Appendix K

Native Prairie Assessment

POTENTIAL NATIVE PRAIRIE DESKTOP ASSESSMENT

Snowshoe BESS Project

Olmsted County, Minnesota

JUNE 20, 2024

PREPARED FOR:
Snowshoe BESS, LLC

spearmint energy

PREPARED BY:

Westwood

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Potential Native Prairie Desktop Assessment

Snowshoe BESS Project

Olmsted County, Minnesota

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Date: June 20, 2024

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1. Introduction

This report presents the results of the desktop assessment conducted to identify areas of Potential Native Prairie (PNP) for the battery energy storage system known as Snowshoe BESS Project (Project), which covers approximately 133 acres (Project Area) of agricultural land located in Township 107 North, Range 15 West, Section 35, Kalmar Township, Olmsted County, Minnesota (**Exhibit 1**). Westwood Professional Services, Inc. (Westwood) performed this work on behalf of Snowshoe BESS, LLC, developed by Spearmint Renewable Development Company in May of 2024.

2. Native Prairie Definition and Assessment Methodologies

The native prairie community types considered in this assessment include dry prairie, mesic prairie, and wet prairie (MNDNR No Date - A). Native prairie, as defined by Minnesota Statutes, Section 84.02, Subdivision 5, means:

> *"Native prairie" means land that has never been plowed where native prairie vegetation originating from the site currently predominates or, if disturbed, is predominantly covered with native prairie vegetation that originated from the site. Unbroken pasture land used for livestock grazing can be considered native prairie if it has predominantly native vegetation originating from the site and conservation practices have maintained biological diversity."*

To identify locations of PNP, Westwood conducted an initial desktop screening within the Project Area.

To identify existing records of native prairie, or areas with high potential for native prairie remnants, Westwood used several GIS data layers overlain on aerial imagery to identify areas given special designation or contain certain features which may indicate PNP. The layers and their purpose include the following:

- **Minnesota Department of Natural Resources (MNDNR) Minnesota Biological Survey (MBS) Sites of Biodiversity Significance (SBS):** to identify significant prairie areas
- **MNDNR Native Plant Communities (NPC):** to identify areas classified as native prairie communities
- **MNDNR Regionally Significant Ecological Areas (RSEA):** to identify any potential prairie areas recognized by the MNDNR as having significant ecological value
- **MBS Railroad Rights-of-Way (ROW) Prairies:** to identify linear features along railroad tracks characterized as remnant prairies
- **MNDNR Potentially Undisturbed Land (Virgin Sod):** to identify untilled, unfarmed areas
- **USDA NRCS Conservation Reserve Program (CRP) lands:** to help determine lands previously enrolled in the CRP (based on publicly available data available prior to 2008)

- **USFWS National Wetlands Inventory:** to identify unfarmed wet meadow areas as potential native prairies (e.g. wet prairies)

Westwood then reviewed and photo-interpreted historic and contemporary aerial photography to identify PNP within the Project Area. Aerial imagery sources and years reviewed in the assessment include:

- **UMN Minnesota Historical Aerial Photographs Online:** 1940
- **Google Earth™:** 1991, 2003, 2004, 2006, 2008, 2009, 2010, 2011, 2015, 2016, 2018, 2021, 2022, 2023, 2024
- **Minnesota Geospatial Information Office (MnGeo) WMS Service:** 1991, 1997, 2000, 2002, 2003, 2004, 2006, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023

The most contemporary aerial photograph was used to initially identify all PNPs to be reviewed in historic aerial photography. PNPs were given a unique identification number and reviewed through each year as a means of evaluating sustained agricultural disturbance in PNP areas. Evidence of agricultural disturbance and other features sufficient to exclude areas from potential native prairie consideration included:

1. The presence of row crops or tilled land;
2. Bare or developed ground;
3. Areas in forest, wooded fencerows, or woodlots;
4. Areas in more than 10 percent tree cover or 50 percent shrub cover;
5. Wet meadows with clear signature of reed canary grass (*Phalaris arundinacea*); and
6. Areas of open water or inundated wetlands such as marsh

Areas identified as PNPs were those that exhibited a history of grazing, haying, or other light disturbance, but did not appear to show evidence of ground disturbance that would be caused by routine plowing, disking, and/or the planting of a uniform crop.

PNPs that were not removed from consideration based on desktop evidence would be reviewed in the field to document their existing condition.

3. Desktop Assessment Results

Of the GIS natural resources data layers examined, no previously mapped native prairie plant communities, sites of biodiversity significance, or undisturbed land were indicated within or adjacent to the Project Area (**Exhibit 2**).

Summaries of findings from each GIS data layer is as follows:

- **MBS Sites of Biodiversity Significance:** No prairie SBSs were identified in the Project Area or within the one-mile buffer.
- **NPC:** No NPCs are present in or adjacent to the Project Area or within the one-mile buffer.
- **RSEA:** No RSEAs are present in or adjacent to the Project Area. The nearest RSEA is approximately 0.40 miles northeast of the Project Area.

- **Railroad ROW Prairies:** No railroad ROW prairies are present in the Project Area. There is one Railroad ROW Prairie located south adjacent to the Project Area along the Dakota Minnesota & Eastern RR (**Exhibit 2**).
- **MNDNR Potentially Undisturbed Land:** No virgin sod is present in or adjacent to the Project Area or in the one-mile buffer.
- **CRP lands:** CRP lands are not present in the Project Area or within the one-mile buffer.
- **NWI:** There are no NWI wetlands mapped within the Project Area. There are four NWI wetlands mapped within 0.1 mile of the Project Area to the east, south, and west. All are either freshwater emergent wetlands or freshwater forested/shrub wetlands, none of which are wetland types that typically support wet prairie communities.

Based on the desktop assessment and review of historical aerial imagery, no PNPs were identified within the Project Area as it has been used for row crop agriculture since at least 1940 as established by the UMN Historical Aerial Photograph taken on August 7th, 1940 (**Exhibit 3**).

No field surveys are needed to confirm the status of PNPs as none were identified within the Project Area.

4. Conclusion

No PNPs were identified from the Potential Native Prairie Desktop Assessment. The Project Area consisted of cultivated crops at least since 1940 leaving no undisturbed areas within the Project Area to support potential native prairie remnants (**Exhibit 3**). Based on this desktop assessment, no PNP areas are present within the Snowshoe BESS Project Area.

5. References

Google Earth Pro. 2024. Desktop Application. Version 7.3. Available at: https://www.google.com/earth/about/versions/

Minnesota Department of Natural Resources (MNDNR). 2005. Minnesota Native Plant Communities Classification. Available at: https://files.dnr.state.mn.us/natural_resources/npc/table.pdf.

MNDNR. 2011. Minnesota's Native Plant Community Classification: A statewide classification of terrestrial and wetland vegetation based on numerical analysis of plot data. Available at: https://files.dnr.state.mn.us/natural_resources/npc/npc_methods_paper.pdf.

MNDNR. 2015. Potentially Undisturbed Land (Virgin Sod) - FSA Common Land Unit Derived GIS Layer. Updated 2023. Available at: https://gisdata.mn.gov/dataset/env-potentially-undisturbed-land

MNDNR. 2017. MCBS Railroad Rights-of-Way Prairies GIS Layer. Updated 2023. Available at: https://gisdata.mn.gov/dataset/biota-mcbs-railroad-prairies

MNDNR. 2023. MCBS Railroad Rights-of-Way Prairies GIS Layer. Available at: https://gisdata.mn.gov/dataset/biota-mcbs-railroad-prairies

MNDNR. 2023. Potentially Undisturbed Land (Virgin Sod) - FSA Common Land Unit Derived GIS Layer. Available at: https://gisdata.mn.gov/dataset/env-potentially-undisturbed-land

MNDNR. 2024a. MBS Sites of Biodiversity Significance GIS Layer. Available at: https://gisdata.mn.gov/dataset/biota-mcbs-sites-of-biodiversity

MNDNR. 2024b. MNDNR Native Plant Communities GIS Layer. Available at: https://gisdata.mn.gov/dataset/biota-dnr-native-plant-comm

MNDNR. No Date - A. Types of Prairie. Available at: https://www.dnr.state.mn.us/prairie/native/types-prairies.html

MNDNR. No Date – B. Native Vegetation at the Time of the Public Land Survey 1847-1907 GIS Layer. Available at: https://gisdata.mn.gov/dataset/biota-marschner-presettle-veg

MnGEO. 2021. Web Map Service (WMS). Historical Photos. Available at: https://www.mngeo.state.mn.us/chouse/wms/wms_image_server_google_earth_instructions.html

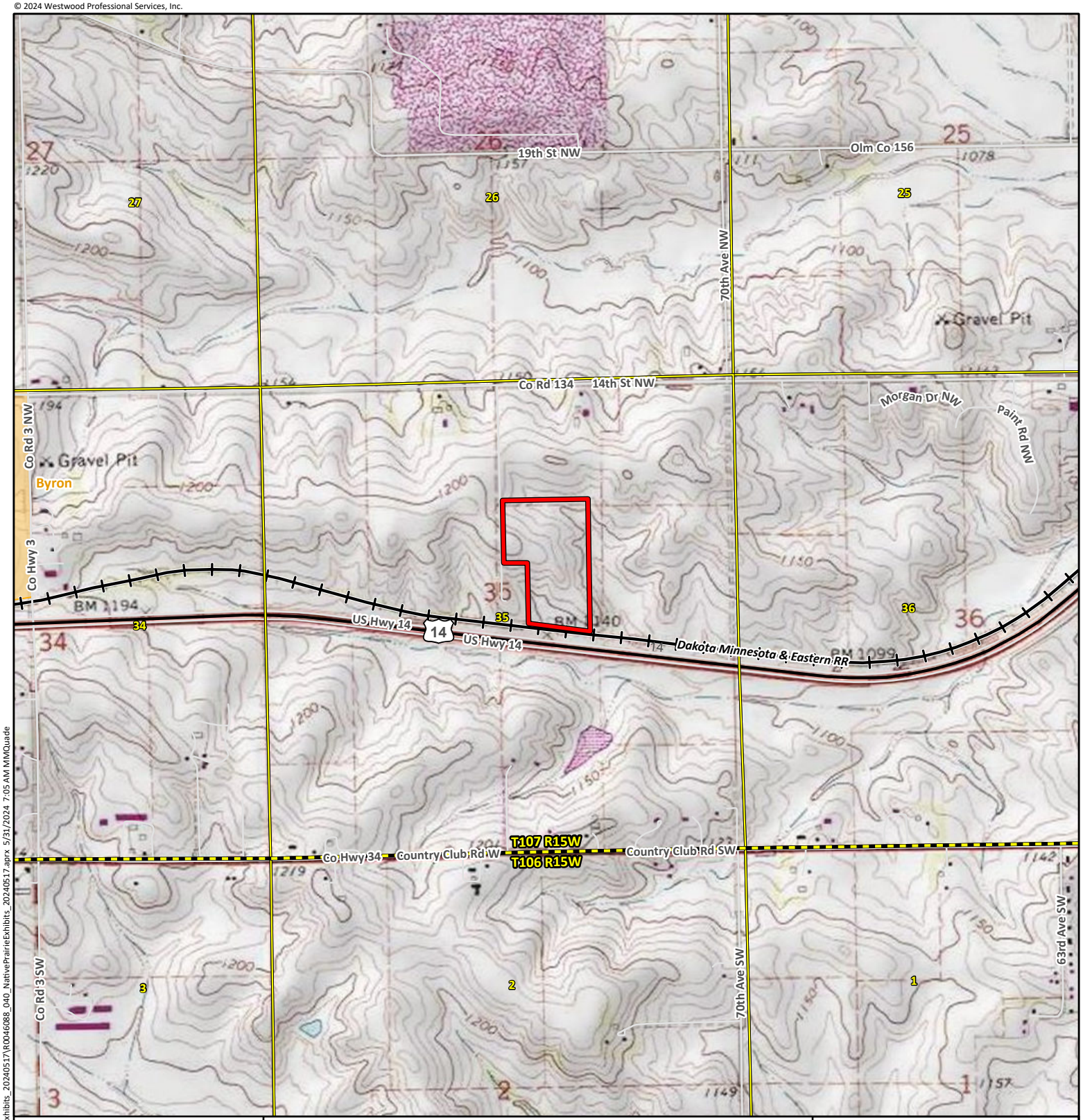
University of Minnesota (UMN). 2015. Minnesota Historical Aerial Photographs Online. Available at: https://apps.lib.umn.edu/mhapo/

U.S. Fish and Wildlife Service (USFWS). 2024. National Wetland Inventory Wetland Mapper. Available at: https://www.fws.gov/program/national-wetlands-inventory/wetlands-mapper

U.S. Geological Survey. 2022. Protected Areas Database of the US (PAD-US) 3.0. Available online at: 10.5066/P9Q9LQ4B

Exhibits

Snowshoe BESS Project
Olmsted County, Minnesota



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

N

0 1,500 Feet

Snowshoe BESS Project

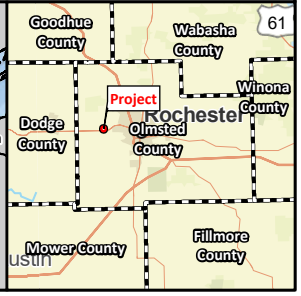
Kalmar Township, Olmsted County, Minnesota

Project Location & USGS Topography

Exhibit 1

Legend

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



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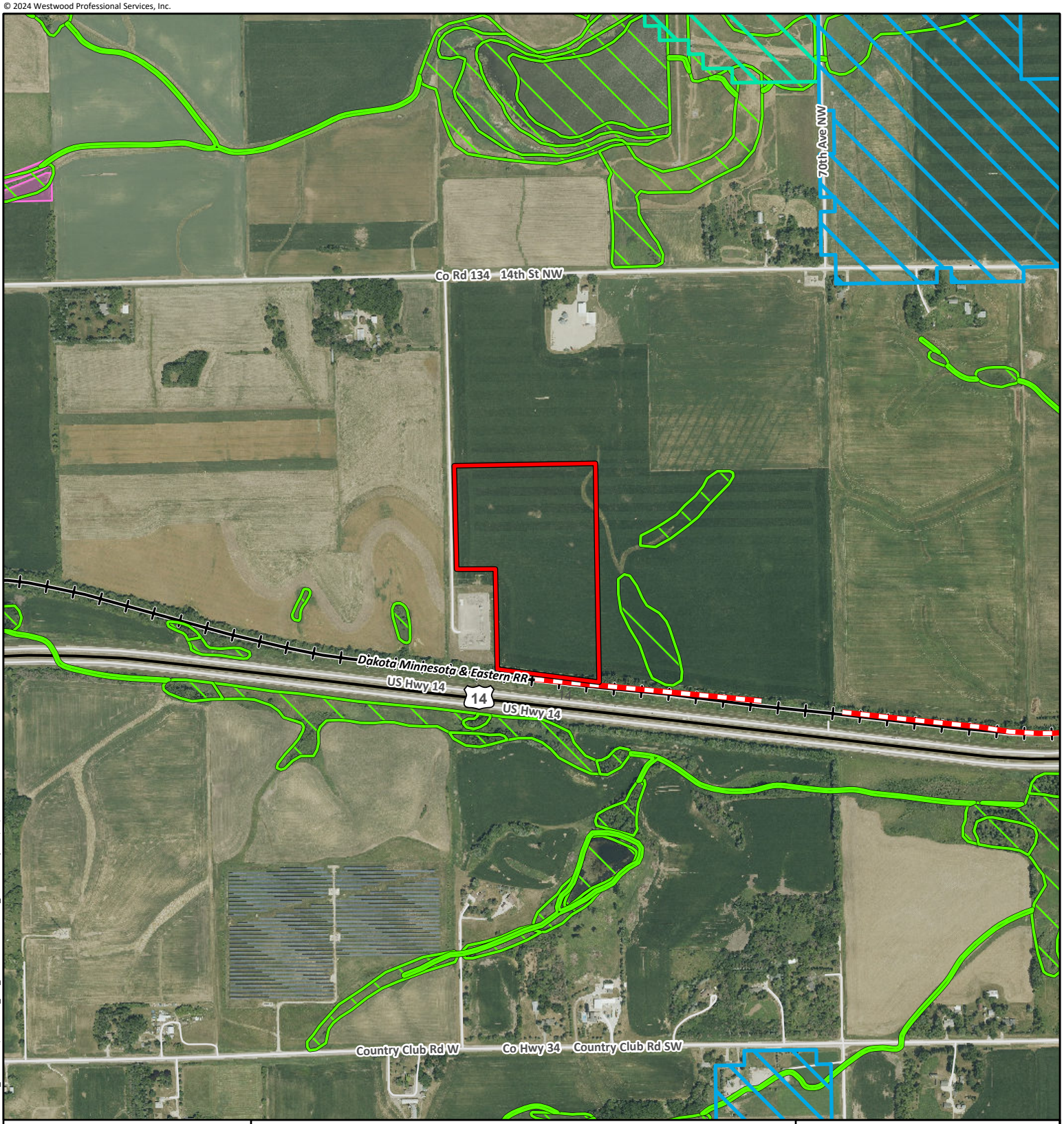

Data Source(s): Westwood (2024); NAIP (2023); NWI (2023); MNDNR (2017); U.S. Census Bureau (2021 & 2023).

N

0 900 Feet

Snowshoe BESS Project

Kalmar Township, Olmsted County, Minnesota

Natural Resource Mapping

Exhibit 2

Legend

- Project Area
- NWI Wetland
- MNDNR Regionally Significant Ecological Area (RSEA)
- MNDNR Regionally Significant Ecological Corridors
- Conservation Reserve Program (CRP) Land
- MNDNR Railroad Right-of-Way Prairie
- Major Road
- Road
- Railroad

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Map Document: N:\0046088.00_GIS_ArcPro\R0046088_040_NativePrairieExhibits_20240517\R0046088_040_NativePrairieExhibits_20240517.aprx 5/31/2024 7:06 AM MMQuade

Data Source(s): Westwood (2024); MHAPO(Accessed 2024); NWI (2023); MNDNR (2017); U.S. Census Bureau (2021 & 2023).

N

0 900 Feet

Snowshoe BESS Project

Kalmar Township, Olmsted County, Minnesota

1940 Historic Imagery

Exhibit 3

Legend

- Project Area
- NWI Wetland
- MNDNR Regionally Significant Ecological Area (RSEA)
- MNDNR Regionally Significant Ecological Corridors
- Conservation Reserve Program (CRP) Land
- MNDNR Railroad Right-of-Way Prairie
- Major Road
- Road
- Railroad

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