Appendix F
Wetland/Waterbody Report

Rose Creek Wind, LLC
MPUC Docket No. IP7065/WS-21-643
January 2022

This page is intentionally blank

Rose Creek Wind, LLC

Mower County, Minnesota

Wetland Delineation Report

Prepared by:

September 2021

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

ACRONYM LIST

CED	ConEdison Development
Dairyland	Dairyland Power Cooperative
DNR	Department of Natural Resources
ESRI	Environmental Systems Research Institute
GIS	Geographic Information System
GPS	Global Positioning System
MW	Megawatt
Merjent	Merjent, Inc.
NAIP	National Agriculture Imagery Program
NHD	National Hydrography Dataset
NWI	National Wetland Inventory
OHWM	Ordinary High-Water Mark
PPA	Power Purchase Agreement
PEM	Palustrine Emergent
PWS	Professional Wetland Scientist
Rose Creek	Rose Creek Wind, LLC
SSURGO	Soil Survey Geographic Database
UNT	Unnamed Tributary
USACE	U.S. Army Corps of Engineers
USDA-NRCS	U.S. Department of Agriculture-Natural Resource Conservation Service
USGS	U.S. Geological Survey
WETS	Wetland Climate Table

1.0 INTRODUCTION

Merjent, Inc. (Merjent) was contracted by Rose Creek Wind, LLC (Rose Creek), a subsidiary of ConEdison Development (CED), to perform a wetland and waterway delineation within the Rose Creek wind project's (Project, Figures 1, 3) survey area in Mower County, Minnesota.

The currently operating Rose Wind project, owned by CED, consists of 11 turbines that were built in 2004 and 2005. The 17.4 megawatts (MW) of electricity generated by Rose Wind is sold to Dairyland Power Cooperative (Dairyland) under a Power Purchase Agreement (PPA) with CED. The proposed Project will involve decommissioning the 11 Rose Wind turbines and constructing 6 to 7 new, larger turbines to continue to deliver up to 17.4 MW of electricity to Dairyland. The wetland delineation was conducted to support Rose Creek with Project planning, siting, and in obtaining the necessary approvals and permits for the Project. This report provides a summary of the methods and results of the field survey.

The total survey area is approximately 196 acres, which includes the proposed turbine locations, access roads, and buried collector lines. Land cover within the survey area consists of agricultural crops, including soybean and corn. The survey area limits are depicted on Figures 1-5, with delineated wetland boundaries and waterbodies depicted on Figure 5. Based on a field investigation conducted by Merjent on July 26-28, 2021, it is Merjent's professional opinion that six wetlands and three waterways are crossed by the 196-acre survey area (Tables 1-1 and 1-2). Additional wetland survey data collected within the Project boundary as part of the habitat survey, but outside of the wetland survey corridor, are available upon request or in the event that the current Project layout changes.

TABLE 1-1

Summary of Wetlands within Survey Area

Wetland ID	Cowardin	Size (sq. ft.)	Size (acres)[1]
w01	PEM	8,951	0.21
w02	PEM	5,176	0.12
w03	PEM	2,461	0.06
w04	PEM	278	0.01
w05	PEM	2,875	0.07
w06	PEM	10,854	0.25
	Total	30,595	0.72

1 – Delineated wetlands may extend outside of survey area.

TABLE 1-2

Summary of Waterways within Survey Area

Waterway ID	Flow Regime	Waterway Name	Ordinary High Water Mark Width (ft.)	Drainage Area (sq. mi.)[1]	Length within Survey Area (ft.)[2]
s01	Perennial	UNT to Little Cedar River	2	0.46	60
s02	Perennial	UNT to Little Cedar River	16	1.15	730
s03	Perennial	UNT to Little Cedar River	4	2.5	102
				Total	892

1 – Drainage area upstream of the survey area.
2 – Delineated waterway may extend outside of survey area.

This report has been compiled by the following staff that are trained and experienced in delineation methodologies and applicable regulations:

- **Andy Kranz – Environmental Analyst; Field Lead**

  Mr. Andy Kranz is a botanist specializing in threatened and endangered species surveys, vegetation monitoring, and plant community classification and mapping. He has over 15 years of botanical experience in the Midwest and is a Minnesota DNR qualified surveyor for vascular plants. He has over five years of experience conducting wetland delineations and wildlife habitat surveys in the Midwest and the Great Plains. Mr. Kranz also has experience in prairie and woodland restoration.

- **Tanner Morris, PWS, CE – Senior Analyst; Report Author**

  Mr. Tanner Morris is a Senior Analyst and Professional Wetland Scientist (PWS) skilled in field botany with over 11 years of technical experience managing and completing routine to complex projects for a variety of clients across the Midwest. His expertise includes performing botanical surveys, rare plant surveys, floristic quality assessments, plant community classifications, invasive species mapping, wetland delineations, and habitat assessments. Mr. Morris has worked across a variety of market sectors including oil and gas, transmission lines, private developers, departments of transportation, universities, non-profits, and state agencies. His expertise includes preparation of environmental permit applications, coordination with regulatory agencies, and biological studies.

- **Nicole Sherry – GIS Analyst**

  Ms. Nicole Sherry is an Analyst with Merjent, Inc. Ms. Sherry has 9 years of experience supporting, processing, and managing datasets to provide a wide range of data products and analysis. Geographical Information System (GIS) tasks performed include natural resource mapping and analysis, permitting support and impact assessments for large energy projects, field support for T & E surveys, vegetation and 3D thermal mapping

integration with Global Position System (GPS) units. Ms. Sherry has worked in a data management role as the technical lead for small- and large-scale projects. Her workload also includes troubleshooting and management of app-based collection systems with field contractors. She also has direct experience in collecting bathymetric data by performing on–the–water surveys using sonar equipment. She has experience in datamining and in coordination with public agencies and private corporations. Ms. Sherry also has experience using ModelBuilder, Python Scripting and creating/maintaining internal and external web viewers using Environmental Systems Research Institution's (ESRI's) JavasScript API, ArcGIS Online, and Portal. GPS tasks performed include data dictionary development and integration with field survey files.

2.0 METHODS

2.1 BACKGROUND INFORMATION

Sources of information that were consulted to identify potential wetlands within the survey area prior to field investigation are listed below:

- US Geological Survey (USGS)Topographical Map (Figure 2)
- U.S. Department of Agriculture-Natural Resource Conservation Service (USDA-NRCS) Web Soil Survey Database for Mower County, Minnesota (USDA-NRCS, 2021; Figure 4)
- National Wetland Inventory (NWI) mapping (U.S. Fish and Wildlife Service, 2021; Figure 5)
- National Hydrography Dataset (NHD) (USGS, 2021; Figure 5)
- ESRI Basemap Aerial Imagery (ESRI; Figures 4-5)
- Google Earth (Google, 2021)

2.2 INVESTIGATION METHODS

The delineation of wetlands and other waters of the U.S. were based on the methods described in the U.S. Army Corps of Engineers Wetland Delineation Manual (Environmental Laboratory, 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (USACE, 2010), as required by current policy. Waterways were identified in accordance with the USACE Jurisdictional Determination Form Instructional Guidebook (USACE-U.S. Environmental Protection Agency, 2007).

Prior to the field work, background information was reviewed to establish the potential location of wetlands and waterways within the survey area. Next, a general reconnaissance of the entire survey area was conducted to evaluate site conditions. On July 26, 2021, the survey area was walked with the specific intent of determining wetland and waterway boundaries. Data points were sampled during this time at locations within and near the wetland areas to document soil characteristics, evidence of hydrology, and dominant vegetation. Vegetative community boundaries were identified according to the Cowardin Classification System (Cowardin et al., 1979).

2.2.1 Naming Protocol

Features identified in associated figures and appendices are named in the following manner:

- Wetlands (w01, w02, etc.)
- Waterways (s01, s02, etc.)

- Photo points (pp01, pp02, etc.)

2.2.2 Site Photographs

Photographs (Appendix A) provide a visual representation of wetland communities and boundaries, as well as general site conditions at the time of inspection. Photos are geospatially referenced by their associated photo point location and presented with direction taken (e.g., "pp01 view West," "pp02 view Northeast"). Photo point locations are depicted in the wetland delineation figure (Figure 5).

2.2.3 Determination Data Sheets

The wetland determination data forms (Appendix B) are the written documentation of how representative data points meet or do not meet each of the wetland criteria. Plant species nomenclature follows the Regional Wetland Plant List (USACE, 2018). Soils were identified using the methods outlined in Field Indicators of Hydric Soils in the United States, Version 8.2 (USDA-NRCS, 2018).

2.2.4 Survey of Wetland and Waterway Boundaries

Merjent surveyed all wetland and waterway boundaries using GPS technology capable of sub-meter accuracy. While these surveys provide reasonably accurate spatial data, they do not provide the same level of accuracy as a professional land survey.

2.2.5 Site-specific Agency Guidance and Prior Concurrence

There is no knowledge of previous wetland delineation mapping at this site.

3.0 RESULTS AND DISCUSSION

3.1 DESKTOP REVIEW

3.1.1 USGS Topographic Map

The USGS topographic map displays flat topography of the survey area (Figure 2).

3.1.2 Soil Survey

The NRCS soil map of the survey area (Figure 4) identified 18 soil types, four of which are classified as a hydric soil (Table 3-1).

TABLE 3-1

Mapped Soil Units

Symbol	Description	Hydric Soil Unit?	Acres
23	Skyberg silt loam, 0 to 3 percent slopes	No	60.89
88	Clyde silty clay loam, 0 to 3 percent slopes	Yes	30.55
135	Donnan silt loam	No	1.52
253	Maxcreek silty clay loam	Yes	0.11

TABLE 3-1

Mapped Soil Units

Symbol	Description	Hydric Soil Unit?	Acres
479	Floyd silt loam, 1 to 4 percent slopes	No	7.23
634	Protivin silt loam	No	1.53
635	Riceville silt loam	No	6.84
637	Schley silt loam	No	2.57
1904	Udolpho silt loam, loamy substratum	Yes	8.43
24B	Kasson silt loam, 1 to 4 percent slopes	No	8.76
27B	Dickinson fine sandy loam, 2 to 5 percent slopes	No	0.12
2A	Ostrander loam, 0 to 2 percent slopes	No	2.98
2B	Ostrander loam, 2 to 5 percent slopes	No	4.20
516A	Dowagiac loam, 0 to 2 percent slopes	No	1.44
516B	Dowagiac loam, 2 to 6 percent slopes	No	0.92
99B	Racine loam, 2 to 5 percent slopes	No	1.69
M511A	Readlyn silt loam, 1 to 3 percent slopes	No	4.81
M515A	Tripoli clay loam, 0 to 2 percent slopes	Yes	50.97
		Total	195.56

3.1.3 Previously Mapped Wetlands

There is one Riverine NWI-mapped feature present within the northern portion of the survey area (Figure 5) just to the west of 670th Avenue. A total of 0.01 acre of NWI-mapped features are present within the survey area.

3.1.4 Previously Mapped Waterways

There are several NHD-mapped features present within the survey area (Figure 5). One feature crosses the southwestern portion of the survey area, and three cross the northeastern portion of the survey area.

3.1.5 Current, Historic, and High-Resolution Aerial Imagery

Using a combination of Google Earth (Google, 2021) and National Agriculture Imagery Program (NAIP; USDA, 2021), historic aerial imagery ranging from 1992 to 2016 were reviewed to evaluate the survey area for wetland signatures. Based on historic imagery review, possible wetland signatures were identified in the northwestern corner of the survey area and along the NHD-mapped waterways that cross the southwestern and northeastern portions of the survey area.

3.1.6 Recent Climatic Conditions and Precipitation Data

Recent precipitation data were compared with historic precipitation data from a 40-year dataset (1981-2021) from a nearby WETS weather station (Austin Waste Water Treatment Facility, Minnesota; USDA, 2021) to determine if normal hydrologic and climatic conditions were present on-site during the delineation. When compared, the observed precipitation data from three months prior to the delineation indicated drier than normal precipitation conditions at the time of the delineation (Table 3-2). Although drier than normal conditions were present at the time of survey, conditions were suitable to complete the survey.

TABLE 3-2
WETS Analysis – August 2021

		Long-term rainfall records (1981-2021)							
WETS Station AUSTIN WASTE WATER TREATMENT FACILITY, MN	**Month**	**<30%**	**Mean**	**>30%**	**Actual**	**Condition**	**Condition Value**	**Month Weight Value**	**Condition Value X Month Weight**
3rd Prior Month	May	3.37	4.66	5.49	**4.75**	Normal	2	1	2
2nd Prior Month	June	3.40	4.68	5.51	**2.19**	Dry	1	2	2
1st Prior Month	July	3.10	4.72	5.67	**2.93**	Dry	1	3	3
								Sum:	**7**
								Conditions Onsite:	**Dry**

If sum is:	
6 to 9	then prior period has been drier than normal
10 to 14	then prior period has been normal
15 to 18	then prior period has been wetter than normal

Condition Values:
(1) Dry
(2) Normal
(3) Wet

3.2 GENERAL SITE CONDITIONS

Based on this field investigation, and review of related resource maps, it is our professional opinion that six wetlands totaling approximately 0.72 acre and three waterways totaling approximately 892 linear feet exist within the survey area (Figure 5). Descriptions of the wetlands and waterways are in Sections 3.4 and 3.6 below, respectively.

Land use within the survey area is agricultural row crops, road right of way, and access roads.

3.3 UPLANDS

The upland habitat primarily consists of agricultural areas planted with corn (*Zea mays*) and soybeans (*Glycine max*). Other upland vegetation consists of herbaceous species such as Kentucky bluegrass (*Poa pratensis*), wild parsnip (*Pastinaca sativa*), smooth brome (*Bromus inermis*), and creeping wild rye (*Elymus repens*).

3.4 WETLANDS

A total of six wetlands were identified to community type within the survey area (Figure 5) according to the Cowardin classification system. Summaries of these features are provided below, and more detailed information for associated data points may be found in wetland determination forms (Appendix B).

3.4.1 Wetland w01 (0.21 Acre)

Wetland w01 (0.21 acre) is a Palustrine Emergent (PEM) community located in a roadside ditch. The herbaceous stratum is dominated by uptight sedge (*Carex stricta*). Soils were not sampled due to the presence of buried utilities but are assumed to be hydric based on presence of hydrology and hydrophytic vegetation. Hydrology indicators observed included Geomorphic Position (D2) and FAC-Neutral Test (D5).

3.4.2 Wetland w02 (0.12 Acre)

Wetland w02 (0.12 acre) is a PEM community located in a roadside ditch. The herbaceous stratum is dominated by uptight sedge. Soils were not sampled due to the presence of buried utilities but are assumed to be hydric based on presence of hydrology and hydrophytic vegetation. Hydrology indicators observed included Geomorphic Position (D2) and FAC-Neutral Test (D5).

3.4.3 Wetland w03 (0.06 Acre)

Wetland w03 (0.06 acre) is a PEM community located in a roadside ditch. The herbaceous stratum is dominated by reed canary grass (*Phalaris arundinacea*) and hairy-fruit sedge (*Carex trichocarpa*). Soils were not sampled due to the presence of buried utilities but are assumed to be hydric based on presence of hydrology and hydrophytic vegetation. Hydrology indicators observed included Geomorphic Position (D2) and FAC-Neutral Test (D5).

3.4.4 Wetland w04 (0.01 Acre)

Wetland w04 (0.01 acre) is a PEM community located in a roadside ditch. The herbaceous stratum is dominated by reed canary grass and American manna grass (*Glyceria grandis*). Soils were not sampled due to the presence of buried utilities but are assumed to be hydric based on presence of hydrology and hydrophytic vegetation. Hydrology indicators observed included Surface Water (A1), Geomorphic Position (D2), and FAC-Neutral Test (D5).

3.4.5 Wetland w05 (0.07 Acre)

Wetland w05 (0.07 acre) is a PEM community located in a shallow depression. The herbaceous stratum is dominated by reed canary grass. Soils met the hydric criteria of Redox Dark Surface (F6) and Redox Depressions (F8). Hydrology indicators observed included Geomorphic Position (D2) and Fac-Neutral Test (D5).

3.4.6 Wetland w06 (0.25 Acre)

Wetland w06 (0.25 acre) is a PEM community located in a shallow depression. The herbaceous stratum is dominated by reed canary grass, woolly sedge (*Carex pellita*), dark green bulrush (*Scirpus atrovirens*), and swamp milkweed (*Asclepias incarnata*). Soils were not sampled due to the presence of buried utilities but are assumed to be hydric based on presence of hydrology and hydrophytic vegetation. Hydrology indicators observed included Geomorphic Position (D2) and FAC-Neutral Test (D5).

3.5 NATURALLY PROBLEMATIC AND SIGNFICANTLY DISTURBED DATAPOINTS

No datapoints were determined to be naturally problematic or significantly disturbed.

3.6 WATERWAYS

Merjent determined that three waterways exist within the survey area (Figure 5). A summary of these features is provided below, and more detailed information is found in Table 1-2. Representative photographs of the waterways are provided in Appendix A. All three waterways identified within the survey are highly modified, channelized features.

3.6.1 Waterway s01 (60 Linear Feet)

Waterway s01 is a perennial stream (unnamed tributary to Little Cedar River) that flows through the survey area from the east to the west. The substrate consists of a mix of silt/clay/mud. The Ordinary High Water Mark (OHWM) was determined by destruction of terrestrial vegetation, presence of litter and debris, and matted down vegetation.

3.6.2 Waterway s02 (730 Linear Feet)

Waterway s02 is a perennial stream (unnamed tributary to Little Cedar River) that flows through the survey area from the west to the east. The substrate consists of a mix of silt/clay/mud. The OHWM was determined by destruction of terrestrial vegetation, presence of litter and debris, and matted down vegetation.

3.6.3 Waterway s03 (102 Linear Feet)

Waterway s03 is a perennial stream (unnamed tributary to Little Cedar River) that flows through the survey area from the south to the north. The substrate primarily consists of sand. The OHWM was determined by destruction of terrestrial vegetation, presence of litter and debris, and matted down vegetation.

3.7 OTHER WATER RESOURCES IDENTIFIED

No other water resources were identified within the survey area.

4.0 SUMMARY AND CONCLUSION

Merjent performed a wetland and waterway delineation for the Rose Creek Wind project in Mower County, Minnesota.

Based on a field investigation conducted by Merjent on July 26, 2021, it is our professional opinion that six wetlands totaling approximately 0.72 acre and three waterways totaling approximately 892 linear feet exist within the 196-acre survey area. No other water resources were identified within the survey area. This report represents our best professional judgment based on our knowledge and experience.

5.0 DISCLAIMER

The wetlands identified for this report may be subject to regulation by federal, state, and/or local jurisdiction. These authorities may require a professional land survey of the delineated boundaries to verify impacts for regulatory purposes.

The field survey results presented herein apply to the existing and reasonably foreseeable site conditions at the time of the assessment. They cannot apply to site changes of which Merjent is unaware and has not had the opportunity to review. Changes in the condition of a property may occur with time due to the natural processes or human impacts at the project site or on adjacent properties. Changes in applicable standards may also occur as a result of legislation or the expansion of knowledge over time. Accordingly, the findings of this report may be invalidated, wholly or in part, by changes beyond the control of Merjent.

6.0 LITERATURE CITED

Cowardin, L. M., V. Carter, F. C. Golet, E. T. LaRoe. 1979. Classification of wetlands and deepwater habitats of the United States. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. 131pp.

Environmental Laboratory. 1987. *U.S. Army Corps of Engineers' Wetland Delineation Manual*, Technical Report Y-87-1, U.S. Waterways Experiment Station, Vicksburg, MS.

Google. 2021. Google Earth. Multiple Imagery. Accessed August 2021.

U.S. Army Corps of Engineers (USACE). 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

USACE. 2018. National Wetland Plant List, version 3.4. http://wetland-plants.usace.army.mil/

USACE and U.S. Environmental Protection Agency (EPA). 2007. USACE Jurisdictional Determination Form Instructional Guidebook. https://www.nap.usace.army.mil/Portals/39/docs/regulatory/jd/jd_guidebook_051207final.pdf. Accessed August 2021.

United States Department of Agriculture (USDA), Natural Resource Conservation Service (NRCS). 2018. *Field Indicators of Hydric Soils in the United States*, Version 8.2. Edited by L.M. Vasilas, G.W. Hurt, and J.F. Berkowitz (eds.). USDA, NRCS, in cooperation with the National Technical Committee for Hydric Soils.

USDA-NRCS. Web Soil Survey. *Soil Survey of Mower County, MN*. Accessed August 2021.

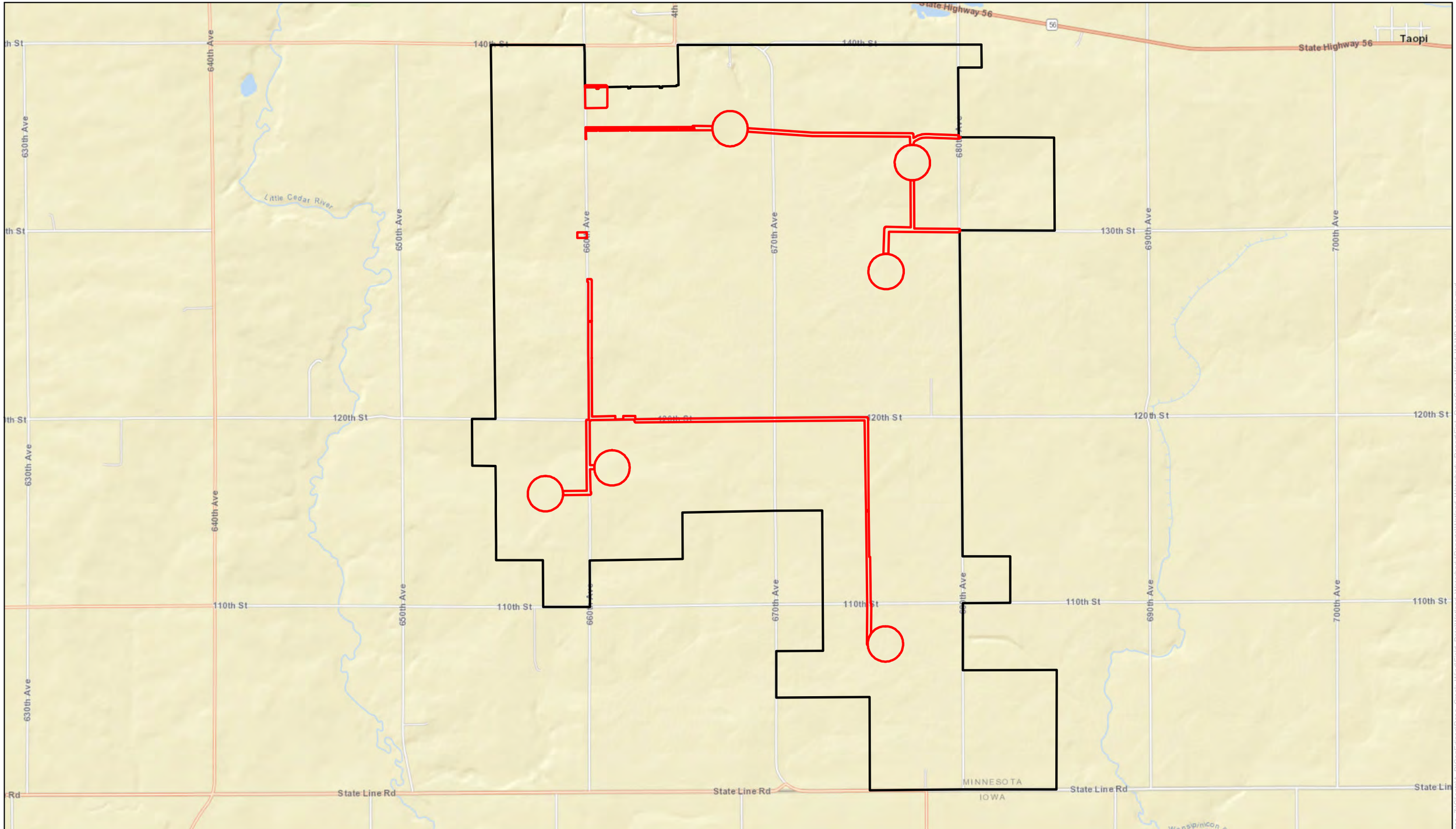
USDA Field Office Climate Data. Available online at http://agacis.rcc-acis.org/?fips=27099. Accessed August 2021.

USDA Farm Service Agency. 2021. National Agricultural Imagery Program. Multiple Imagery. Accessed August 2021.

U.S. Fish and Wildlife Service. 2021. National Wetlands Inventory website. Available online at https://www.fws.gov/wetlands/index.html. Accessed August 2021.

U.S. Geological Survey (USGS). 2021. National Hydrography. Available online at https://www.usgs.gov/core-science-systems/ngp/national-hydrography. Accessed August 2021.

Figure 1
Project Location



0 1,250 2,500 Feet

1 inch = 2,500 feet

N W E S

For Environmental Review Purposes Only

Figure 1
Location Map
Rose Creek Wind Project
Rose Creek Wind, LLC
Mower County, Minnesota

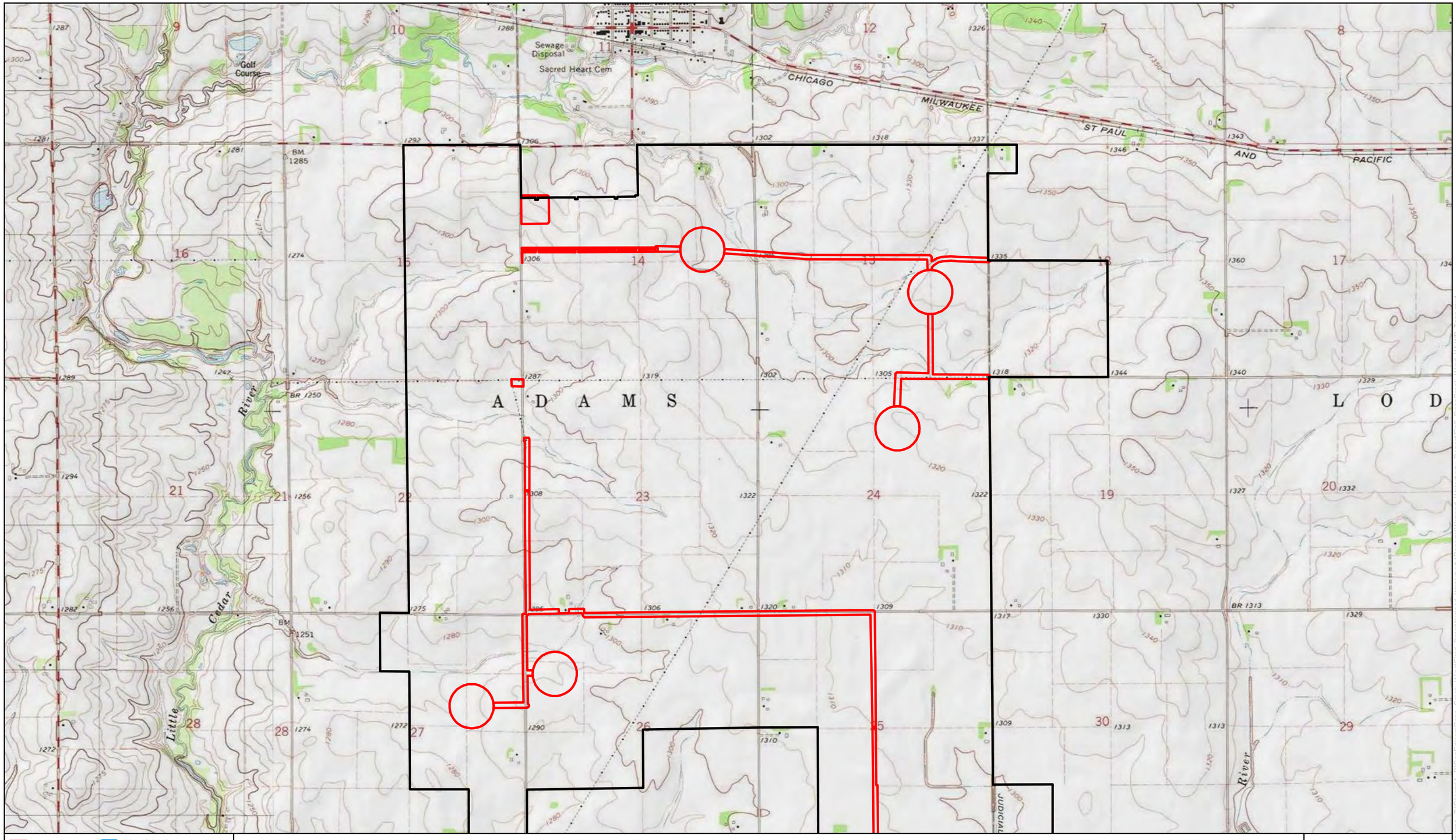
Survey Area
Project Boundary

Source: Z:\Clients\A_D\ConEdison\Rose_Creek_Wind\Field_Data\Wetland_Waterbody_Reports\Wetland_Waterbody_Report\Fig1_RoseCreek_Wind_WLWB_Location.mxd

Date: (8/30/2021)

Figure 2

Topography



merjent

conEdison Development

0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

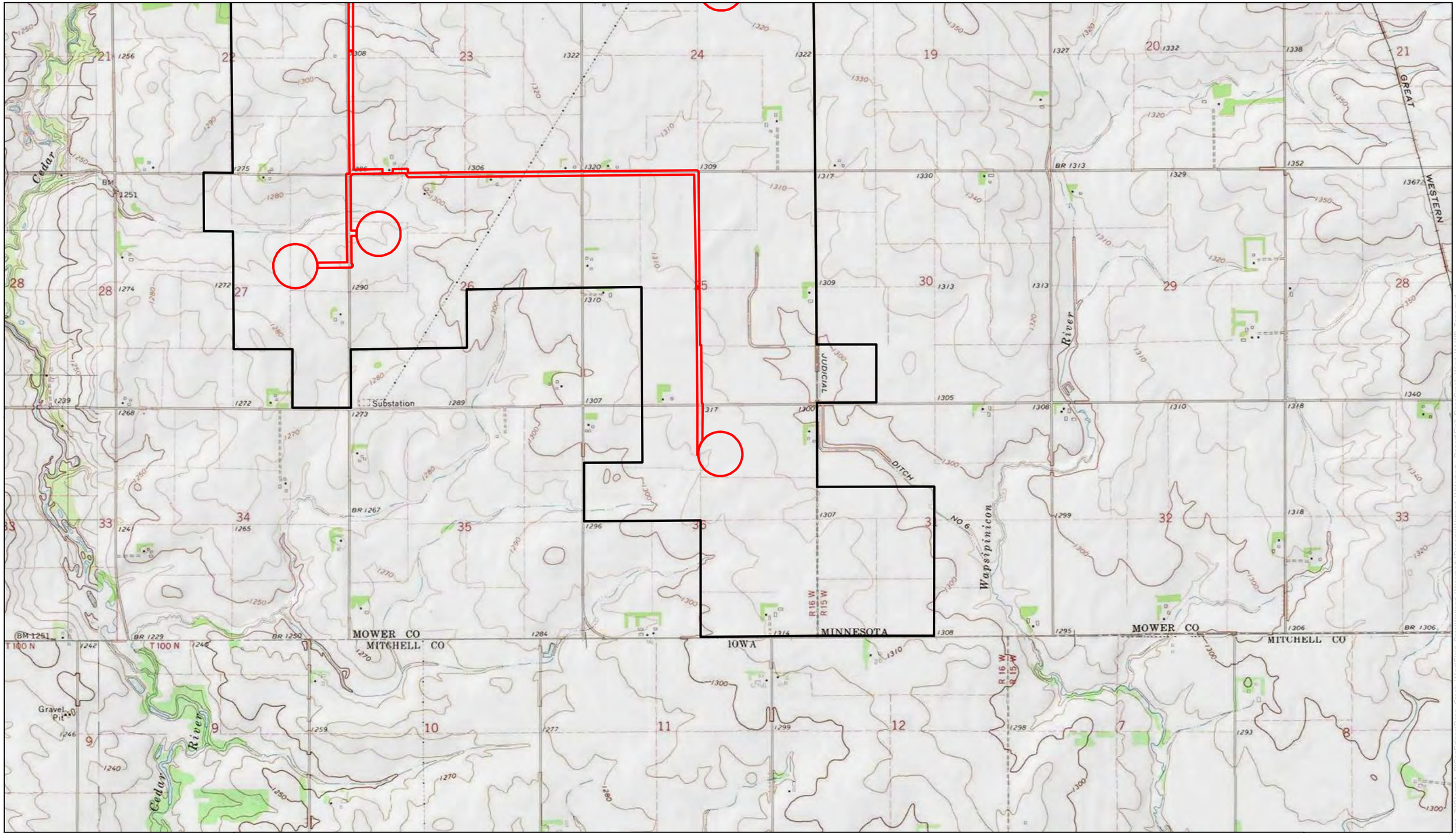
Figure 2
Topographic Map
Rose Creek Wind Project
Rose Creek Wind, LLC
Mower County, Minnesota

Survey Area

Project Boundary

Source: Z:\Clients\A_D\ConEdison\Rose_Creek_Wind\Field_Data\Wetland_Waterbody\Reports\Wetland_Waterbody_Report\Fig2_RoseCreek_Wind_WLWB_Topo.mxd

Date: (8/30/2021)



merjent. ConEdison Development

0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

Figure 2
Topographic Map
Rose Creek Wind Project
Rose Creek Wind, LLC
Mower County, Minnesota

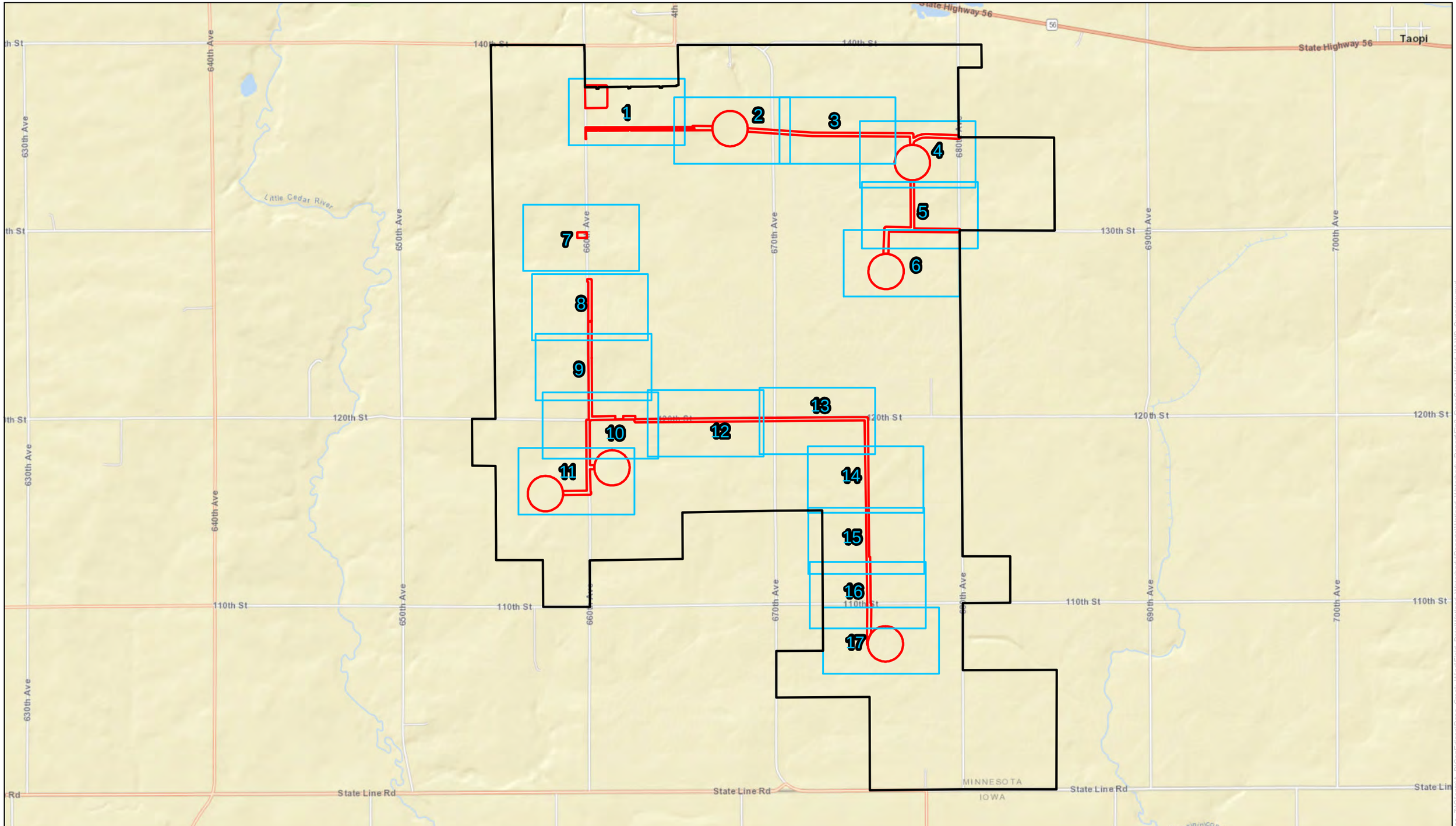
Survey Area
Project Boundary

Source: Z:\Clients\A_D\ConEdison\Rose_Creek_Wind\Field_Data\Wetland_Waterbody\Reports\Wetland_Waterbody_Report\Fig2_RoseCreek_Wind_WLWB_Topo.mxd

Date: (8/30/2021)

Figure 3

Overview Map



merjent. ConEdison Development

0 1,250 2,500 Feet

1 inch = 2,500 feet

N W E S

For Environmental Review Purposes Only

Figure 3
Overview Map
Rose Creek Wind Project
Rose Creek Wind, LLC
Mower County, Minnesota

Page Extent
Survey Area
Project Boundary

Source: Z:\Clients\A_D\ConEdison\Rose_Creek_Wind\Field_Data\Wetland_Waterbody_Report\Fig3_RoseCreek_Wind_WLWB_Overview.mxd

Date: (8/30/2021)

Figure 4

SSURGO Soil Type

merjent. conEdison Development

0 100 200 Feet

1 inch = 200 feet

N W E S

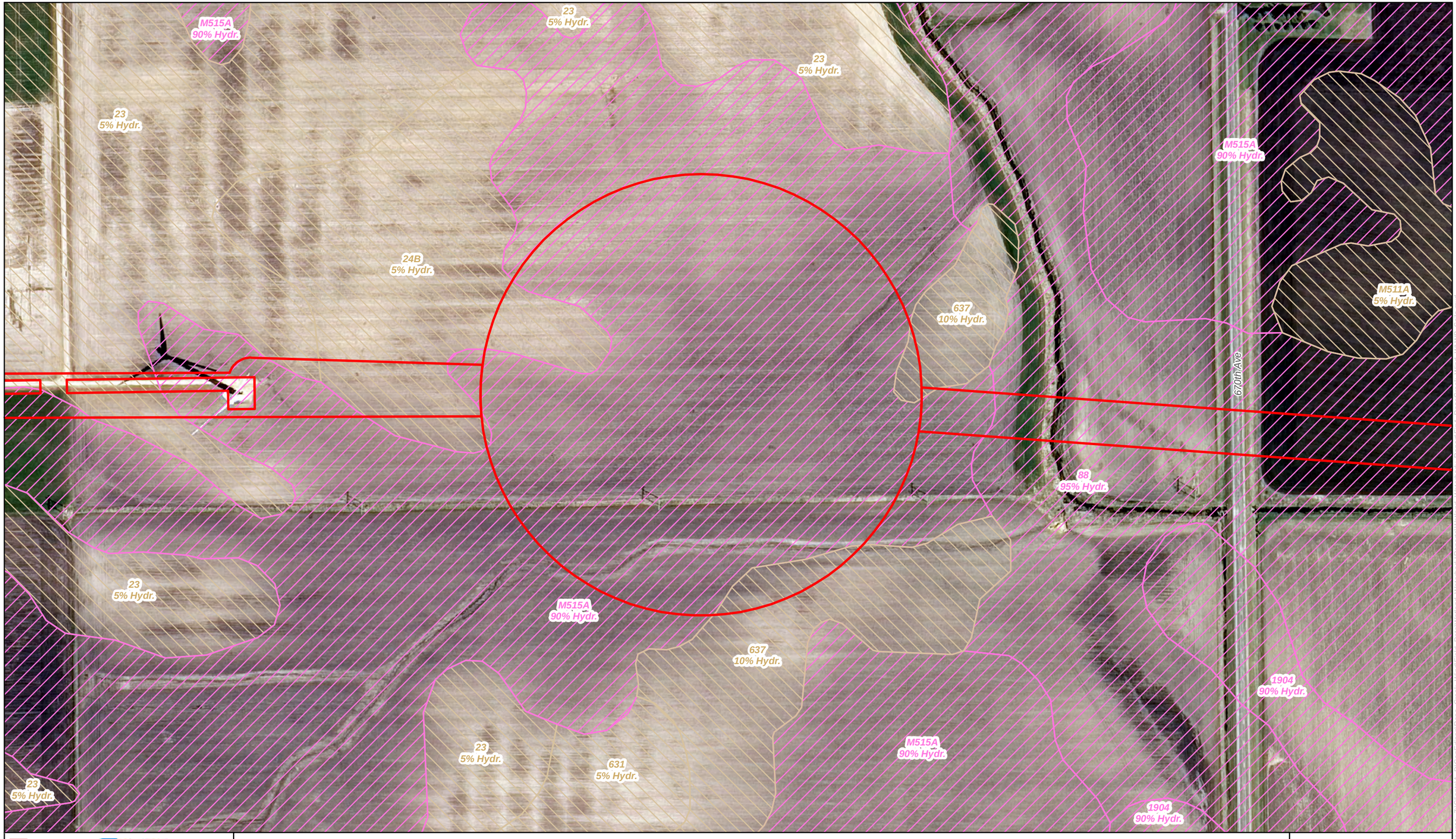
For Environmental Review Purposes Only

Figure 4
Mapped Soil Units (SSURGO) Map
Rose Creek Wind Project
Rose Creek Wind, LLC
Mower County, Minnesota

- Survey Area
- Project Boundary
- Hydric Soil
- Non-Hydric Soil

Source: Z:\Clients\A_D\ConEdison\Rose_Creek_Wind\Field_Data\Wetland_Waterbody\Reports\Wetland_Waterbody_Report\Fig4_RoseCreek_Wind_WLWB_Soils.mxd

Date: (8/30/2021)



merjent

ConEdison Development

0 100 200 Feet

1 inch = 200 feet

N W E S

For Environmental Review Purposes Only

Figure 4
Mapped Soil Units (SSURGO) Map
Rose Creek Wind Project
Rose Creek Wind, LLC
Mower County, Minnesota

Survey Area
Project Boundary
Hydric Soil
Non-Hydric Soil

Source: Z:\Clients\A_D\ConEdison\Rose_Creek_Wind\Field_Data\Wetland_Waterbody\Reports\Wetland_Waterbody_Report\Fig4_RoseCreek_Wind_WLWB_Soils.mxd

Date: (8/30/2021)

merjent. ConEdison Development

0 100 200 Feet

1 inch = 200 feet

N W E S

For Environmental Review Purposes Only

Figure 4
Mapped Soil Units (SSURGO) Map
Rose Creek Wind Project
Rose Creek Wind, LLC
Mower County, Minnesota

Survey Area
Project Boundary
Hydric Soil
Non-Hydric Soil

Source: Z:\Clients\A_D\ConEdison\Rose_Creek_Wind\Field_Data\Wetland_Waterbody\Reports\Wetland_Waterbody_Report\Fig4_RoseCreek_Wind_WLWB_Soils.mxd
Date: (8/30/2021)

merjent. ConEdison Development

0 100 200 Feet

1 inch = 200 feet

N W E S

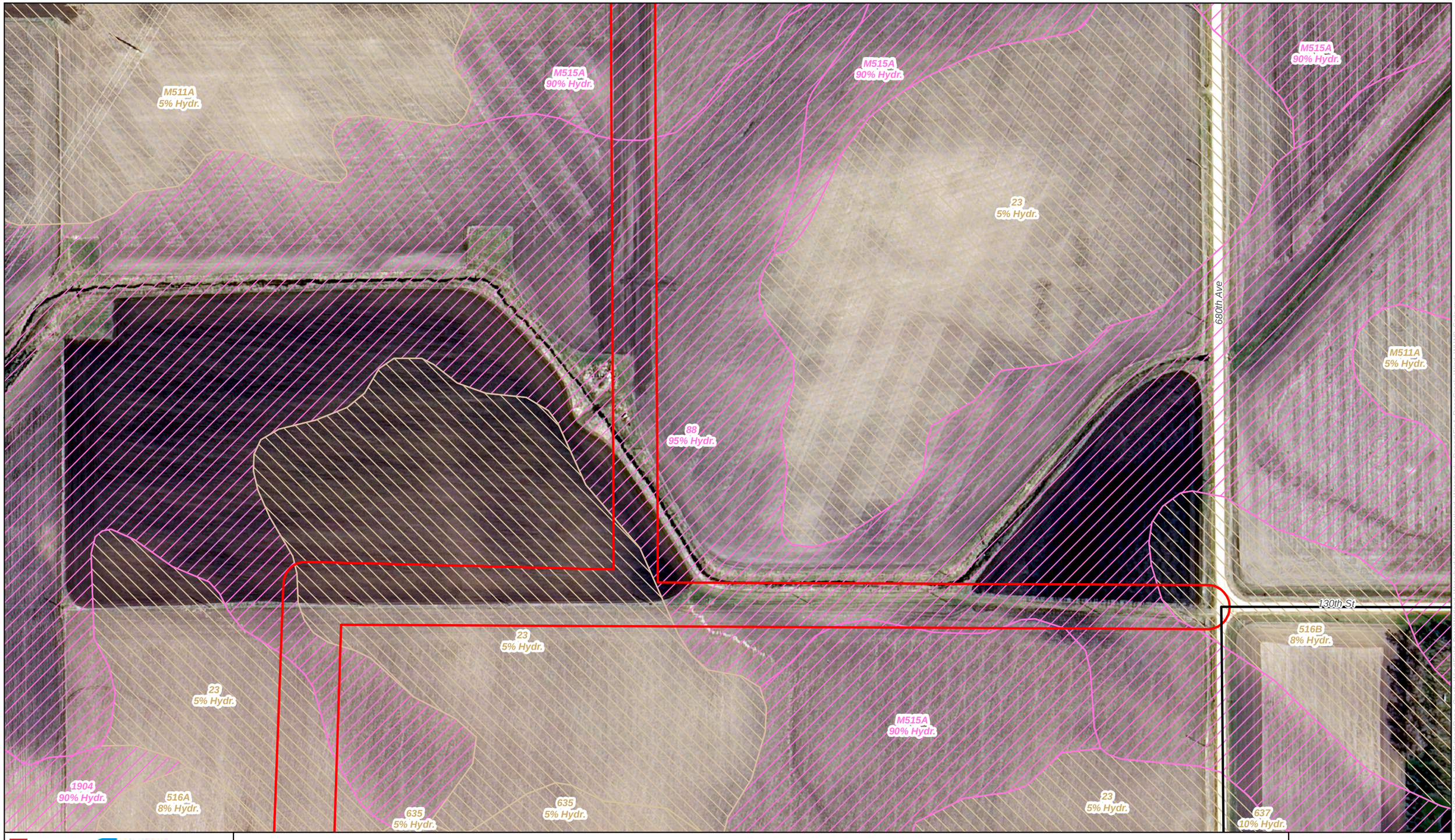
For Environmental Review Purposes Only

Figure 4
Mapped Soil Units (SSURGO) Map
Rose Creek Wind Project
Rose Creek Wind, LLC
Mower County, Minnesota

- Survey Area
- Project Boundary
- Hydric Soil
- Non-Hydric Soil

Source: Z:\Clients\A_D\ConEdison\Rose_Creek_Wind\Field_Data\Wetland_Waterbody\Reports\Wetland_Waterbody_Report\Fig4_RoseCreek_Wind_WLWB_Soils.mxd

Date: (8/30/2021)



merjent

conEdison Development

0 100 200 Feet

1 inch = 200 feet

N W E S

For Environmental Review Purposes Only

Figure 4
Mapped Soil Units (SSURGO) Map
Rose Creek Wind Project
Rose Creek Wind, LLC
Mower County, Minnesota

Survey Area
Project Boundary
Hydric Soil
Non-Hydric Soil

Source: Z:\Clients\A_D\ConEdison\Rose_Creek_Wind\Field_Data\Wetland_Waterbody\Reports\Wetland_Waterbody_Report\Fig4_RoseCreek_Wind_WLWB_Soils.mxd

Date: (8/30/2021)

88
95% Hydr.
635
5% Hydr.
23
5% Hydr.
88
95% Hydr.
516A
8% Hydr.
88
95% Hydr.
1904
90% Hydr.
635
5% Hydr.
M515A
90% Hydr.
135
10% Hydr.
635
5% Hydr.
88
95% Hydr.
516B
8% Hydr.
23
5% Hydr.
23
5% Hydr.
637
10% Hydr.
1884
85% Hydr.
23
5% Hydr.

0 100 200 Feet
1 inch = 200 feet

N
W E
S

For Environmental Review Purposes Only

Figure 4
Mapped Soil Units (SSURGO) Map
Rose Creek Wind Project
Rose Creek Wind, LLC
Mower County, Minnesota

Survey Area
Project Boundary
Hydric Soil
Non-Hydric Soil

Source: Z:\Clients\A_D\ConEdison\Rose_Creek_Wind\Field_Data\Wetland_Waterbody\Reports\Wetland_Waterbody_Report\Fig4_RoseCreek_Wind_WLWB_Soils.mxd
Date: (8/30/2021)

merjent | conEdison Development

0 100 200 Feet

1 inch = 200 feet

N W E S

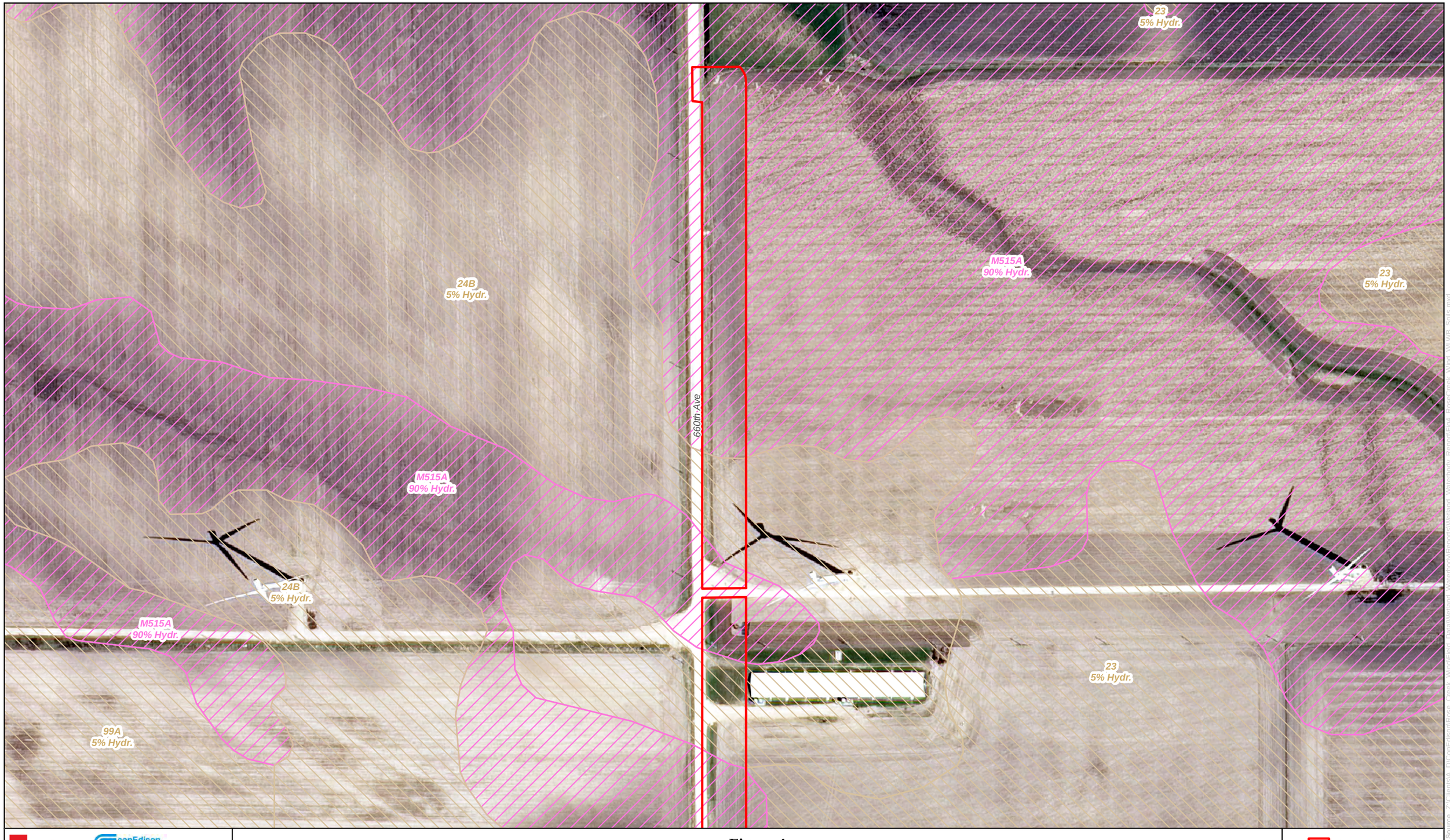
For Environmental Review Purposes Only

Figure 4
Mapped Soil Units (SSURGO) Map
Rose Creek Wind Project
Rose Creek Wind, LLC
Mower County, Minnesota

Survey Area
Project Boundary
Hydric Soil
Non-Hydric Soil

Source: Z:\Clients\A_D\ConEdison\Rose_Creek_Wind\Field_Data\Wetland_Waterbody\Reports\Wetland_Waterbody_Report\Fig4_RoseCreek_Wind_WLWB_Soils.mxd

Date: (8/30/2021)



merjent. ConEdison Development

0 100 200 Feet

1 inch = 200 feet

N W E S

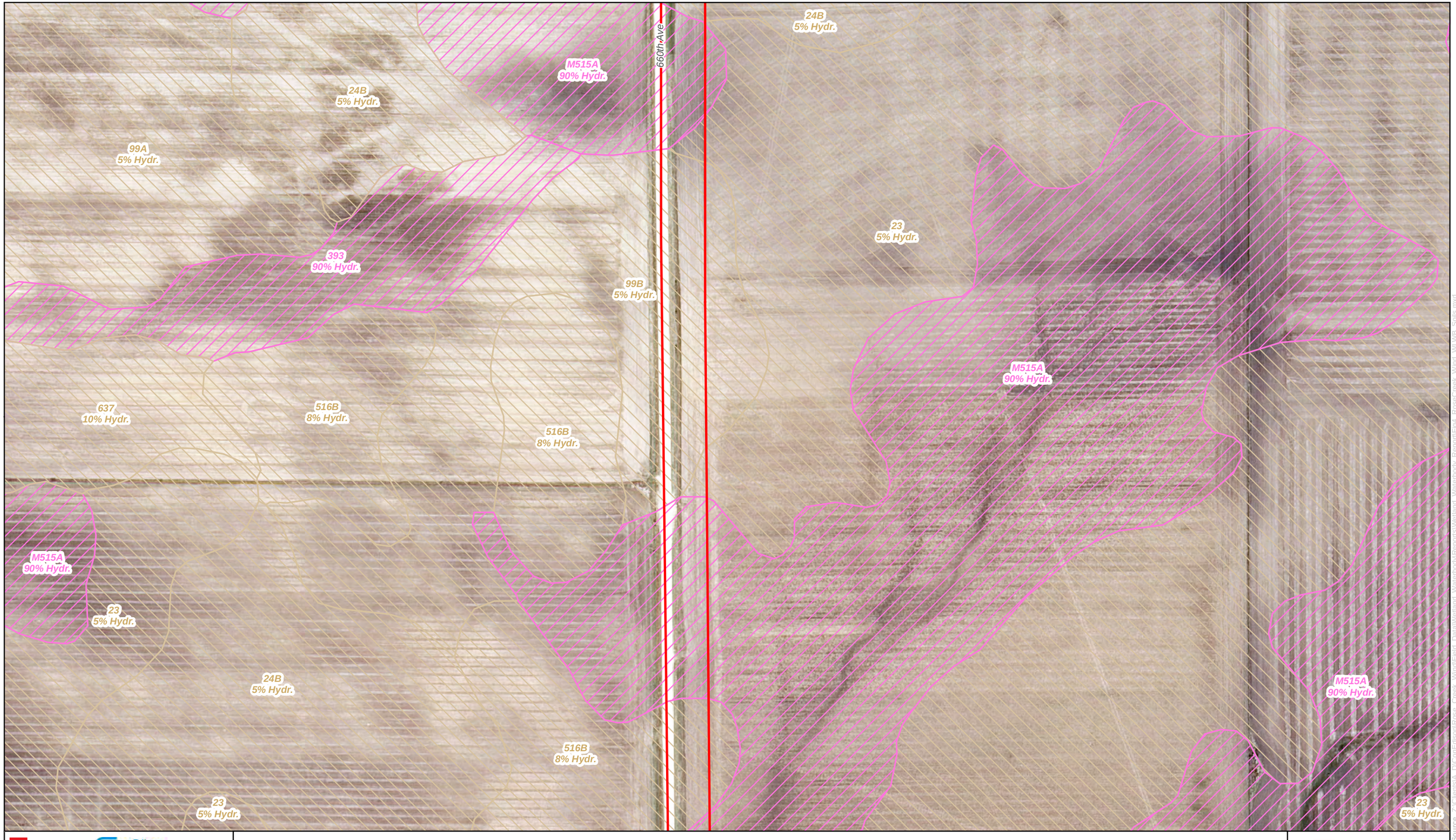
For Environmental Review Purposes Only

Figure 4
Mapped Soil Units (SSURGO) Map
Rose Creek Wind Project
Rose Creek Wind, LLC
Mower County, Minnesota

Survey Area
Project Boundary
Hydric Soil
Non-Hydric Soil

Source: Z:\Clients\A_D\ConEdison\Rose_Creek_Wind\Field_Data\Wetland_Waterbody_Report\Fig4_RoseCreek_Wind_WLWB_Soils.mxd

Date: (8/30/2021)



merjent. ConEdison Development

0 100 200 Feet

1 inch = 200 feet

N W E S

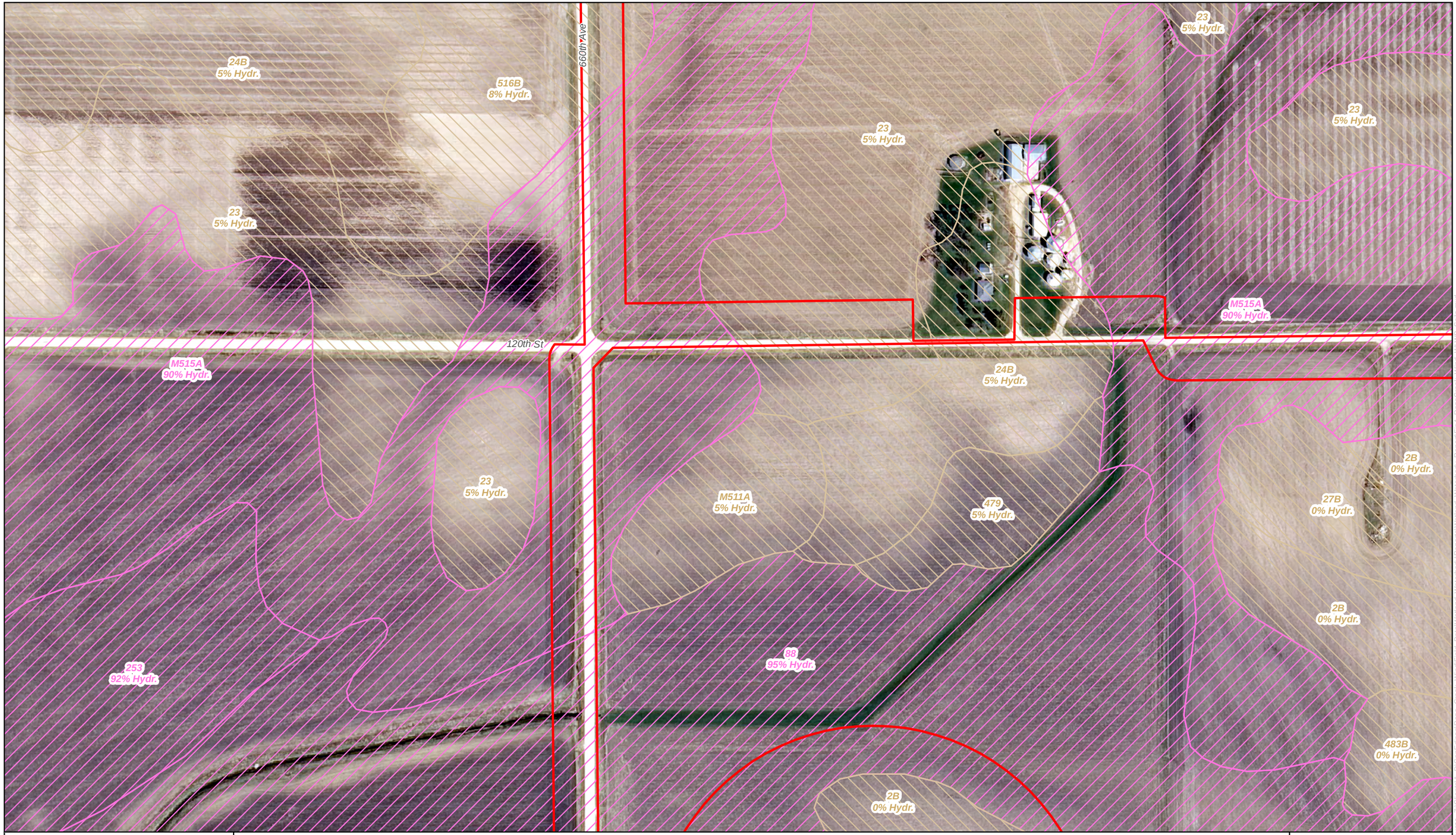
For Environmental Review Purposes Only

Figure 4
Mapped Soil Units (SSURGO) Map
Rose Creek Wind Project
Rose Creek Wind, LLC
Mower County, Minnesota

Survey Area
Project Boundary
Hydric Soil
Non-Hydric Soil

Source: Z:\Clients\A_D\ConEdison\Rose_Creek_Wind\Field_Data\Wetland_Waterbody\Reports\Wetland_Waterbody_Report\Fig4_RoseCreek_Wind_WLWB_Soils.mxd

Date: (8/30/2021)



merjent. ConEdison Development

0 100 200 Feet

1 inch = 200 feet

N W E S

For Environmental Review Purposes Only

Figure 4
Mapped Soil Units (SSURGO) Map
Rose Creek Wind Project
Rose Creek Wind, LLC
Mower County, Minnesota

- Survey Area
- Project Boundary
- Hydric Soil
- Non-Hydric Soil

Source: Z:\Clients\A_D\ConEdison\Rose_Creek_Wind\Field_Data\Wetland_Waterbody\Reports\Wetland_Waterbody_Report\Fig4_RoseCreek_Wind_WLWB_Soils.mxd

Date: (8/30/2021)

merjent | conEdison Development

0 100 200 Feet

1 inch = 200 feet

N W E S

For Environmental Review Purposes Only

Figure 4
Mapped Soil Units (SSURGO) Map
Rose Creek Wind Project
Rose Creek Wind, LLC
Mower County, Minnesota

Survey Area
Project Boundary
Hydric Soil
Non-Hydric Soil

Source: Z:\Clients\A_D\ConEdison\Rose_Creek_Wind\Field_Data\Wetland_Waterbody\Reports\Wetland_Waterbody_Report\Fig4_RoseCreek_Wind_WLWB_Soils.mxd

Date: (8/30/2021)

merjent. ConEdison Development

0 100 200 Feet

1 inch = 200 feet

N W E S

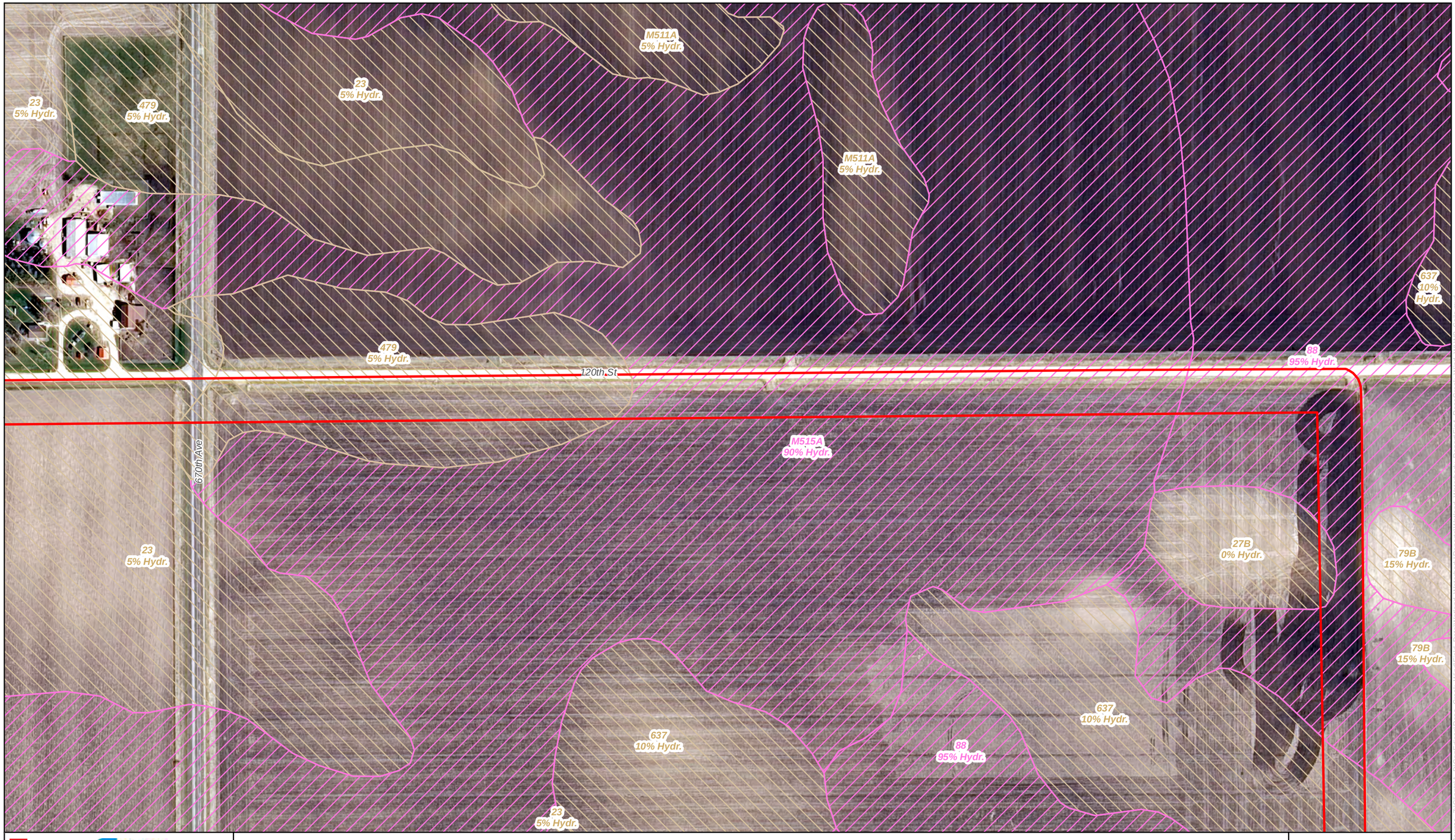
For Environmental Review Purposes Only

Figure 4
Mapped Soil Units (SSURGO) Map
Rose Creek Wind Project
Rose Creek Wind, LLC
Mower County, Minnesota

Survey Area
Project Boundary
Hydric Soil
Non-Hydric Soil

Source: Z:\Clients\A_D\ConEdison\Rose_Creek_Wind\Field_Data\Wetland_Waterbody\Reports\Wetland_Waterbody_Report\Fig4_RoseCreek_Wind_WLWB_Soils.mxd

Date: (8/30/2021)



merjent. ConEdison Development

0 100 200 Feet

1 inch = 200 feet

N W E S

For Environmental Review Purposes Only

Figure 4
Mapped Soil Units (SSURGO) Map
Rose Creek Wind Project
Rose Creek Wind, LLC
Mower County, Minnesota

Survey Area
Project Boundary
Hydric Soil
Non-Hydric Soil

Source: Z:\Clients\A_D\ConEdison\Rose_Creek_Wind\Field_Data\Wetland_Waterbody\Reports\Wetland_Waterbody_Report\Fig4_RoseCreek_Wind_WLWB_Soils.mxd

Date: (6/30/2021)

637
10% Hydr.

637
10% Hydr.

79B
15% Hydr.

637
10%
Hydr.

23
5% Hydr.

27B
0% Hydr.

88
95% Hydr.

M515A
90% Hydr.

1904
90% Hydr.

23
5% Hydr.

2A
0% Hydr.

1841
0% Hydr.

637
10% Hydr.

2A
0% Hydr.

merjent

conEdison Development

0 100 200 Feet

1 inch = 200 feet

N W E S

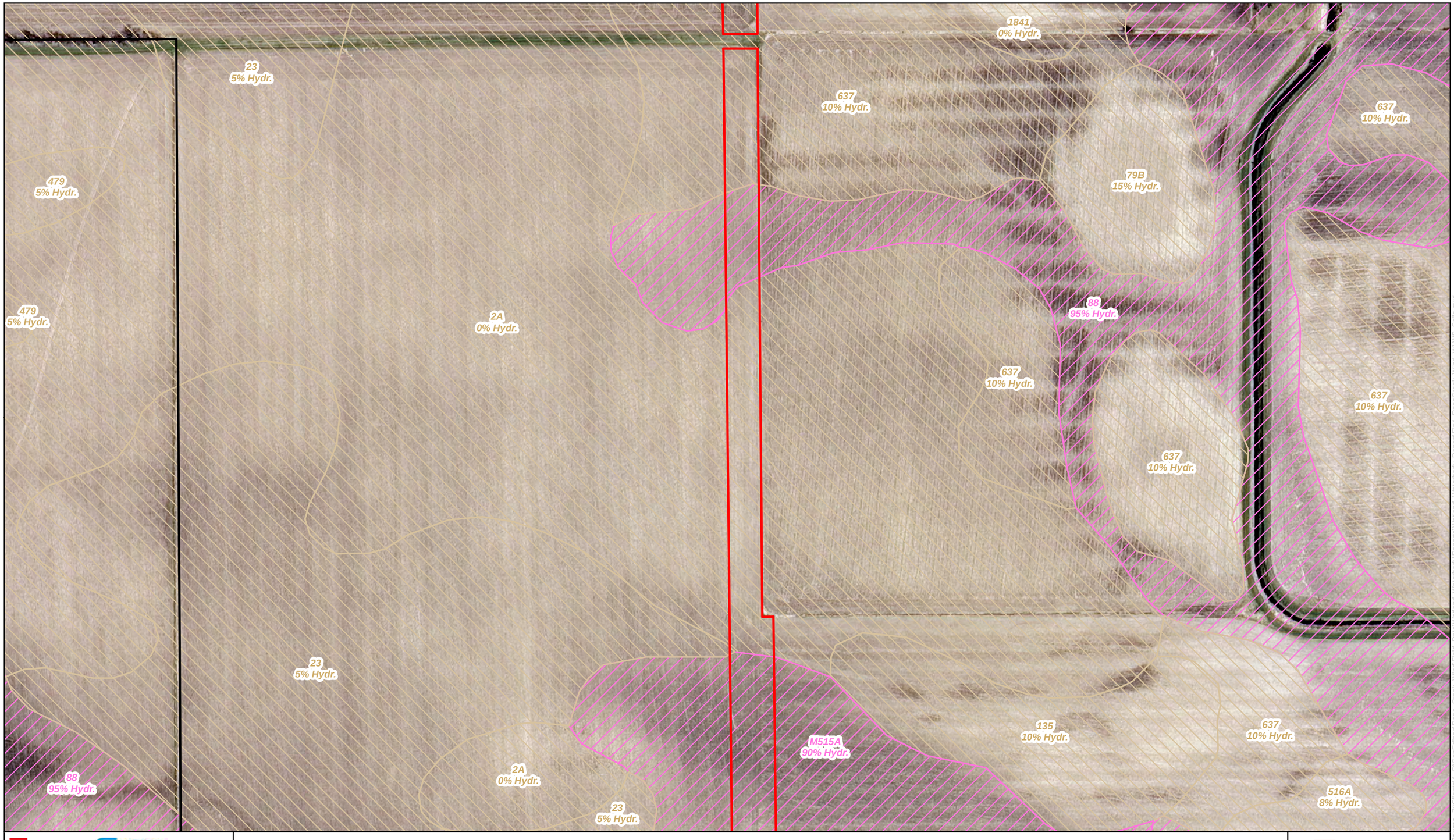
For Environmental Review Purposes Only

Figure 4
Mapped Soil Units (SSURGO) Map
Rose Creek Wind Project
Rose Creek Wind, LLC
Mower County, Minnesota

Survey Area
Project Boundary
Hydric Soil
Non-Hydric Soil

Source: Z:\Clients\A_D\ConEdison\Rose_Creek_Wind\Field_Data\Wetland_Waterbody\Reports\Wetland_Waterbody_Report\Fig4_RoseCreek_Wind_WLWB_Soils.mxd

Date: (8/30/2021)



merjent. ConEdison Development

0 100 200 Feet

1 inch = 200 feet

N W E S

For Environmental Review Purposes Only

Figure 4
Mapped Soil Units (SSURGO) Map
Rose Creek Wind Project
Rose Creek Wind, LLC
Mower County, Minnesota

Survey Area
Project Boundary
Hydric Soil
Non-Hydric Soil

Source: Z:\Clients\A_D\ConEdison\Rose_Creek_Wind\Field_Data\Wetland_Waterbody\Reports\Wetland_Waterbody_Report\Fig4_RoseCreek_Wind_WLWB_Soils.mxd

Date: (8/30/2021)