetation and wetland      |
| Sa                             | ndy Mucky Minera                      | al (S1)           | Re                | dox Depi    | ressions (               | F8)       |                           | esent, unless disturbed or        |
|                                | m Mucky Peat or                       |                   | 3)                |             |                          |           | problematic               |                                   |
| Restrictive L                  | ayer (if observed                     | ).                |                   |             |                          |           |                           |                                   |
| Type:                          | ayer (il observed                     | <i>)</i> .        |                   |             |                          |           | Hydric Soil Presen        | t? No                             |
| Depth (inches                  | ).                                    |                   |                   |             | -                        |           |                           |                                   |
|                                |                                       |                   |                   |             | -                        |           |                           |                                   |
| Remarks:                       |                                       |                   |                   |             |                          |           |                           |                                   |
|                                |                                       |                   |                   |             |                          |           |                           |                                   |
|                                |                                       |                   |                   |             |                          |           |                           |                                   |
|                                |                                       |                   |                   |             |                          |           |                           |                                   |
| HYDROLO                        |                                       |                   |                   |             |                          |           |                           |                                   |
| -                              | rology Indicators                     |                   |                   |             |                          |           |                           |                                   |
|                                | ators (minimum of                     | one is r          | equired; check a  |             |                          |           |                           | ttors (minimum of two required)   |
| Surface                        | e Water (A1)                          |                   |                   | Aquatic     | Fauna (B                 | 513)      |                           | Soil Cracks (B6)                  |
| 0                              | /ater Table (A2)                      |                   |                   |             | uatic Plar               | . ,       |                           | e Patterns (B10)                  |
|                                | tion (A3)                             |                   |                   |             | en Sulfide               |           | · ·                       | son Water Table (C2)              |
|                                | Marks (B1)                            |                   |                   |             | d Rhizosp                | heres on  |                           | Burrows (C8)                      |
|                                | ent Deposits (B2)                     |                   |                   | Roots (0    |                          |           |                           | on Visible on Aerial Imagery (C9) |
|                                | eposits (B3)                          |                   |                   |             | e of Redu                |           |                           | or Stressed Plants (D1)           |
|                                | lat or Crust (B4)                     |                   |                   |             | Iron Real                | lction in |                           | ohic Position (D2)                |
|                                | eposits (B5)<br>tion Visible on Asi   | rial Ima          | non/ (P7)         | (C6)        | ok Surfor                |           | FAC-Net                   | utral Test (D5)                   |
|                                | tion Visible on Ae                    |                   |                   |             | ick Surfac               | . ,       |                           |                                   |
|                                | ly Vegetated Con<br>Stained Leaves (E |                   |                   | -           | or Well Da<br>Explain in |           | .)                        |                                   |
|                                | ```                                   | 59)               |                   |             |                          | Remarks   | »)                        |                                   |
| Field Observa                  |                                       | Vac               | Na                | v           | Donth (                  |           |                           |                                   |
| Surface Water<br>Water Table F |                                       | Yes<br>Yes        | No<br>No          | X<br>X      | Depth (ii<br>Depth (ii   |           | We                        | tland Hydrology                   |
| Saturation Pre                 |                                       | Yes               | No                | ×           | Depth (ii<br>Depth (ii   |           |                           | Present? No                       |
| (includes capi                 |                                       | . 00              | 110               | ~           |                          |           |                           |                                   |
| · · ·                          |                                       | n gauge           | e, monitorina wel | l, aerial r | photos. pr               | evious in | spections), if available: |                                   |
|                                |                                       | 5.5               | 5                 |             | , 1.                     |           | . ,,                      |                                   |
|                                |                                       |                   |                   |             |                          |           |                           |                                   |
| Remarks:                       |                                       |                   |                   |             |                          |           |                           |                                   |
|                                |                                       |                   |                   |             |                          |           |                           |                                   |
| 1                              |                                       |                   |                   |             |                          |           |                           |                                   |







Source: Map adapted from Hybrid NAIP Server; Elevation by MN DNR; Project data by Lake Charlotte Solar, LLC; Tetra Tech Wetlands. Scale: 1:1,000

Wetland ID WA056

|   | WE            | TLAND D      | ETER      | MINAT        | ION DAT       | FORM -        | Midwes      | st Region                            |             |                           |        |
|---|---------------|--------------|-----------|--------------|---------------|---------------|-------------|--------------------------------------|-------------|---------------------------|--------|
| Project/Site:                             | Lake C        | Charlotte    |           | City         | County:       | Marti         | n           | Sampling D                           | ate:        | 10/21/2022                |        |
| Applicant/Owner:                          |               | Lake Cha     | rlotte So | olar, LLC    |               | State:        | MN          | Sampling P                           | oint:       | WA056A                    |        |
| Investigator(s):                          |               | Apryl Jenn   | rich      |              | Secti         | on, Townshi   | p, Range:   |                                      | Sec.16 T1   | 03N R30W                  |        |
| Landform (hillslope, ter                  | race, etc.):  |              | Ditch     | ו            | Local         | relief (conca | ve, conve   | x, none):                            | (           | Concave                   |        |
| Slope (%): 5                              | Lat:          | 43           | 72223     |              | Long:         | -94.428       | 315         | Datum:                               |             | WGS84                     |        |
| Soil Map Unit Name:                       | Canisteo      | -Glencoe co  | omplex,   | 0 to 2 per   | cent slopes   | NW            | I Classific | ation:                               |             | NA                        |        |
| Are climatic/hydrologic                   | conditions of | the site typ | oical for | this time of | of the year?  | Yes (         | If no, expl | ain in remark                        | (S)         |                           |        |
| Are vegetation                            | , soil        | , or hyd     | Irology   |              | Significantly | v disturbed?  | Are "       | 'normal circu                        | mstances    | present? Ye               | ′es    |
| Are vegetation                            | , soil        | , or hyd     | Irology   |              | naturally pro | oblematic?    | (lf ne      | eded, expla                          | in any an   | swers in rema             | arks.) |
| SUMMARY OF FI                             | NDINGS        |              |           |              |               |               |             |                                      |             |                           |        |
| Hydrophytic Veget                         | tation Preser | nt?          | Yes       |              |               |               |             |                                      |             |                           |        |
| Hydric Soil Preser                        | nt?           | -            | Yes       |              | Is the s      | ampled area   | a within a  | wetland?                             |             | Yes                       |        |
| Wetland Hydrolog                          | y Present?    | -            | Yes       |              | lf yes, o     | ptional wetla | and site ID | :                                    | WA056       |                           |        |
| Remarks:                                  |               |              |           |              |               |               |             |                                      |             |                           |        |
| VEGETATION L                              | Jse scienti   | fic names    | s of pla  | ants.        |               |               |             |                                      |             |                           | I      |
|   |               |              |           |              | Dominant      | Indicator     | Domi        | nance Test                           | Workshee    | t                         |        |
| <u>Tree Stratum</u><br>1.                 | (Plot size:   | 30           | )         | % Cover      | Species       | Status        |             | er of Dominar<br>e OBL, FACV         |             | (A)                       | )      |
| 2<br>3                                    |               |              |           |              |               |               |             | Number of Do<br>es Across All S      |             | (B)                       | 1      |
| 4<br>5                                    |               |              |           |              |               |               |             | nt of Dominan<br>e OBL, FACV         |             | <u>100%</u> (A/B          | 3)     |
|   |               |              | , -       |              | =Total Cove   | er            |             |                                      | <b>14</b> / |                           |        |
| Sapling/Shrub Stratum                     | n (Plot size  | e: 15        | )         |              |               |               |             | alence Index<br>% Cover of:          |             | eτ<br>/ultiply by:        |        |
| 2.  |               |              |           |              |               |               |             |                                      | 50 x 1 :    |                           |        |
| 3.  |               |              |           |              |               |               |             | V species                            | 50 x 2 =    |                           |        |
| 4.  |               |              |           |              |               |               |             | species                              | 0 x 3 :     |                           |        |
| 5.  |               |              |           |              |               |               |             | J species                            | 0 x 4 :     | = 0                       |        |
|   |               |              | _         |              | =Total Cove   | er            | UPL         | species                              | 0 x 5 :     | = 0                       |        |
| Herb Stratum                              | (Plot size    | e: 5         | )         |              |               |               | Colur       | nn totals                            | 100 (A)     | 150 (I                    | (B)    |
| 1. Phalaris arundinad                     | cea           |              |           | 50           | Y             | FACW          | Preva       | alence Index                         | = B/A =     | 1.5                       |        |
| 2. Typha angustifolia                     | 1             |              |           | 50           | Y             | OBL           |             |                                      |             |                           |        |
| 3   |               |              |           |              |               |               |             | ophytic Veg                          |             |                           |        |
|   |               |              |           |              |               |               |             | •                                    |             | ytic vegetation           |        |
| 5   |               |              |           |              |               |               |             | Dominance<br>Prevalence              |             |                           |        |
| 6<br>7                                    |               |              |           |              |               |               | _           |                                      |             | ions* (provide            |        |
| 8.  |               |              |           |              |               |               |             |                                      |             | narks or on a             |        |
| 9.  |               |              |           |              |               |               | _           | separate she                         |             |                           |        |
| 10.                                       |               |              |           |              |               |               |             | Problematic                          | hydrophyt   | ic vegetation*            |        |
|   |               |              |           | 100          | =Total Cove   | er            | T           | (explain)                            |             |                           |        |
| Woody Vine Stratum 1.                     | (Plot size    |              | )         |              |               |               |             | ors of hydric so<br>, unless disturb |             | nd hydrology mu<br>ematic | ist be |
| 2   |               |              | _         |              | =Total Cove   | er            | Ve          | drophytic<br>getation<br>esent?      | Yes         |                           |        |
| Remarks: (Include phot<br>Bare ground: 0% | o numbers h   | ere or on a  | separat   | te sheet)    |               |               |             |                                      |             |                           |        |

WA056A

| Profile Descr                 | iption: (Describe    | to the                     | depth needed t   | o docum     | ent the i              | ndicator   | or confirm the absence    | of indicators.)  |
|-------------------------------|----------------------|----------------------------|------------------|-------------|------------------------|------------|---------------------------|--|
| Depth                         | Matrix               |                            | Re               | dox Feat    | tures                  |            |                           |  |
| (Inches)                      | Color (moist)        | %                          | Color (moist)    | %           | Type*                  | Loc**      | Texture                   | Remarks  |
| . ,                           |                      | 70                         |                  | ,,,         | . , po                 |            |                           |  |
|                               |                      |                            |                  |             |                        |            |                           |  |
|                               |                      |                            |                  |             |                        |            |                           |  |
|                               |                      |                            |                  |             |                        |            |                           |  |
|                               |                      |                            |                  |             |                        |            |                           |  |
|                               |                      |                            |                  |             |                        |            |                           |  |
|                               |                      |                            |                  |             |                        |            |                           |  |
|                               |                      |                            |                  |             |                        |            |                           |  |
|                               |                      |                            |                  |             |                        |            |                           |  |
|                               |                      |                            |                  |             |                        |            |                           |  |
|                               |                      |                            |                  |             |                        |            |                           |  |
| 31                            | Concentration, D     | = Deple                    | tion, RM = Redu  | iced Mati   | rix, MS =              | Masked     | Sand Grains. **Location   | on: PL = Pore Lining, M = Matrix                           |
| Hydric Soil                   | Indicators:          |                            |                  |             |                        |            | Indicators for Proble     | ematic Hydric Soils*:                                      |
| His                           | stosol (A1)          |                            | Sa               | ndy Gley    | ed Matrix              | (S4)       | Coast Prairie Re          | dox (A16) (LRR K, L, R)                                    |
| His                           | stic Epipedon (A2)   |                            | Sa               | ndy Redo    | ox (S5)                |            | Dark Surface (S7          | 7) (LRR K, L)  |
| Bla                           | ack Histic (A3)      |                            | Str              | ipped Ma    | atrix (S6)             |            | Iron-Manganese            | Masses (F12) (LRR K, L, R)                                 |
| Hy                            | drogen Sulfide (A    | 4)                         | Lo               | amy Muc     | ky Minera              | al (F1)    | Very Shallow Da           | rk Surface (TF12)  |
|                               | atified Layers (A5   | ,                          |                  | •           | ed Matrix              | . ,        | X Other (explain in       |  |
|                               | m Muck (A10)         |                            |                  |             | atrix (F3)             | . ,        | 、 '                       | -  |
|                               | pleted Below Darl    | <ul> <li>Surfac</li> </ul> | e (A11) Re       | dox Dark    | Surface                | (F6)       |                           |  |
|                               | ick Dark Surface (   |                            | · · · —          |             | ark Surfac             | . ,        | 41 I' ( <b>6</b> 1 I I    |  |
|                               | ndy Mucky Minera     | ,                          |                  |             | ressions (             |            | , , ,                     | nytic vegetation and wetland<br>esent, unless disturbed or |
|                               |                      |                            |                  |             | 65510115 (             | F0)        | problematic               | esent, unless disturbed of                                 |
| 50                            | m Mucky Peat or      | real (S                    | 5)               |             |                        | 1          | •                         |  |
| Restrictive L                 | ayer (if observed    | ):                         |                  |             |                        |            |                           |  |
| Туре:                         |                      |                            |                  |             | -                      |            | Hydric Soil Presen        | t? Yes   |
| Depth (inches                 | s):                  |                            |                  |             | -                      |            |                           |  |
| Remarks:                      |                      |                            |                  |             |                        |            |                           |  |
| Potential unde                | erground utility cor | nflict. Hy                 | dric soils assum | ied.        |                        |            |                           |  |
| HYDROLO                       | GY                   |                            |                  |             |                        |            |                           |  |
| Wetland Hyd                   | rology Indicators    | 5:                         |                  |             |                        |            |                           |  |
| Primary Indica                | ators (minimum of    | one is r                   | equired; check a | all that ap | ply)                   |            | Secondary Indica          | ators (minimum of two required)                            |
| Surface                       | e Water (A1)         |                            |                  | Aquatic     | Fauna (B               | 313)       | Surface                   | Soil Cracks (B6)   |
| Hiah W                        | /ater Table (A2)     |                            |                  | True Aa     | uatic Plar             | nts (B14)  | Drainage                  | e Patterns (B10)   |
| Ŭ                             | tion (A3)            |                            |                  | - '         | en Sulfide             | . ,        |                           | son Water Table (C2)                                       |
|                               | Marks (B1)           |                            |                  |             | d Rhizosp              |            | · ·                       | Burrows (C8)   |
|                               | ent Deposits (B2)    |                            |                  | Roots (0    |                        |            | · · · ·                   | on Visible on Aerial Imagery (C9)                          |
|                               | eposits (B3)         |                            |                  | -           | ce of Redu             | uced Iron  |                           | or Stressed Plants (D1)                                    |
|                               | lat or Crust (B4)    |                            |                  | -           |                        |            | · · ·                     | phic Position (D2)   |
|                               | eposits (B5)         |                            |                  | (C6)        |                        |            |                           | utral Test (D5)  |
|                               | tion Visible on Ae   | rial Imac                  | erv (B7)         |             | ick Surfac             | ce (C7)    |                           |  |
|                               | ly Vegetated Con     |                            |                  | -           | or Well Da             |            |                           |  |
| ·                             | Stained Leaves (E    |                            |                  | -           | Explain in             |            | 5)                        |  |
|                               | ```                  | -1                         |                  |             |                        |            | - ,                       |  |
| Field Observ                  |                      | Voc                        | No               | v           | Dopth (i               | nchoc).    |                           |  |
| Surface Wate<br>Water Table F |                      | Yes<br>Yes                 | No<br>No         | X           | Depth (ii<br>Depth (ii |            | We                        | tland Hydrology  |
| Saturation Pre                |                      | Yes                        | No               |             | Depth (ii              |            |                           | Present?<br>Yes  |
| (includes capi                |                      | 100                        | NU               |             |                        |            |                           | 165  |
| · ·                           |                      | m מפוומי                   | monitoring wo    | ll aprial r | hotos pr               | evioue in  | spections), if available: |  |
| Seconde Neu                   |                      | yauyt                      | , mormoning we   | n, aonai p  |                        | Sviduo III |                           |  |
|                               |                      |                            |                  |             |                        |            |                           |  |
| Remarks:                      |                      |                            |                  |             |                        |            |                           |  |
| i tomanto.                    |                      |                            |                  |             |                        |            |                           |  |
|                               |                      |                            |                  |             |                        |            |                           |  |

|   | WE            | TLAND DE       | ETERMIN        | IAT   | ION DATA            | FORM -              | Midwest      | t Region   |  |         |
|---|---------------|----------------|----------------|-------|---------------------|---------------------|--------------|--|--|---------|
| Project/Site:                             | Lake C        | Charlotte      |                | City  | /County:            | Marti               | n            | Sampling Date                                    | : 10/21/2022                             | :       |
| Applicant/Owner:                          |               | Lake Charle    | otte Solar, I  | LC    |                     | State:              | MN           | Sampling Point                                   | :: WA056B                                |         |
| Investigator(s):                          |               | Apryl Jennri   | ch             |       | Sectio              | on, Townshi         | p, Range:    | See  | c.16 T103N R30W                          |         |
| Landform (hillslope, ter                  | race, etc.):  |                | Hillslope      |       | Local r             | elief (conca        | ve, convex,  | none):   | Convex                                   |         |
| Slope (%): 10                             | Lat:          | 43.7           | 2223           |       | Long:               | -94.428             | 309          | Datum:   | WGS84                                    |         |
| Soil Map Unit Name:                       | Canisteo      | -Glencoe con   | nplex, 0 to 2  | 2 pei | cent slopes         | NW                  | I Classifica | ition:   | NA                                       |         |
| Are climatic/hydrologic                   | conditions of | the site typic | cal for this t | ime   | of the year?        | Yes (               | lf no, expla | in in remarks)                                   |  |         |
| Are vegetation                            | , soil        | , or hydr      | ology          |       | Significantly       | disturbed?          | Are "n       | ormal circumst                                   | tances present?                          | Yes     |
| Are vegetation                            | , soil        | , or hydr      | ology          |       | naturally pro       | blematic?           | (If nee      | eded, explain a                                  | any answers in rem                       | arks.)  |
| SUMMARY OF FI                             | NDINGS        |                |                |       |                     |                     |              |  |  |         |
| Hydrophytic Veget                         | tation Preser | nt?            | No             |       |                     |                     |              |  |  |         |
| Hydric Soil Preser                        | nt?           |                | No             |       | Is the sa           | mpled area          | a within a v | wetland?   | Νο                                       |         |
| Wetland Hydrolog                          | y Present?    |                | No             |       | lf yes, op          | otional wetla       | nd site ID:  | WA   | 056                                      |         |
| Remarks:                                  |               | <i>.</i>       | <u> </u>       |       |                     |                     |              |  |  |         |
| VEGETATION U                              | ise scienti   | fic names      |                |       | Deminant            | la dia atau         | Damin        | T W  | ulaala aat                               |         |
| Tree Stratum                              | (Plot size:   | 30 )           |                |       | Dominant<br>Species | Indicator<br>Status | Number       | ance Test Wo<br>r of Dominant Sp<br>OBL, FACW, o | pecies                                   | 4)      |
| 2<br>3.                                   |               |                |                |       |                     |                     | Total Nu     | umber of Domin<br>Across All Stra                | ant (                                    |         |
| 4<br>5                                    |               |                |                |       |                     |                     |              | of Dominant Sp<br>OBL, FACW, o                   |  | ′B)     |
|   |               |                |                |       | =Total Cove         | r                   |              |  |  |         |
| Sapling/Shrub Stratum                     | n (Plot size  | : 15           | )              |       |                     |                     |              | ence Index W                                     |  |         |
| 1   |               |                |                |       |                     |                     |              | 6 Cover of:                                      | Multiply by:                             |         |
| 2<br>3                                    |               |                |                |       |                     |                     |              | pecies 0<br>species 0                            | x 1 = 0<br>x 2 = 0                       |         |
| 4.  |               |                |                |       |                     |                     |              | pecies 0   | $x^{2} = 0$                              |         |
| 5.  |               |                |                |       |                     |                     |              | species 90                                       | x = 0                                    |         |
|   |               |                |                |       | =Total Cove         | r                   | UPL sp       | ·  | x 5 = 0                                  |         |
| Herb Stratum                              | (Plot size    | : 5            | )              |       | -                   |                     | Colum        | n totals 0                                       | (A) 0                                    | (B)     |
| 1. Bromus inermis                         |               |                | 50             | C     | Y                   | FACU                | Prevale      | ence Index = B                                   | 8/A = 4                                  |         |
| 2. Poa compressa                          |               |                | 30             | )     | Y                   | FACU                |              |  |  |         |
| 3. Lotus corniculatus                     | 3             |                | 1(             | )     | Ν                   | FACU                |              |  | tion Indicators:                         |         |
| 4   |               |                |                |       |                     |                     |              | •  | ydrophytic vegetatio                     | n       |
| 5   |               |                |                |       |                     |                     |              | Dominance test                                   |  |         |
| 6<br>7                                    |               |                |                |       |                     |                     |              | Prevalence inde                                  | ex is ≤3.0^<br>adaptations* (provide     |         |
| 8.  |               |                |                |       |                     |                     |              |  | in Remarks or on a                       |         |
| 9   |               |                |                |       |                     |                     |              | separate sheet)                                  |  |         |
| 10.                                       |               |                |                |       |                     |                     |              | ,  | drophytic vegetation'                    | k       |
|   |               |                | 90             | )     | =Total Cove         | r                   | (            | explain)   |  |         |
| Woody Vine Stratum 1.                     | (Plot size    |                | )              |       |                     |                     |              | rs of hydric soil a<br>unless disturbed          | nd wetland hydrology m<br>or problematic | iust be |
| 2   |               |                |                |       | =Total Cove         | r                   | Veg          | rophytic<br>etation<br>sent?                     | <u>No</u>                                |         |
| Remarks: (Include phot<br>Bare ground: 0% | o numbers h   | ere or on a s  | eparate she    | eet)  |                     |                     |              |  |  |         |

WA056B

| Profile Desci  | ription: (Describe   | to the    | depth needeo    | d to docu    | ment the i      | ndicator  | or confirm the absence    | of indicators.)                   |
|----------------|----------------------|-----------|-----------------|--------------|-----------------|-----------|---------------------------|-----------------------------------|
| Depth          | Matrix               |           |                 | Redox Fea    | atures          |           |                           |                                   |
| (Inches)       | Color (moist)        | %         | Color (mois     | t) %         | Type*           | Loc**     | Texture                   | Remarks                           |
|                |                      |           |                 | ,            |                 |           |                           |                                   |
|                |                      |           |                 |              |                 |           |                           |                                   |
|                |                      |           |                 |              |                 |           |                           |                                   |
|                |                      |           |                 |              |                 |           |                           |                                   |
|                |                      |           |                 |              |                 |           |                           |                                   |
|                |                      |           |                 |              |                 |           |                           |                                   |
|                |                      |           |                 |              |                 |           |                           |                                   |
|                |                      |           |                 |              |                 |           |                           |                                   |
|                |                      |           |                 |              |                 |           |                           |                                   |
|                |                      |           |                 |              |                 |           |                           |                                   |
| *Type: C =     | Concentration, D     | = Deple   | tion, RM = Re   | duced Ma     | trix, MS =      | Masked    | Sand Grains. **Location   | on: PL = Pore Lining, M = Matrix  |
| Hydric Soil    | Indicators:          |           |                 |              |                 |           | Indicators for Proble     | ematic Hydric Soils*:             |
| His            | stosol (A1)          |           | :               | Sandy Gle    | yed Matrix      | (S4)      | Coast Prairie Re          | dox (A16) (LRR K, L, R)           |
| His            | stic Epipedon (A2)   |           |                 | Sandy Red    | dox (S5)        |           | Dark Surface (S           | 7) (LRR K, L)                     |
| Bla            | ack Histic (A3)      |           | ;               | Stripped M   | latrix (S6)     |           | Iron-Manganese            | Masses (F12) (LRR K, L, R)        |
| Hy             | drogen Sulfide (A    | 4)        |                 | <br>∟oamy Mu | cky Minera      | al (F1)   |                           | rk Surface (TF12)                 |
|                | ratified Layers (A5  |           |                 |              | yed Matrix      |           | Other (explain in         |                                   |
|                | m Muck (A10)         | ,         |                 | -            | /<br>atrix (F3) | · /       | 、 .                       | ,                                 |
| De             | pleted Below Darl    | k Surfac  |                 |              | k Surface       | (F6)      |                           |                                   |
|                | ick Dark Surface (   |           |                 |              | Dark Surfac     | . ,       | *Indiantara of hydron     | nytic vegetation and wetland      |
|                | indy Mucky Minera    |           |                 | •            | pressions (     | . ,       |                           | esent, unless disturbed or        |
|                | cm Mucky Peat or     |           |                 | 10001 201    |                 | ,         | problematic               |                                   |
|                | -                    |           | - /             |              |                 | 1         |                           |                                   |
|                | ayer (if observed    | l):       |                 |              |                 |           |                           |                                   |
| Type:          |                      |           |                 |              |                 |           | Hydric Soil Preser        | t? <u>No</u>                      |
| Depth (inches  | s):                  |           |                 |              | _               |           |                           |                                   |
| Remarks:       |                      |           |                 |              |                 |           |                           |                                   |
|                |                      |           |                 |              |                 |           |                           |                                   |
| Potential unde | erground utility cor | nflict.   |                 |              |                 |           |                           |                                   |
|                |                      |           |                 |              |                 |           |                           |                                   |
| HYDROLO        | GY                   |           |                 |              |                 |           |                           |                                   |
| Wetland Hyd    | rology Indicators    | 8:        |                 |              |                 |           |                           |                                   |
| Primary Indica | ators (minimum of    | one is r  | equired; chec   | k all that a | <u>pply)</u>    |           | Secondary Indica          | ators (minimum of two required)   |
| Surfac         | e Water (A1)         |           |                 | Aquation     | c Fauna (E      | 313)      | Surface                   | Soil Cracks (B6)                  |
| High W         | Vater Table (A2)     |           |                 | True A       | quatic Plai     | nts (B14) | Drainage                  | e Patterns (B10)                  |
| Satura         | tion (A3)            |           |                 | Hydrog       | gen Sulfide     | Odor (C   | 1) Dry-Sea                | son Water Table (C2)              |
| Water          | Marks (B1)           |           |                 | Oxidize      | ed Rhizosp      | heres or  | n Living Crayfish         | Burrows (C8)                      |
| Sedim          | ent Deposits (B2)    |           |                 | Roots        | (C3)            |           | Saturatio                 | on Visible on Aerial Imagery (C9) |
| Drift D        | eposits (B3)         |           |                 | Preser       | nce of Red      | uced Iron | n (C4) Stunted            | or Stressed Plants (D1)           |
| Algal N        | /lat or Crust (B4)   |           |                 | Recent       | t Iron Redu     | uction in |                           | phic Position (D2)                |
| Iron De        | eposits (B5)         |           | _               | (C6)         |                 |           | FAC-Ne                    | utral Test (D5)                   |
| Inunda         | tion Visible on Ae   | rial Imag | gery (B7)       |              | uck Surfac      | . ,       |                           |                                   |
|                | ely Vegetated Con    |           | rface (B8)      | ·            | or Well Da      | • •       |                           |                                   |
| Water-         | Stained Leaves (E    | 39)       |                 | Other (      | Explain in      | Remarks   | 5)                        |                                   |
| Field Observ   | ations:              |           |                 |              |                 |           |                           |                                   |
| Surface Wate   | r Present?           | Yes       | No              | ) X          | Depth (i        | nches):   | W/c                       | tland Hydrology                   |
| Water Table F  |                      | Yes       | No              |              | _ Depth (i      |           | VVE                       | tland Hydrology<br>Present?       |
| Saturation Pre |                      | Yes       | No              | )            | _ Depth (i      | nches):   |                           | No                                |
| (includes capi |                      |           |                 |              |                 |           |                           |                                   |
| Describe Rec   | orded Data (strea    | m gauge   | e, monitoring v | vell, aerial | photos, pi      | evious in | spections), if available: |                                   |
|                |                      |           |                 |              |                 |           |                           |                                   |
| Domortica      |                      |           |                 |              |                 |           |                           |                                   |
| Remarks:       |                      |           |                 |              |                 |           |                           |                                   |
|                |                      |           |                 |              |                 |           |                           |                                   |







Source: Map adapted from Hybrid NAIP Server; Elevation by MN DNR; Project data by Lake Charlotte Solar, LLC; Tetra Tech Wetlands. Scale: 1:1,500

Wetland ID WA057

| Martin       Sampling Date:       10/21/2022         :       MN       Sampling Point:       WA057A         wnship, Range:       Sec.9 T103N R30W         concave, convex, none):       Concave         04.42974       Datum:       WGS84         NWI Classification:       NA         es       (If no, explain in remarks)         bed?       Are "normal circumstances present?       No         tic?       (If needed, explain any answers in remarks.)         d area within a wetland?       Yes         wetland site ID:       WA057 |
|---|
| wnship, Range:       Sec.9 T103N R30W         concave, convex, none):       Concave         04.42974       Datum:       WGS84         NWI Classification:       NA         es       (If no, explain in remarks)         bed?       Are "normal circumstances present?       No         tic?       (If needed, explain any answers in remarks.)         d area within a wetland?       Yes   |
| Concave         04.42974       Datum:       WGS84         NWI Classification:       NA         es       (If no, explain in remarks)         bed?       Are "normal circumstances present?       No         tic?       (If needed, explain any answers in remarks.)         d area within a wetland?       Yes   |
| M4.42974     Datum:     WGS84       NWI Classification:     NA       ass  |
| NWI Classification:       NA         es       (If no, explain in remarks)         bed?       Are "normal circumstances present?       No         tic?       (If needed, explain any answers in remarks.)         d area within a wetland?       Yes   |
| es       (If no, explain in remarks)         bed?       Are "normal circumstances present? No         tic?       (If needed, explain any answers in remarks.)         d area within a wetland?       Yes  |
| bed?       Are "normal circumstances present? No         tic?       (If needed, explain any answers in remarks.)         d area within a wetland?       Yes   |
| tic? (If needed, explain any answers in remarks.)   |
| d area within a wetland? Yes  |
| ;   |
|   |
|   |
| wetland site ID: WA057  |
|   |
|   |
|   |
| ator Dominance Test Worksheet   |
| ator Dominance Test Worksheet   |
| Number of Dominant Species  |
| that are OBL, FACW, or FAC: 0 (A)   |
| Total Number of Dominant<br>Species Across All Strata: 0 (B)  |
| Percent of Dominant Species<br>that are OBL, FACW, or FAC: % (A/B)  |
|   |
| Prevalence Index Worksheet  |
| Total % Cover of: Multiply by:  |
| OBL species x 1 =   |
| FACW species x 2 =  |
| FAC species x 3 =   |
| FACU species x 4 =  |
| UPL species x 5 =   |
| Column totals (A) (B)   |
| Prevalence Index = B/A =  |
|   |
| Hydrophytic Vegetation Indicators:  |
| Rapid test for hydrophytic vegetation<br>Dominance test is >50%   |
| Prevalence index is ≤3.0*   |
| Morphological adaptations* (provide   |
| supporting data in Remarks or on a  |
| separate sheet)   |
| Problematic hydrophytic vegetation*   |
| X (explain)   |
| *Indicators of hydric soil and wetland hydrology must be<br>present, unless disturbed or problematic  |
| Hydrophytic<br>Vegetation<br>Present? Yes   |
|   |

WA057A

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |                    |          |                  |  |             |           |                           |                                   |  |  |  |
|---|--------------------|----------|------------------|--|-------------|-----------|---------------------------|-----------------------------------|--|--|--|
| Depth   | Matrix             |          | Re               | dox Feat   | tures       |           |                           |                                   |  |  |  |
| (Inches)  | Color (moist)      | %        | Color (moist)    | %  | Type*       | Loc**     | Texture                   | Remarks                           |  |  |  |
| 0-20  | 10YR 2/1           | 100      |                  |  |             |           | Clay                      |                                   |  |  |  |
| 20-23   | 10YR 2/1           | 85       | 2.5Y 4/2         | 15   | D           | м         | Clay                      |                                   |  |  |  |
|   |                    |          |                  |  |             |           | -                         |                                   |  |  |  |
| 23-35   | 2.5Y 5/2           | 98       | 10YR 5/6         | 2  | С           | PL        | Sandy Clay                | Distinct or Prominent             |  |  |  |
|   |                    |          |                  |  |             |           |                           |                                   |  |  |  |
|   |                    |          |                  |  |             |           |                           |                                   |  |  |  |
|   |                    |          |                  |  |             |           |                           |                                   |  |  |  |
|   |                    |          |                  |  |             |           |                           |                                   |  |  |  |
|   |                    |          |                  |  |             |           |                           |                                   |  |  |  |
|   |                    |          |                  |  |             |           |                           |                                   |  |  |  |
| *Type: C =  | Concentration, D   | = Deple  | tion, RM = Redu  | uced Mat   | rix, MS =   | Masked \$ | Sand Grains. **Location   | on: PL = Pore Lining, M = Matrix  |  |  |  |
| Hydric Soil   | Indicators:        |          |                  |  |             |           | Indicators for Proble     | ematic Hydric Soils*:             |  |  |  |
| His   | stosol (A1)        |          | Sa               | ndy Gley   | ed Matrix   | (S4)      | Coast Prairie Re          | dox (A16) (LRR K, L, R)           |  |  |  |
| His   | stic Epipedon (A2) | )        | Sa               | ndy Redo   | ox (S5)     |           | Dark Surface (S7          | 7) (LRR K, L)                     |  |  |  |
| Bla   | ack Histic (A3)    |          | St               | ipped Ma   | atrix (S6)  |           | Iron-Manganese            | Masses (F12) (LRR K, L, R)        |  |  |  |
| Hy  | drogen Sulfide (A  | 4)       | Lo               | amy Muc  | ky Minera   | al (F1)   | Very Shallow Da           | rk Surface (TF12)                 |  |  |  |
| Str   | atified Layers (A5 | )        | Lo               | amy Gley   | ed Matrix   | : (F2)    | Other (explain in         | remarks)                          |  |  |  |
| 2 0   | m Muck (A10)       |          | De               | pleted M   | atrix (F3)  |           |                           |                                   |  |  |  |
| De  | pleted Below Darl  | k Surfac | e (A11) Re       | dox Dark   | Surface     | (F6)      |                           |                                   |  |  |  |
| X Th  | ick Dark Surface ( | (A12)    | De               | pleted Da  | ark Surfac  | ce (F7)   | *Indicators of hydroph    | nytic vegetation and wetland      |  |  |  |
|   | ndy Mucky Minera   | . ,      |                  |  | essions (   |           |                           | esent, unless disturbed or        |  |  |  |
|   | m Mucky Peat or    |          |                  |  | (           | ,         | problematic               |                                   |  |  |  |
|   | -                  |          | ,                |  |             |           |                           |                                   |  |  |  |
|   | ayer (if observed  | I):      |                  |  |             |           | Undrie Ceil Dresse        |                                   |  |  |  |
| Type:<br>Depth (inches  |                    |          |                  |  | -           |           | Hydric Soil Presen        | t? Yes                            |  |  |  |
| Depth (menes  | <i></i>            |          |                  |  | -           |           |                           |                                   |  |  |  |
| Remarks:  |                    |          |                  |  |             |           |                           |                                   |  |  |  |
|   |                    |          |                  |  |             |           |                           |                                   |  |  |  |
|   |                    |          |                  |  |             |           |                           |                                   |  |  |  |
|   |                    |          |                  |  |             |           |                           |                                   |  |  |  |
| HYDROLO   | GY                 |          |                  |  |             |           |                           |                                   |  |  |  |
| •   | rology Indicators  |          |                  |  |             |           |                           |                                   |  |  |  |
| Primary Indica  | ators (minimum of  | one is r | equired; check a | all that ap  | <u>ply)</u> |           | Secondary Indica          | ators (minimum of two required)   |  |  |  |
| Surfac  | e Water (A1)       |          |                  | Aquatic  | Fauna (B    | 13)       | Surface                   | Soil Cracks (B6)                  |  |  |  |
| High W  | /ater Table (A2)   |          |                  | True Aq  | uatic Plar  | nts (B14) | Drainage                  | e Patterns (B10)                  |  |  |  |
| Satura  | tion (A3)          |          |                  | Hydroge  | en Sulfide  | Odor (C   | 1) Dry-Sea                | son Water Table (C2)              |  |  |  |
| Water   | Marks (B1)         |          |                  | Oxidize  | d Rhizosp   | heres on  |                           |                                   |  |  |  |
|   | ent Deposits (B2)  |          |                  | Roots (0   |             |           |                           | on Visible on Aerial Imagery (C9) |  |  |  |
|   | eposits (B3)       |          |                  | -  | e of Redu   |           | · · ·                     | or Stressed Plants (D1)           |  |  |  |
|   | lat or Crust (B4)  |          |                  | Recent Iron Reduction in Tilled Soils X Geomorphic Position (D2) |             |           |                           |                                   |  |  |  |
|   | eposits (B5)       |          |                  | (C6) FAC-Neutral Test (D5)                                       |             |           |                           |                                   |  |  |  |
|   | tion Visible on Ae |          |                  | -  | ick Surfac  | . ,       |                           |                                   |  |  |  |
|   | ly Vegetated Con   |          | Irface (B8)      | - 0  | or Well Da  | · · /     |                           |                                   |  |  |  |
| Water-  | Stained Leaves (E  | 39)      |                  | Other (E   | Explain in  | Remarks   | s)                        |                                   |  |  |  |
| Field Observ  |                    |          |                  |  |             |           |                           |                                   |  |  |  |
| Surface Wate  |                    | Yes      | No               | Х  | Depth (ii   | · _       |                           | tland Hydrology                   |  |  |  |
| Water Table F   |                    | Yes      | No               | X  | Depth (ii   |           |                           | Present?                          |  |  |  |
| Saturation Pre  |                    | Yes      | No               | Х  | Depth (ii   | nches):   |                           | Yes                               |  |  |  |
| (includes capi  |                    |          |                  |  |             |           |                           |                                   |  |  |  |
| Describe Rec  | orded Data (strea  | m gauge  | e, monitoring we | ii, aerial p   | photos, pr  | evious in | spections), if available: |                                   |  |  |  |
|   |                    |          |                  |  |             |           |                           |                                   |  |  |  |
| Remarks:  |                    |          |                  |  |             |           |                           |                                   |  |  |  |
| NGINAINS.   |                    |          |                  |  |             |           |                           |                                   |  |  |  |
|   |                    |          |                  |  |             |           |                           |                                   |  |  |  |

|   | WETLA        | ND DETER       |           |               | FORM -        | Midwes       | st Region                          |                |                                |
|---|--------------|----------------|-----------|---------------|---------------|--------------|------------------------------------|----------------|--------------------------------|
| Project/Site:   | Lake Charle  |                |           | County:       | Martin        |              | Sampling D                         |                | 10/21/2022                     |
| Applicant/Owner:  |              | e Charlotte So | olar, LLC |               |               |              | Sampling Po                        |                | WA057B                         |
| Investigator(s):  |              | /I Jennrich    |           |               | n, Township   | -            |                                    | Sec.16 T1      | 03N R30W                       |
| Landform (hillslope, terrace                              | · /          | Plain          | 1         |               | elief (concav |              |                                    |                | None                           |
| Slope (%): 1  | Lat:         | 43.73124       |           | Long:         | -94.429       |              | Datum:                             |                | WGS84                          |
| -   |              | coe complex,   |           |               |               | l Classifica |                                    |                | NA                             |
| Are climatic/hydrologic con                               |              |                |           | -             |               |              |                                    |                |                                |
|   | , soil,      |                |           | Significantly |               |              | normal circur                      |                |                                |
| Are vegetation SUMMARY OF FIND                            | · `          | or hydrology   |           | naturally pro | blematic?     | (If ne       | eded, expla                        | in any ans     | swers in remarks.)             |
| Hydrophytic Vegetatio                                     | on Present?  | No             |           |               |               |              |                                    |                |                                |
| Hydric Soil Present?                                      |              | No             |           | Is the sa     | mpled area    | within a     | wetland?                           |                | No                             |
| Wetland Hydrology P                                       | resent?      | No             |           | lf yes, op    | tional wetlar | nd site ID:  | : •                                | NA057          |                                |
| Remarks:  |              |                |           |               |               |              |                                    |                |                                |
| Recently tilled agricultura                               |              |                |           | al field.     |               |              |                                    |                |                                |
| VEGETATION Use  | scientific n |                |           | Dominant      | Indicator     | Domin        | nance Test V                       | Verkehaa       |                                |
| Tree Stratum (Pla   | ot size:     |                |           | Species       | Status        | _            | er of Dominan                      |                |                                |
| 1<br>2  |              |                |           |               |               | that are     | e OBL, FACW                        | , or FAC:      | (A)                            |
| 3.  |              |                |           |               |               |              | Solumber of Dor<br>Across All S    |                | (B)                            |
| 4<br>5  |              |                |           |               |               |              | nt of Dominant<br>e OBL, FACW      |                | % (A/B)                        |
|   |              |                |           | =Total Cove   | r             |              | , -                                | ,              | · · · ·                        |
| Sapling/Shrub Stratum                                     | (Plot size:  | )              |           |               |               | Preva        | lence Index                        | Workshe        | et                             |
| 1   |              |                |           |               |               |              | % Cover of:                        |                | fultiply by:                   |
| 2   |              |                |           |               |               |              | species                            |                | =                              |
| 3   |              |                |           |               |               |              | V species                          |                | =                              |
| 4   |              |                |           |               |               |              |                                    |                | =                              |
| 5   |              |                |           | =Total Cove   | r             |              | l species                          | x 4 =<br>x 5 = |                                |
| Herb Stratum  | (Plot size:  | ) <del>-</del> |           |               | I             |              | nn totals                          | X 3 =<br>(A)   |                                |
| 1.  | (1 101 3126. | )              |           |               |               |              | lence Index :                      | 、 ,            | (B)                            |
| 2.  |              |                |           |               |               |              |                                    |                |                                |
| 3.  |              |                |           |               |               | Hydro        | ophytic Vege                       | etation Inc    | licators:                      |
| 4.  |              |                |           |               |               | -            |                                    |                | tic vegetation                 |
| 5.  |              |                |           |               |               |              | Dominance t                        | est is >509    | %                              |
| 6.  |              |                |           |               |               |              | Prevalence i                       | ndex is ≤3     | .0*                            |
| 7   |              |                |           |               |               |              | Morphologic                        | al adaptati    | ons* (provide                  |
| 8   |              |                |           |               |               |              | supporting d                       | ata in Rem     | arks or on a                   |
| 9   |              |                |           |               |               |              | separate she                       | ,              |                                |
| 10  |              |                |           |               |               |              |                                    | hydrophyti     | c vegetation*                  |
|   |              |                |           | =Total Cove   | r             |              | (explain)                          |                |                                |
| Woody Vine Stratum  | (Plot size:  |                |           |               |               |              | ors of hydric so<br>unless disturb |                | nd hydrology must be<br>ematic |
| 2   |              |                |           | =Total Cove   | r             | Veg          | drophytic<br>getation<br>sent?     | <u>No</u>      |                                |
| Remarks: (Include photo n<br>Recently tilled agricultural |              |                | e sheet)  |               |               |              |                                    |                |                                |

WA057B

| Dopyint<br>(Inches)         Matrix         Endox Features         Texture         Remarks           0-32         10/17.22         96         2.57 42         2         D         M         Saidy Clay           32-39         10/17.22         96         2.57 42         2         D         M         Saidy Clay           32-39         10/17.22         96         2.57 42         2         D         M         Saidy Clay           12         14         14         14         14         14         14         14           14         14         14         14         14         14         14         14           14         14         14         14         14         14         14         14           14         14         14         14         14         14         14         14           14         14         14         14         14         14         14         14           14         14         14         14         14         14         14         14           14         14         14         14         14         14         14         14         14         14         <  | Profile Descr  | iption: (Describe                     | e to the | depth needed t   | o docum      | ent the i   | ndicator               | or confirm the absence    | of indicators.)                |  |  |
|--|----------------|---------------------------------------|----------|------------------|--------------|-------------|------------------------|---------------------------|--------------------------------|--|--|
| (Inches)         Color (moist)         %         Color         Texture         Remarks           0-32         10YR 21         100         IOYR 22         2         D         M         Sardy Cay         IOYR 20         IOY  | Depth          | Matrix                                |          | Re               | edox Feat    | tures       |                        |                           |                                |  |  |
| 0-32         10YR 2/1         100         Image: constraints of the second sec |                | Color (moist)                         | %        | Color (moist)    | %            | Type*       | Loc**                  | Texture                   | Remarks                        |  |  |
| 32:39       10YR 2/2       89       2.5Y 4/2       2       D       M       Sandy Clay  | 0-32           | , ,                                   | 100      |                  |              | 51          |                        | Clay                      |                                |  |  |
| Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains.       "Location: PL = Pore Lining, M = Matrix         Hydric Soil Indicators:       Indicators (C)       Indicators (C)       Indicators (C)         Histosol (A1)   |                |                                       |          |                  |              |             |                        | -                         |                                |  |  |
| Hydric Soil Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Sandy Gleyed Matrix (S4)         Histosol (A1)       Sandy Gleyed Matrix (S4)         Black Histic (A3)       Stripped Matrix (S6)         Hydrogen Sulfde (A4)       Loarny Mucky Mineral (F1)         Stratified Layers (A5)       Loarny Gleyed Matrix (F2)         Depleted Below Dark Surface (A11)       Redox Dark Surface (F7)         Thrick Dark Surface (A12)       Depleted Matrix (F3)         Depleted Below Dark Surface (A12)       Depleted Matrix (F3)         Sandy Mucky Mineral (S1)       Redox Depressions (F8)         Type:       Indicators of hydrophylic vegetation and welland hydrology must be present; unless disturbed or problematic         Poptier (inches):       Mydric Soil Present?         Nperiod (A2)       True Aquatic Fauna (B13)         Surface Vater (A1)       Aquatic Fauna (B13)         Surface Soil Cracks (B6)       Drainage Patterns (B10)         Surface Soil Cracks (B6)       Drainage Patterns (B10)         Saturation (A3)       Presence of Reduced Iron (C1)         Sediment Deposits (B2)       Roots (C3)         Crayfish Burrows (C8)       Saturation Visible on Aerial Imagery (C9)         Tift Deposits (B3)       Presence of Reduced Iron (C1)       Sutrate Soil Cracks (B6) <t< td=""><td>32-39</td><td>10YR 2/2</td><td>98</td><td>2.5Y 4/2</td><td>2</td><td>D</td><td>М</td><td>Sandy Clay</td><td></td></t<>  | 32-39          | 10YR 2/2                              | 98       | 2.5Y 4/2         | 2            | D           | М                      | Sandy Clay                |                                |  |  |
| Hydric Soil Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Sandy Gleyed Matrix (S4)         Histosol (A1)       Sandy Gleyed Matrix (S4)         Black Histic (A3)       Stripped Matrix (S6)         Hydrogen Sulfde (A4)       Loarny Mucky Mineral (F1)         Stratified Layers (A5)       Loarny Gleyed Matrix (F2)         Depleted Below Dark Surface (A11)       Redox Dark Surface (F7)         Thrick Dark Surface (A12)       Depleted Matrix (F3)         Depleted Below Dark Surface (A12)       Depleted Matrix (F3)         Sandy Mucky Mineral (S1)       Redox Depressions (F8)         Type:       Indicators of hydrophylic vegetation and welland hydrology must be present; unless disturbed or problematic         Poptier (inches):       Mydric Soil Present?         Nperiod (A2)       True Aquatic Fauna (B13)         Surface Vater (A1)       Aquatic Fauna (B13)         Surface Soil Cracks (B6)       Drainage Patterns (B10)         Surface Soil Cracks (B6)       Drainage Patterns (B10)         Saturation (A3)       Presence of Reduced Iron (C1)         Sediment Deposits (B2)       Roots (C3)         Crayfish Burrows (C8)       Saturation Visible on Aerial Imagery (C9)         Tift Deposits (B3)       Presence of Reduced Iron (C1)       Sutrate Soil Cracks (B6) <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>  |                |                                       |          |                  |              |             |                        |                           |                                |  |  |
| Hydric Soil Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Sandy Gleyed Matrix (S4)         Histosol (A1)       Sandy Gleyed Matrix (S4)         Black Histic (A3)       Stripped Matrix (S6)         Hydrogen Sulfde (A4)       Loarny Mucky Mineral (F1)         Stratified Layers (A5)       Loarny Gleyed Matrix (F2)         Depleted Below Dark Surface (A11)       Redox Dark Surface (F7)         Thrick Dark Surface (A12)       Depleted Matrix (F3)         Depleted Below Dark Surface (A12)       Depleted Matrix (F3)         Sandy Mucky Mineral (S1)       Redox Depressions (F8)         Type:       Indicators of hydrophylic vegetation and welland hydrology must be present; unless disturbed or problematic         Poptier (inches):       Mydric Soil Present?         Nperiod (A2)       True Aquatic Fauna (B13)         Surface Vater (A1)       Aquatic Fauna (B13)         Surface Soil Cracks (B6)       Drainage Patterns (B10)         Surface Soil Cracks (B6)       Drainage Patterns (B10)         Saturation (A3)       Presence of Reduced Iron (C1)         Sediment Deposits (B2)       Roots (C3)         Crayfish Burrows (C8)       Saturation Visible on Aerial Imagery (C9)         Tift Deposits (B3)       Presence of Reduced Iron (C1)       Sutrate Soil Cracks (B6) <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>  |                |                                       |          |                  |              |             |                        |                           |                                |  |  |
| Hydric Soil Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Sandy Gleyed Matrix (S4)         Histosol (A1)       Sandy Gleyed Matrix (S4)         Black Histic (A3)       Stripped Matrix (S6)         Hydrogen Sulfde (A4)       Loarny Mucky Mineral (F1)         Stratified Layers (A5)       Loarny Gleyed Matrix (F2)         Depleted Below Dark Surface (A11)       Redox Dark Surface (F7)         Thrick Dark Surface (A12)       Depleted Matrix (F3)         Depleted Below Dark Surface (A12)       Depleted Matrix (F3)         Sandy Mucky Mineral (S1)       Redox Depressions (F8)         Type:       Indicators of hydrophylic vegetation and welland hydrology must be present; unless disturbed or problematic         Poptier (inches):       Mydric Soil Present?         Nperiod (A2)       True Aquatic Fauna (B13)         Surface Vater (A1)       Aquatic Fauna (B13)         Surface Soil Cracks (B6)       Drainage Patterns (B10)         Surface Soil Cracks (B6)       Drainage Patterns (B10)         Saturation (A3)       Presence of Reduced Iron (C1)         Sediment Deposits (B2)       Roots (C3)         Crayfish Burrows (C8)       Saturation Visible on Aerial Imagery (C9)         Tift Deposits (B3)       Presence of Reduced Iron (C1)       Sutrate Soil Cracks (B6) <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>  |                |                                       |          |                  |              |             |                        |                           |                                |  |  |
| Hydric Soil Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Sandy Gleyed Matrix (S4)         Histosol (A1)       Sandy Gleyed Matrix (S4)         Black Histic (A3)       Stripped Matrix (S6)         Hydrogen Sulfde (A4)       Loarny Mucky Mineral (F1)         Stratified Layers (A5)       Loarny Gleyed Matrix (F2)         Depleted Below Dark Surface (A11)       Redox Dark Surface (F7)         Thrick Dark Surface (A12)       Depleted Matrix (F3)         Depleted Below Dark Surface (A12)       Depleted Matrix (F3)         Sandy Mucky Mineral (S1)       Redox Depressions (F8)         Type:       Indicators of hydrophylic vegetation and welland hydrology must be present; unless disturbed or problematic         Poptier (inches):       Mydric Soil Present?         Nperiod (A2)       True Aquatic Fauna (B13)         Surface Vater (A1)       Aquatic Fauna (B13)         Surface Soil Cracks (B6)       Drainage Patterns (B10)         Surface Soil Cracks (B6)       Drainage Patterns (B10)         Saturation (A3)       Presence of Reduced Iron (C1)         Sediment Deposits (B2)       Roots (C3)         Crayfish Burrows (C8)       Saturation Visible on Aerial Imagery (C9)         Tift Deposits (B3)       Presence of Reduced Iron (C1)       Sutrate Soil Cracks (B6) <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>  |                |                                       |          |                  |              |             |                        |                           |                                |  |  |
| Hydric Soil Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Sandy Gleyed Matrix (S4)         Histosol (A1)       Sandy Gleyed Matrix (S4)         Black Histic (A3)       Stripped Matrix (S6)         Hydrogen Sulfde (A4)       Loarny Mucky Mineral (F1)         Stratified Layers (A5)       Loarny Gleyed Matrix (F2)         Depleted Below Dark Surface (A11)       Redox Dark Surface (F7)         Thrick Dark Surface (A12)       Depleted Matrix (F3)         Depleted Below Dark Surface (A12)       Depleted Matrix (F3)         Sandy Mucky Mineral (S1)       Redox Depressions (F8)         Type:       Indicators of hydrophylic vegetation and welland hydrology must be present; unless disturbed or problematic         Poptier (inches):       Mydric Soil Present?         Nperiod (A2)       True Aquatic Fauna (B13)         Surface Vater (A1)       Aquatic Fauna (B13)         Surface Soil Cracks (B6)       Drainage Patterns (B10)         Surface Soil Cracks (B6)       Drainage Patterns (B10)         Saturation (A3)       Presence of Reduced Iron (C1)         Sediment Deposits (B2)       Roots (C3)         Crayfish Burrows (C8)       Saturation Visible on Aerial Imagery (C9)         Tift Deposits (B3)       Presence of Reduced Iron (C1)       Sutrate Soil Cracks (B6) <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>  |                |                                       |          |                  |              |             |                        |                           |                                |  |  |
| Hydric Soil Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Sandy Gleyed Matrix (S4)         Histosol (A1)       Sandy Gleyed Matrix (S4)         Black Histic (A3)       Stripped Matrix (S6)         Hydrogen Sulfde (A4)       Loarny Mucky Mineral (F1)         Stratified Layers (A5)       Loarny Gleyed Matrix (F2)         Depleted Below Dark Surface (A11)       Redox Dark Surface (F7)         Thrick Dark Surface (A12)       Depleted Matrix (F3)         Depleted Below Dark Surface (A12)       Depleted Matrix (F3)         Sandy Mucky Mineral (S1)       Redox Depressions (F8)         Type:       Indicators of hydrophylic vegetation and welland hydrology must be present; unless disturbed or problematic         Poptier (inches):       Mydric Soil Present?         Nperiod (A2)       True Aquatic Fauna (B13)         Surface Vater (A1)       Aquatic Fauna (B13)         Surface Soil Cracks (B6)       Drainage Patterns (B10)         Surface Soil Cracks (B6)       Drainage Patterns (B10)         Saturation (A3)       Presence of Reduced Iron (C1)         Sediment Deposits (B2)       Roots (C3)         Crayfish Burrows (C8)       Saturation Visible on Aerial Imagery (C9)         Tift Deposits (B3)       Presence of Reduced Iron (C1)       Sutrate Soil Cracks (B6) <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>  |                |                                       |          |                  |              |             |                        |                           |                                |  |  |
| Hydric Soil Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Sandy Gleyed Matrix (S4)         Histosol (A1)       Sandy Gleyed Matrix (S4)         Black Histic (A3)       Stripped Matrix (S6)         Hydrogen Sulfde (A4)       Loarny Mucky Mineral (F1)         Stratified Layers (A5)       Loarny Gleyed Matrix (F2)         Depleted Below Dark Surface (A11)       Redox Dark Surface (F7)         Thrick Dark Surface (A12)       Depleted Matrix (F3)         Depleted Below Dark Surface (A12)       Depleted Matrix (F3)         Sandy Mucky Mineral (S1)       Redox Depressions (F8)         Type:       Indicators of hydrophylic vegetation and welland hydrology must be present; unless disturbed or problematic         Poptier (inches):       Mydric Soil Present?         Nperiod (A2)       True Aquatic Fauna (B13)         Surface Vater (A1)       Aquatic Fauna (B13)         Surface Soil Cracks (B6)       Drainage Patterns (B10)         Surface Soil Cracks (B6)       Drainage Patterns (B10)         Saturation (A3)       Presence of Reduced Iron (C1)         Sediment Deposits (B2)       Roots (C3)         Crayfish Burrows (C8)       Saturation Visible on Aerial Imagery (C9)         Tift Deposits (B3)       Presence of Reduced Iron (C1)       Sutrate Soil Cracks (B6) <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>  |                |                                       |          |                  |              |             |                        |                           |                                |  |  |
| Hydric Soil Indicators:       Indicators for Problematic Hydric Soils*:         Histosol (A1)       Sandy Gleyed Matrix (S4)         Histosol (A1)       Sandy Gleyed Matrix (S4)         Black Histic (A3)       Stripped Matrix (S6)         Hydrogen Sulfde (A4)       Loarny Mucky Mineral (F1)         Stratified Layers (A5)       Loarny Gleyed Matrix (F2)         Depleted Below Dark Surface (A11)       Redox Dark Surface (F7)         Thrick Dark Surface (A12)       Depleted Matrix (F3)         Depleted Below Dark Surface (A12)       Depleted Matrix (F3)         Sandy Mucky Mineral (S1)       Redox Depressions (F8)         Type:       Indicators of hydrophylic vegetation and welland hydrology must be present; unless disturbed or problematic         Poptier (inches):       Mydric Soil Present?         Nperiod (A2)       True Aquatic Fauna (B13)         Surface Vater (A1)       Aquatic Fauna (B13)         Surface Soil Cracks (B6)       Drainage Patterns (B10)         Surface Soil Cracks (B6)       Drainage Patterns (B10)         Saturation (A3)       Presence of Reduced Iron (C1)         Sediment Deposits (B2)       Roots (C3)         Crayfish Burrows (C8)       Saturation Visible on Aerial Imagery (C9)         Tift Deposits (B3)       Presence of Reduced Iron (C1)       Sutrate Soil Cracks (B6) <t< td=""><td>*Type: C =</td><td>Concentration D</td><td>= Denle</td><td>tion RM = Redu</td><td>iced Mat</td><td>riv MS =</td><td>Masked 3</td><td>Sand Grains **Location</td><td>n: PL = Pore Lining M = Matrix</td></t<>  | *Type: C =     | Concentration D                       | = Denle  | tion RM = Redu   | iced Mat     | riv MS =    | Masked 3               | Sand Grains **Location    | n: PL = Pore Lining M = Matrix |  |  |
| Histosol (A1)       Sandy Gleyed Matrix (S4)       Coast Prairie Redox (A16) (LRR K, L, R)         Histo Epipedon (A2)       Sandy Redox (S5)       Dark Surface RANaganese Masses (F12) (LRR K, L, R)         Hydrogen Suffide (A4)       Loamy Mucky Mineral (F1)       Very Shallow Dark Surface (TF12)         2 cm Muck (A10)       Depleted Matrix (F2)       Other (explain in remarks)         Depleted Balow Dark Surface (A11)       Redox Dark Surface (F6)       "Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic         Type:       Depleted Matrix (F3)       Brack Mucky Mineral (S1)       Redox Dark Surface (F6)         Type:       Depleted Matrix (F3)       "Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic         Restrictive Layer (if observed):       Type:       Hydric Soil Present?       No         Depht (nches):       Hydrology Indicators:       Premarks:       Surface Water (A1)       Aquatic Fana (B13)         Surface Water (A1)       Aquatic Fana (B13)       Surface Soil Cracks (B6)       Drainage Patterns (B10)         Saturation (A3)       Hydrogen Sulfide Odor (C1)       Dry-Season Water Table (C2)       Craftish Burrows (C3)         Sediment Deposits (B2)       Roots (C3)       Saturation Visible on Aerial Imagery (E7)       Saturation Visible on Aerial Imagery (E7)         Inunda   | <u>,</u>       |                                       | - Depic  |                  |              | iix, ivio - | Masheu                 |                           | 0.                             |  |  |
| Histic Epipedon (A2)       Sandy Redox (S5)       Dark Surface (S7) (LRR K, L)         Black Histic (A3)       Stripped Matrix (S6)       Iron-Manganes Masses (F12) (LRR K, L, R)         Hydrogen Sulfide (A4)       Loarmy Mucky Mineral (F1)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Redox Depressions (F6)       Thick Dark Surface (A11)         Sandy Mucky Mineral (S1)       Redox Depressions (F8)       "Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic         Type:       Hydrology Indicators:       Problematic       No         Priptien       Hydrology Indicators:       No       Surface Vater (A1)       Surface Soil Cracks (B6)         Surface Water (A1)       Aquatic Fauna (B13)       Surface Soil Cracks (B6)       Surface Soil Cracks (B6)         High Water Table (A2)       True Aquatic Plants (B14)       Drainage Patterns (B10)       Crayfish Burrows (C8)         Sediment Deposits (B2)       Roots (C3)       Surface (C4)       Sutration Visible on Aerial Imagery (C9)         Irin Deposits (B3)       Presence of Reduced Irin (C4)       Sutration Visible on Aerial Imagery (C9)         Irin Deposits (B2)       (C6)       Sutration Visible on Aerial Imagery (C9)         Irin Deposits (B2)       (C6)       Gauge or Well Data (D9)       Sutration Visible on Aerial Imagery (C9)   | -              |                                       |          | Sa               | ndy Clev     | od Matrix   | (\$4)                  |                           | •                              |  |  |
| Black Histic (A3)       Stripped Matrix (S6)       Iron-Manganese Masses (F12) (LRR K, L, R)         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1)       Very Shallow Dark Surface (TF12)         Other (explain in remarks)       2 cm Muck (A10)       Depleted Matrix (F3)         Depleted Below Dark Surface (A11)       Redox Dark Surface (F6)       'Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic         Restrictive Layer (if observed):       Type:       Hydric Soil Present?       No         Popth (inches):   |                |                                       |          |                  |              |             | (34)                   |                           |                                |  |  |
| Hydrogen Sulfide (A4)       Loamy Gueyed Matrix (F2)       Other (explain in remarks)         Stratified Layers (A5)       Loamy Gleyed Matrix (F2)       Other (explain in remarks)         Depleted Below Dark Surface (A11)       Redox Dark Surface (F6)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic         Sandy Mucky Mineral (S1)       Redox Depressions (F8)       Hydric Soil Present?       No         Pyper imary Indicators:       Presence and the apply       Secondary Indicators: (minimum of two required)         Surface Water (A1)       Aquatic Fauna (B13)       Surface Soil Cracks (B6)         High Water Table (A2)       True Aquatic Plants (B14)       Drainage Patterns (B10)         Saturation (A3)       Hydrice Robit (C1)       Dry Season Water Table (C2)         Water Marks (B1)       Oxidiace Arbite Charks (B6)       Surface Soil Cracks (B6)         Hydric B03       Presence on Living       Saturation Visible on Aerial Imagery (C9)         Sediment Deposits (B2)       Roots (C3)       Saturation Visible on Aerial Imagery (C9)         Into Deposits (B3)       Presence of Reduced Iron (C4)       Sturted Or Streseed Plants (D1)         Mater State Orcave Surface (B8)       Gauge or Well Data (D9)       Saturation Visible on Aerial Imagery (C9)         Into Deposits (B5)       (C6)       Gauge or Well Data (D9)       <  |                |                                       | )        |                  | -            |             |                        |                           |                                |  |  |
| Stratified Layers (A5)       Loamy Gleyed Matrix (F2)       Other (explain in remarks)         2 cm Muck (A10)       Depleted Matrix (F3)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic         Sandy Mucky Mineral (S1)       Redox Dark Surface (F6)       Thick Dark Surface (A12)         Sandy Mucky Peat or Peat (S3)       Redox Depressions (F8)       *Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic         Restrictive Layer (if observed):       Type:       Hydric Soil Present?       No         Depleted Table (A2)       Free marks:       Hydric Soil Present?       No         Wetland Hydrology Indicators:       Primary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (f6)       Drainage Patterns (B10)         Surface Water (A1)       Aquatic Fauna (B13)       Surface Soil Cracks (B6)       Drainage Patterns (B10)         Surface Marks (B1)       Oxidized Rhizospheres on Living       Crayfish Burrows (C8)       Saturation (A3)         Sediment Deposits (B2)       Recent Iron Reduced Iron (C4)       Saturation Visible on Aerial Imagery (C9)       Stunet or Stressed Planets (C1)         Algal Mat or Crust (B4)       Crays (B4)       Recent Iron Reduced Iron (C4)       FAC-Neutral Test (D5)         Iron Deposits (B5)       (C6)       Gauge or Well Data (D9)       <  |                | ( )                                   |          |                  | •••          | . ,         |                        |                           |                                |  |  |
| 2 cm Muck (A10)       Depleted Matrix (F3)         Pepleted Blow Dark Surface (A11)       Redox Dark Surface (F6)         Thick Dark Surface (A12)       Depleted Dark Surface (F7)         Sandy Mucky Mineral (S1)       Redox Depressions (F8)         *Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic         Restrictive Layer (if observed):       Type:         Type:  |                | -                                     |          |                  | •            | •           | . ,                    |                           |                                |  |  |
| Depleted Below Dark Surface (A11)       Redox Dark Surface (F6)         Thick Dark Surface (A12)       Depleted Dark Surface (F7)         Sandy Mucky Mineral (S1)       Redox Depressions (F8)         *Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic         Restrictive Layer (if observed):       Hydric Soil Present?         Type:   |                | •                                     | )        |                  |              |             | (F2)                   | Other (explain in         | remarks)                       |  |  |
| Thick Dark Surface (A12)       Depleted Dark Surface (F7)       *Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic         Restrictive Layer (if observed):       Type:       Hydric Soil Present?No         Depth (inches):       Hydric Soil Present?No         Remarks:       HYDROLOGY         Wetland Hydrology Indicators:       Primary Indicators (minimum of one is required: check all that apply)       Secondary Indicators (minimum of two required)         Surface Water (A1)       Aquatic Fauna (B13)       Surface Soil Cracks (B6)         High Water Table (A2)       True Aquatic Plants (B14)       Drainage Patterns (B10)         Saturation (A3)       Hydrogen Sulfide Odor (C1)       Dry-Season Water Table (C2)         Water Marks (B1)       Oxidized Rhizospheres on Living       Crayfish Burrows (C8)         Sediment Deposits (B2)       Roots (C3)       Saturation Visible on Aerial Imagery (C9)         Dift Deposits (B3)       Presence of Reduced Iron (C4)       Stunted or Stressed Plants (D1)         Algal Ma or Crust (B4)       Recent Iron Reduction in Tilled Soils       Geomorphic Position (D2)         Iton Deposits (B5)       (C6)       FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Thin Muck Surface (C7)       FAC-Neutral Test (D5)         Sutrace Water Present?       Yes   |                | , , , , , , , , , , , , , , , , , , , |          |                  |              |             |                        |                           |                                |  |  |
| Sandy Mucky Mineral (S1)       Redox Depressions (F8)       Inductor regulation and weindard hydrology must be present, unless disturbed or problematic         Restrictive Layer (if observed):       Type:       Hydrology must be present, unless disturbed or problematic         Restrictive Layer (if observed):       Hydrology must be present, unless disturbed or problematic         Type:       Hydrology Indicators:         Remarks:       HYDROLOGY         Wetland Hydrology Indicators:       Surface Soil Cracks (B6)         Primary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (minimum of two required)         Surface Water (A1)       Aquatic Fauna (B13)       Surface Soil Cracks (B6)         Surface Water (A3)       Hydrogen Sulfide Odor (C1)       Drainage Patterns (B10)         Saturation (A3)       Hydrogen Sulfide Odor (C1)       Dry-Season Water Table (C2)         Water Marks (B1)       Oxidized Rhizospheres on Living       Crafits Burrows (C8)         Sediment Deposits (B2)       Roots (C3)       Saturation Visible on Aerial Imagery (C9)         Drift Deposits (B3)       Presence of Reduced Iron (C4)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Recent Iron Reduction in Tilled Soils       Geomorphic Position (D2)         Iron Deposits (B5)       (C6)       FAC-Neutral Test (D5)       Field Observations: <td< td=""><td></td><td></td><td></td><td>· /</td><td></td><td></td><td>. ,</td><td></td><td></td></td<>  |                |                                       |          | · /              |              |             | . ,                    |                           |                                |  |  |
|  |                |                                       | ` '      |                  |              |             |                        |                           |                                |  |  |
| Restrictive Layer (if observed):   | Sa             | ndy Mucky Minera                      | al (S1)  | Re               | dox Depi     | ressions (  | (F8)                   |                           |                                |  |  |
| Type:  | 5 c            | m Mucky Peat or                       | Peat (S  | 3)               |              |             |                        | problematic               |                                |  |  |
| Depth (inches):  | Restrictive L  | ayer (if observed                     | I):      |                  |              |             |                        |                           |                                |  |  |
| Remarks:         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (minimum of two required)         Surface Water (A1)       Aquatic Fauna (B13)       Surface Soil Cracks (B6)         High Water Table (A2)       True Aquatic Plants (B14)       Drainage Patterns (B10)         Saturation (A3)       Hydrogen Sulfide Odor (C1)       Dry-Season Water Table (C2)         Water Marks (B1)       Oxidized Rhizospheres on Living       Crayfish Burrows (C8)         Sediment Deposits (B2)       Roots (C3)       Saturation Visible on Aerial Imagery (C9)         Drift Deposits (B3)       Presence of Reduced Iron (C4)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Recent Iron Reduction in Tilled Soils       Geomorphic Position (D2)         Iron Deposits (B5)       (C6)   | Туре:          |                                       |          |                  |              |             |                        | Hydric Soil Presen        | t? No                          |  |  |
| HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (minimum of two required)         Surface Water (A1)       Aquatic Fauna (B13)       Surface Soil Cracks (B6)         High Water Table (A2)       True Aquatic Plants (B14)       Drainage Patterns (B10)         Saturation (A3)       Hydrogen Sulfide Odor (C1)       Dry-Season Water Table (C2)         Water Marks (B1)       Oxidized Rhizospheres on Living       Crayfish Burrows (C8)         Sediment Deposits (B2)       Roots (C3)       Saturation Visible on Aerial Imagery (C9)         Drift Deposits (B3)       Presence of Reduced Iron (C4)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Recent Iron Reduction in Tilled Soils       Geomorphic Position (D2)         Iron Deposits (B5)       (C6)       FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Thin Muck Surface (C7)       Sparsely Vegetated Concave Surface (B8)         Gauge or Well Data (D9)       Other (Explain in Remarks)       Wetland Hydrology         Field Observations:       No       X       Depth (inches):       Wetland Hydrology         Water Table Present?       Yes       No       X       Depth (inches):       Mo         Saturation Present? <td>Depth (inches</td> <td>s):</td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td>-</td> <td></td>  | Depth (inches  | s):                                   |          |                  |              | -           |                        | -                         |                                |  |  |
| HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (minimum of two required)         Surface Water (A1)       Aquatic Fauna (B13)       Surface Soil Cracks (B6)         High Water Table (A2)       True Aquatic Plants (B14)       Drainage Patterns (B10)         Saturation (A3)       Hydrogen Sulfide Odor (C1)       Dry-Season Water Table (C2)         Water Marks (B1)       Oxidized Rhizospheres on Living       Crayfish Burrows (C8)         Sediment Deposits (B2)       Roots (C3)       Saturation Visible on Aerial Imagery (C9)         Drift Deposits (B3)       Presence of Reduced Iron (C4)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Recent Iron Reduction in Tilled Soils       Geomorphic Position (D2)         Iron Deposits (B5)       (C6)       FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Thin Muck Surface (C7)       Sparsely Vegetated Concave Surface (B8)         Gauge or Well Data (D9)       Other (Explain in Remarks)       Wetland Hydrology         Field Observations:       No       X       Depth (inches):       Wetland Hydrology         Water Table Present?       Yes       No       X       Depth (inches):       Mo         Saturation Present? <th></th> <th></th> <th></th> <th></th> <th></th> <th>-</th> <th></th> <th></th> <th></th>   |                |                                       |          |                  |              | -           |                        |                           |                                |  |  |
| Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (minimum of two required)         Surface Water (A1)       Aquatic Fauna (B13)       Surface Soil Cracks (B6)         High Water Table (A2)       True Aquatic Plants (B14)       Drainage Patterns (B10)         Saturation (A3)       Hydrogen Sulfide Odor (C1)       Dry-Season Water Table (C2)         Water Marks (B1)       Oxidized Rhizospheres on Living       Crayfish Burrows (C8)         Sediment Deposits (B2)       Roots (C3)       Saturation (C4)       Sturation Visible on Aerial Imagery (C9)         Drift Deposits (B3)       Presence of Reduced Iron (C4)       Stuned or Stressed Plants (D1)       Geomorphic Position (D2)         Iron Deposits (B5)       (C6)       FAC-Neutral Test (D5)       FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Thin Muck Surface (C7)       Sparsely Vegetated Concave Surface (B8)       Gauge or Well Data (D9)         Water Table Present?       Yes       No       X       Depth (inches):       Wetland Hydrology         Water Table Present?       Yes       No       X       Depth (inches):       No       No         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       No <th>Remarks:</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>   | Remarks:       |                                       |          |                  |              |             |                        |                           |                                |  |  |
| Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (minimum of two required)         Surface Water (A1)       Aquatic Fauna (B13)       Surface Soil Cracks (B6)         High Water Table (A2)       True Aquatic Plants (B14)       Drainage Patterns (B10)         Saturation (A3)       Hydrogen Sulfide Odor (C1)       Dry-Season Water Table (C2)         Water Marks (B1)       Oxidized Rhizospheres on Living       Crayfish Burrows (C8)         Sediment Deposits (B2)       Roots (C3)       Saturation (C4)       Sturation Visible on Aerial Imagery (C9)         Drift Deposits (B3)       Presence of Reduced Iron (C4)       Stuned or Stressed Plants (D1)       Geomorphic Position (D2)         Iron Deposits (B5)       (C6)       FAC-Neutral Test (D5)       FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Thin Muck Surface (C7)       Sparsely Vegetated Concave Surface (B8)       Gauge or Well Data (D9)         Water Table Present?       Yes       No       X       Depth (inches):       Wetland Hydrology         Water Table Present?       Yes       No       X       Depth (inches):       No       No         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       No <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>   |                |                                       |          |                  |              |             |                        |                           |                                |  |  |
| Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (minimum of two required)         Surface Water (A1)       Aquatic Fauna (B13)       Surface Soil Cracks (B6)         High Water Table (A2)       True Aquatic Plants (B14)       Drainage Patterns (B10)         Saturation (A3)       Hydrogen Sulfide Odor (C1)       Dry-Season Water Table (C2)         Water Marks (B1)       Oxidized Rhizospheres on Living       Crayfish Burrows (C8)         Sediment Deposits (B2)       Roots (C3)       Saturation (C4)       Sturation Visible on Aerial Imagery (C9)         Drift Deposits (B3)       Presence of Reduced Iron (C4)       Stuned or Stressed Plants (D1)       Geomorphic Position (D2)         Iron Deposits (B5)       (C6)       FAC-Neutral Test (D5)       FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Thin Muck Surface (C7)       Sparsely Vegetated Concave Surface (B8)       Gauge or Well Data (D9)         Water Table Present?       Yes       No       X       Depth (inches):       Wetland Hydrology         Water Table Present?       Yes       No       X       Depth (inches):       No       No         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       No <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>   |                |                                       |          |                  |              |             |                        |                           |                                |  |  |
| Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (minimum of two required)         Surface Water (A1)       Aquatic Fauna (B13)       Surface Soil Cracks (B6)         High Water Table (A2)       True Aquatic Plants (B14)       Drainage Patterns (B10)         Saturation (A3)       Hydrogen Sulfide Odor (C1)       Dry-Season Water Table (C2)         Water Marks (B1)       Oxidized Rhizospheres on Living       Crayfish Burrows (C8)         Sediment Deposits (B2)       Roots (C3)       Saturation (C4)       Sturation Visible on Aerial Imagery (C9)         Drift Deposits (B3)       Presence of Reduced Iron (C4)       Stuned or Stressed Plants (D1)       Geomorphic Position (D2)         Iron Deposits (B5)       (C6)       FAC-Neutral Test (D5)       FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Thin Muck Surface (C7)       Sparsely Vegetated Concave Surface (B8)       Gauge or Well Data (D9)         Water Table Present?       Yes       No       X       Depth (inches):       Wetland Hydrology         Water Table Present?       Yes       No       X       Depth (inches):       No       No         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       No <th></th> <th>-</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>  |                | -                                     |          |                  |              |             |                        |                           |                                |  |  |
| Primary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (minimum of two required)         Surface Water (A1)       Aquatic Fauna (B13)       Surface Soil Cracks (B6)         High Water Table (A2)       True Aquatic Plants (B14)       Drainage Patterns (B10)         Saturation (A3)       Hydrogen Sulfide Odor (C1)       Dry-Season Water Table (C2)         Water Marks (B1)       Oxidized Rhizospheres on Living       Crayfish Burrows (C8)         Sediment Deposits (B2)       Roots (C3)       Saturation Visible on Aerial Imagery (C9)         Drift Deposits (B3)       Presence of Reduced Iron (C4)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Recent Iron Reduction in Tilled Soils       Geomorphic Position (D2)         Iron Deposits (B5)       (C6)       FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Thin Muck Surface (C7)         Sparsely Vegetated Concave Surface (B8)       Gauge or Well Data (D9)         Water Table Present?       Yes       No         Surface Water Present?       Yes       No         X       Depth (inches):       Wetland Hydrology         Present?       Yes       No       X         Surface Water Present?       Yes       No       X         Surface Water Present?       Yes  |                |                                       |          |                  |              |             |                        |                           |                                |  |  |
| Surface Water (A1)       Aquatic Fauna (B13)       Surface Soil Cracks (B6)         High Water Table (A2)       True Aquatic Plants (B14)       Drainage Patterns (B10)         Saturation (A3)       Hydrogen Sulfide Odor (C1)       Dry-Season Water Table (C2)         Water Marks (B1)       Oxidized Rhizospheres on Living       Crayfish Burrows (C8)         Sediment Deposits (B2)       Roots (C3)       Saturation Visible on Aerial Imagery (C9)         Drift Deposits (B3)       Presence of Reduced Iron (C4)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Recent Iron Reduction in Tilled Soils       Geomorphic Position (D2)         Iron Deposits (B5)       (C6)       FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Thin Muck Surface (C7)       FAC-Neutral Test (D5)         Surface Water Present?       Yes       No       X       Depth (inches):       Wetland Hydrology         Water Table Present?       Yes       No       X       Depth (inches):  | -              |                                       |          |                  |              |             |                        |                           |                                |  |  |
| High Water Table (A2)       True Aquatic Plants (B14)       Drainage Patterns (B10)         Saturation (A3)       Hydrogen Sulfide Odor (C1)       Dry-Season Water Table (C2)         Water Marks (B1)       Oxidized Rhizospheres on Living       Crayfish Burrows (C8)         Sediment Deposits (B2)       Roots (C3)       Saturation Visible on Aerial Imagery (C9)         Drift Deposits (B3)       Presence of Reduced Iron (C4)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Recent Iron Reduction in Tilled Soils       Geomorphic Position (D2)         Iron Deposits (B5)       (C6)       FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Thin Muck Surface (C7)       Sparsely Vegetated Concave Surface (B8)         Surface Water Present?       Yes       No       X       Depth (inches):         Water Table Present?       Yes       No       X       Depth (inches):         Saturation Present?       Yes       No       X       Depth (inches):       No         Micrulation Present?       Yes       No       X       Depth (inches):       No       No         Saturation Present?       Yes       No       X       Depth (inches):       No       No         Circludes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aeria  | -              |                                       | one is r | equired; check a |              |             |                        |                           | · · · ·                        |  |  |
| Saturation (A3)       Hydrogen Sulfide Odor (C1)       Dry-Season Water Table (C2)         Water Marks (B1)       Oxidized Rhizospheres on Living       Crayfish Burrows (C8)         Sediment Deposits (B2)       Roots (C3)       Saturation Visible on Aerial Imagery (C9)         Drift Deposits (B3)       Presence of Reduced Iron (C4)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Recent Iron Reduction in Tilled Soils       Geomorphic Position (D2)         Iron Deposits (B5)       (C6)       FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Thin Muck Surface (C7)       Sparsely Vegetated Concave Surface (B8)         Gauge or Well Data (D9)       Other (Explain in Remarks)       Wetland Hydrology         Field Observations:       No       X       Depth (inches):       Metland Hydrology         Saturation Present?       Yes       No       X       Depth (inches):       No         Saturation Present?       Yes       No       X       Depth (inches):       No       No         Saturation Present?       Yes       No       X       Depth (inches):       No       No         Circludes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       No  | Surfac         | e Water (A1)                          |          | . <u> </u>       | Aquatic      | Fauna (B    | 813)                   | Surface                   | Soil Cracks (B6)               |  |  |
| Water Marks (B1)       Oxidized Rhizospheres on Living       Crayfish Burrows (C8)         Sediment Deposits (B2)       Roots (C3)       Saturation Visible on Aerial Imagery (C9)         Drift Deposits (B3)       Presence of Reduced Iron (C4)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Recent Iron Reduction in Tilled Soils       Geomorphic Position (D2)         Iron Deposits (B5)       (C6)       FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Thin Muck Surface (C7)       Sparsely Vegetated Concave Surface (B8)       Gauge or Well Data (D9)         Water-Stained Leaves (B9)       Other (Explain in Remarks)       Wetland Hydrology         Field Observations:       No       X       Depth (inches):       Wetland Hydrology         Water Table Present?       Yes       No       X       Depth (inches):       No         Saturation Present?       Yes       No       X       Depth (inches):       No         Saturation Present?       Yes       No       X       Depth (inches):       No         Saturation Present?       Yes       No       X       Depth (inches):       No       No         Saturation Present?       Yes       No       X       Depth (inches):       No       No         Describe Record  | High W         | /ater Table (A2)                      |          |                  | True Aq      | uatic Plai  | nts (B14)              | Drainage                  | e Patterns (B10)               |  |  |
| Sediment Deposits (B2)       Roots (C3)       Saturation Visible on Aerial Imagery (C9)         Drift Deposits (B3)       Presence of Reduced Iron (C4)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Recent Iron Reduction in Tilled Soils       Geomorphic Position (D2)         Iron Deposits (B5)       (C6)       FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Thin Muck Surface (C7)       Saturation Visible on Aerial Imagery (B8)         Sparsely Vegetated Concave Surface (B8)       Gauge or Well Data (D9)       Vater-Stained Leaves (B9)       Other (Explain in Remarks)         Field Observations:       Saturation Present?       Yes       No       X       Depth (inches):       Wetland Hydrology         Water Table Present?       Yes       No       X       Depth (inches):       No       No         Saturation Present?       Yes       No       X       Depth (inches):       No       No         Saturation Present?       Yes       No       X       Depth (inches):       No       No         Cincludes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       No  | Satura         | tion (A3)                             |          |                  | Hydroge      | en Sulfide  | odor (C                | 1) Dry-Sea                | son Water Table (C2)           |  |  |
| Drift Deposits (B3)       Presence of Reduced Iron (C4)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Recent Iron Reduction in Tilled Soils       Geomorphic Position (D2)         Iron Deposits (B5)       (C6)       FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Thin Muck Surface (C7)       FAC-Neutral Test (D5)         Sparsely Vegetated Concave Surface (B8)       Gauge or Well Data (D9)       Vater-Stained Leaves (B9)         Water-Stained Leaves (B9)       Other (Explain in Remarks)       Wetland Hydrology         Field Observations:       Surface Water Present?       Yes       No         X       Depth (inches):       Wetland Hydrology       Present?         Yes       No       X       Depth (inches):       No         Saturation Present?       Yes       No       X       Depth (inches):       No         Saturation Present?       Yes       No       X       Depth (inches):       No         Cincludes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       No  | Water          | Marks (B1)                            |          |                  | Oxidize      | d Rhizosp   | heres on               | Living Crayfish           |                                |  |  |
| Algal Mat or Crust (B4)       Recent Iron Reduction in Tilled Soils       Geomorphic Position (D2)         Iron Deposits (B5)       (C6)       FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Thin Muck Surface (C7)       Sparsely Vegetated Concave Surface (B8)       Gauge or Well Data (D9)         Water-Stained Leaves (B9)       Other (Explain in Remarks)       Other (Explain in Remarks)         Field Observations:       Surface Water Present?       Yes       No       X       Depth (inches):       Wetland Hydrology Present?       No         Saturation Present?       Yes       No       X       Depth (inches):       No       No         Georder Concellary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       No  |                |                                       |          |                  | -            |             |                        |                           |                                |  |  |
| Iron Deposits (B5)       (C6)       FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Thin Muck Surface (C7)         Sparsely Vegetated Concave Surface (B8)       Gauge or Well Data (D9)         Water-Stained Leaves (B9)       Other (Explain in Remarks)         Field Observations:       Ves         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)       No         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:   |                | • • •                                 |          |                  | Presenc      | ce of Red   | uced Iron              | · · ·                     |                                |  |  |
| Inundation Visible on Aerial Imagery (B7)       Thin Muck Surface (C7)         Sparsely Vegetated Concave Surface (B8)       Gauge or Well Data (D9)         Water-Stained Leaves (B9)       Other (Explain in Remarks)         Field Observations:       Surface Water Present?         Surface Water Present?       Yes         No       X       Depth (inches):         Water Table Present?       Yes         No       X       Depth (inches):         Saturation Present?       Yes         No       X       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  | 0              | ( )                                   |          |                  |              | Iron Redu   | uction in <sup>-</sup> |                           | ,                              |  |  |
| Sparsely Vegetated Concave Surface (B8)       Gauge or Well Data (D9)         Water-Stained Leaves (B9)       Other (Explain in Remarks)         Field Observations:   |                |                                       |          | . <u> </u>       |              |             |                        | FAC-Ne                    | utral Test (D5)                |  |  |
| Water-Stained Leaves (B9)       Other (Explain in Remarks)         Field Observations:       Ves       No       X       Depth (inches):       Wetland Hydrology Present?         Saturation Present?       Yes       No       X       Depth (inches):       Present?       No         Saturation Present?       Yes       No       X       Depth (inches):       Present?       No         (includes capillary fringe)       Depth (inches):       Depth (inches):       No       No         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       No       X   |                |                                       |          |                  | Thin Mu      | ick Surfac  | ce (C7)                |                           |                                |  |  |
| Field Observations:       No       X       Depth (inches):       Wetland Hydrology Present?         Water Table Present?       Yes       No       X       Depth (inches):       Present?         Saturation Present?       Yes       No       X       Depth (inches):       Present?       No         Saturation Present?       Yes       No       X       Depth (inches):       Present?       No         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       No   | Sparse         | ly Vegetated Con                      | cave Su  | Irface (B8)      | Gauge        | or Well Da  | ata (D9)               |                           |                                |  |  |
| Surface Water Present?       Yes       No       X       Depth (inches):       Wetland Hydrology Present?         Water Table Present?       Yes       No       X       Depth (inches):       Present?       No         Saturation Present?       Yes       No       X       Depth (inches):       Present?       No         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       No  | Water-         | Stained Leaves (E                     | 39)      |                  | Other (E     | Explain in  | Remarks                | 5)                        |                                |  |  |
| Water Table Present?       Yes       No       X       Depth (inches):       Wetland Hydrology<br>Present?         Saturation Present?       Yes       No       X       Depth (inches):       Present?       No         (includes capillary fringe)       No       X       Depth (inches):       No       No       No         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Stream gauge       No  | Field Observ   | ations:                               |          |                  |              |             |                        |                           |                                |  |  |
| Valer Table Present?       res       No       X       Depth (inclues).       Present?         Saturation Present?       Yes       No       X       Depth (inclues):  | Surface Wate   | r Present?                            | Yes      | No               | X            | Depth (i    | nches):                |                           | tiond Hydrology                |  |  |
| Saturation Present?       Yes       No       X       Depth (inches):       No         (includes capillary fringe)  | Water Table F  | Present?                              | Yes      | No               | Х            | Depth (i    | nches):                | We                        |                                |  |  |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:   |                |                                       | Yes      | No               | Х            | Depth (i    | nches):                |                           | <u>No</u>                      |  |  |
|  | (includes capi | llary fringe)                         |          |                  |              |             |                        |                           |                                |  |  |
| Remarks:   | Describe Rec   | orded Data (strea                     | m gauge  | e, monitoring we | ll, aerial p | photos, pr  | evious in              | spections), if available: |                                |  |  |
| Remarks:   |                |                                       |          |                  |              |             |                        |                           |                                |  |  |
| Remarks:   |                |                                       |          |                  |              |             |                        |                           |                                |  |  |
|  | Remarks:       |                                       |          |                  |              |             |                        |                           |                                |  |  |
|  |                |                                       |          |                  |              |             |                        |                           |                                |  |  |







Source: Map adapted from Hybrid NAIP Server; Elevation by MN DNR; Project data by Lake Charlotte Solar, LLC; Tetra Tech Wetlands. Scale: 1:1,500

Wetland ID WB068

| Droiget/Citer  |              |                    |            |              |                         |              | •                                      | to.         | 40/04/2022                   |
|--|--------------|--------------------|------------|--------------|-------------------------|--------------|--|-------------|------------------------------|
| Project/Site:<br>Applicant/Owner:                      | Lake C       | Charlotte          |            | County:      | Mart<br>State:          | MN           | Sampling Da<br>Sampling Po             |             | 10/24/2022<br>WB068A         |
| Investigator(s):                                       |              | Susan Mayer        | Jial, LLC  | Soci         | ion, Townsh             |              |  |             | 03N R30W                     |
| Landform (hillslope, terra                             |              | Plair              |            |              |                         |              |  |             |                              |
|  | ,            | 43.72938           |            |              | relief (conca<br>-94.43 |              |  |             | None<br>VGS84                |
| Slope (%): 0 Soil Map Unit Name:                       | Lat:         |                    | alanaa     | Long:        |                         | VI Classific | Datum:                                 |             |                              |
| •  |              | am, 1 to 3 percent |            | f the year?  |                         |              |  |             | M1Af                         |
| Are climatic/hydrologic c                              |              |                    |            | -            |                         |              |  |             | vresent? No                  |
|  |              | , or hydrology     |            | -            | y disturbed?            |              | 'normal circun                         |             |                              |
| Are vegetation SUMMARY OF FIN                          |              | , or hydrology     |            | naturally pi | oblematic?              | (II NE       | eded, explai                           | n any ans   | wers in remarks.)            |
| Hydrophytic Vegeta                                     | ation Presen | t? Yes             |            |              |                         |              |  |             |                              |
| Hydric Soil Present                                    | ?            | Yes                |            | Is the s     | ampled are              | a within a   | wetland?                               | ١           | /es                          |
| Wetland Hydrology                                      | Present?     | Yes                |            | lf yes, o    | optional wetl           | and site ID  | :V                                     | VB068       |                              |
| Remarks:   |              |                    |            |              |                         |              |  |             |                              |
| Recently tilled agricultu                              | ural field.  | Recently harvested | agricultur | al field.    |                         |              |  |             |                              |
| <b>VEGETATION</b> Us                                   | se scientif  | fic names of pla   | ants.      |              |                         |              |  |             |                              |
|  |              |                    | Absolute   | Dominant     | Indicator               | Domi         | nance Test W                           | /orksheet   |                              |
| Tree Stratum (   | Plot size:   | )                  | % Cover    | Species      | Status                  |              | er of Dominant<br>e OBL, FACW          |             | (A)                          |
| 3  |              |                    |            |              |                         |              | Number of Domes All S                  |             | (B)                          |
| 4<br>5   |              |                    |            |              |                         |              | nt of Dominant<br>e OBL, FACW          |             | <u>%</u> (A/B)               |
|  |              | _                  |            | =Total Cov   | er                      |              |  |             |                              |
| Sapling/Shrub Stratum                                  | (Plot size   | :)                 |            |              |                         | Preva        | alence Index                           | Workshee    | ŧ                            |
| 1  |              |                    |            |              |                         |              | % Cover of:                            |             | ultiply by:                  |
| 2  |              |                    |            |              |                         |              | species                                | x 1 =       |                              |
| 3  |              |                    |            |              |                         |              | V species<br>species                   |             |                              |
| 4<br>5.  |              |                    |            |              |                         |              | J species                              |             |                              |
| ···  |              |                    |            | =Total Cov   | er                      |              | species                                | x5=         |                              |
| Herb Stratum   | (Plot size   | : )                |            |              |                         |              | nn totals                              | (A)         | (B)                          |
| 1  | `            | /                  |            |              |                         |              | alence Index =                         | 、 /         | ( )                          |
| 2<br>3.  |              |                    |            |              |                         | Hydr         | ophytic Vege                           | tation Ind  | icators:                     |
| 4  |              |                    |            |              |                         |              | Rapid test for                         |             |                              |
| 5  |              |                    |            |              |                         |              | Dominance te                           |             | •                            |
| 6  |              |                    |            |              |                         |              | Prevalence ir                          |             |                              |
| 7.   |              |                    |            |              |                         |              | Morphologica                           | I adaptatio | ons* (provide                |
| 8.   |              |                    |            |              |                         |              | supporting da                          | ita in Rem  | arks or on a                 |
| 9.   |              |                    |            |              |                         |              | separate she                           | et)         |                              |
| 10   |              |                    |            |              |                         |              | Problematic h                          | ydrophytic  | vegetation*                  |
|  |              |                    |            | =Total Cov   | er                      | <u>_X</u>    | (explain)                              |             |                              |
| Woody Vine Stratum 1.                                  |              | :)                 |            |              |                         |              | ors of hydric soi<br>, unless disturbe |             | d hydrology must be<br>matic |
| 2  |              | -                  |            | =Total Cov   | er                      | Ve           | drophytic<br>getation<br>esent?        | Yes         |                              |
| Remarks: (Include photo<br>Recently tilled agricultura |              |                    | e sheet)   |              |                         |              |  |             |                              |

WB068A

| 0-15         10YR 2/1         90         0 <t< th=""><th>marks</th></t<>   | marks             |
|--|-------------------|
| Normalized for the second (model)         Normalized for the second (model)<   | ed Matrix         |
| 2.5Y 3/2         10         Mixe           15-25         2.5Y 6/2         100         Very Fine Sandy Clay           Image: Solution of the system o |                   |
| 15-25       2.5Y 6/2       100       Very Fine Sandy Clay         15-25       2.5Y 6/2       100       Image: Sandy Clay         Image: Sandy Clay       Image: Sandy Clay       Image: Sandy Clay         Image: Sandy Clay       Image: Sandy Clay       Image: Sandy Clay         Image: Sandy Clay       Image: Sandy Clay       Image: Sandy Clay         *Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains.       **Location: PL = Pore Lin         Histosol (A1)  |                   |
| 15-25       2.5Y 6/2       100       Very Fine Sandy Clay         15-25       2.5Y 6/2       100       Image: Sandy Clay         Image: Sandy Clay       Image: Sandy Clay       Image: Sandy Clay         Image: Sandy Clay       Image: Sandy Clay       Image: Sandy Clay         Image: Sandy Clay       Image: Sandy Clay       Image: Sandy Clay         *Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains.       **Location: PL = Pore Lin         Histosol (A1)  |                   |
| *Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains.       **Location: PL = Pore Line         *Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains.       **Location: PL = Pore Line         *Hydric Soil Indicators:       Indicators for Problematic Hydric S         Histosol (A1)       Sandy Gleyed Matrix (S4)         Histic Epipedon (A2)       Sandy Redox (S5)         Black Histic (A3)       Stripped Matrix (S6)         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1)  |                   |
| Hydric Soil Indicators:       Indicators for Problematic Hydric S         Histosol (A1)       Sandy Gleyed Matrix (S4)       Coast Prairie Redox (A16) (LRR         Histic Epipedon (A2)       Sandy Redox (S5)       Dark Surface (S7) (LRR K, L)         Black Histic (A3)       Stripped Matrix (S6)       Iron-Manganese Masses (F12) (I         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1)       Very Shallow Dark Surface (TF1)  |                   |
| Hydric Soil Indicators:       Indicators for Problematic Hydric S         Histosol (A1)       Sandy Gleyed Matrix (S4)       Coast Prairie Redox (A16) (LRR         Histic Epipedon (A2)       Sandy Redox (S5)       Dark Surface (S7) (LRR K, L)         Black Histic (A3)       Stripped Matrix (S6)       Iron-Manganese Masses (F12) (I         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1)       Very Shallow Dark Surface (TF1)  |                   |
| Hydric Soil Indicators:       Indicators for Problematic Hydric S         Histosol (A1)       Sandy Gleyed Matrix (S4)       Coast Prairie Redox (A16) (LRR         Histic Epipedon (A2)       Sandy Redox (S5)       Dark Surface (S7) (LRR K, L)         Black Histic (A3)       Stripped Matrix (S6)       Iron-Manganese Masses (F12) (I         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1)       Very Shallow Dark Surface (TF1)  |                   |
| Hydric Soil Indicators:       Indicators for Problematic Hydric S         Histosol (A1)       Sandy Gleyed Matrix (S4)       Coast Prairie Redox (A16) (LRR         Histic Epipedon (A2)       Sandy Redox (S5)       Dark Surface (S7) (LRR K, L)         Black Histic (A3)       Stripped Matrix (S6)       Iron-Manganese Masses (F12) (I         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1)       Very Shallow Dark Surface (TF1)  |                   |
| Hydric Soil Indicators:       Indicators for Problematic Hydric S         Histosol (A1)       Sandy Gleyed Matrix (S4)       Coast Prairie Redox (A16) (LRR         Histic Epipedon (A2)       Sandy Redox (S5)       Dark Surface (S7) (LRR K, L)         Black Histic (A3)       Stripped Matrix (S6)       Iron-Manganese Masses (F12) (I         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1)       Very Shallow Dark Surface (TF1)  |                   |
| Hydric Soil Indicators:       Indicators for Problematic Hydric S         Histosol (A1)       Sandy Gleyed Matrix (S4)       Coast Prairie Redox (A16) (LRR         Histic Epipedon (A2)       Sandy Redox (S5)       Dark Surface (S7) (LRR K, L)         Black Histic (A3)       Stripped Matrix (S6)       Iron-Manganese Masses (F12) (I         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1)       Very Shallow Dark Surface (TF1)  |                   |
| Hydric Soil Indicators:       Indicators for Problematic Hydric S         Histosol (A1)       Sandy Gleyed Matrix (S4)       Coast Prairie Redox (A16) (LRR         Histic Epipedon (A2)       Sandy Redox (S5)       Dark Surface (S7) (LRR K, L)         Black Histic (A3)       Stripped Matrix (S6)       Iron-Manganese Masses (F12) (I         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1)       Very Shallow Dark Surface (TF1)  |                   |
| Hydric Soil Indicators:       Indicators for Problematic Hydric S         Histosol (A1)       Sandy Gleyed Matrix (S4)       Coast Prairie Redox (A16) (LRR         Histic Epipedon (A2)       Sandy Redox (S5)       Dark Surface (S7) (LRR K, L)         Black Histic (A3)       Stripped Matrix (S6)       Iron-Manganese Masses (F12) (I         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1)       Very Shallow Dark Surface (TF1)  |                   |
| Histosol (A1)       Sandy Gleyed Matrix (S4)       Coast Prairie Redox (A16) (LRR         Histic Epipedon (A2)       Sandy Redox (S5)       Dark Surface (S7) (LRR K, L)         Black Histic (A3)       Stripped Matrix (S6)       Iron-Manganese Masses (F12) (I         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1)       Very Shallow Dark Surface (TF1)  | ning, M = Matrix  |
| Histic Epipedon (A2)       Sandy Redox (S5)       Dark Surface (S7) (LRR K, L)         Black Histic (A3)       Stripped Matrix (S6)       Iron-Manganese Masses (F12) (I         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1)       Very Shallow Dark Surface (TF1)  | Soils*:           |
| Black Histic (A3)       Stripped Matrix (S6)       Iron-Manganese Masses (F12) (I         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1)       Very Shallow Dark Surface (TF1)   | K, L, R)          |
| Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Very Shallow Dark Surface (TF1)   |                   |
|  | LRR K, L, R)      |
|  | 2)                |
| Stratified Layers (A5) Loamy Gleyed Matrix (F2) Other (explain in remarks)   |                   |
| 2 cm Muck (A10) Depleted Matrix (F3)   |                   |
| Depleted Below Dark Surface (A11) Redox Dark Surface (F6)  |                   |
| X Thick Dark Surface (A12) Depleted Dark Surface (F7) *Indicators of hydrophytic vegetation  | and wetland       |
| Sandy Mucky Mineral (S1) Redox Depressions (F8) hydrology must be present, unless dis  |                   |
| 5 cm Mucky Peat or Peat (S3) problematic   |                   |
| Restrictive Layer (if observed):   |                   |
| Type: Hydric Soil Present? Yes   |                   |
| Depth (inches):  |                   |
| Demostra   |                   |
| Remarks:   |                   |
|  |                   |
| HYDROLOGY  |                   |
| Wetland Hydrology Indicators:  |                   |
| Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of   | of two required)  |
| Surface Water (A1) Aquatic Fauna (B13) Surface Soil Cracks (B6)  |                   |
| High Water Table (A2) True Aquatic Plants (B14) Drainage Patterns (B10)  | ,                 |
| Saturation (A3) Hydrogen Sulfide Odor (C1) Dry-Season Water Table  |                   |
| Water Marks (B1) Oxidized Rhizospheres on Living Crayfish Burrows (C8)   |                   |
| Sediment Deposits (B2) Roots (C3) X Saturation Visible on Ae   | rial Imagery (C9) |
| Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plan   |                   |
| Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils X Geomorphic Position (D2  | 2)                |
| Iron Deposits (B5) (C6) FAC-Neutral Test (D5)  |                   |
| Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7)   |                   |
| Sparsely Vegetated Concave Surface (B8) Gauge or Well Data (D9)  |                   |
| Water-Stained Leaves (B9) Other (Explain in Remarks)   |                   |
| Field Observations:  |                   |
|  | v                 |
| Surface Water Present? Yes No X Depth (inches): Wetland Hydrolog   |                   |
| Water Table Present? Yes No X Depth (inches): Wetland Hydrolog   | Yes               |
| Water Table Present?       Yes       No       X       Depth (inches):       Wetland Hydrolog         Saturation Present?       Yes       No       X       Depth (inches):       Present?   |                   |
| Water Table Present?       Yes       No       X       Depth (inches):       Wetland Hydrolog         Saturation Present?       Yes       No       X       Depth (inches):       Present?         (includes capillary fringe)       Ves       Ves       Ves       Ves       Ves   |                   |
| Water Table Present?       Yes       No       X       Depth (inches):       Wetland Hydrolog         Saturation Present?       Yes       No       X       Depth (inches):       Present?   |                   |
| Water Table Present?       Yes       No       X       Depth (inches):       Wetland Hydrolog         Saturation Present?       Yes       No       X       Depth (inches):       Present?         (includes capillary fringe)       Ves       Ves       Ves       Ves       Ves   |                   |
| Water Table Present?       Yes       No       X       Depth (inches):       Wetland Hydrolog         Saturation Present?       Yes       No       X       Depth (inches):       Present?         (includes capillary fringe)       Vo       X       Depth (inches):       Present?         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Volume       Volume  |                   |
| Water Table Present?       Yes       No       X       Depth (inches):       Wetland Hydrolog         Saturation Present?       Yes       No       X       Depth (inches):       Present?         (includes capillary fringe)       Ves       Ves       Ves       Ves       Ves   |                   |

|  | WET            | LAND DETER          |             | ION DATA      | FORM -        | Midwes       | t Regio                        | n                             |                                    |
|--|----------------|---------------------|-------------|---------------|---------------|--------------|--------------------------------|-------------------------------|------------------------------------|
| Project/Site:  | Lake Cl        | narlotte            | City/       | County:       | Marti         | n            | Sampling                       | Date:                         | 10/24/2022                         |
| Applicant/Owner:                                       |                | Lake Charlotte So   | olar, LLC   |               | State:        | MN           | Sampling                       | Point:                        | WB068B                             |
| Investigator(s):                                       |                | Susan Mayer         |             | Secti         | on, Townshi   | p, Range:    |                                | Sec.16 T                      | 103N R30W                          |
| Landform (hillslope, terra                             | ice, etc.):    | Plair               | ו           | Local         | elief (conca  | ve, convex   | , none):                       |                               | Convex                             |
| Slope (%): 1   | Lat:           | 43.72939            |             | Long:         | -94.43        | 756          | Datum:                         |                               | WGS84                              |
| Soil Map Unit Name:                                    | Crippin loa    | am, 1 to 3 percent  | slopes      |               | NW            | I Classifica | ation:                         | F                             | PEM1Af                             |
| Are climatic/hydrologic co                             | onditions of t | he site typical for | this time c | of the year?  | Yes           | If no, expla | ain in rema                    | ırks)                         |                                    |
| Are vegetation X                                       | , soil         | , or hydrology      |             | Significantly | disturbed?    | Are "        | normal circ                    | cumstances                    | s present? No                      |
| Are vegetation   | , soil         | , or hydrology      |             | naturally pro | oblematic?    | (If ne       | eded, exp                      | lain any a                    | nswers in remarks.)                |
| SUMMARY OF FIN   | DINGS          |                     |             |               |               |              |                                |                               |                                    |
| Hydrophytic Vegeta                                     | tion Present   | ? No                |             |               |               |              |                                |                               |                                    |
| Hydric Soil Present                                    | ?              | Yes                 |             | Is the s      | ampled are    | a within a   | wetland?                       |                               | Νο                                 |
| Wetland Hydrology                                      | Present?       | No                  |             | lf yes, o     | ptional wetla | and site ID: |                                | WB068                         |                                    |
| Remarks:   |                |                     |             | -             | -<br>-        |              |                                |                               |                                    |
| Recently tilled agricultu                              |                | -                   | -           | al field.     |               |              |                                |                               |                                    |
| VEGETATION Us  | se scientili   | •                   |             | Dominant      | Indicator     | Domir        | anco Tos                       | t Workshe                     | ot                                 |
| Tree Stratum (I  | Plot size:     |                     |             | Species       | Status        | Numbe        | er of Domina                   | ant Species                   | 5<br>0 (1)                         |
| 2.<br>3.   |                |                     |             |               |               | Total N      | lumber of D<br>s Across Al     | ominant                       | (B)                                |
| 4<br>5   |                |                     |             |               |               |              |                                | ant Species<br>W, or FAC:     |                                    |
|  |                | -                   |             | =Total Cove   | er            |              |                                |                               |                                    |
| Sapling/Shrub Stratum                                  | (Plot size:    | )                   |             |               |               |              |                                | ex Worksh                     |                                    |
| 1  |                |                     |             |               |               |              | % Cover of                     |                               | Multiply by:                       |
| 2<br>3.  |                |                     |             |               |               |              | species<br>V species           | X I                           | l =                                |
| 4.   |                |                     |             |               |               |              | species                        | ^ ^ 2                         | 2 =<br>3 =                         |
| 5.   |                |                     |             |               |               |              | species                        |                               | 4 =                                |
|  |                |                     |             | =Total Cove   | er            |              | pecies                         | x 5                           |                                    |
| Herb Stratum   | (Plot size:    | )                   |             |               |               | Colum        | nn totals                      | (A                            | A) (B)                             |
| 1.   |                |                     |             |               |               | Preva        | lence Inde                     |                               |                                    |
| 2.   |                |                     |             |               |               |              |                                |                               |                                    |
| 3.   |                |                     |             |               |               | Hydro        | ophytic Ve                     | getation l                    | ndicators:                         |
| 4  |                |                     |             |               |               |              | Rapid test                     | for hydrop                    | hytic vegetation                   |
| 5  |                |                     |             |               |               |              |                                | e test is >5                  |                                    |
|  |                |                     |             |               |               |              |                                | e index is ≤                  |                                    |
|  |                |                     |             |               |               |              |                                |                               | ations* (provide                   |
| 8  |                |                     |             |               |               |              |                                |                               | emarks or on a                     |
| 9<br>10.   |                |                     |             |               |               |              | separate s                     |                               | ytic vegetation*                   |
|  |                |                     |             | =Total Cove   | er            |              | (explain)                      | ie nydrophj                   | file vegetation                    |
|  |                | )                   |             |               |               |              |                                | soil and wet<br>irbed or prob | land hydrology must be<br>plematic |
|  |                | -                   |             | =Total Cove   | er            | Veg          | drophytic<br>jetation<br>sent? | <u>No</u>                     |                                    |
| Remarks: (Include photo<br>Recently tilled agricultura |                |                     |             | peared heal   | thy. Bare gro | ound: 100%   | 6                              |                               |                                    |

WB068B

| Profile Descr  | iption: (Describe  | to the    | depth needed to   | o docum   | ent the i               | ndicator  | or confirm the absence           | of indicators.)                   |  |  |  |
|--|--------------------|-----------|-------------------|---|-------------------------|-----------|----------------------------------|-----------------------------------|--|--|--|
| Depth  | Matrix             |           | Re                | dox Feat  | tures                   |           |                                  |                                   |  |  |  |
| (Inches)   | Color (moist)      | %         | Color (moist)     | %   | Type*                   | Loc**     | Texture                          | Remarks                           |  |  |  |
| 0-15   | 10YR 2/1           | 100       |                   |   |                         |           | Clay Loam                        |                                   |  |  |  |
| 15-20  | 10YR 2/1           | 100       |                   |   |                         |           | Clay                             |                                   |  |  |  |
|  |                    |           |                   |   | _                       |           | -                                |                                   |  |  |  |
| 20-28  | 10YR 3/1           | 80        | 2.5Y 5/3          | 20  | С                       | PL/M      | Clay                             | Distinct or Prominent             |  |  |  |
| 28-40  | 2.5Y 6/2           | 100       |                   |   |                         |           | Very Fine Sandy Clay             |                                   |  |  |  |
|  |                    |           |                   |   |                         |           |                                  |                                   |  |  |  |
|  |                    |           |                   |   |                         |           |                                  |                                   |  |  |  |
|  |                    |           |                   |   |                         |           |                                  |                                   |  |  |  |
|  |                    |           |                   |   |                         |           |                                  |                                   |  |  |  |
|  |                    |           |                   |   |                         |           |                                  |                                   |  |  |  |
| *Type: C =   | Concentration, D   | = Deple   | tion, RM = Redu   | ced Mati  | rix, MS =               | Masked    | Sand Grains. **Location          | on: PL = Pore Lining, M = Matrix  |  |  |  |
| Hydric Soil  |                    |           |                   |   |                         |           |                                  | ematic Hydric Soils*:             |  |  |  |
| Histosol (A1) Sandy Gleyed Matrix (S4) Coast Prairie Redox (A16) (LRR K, L, R) |                    |           |                   |   |                         |           |                                  |                                   |  |  |  |
| His  | tic Epipedon (A2)  |           |                   | ndy Redo  |                         |           | Dark Surface (S7                 |                                   |  |  |  |
| Bla  | ack Histic (A3)    |           | Stri              | pped Ma   | atrix (S6)              |           | Iron-Manganese                   | Masses (F12) (LRR K, L, R)        |  |  |  |
|  | drogen Sulfide (A  | ,         |                   | •   | ky Minera               | . ,       | Very Shallow Dark Surface (TF12) |                                   |  |  |  |
| Stra   | atified Layers (A5 | )         | Loa               | amy Gley  | ed Matrix               | : (F2)    | Other (explain in                | remarks)                          |  |  |  |
|  | m Muck (A10)       |           |                   | oleted Ma   | atrix (F3)              |           |                                  |                                   |  |  |  |
| De   | pleted Below Darl  | < Surfac  | e (A11) Ree       | dox Dark  | Surface                 | (F6)      |                                  |                                   |  |  |  |
|  | ick Dark Surface ( |           |                   |   | ark Surfac              |           |                                  | nytic vegetation and wetland      |  |  |  |
|  | ndy Mucky Minera   |           |                   | dox Depr  | ressions (              | F8)       |                                  | esent, unless disturbed or        |  |  |  |
| 5 c  | m Mucky Peat or    | Peat (S   | 3)                |   |                         |           | problematic                      |                                   |  |  |  |
| Restrictive La   | ayer (if observed  | ):        |                   |   |                         |           |                                  |                                   |  |  |  |
| Туре:  |                    |           |                   |   |                         |           | Hydric Soil Presen               | t? Yes                            |  |  |  |
| Depth (inches  | ):                 |           |                   |   | -                       |           |                                  |                                   |  |  |  |
| Remarks:   |                    |           |                   |   |                         |           |                                  |                                   |  |  |  |
| Remarks.   |                    |           |                   |   |                         |           |                                  |                                   |  |  |  |
|  |                    |           |                   |   |                         |           |                                  |                                   |  |  |  |
|  |                    |           |                   |   |                         |           |                                  |                                   |  |  |  |
| HYDROLOG   | GY                 |           |                   |   |                         |           |                                  |                                   |  |  |  |
|  | rology Indicators  |           |                   |   |                         |           |                                  |                                   |  |  |  |
| -  | ators (minimum of  |           | equired: check a  | ll that ap  | (vla                    |           | Secondary Indica                 | ators (minimum of two required)   |  |  |  |
|  | e Water (A1)       |           | oquirou, onook a  |   | Fauna (B                | 13)       |                                  | Soil Cracks (B6)                  |  |  |  |
|  | ater Table (A2)    |           |                   |   | uatic Plar              |           |                                  | e Patterns (B10)                  |  |  |  |
|  | tion (A3)          |           |                   |   | en Sulfide              | . ,       |                                  | son Water Table (C2)              |  |  |  |
|  | Marks (B1)         |           |                   |   | d Rhizosp               |           |                                  |                                   |  |  |  |
|  | ent Deposits (B2)  |           |                   | Roots (C  |                         |           |                                  | on Visible on Aerial Imagery (C9) |  |  |  |
|  | eposits (B3)       |           |                   | Presenc   | or Stressed Plants (D1) |           |                                  |                                   |  |  |  |
|  | lat or Crust (B4)  |           |                   | Recent Iron Reduction in Tilled Soils Geomorphic Position (D2 |                         |           |                                  |                                   |  |  |  |
| Iron De  | eposits (B5)       |           |                   | (C6)  |                         |           | FAC-Net                          | utral Test (D5)                   |  |  |  |
| Inundat  | tion Visible on Ae | rial Imag | gery (B7)         | Thin Mu   | ick Surfac              | e (C7)    |                                  |                                   |  |  |  |
| Sparse   | ly Vegetated Con   | cave Su   | Irface (B8)       | Gauge of  | or Well Da              | ata (D9)  |                                  |                                   |  |  |  |
| Water-   | Stained Leaves (E  | 39)       |                   | Other (E  | Explain in              | Remarks   | 5)                               |                                   |  |  |  |
| Field Observa  | ations:            |           |                   |   |                         |           |                                  |                                   |  |  |  |
| Surface Water  | r Present?         | Yes       | No                | Х   | Depth (ii               | nches):   | 14/-                             | Hand Hydrolomy                    |  |  |  |
| Water Table P  |                    | Yes       | No                | Х   | Depth (ii               |           | we                               | etland Hydrology<br>Present?      |  |  |  |
| Saturation Pre   |                    | Yes       | No                | Х   | Depth (ii               | nches):   |                                  | No No                             |  |  |  |
| (includes capi   |                    |           |                   |   |                         |           |                                  |                                   |  |  |  |
| Describe Reco  | orded Data (strea  | m gauge   | e, monitoring wel | I, aerial p   | photos, pr              | evious in | spections), if available:        |                                   |  |  |  |
|  |                    |           |                   |   |                         |           |                                  |                                   |  |  |  |
| Remarks:   |                    |           |                   |   |                         |           |                                  |                                   |  |  |  |
| INCINGINS.   |                    |           |                   |   |                         |           |                                  |                                   |  |  |  |
|  |                    |           |                   |   |                         |           |                                  |                                   |  |  |  |






Source: Map adapted from Hybrid NAIP Server; Elevation by MN DNR; Project data by Lake Charlotte Solar, LLC; Tetra Tech Wetlands. Scale: 1:1,000

|  | WE                      | TLAND DETE           | RMINAT      | ION DATA      | FORM -        | Midwes       | t Region                              |  |
|--|-------------------------|----------------------|-------------|---------------|---------------|--------------|---------------------------------------|--|
| Project/Site:  | Lake C                  | Charlotte            | City        | /County:      | Martin        | n            | Sampling Date                         | 2: 10/24/2022                                  |
| Applicant/Owner:                                     |                         | Lake Charlotte S     | Solar, LLC  |               | State:        | MN           | Sampling Poin                         | t: WB069A                                      |
| Investigator(s):                                     |                         | Susan Mayer          |             | Secti         | on, Townshi   | p, Range:    | Se                                    | c.16 T103N R30W                                |
| Landform (hillslope, terr                            | ace, etc.):             | Depre                | ssion       | Local r       | elief (concav | ve, convex   | , none):                              | Concave  |
| Slope (%): 2   | Lat:                    | 43.72856             | 6           | Long:         | -94.43        | 38           | Datum:                                | WGS84  |
| Soil Map Unit Name:                                  | Canisteo-               | -Glencoe complex     | , 0 to 2 pe | rcent slopes  | NW            | I Classifica | ation:                                | NA   |
| Are climatic/hydrologic                              | conditions of           | the site typical for | r this time | of the year?  | Yes (         | lf no, expla | ain in remarks)                       |  |
| Are vegetation X                                     | , soil                  | , or hydrology       | /           | Significantly | disturbed?    | Are "r       | normal circums                        | tances present? No                             |
| Are vegetation                                       | , soil                  | , or hydrology       | /           | naturally pro | blematic?     | (If ne       | eded, explain                         | any answers in remarks.)                       |
| SUMMARY OF FIN                                       | NDINGS                  |                      |             |               |               |              |                                       |  |
| Hydrophytic Veget                                    | ation Preser            | nt? Yes              | _           |               |               |              |                                       |  |
| Hydric Soil Presen                                   | nt?                     | Yes                  |             | Is the sa     | ampled area   | a within a   | wetland?                              | Yes  |
| Wetland Hydrology                                    | y Present?              | Yes                  | _           | If yes, o     | otional wetla | nd site ID:  | WE                                    | 3069   |
| Remarks:   |                         |                      |             |               |               |              |                                       |  |
|  |                         |                      |             |               |               |              |                                       |  |
|  |                         |                      |             |               |               |              |                                       |  |
| VEGETATION U   | lse scienti             | fic names of p       | lants.      |               |               |              |                                       |  |
|  |                         |                      |             | Dominant      | Indicator     | Domin        | nance Test Wo                         | rksheet  |
| Tree Stratum   | (Plot size:             | 30)                  | % Cover     | Species       | Status        | Normalia     |                                       | !  |
| 1.   |                         |                      |             |               |               |              | er of Dominant S<br>e OBL, FACW, c    |  |
| 2.   |                         |                      |             |               |               | Total N      | lumber of Domir                       | nant   |
| 3  |                         |                      |             |               |               |              | s Across All Stra                     |  |
| 4  |                         |                      |             |               |               |              | t of Dominant S                       |  |
| 5  |                         |                      |             | =Total Cove   |               | that are     | e OBL, FACW, d                        | or FAC: 0% (A/B)                               |
| Sapling/Shrub Stratum                                | ) (Plot size            | :: 15 )              |             |               | 1             | Prova        | lence Index W                         | lorksheet                                      |
| 1.   | <u>    (1 101 512</u> 6 | . 13 )               |             |               |               |              | % Cover of:                           | Multiply by:                                   |
| 2.   |                         |                      |             |               |               |              | pecies 0                              |  |
| 3.   |                         |                      |             |               |               |              | / species 0                           | x 2 = 0  |
| 4.   |                         |                      |             |               |               | FAC s        | pecies 0                              | x 3 = 0  |
| 5.   |                         |                      |             |               |               | FACU         | species 0                             | x 4 = 0  |
|  |                         |                      |             | =Total Cove   | r             | UPL s        | pecies 25                             | x 5 = 125                                      |
| Herb Stratum   | (Plot size              | : 5)                 |             |               |               |              | nn totals 25                          | ()   |
| 1. Zea mays  |                         |                      | 25          | Y             | UPL           | Preval       | lence Index = E                       | B/A = 5  |
| 2  |                         |                      |             |               |               |              |                                       |  |
| 3  |                         |                      |             |               |               | -            |                                       | tion Indicators:                               |
| 4<br>5   |                         |                      |             |               |               |              | Dominance tes                         | ydrophytic vegetation                          |
| 6  |                         |                      |             |               |               |              | Prevalence ind                        |  |
| 7  |                         |                      |             |               |               |              |                                       | adaptations* (provide                          |
| 8.   |                         |                      |             |               |               |              |                                       | a in Remarks or on a                           |
| 9.   |                         |                      |             |               |               |              | separate sheet                        | )  |
| 10.  |                         |                      |             |               |               |              | Problematic hy                        | drophytic vegetation*                          |
|  |                         |                      | 25          | =Total Cove   | r             | <u> </u>     | (explain)                             |  |
| Woody Vine Stratum 1.                                | (Plot size              | /                    |             |               |               |              | ors of hydric soil a unless disturbed | nd wetland hydrology must be<br>or problematic |
| 2  |                         |                      |             | _=Total Cove  | r             | Veg          | Irophytic<br>jetation<br>sent?        | Yes  |
| Remarks: (Include phot<br>Agricultural field. Corn a |                         |                      |             |               |               |              |                                       |  |

WB069A

| Profile Descr  | ription: (Describe | e to the | depth neede  | d to  | docum    | ent the i  | ndicator    | or confirm the abs     | ence of indicators  | \$.)                |  |  |
|--|--------------------|----------|--------------|-------|----------|------------|-------------|------------------------|---------------------|---------------------|--|--|
| Depth  | Matrix             |          |              | Red   | ox Feat  | ures       |             |                        |                     |                     |  |  |
| (Inches)   | Color (moist)      | %        | Color (mois  | st)   | %        | Type*      | Loc**       | Texture                | F                   | Remarks             |  |  |
| 0-40   | 10YR 2/1           | 100      |              |       |          |            |             | Clay                   |                     |                     |  |  |
|  |                    |          |              |       |          |            |             |                        |                     |                     |  |  |
|  |                    |          |              |       |          |            |             |                        |                     |                     |  |  |
|  |                    |          |              |       |          |            |             |                        |                     |                     |  |  |
|  |                    |          |              |       |          |            |             |                        |                     |                     |  |  |
|  |                    |          |              |       |          |            |             |                        |                     |                     |  |  |
|  |                    |          |              |       |          |            |             |                        |                     |                     |  |  |
|  |                    |          |              |       |          |            |             |                        |                     |                     |  |  |
|  |                    |          |              |       |          |            |             |                        |                     |                     |  |  |
|  |                    |          |              |       |          |            |             |                        |                     |                     |  |  |
| *Type: C =   | Concentration, D   | = Deple  | tion, RM = R | educe | ed Matr  | ix, MS =   | Masked S    | Sand Grains. **Lo      | ocation: PL = Pore  | Lining, M = Matrix  |  |  |
| Hydric Soil  | Indicators:        |          |              |       |          |            |             | Indicators for P       | roblematic Hydrid   | ; Soils*:           |  |  |
| His  | stosol (A1)        |          |              | Sand  | dy Gleye | ed Matrix  | (S4)        | Coast Prair            | e Redox (A16) (LR   | .R K, L, R)         |  |  |
| His  | stic Epipedon (A2) | )        |              | Sand  | dy Redo  | ox (S5)    |             | Dark Surfac            | e (S7) (LRR K, L)   |                     |  |  |
| Bla  | ack Histic (A3)    |          |              | Strip | ped Ma   | trix (S6)  |             | Iron-Manga             | nese Masses (F12    | ) (LRR K, L, R)     |  |  |
| Hy   | drogen Sulfide (A  | 4)       |              | Loan  | ny Mucl  | ky Minera  | l (F1)      | Very Shallo            | w Dark Surface (TI  | -12)                |  |  |
| Str  | atified Layers (A5 | )        |              | Loan  | ny Gley  | ed Matrix  | (F2)        | X Other (expla         | ain in remarks)     |                     |  |  |
| 2 0  | m Muck (A10)       |          |              | Deple | eted Ma  | atrix (F3) |             |                        |                     |                     |  |  |
| De   | pleted Below Darl  | k Surfac | e (A11)      | Redo  | ox Dark  | Surface    | (F6)        |                        |                     |                     |  |  |
| Th   | ick Dark Surface ( | (A12)    | . ,          | Deple | eted Da  | ark Surfac | ce (F7)     | *Indicators of by      | drophytic vegetatic | on and wetland      |  |  |
|  | ndy Mucky Minera   |          |              |       |          | essions (  |             |                        | be present, unless  |                     |  |  |
| 5 cm Mucky Peat or Peat (S3) problematic   |                    |          |              |       |          |            |             |                        |                     |                     |  |  |
|  | -                  | -        | - /          |       |          |            |             |                        |                     |                     |  |  |
|  | ayer (if observed  | l):      |              |       |          |            |             | Ukudaia Cail Da        |                     |                     |  |  |
| Type: Hydric Soil Present? Yes   |                    |          |              |       |          |            |             |                        |                     |                     |  |  |
| Depth (inches  | <i></i>            |          |              |       |          |            |             |                        |                     |                     |  |  |
| Remarks:   |                    |          |              |       |          |            |             |                        |                     |                     |  |  |
|  |                    |          |              |       |          |            |             |                        |                     |                     |  |  |
| A12 Assume   | d                  |          |              |       |          |            |             |                        |                     |                     |  |  |
|  |                    |          |              |       |          |            |             |                        |                     |                     |  |  |
| HYDROLO  |                    |          |              |       |          |            |             |                        |                     |                     |  |  |
| -  | rology Indicators  |          |              |       |          |            |             |                        |                     |                     |  |  |
|  | ators (minimum of  | one is r | equired; che |       |          |            |             |                        | ndicators (minimur  |                     |  |  |
| Surfac   | e Water (A1)       |          | -            | Δ     | Aquatic  | Fauna (B   | 13)         | Sur                    | face Soil Cracks (E | 36)                 |  |  |
| High W   | /ater Table (A2)   |          | =            | Т     | rue Aq   | uatic Plar | nts (B14)   | Dra                    | inage Patterns (B1  | 0)                  |  |  |
| Satura   | tion (A3)          |          | =            | F     | lydroge  | en Sulfide | Odor (C     | 1) Dry                 | -Season Water Ta    | ole (C2)            |  |  |
|  | Marks (B1)         |          |              |       |          | d Rhizosp  | heres on    |                        | yfish Burrows (C8)  |                     |  |  |
|  | ent Deposits (B2)  |          | -            |       | Roots (C |            |             |                        |                     | Aerial Imagery (C9) |  |  |
|  | eposits (B3)       |          | =            |       |          | e of Redu  |             | · · · ·                | nted or Stressed P  | ( <i>)</i>          |  |  |
|  | Mat or Crust (B4)  |          |              |       |          | ron Redu   | iction in 1 |                        | omorphic Position   |                     |  |  |
|  | eposits (B5)       |          | -            |       | C6)      |            | . (07)      | FA0                    | C-Neutral Test (D5  | 1                   |  |  |
|  | tion Visible on Ae |          |              |       |          | ck Surfac  | . ,         |                        |                     |                     |  |  |
|  | ly Vegetated Con   |          | irface (B8)  |       | -        | or Well Da |             |                        |                     |                     |  |  |
| Water-   | Stained Leaves (E  | 39)      | _            | C     | other (E | xplain in  | Remarks     | ;)<br>                 |                     |                     |  |  |
| Field Observ   |                    |          |              |       |          |            |             |                        |                     |                     |  |  |
| Surface Wate   |                    | Yes      | N            |       | X        | Depth (ir  | · _         |                        | Wetland Hydrol      | oav                 |  |  |
| Water Table F  |                    | Yes      | N            |       | X        | Depth (ir  |             |                        | Present?            |                     |  |  |
| Saturation Pre   |                    | Yes      | N            | 0     | Х        | Depth (ir  | ncnes):     |                        |                     | Yes                 |  |  |
| (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: |                    |          |              |       |          |            |             |                        |                     |                     |  |  |
| Describe Rec   | ordeu Data (streat | m yauge  | , monitoring | well, | aenai p  | notos, pr  | evious in   | spections), it availat | л <del>с</del> .    |                     |  |  |
|  |                    |          |              |       |          |            |             |                        |                     |                     |  |  |
| Remarks:   |                    |          |              |       |          |            |             |                        |                     |                     |  |  |
| n tomanto.   |                    |          |              |       |          |            |             |                        |                     |                     |  |  |
|  |                    |          |              |       |          |            |             |                        |                     |                     |  |  |

|                          | WE             | FLAND DETE          | RMINAT      | ION DATA      | FORM -        | Midwes      | st Region                            |   |                             |
|--------------------------|----------------|---------------------|-------------|---------------|---------------|-------------|--------------------------------------|---|-----------------------------|
| Project/Site:            | Lake C         | Charlotte           | City        | /County:      | Martin        | n           | Sampling Da                          | ate:  | 10/24/2022                  |
| Applicant/Owner:         |                | Lake Charlotte S    | Solar, LLC  |               | State:        | MN          | Sampling Po                          | pint:   | WB069B                      |
| Investigator(s):         |                | Susan Mayer         |             | Section       | on, Townshi   | p, Range:   |                                      | Sec.16 T10  | 3N R30W                     |
| Landform (hillslope, ter | rrace, etc.):  | Hillsl              | оре         | Local r       | elief (concav | ve, conve   | x, none):                            | (   | Convex                      |
| Slope (%): 2             | Lat:           | 43.72862            |             | Long:         | -94.437       | '85         | Datum:                               | N   | VGS84                       |
| Soil Map Unit Name:      | Canisteo-      | Glencoe complex     | , 0 to 2 pe | rcent slopes  | NW            | I Classific | ation:                               |   | NA                          |
| Are climatic/hydrologic  | conditions of  | the site typical fo | r this time | of the year?  | Yes (         | lf no, expl | ain in remark                        | s)  |                             |
| Are vegetation           | X , soil       | , or hydrology      |             | Significantly | disturbed?    | Are "       | 'normal circur                       | nstances p  | resent? No                  |
| Are vegetation           | , soil         | , or hydrology      |             | naturally pro | blematic?     | (lf ne      | eeded, expla                         | in any ans  | wers in remarks             |
| SUMMARY OF FI            | NDINGS         |                     |             |               |               |             |                                      |   |                             |
| Hydrophytic Vege         | etation Presen | nt? No              | _           |               |               |             |                                      |   |                             |
| Hydric Soil Prese        | nt?            | Yes                 | _           | Is the sa     | ampled area   | a within a  | wetland?                             | I   | No                          |
| Wetland Hydrolog         | gy Present?    | No                  |             | lf yes, o     | otional wetla | nd site ID  | :                                    | NB069   |                             |
| Remarks:                 |                |                     |             |               |               |             |                                      |   |                             |
|                          |                |                     |             |               |               |             |                                      |   |                             |
|                          |                |                     |             |               |               |             |                                      |   |                             |
| VEGETATION U             | Jse scienti    | ic names of p       |             |               |               | -           |                                      |   |                             |
|                          |                |                     |             | Dominant      | Indicator     | Domi        | nance Test V                         | Vorksheet   |                             |
| Tree Stratum             | (Plot size:    | 30 )                | % Cover     | Species       | Status        | Numbe       | er of Dominan                        | t Species   | - (I)                       |
| 1<br>2.                  |                |                     |             |               |               | that ar     | e OBL, FACW                          | , or FAC:   | (A)                         |
| 3.                       |                |                     |             |               |               |             | Number of Dor<br>es Across All S     |   | 1 (B)                       |
| 4.                       |                |                     |             |               |               |             |                                      |   | (=)                         |
| 5.                       |                |                     |             |               |               |             | nt of Dominant<br>e OBL, FACW        |   | 0% (A/B)                    |
|                          |                |                     | _           | =Total Cove   | r             |             | ,                                    | •   |                             |
| Sapling/Shrub Stratur    | n (Plot size   | : 15 )              |             |               |               | Preva       | alence Index                         | Workshee  | et                          |
| 1                        |                |                     |             |               |               |             | % Cover of:                          | Μ   | ultiply by:                 |
| 2                        |                |                     |             |               |               |             |                                      | 0 x 1 =   |                             |
| 3                        |                |                     |             |               |               |             | V species                            | 0 x 2 =   |                             |
| 4                        |                |                     |             |               |               |             | species<br>J species                 | $\frac{0}{0}$ x 3 =   |                             |
| 5                        |                |                     |             | =Total Cove   | r             |             | ·                                    | $\begin{array}{c} 0 \\ 40 \end{array} x 4 = \\ x 5 = \end{array}$ |                             |
| Herb Stratum             | (Plot size     | : 5)                |             |               | -1            |             | ·                                    | 40 × 3 =<br>40 (A)  | 200 (B)                     |
| 1. Zea mays              | (1 101 3120    | )                   | 40          | Y             | UPL           |             | alence Index :                       | ( )   | (D)<br>5                    |
| 2.                       |                |                     | 10          | •             | 0. 2          |             |                                      |   |                             |
| 3.                       |                |                     |             |               |               | Hydro       | ophytic Vege                         | etation Ind   | icators:                    |
| 4.                       |                |                     |             |               |               |             |                                      |   | tic vegetation              |
| 5.                       |                |                     |             |               |               |             | Dominance t                          | est is >50%   | 6                           |
| 6                        |                |                     |             |               |               |             | Prevalence i                         | ndex is ≤3.   | 0*                          |
| 7                        |                |                     |             |               |               |             | Morphologic                          |   |                             |
| 8                        |                |                     |             |               |               |             | supporting d                         |   | arks or on a                |
|                          |                |                     |             |               |               |             | separate she                         | ,   | vogototion*                 |
| 10                       |                |                     | 40          | =Total Cove   | r             |             | Problematic (explain)                | nyaropnyu   | vegetation                  |
| Woody Vine Stratum       | (Plot size     | : 15 )              | 40          |               | 1             |             | ,                                    |   |                             |
| 4                        |                | . 10 )              |             |               |               |             | ors of hydric so<br>, unless disturb |   | d hydrology must b<br>matic |
| 2.                       |                |                     |             |               |               |             | drophytic                            |   |                             |
|                          |                |                     |             | =Total Cove   | r             |             | getation<br>esent?                   |   |                             |
| Remarke: (Include she    | to numbers b   |                     | ate cheet)  |               |               |             |                                      | <u>No</u>   |                             |
| Remarks: (Include pho    |                | ere or on a separa  | ale Sileel) |               |               |             |                                      |   |                             |
| Agricultural field. Corn | appears heal   | thy. Bare ground    | 60%         |               |               |             |                                      |   |                             |
|                          |                | ,                   |             |               |               |             |                                      |   |                             |

WB069B

| Profile Descr  | iption: (Describe                               | e to the  | depth needed to  | o docum    | ent the i   | ndicator    | or confirm the absence  | of indicators.)  |  |  |  |
|--|---|-----------|------------------|------------|-------------|-------------|-------------------------|--|--|--|--|
| Depth  | Matrix  |           | Re               | dox Feat   | tures       |             |                         |  |  |  |  |
| (Inches)   | Color (moist)                                   | %         | Color (moist)    | %          | Type*       | Loc**       | Texture                 | Remarks  |  |  |  |
| 0-18   | 10YR 2/1  | 100       |                  |            |             |             | Clay Loam               |  |  |  |  |
|  |   |           |                  | 40         | -           | DI          |                         |  |  |  |  |
| 18-30  | 10YR 3/1  | 90        | 10YR 4/4         | 10         | С           | PL          | Clay Loam               | Distinct or Prominent                                      |  |  |  |
| 30-40  | 10YR 3/1  | 97        | 2.5Y 5/6         | 3          | С           | PL          | Clay                    | Distinct or Prominent                                      |  |  |  |
|  |   |           |                  |            |             |             |                         |  |  |  |  |
|  |   |           |                  |            |             |             |                         |  |  |  |  |
|  |   |           |                  |            |             |             |                         |  |  |  |  |
|  |   |           |                  |            |             |             |                         |  |  |  |  |
|  |   |           |                  |            |             |             |                         |  |  |  |  |
|  |   |           |                  |            |             |             |                         |  |  |  |  |
| *Type: C =   | Concentration, D                                | = Deple   | tion, RM = Redu  | ced Mati   | rix, MS =   | Masked S    | Sand Grains. **Location | on: PL = Pore Lining, M = Matrix                           |  |  |  |
| Hydric Soil  | Indicators:                                     |           |                  |            |             |             | Indicators for Proble   | ematic Hydric Soils*:                                      |  |  |  |
| -  | stosol (A1)                                     |           | Sar              | ndy Gley   | ed Matrix   | (S4)        |                         | dox (A16) (LRR K, L, R)                                    |  |  |  |
|  | stic Epipedon (A2)                              | )         |                  | ndy Redo   |             | · · ·       | Dark Surface (S7        |  |  |  |  |
|  | ack Histic (A3)                                 |           |                  |            | atrix (S6)  |             |                         | Masses (F12) (LRR K, L, R)                                 |  |  |  |
|  | drogen Sulfide (A                               | 4)        |                  | •••        | ky Minera   | al (F1)     |                         | rk Surface (TF12)  |  |  |  |
| Stratified Layers (A5) Loamy Gleyed Matrix (F2) X Other (explain in remarks)                               |   |           |                  |            |             |             |                         |  |  |  |  |
|  | 2 cm Muck (A10) Depleted Matrix (F3)            |           |                  |            |             |             |                         |  |  |  |  |
|  | pleted Below Darl                               | k Surfac  | ·                |            | Surface     | (F6)        |                         |  |  |  |  |
|  | ick Dark Surface (                              |           | . ,              |            | ark Surfac  | . ,         | ** ** * ** *            |  |  |  |  |
|  | ndy Mucky Minera                                | · ·       |                  |            | ressions (  |             |                         | nytic vegetation and wetland<br>esent, unless disturbed or |  |  |  |
|  |   |           |                  |            | 63310113 (  | 10)         | problematic             |  |  |  |  |
|  |   |           |                  |            |             |             |                         |  |  |  |  |
|  | Restrictive Layer (if observed):                |           |                  |            |             |             |                         |  |  |  |  |
|  | Type: Hydric Soil Present? Yes                  |           |                  |            |             |             |                         |  |  |  |  |
| Depth (inches  | ):  |           |                  |            | -           |             |                         |  |  |  |  |
| Remarks:   |   |           |                  |            |             |             |                         |  |  |  |  |
|  |   |           |                  |            |             |             |                         |  |  |  |  |
| A12 Assumed  | d   |           |                  |            |             |             |                         |  |  |  |  |
|  |   |           |                  |            |             |             |                         |  |  |  |  |
| HYDROLO  | GY  |           |                  |            |             |             |                         |  |  |  |  |
| Wetland Hyd  | rology Indicators                               | s:        |                  |            |             |             |                         |  |  |  |  |
| Primary Indica   | ators (minimum of                               | one is r  | equired; check a | ll that ap | <u>ply)</u> |             | Secondary Indica        | ators (minimum of two required)                            |  |  |  |
| Surface  | e Water (A1)                                    |           |                  | Aquatic    | Fauna (B    | 13)         | Surface                 | Soil Cracks (B6)   |  |  |  |
| Hiah W   | /ater Table (A2)                                |           |                  | True Aa    | uatic Plar  | nts (B14)   | Drainage                | e Patterns (B10)   |  |  |  |
| 0  | tion (A3)                                       |           |                  |            | en Sulfide  | ` '         |                         | son Water Table (C2)                                       |  |  |  |
|  | Marks (B1)                                      |           |                  |            | d Rhizosp   | •           | · ·                     | Burrows (C8)   |  |  |  |
|  | ent Deposits (B2)                               |           |                  | Roots (0   |             |             |                         | on Visible on Aerial Imagery (C9)                          |  |  |  |
| Drift De   | eposits (B3)                                    |           |                  | •          | e of Red    | uced Iron   | (C4) Stunted            | or Stressed Plants (D1)                                    |  |  |  |
| Algal M  | lat or Crust (B4)                               |           |                  | Recent     | Iron Redu   | iction in T | Tilled Soils Geomor     | phic Position (D2)   |  |  |  |
| Iron De  | eposits (B5)                                    |           |                  | (C6)       |             |             | FAC-Net                 | utral Test (D5)  |  |  |  |
| Inunda   | tion Visible on Ae                              | rial Imag | gery (B7)        | Thin Mu    | ick Surfac  | e (C7)      |                         |  |  |  |  |
| Sparse   | ly Vegetated Con                                | cave Su   | Irface (B8)      | Gauge of   | or Well Da  | ata (D9)    |                         |  |  |  |  |
| Water-   | Stained Leaves (E                               | 39)       |                  | Other (E   | Explain in  | Remarks     | 5)                      |  |  |  |  |
| Field Observa  | ations:   |           |                  |            |             |             |                         |  |  |  |  |
| Surface Wate   |   | Yes       | No               | Х          | Depth (ii   | nches):     | 14/-                    | tland Hudralams  |  |  |  |
| Water Table F  |   | Yes       | No               | Х          | Depth (ii   |             | we                      | tland Hydrology<br>Present?                                |  |  |  |
|  | Saturation Present? Yes No X Depth (inches): No |           |                  |            |             |             |                         |  |  |  |  |
| (includes capillary fringe)  |   |           |                  |            |             |             |                         |  |  |  |  |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: |   |           |                  |            |             |             |                         |  |  |  |  |
|  |   |           |                  |            |             |             |                         |  |  |  |  |
| Dameril  |   |           |                  |            |             |             |                         |  |  |  |  |
| Remarks:   | telliaiks.                                      |           |                  |            |             |             |                         |  |  |  |  |
|  |   |           |                  |            |             |             |                         |  |  |  |  |







Source: Map adapted from Hybrid NAIP Server; Elevation by MN DNR; Project data by Lake Charlotte Solar, LLC; Tetra Tech Wetlands. Scale: 1:1,000

|  | WET           |              | ETER      | MINAT       | ION DAT             | FORM -              | Midwes       | st Region                               |   |              |       |
|--|---------------|--------------|-----------|-------------|---------------------|---------------------|--------------|---|---|--------------|-------|
| Project/Site:                            | Lake C        | harlotte     |           | City/       | County:             | Marti               | n            | Sampling Da                             | te:   | 10/24/2022   |       |
| Applicant/Owner:                         |               | Lake Cha     | rlotte So | olar, LLC   |                     | State:              | MN           | Sampling Poi                            | nt:   | WB072A       |       |
| Investigator(s):                         |               | Susan Ma     | yer       |             | Secti               | on, Townshi         | p, Range:    | S                                       | ec.16 T103  | 3N R30W      |       |
| Landform (hillslope, ter                 | race, etc.):  |              | Ditch     | า           | Local               | elief (conca        | ve, conve    | x, none):                               | Co  | oncave       |       |
| Slope (%): 5                             | Lat:          | 43.          | 71706     |             | Long:               | -94.442             | 227          | Datum:                                  | W   | /GS84        |       |
| Soil Map Unit Name:                      | Canisteo-     | Glencoe co   | mplex,    | 0 to 2 per  | cent slopes         | NW                  | I Classific  | ation:                                  | Ν   | IA           |       |
| Are climatic/hydrologic                  | conditions of | the site typ | ical for  | this time o | of the year?        | Yes (               | (If no, expl | ain in remarks                          | )   |              |       |
| Are vegetation                           | , soil        | , or hyc     | Irology   |             | Significantly       | disturbed?          | Are "        | 'normal circum                          | stances pr  | esent? Ye    | es    |
| Are vegetation                           | , soil        | , or hyc     | Irology   |             | naturally pro       | blematic?           | (lf ne       | eded, explair                           | n any ansv  | vers in rema | rks.) |
| SUMMARY OF FI                            | NDINGS        |              |           |             |                     |                     |              |   |   |              |       |
| Hydrophytic Vege                         | tation Presen | t?           | Yes       |             |                     |                     |              |   |   |              |       |
| Hydric Soil Prese                        | nt?           | -            | Yes       |             | Is the s            | ampled area         | a within a   | wetland?                                | Y   | es           |       |
| Wetland Hydrolog                         | v Present?    | =            | Yes       |             | lf ves, o           | otional wetla       | and site ID  | : v                                     | /B072   |              |       |
| Remarks:                                 | ,,            |              |           |             | ,,.                 |                     |              | ·                                       |   |              |       |
| VEGETATION L                             | Jse scientif  | ic names     |           |             | Deminent            | Indiactor           | Domi         |   |   |              |       |
| Tree Stratum                             | (Plot size:   | 30           | `         |             | Dominant<br>Species | Indicator<br>Status | Domi         | nance Test W                            | orksneet  |              |       |
| <u>1.</u>                                | (FIOL SIZE.   |              | )         |             | Opecies             | Status              |              | er of Dominant                          | •   | 1 (A)        |       |
| 2  |               |              |           |             |                     |                     | that ar      | e OBL, FACW,                            | or FAC:   | (A)          |       |
| 3.                                       |               |              |           |             |                     |                     |              | Number of Dom<br>es Across All St       |   | 1 (B)        |       |
| 4.                                       |               |              |           |             |                     |                     |              | nt of Dominant                          |   |              |       |
| 5.                                       |               |              |           |             |                     |                     |              | e OBL, FACW,                            |   | 100% (A/B)   | 5)    |
|  |               |              | _         |             | =Total Cove         | er                  |              |   |   |              |       |
| Sapling/Shrub Stratur                    | n (Plot size: | 15           | )         |             |                     |                     |              | alence Index \                          |   |              |       |
| 1  |               |              |           |             |                     |                     |              | % Cover of:                             |   | Itiply by:   |       |
|  |               |              |           |             |                     |                     |              | ·                                       | $x = \frac{1}{2}$   | 0            |       |
| 3<br>4.                                  |               |              |           |             |                     |                     |              | · . —                                   | $\begin{array}{c} 00 \\ 0 \\ 0 \\ x \\ 3 \\ \end{array} $ | 200          |       |
| 4<br>5.                                  |               |              |           |             |                     |                     |              | · —                                     | $x_{4} = 0$   | 0            |       |
| 0  |               |              |           |             | =Total Cove         | er                  |              | ·                                       | x = x = 0   | 0            |       |
| Herb Stratum                             | (Plot size:   | 5            | ) –       |             |                     |                     |              | ·                                       | 00 (A)  |              | B)    |
| 1. Phalaris arundina                     |               |              | /         | 100         | Y                   | FACW                |              | alence Index =                          |   | 2            | ,     |
| 2.                                       |               |              |           |             |                     |                     |              |   |   |              |       |
| 3.                                       |               |              |           |             |                     |                     | Hydro        | ophytic Veget                           | ation Indi  | cators:      |       |
| 4.                                       |               |              |           |             |                     |                     | X            | Rapid test for                          | hydrophyti  | c vegetation |       |
| 5  |               |              |           |             |                     |                     |              | Dominance te                            |   |              |       |
| 6  |               |              |           |             |                     |                     | _            | Prevalence in                           |   |              |       |
|  |               |              |           |             |                     |                     |              | Morphologica                            |   |              |       |
| 8  |               |              |           |             |                     |                     |              | supporting da                           |   | rks or on a  |       |
| 9<br>10.                                 |               |              |           |             |                     |                     |              | separate shee<br>Problematic h          |   | vogotation*  |       |
| 10                                       |               |              |           | 100         | =Total Cove         | ٩r                  |              | (explain)                               | yuropriyuc  | vegetation   |       |
| Woody Vine Stratum<br>1.                 | (Plot size:   |              | )         |             |                     |                     | *Indicate    | ors of hydric soil<br>, unless disturbe |   |              | st be |
| 2  |               |              |           |             | =Total Cove         | er                  | Veç          | drophytic<br>getation<br>esent?         | Yes   |              |       |
| Remarks: (Include pho<br>Bare ground: 0% | to numbers h  | ere or on a  | separa    | te sheet)   |                     |                     |              |   |   |              |       |

WB072A

| Profile Descr  | ription: (Describe                                 | to the    | depth needed to     | o docum    | ent the i  | ndicator    | or confirm the absence  | of indicators.)                   |  |  |  |  |
|--|--|-----------|---------------------|------------|------------|-------------|-------------------------|-----------------------------------|--|--|--|--|
| Depth  | Depth Matrix Redox Features                        |           |                     |            |            |             |                         |                                   |  |  |  |  |
| (Inches)   | Color (moist)                                      | %         | Color (moist)       | %          | Type*      | Loc**       | Texture                 | Remarks                           |  |  |  |  |
|  |  |           |                     | ,          |            |             |                         |                                   |  |  |  |  |
|  |  |           |                     |            |            |             |                         |                                   |  |  |  |  |
|  |  |           |                     |            |            |             |                         |                                   |  |  |  |  |
|  |  |           |                     |            |            |             |                         |                                   |  |  |  |  |
|  |  |           |                     |            |            |             |                         |                                   |  |  |  |  |
|  |  |           |                     |            |            |             |                         |                                   |  |  |  |  |
|  |  |           |                     |            |            |             |                         |                                   |  |  |  |  |
|  |  |           |                     |            |            |             |                         |                                   |  |  |  |  |
|  |  |           |                     |            |            |             |                         |                                   |  |  |  |  |
|  |  |           |                     |            |            |             |                         |                                   |  |  |  |  |
|  |  |           |                     |            |            |             |                         |                                   |  |  |  |  |
| *Type: C =   | Concentration, D                                   | = Deple   | tion, RM = Redu     | iced Mati  | rix, MS =  | Masked \$   | Sand Grains. **Location | on: PL = Pore Lining, M = Matrix  |  |  |  |  |
| Hydric Soil  | Indicators:  |           |                     |            |            |             | Indicators for Proble   | ematic Hydric Soils*:             |  |  |  |  |
| His  | stosol (A1)  |           | Sa                  | ndy Gley   | ed Matrix  | (S4)        | Coast Prairie Re        | dox (A16) (LRR K, L, R)           |  |  |  |  |
| His  | stic Epipedon (A2)                                 |           | Sa                  | ndy Redo   | ox (S5)    |             | Dark Surface (S         | 7) (LRR K, L)                     |  |  |  |  |
| Bla  | ack Histic (A3)                                    |           | Str                 | ipped Ma   | atrix (S6) |             | Iron-Manganese          | Masses (F12) (LRR K, L, R)        |  |  |  |  |
| Hv   | drogen Sulfide (A                                  | 4)        |                     |            | ky Minera  | al (F1)     |                         | rk Surface (TF12)                 |  |  |  |  |
|  | atified Layers (A5                                 | ,         |                     | •          | ed Matrix  | . ,         | X Other (explain in     |                                   |  |  |  |  |
|  | m Muck (A10)                                       | /         |                     |            | atrix (F3) | ( )         |                         | ,                                 |  |  |  |  |
|  | pleted Below Darl                                  | Surfac    |                     | •          | Surface    | (F6)        |                         |                                   |  |  |  |  |
|  | ick Dark Surface (                                 |           | · · · <u> </u>      |            | ark Surfac | . ,         |                         |                                   |  |  |  |  |
|  |  | ,         |                     |            |            |             | , , ,                   | nytic vegetation and wetland      |  |  |  |  |
|  | ndy Mucky Minera                                   |           |                     | dox Depi   | ressions ( | FO)         | problematic             | esent, unless disturbed or        |  |  |  |  |
| 50   | m Mucky Peat or                                    | Peat (S   | 3)                  |            |            |             |                         |                                   |  |  |  |  |
| Restrictive L  | ayer (if observed                                  | ):        |                     |            |            |             |                         |                                   |  |  |  |  |
| Туре:  |  |           |                     |            | _          |             | Hydric Soil Presen      | t? Yes                            |  |  |  |  |
| Depth (inches  | s):  |           |                     |            |            |             |                         |                                   |  |  |  |  |
| Demerler   |  |           |                     |            |            |             |                         |                                   |  |  |  |  |
| Remarks:   |  |           |                     |            |            |             |                         |                                   |  |  |  |  |
| Detection  |  | a         |                     |            |            |             |                         |                                   |  |  |  |  |
| Potential unde   | erground utility cor                               | ппсі. пу  | and soils assum     | ea.        |            |             |                         |                                   |  |  |  |  |
| HYDROLO  | GV   |           |                     |            |            |             |                         |                                   |  |  |  |  |
|  |  |           |                     |            |            |             |                         |                                   |  |  |  |  |
| -  | rology Indicators                                  |           | a guira du aba alca | ll that an | nh ()      |             | Cocondon Indios         | tore (minimum of two required)    |  |  |  |  |
| -  | ators (minimum of                                  | one is r  | equirea; cneck a    |            |            |             | ·                       | ators (minimum of two required)   |  |  |  |  |
|  | e Water (A1)                                       |           |                     |            | Fauna (B   | ,           |                         | Soil Cracks (B6)                  |  |  |  |  |
| High W   | /ater Table (A2)                                   |           |                     | True Aq    | uatic Plar | nts (B14)   | Drainage                | e Patterns (B10)                  |  |  |  |  |
| Satura   | tion (A3)  |           |                     | Hydroge    | en Sulfide | Odor (C     | 1) Dry-Sea              | son Water Table (C2)              |  |  |  |  |
| Water  | Marks (B1)   |           |                     | Oxidized   | d Rhizosp  | heres on    | Living Crayfish         | Burrows (C8)                      |  |  |  |  |
| Sedime   | ent Deposits (B2)                                  |           |                     | Roots (0   | C3)        |             | Saturatio               | on Visible on Aerial Imagery (C9) |  |  |  |  |
| Drift De   | eposits (B3)                                       |           |                     | Presenc    | e of Redu  | uced Iron   | (C4) Stunted            | or Stressed Plants (D1)           |  |  |  |  |
| Algal M  | lat or Crust (B4)                                  |           |                     | Recent     | Iron Redu  | uction in T | Tilled Soils X Geomor   | phic Position (D2)                |  |  |  |  |
| Iron De  | eposits (B5)                                       |           |                     | (C6)       |            |             | X FAC-Ne                | utral Test (D5)                   |  |  |  |  |
| Inunda   | tion Visible on Ae                                 | rial Imag | gery (B7)           | Thin Mu    | ick Surfac | ce (C7)     |                         |                                   |  |  |  |  |
| Sparse   | ely Vegetated Con                                  | cave Su   | rface (B8)          | Gauge of   | or Well Da | ata (D9)    |                         |                                   |  |  |  |  |
| Water-   | Stained Leaves (E                                  | 39)       |                     | Other (E   | Explain in | Remarks     | 5)                      |                                   |  |  |  |  |
| Field Observ   | ations:  |           |                     | -          |            |             |                         |                                   |  |  |  |  |
| Surface Wate   |  | Yes       | No                  | х          | Depth (ii  | nches):     |                         |                                   |  |  |  |  |
| Water Table F  |  | Yes       | No                  |            | Depth (ii  |             | We                      | tland Hydrology                   |  |  |  |  |
|  | Saturation Present? Yes No Depth (inches): Yes Yes |           |                     |            |            |             |                         |                                   |  |  |  |  |
| (includes capillary fringe)  |  |           |                     |            |            |             |                         |                                   |  |  |  |  |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: |  |           |                     |            |            |             |                         |                                   |  |  |  |  |
|  | ``   | 2 0       | 5                   |            | ••         |             |                         |                                   |  |  |  |  |
|  |  |           |                     |            |            |             |                         |                                   |  |  |  |  |
| Remarks:   |  |           |                     |            |            |             |                         |                                   |  |  |  |  |
|  |  |           |                     |            |            |             |                         |                                   |  |  |  |  |
|  |  |           |                     |            |            |             |                         |                                   |  |  |  |  |

|  | WE           | <b>FLAND DETER</b>   | RMINAT       | ION DATA      | FORM -              | Midwes       | t Region                          |   |
|--|--------------|----------------------|--------------|---------------|---------------------|--------------|-----------------------------------|---|
| Project/Site:  | Lake C       | Charlotte            | City/        | County:       | Martir              | 1            | Sampling Date                     | e: 10/24/2022                                     |
| Applicant/Owner:                                       |              | Lake Charlotte S     | olar, LLC    |               | State:              | MN           | Sampling Poir                     | nt: WB072B  |
| Investigator(s):                                       |              | Susan Mayer          |              | Sectio        | n, Township         | o, Range:    | Se                                | ec.16 T103N R30W                                  |
| Landform (hillslope, terra                             | ice, etc.):  | Plai                 | n            | Local re      | elief (concav       | e, convex    | , none):                          | None  |
| Slope (%): 0   | Lat:         | 43.71711             |              | Long:         | -94.442             | 27           | Datum:                            | WGS84   |
| Soil Map Unit Name:                                    | Canisteo-    | Glencoe complex      | , 0 to 2 per | cent slopes   | NW                  | l Classifica | ation:                            | NA  |
| Are climatic/hydrologic co                             | onditions of | the site typical for | this time c  | of the year?  | Yes (I              | f no, expla  | ain in remarks)                   |   |
| Are vegetation X                                       | , soil       | , or hydrology       |              | Significantly | disturbed?          | Are "r       | normal circums                    | stances present? No                               |
| Are vegetation   | , soil       | , or hydrology       |              | naturally pro | blematic?           | (If ne       | eded, explain                     | any answers in remarks.)                          |
| SUMMARY OF FIN   | DINGS        |                      |              |               |                     |              |                                   |   |
| Hydrophytic Vegeta                                     | tion Presen  | it? No               |              |               |                     |              |                                   |   |
| Hydric Soil Present                                    | ?            | No                   |              | Is the sa     | mpled area          | within a     | wetland?                          | No  |
| Wetland Hydrology                                      | Present?     | No                   |              | lf yes, op    | tional wetla        | nd site ID:  | W                                 | B072  |
| Remarks:   |              |                      |              |               |                     |              |                                   |   |
| Recently tilled agricultu                              |              | -                    | -            | al field.     |                     |              |                                   |   |
| VEGETATION Us  | se scienti   | ic names of pi       |              | Dominant      | Indiaator           | Domin        | anas Tast W/                      |   |
| Tree Stratum (I  | Plot cizo:   | 30)                  |              | Dominant      | Indicator<br>Status | Domin        | ance Test Wo                      | Drksneet  |
| 、  | Plot size:   | )                    | % Cover      | Species       | Status              |              | r of Dominant S                   |   |
| 1<br>2.  |              |                      |              |               |                     | that are     | OBL, FACW, o                      | or FAC: 0 (A)                                     |
| 3.   |              |                      |              |               |                     |              | umber of Domi<br>s Across All Str |   |
|  |              |                      |              |               |                     |              | t of Dominant S                   |   |
| 5  |              |                      |              | Total Course  |                     | that are     | OBL, FACW,                        | or FAC: <u>%</u> (A/B)                            |
| Sapling/Shrub Stratum                                  | (Plot size   | : 15 )               |              | =Total Cove   |                     | Brova        | lence Index V                     | Vorkshoot   |
| <u>Saping/Shiub Stratum</u><br>1.                      | (FIOL SIZE   | )                    |              |               |                     |              | % Cover of:                       | Multiply by:                                      |
| າ  |              |                      |              |               |                     |              | pecies                            | x 1 =   |
| 3.   |              |                      |              |               |                     |              | species                           | x 2 =   |
| 4.   |              |                      |              |               |                     |              | pecies                            | x 3 =   |
| 5.   |              |                      |              |               |                     | FACU         | species                           | x 4 =   |
|  |              |                      |              | =Total Cove   | r                   | UPL s        | pecies                            | x 5 =   |
| Herb Stratum   | (Plot size   | : 5 )                |              |               |                     | Colum        | in totals                         | (A) (B)   |
| 1.   |              |                      |              |               |                     | Preval       | ence Index =                      | B/A =   |
| 2.   |              |                      |              |               |                     |              |                                   |   |
| 3  |              |                      |              |               |                     | Hydro        | phytic Vegeta                     | ation Indicators:                                 |
| 4  |              |                      |              |               |                     |              | •                                 | hydrophytic vegetation                            |
|  |              |                      |              |               |                     |              | Dominance tes                     |   |
| 6  |              |                      |              |               |                     |              | Prevalence inc                    |   |
|  |              |                      |              |               |                     |              |                                   | adaptations* (provide                             |
| 8<br>9.  |              |                      |              |               |                     |              |                                   | a in Remarks or on a                              |
| 9<br>10.   |              |                      |              |               |                     |              | separate shee                     | ر)<br>/drophytic vegetation*                      |
| 10   |              |                      |              | =Total Cove   |                     |              | (explain)                         |   |
| Woody Vine Stratum<br>1.                               | (Plot size   | :15)                 |              |               |                     | *Indicato    | ,                                 | and wetland hydrology must be<br>I or problematic |
| 2.   |              |                      |              | =Total Cove   | r                   | Veg          | rophytic<br>etation<br>sent?      | <u>No</u>   |
| Remarks: (Include photo<br>Recently tilled agricultura |              |                      | ate sheet)   | = I otal Cove |                     |              |                                   | <u>No</u>   |

WB072B

| Profile Descr                                 | iption: (Describe                    | to the    | depth needed           | o docun     | nent the i   | ndicator  | or confirm the absence     | of indicators.)  |  |
|---|--------------------------------------|-----------|------------------------|-------------|--------------|-----------|----------------------------|--|--|
| Depth   | Depth <u>Matrix</u> <u>Redox Fea</u> |           |                        |             |              |           |                            |  |  |
| (Inches)                                      | Color (moist)                        | %         | Color (moist)          | %           | Type*        | Loc**     | Texture                    | Remarks  |  |
| 0-6   | 10YR 2/1                             | 100       |                        |             |              |           | Clay Loam                  |  |  |
| 6-9   | 10YR 2/1                             | 95        | 10YR 4/4               | 5           | С            | PL        | Clay Loam                  | Distinct or Prominent                                      |  |
| 9-13  | 2.5Y 3/2                             | 70        |                        |             | -            |           | Clay Loam                  |  |  |
| 9-13  |                                      | -         |                        |             |              |           | Ciay Loan                  |  |  |
|   | 2.5Y 5/3                             | 30        |                        |             |              |           |                            | Mixed Matrix   |  |
| 13-20   | 2.5Y 5/3                             | 100       |                        |             |              |           | Clay Loam                  |  |  |
|   |                                      |           |                        |             |              |           |                            |  |  |
|   |                                      |           |                        |             |              |           |                            |  |  |
|   |                                      |           |                        |             |              |           |                            |  |  |
| *Turnet C =                                   | Concentration D                      | - Donlo   | tion DM - Dod          |             |              | Maakad    | Cand Craina **Lagatic      | DI - Dere Lining M - Metrix                                |  |
| 31  | Concentration, D                     | = Depie   | ellon, RIVI = Red      | uced Mat    | .rix, ivis = | wasked a  |                            | on: PL = Pore Lining, M = Matrix                           |  |
| Hydric Soil                                   | stosol (A1)                          |           | 64                     | andy Glev   | ved Matrix   | (\$4)     |                            | ematic Hydric Soils*:<br>dox (A16) (LRR K, L, R)           |  |
|   | stic Epipedon (A2)                   |           |                        | andy Red    |              | (34)      | Dark Surface (S            |  |  |
|   | ack Histic (A3)                      |           |                        | -           | atrix (S6)   |           |                            | Masses (F12) (LRR K, L, R)                                 |  |
|   | drogen Sulfide (A                    | 4)        |                        | ••          | ky Minera    | ) (E1)    |                            | rk Surface (TF12)  |  |
|   | atified Layers (A5                   |           |                        | •           | yed Matrix   | . ,       | Other (explain in          |  |  |
|   | m Muck (A10)                         | )         |                        |             | latrix (F3)  | (12)      |                            | Temano)  |  |
|   | pleted Below Darl                    | Surfac    |                        |             | < Surface    | (F6)      |                            |  |  |
|   | ick Dark Surface (                   |           |                        |             | ark Surfac   | . ,       | Mundlersteine officialised |  |  |
|   | ndy Mucky Minera                     | ,         |                        |             | ressions (   |           |                            | nytic vegetation and wetland<br>esent, unless disturbed or |  |
|   | m Mucky Peat or                      | . ,       |                        |             |              | 10)       | problematic                |  |  |
|   | -                                    |           | -,                     |             |              | 1         |                            |  |  |
|   | ayer (if observed                    | ):        |                        |             |              |           | Undria Cail Dracon         | 42 No  |  |
| Type: Hydric Soil Present? No Depth (inches): |                                      |           |                        |             |              |           |                            |  |  |
| Deptil (illeries                              | ).                                   |           |                        |             | -            |           |                            |  |  |
| Remarks:                                      |                                      |           |                        |             |              |           |                            |  |  |
|   |                                      |           |                        |             |              |           |                            |  |  |
|   |                                      |           |                        |             |              |           |                            |  |  |
|   |                                      |           |                        |             |              |           |                            |  |  |
| HYDROLO                                       |                                      |           |                        |             |              |           |                            |  |  |
| -   | rology Indicators                    |           | a an sina ah a ah a ah |             |              |           | Concerndant India          |  |  |
|   | ators (minimum of                    | one is r  | equirea; check         |             |              |           | · · · · · ·                | ators (minimum of two required)                            |  |
|   | e Water (A1)                         |           |                        |             | Fauna (B     | ,         |                            | Soil Cracks (B6)   |  |
|   | ater Table (A2)                      |           |                        | _           | quatic Plai  |           |                            | e Patterns (B10)   |  |
|   | tion (A3)                            |           |                        |             | en Sulfide   | •         | · ·                        | son Water Table (C2)                                       |  |
|   | Marks (B1)                           |           |                        |             | d Rhizosp    | oneres on |                            | Burrows (C8)   |  |
|   | ent Deposits (B2)<br>eposits (B3)    |           |                        | _ Roots (   | ce of Red    | uced Iron |                            | on Visible on Aerial Imagery (C9) or Stressed Plants (D1)  |  |
|   | lat or Crust (B4)                    |           |                        | -           |              |           | · · ·                      | phic Position (D2)   |  |
|   | eposits (B5)                         |           |                        | (C6)        |              |           |                            | utral Test (D5)  |  |
|   | tion Visible on Ae                   | rial Imag | gery (B7)              | - ` ´       | uck Surfac   | ce (C7)   |                            |  |  |
| Sparse  | ly Vegetated Con                     | cave Su   | Irface (B8)            | _           | or Well Da   | . ,       |                            |  |  |
|   | Stained Leaves (E                    |           |                        | Other (I    | Explain in   | Remarks   | 5)                         |  |  |
| Field Observ                                  | ations:                              |           |                        | _ `         |              |           |                            |  |  |
| Surface Wate                                  |                                      | Yes       | No                     | х           | Depth (i     | nches):   |                            |  |  |
| Water Table F                                 |                                      | Yes       | No                     | Х           | Depth (i     | · -       | We                         | etland Hydrology<br>Present?                               |  |
| Saturation Pre                                | esent?                               | Yes       | No                     | Х           | Depth (i     | nches):   |                            | No No  |  |
| (includes capillary fringe)                   |                                      |           |                        |             |              |           |                            |  |  |
| Describe Reco                                 | orded Data (strea                    | m gauge   | e, monitoring we       | ell, aerial | photos, pr   | evious in | spections), if available:  |  |  |
|   |                                      |           |                        |             |              |           |                            |  |  |
| Domorius                                      |                                      |           |                        |             |              |           |                            |  |  |
| Remarks:                                      |                                      |           |                        |             |              |           |                            |  |  |
|   |                                      |           |                        |             |              |           |                            |  |  |







Source: Map adapted from Hybrid NAIP Server; Elevation by MN DNR; Project data by Lake Charlotte Solar, LLC; Tetra Tech Wetlands. Scale: 1:1,000

|   | WE            |                | ETERM        | NAT      | ION DATA      | FORM -        | Midwes       | st Region                       | 1                      |                                 |     |
|---|---------------|----------------|--------------|----------|---------------|---------------|--------------|---------------------------------|------------------------|---------------------------------|-----|
| Project/Site:                             | Lake C        | Charlotte      |              | City     | /County:      | Marti         | n            | Sampling I                      | Date:                  | 10/24/2022                      |     |
| Applicant/Owner:                          |               | Lake Charle    | otte Solar   | , LLC    |               | State:        | MN           | Sampling F                      | Point:                 | WB073A                          |     |
| Investigator(s):                          |               | Susan May      | er           |          | Section       | on, Townshi   | p, Range:    |                                 | Sec.16 T               | 103N R30W                       |     |
| Landform (hillslope, terr                 | ace, etc.):   |                | Ditch        |          | Local r       | elief (conca  | ve, conve    | k, none):                       |                        | Concave                         |     |
| Slope (%): 5                              | Lat:          | 43.7           | 1708         |          | Long:         | -94.44(       | 066          | Datum:                          |                        | WGS84                           |     |
| Soil Map Unit Name:                       | Canisteo-     | Glencoe cor    | nplex, 0 to  | o 2 per  | rcent slopes  | NW            | I Classific  | ation:                          |                        | NA                              |     |
| Are climatic/hydrologic                   | conditions of | the site typic | cal for this | s time o | of the year?  | Yes (         | (If no, expl | ain in remai                    | ·ks)                   |                                 |     |
| Are vegetation                            | , soil        | , or hydr      | ology        |          | Significantly | disturbed?    | Are "        | normal circ                     | umstances              | s present? Yes                  | ;   |
| Are vegetation                            | , soil        | , or hydr      | ology        |          | naturally pro | blematic?     | (lf ne       | eded, expl                      | ain any ar             | nswers in remarks               | s.) |
| SUMMARY OF FIN                            | NDINGS        |                |              |          |               |               |              |                                 |                        |                                 |     |
| Hydrophytic Veget                         | ation Preser  | it?            | Yes          |          |               |               |              |                                 |                        |                                 |     |
| Hydric Soil Presen                        | it?           | _              | Yes          |          | Is the sa     | mpled area    | a within a   | wetland?                        |                        | Yes                             |     |
| Wetland Hydrolog                          | y Present?    | _              | Yes          |          | lf yes, op    | otional wetla | and site ID  | :                               | WB073                  |                                 |     |
| Remarks:                                  |               |                |              |          |               |               |              |                                 |                        |                                 |     |
| VEGETATION U                              | se scienti    | ic names       | •            |          |               |               |              |                                 |                        |                                 |     |
| <b>T</b> 01 1                             |               |                |              |          | Dominant      | Indicator     | Domi         | nance Test                      | Workshe                | et                              |     |
|   | (Plot size:   | 30 )           | ) %          | Cover    | Species       | Status        |              | er of Domina                    |                        | 4 ( 4 )                         |     |
| 1<br>2.                                   |               |                |              |          |               |               | that ar      | e OBL, FAC                      | W, or FAC:             | <u>1</u> (A)                    |     |
| 3.  |               |                |              |          |               |               |              | Number of Do<br>s Across All    |                        | 1 (B)                           |     |
| 4.  |               |                |              |          |               |               |              | nt of Domina                    |                        |                                 |     |
| 5   |               |                |              |          |               |               |              | e OBL, FAC                      |                        | 100% (A/B)                      |     |
|   |               |                |              |          | =Total Cove   | r             |              |                                 |                        |                                 |     |
| Sapling/Shrub Stratum                     | (Plot size    | : 15           | )            |          |               |               |              | alence Inde                     |                        |                                 |     |
| 1   |               |                |              |          |               |               |              | % Cover of:                     |                        | Multiply by:                    |     |
| 2   |               |                |              |          |               |               |              | species<br>V species            | 0 x 1                  |                                 |     |
| 3<br>4                                    |               |                |              |          |               |               |              | species                         | 95 x 2<br>4 x 3        |                                 |     |
| 5   |               |                |              |          |               |               |              | J species _                     | $\frac{4}{0} \times 4$ |                                 |     |
| · · · ·                                   |               |                |              |          | =Total Cove   | r             |              | species                         | 0 x 5                  |                                 |     |
| Herb Stratum                              | (Plot size    | : 5            | )            |          | -             |               | Colun        | nn totals                       | 99 (A                  | ) 202 (B)                       |     |
| 1. Phalaris arundinad                     | cea           |                | _ `          | 95       | Y             | FACW          | Preva        | lence Index                     | x = B/A =              | 2.04                            |     |
| 2. Xanthium strumari                      | ium           |                |              | 2        | Ν             | FAC           |              |                                 | -                      |                                 |     |
| 3. Rumex crispus                          |               |                |              | 2        | Ν             | FAC           | Hydro        | ophytic Ve                      | getation Ir            | idicators:                      |     |
| 4.  |               |                |              |          |               |               |              | Rapid test f                    | or hydroph             | nytic vegetation                |     |
| 5   |               |                |              |          |               |               |              | Dominance                       |                        |                                 |     |
| 6   |               |                |              |          |               |               | _            | Prevalence                      |                        |                                 |     |
| 7   |               |                |              |          |               |               |              |                                 |                        | tions* (provide                 |     |
| 8<br>9.                                   |               |                |              |          |               |               |              | separate sh                     |                        | marks or on a                   |     |
| 10.                                       |               |                |              |          |               |               |              | •                               | ,                      | tic vegetation*                 |     |
|   |               |                |              | 99       | =Total Cove   | r             |              | (explain)                       |                        |                                 |     |
| Woody Vine Stratum 1.                     | (Plot size    |                | )            |          |               |               | *Indicate    | ,                               |                        | and hydrology must l<br>lematic | be  |
| 2   |               |                |              |          | _=Total Cove  | r             | Veç          | drophytic<br>getation<br>esent? | Yes                    |                                 |     |
| Remarks: (Include phot<br>Bare ground: 0% | o numbers h   | ere or on a s  | eparate s    | heet)    |               |               |              |                                 |                        |                                 |     |

WB073A

| Depth   | Matrix  |  | Re                       | dox Feat  | tures  |   |  |  |  |  |  |
|---|---|--|--------------------------|---|--|---|--|--|--|--|--|
| (Inches)  | Color (moist)   | %  | Color (moist)            | %   | Type*  | Loc**   | Texture  | Remarks  |  |  |  |
|   |   |  |                          |   |  |   |  |  |  |  |  |
|   |   |  |                          |   |  |   |  |  |  |  |  |
|   |   |  |                          |   |  |   |  |  |  |  |  |
|   |   |  |                          |   |  |   |  |  |  |  |  |
|   |   |  |                          |   |  |   |  |  |  |  |  |
|   |   |  |                          |   |  |   |  |  |  |  |  |
|   |   |  |                          |   |  |   |  |  |  |  |  |
|   |   |  |                          |   |  |   |  |  |  |  |  |
|   |   |  |                          |   |  |   |  |  |  |  |  |
|   |   |  |                          |   |  |   |  |  |  |  |  |
| *Type: C =  | Concentration, D  | = Deple  | tion. RM = Redu          | ced Mat   | rix. MS =  | Masked S  | Sand Grains. **Locati  | on: PL = Pore Lining, M = Matrix   |  |  |  |
| Hydric Soil I   |   |  |                          |   | ,  |   |  | ematic Hydric Soils*:  |  |  |  |
| •   | stosol (A1)   |  | Sa                       | ndv Glev  | ed Matrix  | (S4)  |  | dox (A16) (LRR K, L, R)  |  |  |  |
|   | tic Epipedon (A2)   |  |                          | ndy Redo  |  | (0.)  | Dark Surface (S  |  |  |  |  |
|   | ick Histic (A3)   |  |                          | -   | atrix (S6)   |   |  | Masses (F12) (LRR K, L, R)   |  |  |  |
|   | ( )   | 4)   |                          |   |  |   |  | . , . , ,  |  |  |  |
|   | drogen Sulfide (A   |  |                          | •   | ky Minera  | . ,   |  | ark Surface (TF12)   |  |  |  |
|   | atified Layers (A5)<br>m Muck (A10)   | )  |                          |   | ed Matrix  | (FZ)  | X Other (explain ir  | i iciiidiks)   |  |  |  |
|   | ( )   | 0  |                          |   | atrix (F3)   |   |  |  |  |  |  |
|   | pleted Below Darl   |  | · · ·                    |   | Surface  | . ,   |  |  |  |  |  |
|   | ck Dark Surface (   |  |                          |   | ark Surfac   |   | ,  | hytic vegetation and wetland   |  |  |  |
|   | ndy Mucky Minera  |  |                          | dox Depr  | essions (  | F8)   | hydrology must be p<br>problematic   | esent, unless disturbed or   |  |  |  |
| 5 ci  | m Mucky Peat or   | Peat (S  | 3)                       |   |  |   | problematic  |  |  |  |  |
| Restrictive La  | ayer (if observed   | ):   |                          |   |  |   |  |  |  |  |  |
| Туре:   |   |  |                          |   |  |   | Hydric Soil Prese  | nt? Yes  |  |  |  |
| Depth (inches)  | ):  |  |                          |   | -  |   |  |  |  |  |  |
| Remarks:  |   |  |                          |   |  | <u> </u>  |  |  |  |  |  |
| Remarks:<br>Potential unde  | erground utility cor  | nflict. Hy                                       | dric soils assum         | ed.   |  |   |  |  |  |  |  |
|   |   | nflict. Hy                                       | rdric soils assum        | ed.   |  |   |  |  |  |  |  |
| Potential unde  |   |  | rdric soils assum        | ed.   |  | <u> </u>  |  |  |  |  |  |
| Potential unde<br>HYDROLOC<br>Wetland Hydr  | GY  | ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;           |                          |   | ρΙγ)   | <u> </u>  | Secondary Indic  | ators (minimum of two required)  |  |  |  |
| Potential unde<br>HYDROLOC<br>Wetland Hydr<br>Primary Indica  | GY<br>rology Indicators<br>ators (minimum of  | ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;           |                          | II that ap  |  | 113)  |  |  |  |  |  |
| Potential unde<br>HYDROLOC<br>Wetland Hydr<br>Primary Indica<br>Surface   | GY<br>rology Indicators<br>ators (minimum of<br>e Water (A1)  | ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;           |                          | Il that ap<br>Aquatic   | Fauna (B   |   | Surface  | Soil Cracks (B6)   |  |  |  |
| Potential unde HYDROLOG Wetland Hydr Primary Indica Surface High W  | GY<br>rology Indicators<br>ators (minimum of<br>Water (A1)<br>Vater Table (A2)  | ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;           |                          | <u>ll that ap</u><br>Aquatic<br>True Aq   | Fauna (B<br>uatic Plar   | nts (B14)   | Surface  | Soil Cracks (B6)<br>e Patterns (B10)   |  |  |  |
| Potential unde HYDROLOO Wetland Hydr Primary Indica Surface High W Saturati   | GY<br>rology Indicators<br>ators (minimum of<br>e Water (A1)<br>Vater Table (A2)<br>ion (A3)  | ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;           |                          | ll that ap<br>Aquatic<br>True Aq<br>Hydroge   | Fauna (B<br>uatic Plar<br>en Sulfide   | nts (B14)<br>Odor (C  | Surface<br>Drainag<br>1)Dry-Sea  | Soil Cracks (B6)<br>e Patterns (B10)<br>son Water Table (C2)   |  |  |  |
| Potential unde<br>HYDROLOC<br>Wetland Hydr<br>Primary Indica<br>Surface<br>High W<br>Saturati<br>Water N  | GY<br>rology Indicators<br>ators (minimum of<br>e Water (A1)<br>/ater Table (A2)<br>ion (A3)<br>Marks (B1)  | ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;           |                          | <u>Il that ap</u><br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized  | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp  | nts (B14)<br>Odor (C  | Surface<br>Drainag<br>1)Dry-Sea<br>LivingCrayfish  | Soil Cracks (B6)<br>e Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)   |  |  |  |
| Potential unde<br>HYDROLOC<br>Wetland Hydr<br>Primary Indica<br>Surface<br>High W<br>Saturati<br>Water M<br>Sedime  | GY<br>rology Indicators<br>ators (minimum of<br>e Water (A1)<br>Vater Table (A2)<br>ion (A3)<br>Warks (B1)<br>ent Deposits (B2)   | ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;           |                          | <u>Il that ap</u><br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (0  | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)   | nts (B14)<br>Odor (C<br>oheres on   | 1) Surface<br>Drainag<br>Dry-Sea<br>Living Crayfish<br>Saturati  | Soil Cracks (B6)<br>e Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>on Visible on Aerial Imagery (C9)  |  |  |  |
| Potential unde<br>HYDROLOC<br>Wetland Hydr<br>Primary Indica<br>Surface<br>High W<br>Saturati<br>Water M<br>Sedime<br>Drift De  | GY<br>rology Indicators<br>ators (minimum of<br>e Water (A1)<br>/ater Table (A2)<br>ion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)   | ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;           |                          | II that ap<br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc  | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)<br>ce of Redu   | nts (B14)<br>Odor (C<br>oheres on<br>uced Iron  | 1) Surface<br>Drainag<br>Dry-Sea<br>Living Crayfish<br>Saturati<br>(C4) Stunted                                      | Soil Cracks (B6)<br>e Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>on Visible on Aerial Imagery (C9<br>or Stressed Plants (D1)  |  |  |  |
| Potential unde<br>HYDROLOO<br>Wetland Hydr<br>Primary Indica<br>Surface<br>High W<br>Saturati<br>Water M<br>Sedime<br>Drift De<br>X Algal M   | GY<br>rology Indicators<br>ators (minimum of<br>e Water (A1)<br>dater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>lat or Crust (B4)   | ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;           |                          | II that ap<br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc<br>Recent  | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)<br>ce of Redu   | nts (B14)<br>Odor (C<br>oheres on<br>uced Iron  | 1) Surface<br>Drainag<br>Dry-Sea<br>Living Crayfish<br>Saturati<br>(C4) Stunted<br>Filled Soils X Geomo              | Soil Cracks (B6)<br>e Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>on Visible on Aerial Imagery (C9)<br>or Stressed Plants (D1)<br>phic Position (D2)                       |  |  |  |
| Potential unde<br>HYDROLOO<br>Wetland Hydr<br>Primary Indica<br>Surface<br>High W<br>Saturati<br>Water M<br>Sedime<br>Drift De<br>X Algal M<br>Iron De  | GY<br>rology Indicators<br>ators (minimum of<br>e Water (A1)<br>dater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>lat or Crust (B4)<br>eposits (B5)   | one is r   | equired; check a<br><br> | Il that ap<br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc<br>Recent<br>(C6)  | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)<br>ce of Redu<br>Iron Redu  | nts (B14)<br>Odor (C<br>oheres on<br>uced Iron<br>uction in T   | 1) Surface<br>Drainag<br>Dry-Sea<br>Living Crayfish<br>Saturati<br>(C4) Stunted<br>Filled Soils X Geomo              | Soil Cracks (B6)<br>e Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>on Visible on Aerial Imagery (C9<br>or Stressed Plants (D1)  |  |  |  |
| Potential unde<br>HYDROLOO<br>Wetland Hydr<br>Primary Indica<br>Surface<br>High W<br>Saturati<br>Water M<br>Sedime<br>Drift De<br>X Algal M<br>Iron De<br>Inundat   | GY<br>rology Indicators<br>ators (minimum of<br>e Water (A1)<br>dater Table (A2)<br>ion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>lat or Crust (B4)<br>eposits (B5)<br>tion Visible on Ae  | one is r   | equired; check a         | II that ap<br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc<br>Recent<br>(C6)<br>Thin Mu                             | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)<br>ce of Redu<br>Iron Redu  | nts (B14)<br>Odor (C<br>oheres on<br>uced Iron<br>uction in T<br>ce (C7)  | 1) Surface<br>Drainag<br>Dry-Sea<br>Living Crayfish<br>Saturati<br>(C4) Stunted<br>Filled Soils X Geomo              | Soil Cracks (B6)<br>e Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>on Visible on Aerial Imagery (C9)<br>or Stressed Plants (D1)<br>phic Position (D2)                       |  |  |  |
| Potential unde<br>HYDROLOC<br>Wetland Hydr<br>Primary Indica<br>Surface<br>High W<br>Saturati<br>Water M<br>Sedime<br>Drift De<br>X Algal M<br>Iron De<br>Inundat<br>Sparsel  | GY<br>rology Indicators<br>ators (minimum of<br>e Water (A1)<br>Vater Table (A2)<br>ion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>lat or Crust (B4)<br>eposits (B5)<br>tion Visible on Aei<br>ly Vegetated Con-  | rial Imag<br>cave Su                             | equired; check a         | II that ap<br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots ((<br>Presenc<br>Recent<br>(C6)<br>Thin Mu<br>Gauge o                  | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)<br>ce of Redu<br>Iron Redu<br>nck Surfac  | nts (B14)<br>Odor (C<br>oheres on<br>uced Iron<br>uction in T<br>ce (C7)<br>ata (D9)                                  | Surface<br>Drainag<br>1) Dry-Sea<br>Living Crayfish<br>Saturati<br>(C4) Stunted<br>Filled Soils X Geomod<br>X FAC-Ne | Soil Cracks (B6)<br>e Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>on Visible on Aerial Imagery (C9)<br>or Stressed Plants (D1)<br>phic Position (D2)                       |  |  |  |
| Potential unde<br>HYDROLOO<br>Wetland Hydr<br>Primary Indica<br>Surface<br>High W<br>Saturati<br>Water M<br>Sedime<br>Drift De<br>X Algal M<br>Iron De<br>Inundat<br>Sparsel<br>Water-S   | GY<br>rology Indicators<br>ators (minimum of<br>e Water (A1)<br>dater Table (A2)<br>ion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>lat or Crust (B4)<br>eposits (B5)<br>tion Visible on Aer<br>ly Vegetated Com-<br>Stained Leaves (E   | rial Imag<br>cave Su                             | equired; check a         | II that ap<br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots ((<br>Presenc<br>Recent<br>(C6)<br>Thin Mu<br>Gauge o                  | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)<br>ce of Redu<br>Iron Redu  | nts (B14)<br>Odor (C<br>oheres on<br>uced Iron<br>uction in T<br>ce (C7)<br>ata (D9)                                  | Surface<br>Drainag<br>1) Dry-Sea<br>Living Crayfish<br>Saturati<br>(C4) Stunted<br>Filled Soils X Geomod<br>X FAC-Ne | Soil Cracks (B6)<br>e Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>on Visible on Aerial Imagery (C9)<br>or Stressed Plants (D1)<br>phic Position (D2)                       |  |  |  |
| Potential unde<br>HYDROLOO<br>Wetland Hydr<br>Primary Indica<br>Surface<br>High W<br>Saturati<br>Water M<br>Sedime<br>Drift De<br>X Algal M<br>Iron De<br>Inundat<br>Sparsel<br>Water-S<br>Field Observa  | GY<br>rology Indicators<br>ators (minimum of<br>e Water (A1)<br>dater Table (A2)<br>ion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>lat or Crust (B4)<br>eposits (B5)<br>tion Visible on Aer<br>ly Vegetated Com<br>Stained Leaves (E<br>ations:   | rial Imag<br>cave Su<br>39)                      | equired; check a         | Il that ap<br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc<br>(C6)<br>Thin Mu<br>Gauge C<br>Other (E                | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)<br>ce of Redu<br>Iron Redu<br>ck Surfac<br>or Well Da<br>Explain in                           | nts (B14)<br>Odor (C<br>oheres on<br>uced Iron<br>uction in T<br>ce (C7)<br>ata (D9)<br>Remarks                       | Surface<br>Drainag<br>1) Dry-Sea<br>Living Crayfish<br>Saturati<br>(C4) Stunted<br>Filled Soils X Geomod<br>X FAC-Ne | Soil Cracks (B6)<br>e Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>on Visible on Aerial Imagery (C9)<br>or Stressed Plants (D1)<br>phic Position (D2)                       |  |  |  |
| Potential unde<br>HYDROLOO<br>Wetland Hydr<br>Primary Indica<br>Surface<br>High W<br>Saturati<br>Water M<br>Sedime<br>Drift De<br>X Algal M<br>Iron De<br>Inundat<br>Sparsel<br>Water-S<br>Field Observa<br>Surface Water   | GY<br>rology Indicators<br>ators (minimum of<br>e Water (A1)<br>dater Table (A2)<br>ion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>lat or Crust (B4)<br>eposits (B5)<br>tion Visible on Aer<br>ly Vegetated Com<br>Stained Leaves (E<br>ations:<br>r Present?                             | rial Imag<br>cave Su<br>39)<br>Yes               | equired; check a         | II that ap<br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots ((<br>Presenc<br>Recent<br>(C6)<br>Thin Mu<br>Gauge o                  | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)<br>ce of Redu<br>lron Redu<br>ck Surfac<br>or Well Da<br>Explain in                           | nts (B14)<br>Odor (C<br>oheres on<br>ucced Iron<br>uction in T<br>ce (C7)<br>ata (D9)<br>Remarks                      | Surface<br>Drainag<br>Dry-Sea<br>Living Crayfish<br>Saturati<br>(C4) Stunted<br>Filled Soils X Geomo<br>X FAC-Ne     | Soil Cracks (B6)<br>e Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>on Visible on Aerial Imagery (C9)<br>or Stressed Plants (D1)<br>phic Position (D2)                       |  |  |  |
| Potential unde<br>HYDROLOO<br>Wetland Hydr<br>Primary Indica<br>Surface<br>High W<br>Saturati<br>Water M<br>Sedime<br>Drift De<br>X Algal M<br>Iron De<br>Inundat<br>Sparsel<br>Water-S<br>Field Observa<br>Surface Water<br>Water Table P                                      | GY<br>rology Indicators<br>ators (minimum of<br>e Water (A1)<br>dater Table (A2)<br>ion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>lat or Crust (B4)<br>eposits (B5)<br>tion Visible on Aer<br>ly Vegetated Com<br>Stained Leaves (E<br>ations:<br>r Present?                             | rial Imag<br>cave Su<br>39)<br>Yes<br>Yes        | equired; check a         | Il that ap<br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc<br>(C6)<br>Thin Mu<br>Gauge C<br>Other (E                | Fauna (B<br>uatic Plan<br>en Sulfide<br>d Rhizosp<br>C3)<br>ce of Redu<br>lron Redu<br>ck Surfac<br>or Well Da<br>Explain in<br>Depth (ii<br>Depth (ii | nts (B14)<br>Odor (C<br>oheres on<br>uced Iron<br>uction in 1<br>ce (C7)<br>ata (D9)<br>Remarks<br>nches):            | Surface<br>Drainag<br>Dry-Sea<br>Living Crayfish<br>Saturati<br>(C4) Stunted<br>Filled Soils X Geomo<br>X FAC-Ne     | Soil Cracks (B6)<br>e Patterns (B10)<br>ison Water Table (C2)<br>i Burrows (C8)<br>on Visible on Aerial Imagery (C9)<br>or Stressed Plants (D1)<br>phic Position (D2)<br>utral Test (D5) |  |  |  |
| Potential unde<br>HYDROLOO<br>Wetland Hydr<br>Primary Indica<br>Surface<br>High W<br>Saturati<br>Water M<br>Sedime<br>Drift De<br>X Algal M<br>Iron De<br>Inundat<br>Sparsel<br>Water-S<br>Field Observa<br>Surface Water<br>Water Table P<br>Saturation Pre                    | GY<br>rology Indicators<br>ators (minimum of<br>a Water (A1)<br>Vater Table (A2)<br>ion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>aposits (B3)<br>lat or Crust (B4)<br>aposits (B5)<br>tion Visible on Aer<br>ly Vegetated Com-<br>Stained Leaves (E<br>ations:<br>r Present?<br>Present?                | rial Imag<br>cave Su<br>39)<br>Yes               | equired; check a         | Il that ap<br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc<br>(C6)<br>Thin Mu<br>Gauge C<br>Other (E                | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)<br>ce of Redu<br>lron Redu<br>ck Surfac<br>or Well Da<br>Explain in                           | nts (B14)<br>Odor (C<br>oheres on<br>uced Iron<br>uction in 1<br>ce (C7)<br>ata (D9)<br>Remarks<br>nches):            | Surface<br>Drainag<br>Dry-Sea<br>Living Crayfish<br>Saturati<br>(C4) Stunted<br>Filled Soils X Geomo<br>X FAC-Ne     | Soil Cracks (B6)<br>e Patterns (B10)<br>ison Water Table (C2)<br>Burrows (C8)<br>on Visible on Aerial Imagery (C9)<br>or Stressed Plants (D1)<br>phic Position (D2)<br>utral Test (D5)   |  |  |  |
| Potential unde<br>HYDROLOC<br>Wetland Hydr<br>Primary Indica<br>Surface<br>High W<br>Saturati<br>Water N<br>Sedime<br>Drift De<br>X Algal M<br>Iron De<br>Inundat<br>Sparsel<br>Water-S<br>Field Observa<br>Surface Water<br>Water Table P<br>Saturation Pre<br>(includes capil | GY<br>rology Indicators<br>ators (minimum of<br>a Water (A1)<br>Vater Table (A2)<br>ion (A3)<br>Warks (B1)<br>ent Deposits (B2)<br>posits (B3)<br>lat or Crust (B4)<br>posits (B5)<br>tion Visible on Aer<br>ly Vegetated Com-<br>Stained Leaves (E<br>ations:<br>r Present?<br>Present?<br>Blary fringe) | rial Imag<br>cave Su<br>39)<br>Yes<br>Yes<br>Yes | equired; check a         | Il that ap<br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc<br>Recent<br>(C6)<br>Thin Mu<br>Gauge C<br>Other (E<br>X | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)<br>ee of Redu<br>lron Redu<br>ck Surfac<br>or Well Da<br>Explain in<br>Depth (in<br>Depth (in | nts (B14)<br>Odor (C<br>oheres on<br>uced Iron<br>uction in 1<br>ce (C7)<br>ata (D9)<br>Remarks<br>nches):<br>nches): | Surface<br>Drainag<br>Dry-Sea<br>Living Crayfish<br>Saturati<br>(C4) Stunted<br>Filled Soils X Geomo<br>X FAC-Ne     | Soil Cracks (B6)<br>e Patterns (B10)<br>ison Water Table (C2)<br>i Burrows (C8)<br>on Visible on Aerial Imagery (C9)<br>or Stressed Plants (D1)<br>phic Position (D2)<br>utral Test (D5) |  |  |  |
| Potential unde<br>HYDROLOC<br>Wetland Hydr<br>Primary Indica<br>Surface<br>High W<br>Saturati<br>Water N<br>Sedime<br>Drift De<br>X Algal M<br>Iron De<br>Inundat<br>Sparsel<br>Water-S<br>Field Observa<br>Surface Water<br>Water Table P<br>Saturation Pre<br>(includes capil | GY<br>rology Indicators<br>ators (minimum of<br>a Water (A1)<br>Vater Table (A2)<br>ion (A3)<br>Warks (B1)<br>ent Deposits (B2)<br>posits (B3)<br>lat or Crust (B4)<br>posits (B5)<br>tion Visible on Aer<br>ly Vegetated Com-<br>Stained Leaves (E<br>ations:<br>r Present?<br>Present?<br>Blary fringe) | rial Imag<br>cave Su<br>39)<br>Yes<br>Yes<br>Yes | equired; check a         | Il that ap<br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc<br>Recent<br>(C6)<br>Thin Mu<br>Gauge C<br>Other (E<br>X | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)<br>ee of Redu<br>lron Redu<br>ck Surfac<br>or Well Da<br>Explain in<br>Depth (in<br>Depth (in | nts (B14)<br>Odor (C<br>oheres on<br>uced Iron<br>uction in 1<br>ce (C7)<br>ata (D9)<br>Remarks<br>nches):<br>nches): | Surface<br>Drainag<br>Dry-Sea<br>Living Crayfish<br>Saturati<br>(C4) Stunted<br>Filled Soils X Geomo<br>X FAC-Ne     | Soil Cracks (B6)<br>e Patterns (B10)<br>ison Water Table (C2)<br>Burrows (C8)<br>on Visible on Aerial Imagery (C9<br>or Stressed Plants (D1)<br>phic Position (D2)<br>utral Test (D5)    |  |  |  |
| Potential unde<br>HYDROLOC<br>Wetland Hydr<br>Primary Indica<br>Surface<br>High W<br>Saturati<br>Water N<br>Sedime<br>Drift De<br>X Algal M<br>Iron De<br>Inundat<br>Sparsel<br>Water-S<br>Field Observa<br>Surface Water<br>Water Table P<br>Saturation Pre<br>(includes capil | GY<br>rology Indicators<br>ators (minimum of<br>a Water (A1)<br>Vater Table (A2)<br>ion (A3)<br>Warks (B1)<br>ent Deposits (B2)<br>posits (B3)<br>lat or Crust (B4)<br>posits (B5)<br>tion Visible on Aer<br>ly Vegetated Com-<br>Stained Leaves (E<br>ations:<br>r Present?<br>Present?<br>Blary fringe) | rial Imag<br>cave Su<br>39)<br>Yes<br>Yes<br>Yes | equired; check a         | Il that ap<br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc<br>Recent<br>(C6)<br>Thin Mu<br>Gauge C<br>Other (E<br>X | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)<br>ee of Redu<br>lron Redu<br>ck Surfac<br>or Well Da<br>Explain in<br>Depth (in<br>Depth (in | nts (B14)<br>Odor (C<br>oheres on<br>uced Iron<br>uction in 1<br>ce (C7)<br>ata (D9)<br>Remarks<br>nches):<br>nches): | Surface<br>Drainag<br>Dry-Sea<br>Living Crayfish<br>Saturati<br>(C4) Stunted<br>Filled Soils X Geomo<br>X FAC-Ne     | Soil Cracks (B6)<br>e Patterns (B10)<br>ison Water Table (C2)<br>i Burrows (C8)<br>on Visible on Aerial Imagery (C9)<br>or Stressed Plants (D1)<br>phic Position (D2)<br>utral Test (D5) |  |  |  |
| Potential unde<br>HYDROLOC<br>Wetland Hydr<br>Primary Indica<br>Surface<br>High W<br>Saturati<br>Water N<br>Sedime<br>Drift De<br>X Algal M<br>Iron De<br>Inundat<br>Sparsel<br>Water-S<br>Field Observa<br>Surface Water<br>Water Table P<br>Saturation Pre<br>(includes capil | GY<br>rology Indicators<br>ators (minimum of<br>a Water (A1)<br>Vater Table (A2)<br>ion (A3)<br>Warks (B1)<br>ent Deposits (B2)<br>posits (B3)<br>lat or Crust (B4)<br>posits (B5)<br>tion Visible on Aer<br>ly Vegetated Com-<br>Stained Leaves (E<br>ations:<br>r Present?<br>Present?<br>Blary fringe) | rial Imag<br>cave Su<br>39)<br>Yes<br>Yes<br>Yes | equired; check a         | Il that ap<br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc<br>Recent<br>(C6)<br>Thin Mu<br>Gauge C<br>Other (E<br>X | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)<br>ee of Redu<br>lron Redu<br>ck Surfac<br>or Well Da<br>Explain in<br>Depth (in<br>Depth (in | nts (B14)<br>Odor (C<br>oheres on<br>uced Iron<br>uction in 1<br>ce (C7)<br>ata (D9)<br>Remarks<br>nches):<br>nches): | Surface<br>Drainag<br>Dry-Sea<br>Living Crayfish<br>Saturati<br>(C4) Stunted<br>Filled Soils X Geomo<br>X FAC-Ne     | Soil Cracks (B6)<br>e Patterns (B10)<br>ison Water Table (C2)<br>Burrows (C8)<br>on Visible on Aerial Imagery (C9<br>or Stressed Plants (D1)<br>phic Position (D2)<br>utral Test (D5)    |  |  |  |

|                              | WET           | LAND DETER          | RMINAT       | ION DATA      | FORM -        | Midwes      | st Region                           |   |
|------------------------------|---------------|---------------------|--------------|---------------|---------------|-------------|-------------------------------------|---|
| Project/Site:                | Lake Ch       | arlotte             | City         | County:       | Martin        | า           | Sampling Dat                        | e: 10/24/2022                                     |
| Applicant/Owner:             |               | Lake Charlotte S    | olar, LLC    |               | State:        | MN          | Sampling Poir                       | nt: WB073B  |
| Investigator(s):             |               | Susan Mayer         |              | Sectio        | on, Township  | o, Range:   | Se                                  | ec.16 T103N R30W                                  |
| Landform (hillslope, terrac  | e, etc.):     | Plair               | า            | Local re      | elief (concav | /e, conve   | x, none):                           | None  |
| Slope (%): 0                 | Lat:          | 43.71715            |              | Long:         | -94.440       | 66          | Datum:                              | WGS84   |
| Soil Map Unit Name:          | Canisteo-G    | Glencoe complex,    | 0 to 2 per   | cent slopes   | NW            | I Classific | ation:                              | PEM1Af  |
| Are climatic/hydrologic con  | nditions of t | he site typical for | this time of | of the year?  | Yes (         | lf no, expl | ain in remarks)                     | )   |
| Are vegetation X             | , soil        | , or hydrology      |              | Significantly | disturbed?    | Are '       | 'normal circums                     | stances present? No                               |
| Are vegetation               | , soil        | , or hydrology      |              | naturally pro | blematic?     | (lf ne      | eeded, explain                      | any answers in remarks.)                          |
| SUMMARY OF FINE              | DINGS         |                     |              |               |               |             |                                     |   |
| Hydrophytic Vegetati         | ion Present   | ? No                |              |               |               |             |                                     |   |
| Hydric Soil Present?         |               | No                  |              | Is the sa     | mpled area    | within a    | wetland?                            | Νο  |
| Wetland Hydrology F          | Present?      | No                  |              | lf yes, op    | tional wetla  | nd site ID  | :W                                  | B073  |
| Remarks:                     |               |                     |              |               |               |             |                                     |   |
|                              |               |                     |              |               |               |             |                                     |   |
| Recently tilled agricultur   | al field. R   | ecently harvested   | d agricultu  | ral field.    |               |             |                                     |   |
| VEGETATION Use               | a scientifi   | c names of pl       | ante         |               |               |             |                                     |   |
|                              | e scientin    |                     |              | Dominant      | Indicator     | Domi        | nance Test Wo                       | orksheet  |
| Tree Stratum (P              | lot size:     | )                   |              | Species       | Status        |             |                                     |   |
| 1.                           |               | /                   |              |               |               |             | er of Dominant S<br>e OBL, FACW, o  |   |
| 2.                           |               |                     |              |               |               |             |                                     |   |
| 3.                           |               |                     |              |               |               |             | Number of Domi<br>es Across All Str | 0 (D)   |
| 4                            |               |                     |              |               |               | Percer      | nt of Dominant S                    | Species   |
| 5                            |               |                     |              |               |               |             | e OBL, FACW,                        |   |
|                              |               | , -                 |              | =Total Cover  | r             |             |                                     | <b></b> .   |
| Sapling/Shrub Stratum        | (Plot size:   | )                   |              |               |               | _           | alence Index V                      |   |
| 1<br>2.                      |               |                     |              |               |               |             | % Cover of:<br>species              | Multiply by:<br>x 1 =                             |
| 3.                           |               |                     |              |               |               |             | V species                           | x 2 =   |
| 4.                           |               |                     |              |               |               |             | species                             | x 3 =   |
| 5.                           |               |                     |              |               |               |             | J species                           | x 4 =   |
|                              |               |                     |              | =Total Cover  | r             | UPL         | species                             | x 5 =   |
| Herb Stratum                 | (Plot size:   | )                   |              |               |               | Colur       | nn totals                           | (A) (B)   |
| 1                            |               |                     |              |               |               | Preva       | alence Index =                      | B/A =   |
| 2.                           |               |                     |              |               |               |             |                                     |   |
| 3                            |               |                     |              |               |               | -           |                                     | ation Indicators:                                 |
| 4                            |               |                     |              |               |               |             |                                     | hydrophytic vegetation                            |
| 5                            |               |                     |              |               |               |             | Dominance tes                       |   |
| 6<br>7                       |               |                     |              |               |               | _           | Prevalence inc                      | aex is ≤3.0 <sup>°</sup><br>adaptations* (provide |
| 8.                           |               |                     |              |               |               |             |                                     | a in Remarks or on a                              |
| 9                            |               |                     |              |               |               |             | separate shee                       |   |
| 10.                          |               |                     |              |               |               |             | •                                   | ydrophytic vegetation*                            |
|                              |               |                     |              | =Total Cover  | r             |             | (explain)                           |   |
| Woody Vine Stratum           | (Plot size:   | )                   |              |               |               | *Indicat    | ors of hvdric soil                  | and wetland hydrology must be                     |
| 1                            |               |                     |              |               |               |             | , unless disturbed                  |   |
|                              |               |                     |              |               |               | Hy          | drophytic                           |   |
|                              |               | _                   |              | =Total Cover  | r             |             | getation                            |   |
|                              |               |                     |              |               |               | Pre         | esent?                              | No  |
| Remarks: (Include photo r    | numbers he    | re or on a separa   | te sheet)    |               |               |             |                                     |   |
|                              | field D       | around- 1000/       |              |               |               |             |                                     |   |
| Recently tilled agricultural | neiu. Dale    | grounu. 100%        |              |               |               |             |                                     |   |

WB073B

| Profile Descr                               | ription: (Describe | to the    | depth needed to  | o docum     | ent the i  | ndicator               | or confirm the absence    | of indicators.)                   |  |  |
|---|--------------------|-----------|------------------|-------------|------------|------------------------|---------------------------|-----------------------------------|--|--|
| Depth         Matrix         Redox Features |                    |           |                  |             |            |                        |                           |                                   |  |  |
| (Inches)                                    | Color (moist)      | %         | Color (moist)    | %           | Type*      | Loc**                  | Texture                   | Remarks                           |  |  |
| 0-30  | 10YR 2/1           | 100       |                  | ,           |            |                        | Clay                      |                                   |  |  |
|   |                    |           |                  |             |            |                        | -                         |                                   |  |  |
| 30-36                                       | 2.5Y 5/3           | 100       |                  |             |            |                        | Fine Sandy Clay           |                                   |  |  |
|   |                    |           |                  |             |            |                        |                           |                                   |  |  |
|   |                    |           |                  |             |            |                        |                           |                                   |  |  |
|   |                    |           |                  |             |            |                        |                           |                                   |  |  |
|   |                    |           |                  |             |            |                        |                           |                                   |  |  |
|   |                    |           |                  |             |            |                        |                           |                                   |  |  |
|   |                    |           |                  |             |            |                        |                           |                                   |  |  |
|   |                    |           |                  |             |            |                        |                           |                                   |  |  |
|   |                    |           |                  |             |            |                        |                           |                                   |  |  |
| <u>,</u>                                    | Concentration, D   | = Deple   | etion, RM = Redu | iced Mati   | rix, MS =  | Masked                 |                           | on: PL = Pore Lining, M = Matrix  |  |  |
| Hydric Soil                                 |                    |           |                  |             |            |                        |                           | ematic Hydric Soils*:             |  |  |
| His   | stosol (A1)        |           | Sa               | ndy Gley    | ed Matrix  | (S4)                   | Coast Prairie Re          | dox (A16) (LRR K, L, R)           |  |  |
| His   | stic Epipedon (A2) |           | Sa               | ndy Redo    | ox (S5)    |                        | Dark Surface (S           | 7) (LRR K, L)                     |  |  |
| Bla   | ack Histic (A3)    |           | Str              | ipped Ma    | atrix (S6) |                        | Iron-Manganese            | Masses (F12) (LRR K, L, R)        |  |  |
| Hy  | drogen Sulfide (A  | 4)        | Loa              | amy Muc     | ky Minera  | al (F1)                | Very Shallow Da           | rk Surface (TF12)                 |  |  |
| Str   | atified Layers (A5 | )         | Loa              | amy Gley    | ed Matrix  | (F2)                   | Other (explain in         | remarks)                          |  |  |
| 2 0   | m Muck (A10)       |           | De               | pleted M    | atrix (F3) |                        |                           |                                   |  |  |
| De  | pleted Below Darl  | < Surfac  | e (A11) Re       | dox Dark    | Surface    | (F6)                   |                           |                                   |  |  |
|   | ick Dark Surface ( |           | · · ·            | pleted Da   | ark Surfac | ce (F7)                | *Indiantara of hydron     | nytic vegetation and wetland      |  |  |
|   | ndy Mucky Minera   | ,         |                  |             | ressions ( |                        | , j i                     | esent, unless disturbed or        |  |  |
|   | m Mucky Peat or    |           |                  |             |            | 10)                    | problematic               |                                   |  |  |
|   | -                  |           | 0)               |             |            | 1                      |                           |                                   |  |  |
|   | ayer (if observed  | ):        |                  |             |            |                        |                           |                                   |  |  |
| Туре:                                       |                    |           |                  |             | _          |                        | Hydric Soil Presen        | t? <u>No</u>                      |  |  |
| Depth (inches                               | s):                |           |                  |             | _          |                        |                           |                                   |  |  |
| Remarks:                                    |                    |           |                  |             |            | 1                      |                           |                                   |  |  |
| rtemanto.                                   |                    |           |                  |             |            |                        |                           |                                   |  |  |
|   |                    |           |                  |             |            |                        |                           |                                   |  |  |
|   |                    |           |                  |             |            |                        |                           |                                   |  |  |
| HYDROLO                                     | GY                 |           |                  |             |            |                        |                           |                                   |  |  |
|   | rology Indicators  |           |                  |             |            |                        |                           |                                   |  |  |
|   | ators (minimum of  |           | equired: check a | ll that an  | (vla       |                        | Secondary Indica          | ators (minimum of two required)   |  |  |
|   |                    | 0110 13 1 | equired, check a |             | Fauna (B   | (10)                   |                           |                                   |  |  |
|   | e Water (A1)       |           | . <u> </u>       |             |            |                        |                           | Soil Cracks (B6)                  |  |  |
| °   | /ater Table (A2)   |           |                  |             | uatic Plai | ` '                    | *                         | Drainage Patterns (B10)           |  |  |
|   | tion (A3)          |           |                  |             | en Sulfide |                        | · ·                       | Dry-Season Water Table (C2)       |  |  |
|   | Marks (B1)         |           |                  |             | d Rhizosp  | heres or               |                           | Crayfish Burrows (C8)             |  |  |
|   | ent Deposits (B2)  |           |                  | Roots (0    |            |                        |                           | on Visible on Aerial Imagery (C9) |  |  |
|   | eposits (B3)       |           |                  | •           | ce of Red  |                        | · · ·                     | or Stressed Plants (D1)           |  |  |
|   | lat or Crust (B4)  |           |                  |             | Iron Redu  | uction in <sup>-</sup> |                           | ohic Position (D2)                |  |  |
|   | eposits (B5)       |           | . <u> </u>       | (C6)        |            |                        | FAC-Ne                    | utral Test (D5)                   |  |  |
|   | tion Visible on Ae |           |                  |             | ick Surfac |                        |                           |                                   |  |  |
| Sparse                                      | ely Vegetated Con  | cave Su   | Irface (B8)      | Gauge       | or Well Da | ata (D9)               |                           |                                   |  |  |
| Water-                                      | Stained Leaves (E  | 39)       |                  | Other (E    | Explain in | Remarks                | S)                        |                                   |  |  |
| Field Observ                                | ations:            |           |                  |             |            |                        |                           |                                   |  |  |
| Surface Wate                                | r Present?         | Yes       | No               | Х           | Depth (i   | nches):                |                           |                                   |  |  |
| Water Table F                               | Present?           | Yes       | No               | Х           | Depth (i   | nches):                | We                        | tland Hydrology<br>Present?       |  |  |
| Saturation Pre                              | esent?             | Yes       | No               | Х           | Depth (i   | nches):                |                           | No No                             |  |  |
| (includes capi                              | illary fringe)     |           |                  |             |            | _                      |                           |                                   |  |  |
| Describe Rec                                | orded Data (strea  | m gauge   | e, monitoring we | l, aerial p | photos, pr | evious in              | spections), if available: |                                   |  |  |
|   |                    |           |                  |             |            |                        |                           |                                   |  |  |
|   |                    |           |                  |             |            |                        |                           |                                   |  |  |
| Remarks:                                    |                    |           |                  |             |            |                        |                           |                                   |  |  |
|   |                    |           |                  |             |            |                        |                           |                                   |  |  |
|   |                    |           |                  |             |            |                        |                           |                                   |  |  |







Source: Map adapted from Hybrid NAIP Server; Elevation by MN DNR; Project data by Lake Charlotte Solar, LLC; Tetra Tech Wetlands. Scale: 1:1,000

|                              | WET           | LAND DETER          | MINATI      | ON DATA       | FORM -       | Midwes       | st Regior                     | า           |                                    |
|------------------------------|---------------|---------------------|-------------|---------------|--------------|--------------|-------------------------------|-------------|------------------------------------|
| Project/Site:                | Lake Ch       | narlotte            | City/       | County:       | Marti        | n            | Sampling                      | Date:       | 10/24/2022                         |
| Applicant/Owner:             |               | Lake Charlotte Se   | olar, LLC   |               | State:       | MN           | Sampling                      | Point:      | WB079A                             |
| Investigator(s):             |               | Susan Mayer         |             | Sectio        | on, Townshi  | p, Range:    |                               | Sec.16 T    | 103N R30W                          |
| Landform (hillslope, terrace | e, etc.):     | Depres              | sion        | Local re      | elief (conca | /e, convex   | k, none):                     |             | Concave                            |
| Slope (%): 2                 | Lat:          | 43.7177             |             | Long:         | -94.447      | '31          | Datum:                        |             | WGS84                              |
| Soil Map Unit Name:          | Canisteo-(    | Glencoe complex,    | 0 to 2 per  | cent slopes   | NW           | I Classific  | ation:                        |             | NA                                 |
| Are climatic/hydrologic cor  | nditions of t | he site typical for | this time c | of the year?  | Yes (        | lf no, expla | ain in rema                   | rks)        |                                    |
| Are vegetation X             | , soil        | , or hydrology      |             | Significantly | disturbed?   | Are "        | normal circ                   | umstances   | s present? No                      |
| Are vegetation               | , soil        | , or hydrology      |             | naturally pro | blematic?    | (If ne       | eded, exp                     | lain any ai | nswers in remarks.)                |
| SUMMARY OF FIND              | INGS          |                     |             |               |              |              |                               |             |                                    |
| Hydrophytic Vegetation       | on Present    | ? Yes               |             |               |              |              |                               |             |                                    |
| Hydric Soil Present?         |               | Yes                 |             | Is the sa     | mpled area   | a within a   | wetland?                      |             | Yes                                |
| Wetland Hydrology P          | resent?       | Yes                 |             | lf yes, op    | tional wetla | nd site ID:  |                               | WB079       |                                    |
| Remarks:                     |               |                     |             |               |              |              |                               |             |                                    |
| Recently tilled agricultura  |               |                     | 0           | al field.     |              |              |                               |             |                                    |
| VEGETATION Use               | scientifi     |                     |             | Dominant      | Indicator    | Domi         |                               | Markaha     |                                    |
| Tree Stratum (PI             | ot size:      | )                   | % Cover     |               | Status       | Domin        | nance Test                    | worksne     | et                                 |
| <u>1.</u>                    |               | )                   | /0 00001    | Opeoles       | Otatus       |              | er of Domina                  |             | o (A)                              |
| 2                            |               |                     |             |               |              |              | e OBL, FAC                    |             | (//)                               |
| 3.                           |               |                     |             |               |              |              | lumber of D<br>s Across Al    |             | (B)                                |
| 4                            |               |                     |             |               |              |              | nt of Domina                  |             |                                    |
| 5                            |               |                     |             | =Total Cover  |              | that are     | e OBL, FAC                    | W, or FAC:  | <u>%</u> (A/B)                     |
| Sapling/Shrub Stratum        | (Plot size:   | , -                 |             |               |              | Prova        | lence Inde                    | w Worksh    |                                    |
| 1.                           | (1 101 5120.  | /                   |             |               |              |              | % Cover of                    |             | Multiply by:                       |
| 2.                           |               |                     |             |               |              |              | species                       | x 1         |                                    |
| 3.                           |               |                     |             |               |              |              | ·<br>V species                | x 2         | ! =                                |
| 4.                           |               |                     |             |               |              | FAC s        | species                       | x 3         | 3 =                                |
| 5.                           |               |                     |             |               |              | FACU         | l species                     |             | · =                                |
|                              |               | _                   |             | =Total Cover  | r            | UPL s        | species                       | x 5         |                                    |
| Herb Stratum                 | (Plot size:   | )                   |             |               |              | Colum        | nn totals                     | (A          | (B)                                |
| 1                            |               |                     |             |               |              | Preva        | lence Inde                    | k = B/A =   |                                    |
|                              |               |                     |             |               |              |              |                               |             | <u> </u>                           |
| 3                            |               |                     |             |               |              | -            | ophytic Ve                    | -           |                                    |
| 4<br>5.                      |               |                     |             |               |              |              | Dominance                     |             | hytic vegetation                   |
| 6                            |               |                     |             |               |              |              | Prevalence                    |             |                                    |
| 7.                           |               |                     |             |               |              | _            |                               |             | itions* (provide                   |
| 8.                           |               |                     |             |               |              |              |                               |             | marks or on a                      |
| 9.                           |               |                     |             |               |              |              | separate s                    | heet)       |                                    |
| 10.                          |               |                     |             |               |              |              | Problemati                    | c hydrophy  | /tic vegetation*                   |
|                              |               |                     |             | =Total Cover  | r            | <u>_X</u>    | (explain)                     |             |                                    |
| Woody Vine Stratum 1.        |               | )                   |             |               |              |              | ors of hydric<br>unless distu |             | land hydrology must be<br>blematic |
| 2                            |               |                     |             | =Total Cover  | r            |              | drophytic<br>getation         |             |                                    |
|                              |               | -                   |             |               |              | Pre          | sent?                         | Yes         |                                    |
| Remarks: (Include photo n    | umbers he     | re or on a separa   | te sheet)   |               |              | ·            |                               |             |                                    |
| Recently tilled agricultural | field. Bare   | ground: 100%        |             |               |              |              |                               |             |                                    |

WB079A

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |                    |          |                  |  |             |           |                             |  |  |  |  |
|---|--------------------|----------|------------------|--|-------------|-----------|-----------------------------|--|--|--|--|
| Depth   | Matrix             |          | Re               | dox Feat   | ures        |           |                             |  |  |  |  |
| (Inches)  | Color (moist)      | %        | Color (moist)    | %  | Type*       | Loc**     | Texture                     | Remarks  |  |  |  |
| 0-16  | 10YR 2/1           | 100      |                  |  |             |           | Clay                        |  |  |  |  |
| 16-19   | 2.5Y 3/1           | 100      |                  |  |             |           | Clay                        | 1  |  |  |  |
|   |                    |          | <u> </u>         |  |             |           | -                           |  |  |  |  |
| 19-28   | 5Y 6/2             | 100      | ļ                |  |             |           | Clay                        |  |  |  |  |
|   |                    |          |                  |  |             |           |                             |  |  |  |  |
|   |                    |          |                  |  |             |           |                             |  |  |  |  |
|   |                    |          |                  |  |             |           |                             |  |  |  |  |
|   | +                  |          |                  |  |             |           |                             |  |  |  |  |
|   |                    |          |                  |  |             |           |                             |  |  |  |  |
|   |                    |          |                  |  |             |           |                             |  |  |  |  |
| *Type: C =  | Concentration, D   | = Deple  | etion, RM = Redu | iced Mati  | rix, MS =   | Masked \$ | Sand Grains. **Locat        | ion: PL = Pore Lining, M = Matrix                            |  |  |  |
| Hydric Soil   | Indicators:        |          |                  |  |             |           | Indicators for Prob         | ematic Hydric Soils*:  |  |  |  |
| His   | stosol (A1)        |          | Sa               | ndy Gley   | ed Matrix   | (S4)      | Coast Prairie R             | edox (A16) (LRR K, L, R)                                     |  |  |  |
| His   | stic Epipedon (A2) | )        | Sa               | ndy Redo   | ox (S5)     |           | Dark Surface (S             | 57) (LRR K, L)   |  |  |  |
| Bla   | ack Histic (A3)    |          | Str              | ipped Ma   | atrix (S6)  |           | Iron-Manganese              | e Masses (F12) (LRR K, L, R)                                 |  |  |  |
|   | drogen Sulfide (A  | 4)       |                  | ••   | ky Minera   | al (F1)   |                             | ark Surface (TF12)   |  |  |  |
|   | atified Layers (A5 |          |                  | •  | ed Matrix   | . ,       | Other (explain in           | . ,  |  |  |  |
|   | m Muck (A10)       | ,        |                  |  | atrix (F3)  | · · ·     | 、 .                         |  |  |  |  |
|   | pleted Below Darl  | k Surfac |                  |  | Surface     | (F6)      |                             |  |  |  |  |
|   | ick Dark Surface ( |          | · · <u> </u>     |  | ark Surfac  | . ,       | *Indianters of burling      | butio vogototion   |  |  |  |
|   | ndy Mucky Minera   | ` '      |                  | •  | essions (   | ```       |                             | ohytic vegetation and wetland<br>resent, unless disturbed or |  |  |  |
|   | m Mucky Peat or    | • •      |                  | CON DODI   | 000000      | ,         | problematic                 |  |  |  |  |
|   | -                  |          | -,               |  |             |           |                             |  |  |  |  |
|   | ayer (if observed  | I):      |                  |  |             |           |                             |  |  |  |  |
| Туре:   | <u></u>            |          |                  |  | -           |           | Hydric Soil Prese           | nt? Yes  |  |  |  |
| Depth (inches   |                    |          |                  |  | -           |           |                             |  |  |  |  |
| Remarks:  |                    |          |                  |  |             |           |                             |  |  |  |  |
|   |                    |          |                  |  |             |           |                             |  |  |  |  |
|   |                    |          |                  |  |             |           |                             |  |  |  |  |
|   |                    |          |                  |  |             |           |                             |  |  |  |  |
| HYDROLO   | GY                 |          |                  |  |             |           |                             |  |  |  |  |
| •   | rology Indicators  |          |                  |  |             |           |                             |  |  |  |  |
| Primary Indica  | ators (minimum of  | one is r | equired; check a | all that ap  | <u>ply)</u> |           | Secondary Indic             | ators (minimum of two required)                              |  |  |  |
| Surface   | e Water (A1)       |          |                  | Aquatic  | Fauna (B    | 13)       | Surface                     | e Soil Cracks (B6)   |  |  |  |
| High W  | /ater Table (A2)   |          |                  | True Aq  | uatic Plar  | nts (B14) | Drainag                     | Drainage Patterns (B10)                                      |  |  |  |
| Satura  | tion (A3)          |          |                  | Hydroge  | en Sulfide  | Odor (C   | Dry-Season Water Table (C2) |  |  |  |  |
| Water   | Marks (B1)         |          |                  | Oxidized   | d Rhizosp   | heres on  |                             |  |  |  |  |
| Sedime  | ent Deposits (B2)  |          |                  | Roots (0   | C3)         |           | X Saturat                   | X Saturation Visible on Aerial Imagery (C9)                  |  |  |  |
|   | eposits (B3)       |          |                  | -  | e of Redu   |           | · · ·                       | Stunted or Stressed Plants (D1)                              |  |  |  |
|   | lat or Crust (B4)  |          |                  | Recent Iron Reduction in Tilled Soils X Geomorphic Position (D2) |             |           |                             |  |  |  |  |
|   | eposits (B5)       |          |                  | (C6)   |             |           | FAC-Ne                      | eutral Test (D5)   |  |  |  |
|   | tion Visible on Ae |          |                  | -  | ick Surfac  | . ,       |                             |  |  |  |  |
| Sparse  | ely Vegetated Con  | cave Su  | Irface (B8)      | Gauge  | or Well Da  | ata (D9)  |                             |  |  |  |  |
| Water-  | Stained Leaves (E  | 39)      |                  | Other (E   | Explain in  | Remarks   | 3)                          |  |  |  |  |
| Field Observ  |                    |          |                  |  |             |           |                             |  |  |  |  |
| Surface Wate  | r Present?         | Yes      | No               | Х  | Depth (ii   | nches):   |                             |  |  |  |  |
| Water Table F   | Present?           | Yes      | No               | Х  | Depth (ii   | nches):   | vv                          | etland Hydrology<br>Present?                                 |  |  |  |
| Saturation Pre  |                    | Yes      | No               | Х  | Depth (ii   | nches):   |                             | Yes  |  |  |  |
| (includes capi  |                    |          |                  |  |             |           |                             |  |  |  |  |
| Describe Rec  | orded Data (strear | m gauge  | e, monitoring we | ll, aerial p   | photos, pr  | evious in | spections), if available:   |  |  |  |  |
|   |                    |          |                  |  |             |           |                             |  |  |  |  |
|   |                    |          |                  |  |             |           |                             |  |  |  |  |
| Remarks:  |                    |          |                  |  |             |           |                             |  |  |  |  |
|   |                    |          |                  |  |             |           |                             |  |  |  |  |
|   |                    |          |                  |  |             |           |                             |  |  |  |  |

|  |             | AND DETER        |           |               |               |              | •                               |                | 40/04/0000                         |
|--|-------------|------------------|-----------|---------------|---------------|--------------|---------------------------------|----------------|------------------------------------|
| Project/Site:  | Lake Cha    |                  | _ `       | County:       | Martir        |              | Sampling Da                     |                | 10/24/2022                         |
| Applicant/Owner:                                       |             | ake Charlotte Sc | biar, LLC | <b>0</b> //   | State:        |              | Sampling Po                     |                | WB079B                             |
| Investigator(s):                                       |             | usan Mayer       |           |               | on, Township  | -            |                                 |                | 03N R30W                           |
| Landform (hillslope, terra                             | · / _       | Hillslop         | be        |               | elief (concav |              | ·                               |                |                                    |
| Slope (%): 4   | _ Lat:      | 43.71766         |           | Long:         | -94.446       |              | Datum:                          |                | NGS84                              |
| Soil Map Unit Name:                                    |             | encoe complex,   |           |               |               | I Classifica |                                 |                | NA                                 |
| Are climatic/hydrologic co                             |             |                  |           | -             | · `           |              |                                 |                |                                    |
|  |             | , or hydrology   |           | Significantly |               |              | normal circun                   |                |                                    |
| Are vegetation SUMMARY OF FIN                          |             | , or hydrology   |           | naturally pro | blematic?     | (If ne       | eded, explai                    | n any ans      | wers in remarks.)                  |
| Hydrophytic Vegeta                                     |             | No               |           |               |               |              |                                 |                |                                    |
| Hydric Soil Present?                                   | 2           | Yes              |           | Is the sa     | mpled area    | within a     | wetland?                        |                | No                                 |
| Wetland Hydrology                                      | Present?    | No               |           | lf ves. or    | otional wetla | nd site ID:  | N                               | VB079          |                                    |
| Remarks:   |             |                  |           |               |               |              |                                 |                |                                    |
| Recently tilled agricultu                              |             | -                | -         | al field.     |               |              |                                 |                |                                    |
|  |             | •                |           | Dominant      | Indicator     | Domin        | nance Test V                    | Vorksheet      |                                    |
| Tree Stratum (F  | Plot size:  |                  | % Cover   |               | Status        | Numbe        | er of Dominant<br>OBL, FACW     | Species        | 0 (A)                              |
| 2<br>3   |             |                  |           |               |               |              | lumber of Don<br>s Across All S |                | (B)                                |
| 4<br>5   |             |                  |           |               |               |              | t of Dominant<br>e OBL, FACW    |                | (A/B)                              |
|  |             | _                |           | =Total Cove   | r             |              |                                 |                |                                    |
| Sapling/Shrub Stratum                                  | (Plot size: | )                |           |               |               |              | lence Index                     |                |                                    |
| 1  |             |                  |           |               |               |              | % Cover of:                     |                | lultiply by:                       |
|  |             |                  |           |               |               |              | pecies                          |                | :                                  |
| 3  |             |                  |           |               |               |              | / species                       | x 2 =          |                                    |
| 4  |             |                  |           |               |               |              | pecies                          | x 3 =          |                                    |
| 5  |             |                  |           | =Total Cove   | r             |              | species<br>pecies               | x 4 =<br>x 5 = |                                    |
| Herb Stratum   | (Plot size: | , –              |           |               | 1             |              | in totals                       | X 3 =<br>(A)   |                                    |
| 1<br>2.  | (FIOUSIZE   | )                |           |               |               |              | lence Index =                   | 、 ,            | (B)                                |
| 3.<br>4.   |             |                  |           |               |               |              | phytic Vege<br>Rapid test for   |                | <b>licators:</b><br>tic vegetation |
| 5.   |             |                  |           |               |               |              | Dominance te                    |                | -                                  |
| 6.   |             |                  |           |               |               |              | Prevalence ir                   | ndex is ≤3.    | 0*                                 |
| 7.   |             |                  |           |               |               |              | Morphologica                    | al adaptatio   | ons* (provide                      |
| 8.   |             |                  |           |               |               | :            | supporting da                   | ata in Rem     | arks or on a                       |
| 9.   |             |                  |           |               |               | :            | separate she                    | et)            |                                    |
| 10   |             |                  |           | =Total Cove   | r             |              | Problematic I<br>(explain)      | nydrophyti     | c vegetation*                      |
| Woody Vine Stratum 1.                                  |             | )                |           |               |               | *Indicato    | /                               |                | nd hydrology must be<br>matic      |
| 2  |             |                  |           | =Total Cove   | r             | Veg          | Irophytic<br>jetation<br>sent?  | <u>No</u>      |                                    |
| Remarks: (Include photo<br>Recently tilled agricultura |             |                  | e sheet)  |               |               |              |                                 |                |                                    |

WB079B

| Profile Descr  | ription: (Describe | to the   | depth needed t            | o docum     | ent the i  | ndicator      | or confirm the absence    | of indicators.)                   |  |  |
|----------------|--------------------|----------|---------------------------|-------------|------------|---------------|---------------------------|-----------------------------------|--|--|
| Depth          | March I            |          |                           | dox Feat    | tures      |               |                           |                                   |  |  |
| (Inches)       | Color (moist)      | %        | Color (moist)             | %           | Type*      | Loc**         | Texture                   | Remarks                           |  |  |
| 0-12           | 10YR 2/1           | 100      |                           |             |            |               | Clay Loam                 |                                   |  |  |
| 12-18          | 2.5Y 6/1           | 100      |                           |             |            |               | Clay                      |                                   |  |  |
| 12 10          | 2.01 0/1           | 100      |                           |             |            |               |                           |                                   |  |  |
|                |                    |          |                           |             |            |               |                           |                                   |  |  |
|                |                    |          |                           |             |            |               |                           |                                   |  |  |
|                |                    |          |                           |             |            |               |                           |                                   |  |  |
|                |                    |          |                           |             |            |               |                           |                                   |  |  |
|                |                    |          |                           |             |            |               |                           |                                   |  |  |
|                |                    |          |                           |             |            |               |                           |                                   |  |  |
|                |                    |          |                           |             |            |               |                           |                                   |  |  |
| <u>,</u>       | Concentration, D   | = Deple  | etion, RM = Redu          | iced Mati   | rix, MS =  | Masked        |                           | on: PL = Pore Lining, M = Matrix  |  |  |
| Hydric Soil    |                    |          |                           |             |            |               |                           | ematic Hydric Soils*:             |  |  |
| His            | stosol (A1)        |          |                           |             | ed Matrix  | (S4)          |                           | dox (A16) (LRR K, L, R)           |  |  |
| His            | stic Epipedon (A2) |          | Sa                        | ndy Redo    | ox (S5)    |               | Dark Surface (S7          |                                   |  |  |
| Bla            | ack Histic (A3)    |          | Str                       | ipped Ma    | atrix (S6) |               | Iron-Manganese            | Masses (F12) (LRR K, L, R)        |  |  |
| Hy             | drogen Sulfide (A  | 4)       | Lo                        | amy Muc     | ky Minera  | al (F1)       | Very Shallow Da           | rk Surface (TF12)                 |  |  |
| Str            | atified Layers (A5 | )        | Lo                        | amy Gley    | ed Matrix  | (F2)          | Other (explain in         | remarks)                          |  |  |
| 2 c            | m Muck (A10)       |          | De                        | pleted Ma   | atrix (F3) |               |                           |                                   |  |  |
| De             | pleted Below Darl  | c Surfac | e (A11) Re                | dox Dark    | Surface    | (F6)          |                           |                                   |  |  |
| X Th           | ick Dark Surface ( | A12)     | De                        | pleted Da   | ark Surfac | ce (F7)       | *Indicators of hydrop     | nytic vegetation and wetland      |  |  |
| Sa             | ndy Mucky Minera   | al (S1)  | Re                        | dox Depr    | essions (  | F8)           | hydrology must be pr      | esent, unless disturbed or        |  |  |
| 5 c            | m Mucky Peat or    | Peat (S  | 3)                        |             |            |               | problematic               |                                   |  |  |
| Postrictivo I  | ayer (if observed  | ).       |                           |             |            |               |                           |                                   |  |  |
| Type: Rock     |                    | ).       |                           |             |            |               | Hydric Soil Presen        | t? Yes                            |  |  |
| Depth (inches  |                    |          |                           |             | -          |               | Tryunc Son Tresen         |                                   |  |  |
| 2 op (onoo     |                    |          |                           |             | -          |               |                           |                                   |  |  |
| Remarks:       |                    |          |                           |             |            |               |                           |                                   |  |  |
|                |                    |          |                           |             |            |               |                           |                                   |  |  |
|                |                    |          |                           |             |            |               |                           |                                   |  |  |
|                |                    |          |                           |             |            |               |                           |                                   |  |  |
| HYDROLO        |                    |          |                           |             |            |               |                           |                                   |  |  |
|                | rology Indicators  |          | and the standard standard |             |            |               | O                         |                                   |  |  |
| -              | ators (minimum of  | one is r | equired; check a          |             |            |               |                           | ators (minimum of two required)   |  |  |
| Surface        | e Water (A1)       |          |                           | Aquatic     | Fauna (B   | 513)          | Surface                   | Soil Cracks (B6)                  |  |  |
| High W         | /ater Table (A2)   |          |                           | True Aq     | uatic Plar | nts (B14)     | Drainage                  | e Patterns (B10)                  |  |  |
| Satura         | tion (A3)          |          |                           | Hydroge     | en Sulfide | Odor (C       | 1) Dry-Sea                | Dry-Season Water Table (C2)       |  |  |
| Water          | Marks (B1)         |          |                           | Oxidized    | d Rhizosp  | heres or      | Living Crayfish           | Burrows (C8)                      |  |  |
|                | ent Deposits (B2)  |          |                           | Roots (C    |            |               |                           | on Visible on Aerial Imagery (C9) |  |  |
|                | eposits (B3)       |          |                           | -           | e of Redu  |               |                           | or Stressed Plants (D1)           |  |  |
| 0              | Mat or Crust (B4)  |          |                           |             | Iron Redu  | iction in     |                           | phic Position (D2)                |  |  |
|                | eposits (B5)       |          | (= _) <u> </u>            | (C6)        |            | ( <b>-</b> -) | FAC-Ne                    | utral Test (D5)                   |  |  |
|                | tion Visible on Ae |          |                           | -           | ick Surfac |               |                           |                                   |  |  |
|                | ly Vegetated Con   |          | irface (B8)               |             | or Well Da |               |                           |                                   |  |  |
| Water-         | Stained Leaves (E  | 39)      |                           | Other (E    | Explain in | Remarks       | s)                        |                                   |  |  |
| Field Observ   |                    |          |                           |             | _          |               |                           |                                   |  |  |
| Surface Wate   |                    | Yes      | No                        | <u> </u>    | Depth (ii  |               | We                        | tland Hydrology                   |  |  |
| Water Table F  |                    | Yes      | No No                     | X           | Depth (ii  |               |                           | Present?                          |  |  |
| Saturation Pre |                    | Yes      | No                        | Х           | Depth (ii  | nches):       |                           | No                                |  |  |
| (includes capi |                    |          | - monitoria a con         |             | hotes      | a dava 'r     | operations) if sucht-     |                                   |  |  |
| Describe Rec   | orded Data (stream | n gauge  | e, monitoring we          | n, aeriai p | motos, pr  | evious in     | spections), if available: |                                   |  |  |
|                |                    |          |                           |             |            |               |                           |                                   |  |  |
| Remarks:       |                    |          |                           |             |            |               |                           |                                   |  |  |
| nomano.        |                    |          |                           |             |            |               |                           |                                   |  |  |
|                |                    |          |                           |             |            |               |                           |                                   |  |  |







Source: Map adapted from Hybrid NAIP Server; Elevation by MN DNR; Project data by Lake Charlotte Solar, LLC; Tetra Tech Wetlands. Scale: 1:1,000

|   | WE            | FLAND DE        | TERMINAT        | ION DAT       | A FORM -       | Midwest      | t Region                                    |  |
|---|---------------|-----------------|-----------------|---------------|----------------|--------------|---|--|
| Project/Site:                             | Lake C        | Charlotte       | City            | /County:      | Martin         | n            | Sampling Date:                              | 10/24/2022                               |
| Applicant/Owner:                          |               | Lake Charlot    | te Solar, LLC   |               | State:         | MN           | Sampling Point:                             | WB080A                                   |
| Investigator(s):                          |               | Susan Mayer     | r               | Secti         | on, Townshij   | p, Range:    | Sec.1                                       | 16 T103N R30W                            |
| Landform (hillslope, terr                 | ace, etc.):   |                 | Ditch           | Local         | relief (concav | ve, convex,  | none):                                      | Concave                                  |
| Slope (%): 5                              | Lat:          | 43.71           | 701             | Long:         | -94.447        | /02          | Datum:                                      | WGS84                                    |
| Soil Map Unit Name:                       | Canisteo      | Glencoe comp    | olex, 0 to 2 pe | rcent slopes  | NW             | I Classifica | tion:                                       | NA                                       |
| Are climatic/hydrologic                   | conditions of | the site typica | I for this time | of the year?  | Yes (          | lf no, expla | in in remarks)                              |  |
| Are vegetation                            | , soil        | , or hydrol     | ogy             | Significantly | / disturbed?   | Are "n       | ormal circumstar                            | nces present? Yes                        |
| Are vegetation                            | , soil        | , or hydrol     | ogy             | naturally pr  | oblematic?     | (If nee      | eded, explain an                            | y answers in remarks.)                   |
| SUMMARY OF FIN                            | NDINGS        |                 |                 |               |                |              |   | _  |
| Hydrophytic Veget                         | ation Preser  | it? Ye          | es              |               |                |              |   |  |
| Hydric Soil Presen                        | it?           | Ye              | es              | Is the s      | ampled area    | a within a v | wetland?                                    | Yes                                      |
| Wetland Hydrolog                          | y Present?    | Ye              | es              | lf yes, o     | ptional wetla  | nd site ID:  | WB08  | 30                                       |
| Remarks:                                  |               |                 |                 |               |                |              |   |  |
|   |               |                 |                 |               |                |              |   |  |
| VEGETATION U                              | se scienti    | ic names o      | •               |               |                |              |   |  |
|   |               |                 |                 | Dominant      | Indicator      | Domin        | ance Test Work                              | sheet                                    |
| Tree Stratum<br>1.                        | (Plot size:   | 30 )            | % Cover         | Species       | Status         |              | r of Dominant Spe<br>OBL, FACW, or F        |  |
| 2<br>3.                                   |               |                 |                 |               |                |              | umber of Dominan<br>Across All Strata:      |  |
| 4.  |               |                 |                 |               |                | Percent      | of Dominant Spec                            | cies                                     |
| 5   |               |                 |                 |               |                |              | OBL, FACW, or F                             |  |
|   |               |                 |                 | _=Total Cove  | er             |              |   |  |
| Sapling/Shrub Stratum                     | (Plot size    | : 15            | )               |               |                |              | ence Index Wor                              |  |
| 1<br>2.                                   |               |                 |                 |               |                | OBL sp       | 6 Cover of:<br>Decies 0                     | Multiply by:<br>x 1 = 0                  |
| 3.  |               |                 |                 |               |                |              | species 0                                   | x = 0<br>x = 190                         |
| 4.  |               |                 |                 |               |                |              | pecies 0                                    | $x^{2} = \frac{100}{x^{3}}$              |
| 5.  |               |                 |                 |               |                |              | species 0                                   | x 4 = 0                                  |
|   |               |                 |                 | =Total Cove   | er             | UPL sp       | •   | x 5 = 0                                  |
| Herb Stratum                              | (Plot size    | : 5             | )               | -             |                | Colum        | n totals 95                                 | (A) 190 (B)                              |
| 1. Spartina pectinata                     |               |                 | 60              | Y             | FACW           | Prevale      | ence Index = $B/A$                          | 2  |
| 2. Phalaris arundinad                     | cea           |                 | 35              | Y             | FACW           |              |   |  |
| 3   |               |                 |                 |               |                |              | phytic Vegetatic                            |  |
| 4   |               |                 |                 |               |                |              |   | rophytic vegetation                      |
| 5   |               |                 |                 |               |                |              | Dominance test is                           |  |
|   |               |                 |                 |               |                |              | Prevalence index                            |  |
| 7<br>8.                                   |               |                 |                 |               |                |              |   | aptations* (provide<br>n Remarks or on a |
| 9.  |               |                 |                 |               |                |              | separate sheet)                             | Remarks of on a                          |
| 10.                                       |               |                 |                 |               |                |              | . ,   | ophytic vegetation*                      |
|   |               |                 | 95              | =Total Cove   | er             |              | explain)                                    |  |
| Woody Vine Stratum 1.                     | (Plot size    |                 | )               |               |                |              | s of hydric soil and<br>unless disturbed or | wetland hydrology must be<br>problematic |
| 2   |               |                 |                 | _=Total Cove  | er             | Veg          | rophytic<br>etation<br>sent? Ye             | <u>95_</u>                               |
| Remarks: (Include phot<br>Bare ground: 0% | o numbers h   | ere or on a se  | parate sheet)   |               |                |              |   |  |

WB080A

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)             |                      |            |                  |  |            |           |  |                                 |  |  |  |  |
|---|----------------------|------------|------------------|--|------------|-----------|--|---------------------------------|--|--|--|--|
| Depth   | Re                   | dox Feat   | ures             |  |            |           |  |                                 |  |  |  |  |
|   |                      |            | Color (moist)    | %  | Type*      | Loc**     | Texture  | Remarks                         |  |  |  |  |
|   | , ,                  |            |                  |  |            |           |  |                                 |  |  |  |  |
|   |                      |            |                  |  |            |           |  |                                 |  |  |  |  |
|   |                      |            |                  |  |            |           |  |                                 |  |  |  |  |
|   |                      |            |                  |  |            |           |  |                                 |  |  |  |  |
|   |                      |            |                  |  |            |           |  |                                 |  |  |  |  |
|   |                      |            |                  |  |            |           |  |                                 |  |  |  |  |
|   |                      |            |                  |  |            |           |  |                                 |  |  |  |  |
|   |                      |            |                  |  |            |           |  |                                 |  |  |  |  |
|   |                      |            |                  |  |            |           |  |                                 |  |  |  |  |
|   |                      |            |                  |  |            |           |  |                                 |  |  |  |  |
| *Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix |                      |            |                  |  |            |           |  |                                 |  |  |  |  |
| Hydric Soil   |                      | - Depie    |                  |  | IX, IVIO – | waskeu v  |  | ematic Hydric Soils*:           |  |  |  |  |
| -   |                      |            | Sa               | adv Clav   | od Motrix  | (84)      |  | •                               |  |  |  |  |
|   | stosol (A1)          |            |                  |  | ed Matrix  | (34)      |  | dox (A16) (LRR K, L, R)         |  |  |  |  |
|   | stic Epipedon (A2)   |            |                  | ndy Redo   |            |           | Dark Surface (S                                |                                 |  |  |  |  |
|   | ack Histic (A3)      |            |                  |  | trix (S6)  |           |  | Masses (F12) (LRR K, L, R)      |  |  |  |  |
|   | drogen Sulfide (A    |            |                  | -  | ky Minera  |           |  | rk Surface (TF12)               |  |  |  |  |
|   | atified Layers (A5   | )          |                  |  | ed Matrix  | (F2)      | X Other (explain in                            | remarks)                        |  |  |  |  |
|   | m Muck (A10)         |            |                  |  | atrix (F3) |           |  |                                 |  |  |  |  |
|   | pleted Below Darl    |            | e (A11) Re       | dox Dark   | Surface    | (F6)      |  |                                 |  |  |  |  |
| Thi   | ick Dark Surface (   | A12)       | De               | pleted Da  | ark Surfac | ce (F7)   | *Indicators of hydrop                          | nytic vegetation and wetland    |  |  |  |  |
| Sa  | ndy Mucky Minera     | al (S1)    | Re               | dox Depr   | essions (  | F8)       | hydrology must be present, unless disturbed or |                                 |  |  |  |  |
| 5 c   | m Mucky Peat or      | Peat (S    | 3)               |  |            |           | problematic                                    |                                 |  |  |  |  |
| Restrictive La  | ayer (if observed    | ):         |                  |  |            |           |  |                                 |  |  |  |  |
| Type:   |                      |            |                  |  |            |           | Hydric Soil Preser                             | t? Yes                          |  |  |  |  |
| Depth (inches   | s):                  |            |                  |  |            |           | -  |                                 |  |  |  |  |
| Potential unde  | erground utility cor | nflict. Hy | dric soils assum | ed.  |            |           |  |                                 |  |  |  |  |
| HYDROLO   | GY                   |            |                  |  |            |           |  |                                 |  |  |  |  |
| -   | rology Indicators    | 3:         |                  |  |            |           |  |                                 |  |  |  |  |
| -   | ators (minimum of    |            | equired: check a | II that ap   | (vla       |           | Secondary Indica                               | ators (minimum of two required) |  |  |  |  |
| -   | e Water (A1)         |            |                  |  | Fauna (B   | (13)      |  | Soil Cracks (B6)                |  |  |  |  |
|   | /ater Table (A2)     |            | <u> </u>         |  | uatic Plar |           |  | e Patterns (B10)                |  |  |  |  |
| Ŭ   | tion (A3)            |            |                  |  |            | ```       | *  | ( )                             |  |  |  |  |
|   | Marks (B1)           |            |                  | Hydrogen Sulfide Odor (C1)         Dry-Season Water Table (C2)           Oxidized Rhizospheres on Living         Crayfish Burrows (C8) |            |           |  |                                 |  |  |  |  |
|   | ent Deposits (B2)    |            |                  | Roots (C3) Saturation Visible on Aerial Image  |            |           |  |                                 |  |  |  |  |
|   | eposits (B3)         |            |                  |  | e of Red   | uced Iron |  | or Stressed Plants (D1)         |  |  |  |  |
|   | At or Crust (B4)     |            |                  | •  |            |           |  | phic Position (D2)              |  |  |  |  |
|   | eposits (B5)         |            |                  | (C6)   |            |           |  | utral Test (D5)                 |  |  |  |  |
|   | tion Visible on Ae   | rial Imag  | gery (B7)        |  | ck Surfac  | ce (C7)   |  |                                 |  |  |  |  |
|   | ly Vegetated Con     |            |                  |  | or Well Da |           |  |                                 |  |  |  |  |
|   | Stained Leaves (E    |            |                  | -  | xplain in  |           | 3)   |                                 |  |  |  |  |
| Field Observ  | ations.              |            |                  |  | -          |           |  |                                 |  |  |  |  |
| Surface Wate  |                      | Yes        | No               | х  | Depth (ii  | nches):   |  |                                 |  |  |  |  |
| Water Table F   |                      | Yes        | No               |  | Depth (ii  | · _       | We   | etland Hydrology                |  |  |  |  |
| Saturation Pre  |                      | Yes        | No               |  | Depth (ii  |           |  | Present?<br>Yes                 |  |  |  |  |
| (includes capi  | llary fringe)        |            |                  |  |            | -         |  |                                 |  |  |  |  |
| Describe Reco   | orded Data (strea    | m gauge    | e, monitoring we | l, aerial p  | ohotos, pr | evious in | spections), if available:                      |                                 |  |  |  |  |
| Bomorke   |                      |            |                  |  |            |           |  |                                 |  |  |  |  |
| Remarks:  |                      |            |                  |  |            |           |  |                                 |  |  |  |  |
|   |                      |            |                  |  |            |           |  |                                 |  |  |  |  |
|   |                      |            |                  |  |            |           |  |                                 |  |  |  |  |
| ing Date:       10/24/2022         ng Point:       WB080B         Sec.16 T103N R30W         :       None         i:       WGS84         NA         emarks)         circumstances present?       No         explain any answers in remarks.)         d?       No         WB080 |
|---|
| Sec.16 T103N R30W   None N WGS84 NA Mamarks) circumstances present? No explain any answers in remarks.)  d? No WB080   Fest Worksheet ninant Species  |
|   |
| r: WGS84<br>NA<br>emarks)<br>circumstances present? No<br>explain any answers in remarks.)<br>d? No<br>WB080<br>Fest Worksheet  |
| NA marks) circumstances present? No explain any answers in remarks.) d? No WB080  Fest Worksheet ninant Species   |
| marks)<br>circumstances present? <u>No</u><br>explain any answers in remarks.)<br>d? <u>No</u><br>WB080<br>Test Worksheet   |
| circumstances present? No<br>explain any answers in remarks.)<br>d? No<br>WB080<br>Fest Worksheet<br>ninant Species   |
| explain any answers in remarks.) d? No WB080  Fest Worksheet ninant Species   |
| d? <u>No</u><br>WB080<br>Fest Worksheet   |
| WB080   |
| WB080   |
| WB080   |
| Test Worksheet  |
| Test Worksheet  |
| ninant Species  |
| ninant Species  |
| ninant Species  |
|   |
| FACW, or FAC: $0$ (A)   |
|   |
| of Dominant<br>s All Strata: 0 (B)  |
| ninant Species<br>FACW, or FAC: % (A/B)   |
| ( )   |
| ndex Worksheet  |
| er of: Multiply by:   |
| x 1 =   |
| es x 2 =  |
| x 3 =   |
| s x 4 =   |
| x 5 =   |
| s (A) (B)   |
| ndex = B/A =  |
| Manadadian Indiantana   |
| Vegetation Indicators:<br>est for hydrophytic vegetation  |
| ance test is >50%   |
| ence index is ≤3.0*   |
| logical adaptations* (provide   |
| ing data in Remarks or on a   |
| e sheet)  |
| natic hydrophytic vegetation*   |
| h)  |
|   |
| dric soil and wetland hydrology must be<br>listurbed or problematic   |
| Ir<br>te<br>a<br>le<br>rt   |

WB080B

| Profile Descr                        | iption: (Describe   | to the   | depth needed t      | o docum        | ent the i  | ndicator  | or confirm the absence        | of indicators.)                   |  |  |  |
|--------------------------------------|---|----------|---------------------|----------------|------------|-----------|-------------------------------|-----------------------------------|--|--|--|
| Depth                                | Matrix  |          | Re                  | dox Feat       | tures      |           |                               |                                   |  |  |  |
| (Inches)                             | Color (moist)   | %        | Color (moist)       | %              | Type*      | Loc**     | Texture                       | Remarks                           |  |  |  |
| 0-13                                 | 10YR 2/1  | 100      |                     | ,,,            |            |           | Clay                          |                                   |  |  |  |
|                                      |   |          |                     |                |            |           | -                             |                                   |  |  |  |
| 13-20                                | 10YR 4/1  | 100      |                     |                |            |           | Clay                          |                                   |  |  |  |
|                                      |   |          |                     |                |            |           |                               |                                   |  |  |  |
|                                      |   |          |                     |                |            |           |                               |                                   |  |  |  |
|                                      |   |          |                     |                |            |           |                               |                                   |  |  |  |
|                                      |   | -        |                     |                |            | -         |                               |                                   |  |  |  |
|                                      |   |          |                     |                |            |           |                               |                                   |  |  |  |
|                                      |   |          |                     |                |            |           |                               |                                   |  |  |  |
|                                      |   |          |                     |                |            |           |                               |                                   |  |  |  |
| *Type: C =                           | Concentration, D  | – Donic  | tion RM - Redu      | L<br>Lood Mate | riv MS –   | Masked 9  | Sand Grains **Location        | n: PL = Pore Lining, M = Matrix   |  |  |  |
| Hydric Soil                          |   | - Depie  |                     |                | 11, 1010 - | Maskeu    |                               | ematic Hydric Soils*:             |  |  |  |
| -                                    | stosol (A1)   |          | 50                  | ndy Glov       | ed Matrix  | (\$4)     |                               | dox (A16) (LRR K, L, R)           |  |  |  |
|                                      |   |          |                     |                |            | (34)      |                               |                                   |  |  |  |
|                                      | stic Epipedon (A2)  |          |                     | ndy Redo       |            |           | Dark Surface (S               | , , , ,                           |  |  |  |
|                                      | ack Histic (A3)   | 4)       |                     | • •            | atrix (S6) |           |                               | Masses (F12) (LRR K, L, R)        |  |  |  |
|                                      | drogen Sulfide (A   | ,        |                     | •              | ky Minera  | . ,       |                               | rk Surface (TF12)                 |  |  |  |
|                                      | atified Layers (A5  | )        |                     |                | ed Matrix  | (F2)      | Other (explain in             | remarks)                          |  |  |  |
| 2 cm Muck (A10) Depleted Matrix (F3) |   |          |                     |                |            |           |                               |                                   |  |  |  |
|                                      | Depleted Below Dark Surface (A11) Redox Dark Surface (F6) |          |                     |                |            |           |                               |                                   |  |  |  |
|                                      | ick Dark Surface (  | ,        |                     |                | ark Surfac |           | , j i                         | nytic vegetation and wetland      |  |  |  |
|                                      | ndy Mucky Minera  |          |                     | dox Depr       | ressions ( | F8)       |                               | esent, unless disturbed or        |  |  |  |
| 5 c                                  | 5 cm Mucky Peat or Peat (S3) problematic                  |          |                     |                |            |           |                               |                                   |  |  |  |
| Restrictive La                       | ayer (if observed   | ):       |                     |                |            |           |                               |                                   |  |  |  |
| Type:                                |   |          |                     |                |            |           | Hydric Soil Preser            | t? No                             |  |  |  |
| Depth (inches                        | s):   |          |                     |                | -          |           |                               |                                   |  |  |  |
| Describe                             |   |          |                     |                | -          |           |                               |                                   |  |  |  |
| Remarks:                             |   |          |                     |                |            |           |                               |                                   |  |  |  |
|                                      |   |          |                     |                |            |           |                               |                                   |  |  |  |
|                                      |   |          |                     |                |            |           |                               |                                   |  |  |  |
| HYDROLO                              | CV  |          |                     |                |            |           |                               |                                   |  |  |  |
|                                      |   |          |                     |                |            |           |                               |                                   |  |  |  |
| -                                    | rology Indicators   |          | a guira du aba alca | ll that an     | a ha h     |           | Cocordon India                | store (minimum of two required)   |  |  |  |
|                                      | ators (minimum of   | one is r | equired; check a    |                |            |           |                               | ators (minimum of two required)   |  |  |  |
|                                      | e Water (A1)  |          |                     | -              | Fauna (B   |           |                               | Surface Soil Cracks (B6)          |  |  |  |
| 0                                    | /ater Table (A2)  |          |                     | - '            | uatic Plai | ```       |                               | e Patterns (B10)                  |  |  |  |
|                                      | tion (A3)   |          |                     |                | en Sulfide |           | · ·                           | son Water Table (C2)              |  |  |  |
|                                      | Marks (B1)  |          |                     |                | d Rhizosp  | heres or  |                               | Burrows (C8)                      |  |  |  |
|                                      | ent Deposits (B2)   |          |                     | Roots (0       |            |           |                               | on Visible on Aerial Imagery (C9) |  |  |  |
|                                      | eposits (B3)  |          |                     | -              | e of Red   |           | · · ·                         | or Stressed Plants (D1)           |  |  |  |
|                                      | At or Crust (B4)  |          |                     |                | Iron Redu  | iction in |                               | phic Position (D2)                |  |  |  |
|                                      | eposits (B5)  |          |                     | (C6)           | al. Curfa  | (07)      | FAC-Ne                        | utral Test (D5)                   |  |  |  |
|                                      | tion Visible on Ae  |          |                     | -              | ick Surfac |           |                               |                                   |  |  |  |
| ·                                    | ly Vegetated Con  |          | Ifface (B8)         | -              | or Well Da |           | - )                           |                                   |  |  |  |
| vvater-                              | Stained Leaves (E   | 39)      |                     | Other (E       | Explain in | Remarks   | 5)                            |                                   |  |  |  |
| Field Observa                        |   |          |                     |                |            |           |                               |                                   |  |  |  |
| Surface Water                        |   | Yes      | No                  | <u> </u>       | Depth (i   |           | We                            | tland Hydrology                   |  |  |  |
| Water Table F                        |   | Yes      | No                  | X              | Depth (i   |           |                               | Present?                          |  |  |  |
| Saturation Pre                       |   | Yes      | No                  | Х              | Depth (i   | nches):   |                               | No                                |  |  |  |
| (includes capi                       |   |          | no on it - si       |                | hoter .    | evieve '  | on options) if an a link line |                                   |  |  |  |
| Describe Reco                        | orded Data (stream  | n gauge  | e, monitoring we    | n, aerial p    | photos, pr | evious in | spections), if available:     |                                   |  |  |  |
|                                      |   |          |                     |                |            |           |                               |                                   |  |  |  |
| Pomarka                              | Remarks:  |          |                     |                |            |           |                               |                                   |  |  |  |
| itemains.                            |   |          |                     |                |            |           |                               |                                   |  |  |  |
|                                      |   |          |                     |                |            |           |                               |                                   |  |  |  |







Source: Map adapted from Hybrid NAIP Server; Elevation by MN DNR; Project data by Lake Charlotte Solar, LLC; Tetra Tech Wetlands. Scale: 1:1,500

Wetland ID WB081

|   | WE            | TLAND DETI         | ERMINAT       | ION DAT       | FORM -        | Midwest        | Region  |                                      |
|---|---------------|--------------------|---------------|---------------|---------------|----------------|---|--------------------------------------|
| Project/Site:                             | Lake C        | Charlotte          | City          | /County:      | Martin        | n S            | Sampling Date:                                  | 10/24/2022                           |
| Applicant/Owner:                          |               | Lake Charlotte     | Solar, LLC    |               | State:        | MN S           | ampling Point:                                  | WB081A                               |
| Investigator(s):                          |               | Susan Mayer        |               | Secti         | on, Townshij  | p, Range:      | Sec.16  | 5 T103N R30W                         |
| Landform (hillslope, terr                 | ace, etc.):   | D                  | itch          | Local         | elief (concav | /e, convex, i  | none):  | Concave                              |
| Slope (%): 5                              | Lat:          | 43.7210            | 06            | Long:         | -94.447       | '54 E          | Datum:  | WGS84                                |
| Soil Map Unit Name:                       | Canisteo      | -Glencoe comple    | ex, 0 to 2 pe | rcent slopes  | NW            | I Classificati | ion:  | NA                                   |
| Are climatic/hydrologic                   | conditions of | the site typical f | for this time | of the year?  | Yes (         | lf no, explair | n in remarks)                                   |                                      |
| Are vegetation                            | , soil        | , or hydrolog      | ду            | Significantly | disturbed?    | Are "no        | ormal circumstance                              | ces present? Yes                     |
| Are vegetation                            | , soil        | , or hydrolog      | <u>ду</u>     | naturally pro | oblematic?    | (If need       | ded, explain any                                | answers in remarks.)                 |
| SUMMARY OF FI                             | NDINGS        |                    |               |               |               |                |   |                                      |
| Hydrophytic Veget                         | ation Preser  | nt? Yes            | <u>;</u>      |               |               |                |   |                                      |
| Hydric Soil Preser                        | it?           | Yes                | 5             | Is the sa     | ampled area   | a within a w   | etland?   | Yes                                  |
| Wetland Hydrolog                          | y Present?    | Yes                | 5             | lf yes, o     | ptional wetla | nd site ID:    | WB081   | l                                    |
| Remarks:                                  |               |                    |               |               |               |                |   |                                      |
|   |               |                    |               |               |               |                |   |                                      |
| VEGETATION U                              | se scienti    | fic names of       | plants.       |               |               |                |   |                                      |
|   |               |                    | Absolute      | Dominant      | Indicator     | Domina         | ince Test Works                                 | neet                                 |
| Tree Stratum                              | (Plot size:   | 30)                | % Cover       | Species       | Status        | Number         | of Dominant Speci                               | 00                                   |
| 1   |               |                    |               |               |               |                | OBL, FACW, or FA                                |                                      |
| 2   |               |                    |               |               |               | Total Nu       | mber of Dominant                                |                                      |
| 3   |               | -                  |               |               |               | Species        | Across All Strata:                              | (B)                                  |
| 4   |               |                    |               |               |               |                | of Dominant Specie                              |                                      |
| 5   |               |                    |               | =Total Cove   | ar .          | that are 0     | OBL, FACW, or FA                                | AC: <u>100%</u> (A/B)                |
| Sapling/Shrub Stratum                     | (Plot size    | : 15               | )             |               | 21            | Prevale        | ence Index Work                                 | sheet                                |
| 1.  |               |                    | /             |               |               |                | Cover of:                                       | Multiply by:                         |
| 2.  |               |                    |               |               |               | OBL sp         | ecies 0 >                                       | x 1 = 0                              |
| 3.  |               |                    |               |               |               | FACW s         | species 100                                     | x 2 = 200                            |
| 4   |               |                    |               |               |               | FAC sp         | ecies 0   | x 3 =0                               |
| 5   |               |                    |               |               |               | FACU s         | pecies 0  | x 4 =0                               |
|   |               |                    |               | =Total Cove   | er            | UPL spe        | ecies 0   | x 5 =                                |
| Herb Stratum                              | (Plot size    | : 5                | )             |               |               | Column         |   | (A) <u>200</u> (B)                   |
| 1. Spartina pectinata                     |               |                    | 70            | Y             | FACW          | Prevale        | nce Index = B/A =                               | =                                    |
| 2. Phalaris arundinad                     | cea           |                    | 30            | Y             | FACW          |                |   |                                      |
| 3   |               |                    |               |               |               |                | hytic Vegetation                                |                                      |
| 5   |               |                    |               |               |               |                | ominance test is :                              | ophytic vegetation                   |
| 6   |               |                    |               |               |               |                | revalence index is                              |                                      |
| 7   |               |                    |               |               |               | _              |   | otations* (provide                   |
| 8.  |               |                    |               |               |               | รเ             | upporting data in I                             | Remarks or on a                      |
| 9.  |               |                    |               |               |               | se             | eparate sheet)                                  |                                      |
| 10  |               |                    |               |               |               | Pi             | roblematic hydrop                               | hytic vegetation*                    |
|   |               |                    | 100           | =Total Cove   | er            | (e             | explain)  |                                      |
| Woody Vine Stratum 1.                     | (Plot size    | `                  | )             |               |               |                | s of hydric soil and w<br>nless disturbed or pi | vetland hydrology must be roblematic |
| 2   |               |                    |               | =Total Cove   | Pr            |                | ophytic<br>tation<br>ent? <u>Yes</u>            | 5                                    |
| Remarks: (Include phot<br>Bare ground: 0% | o numbers h   | ere or on a sepa   | arate sheet)  |               |               |                |   |                                      |

WB081A

|   | Matrix   |  | Ra                       | dox Feat  | ures   |   | or confirm th                                     |   |  |
|---|--|--|--------------------------|---|--|---|---|---|--|
| Depth<br>(Inches)   |  | %  |                          | %   | -  | Loc**   | Taut  | Iro   | Domortico  |
| (Incrico)   | Color (moist)  | %  | Color (moist)            | %   | Type*  | LOC   | Textu   | lre   | Remarks  |
|   |  |  |                          |   |  |   |   |   |  |
|   |  |  |                          |   |  |   |   |   |  |
|   |  |  |                          |   |  |   |   |   |  |
|   |  |  |                          |   |  |   |   |   |  |
|   |  |  |                          |   |  |   |   |   |  |
|   |  |  |                          |   |  |   |   |   |  |
|   |  |  |                          |   |  |   |   |   |  |
|   |  |  |                          |   |  |   |   |   |  |
|   |  |  |                          |   |  |   |   |   |  |
|   |  |  |                          |   |  |   |   |   |  |
| *Type: C =  | Concentration, D   | = Deple  | tion. RM = Redu          | ced Matr  | ix. MS =   | Masked S  | Sand Grains.                                      | **Locatio   | n: PL = Pore Lining, M = Matr  |
| Hydric Soil   |  | Dopie  |                          |   |  |   |   |   | matic Hydric Soils*:   |
| •   | stosol (A1)  |  | Sar                      | ndy Glevi   | ed Matrix  | (\$4)   |   |   | dox (A16) (LRR K, L, R)  |
|   | . ,  |  |                          |   |  | (04)  |   |   |  |
|   | stic Epipedon (A2)   |  |                          | ndy Redo  |  |   |   |   | () (LRR K, L)  |
|   | ack Histic (A3)  |  |                          |   | trix (S6)  |   |   | 0   | Masses (F12) (LRR K, L, R)   |
|   | drogen Sulfide (A  |  |                          | •   | ky Minera  | . ,   |   |   | rk Surface (TF12)  |
|   | ratified Layers (A5  | )  |                          |   | ed Matrix  | : (F2)  | X Other   | (explain in   | remarks)   |
| 2 0   | cm Muck (A10)  |  | De                       | pleted Ma   | atrix (F3)   |   |   |   |  |
| De  | pleted Below Dark  | < Surfac   | e (A11) Red              | dox Dark  | Surface  | (F6)  |   |   |  |
| Th  | ick Dark Surface (   | A12)   | De                       | pleted Da   | ark Surfac   | ce (F7)   | *Indicators                                       | s of hydroph  | ytic vegetation and wetland  |
| Sa  | indy Mucky Minera  | al (S1)  | Ree                      | dox Depr  | essions (  | F8)   |   |   | esent, unless disturbed or   |
|   | cm Mucky Peat or   |  |                          |   | (  | ,   | problemat   |   |  |
|   | -  |  | .,                       |   |  | 1   |   |   |  |
|   | ayer (if observed  | ):   |                          |   |  |   |   |   |  |
| уре:  |  |  |                          |   |  |   |   | Soil Procon   | t? Yes   |
|   |  |  |                          |   | -  |   | Hyunc a   | Soil Presen   |  |
|   | s):<br>  |  |                          |   |  |   |   |   |  |
| Remarks:<br>Potential unde  | erground utility cor   | nflict. Hy                                       | /dric soils assum        | ed.   |  |   |   |   |  |
| Remarks:<br>Potential unde  | erground utility cor   | nflict. Hy                                       | dric soils assum         | ed.   |  |   |   | Join Tresen   |  |
| Remarks:<br>Potential unde  | erground utility cor   | -  | /dric soils assum        | ed.   |  |   |   |   |  |
| Remarks:<br>Potential under<br>HYDROLO<br>Vetland Hyd   | erground utility cor   |  |                          |   |  |   |   |   | tors (minimum of two required  |
| Remarks:<br>Potential under<br>HYDROLO<br>Vetland Hyd<br>Primary Indica   | erground utility cor<br>GY<br>Irology Indicators   |  |                          | ll that ap  | <u>ply)</u><br>Fauna (B  | .13)  |   | ndary Indica  |  |
| temarks:<br>Totential under<br>IYDROLO<br>Vetland Hyd<br>Vetland Hyd<br>Surfac  | erground utility cor<br>GY<br>Irology Indicators   |  |                          | <u>ll that ap</u><br>Aquatic  | Fauna (B   | ,   |   | ndary Indica  | tors (minimum of two required<br>Soil Cracks (B6)  |
| temarks:<br>Potential under<br>IYDROLO<br>Vetland Hyd<br>Primary Indica<br>Surface<br>High W  | erground utility cor<br>GY<br>Irology Indicators<br>ators (minimum of<br>e Water (A1)<br>Vater Table (A2)  |  |                          | <u>ll that ap</u><br>Aquatic<br>True Aq   | Fauna (B<br>uatic Plar   | nts (B14)   | Secor   | ndary Indica<br>Surface \$<br>Drainage  | tors (minimum of two required<br>Soil Cracks (B6)<br>Patterns (B10)  |
| Remarks:<br>Potential under<br>IYDROLO<br>Vetland Hyd<br>Primary Indica<br>Surface<br>High W<br>Satura  | erground utility cor<br>GY<br>Irology Indicators<br>ators (minimum of<br>e Water (A1)  |  |                          | <u>ll that ap</u><br>Aquatic<br>True Aq<br>Hydroge  | Fauna (B<br>uatic Plar<br>en Sulfide   | nts (B14)<br>Odor (C  | <u>Secor</u><br>                                  | ndary Indica<br>Surface s<br>Drainage<br>Dry-Seas   | tors (minimum of two required<br>Soil Cracks (B6)<br>Patterns (B10)<br>son Water Table (C2)  |
| Remarks:<br>Potential under<br>IYDROLO<br>Vetland Hyd<br>Primary Indica<br>Surface<br>High W<br>Satura<br>Water   | erground utility cor<br><b>GY</b><br>rology Indicators<br>ators (minimum of<br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)   |  |                          | <u>II that ap</u><br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized  | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp  | nts (B14)<br>Odor (C  | <u>Secor</u><br>                                  | ndary Indica<br>Surface s<br>Drainage<br>Dry-Seas<br>Crayfish   | tors (minimum of two required<br>Soil Cracks (B6)<br>Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)  |
| Remarks:<br>Potential under<br>IYDROLO<br>Vetland Hyd<br>Vetland Hyd<br>Satura<br>High W<br>Satura<br>Water<br>Sedimo   | erground utility cor<br><b>GY</b><br>rology Indicators<br>ators (minimum of<br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)  |  |                          | <u>II that ap</u><br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (0  | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)   | nts (B14)<br>Odor (C<br>oheres on   | <u>Secor</u><br><br>1)<br>Living                  | ndary Indica<br>Surface s<br>Drainage<br>Dry-Seas<br>Crayfish<br>Saturatio  | tors (minimum of two required<br>Soil Cracks (B6)<br>Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>n Visible on Aerial Imagery (C  |
| Remarks:<br>Potential under<br>IYDROLO<br>Vetland Hyd<br>Yrimary Indica<br>Surface<br>High W<br>Satura<br>Water<br>Sedime<br>Drift De   | erground utility cor<br><b>GY</b><br>rology Indicators<br>ators (minimum of<br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)  |  |                          | II that ap<br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc  | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)<br>ce of Redu   | nts (B14)<br>Odor (C<br>wheres on   | <u>Secor</u><br><br>1)<br>LLiving<br>(C4)         | ndary Indica<br>Surface S<br>Drainage<br>Dry-Seas<br>Crayfish<br>Saturatio<br>Stunted o                                 | tors (minimum of two required<br>Soil Cracks (B6)<br>Patterns (B10)<br>Son Water Table (C2)<br>Burrows (C8)<br>In Visible on Aerial Imagery (C<br>or Stressed Plants (D1)  |
| Remarks:<br>Potential under<br>HYDROLO<br>Vetland Hyd<br>Primary Indica<br>Surface<br>High W<br>Satura<br>Satura<br>Satura<br>Drift D<br>Algal M  | erground utility cor<br><b>GY</b><br>rology Indicators<br>ators (minimum of<br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Mat or Crust (B4)   |  |                          | II that ap<br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc<br>Recent  | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)<br>ce of Redu   | nts (B14)<br>Odor (C<br>wheres on   | Secor   | ndary Indica<br>Surface S<br>Drainage<br>Dry-Seas<br>Crayfish<br>Saturatio<br>Stunted o<br>X Geomorp                    | tors (minimum of two required<br>Soil Cracks (B6)<br>Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>In Visible on Aerial Imagery (C<br>or Stressed Plants (D1)<br>Shic Position (D2)                    |
| Remarks:<br>Potential under<br>HYDROLO<br>Vetland Hyd<br>Primary Indica<br>Surface<br>High W<br>Satura<br>Satura<br>Water<br>Sedime<br>Algal M<br>Iron De   | erground utility cor<br><b>GY</b><br>rology Indicators<br>ators (minimum of<br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Mat or Crust (B4)<br>eposits (B5)   | :<br>one is r                                    | equired; check a<br><br> | II that ap<br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc<br>Recent I<br>(C6)  | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>d Rhizosp<br>(C3)<br>ee of Redu<br>Iron Redu  | nts (B14)<br>Odor (C<br>oheres on<br>uced Iron<br>uction in T   | Secor   | ndary Indica<br>Surface S<br>Drainage<br>Dry-Seas<br>Crayfish<br>Saturatio<br>Stunted o<br>X Geomorp                    | tors (minimum of two required<br>Soil Cracks (B6)<br>Patterns (B10)<br>Son Water Table (C2)<br>Burrows (C8)<br>In Visible on Aerial Imagery (C<br>or Stressed Plants (D1)  |
| Remarks:<br>Potential under<br>Potential under<br>Vetland Hyd<br>Primary Indica<br>Surface<br>Uniface<br>Satura<br>Satura<br>Vater<br>Sedime<br>Algal M<br>Iron De<br>Inunda  | erground utility cor<br><b>GY</b><br><b>Irology Indicators</b><br><u>ators (minimum of</u><br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Mat or Crust (B4)<br>eposits (B5)<br>tion Visible on Ae  | :<br>one is r                                    | equired; check a         | II that ap<br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc<br>Recent I<br>(C6)<br>Thin Mu                             | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)<br>ee of Redu<br>Iron Redu<br>ck Surfac   | nts (B14)<br>Odor (C<br>wheres on<br>uced Iron<br>uction in T<br>ce (C7)  | Secor   | ndary Indica<br>Surface S<br>Drainage<br>Dry-Seas<br>Crayfish<br>Saturatio<br>Stunted o<br>X Geomorp                    | tors (minimum of two required<br>Soil Cracks (B6)<br>Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>In Visible on Aerial Imagery (C<br>or Stressed Plants (D1)<br>Shic Position (D2)                    |
| Remarks:<br>Potential under<br>Vetland Hyd<br>Primary Indica<br>Surface<br>High W<br>Satura<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Inunda<br>Sparse   | erground utility cor<br><b>GY</b><br><b>rology Indicators</b><br><u>ators (minimum of</u><br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Mat or Crust (B4)<br>eposits (B5)<br>tion Visible on Ael<br>ely Vegetated Con-  | i:<br>one is r<br>rial Imag<br>cave Su           | equired; check a         | II that ap<br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc<br>Recent I<br>(C6)<br>Thin Mu<br>Gauge C                  | Fauna (B<br>uatic Plar<br>on Sulfide<br>d Rhizosp<br>23)<br>ce of Redu<br>Iron Redu<br>ck Surfac<br>or Well Da   | nts (B14)<br>Odor (C<br>oheres on<br>uced Iron<br>uction in T<br>ce (C7)<br>ata (D9)                                  | Secor<br>1)<br>Living<br>(C4)<br>Filled Soils<br> | ndary Indica<br>Surface S<br>Drainage<br>Dry-Seas<br>Crayfish<br>Saturatio<br>Stunted o<br>X Geomorp                    | tors (minimum of two required<br>Soil Cracks (B6)<br>Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>In Visible on Aerial Imagery (C<br>or Stressed Plants (D1)<br>Shic Position (D2)                    |
| Remarks:<br>Potential under<br>HYDROLO<br>Vetland Hyd<br>Primary Indica<br>Surface<br>High W<br>Satura<br>Water<br>Sedime<br>Algal M<br>Iron De<br>Inunda<br>Sparse<br>Water-   | erground utility cor<br><b>GY</b><br><b>Irology Indicators</b><br><u>ators (minimum of</u><br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Mat or Crust (B4)<br>eposits (B5)<br>tion Visible on Aer<br>ely Vegetated Con-<br>Stained Leaves (E  | i:<br>one is r<br>rial Imag<br>cave Su           | equired; check a         | II that ap<br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc<br>Recent I<br>(C6)<br>Thin Mu<br>Gauge C                  | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>C3)<br>ee of Redu<br>Iron Redu<br>ck Surfac   | nts (B14)<br>Odor (C<br>oheres on<br>uced Iron<br>uction in T<br>ce (C7)<br>ata (D9)                                  | Secor<br>1)<br>Living<br>(C4)<br>Filled Soils<br> | ndary Indica<br>Surface S<br>Drainage<br>Dry-Seas<br>Crayfish<br>Saturatio<br>Stunted o<br>X Geomorp                    | tors (minimum of two required<br>Soil Cracks (B6)<br>Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>In Visible on Aerial Imagery (C<br>or Stressed Plants (D1)<br>Shic Position (D2)                    |
| Remarks:<br>Potential under<br>HYDROLO<br>Vetland Hyd<br>Primary Indica<br>Surfac<br>High W<br>Satura<br>Water<br>Sedime<br>Orift De<br>Algal M<br>Iron De<br>Inunda<br>Sparse<br>Water-  | erground utility cor<br><b>GY</b><br>rology Indicators<br>ators (minimum of<br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Mat or Crust (B4)<br>eposits (B5)<br>tion Visible on Aer<br>ely Vegetated Con-<br>Stained Leaves (E<br>vations:   | rial Imag<br>cave Su<br>39)                      | equired; check a         | II that ap<br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc<br>Recent I<br>(C6)<br>Thin Mu<br>Gauge C<br>Other (E      | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>23)<br>ee of Redu<br>Iron Redu<br>ck Surfac<br>or Well Da   | nts (B14)<br>Odor (C<br>oheres on<br>uced Iron<br>uction in T<br>ce (C7)<br>ata (D9)<br>Remarks                       | Secor<br>1)<br>Living<br>(C4)<br>Filled Soils<br> | ndary Indica<br>Surface S<br>Drainage<br>Dry-Seas<br>Crayfish<br>Saturatio<br>Stunted o<br>X Geomorp                    | tors (minimum of two required<br>Soil Cracks (B6)<br>Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>In Visible on Aerial Imagery (C<br>or Stressed Plants (D1)<br>Shic Position (D2)                    |
| Remarks:<br>Potential under<br>Potential under<br>Vetland Hyd<br>Primary Indica<br>Surface<br>High W<br>Satura<br>Vater<br>Sedime<br>Algal M<br>Iron De<br>Inunda<br>Sparse<br>Water-<br>Surface Wate   | erground utility cor<br><b>GY</b><br><b>Irology Indicators</b><br><u>ators (minimum of</u><br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Mat or Crust (B4)<br>eposits (B5)<br>tion Visible on Aer<br>ely Vegetated Com-<br>Stained Leaves (E<br><b>ations:</b><br>r Present?  | rial Imag<br>cave Su<br>39)                      | equired; check a         | II that ap<br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc<br>Recent I<br>(C6)<br>Thin Mu<br>Gauge C                  | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>23)<br>ee of Redu<br>iron Redu<br>ck Surfac<br>or Well Da<br>explain in                           | nts (B14)<br>Odor (C<br>oheres on<br>ucced Iron<br>uction in T<br>ee (C7)<br>ata (D9)<br>Remarks                      | Secor<br>1)<br>Living<br>(C4)<br>Filled Soils<br> | ndary Indica<br>Surface S<br>Drainage<br>Dry-Seas<br>Crayfish<br>Saturatio<br>Stunted o<br>X<br>Geomorp<br>X<br>FAC-Neu | tors (minimum of two required<br>Soil Cracks (B6)<br>Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>In Visible on Aerial Imagery (C<br>or Stressed Plants (D1)<br>ohic Position (D2)<br>utral Test (D5) |
| Remarks:<br>Potential under<br>Vetland Hyd<br>Primary Indica<br>Surface<br>High W<br>Satura<br>Water<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Inunda<br>Sparse<br>Water-<br>Surface Wate<br>Vater Table F   | erground utility cor<br><b>GY</b><br><b>rology Indicators</b><br><u>ators (minimum of</u><br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Mat or Crust (B4)<br>eposits (B5)<br>tion Visible on Aele<br>ely Vegetated Con-<br>Stained Leaves (E<br><b>rations:</b><br>Present?   | rial Imag<br>cave Su<br>39)<br>Yes<br>Yes        | equired; check a         | II that ap<br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc<br>Recent I<br>(C6)<br>Thin Mu<br>Gauge C<br>Other (E      | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>23)<br>ce of Redu<br>Iron Redu<br>ck Surfac<br>or Well Da<br>Explain in<br>Depth (in<br>Depth (in | nts (B14)<br>Odor (C<br>oheres on<br>ucced Iron<br>uction in 1<br>ce (C7)<br>ata (D9)<br>Remarks<br>nches):           | Secor<br>1)<br>Living<br>(C4)<br>Filled Soils<br> | ndary Indica<br>Surface S<br>Drainage<br>Dry-Seas<br>Crayfish<br>Saturatio<br>Stunted o<br>X<br>Geomorp<br>X<br>FAC-Neu | tors (minimum of two required<br>Soil Cracks (B6)<br>Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>In Visible on Aerial Imagery (C<br>or Stressed Plants (D1)<br>ohic Position (D2)<br>utral Test (D5) |
| Remarks:<br>Potential under<br>Vetland Hyd<br>Primary Indica<br>Surface<br>High W<br>Satura<br>Water<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Inunda<br>Sparse<br>Water-<br>Surface Wate<br>Vater Table F<br>Saturation Pre   | erground utility cor<br><b>GY</b><br><b>rology Indicators</b><br><u>ators (minimum of</u><br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Mat or Crust (B4)<br>eposits (B5)<br>tion Visible on Aer<br>ely Vegetated Con-<br>Stained Leaves (E<br><b>rations:</b><br>or Present?<br>Present?                           | rial Imag<br>cave Su<br>39)                      | equired; check a         | II that ap<br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc<br>Recent I<br>(C6)<br>Thin Mu<br>Gauge C<br>Other (E      | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>23)<br>ee of Redu<br>iron Redu<br>ck Surfac<br>or Well Da<br>explain in                           | nts (B14)<br>Odor (C<br>oheres on<br>ucced Iron<br>uction in 1<br>ce (C7)<br>ata (D9)<br>Remarks<br>nches):           | Secor<br>1)<br>Living<br>(C4)<br>Filled Soils<br> | ndary Indica<br>Surface S<br>Drainage<br>Dry-Seas<br>Crayfish<br>Saturatio<br>Stunted o<br>X<br>Geomorp<br>X<br>FAC-Neu | tors (minimum of two required<br>Soil Cracks (B6)<br>Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>In Visible on Aerial Imagery (C<br>or Stressed Plants (D1)<br>ohic Position (D2)<br>utral Test (D5) |
| HYDROLO         Vetland Hyd         Primary Indica         Surface         High W         Satura         Water         Sedimo         Drift Do         Algal M         Iron De         Inunda         Sparse         Water         Surface Water         Surface Wate         Vater Table F         Saturation Pre- | erground utility cor<br><b>GY</b><br><b>Irology Indicators</b><br><u>ators (minimum of</u><br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Mat or Crust (B4)<br>eposits (B5)<br>tion Visible on Ael<br>ely Vegetated Con-<br>Stained Leaves (E<br><b>rations:</b><br>r Present?<br>esent?<br>esent?<br>illary fringe) | rial Imag<br>cave Su<br>39)<br>Yes<br>Yes<br>Yes | equired; check a         | II that ap<br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc<br>Recent I<br>(C6)<br>Thin Mu<br>Gauge C<br>Other (E<br>X | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>23)<br>ee of Redu<br>iron Redu<br>ck Surfac<br>or Well Da<br>explain in<br>Depth (in<br>Depth (in | nts (B14)<br>Odor (C<br>oheres on<br>uced Iron<br>uction in 1<br>ce (C7)<br>ata (D9)<br>Remarks<br>nches):<br>nches): | Secor<br>   | adary Indica<br>Surface S<br>Drainage<br>Dry-Seas<br>Crayfish<br>Saturatio<br>Stunted o<br>X Geomorp<br>X FAC-Neu       | tors (minimum of two required<br>Soil Cracks (B6)<br>Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>In Visible on Aerial Imagery (C<br>or Stressed Plants (D1)<br>ohic Position (D2)<br>utral Test (D5) |
| Remarks:<br>Potential under<br>Potential under<br>Vetland Hyd<br>Primary Indica<br>Surface<br>High W<br>Satura<br>Water<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Inunda<br>Sparse<br>Water-<br>Field Observ<br>Surface Wate<br>Vater Table F<br>Saturation Pre<br>includes capi                               | erground utility cor<br><b>GY</b><br><b>rology Indicators</b><br><u>ators (minimum of</u><br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Mat or Crust (B4)<br>eposits (B5)<br>tion Visible on Aer<br>ely Vegetated Con-<br>Stained Leaves (E<br><b>rations:</b><br>or Present?<br>Present?                           | rial Imag<br>cave Su<br>39)<br>Yes<br>Yes<br>Yes | equired; check a         | II that ap<br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc<br>Recent I<br>(C6)<br>Thin Mu<br>Gauge C<br>Other (E<br>X | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>23)<br>ee of Redu<br>iron Redu<br>ck Surfac<br>or Well Da<br>explain in<br>Depth (in<br>Depth (in | nts (B14)<br>Odor (C<br>oheres on<br>uced Iron<br>uction in 1<br>ce (C7)<br>ata (D9)<br>Remarks<br>nches):<br>nches): | Secor<br>   | adary Indica<br>Surface S<br>Drainage<br>Dry-Seas<br>Crayfish<br>Saturatio<br>Stunted o<br>X Geomorp<br>X FAC-Neu       | tors (minimum of two required<br>Soil Cracks (B6)<br>Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>In Visible on Aerial Imagery (C<br>or Stressed Plants (D1)<br>ohic Position (D2)<br>utral Test (D5) |
| Remarks:<br>Potential under<br>Vetland Hyd<br>Primary Indica<br>Surface<br>High W<br>Satura<br>Water<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Inunda<br>Sparse<br>Water-<br>Sield Observ<br>Surface Wate<br>Vater Table F<br>Saturation Pre<br>ncludes capi   | erground utility cor<br><b>GY</b><br><b>Irology Indicators</b><br><u>ators (minimum of</u><br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Mat or Crust (B4)<br>eposits (B5)<br>tion Visible on Ael<br>ely Vegetated Con-<br>Stained Leaves (E<br><b>rations:</b><br>r Present?<br>esent?<br>esent?<br>illary fringe) | rial Imag<br>cave Su<br>39)<br>Yes<br>Yes<br>Yes | equired; check a         | II that ap<br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc<br>Recent I<br>(C6)<br>Thin Mu<br>Gauge C<br>Other (E<br>X | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>23)<br>ee of Redu<br>iron Redu<br>ck Surfac<br>or Well Da<br>explain in<br>Depth (in<br>Depth (in | nts (B14)<br>Odor (C<br>oheres on<br>uced Iron<br>uction in 1<br>ce (C7)<br>ata (D9)<br>Remarks<br>nches):<br>nches): | Secor<br>   | adary Indica<br>Surface S<br>Drainage<br>Dry-Seas<br>Crayfish<br>Saturatio<br>Stunted o<br>X Geomorp<br>X FAC-Neu       | tors (minimum of two required<br>Soil Cracks (B6)<br>Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>In Visible on Aerial Imagery (C<br>or Stressed Plants (D1)<br>ohic Position (D2)<br>utral Test (D5) |
| Remarks:<br>Potential under<br>Potential under<br>Vetland Hyd<br>Primary Indica<br>Surface<br>High W<br>Satura<br>Water<br>Sedime<br>Drift De<br>Algal M<br>Iron De<br>Inunda<br>Sparse<br>Water-<br>Field Observ<br>Surface Wate<br>Vater Table F<br>Saturation Pre<br>includes capi                               | erground utility cor<br><b>GY</b><br><b>Irology Indicators</b><br><u>ators (minimum of</u><br>e Water (A1)<br>Vater Table (A2)<br>tion (A3)<br>Marks (B1)<br>ent Deposits (B2)<br>eposits (B3)<br>Mat or Crust (B4)<br>eposits (B5)<br>tion Visible on Ael<br>ely Vegetated Con-<br>Stained Leaves (E<br><b>rations:</b><br>r Present?<br>esent?<br>esent?<br>illary fringe) | rial Imag<br>cave Su<br>39)<br>Yes<br>Yes<br>Yes | equired; check a         | II that ap<br>Aquatic<br>True Aq<br>Hydroge<br>Oxidized<br>Roots (C<br>Presenc<br>Recent I<br>(C6)<br>Thin Mu<br>Gauge C<br>Other (E<br>X | Fauna (B<br>uatic Plar<br>en Sulfide<br>d Rhizosp<br>23)<br>ee of Redu<br>iron Redu<br>ck Surfac<br>or Well Da<br>explain in<br>Depth (in<br>Depth (in | nts (B14)<br>Odor (C<br>oheres on<br>uced Iron<br>uction in 1<br>ce (C7)<br>ata (D9)<br>Remarks<br>nches):<br>nches): | Secor<br>   | adary Indica<br>Surface S<br>Drainage<br>Dry-Seas<br>Crayfish<br>Saturatio<br>Stunted o<br>X Geomorp<br>X FAC-Neu       | tors (minimum of two required<br>Soil Cracks (B6)<br>Patterns (B10)<br>son Water Table (C2)<br>Burrows (C8)<br>In Visible on Aerial Imagery (Cor<br>Stressed Plants (D1)<br>ohic Position (D2)<br>utral Test (D5)  |

|                             | WE             | <b>FLAND DETER</b>   | RMINAT        | ION DATA            | FORM -              | Midwes       | t Regior                        | 1          |                                  |
|-----------------------------|----------------|----------------------|---------------|---------------------|---------------------|--------------|---------------------------------|------------|----------------------------------|
| Project/Site:               | Lake C         | Charlotte            | City          | County:             | Martir              | า            | Sampling                        | Date:      | 10/24/2022                       |
| Applicant/Owner:            |                | Lake Charlotte S     | Solar, LLC    |                     | State:              | MN           | Sampling I                      | Point:     | WB081B                           |
| Investigator(s):            |                | Susan Mayer          |               | Sectio              | on, Townshi         | o, Range:    |                                 | Sec.16 T   | 103N R30W                        |
| Landform (hillslope, terra  | ace, etc.):    | Plai                 | in            | Local r             | elief (concav       | /e, convex   | , none):                        |            | None                             |
| Slope (%): 1                | Lat:           | 43.72106             |               | Long:               | -94.447             | 43           | Datum:                          |            | WGS84                            |
| Soil Map Unit Name:         | Canisteo-      | Glencoe complex      | , 0 to 2 per  | cent slopes         | NW                  | I Classifica | ation:                          |            | NA                               |
| Are climatic/hydrologic c   | onditions of   | the site typical for | r this time o | of the year?        | Yes (               | lf no, expla | ain in rema                     | rks)       |                                  |
| Are vegetation X            | , soil         | , or hydrology       |               | Significantly       | disturbed?          | Are "        | normal circ                     | umstances  | present? No                      |
| Are vegetation              | , soil         | , or hydrology       |               | naturally pro       | blematic?           | (If ne       | eded, expl                      | ain any ai | nswers in remarks.)              |
| SUMMARY OF FIN              | DINGS          | _                    |               |                     |                     |              |                                 |            |                                  |
| Hydrophytic Vegeta          | ation Presen   | nt? No               |               |                     |                     |              |                                 |            |                                  |
| Hydric Soil Present         | ?              | No                   |               | Is the sa           | mpled area          | within a     | wetland?                        |            | No                               |
| Wetland Hydrology           | Present?       | No                   |               | lf yes, op          | tional wetla        | nd site ID:  |                                 | WB081      |                                  |
| Remarks:                    |                |                      |               |                     |                     |              |                                 |            |                                  |
| Recently tilled agricult    |                | -                    | -             | ral field.          |                     |              |                                 |            |                                  |
| VEGETATION U                | se scienti     | ic names of pi       |               | Dominant            | Indiantar           | Demir        | anas Tasi                       | Warksha    | <b>a</b> 4                       |
| Tree Stratum (              | Plot size:     | 30)                  |               | Dominant<br>Species | Indicator<br>Status | Domir        | nance Test                      | worksne    | et                               |
| 1.                          | FIOL SIZE.     | )                    | 70 COver      | Species             | Status              |              | er of Domina                    |            | 0 (A)                            |
| 2                           |                |                      |               |                     |                     |              | e OBL, FAC                      |            | (//)                             |
| 3.                          |                |                      |               |                     |                     |              | lumber of D<br>s Across All     |            | (B)                              |
|                             |                |                      |               |                     |                     |              | t of Domina                     |            | 0/ (A/D)                         |
| 5                           |                |                      |               | =Total Cove         | r                   | that are     | e OBL, FAC                      | W, or FAC: | <u>%</u> (A/B)                   |
| Sapling/Shrub Stratum       | (Plot size     | : 15 )               |               |                     |                     | Preva        | lence Inde                      | x Worksh   | eet                              |
| 1.                          | (              | /                    |               |                     |                     |              | % Cover of                      |            | Multiply by:                     |
| 2.                          |                |                      |               |                     |                     | OBL s        | pecies                          |            | =                                |
| 3.                          |                |                      |               |                     |                     | FACW         | / species                       | x 2        |                                  |
| 4.                          |                |                      |               |                     |                     | FAC s        | pecies                          | x 3        | =                                |
| 5                           |                |                      |               |                     |                     | FACU         | species                         | x 4        | =                                |
|                             |                |                      |               | =Total Cove         | r                   | UPL s        | pecies                          | x 5        | =                                |
| Herb Stratum                | (Plot size     | : 5)                 |               |                     |                     |              | nn totals                       | (A         | .)(B)                            |
| 1                           |                |                      |               |                     |                     | Preva        | lence Index                     | x = B/A =  |                                  |
| 2.                          |                |                      |               |                     |                     |              |                                 |            |                                  |
|                             |                |                      |               |                     |                     | -            | ophytic Ve                      | -          |                                  |
| 4<br>5.                     |                |                      |               |                     |                     | _            | Dominance                       |            | nytic vegetation                 |
| 6.                          |                |                      |               |                     |                     |              | Prevalence                      |            |                                  |
| 7                           |                |                      |               |                     |                     |              |                                 |            | tions* (provide                  |
| 8.                          |                |                      |               |                     |                     |              |                                 |            | marks or on a                    |
| 9.                          |                |                      |               |                     |                     |              | separate sl                     | neet)      |                                  |
| 10.                         |                |                      |               |                     |                     |              | Problemati                      | c hydrophy | tic vegetation*                  |
|                             |                |                      |               | =Total Cove         | r                   |              | (explain)                       |            |                                  |
| Woody Vine Stratum          | (Plot size     | : )                  |               |                     |                     |              | ors of hydric s<br>unless distu |            | and hydrology must be<br>lematic |
| 2                           |                |                      |               | =Total Cove         | r                   |              | Irophytic<br>Jetation           |            |                                  |
|                             |                |                      |               |                     |                     |              | sent?                           | No         |                                  |
| Remarks: (Include photo     | numbers h      | ere or on a separa   | ate sheet)    |                     |                     |              |                                 |            |                                  |
| Recently tilled agricultura | al field. Bare | ground: 100%         |               |                     |                     |              |                                 |            |                                  |

WB081B

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |                                 |           |                   |             |             |            |                           |   |  |  |  |
|---|---------------------------------|-----------|-------------------|-------------|-------------|------------|---------------------------|---|--|--|--|
| Depth <u>Matrix</u>   |                                 |           | Re                | dox Feat    | tures       |            |                           |   |  |  |  |
| (Inches)  | Color (moist)                   | %         | Color (moist)     | %           | Type*       | Loc**      | Texture                   | Remarks   |  |  |  |
| 0-12  | 10YR 2/1                        | 100       |                   |             |             |            | Clay                      |   |  |  |  |
| 12-18   | 10YR 2/1                        | 70        | 2.5Y 4/1          | 20          | D           | м          | Clay                      |   |  |  |  |
|   |                                 |           | 2.5Y 6/2          | 10          | D           | M          |                           |   |  |  |  |
|   |                                 |           |                   |             |             |            |                           |   |  |  |  |
| 18-28   | 5Y 5/3                          | 90        | 7.5YR 6/8         | 5           | С           | PL         | Clay                      | Distinct or Prominent                             |  |  |  |
|   |                                 |           | 2.5Y 6/8          | 5           | С           | PL         |                           | Distinct or Prominent                             |  |  |  |
|   |                                 |           |                   |             |             |            |                           |   |  |  |  |
|   |                                 |           |                   |             |             |            |                           |   |  |  |  |
|   |                                 |           |                   |             |             |            |                           |   |  |  |  |
| *Type: C =  | Concentration, D                | – Donie   | tion RM - Redu    | ced Mat     | riv MS –    | Masked 9   | Sand Grains **Location    | Don: PL = Pore Lining, M = Matrix                 |  |  |  |
| Hydric Soil   |                                 | - Depie   |                   |             | iix, ivio = | Maskeu     |                           | ematic Hydric Soils*:                             |  |  |  |
| Histosol (A1) Sandy Gleyed Matrix (S4) Coast Prairie Redox (A16) (LRR K, L, R)                                      |                                 |           |                   |             |             |            |                           |   |  |  |  |
|   | stic Epipedon (A2)              |           |                   | ndy Redo    |             |            | Dark Surface (S7          |   |  |  |  |
|   | ack Histic (A3)                 |           |                   | -           | atrix (S6)  |            |                           | Masses (F12) (LRR K, L, R)                        |  |  |  |
|   | drogen Sulfide (A               | 4)        |                   | •••         | ky Minera   | al (F1)    |                           | rk Surface (TF12)                                 |  |  |  |
|   | atified Layers (A5              |           |                   | •           | ed Matrix   | . ,        | Other (explain in         | , ,   |  |  |  |
|   | m Muck (A10)                    | ,         |                   |             | atrix (F3)  | ( )        | 、 .                       |   |  |  |  |
| Depleted Below Dark Surface (A11) Redox Dark Surface (F6)   |                                 |           |                   |             |             |            |                           |   |  |  |  |
| Th  | ick Dark Surface (              | (A12)     | De                | pleted Da   | ark Surfac  | ce (F7)    | *Indicators of hydroph    | nytic vegetation and wetland                      |  |  |  |
| Sa  | ndy Mucky Minera                | al (S1)   | Re                | dox Depi    | ressions (  | F8)        |                           | esent, unless disturbed or                        |  |  |  |
| 5 c   | 5 cm Mucky Peat or Peat (S3)    |           |                   |             |             |            |                           |   |  |  |  |
| Restrictive L   | ayer (if observed               | D:        |                   |             |             |            |                           |   |  |  |  |
| Type:   |                                 |           |                   |             |             |            |                           |   |  |  |  |
| Depth (inches   | ):                              |           |                   |             | -           |            |                           |   |  |  |  |
|   |                                 |           |                   |             |             |            |                           |   |  |  |  |
| HYDROLO   |                                 |           |                   |             |             |            |                           |   |  |  |  |
| 2   | rology Indicators               |           |                   |             |             |            |                           |   |  |  |  |
|   | ators (minimum of               | one is r  | equired; check a  |             |             |            |                           | ators (minimum of two required)                   |  |  |  |
|   | e Water (A1)                    |           |                   |             | Fauna (B    | ,          | Surface Soil Cracks (B6)  |   |  |  |  |
|   | /ater Table (A2)                |           |                   |             | uatic Plar  |            |                           |   |  |  |  |
|   | tion (A3)                       |           | ·                 |             | en Sulfide  |            |                           |   |  |  |  |
|   | Marks (B1)<br>ent Deposits (B2) |           |                   | Roots (     | d Rhizosp   | neres on   |                           | Burrows (C8)<br>on Visible on Aerial Imagery (C9) |  |  |  |
|   | eposits (B3)                    |           |                   |             | ce of Red   | uced Iron  |                           | or Stressed Plants (D1)                           |  |  |  |
|   | fat or Crust (B4)               |           |                   |             |             |            | · · ·                     | phic Position (D2)                                |  |  |  |
|   | eposits (B5)                    |           |                   | (C6)        |             |            | '                         | utral Test (D5)                                   |  |  |  |
| Inunda  | tion Visible on Ae              | rial Imag | gery (B7)         | Thin Mu     | ick Surfac  | ce (C7)    |                           |   |  |  |  |
| Sparse  | ly Vegetated Con                | cave Su   | Irface (B8)       | Gauge of    | or Well Da  | ata (D9)   |                           |   |  |  |  |
| Water-  | Stained Leaves (E               | 39)       |                   | Other (E    | Explain in  | Remarks    | 5)                        |   |  |  |  |
| Field Observ  |                                 |           |                   |             |             |            |                           |   |  |  |  |
| Surface Wate  |                                 | Yes       | No                | Х           | Depth (ii   |            | We                        | tland Hydrology                                   |  |  |  |
| Water Table F   |                                 | Yes       | No                | X           | Depth (ii   | -          |                           | Present?  |  |  |  |
| Saturation Pre  |                                 | Yes       | No                | Х           | Depth (ii   | nches):    |                           | No  |  |  |  |
| (includes capi  |                                 | manua     |                   | L aprial r  | botos pr    | avious in  | spections), if available: |   |  |  |  |
| Describe Red  | ordeu Dala (Sliedi              | in yauyi  | s, monitoring wei | i, acitai k | notos, pi   | CVIOUS III | ispections, it available. |   |  |  |  |
|   |                                 |           |                   |             |             |            |                           |   |  |  |  |
| Remarks:  |                                 |           |                   |             |             |            |                           |   |  |  |  |
|   |                                 |           |                   |             |             |            |                           |   |  |  |  |
|   |                                 |           |                   |             |             |            |                           |   |  |  |  |







Source: Map adapted from Hybrid NAIP Server; Elevation by MN DNR; Project data by Lake Charlotte Solar, LLC; Tetra Tech Wetlands. Scale: 1:1,000

Wetland ID WB084

| Project/Site:                             | <b>WETL</b><br>Lake Ch | LAND DETER<br>arlotte |            | ION DAT        | A FORM<br>Mar |               | st Region<br>Sampling             |            | 10/25/2022                           |
|---|------------------------|-----------------------|------------|----------------|---------------|---------------|-----------------------------------|------------|--------------------------------------|
| Applicant/Owner:                          |                        | Lake Charlotte So     |            |                | State:        | MN            | Sampling                          |            | WB084A                               |
| Investigator(s):                          |                        | Susan Mayer           |            | Sec            | tion, Townsł  | nip, Range:   |                                   |            | [103N R30W                           |
| Landform (hillslope, ter                  | race, etc.):           | Depress               | ion        |                | relief (conc  |               |                                   |            | Concave                              |
| Slope (%): 1                              |                        | 43.71528              |            | Long:          | -94.43        |               | Datum:                            |            | WGS84                                |
| Soil Map Unit Name:                       | Canisteo-G             | ilencoe complex, (    | 0 to 2 per | cent slopes    | N۱            | NI Classifica | ation:                            |            | NA                                   |
| Are climatic/hydrologic                   |                        | -                     |            | -              |               | (If no, expla |                                   | rks)       |                                      |
|   |                        | , or hydrology        |            | -              | y disturbed   | ? Are "       | normal circ                       | umstance   | s present? No                        |
| Are vegetation                            | , soil                 | , or hydrology        |            |                | roblematic?   |               | eded, exp                         | lain any a | inswers in remarks.)                 |
| SUMMARY OF FI                             |                        |                       |            | <u> </u>       |               | ,             | •                                 | -          |                                      |
| Hydrophytic Vege                          | atation Present?       | Yes                   |            |                |               |               |                                   |            |                                      |
| Hydric Soil Prese                         | nt?                    | Yes                   |            | Is the s       | sampled are   | ea within a   | wetland?                          |            | Yes                                  |
| Wetland Hydrology Present? Yes If yes, op |                        |                       |            | optional wet   | land site ID: |               | WB084                             |            |                                      |
| Remarks:                                  |                        |                       |            |                |               |               |                                   |            |                                      |
| Recently harvested                        | agricultural fiel      | d.                    |            |                |               |               |                                   |            |                                      |
| -   |                        |                       |            |                |               |               |                                   |            |                                      |
| VEGETATION U                              | Jse scientific         | •                     |            | Dominant       | Indicator     | Domir         | nance Test                        | Worksh     |                                      |
| Tree Stratum                              | (Plot size:            |                       |            | Species        | Status        | Donini        |                                   | WORKSIN    |                                      |
| 1.  | (1 101 0120.           | /                     |            | opeolee        | Clattic       |               | er of Domina<br>e OBL, FAC        |            |                                      |
| 3   |                        |                       |            |                |               |               | lumber of D<br>s Across Al        |            | 0 (B)                                |
| 4.  |                        |                       |            |                |               | _             | it of Domina                      |            | · · · ·                              |
| 5   |                        |                       |            | <b>T</b> ( ) O |               |               | e OBL, FAC                        |            |                                      |
| Cooling/Charle Ctrature                   | (Dist size)            | 、 —                   |            | =Total Cov     | rer           | Dresse        |                                   |            | 4                                    |
| Sapling/Shrub Stratur                     | <u>n</u> (Plot size: _ | )                     |            |                |               |               | l <b>lence Inde</b><br>% Cover of |            | Multiply by:                         |
| 2.  |                        |                       |            |                |               |               | pecies                            |            | 1 =                                  |
| 3.  |                        |                       |            |                |               |               | / species                         |            | 2 =                                  |
| 4.  |                        |                       |            |                |               |               | pecies                            |            | 3 =                                  |
| 5.  |                        |                       |            |                |               | FACU          | species                           |            | 4 =                                  |
|   |                        |                       |            | =Total Cov     | rer           | UPL s         | pecies                            | x          | 5 =                                  |
| Herb Stratum                              | (Plot size:            | )                     |            |                |               | Colum         | nn totals                         | (.         | A) (B)                               |
| 1   |                        |                       |            |                |               | Preva         | lence Inde                        | k = B/A =  |                                      |
| 2   |                        |                       |            |                |               |               |                                   |            |                                      |
| 3   |                        |                       |            |                |               |               |                                   | -          | ndicators:                           |
|   |                        |                       |            |                |               |               |                                   |            | hytic vegetation                     |
|   |                        |                       |            |                |               |               | Dominance                         |            |                                      |
|   |                        |                       |            |                |               |               | Prevalence                        |            | ≤3.0 <sup></sup><br>ations* (provide |
| 7<br>8.                                   |                        |                       |            |                |               |               |                                   |            | emarks or on a                       |
| 9   |                        |                       |            |                |               |               | separate s                        |            |                                      |
| 10  |                        |                       |            |                |               |               |                                   |            | ytic vegetation*                     |
|   |                        |                       |            | =Total Cov     | rer           |               | (explain)                         | 5 1        | , 3                                  |
| Woody Vine Stratum                        | (Plot size:            | )                     |            |                |               | *Indicato     |                                   |            | tland hydrology must be<br>blematic  |
| 2   |                        |                       |            | =Total Cov     | ver           | Veg           | Irophytic<br>jetation             |            |                                      |
|   |                        |                       |            |                |               | Pre           | sent?                             | Yes        |                                      |
| Remarks: (Include pho                     | to numbers her         | e or on a separate    | e sheet)   |                |               |               |                                   |            |                                      |
| Harvested agricultural                    | field. Bare grou       | nd: 100%              |            |                |               |               |                                   |            |                                      |

WB084A

| Profile Descr   | iption: (Describe  | to the   | depth needed t   | o docum      | ent the i  | ndicator               | or confirm the absence    | of indicators.)                   |  |  |  |
|---|--|----------|------------------|--------------|--|------------------------|---------------------------|-----------------------------------|--|--|--|
| Depth   | Depth <u>Matrix</u>  |          |                  |              | tures  |                        |                           |                                   |  |  |  |
| (Inches)  | Color (moist)  | %        | Color (moist)    | %            | Type*  | Loc**                  | Texture                   | Remarks                           |  |  |  |
| 0-3   | 10YR 2/1   | 100      |                  |              |  |                        | Clay                      |                                   |  |  |  |
| 3-10  | 10YR 3/1   | 100      |                  |              |  |                        | Clay                      |                                   |  |  |  |
|   |  |          |                  |              |  |                        | -                         |                                   |  |  |  |
| 10-40   | 10YR 2/1   | 100      |                  |              |  |                        | Clay                      |                                   |  |  |  |
|   |  |          |                  |              |  |                        |                           |                                   |  |  |  |
|   |  |          |                  |              |  |                        |                           |                                   |  |  |  |
|   |  |          |                  |              |  |                        |                           |                                   |  |  |  |
|   |  |          |                  |              |  |                        |                           |                                   |  |  |  |
|   |  |          |                  |              |  |                        |                           |                                   |  |  |  |
|   |  |          |                  |              |  |                        |                           |                                   |  |  |  |
| *Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains.       **Location: PL = Pore Lining, M = Matrix         Hydric Soil Indicators:       Indicators for Problematic Hydric Soils*: |  |          |                  |              |  |                        |                           |                                   |  |  |  |
| -   |  |          | 2                |              |  | (0.1)                  |                           | •                                 |  |  |  |
|   | tosol (A1)   |          |                  | • •          | ed Matrix  | (S4)                   |                           | dox (A16) (LRR K, L, R)           |  |  |  |
|   | tic Epipedon (A2)  |          |                  | ndy Red      |  |                        | Dark Surface (S7          |                                   |  |  |  |
|   | ick Histic (A3)  | •        |                  | ipped Ma     | • •  |                        |                           | Masses (F12) (LRR K, L, R)        |  |  |  |
|   | drogen Sulfide (A  | ,        |                  | •            | ky Minera  | • •                    |                           | rk Surface (TF12)                 |  |  |  |
|   | atified Layers (A5   | )        |                  |              | ed Matrix  | (F2)                   | Other (explain in         | remarks)                          |  |  |  |
|   | m Muck (A10)   | . 0      |                  | pleted M     |  |                        |                           |                                   |  |  |  |
| Depleted Below Dark Surface (A11) Redox Dark Surface (F6)   |  |          |                  |              |  |                        |                           |                                   |  |  |  |
|   | X Thick Dark Surface (A12) Depleted Dark Surface (F7) *Indicators of hydrophytic vegetation and wetland                      |          |                  |              |  |                        |                           |                                   |  |  |  |
|   | Sandy Mucky Mineral (S1) Redox Depressions (F8) hydrology must be present, unless disturbed or problematic                   |          |                  |              |  |                        |                           |                                   |  |  |  |
| ·   | •  |          | 3)               |              |  |                        | •                         |                                   |  |  |  |
|   | ayer (if observed  | ):       |                  |              |  |                        |                           |                                   |  |  |  |
| Туре:   |  |          |                  |              | -  |                        | Hydric Soil Presen        | t? <u>Yes</u>                     |  |  |  |
| Depth (inches   | ):   |          |                  |              | -  |                        |                           |                                   |  |  |  |
| Remarks:  |  |          |                  |              |  |                        |                           |                                   |  |  |  |
|   |  |          |                  |              |  |                        |                           |                                   |  |  |  |
|   |  |          |                  |              |  |                        |                           |                                   |  |  |  |
|   |  |          |                  |              |  |                        |                           |                                   |  |  |  |
| HYDROLO   | GY   |          |                  |              |  |                        |                           |                                   |  |  |  |
| Wetland Hyd   | rology Indicators  | 5:       |                  |              |  |                        |                           |                                   |  |  |  |
| Primary Indica  | ators (minimum of  | one is r | equired; check a | all that ap  | ply)   |                        | Secondary Indica          | ators (minimum of two required)   |  |  |  |
| Surface   | e Water (A1)   |          |                  | Aquatic      | Fauna (B   | 13)                    | Surface                   | Soil Cracks (B6)                  |  |  |  |
| High W  | ater Table (A2)  |          |                  | True Aq      | uatic Plar   | nts (B14)              | e Patterns (B10)          |                                   |  |  |  |
| Saturat   | ion (A3)   |          |                  | Hydroge      | lydrogen Sulfide Odor (C1) Dry-Season Water Table (C |                        |                           |                                   |  |  |  |
| Water I   | Marks (B1)   |          |                  | Oxidize      | d Rhizosp  | heres or               | Living Crayfish           | Burrows (C8)                      |  |  |  |
| Sedime  | ent Deposits (B2)  |          |                  | Roots (0     | C3)  |                        | X Saturatio               | on Visible on Aerial Imagery (C9) |  |  |  |
|   | eposits (B3)   |          |                  | -            | ce of Redu   |                        | · · ·                     | or Stressed Plants (D1)           |  |  |  |
|   | lat or Crust (B4)  |          |                  |              | Iron Redu  | iction in <sup>-</sup> |                           | phic Position (D2)                |  |  |  |
|   | posits (B5)  |          | (D-7)            | (C6)         |  | (07)                   | FAC-Net                   | utral Test (D5)                   |  |  |  |
|   | tion Visible on Ae   | -        |                  | -            | ick Surfac   |                        |                           |                                   |  |  |  |
|   | ly Vegetated Con   |          | пасе (В8)        | -            | or Well Da   |                        |                           |                                   |  |  |  |
|   | Stained Leaves (E  | 39)      |                  |              | Explain in   | Remarks                | s)                        |                                   |  |  |  |
| Field Observa   |  |          |                  |              | <b>D</b>   |                        |                           |                                   |  |  |  |
| Surface Water<br>Water Table F  |  | Yes      | No No            | <u> </u>     | Depth (ii  |                        | We                        | tland Hydrology                   |  |  |  |
|   |  | Yes      | No No            |              | Depth (ii  |                        |                           | Present?                          |  |  |  |
|   | Saturation Present?       Yes       No       X       Depth (inches):       Yes       Yes         (includes capillary fringe) |          |                  |              |  |                        |                           |                                   |  |  |  |
|   | , , ,  | n daude  | e. monitorina we | ll, aerial r | photos pr  | evious in              | spections), if available. |                                   |  |  |  |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  |  |          |                  |              |  |                        |                           |                                   |  |  |  |
|   |  |          |                  |              |  |                        |                           |                                   |  |  |  |
| Remarks:  |  |          |                  |              |  |                        |                           |                                   |  |  |  |
|   |  |          |                  |              |  |                        |                           |                                   |  |  |  |
|   |  |          |                  |              |  |                        |                           |                                   |  |  |  |

| Project/Site:   | WETL<br>Lake Cha                                   | AND DETER        |            | ON DAT       | • FORM -<br>Mart |               | t Region<br>Sampling I         |             | 10/25/2022                       |
|---|--|------------------|------------|--------------|------------------|---------------|--------------------------------|-------------|----------------------------------|
| Applicant/Owner:                                      |  | ake Charlotte So |            |              | State:           |               | Sampling F                     |             | WB084B                           |
| nvestigator(s):                                       |  | usan Mayer       | ,          | Secti        | on, Townsh       |               | eamping.                       |             | 103N R30W                        |
| Landform (hillslope, terra                            |  | Plain            |            |              | relief (conca    | -             | none):                         | 00012111    | None                             |
| Slope (%): 1  | · · · –  | 43.71536         |            | Long:        | -94.43           |               | Datum:                         |             | WGS84                            |
| Soil Map Unit Name:                                   |  | encoe complex, ( | ) to 2 per | · -          |                  |               | _                              |             | NA                               |
| Are climatic/hydrologic co                            |  |                  |            |              |                  | (If no, expla |                                | ·ks)        |                                  |
|   |  | , or hydrology   |            |              | / disturbed?     | · · ·         | normal circ                    | ,           | present? No                      |
|   |  | , or hydrology   |            |              | oblematic?       |               |                                |             | swers in remarks.)               |
| SUMMARY OF FIN  |  |                  |            | naturally pr | oblematic:       | (ii ne        | eueu, expi                     | an any a    |                                  |
| Hydrophytic Vegeta                                    | tion Present?                                      | No               |            |              |                  |               |                                |             |                                  |
| Hydric Soil Present                                   | ?  | No               |            | Is the s     | ampled are       | a within a    | wetland?                       |             | Νο                               |
| Wetland Hydrology                                     | Wetland Hydrology Present? No If yes, optional wet |                  |            |              | ptional wetla    | and site ID:  |                                | WB084       |                                  |
| Remarks:  |  |                  |            |              |                  |               |                                |             |                                  |
| Recently harvested a                                  | gricultural field                                  | Ι.               |            |              |                  |               |                                |             |                                  |
| VEGETATION Us   | se scientific                                      | names of pla     | nts.       |              |                  |               |                                |             |                                  |
|   |  |                  |            | Dominant     | Indicator        | Domin         | ance Test                      | Workshee    | et                               |
| <u>Tree Stratum</u> (I                                | Plot size:   | )                | % Cover    | Species      | Status           |               | r of Domina<br>OBL, FAC        |             | (A)                              |
| 2<br>3  |  |                  |            |              |                  |               | umber of Des Across All        |             | 0 (B)                            |
| 5   |  |                  |            |              |                  |               | t of Domina<br>OBL, FAC        |             | % (A/B)                          |
|   |  |                  |            | =Total Cove  | ər               |               |                                |             |                                  |
| Sapling/Shrub Stratum                                 | (Plot size:  | )                |            |              |                  | Preva         | lence Inde                     | x Worksho   | eet                              |
| 1   |  |                  |            |              |                  | Total 9       | % Cover of                     | :           | Multiply by:                     |
| 2   |  |                  |            |              |                  |               | pecies                         |             | =                                |
| 3   |  |                  |            |              |                  |               | species                        |             | =                                |
| 4   |  |                  |            |              |                  |               | pecies _                       |             | =                                |
| 5   |  |                  |            | Tatal Cau    |                  |               | species _                      |             | =                                |
| Lieste Otresture                                      |  | , —              |            | =Total Cove  | er               |               | pecies                         |             |                                  |
| Herb Stratum  | (Plot size:  | )                |            |              |                  |               | in totals                      | (A          | )(B)                             |
| 1<br>2.   |  |                  |            |              |                  | Prevai        | ence maex                      | A = D/A = - |                                  |
| 3.  |  |                  |            |              |                  | Hydro         | phytic Ve                      | netation In | dicators:                        |
| A   |  |                  |            |              |                  |               |                                | -           | nytic vegetation                 |
| 5   |  |                  |            |              |                  |               | Dominance                      |             |                                  |
| 6   |  |                  |            |              |                  |               | Prevalence                     | index is ≤  | 3.0*                             |
| 7   |  |                  |            |              |                  |               | Morphologi                     | cal adapta  | tions* (provide                  |
| 8.  |  |                  |            |              |                  | :             | supporting                     | data in Rei | marks or on a                    |
| 9.  |  |                  |            |              |                  | :             | separate sh                    | neet)       |                                  |
| 10.   |  |                  |            |              |                  |               | Problemation                   | c hydrophy  | tic vegetation*                  |
|   |  |                  |            | =Total Cove  | er               |               | (explain)                      |             |                                  |
| Woody Vine Stratum<br>1.                              | (Plot size:  | )                |            |              |                  |               | rs of hydric s<br>unless distu |             | and hydrology must be<br>lematic |
| 2   |  |                  |            | =Total Cove  | er               | Veg           | rophytic<br>etation<br>sent?   | <u>No</u>   |                                  |
| Remarks: (Include photo<br>Harvested agricultural fie |  |                  | e sheet)   |              |                  |               |                                |             |                                  |

WB084B

| Profile Descr  | iption: (Describe  | e to the  | depth needed t   | o docum      | ent the i               | ndicator  | or confirm the absence    | of indicators.)  |  |  |  |
|--|--|-----------|------------------|--------------|-------------------------|-----------|---------------------------|--|--|--|--|
| Depth  | Matrix   |           | Re               | dox Feat     | tures                   |           |                           |  |  |  |  |
| (Inches)   | Color (moist)  | %         | Color (moist)    | %            | Type*                   | Loc**     | Texture                   | Remarks  |  |  |  |
| 0-6  | 10YR 2/1   | 100       |                  |              |                         |           | Clay                      |  |  |  |  |
| 6-13   | 10YR 2/1   | 50        |                  |              |                         |           | Clay                      |  |  |  |  |
| 0.10   |  |           |                  |              |                         |           |                           |  |  |  |  |
|  | 2.5Y 7/6   | 50        |                  |              |                         |           |                           | Mixed Matrix   |  |  |  |
|  |  |           |                  |              |                         |           |                           |  |  |  |  |
|  |  |           |                  |              |                         |           |                           |  |  |  |  |
|  |  |           |                  |              |                         |           |                           |  |  |  |  |
|  |  |           |                  |              |                         |           |                           |  |  |  |  |
|  |  |           |                  |              |                         |           |                           |  |  |  |  |
| *T   |  | Danta     |                  |              |                         |           |                           |  |  |  |  |
| *Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix<br>Hydric Soil Indicators: Indicators for Problematic Hydric Soils*: |  |           |                  |              |                         |           |                           |  |  |  |  |
| -  | Indicators:<br>stosol (A1)   |           | 50               | ndu Clav     | od Motriy               | (84)      |                           | •  |  |  |  |
|  | ( )  |           |                  |              | ed Matrix               | (34)      |                           | dox (A16) (LRR K, L, R)                                    |  |  |  |
|  | stic Epipedon (A2)   |           |                  | ndy Redo     |                         |           | Dark Surface (S7          |  |  |  |  |
|  | ack Histic (A3)<br>drogen Sulfide (A   | 4)        |                  | ipped Ma     | ky Minera               | N (E1)    |                           | Masses (F12) (LRR K, L, R)<br>rk Surface (TF12)            |  |  |  |
|  | atified Layers (A5   | ,         |                  |              | ed Matrix               | . ,       | Other (explain in         |  |  |  |  |
|  | m Muck (A10)   | )         |                  | • •          |                         | (12)      |                           | Temarks)   |  |  |  |
|  | 2 cm Muck (A10)     Depleted Matrix (F3)       Depleted Below Dark Surface (A11)     Redox Dark Surface (F6) |           |                  |              |                         |           |                           |  |  |  |  |
|  | ick Dark Surface (   |           | · · · <u> </u>   |              | ark Surfac              | ` '       |                           |  |  |  |  |
|  | ndy Mucky Minera   |           |                  |              |                         |           |                           | nytic vegetation and wetland<br>esent, unless disturbed or |  |  |  |
|  | Sandy Mucky Mineral (S1) Redox Depressions (F8) hydrology must be present, unless disturbed or problematic   |           |                  |              |                         |           |                           |  |  |  |  |
|  | -  |           | 0)               |              |                         | r         |                           |  |  |  |  |
|  | ayer (if observed  | l):       |                  |              |                         |           |                           |  |  |  |  |
| Type: Rock   |  |           |                  |              | -                       |           | Hydric Soil Presen        | t? <u>No</u>   |  |  |  |
| Depth (inches  | i): <u>13</u>  |           |                  |              | -                       |           |                           |  |  |  |  |
| Remarks:   |  |           |                  |              |                         |           |                           |  |  |  |  |
|  |  |           |                  |              |                         |           |                           |  |  |  |  |
|  |  |           |                  |              |                         |           |                           |  |  |  |  |
|  | 0.1/   |           |                  |              |                         |           |                           |  |  |  |  |
| HYDROLO  |  |           |                  |              |                         |           |                           |  |  |  |  |
| -  | rology Indicators<br>ators (minimum of   |           | oquirod: chock   | ll that an   |                         |           | Secondary Indica          | ators (minimum of two required)                            |  |  |  |
| -  | e Water (A1)   | 0110-15-1 | equired, check a |              | Fauna (E                | 212)      |                           |  |  |  |  |
|  |  |           |                  |              |                         |           | Surface Soil Cracks (B6)  |  |  |  |  |
| Ŭ  | /ater Table (A2)   |           |                  | -            | uatic Plai              | ```       | 0                         | Drainage Patterns (B10)                                    |  |  |  |
|  | tion (A3)<br>Marks (B1)  |           |                  |              | en Sulfide<br>d Rhizosp |           |                           | son Water Table (C2)<br>Burrows (C8)                       |  |  |  |
|  | ent Deposits (B2)  |           |                  | Roots (      |                         |           | · _ /                     | on Visible on Aerial Imagery (C9)                          |  |  |  |
|  | eposits (B3)   |           |                  | -            | ce of Red               | uced Iron |                           | or Stressed Plants (D1)                                    |  |  |  |
|  | At or Crust (B4)   |           |                  | -            |                         |           | · · /                     | phic Position (D2)   |  |  |  |
|  | eposits (B5)   |           |                  | (C6)         |                         |           |                           | utral Test (D5)  |  |  |  |
| Inunda   | tion Visible on Ae   | rial Imag | gery (B7)        | Thin Mu      | ick Surfac              | ce (C7)   |                           |  |  |  |  |
| Sparse   | ely Vegetated Con  | cave Su   | Irface (B8)      | Gauge        | or Well Da              | ata (D9)  |                           |  |  |  |  |
| Water-   | Stained Leaves (E  | 39)       |                  | Other (E     | Explain in              | Remarks   | 5)                        |  |  |  |  |
| Field Observ   | ations:  |           |                  |              |                         |           |                           |  |  |  |  |
| Surface Wate   | r Present?   | Yes       | No               | Х            | Depth (i                | nches):   | 14/-                      | tland Hydrology  |  |  |  |
| Water Table F  | Present?   | Yes       | No               | Х            | Depth (i                |           |                           | tland Hydrology<br>Present?                                |  |  |  |
| Saturation Pre   |  | Yes       | No               | Х            | Depth (i                | nches):   |                           | No   |  |  |  |
| (includes capi   |  |           |                  | 11           | - h - t - i             |           |                           |  |  |  |  |
| Describe Rec   | orded Data (strea  | m gauge   | e, monitoring we | ii, aerial p | photos, pi              | evious in | spections), if available: |  |  |  |  |
|  |  |           |                  |              |                         |           |                           |  |  |  |  |
| Remarks:   |  |           |                  |              |                         |           |                           |  |  |  |  |
|  |  |           |                  |              |                         |           |                           |  |  |  |  |
|  |  |           |                  |              |                         |           |                           |  |  |  |  |

