

Service Layer Credits: MNGeo, FSA 2017
Data Source: National Grid Renewables, US Census, MDNR,
Redwood County, Murray County, Cottonwood County

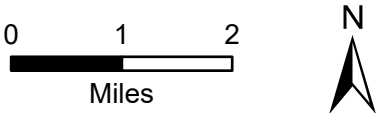
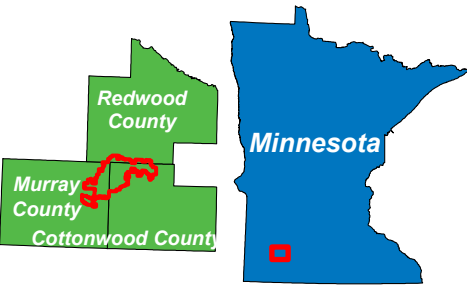
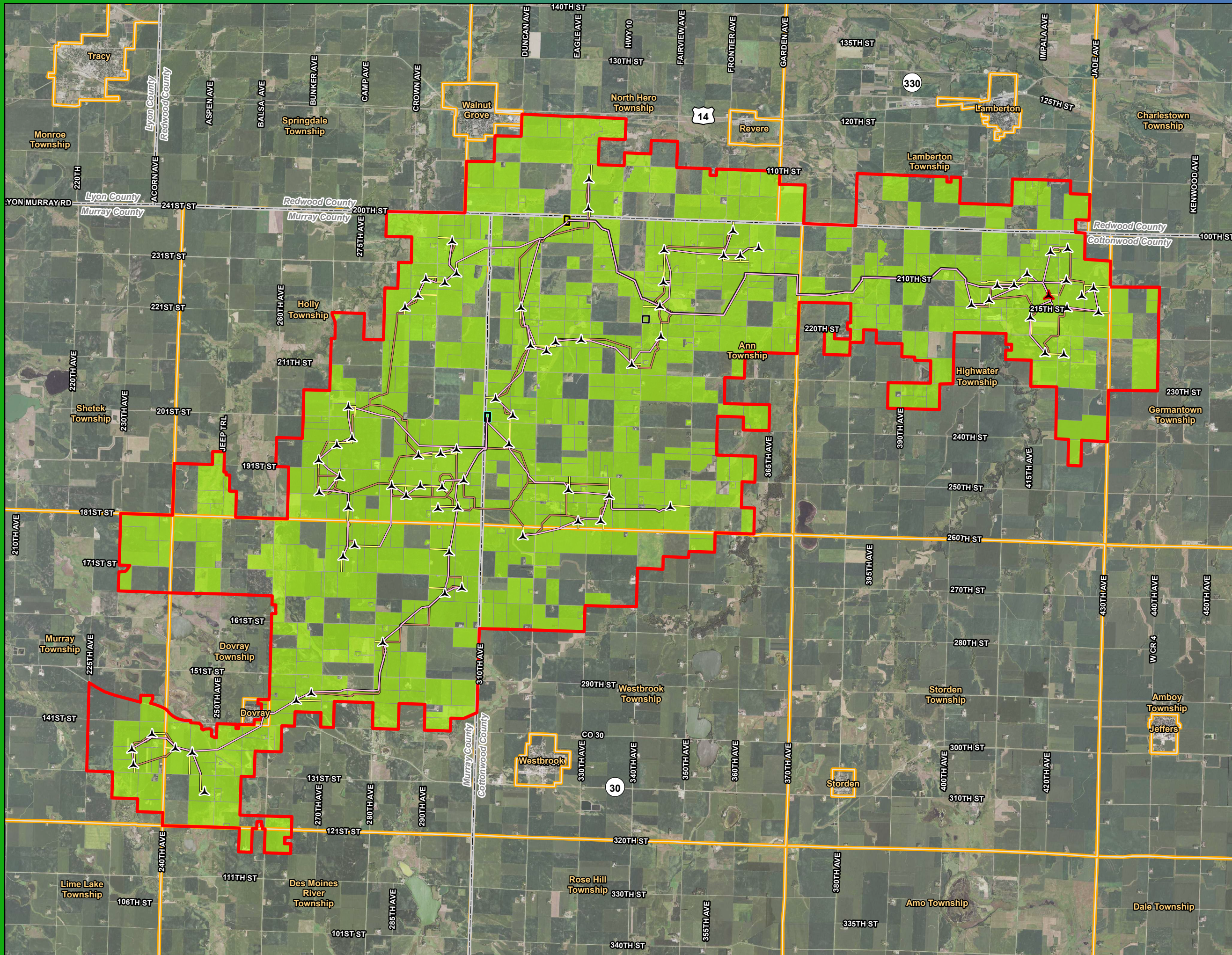
- ▲ V163 Proposed Turbine (Primary)
- ▲ V163 Alternate Turbine (Alternate)
- Residential Structure (within 1 mile of Project Area)
- Murray County Other Structure (Non-Residential)
- Permanent Met Tower
- Existing Substation
- Existing Pipeline
- Existing Transmission Line
- Snowmobile Trail
- 3x5 Wind Access Buffer
- Project Area Boundary
- Revised Collector Substation 1
- Collector Substation 2/ O&M Facility
- Ordered Collector Substation 1
- ▨ Landowner Participant in Project Area
- Microwave Beam Path (Worst Case Freznl Zone)
- Setbacks (Roads, Powerlines, Pipelines, and Residences)
- Shoreland Area
- NWI Wetland (> 10.0 acres; Murray County)
- Public Water Basin/Wetland
- City/Township
- County Boundary
- *Turbines not to scale

Map 5d
Turbine Layout and
Constraints
Vestas V163-4.5

Plum Creek Wind Project

Redwood, Murray, and
Cottonwood Counties, MN





Service Layer Credits: MNGeo, FSA 2021
Data Source: National Grid Renewables, US Census, MDNR

- ▲ GE154 Proposed Turbine (Primary)
- ▲ GE154 Alternate Turbine (Alternate)
- Access Road
- Collection Line
- Crane Path
- Revised Collector Substation 1
- Collector Substation 2/ O&M Facility
- Ordered Collector Substation 1
- Project Area Boundary
- Landowner Participant in Project Area
- City/Township
- County Boundary

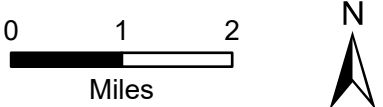
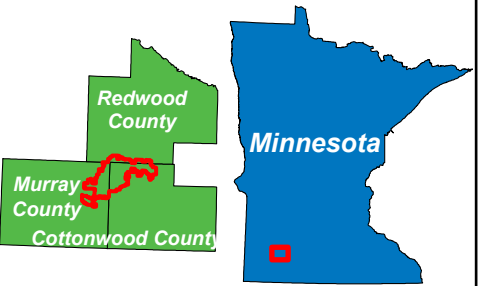
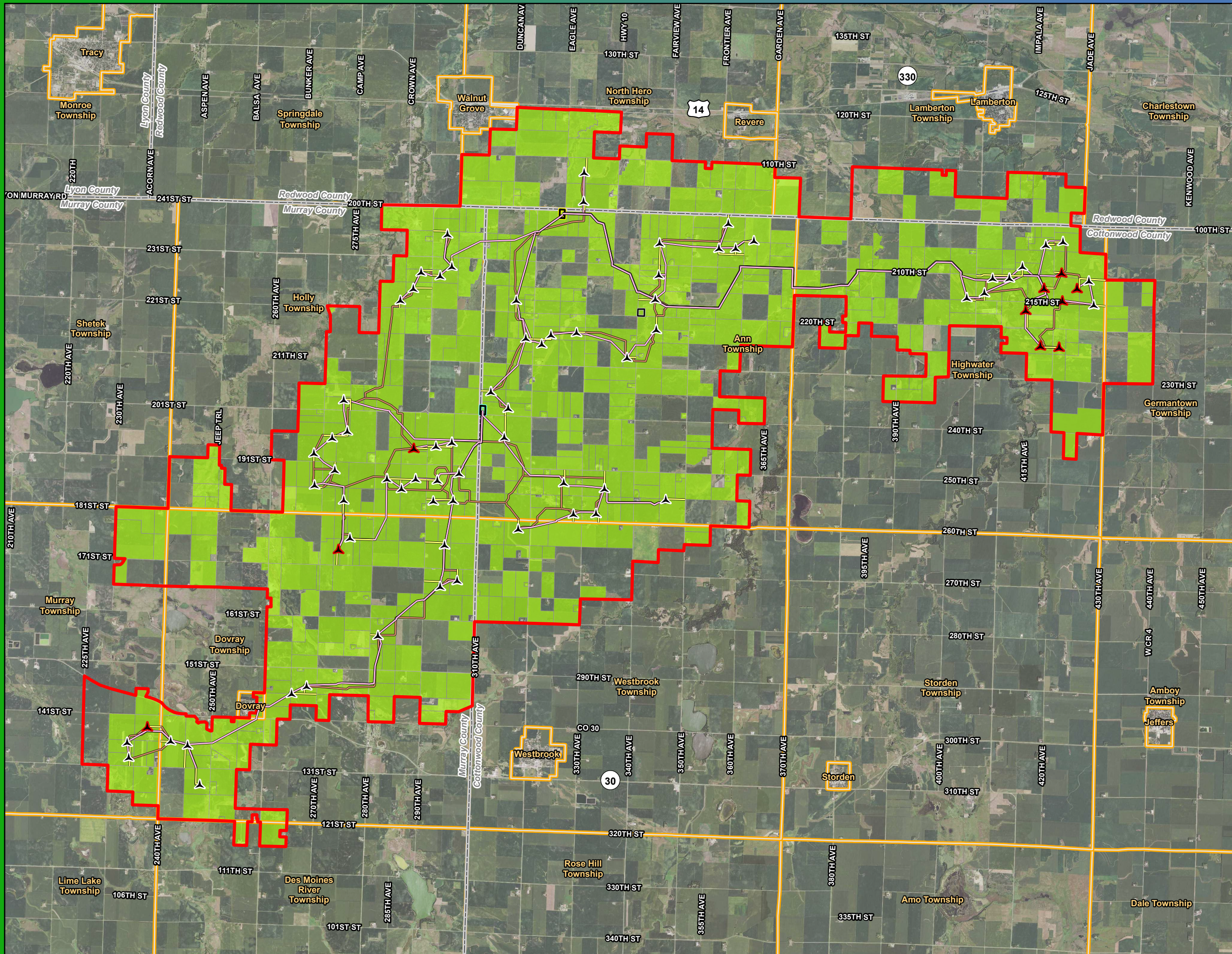
*Turbines not to scale

Map 6a Land Ownership GE 3.8-154

Plum Creek Wind Project

Redwood, Murray, and Cottonwood Counties, MN





Service Layer Credits: MNGeo, FSA 2021
Data Source: National Grid Renewables, US Census, MDNR

- GE158 Proposed Turbine (Primary)
- GE158 Alternate Turbine (Alternate)
- Access Road
- Collection Line
- Crane Path
- Revised Collector Substation 1
- Collector Substation 2/ O&M Facility
- Ordered Collector Substation 1
- Project Area Boundary
- Landowner Participant in Project Area
- City/Township
- County Boundary

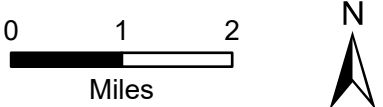
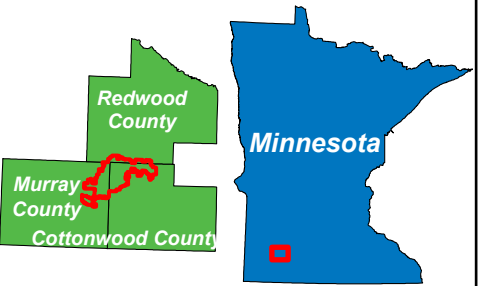
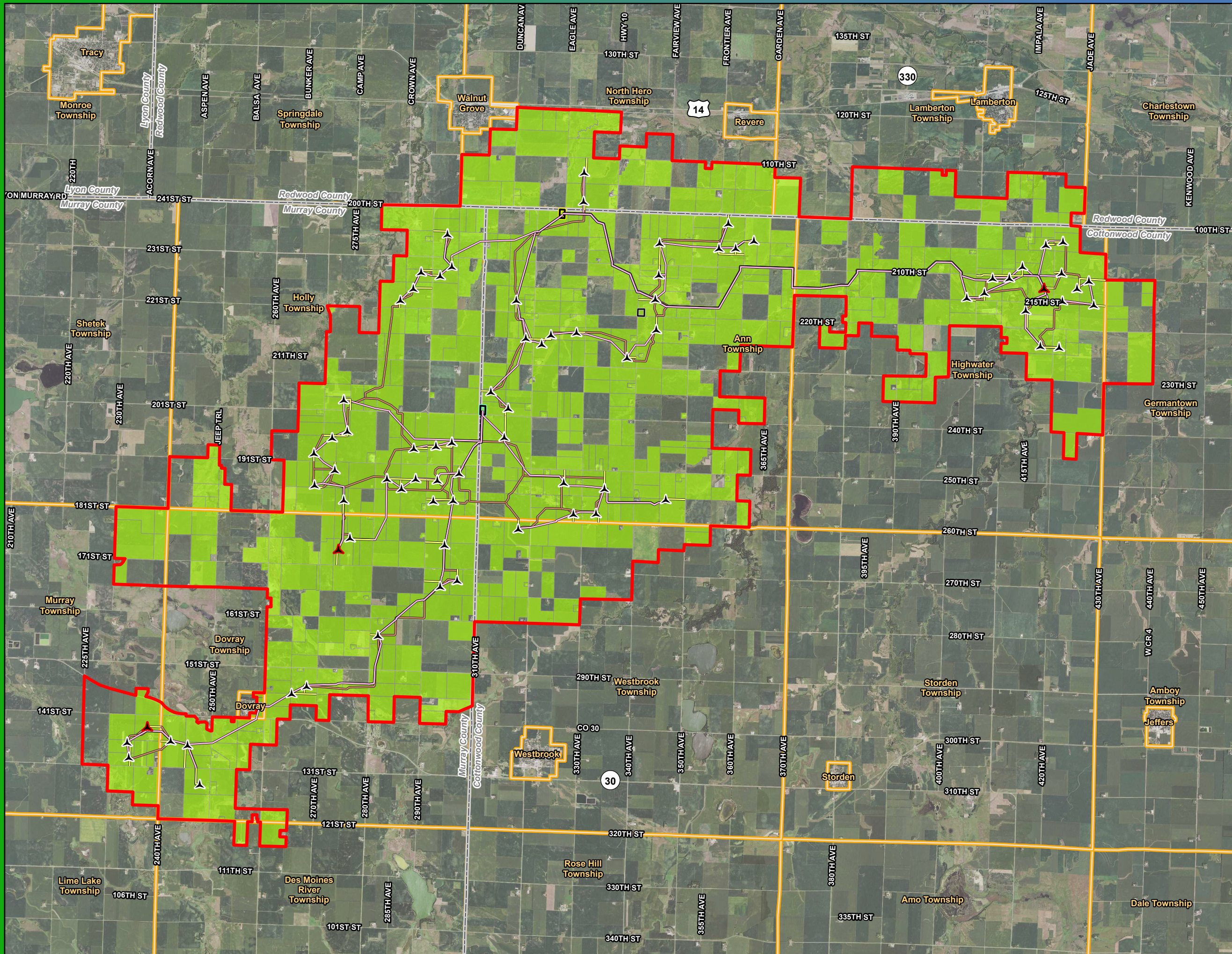
*Turbines not to scale

Map 6b
Land Ownership
GE 6.1-158

Plum Creek Wind Project

Redwood, Murray, and
Cottonwood Counties, MN





Service Layer Credits: MNGeo, FSA 2021
Data Source: National Grid Renewables, US Census, MDNR

- ▲ V150 Proposed Turbine (Primary)
- ▲ V150 Alternate Turbine (Alternate)
- Access Road
- Collection Line
- Crane Path
- Revised Collector Substation 1
- Collector Substation 2/ O&M Facility
- Ordered Collector Substation 1
- Project Area Boundary
- Landowner Participant in Project Area
- City/Township
- County Boundary

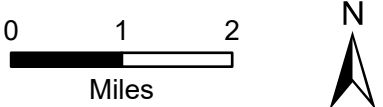
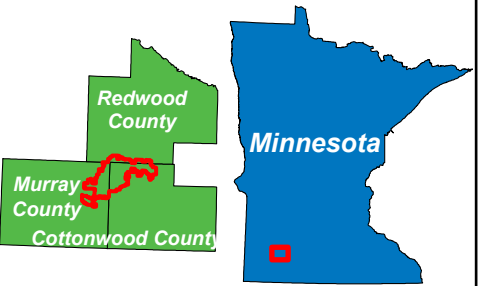
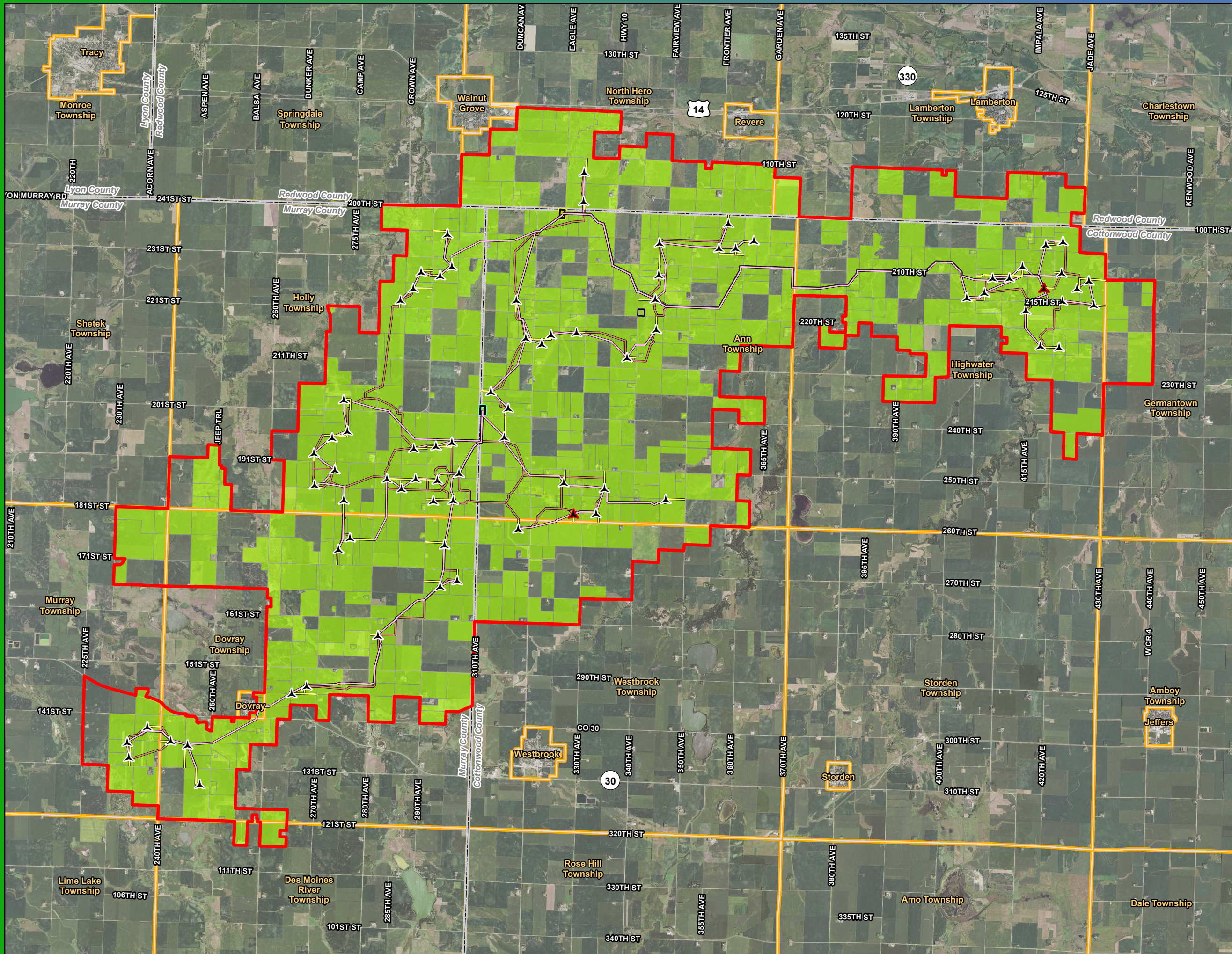
*Turbines not to scale

Map 6c
Land Ownership
Vestas V150-4.5

Plum Creek Wind Project

Redwood, Murray, and
Cottonwood Counties, MN





Service Layer Credits: MNGeo, FSA 2021
Data Source: National Grid Renewables, US Census, MDNR

- ▲ V163 Proposed Turbine (Primary)
- ▲ V163 Alternate Turbine (Alternate)
- Access Road
- Collection Line
- Crane Path
- Revised Collector Substation 1
- Collector Substation 2/ O&M Facility
- Ordered Collector Substation 1
- Project Area Boundary
- Landowner Participant in Project Area
- City/Township
- County Boundary

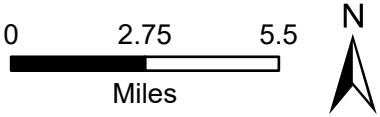
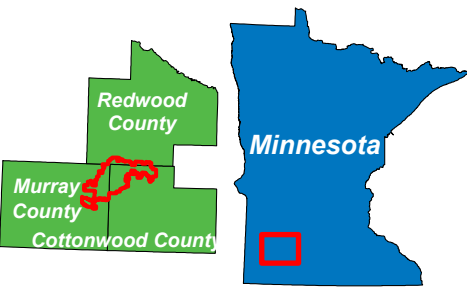
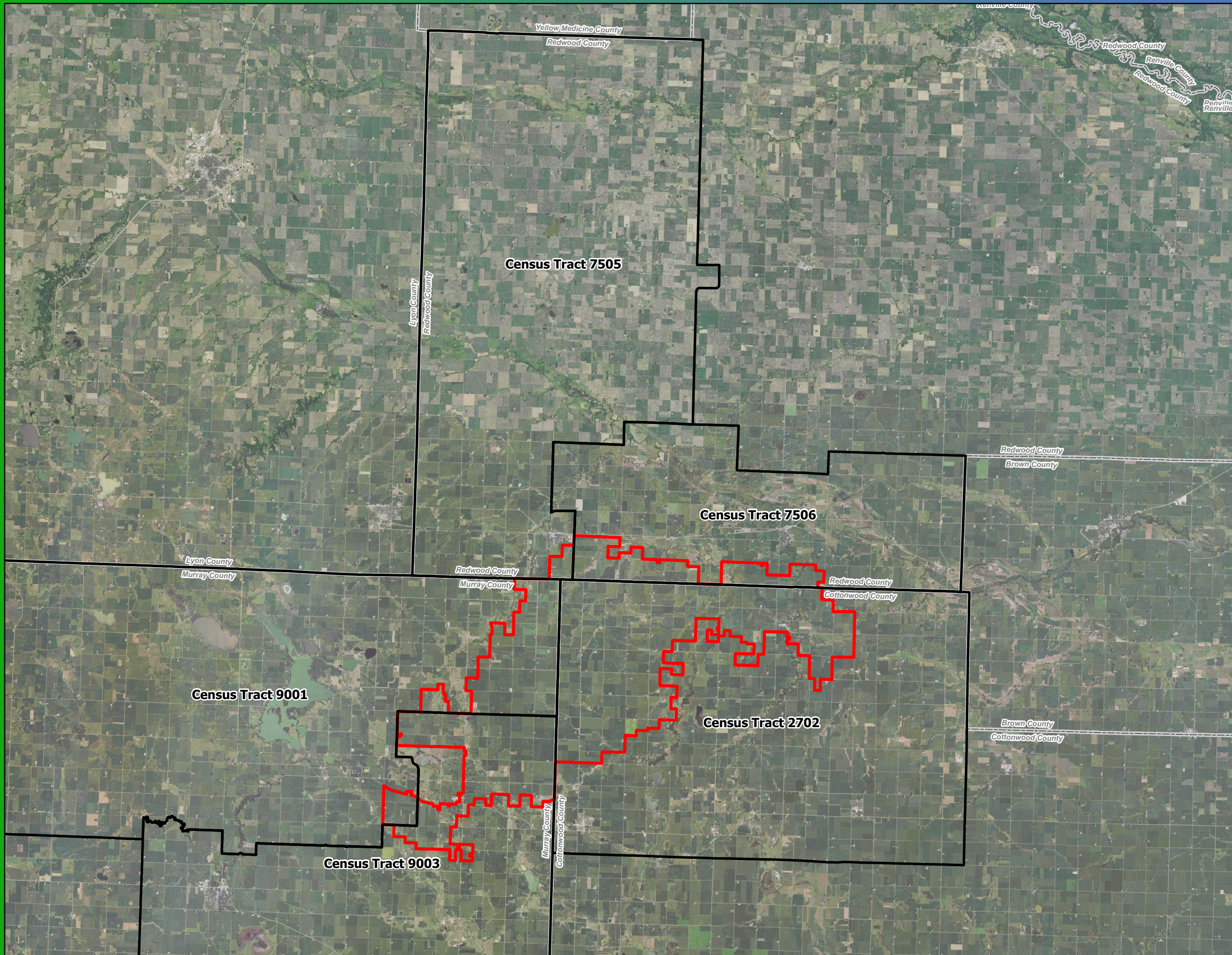
*Turbines not to scale

Map 6d
Land Ownership
Vestas V163-4.5

Plum Creek Wind Project

Redwood, Murray, and
Cottonwood Counties, MN





Service Layer Credits: MNGeo, FSA 2021
Data Source: National Grid Renewables, US Census

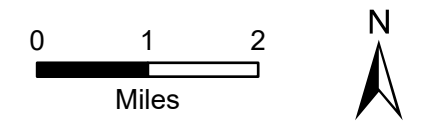
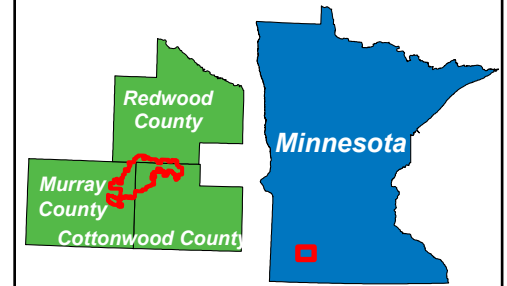
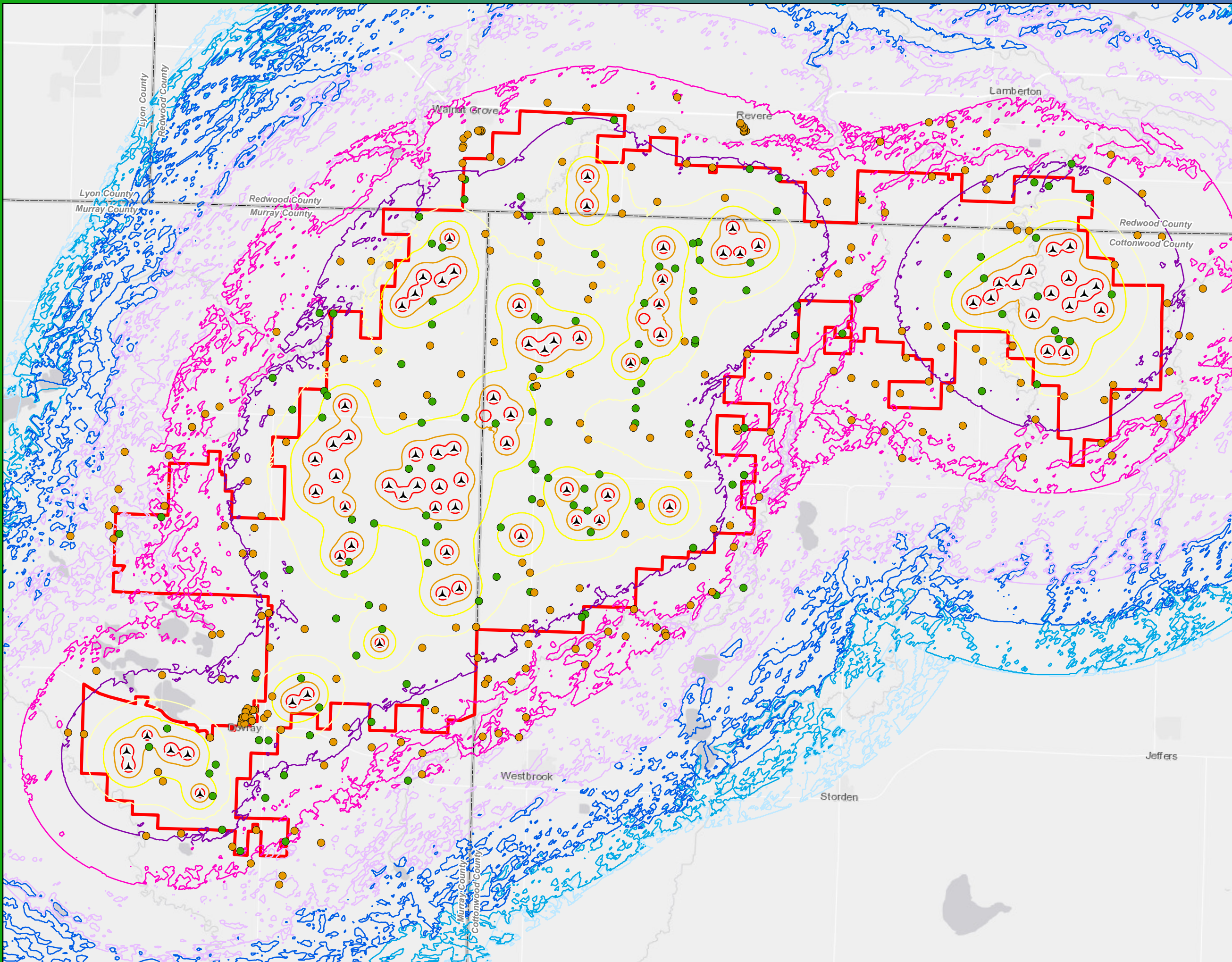
- Project Area Boundary
- Census Tract Boundary
- County Boundary

Map 7
Areas of Environmental Justice
Concerns in the Project Area

Plum Creek Wind Project

Redwood, Murray, and
Cottonwood Counties, MN





Service Layer Credits: MNGeo, FSA 2017
Data Source: National Grid Renewables, US Census

- ▲ GE154 Proposed Turbine
- ▭ Project Area Boundary
- Residential Structure (within 1 mile of Project Area)
 - Participant
 - Non-Participant
- Sound Pressure Levels (Turbine Only)
 - 5 dBa
 - 10 dBa
 - 15 dBa
 - 20 dBa
 - 25 dBa
 - 30 dBa
 - 35 dBa
 - 40 dBa
 - 45 dBa
 - 50 dBa

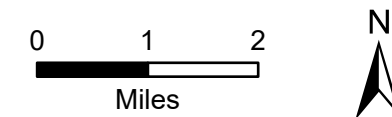
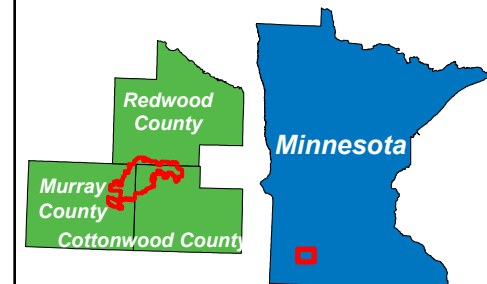
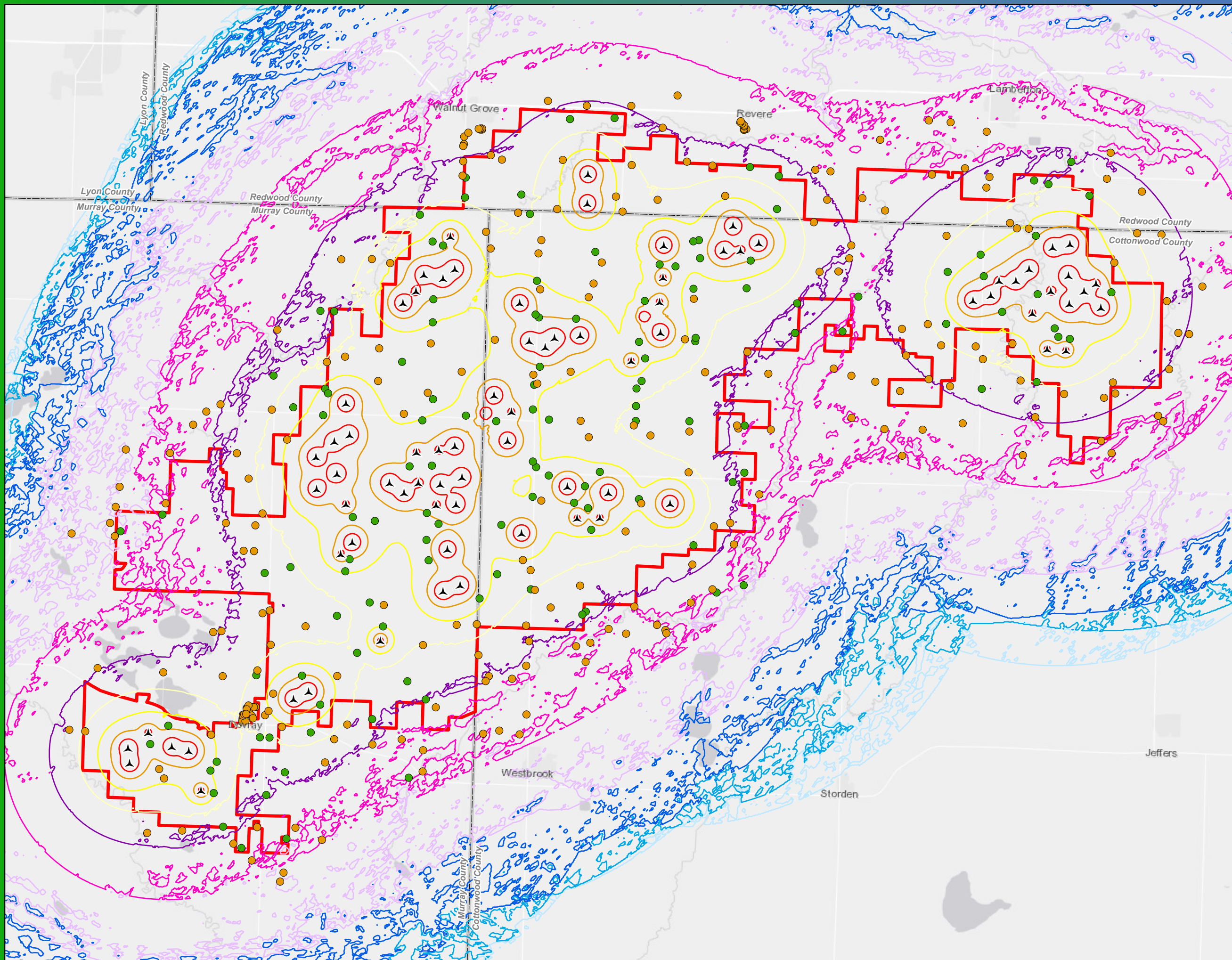
*Turbines not to scale

Map 8a Sound/Noise GE 3.8-154

Plum Creek Wind Project

Redwood, Murray, and
Cottonwood Counties, MN





Service Layer Credits: MNGeo, FSA 2017
Data Source: National Grid Renewables, US Census

- ▲ GE158 Proposed Turbine
- ▭ Project Area Boundary
- Residential Structure (within 1 mile of Project Area)
 - Participant
 - Non-Participant
- Sound Pressure Levels (Turbine Only)
 - 5 dBa
 - 10 dBa
 - 15 dBa
 - 20 dBa
 - 25 dBa
 - 30 dBa
 - 35 dBa
 - 40 dBa
 - 45 dBa
 - 50 dBa

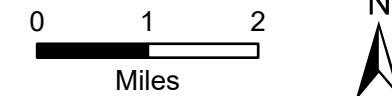
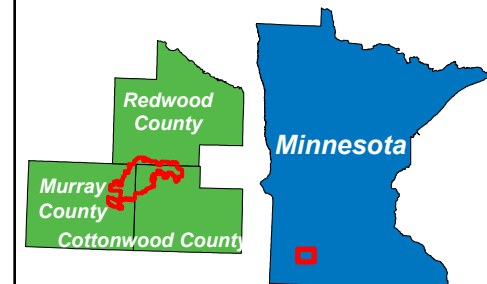
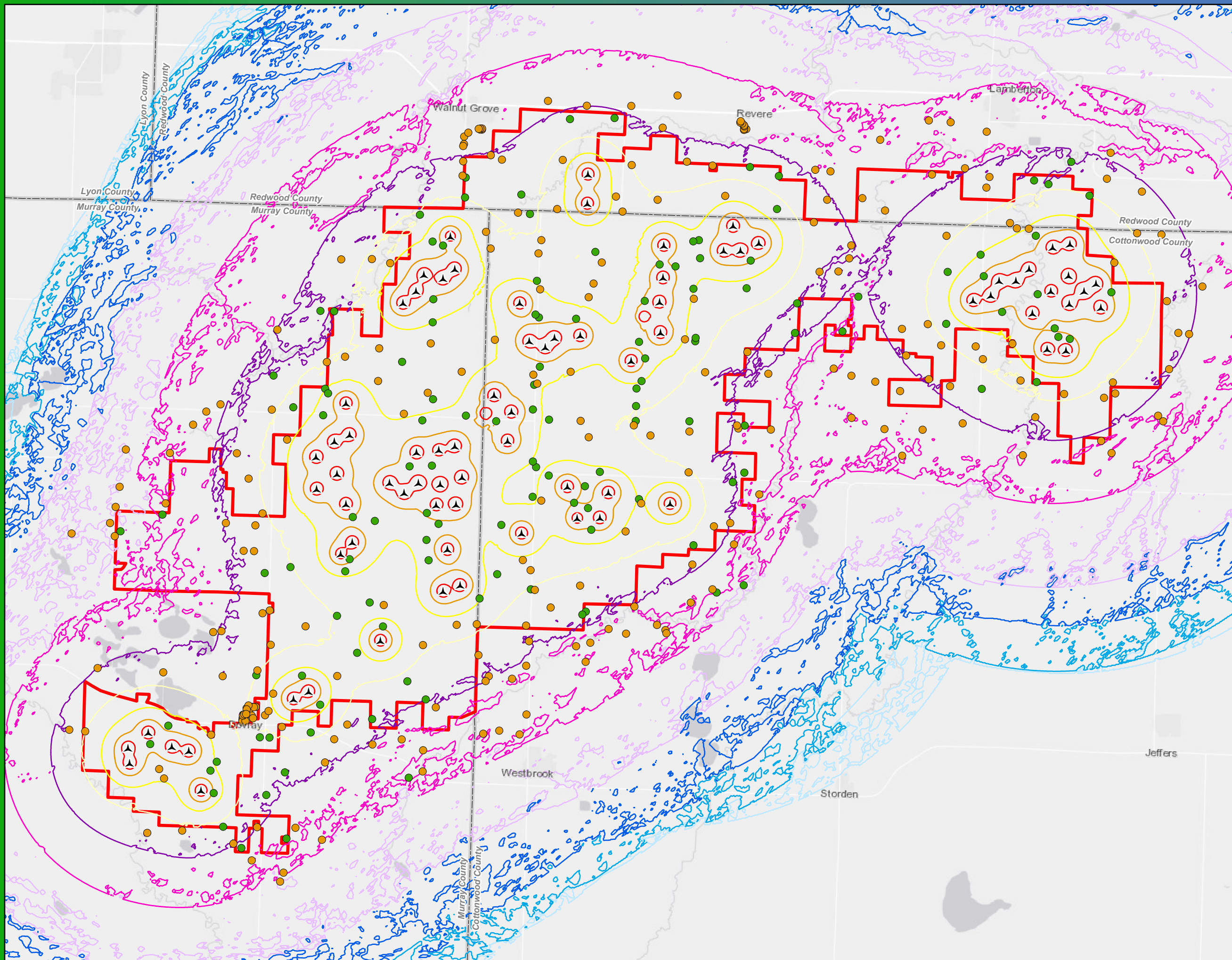
*Turbines not to scale

Map 8b Sound/Noise GE 6.1-158

Plum Creek Wind Project

Redwood, Murray, and
Cottonwood Counties, MN





Service Layer Credits: MNGeo, FSA 2017
Data Source: National Grid Renewables, US Census

- ▲ V150 Proposed Turbine
- ▭ Project Area Boundary
- Residential Structure (within 1 mile of Project Area)
 - Participant
 - Non-Participant
- Sound Pressure Levels (Turbine Only)
 - 5 dBa
 - 10 dBa
 - 15 dBa
 - 20 dBa
 - 25 dBa
 - 30 dBa
 - 35 dBa
 - 40 dBa
 - 45 dBa
 - 50 dBa

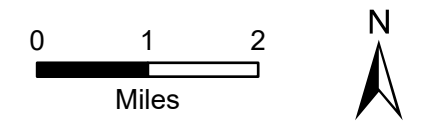
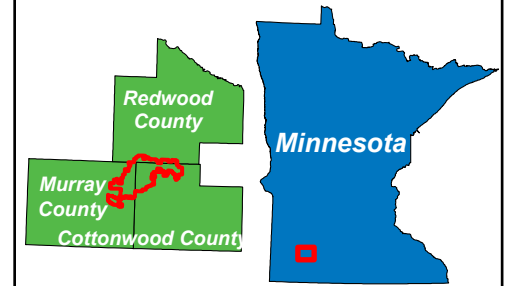
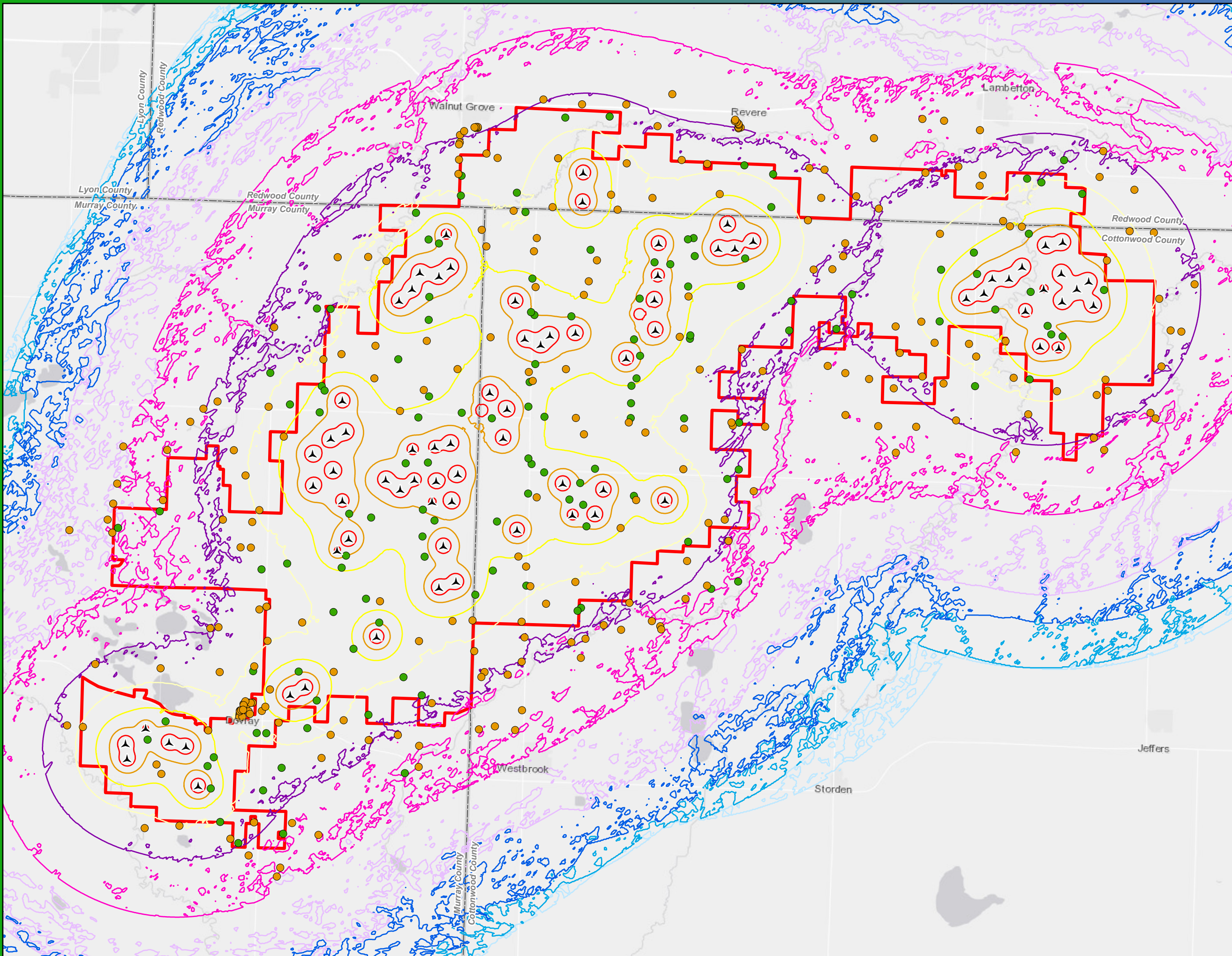
*Turbines not to scale

Map 8c Sound/Noise Vestas V150-4.5

Plum Creek Wind Project

Redwood, Murray, and
Cottonwood Counties, MN





Service Layer Credits: MNGeo, FSA 2017
Data Source: National Grid Renewables, US Census

- ▲ V163 Proposed Turbine
- ▭ Project Area Boundary
- Residential Structure (within 1 mile of Project Area)**
 - Participant
 - Non-Participant
- Sound Pressure Levels (Turbine Only)**
 - 5 dBA
 - 10 dBA
 - 15 dBA
 - 20 dBA
 - 25 dBA
 - 30 dBA
 - 35 dBA
 - 40 dBA
 - 45 dBA
 - 50 dBA

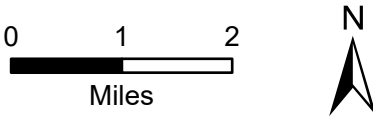
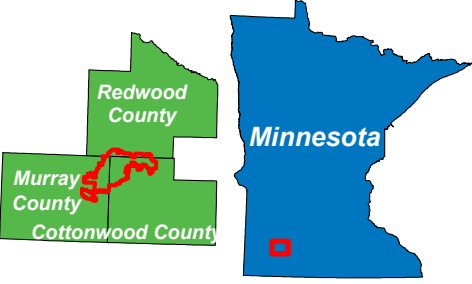
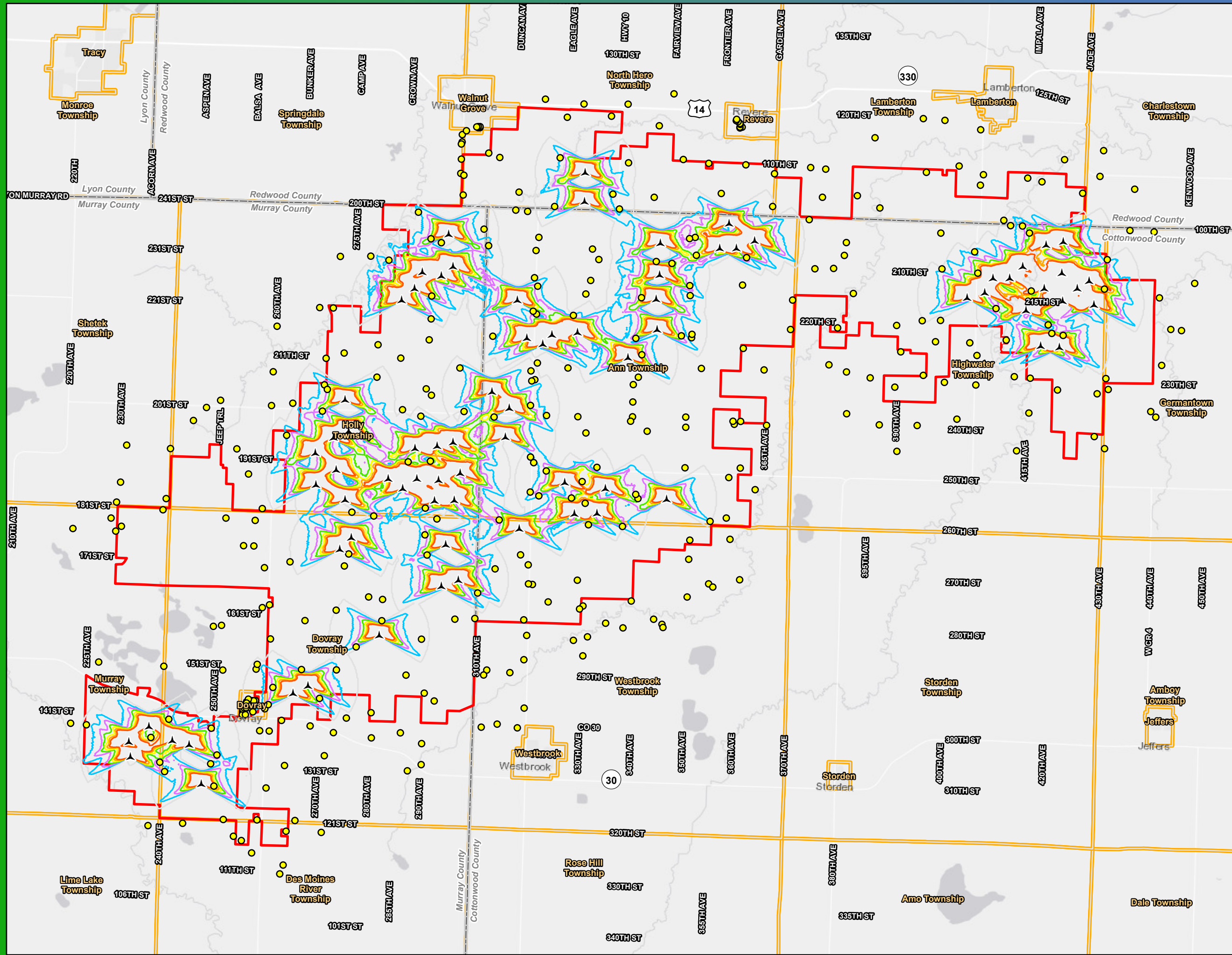
*Turbines not to scale

Map 8d Sound/Noise Vestas V163-4.5

Plum Creek Wind Project

Redwood, Murray, and
Cottonwood Counties, MN





Service Layer Credits: MNGeo, FSA 2017
Data Source: National Grid Renewables, US Census

- ▲ GE154 Proposed Turbine
- Residential Structure (within 1 mile of Project Area)
- ▭ Project Area Boundary
- ▭ City/Township
- ▭ County Boundary
- Shadow Hours Per Year
 - 0
 - 10
 - 20
 - 30
 - 40
 - 50
 - 60

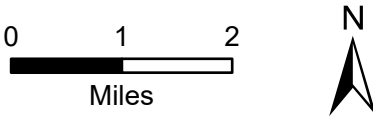
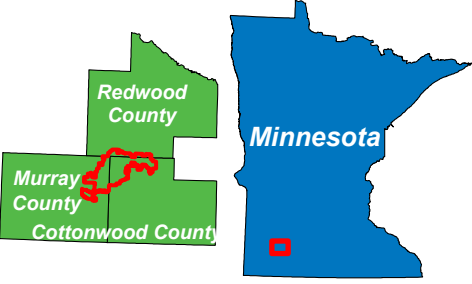
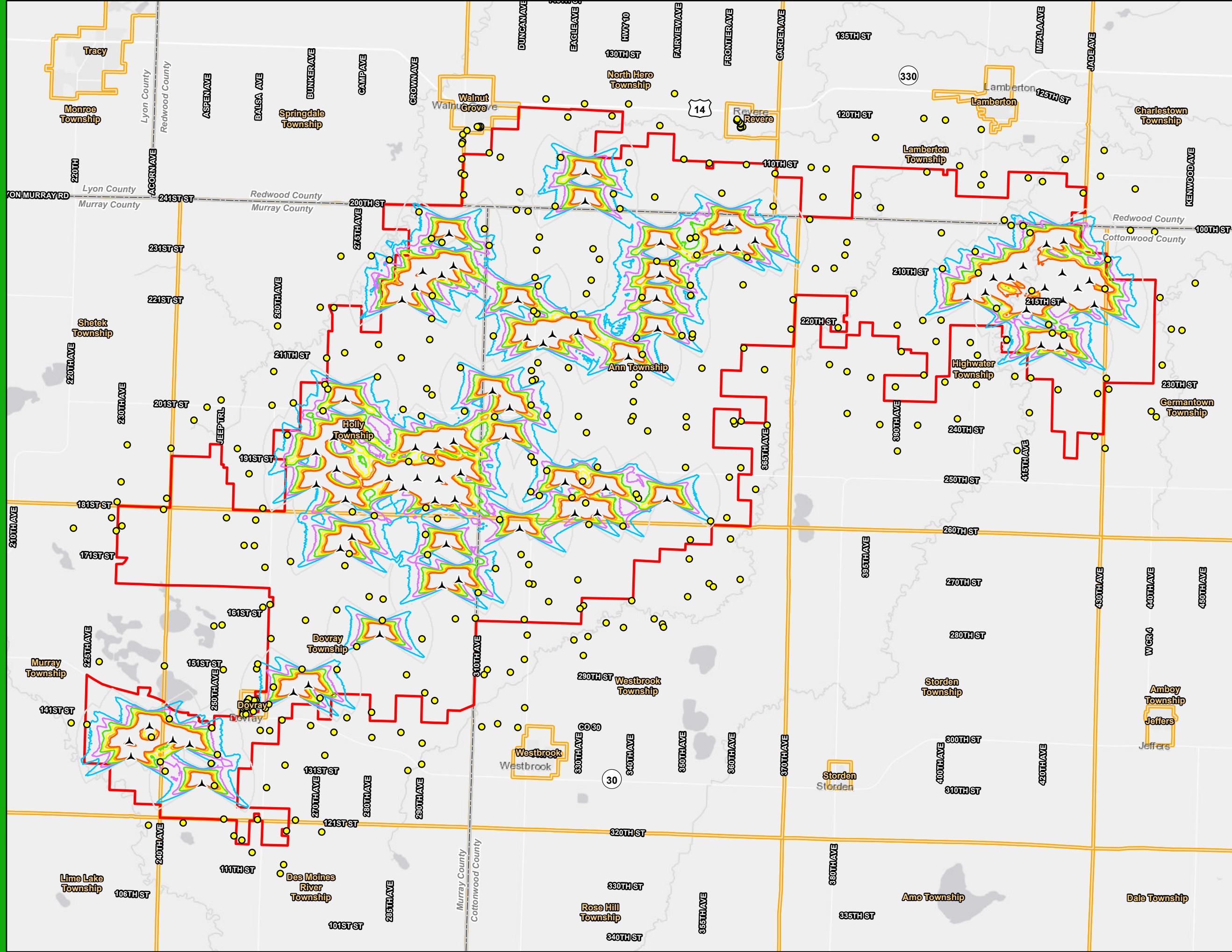
*Turbines not to scale

Map 9a
Shadow Flicker
GE 3.8-154

Plum Creek Wind Project

Redwood, Murray, and
Cottonwood Counties, MN





Service Layer Credits: MNGeo, FSA 2017
Data Source: National Grid Renewables, US Census

- ▲ V163 Proposed Turbine
- Residential Structure (within 1 mile of Project Area)
- ▬ Project Area Boundary
- ▬ City/Township
- ▬ County Boundary
- Shadow Hours Per Year**
 - 0
 - 10
 - 20
 - 30
 - 40
 - 50
 - 60

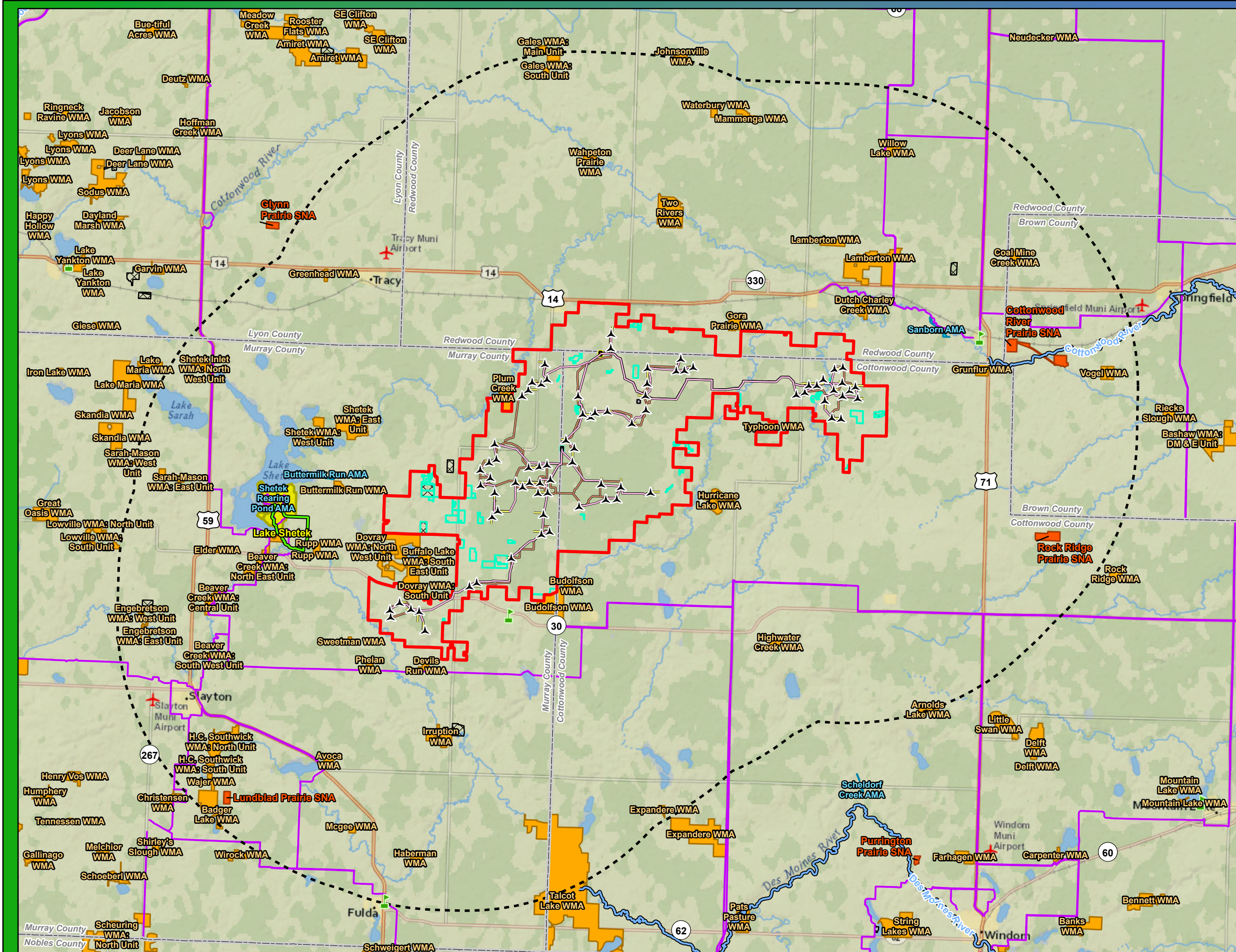
*Turbines not to scale

Map 9d
Shadow Flicker
Vestas V163-4.5

Plum Creek Wind Project

Redwood, Murray, and
Cottonwood Counties, MN





Redwood County
Murray County
Cottonwood County
Minnesota

0 2.5 5
Miles

N

Service Layer Credits: National Geographic World Map
Data Source: National Grid Renewables, USGS, US Census, MDNR, ESRI, USFWS, MN BWSR, MNDOT

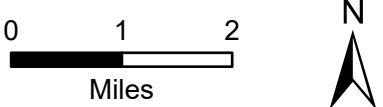
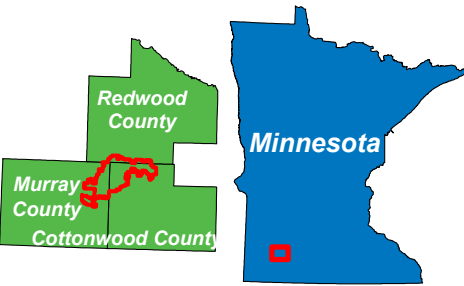
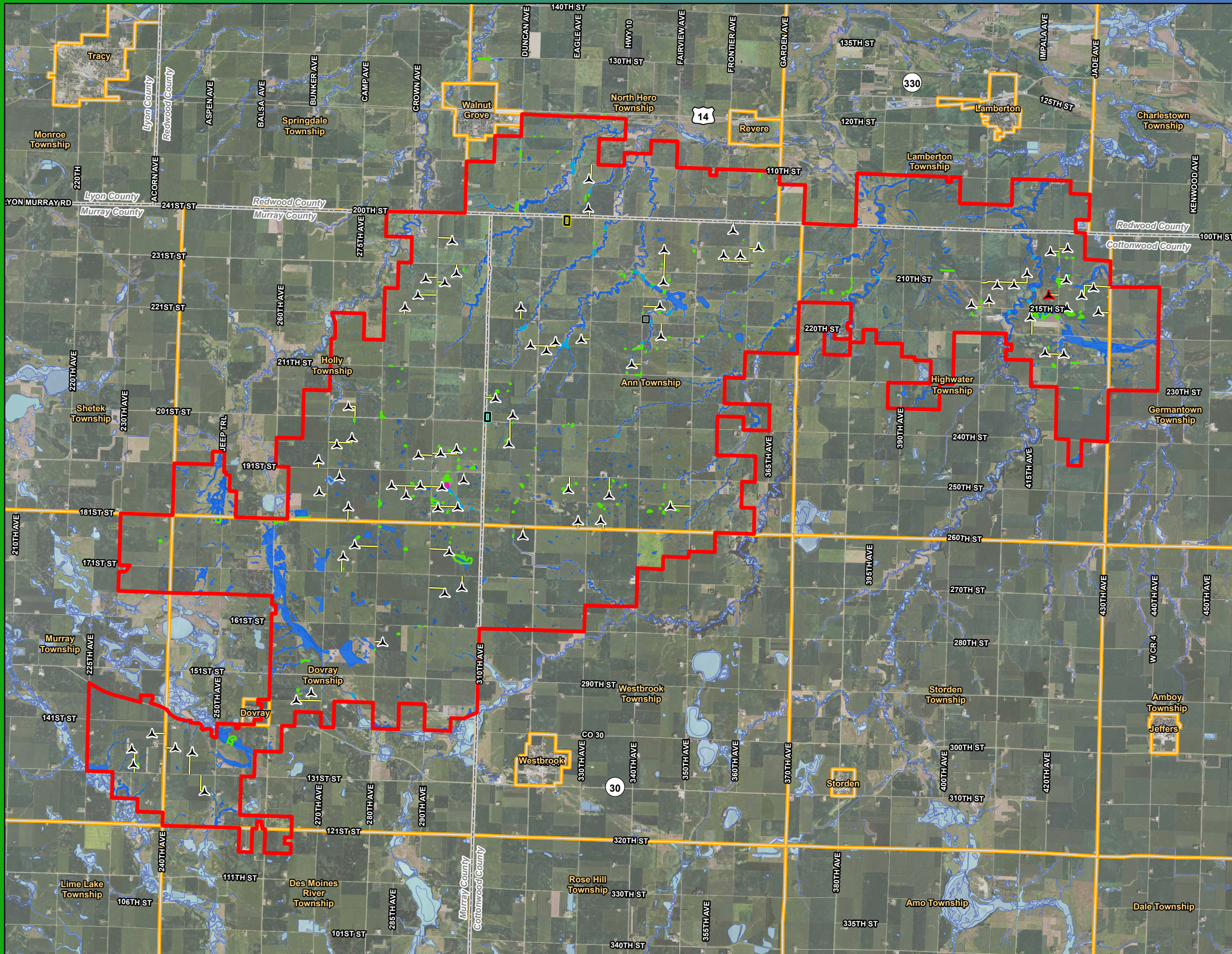
- Proposed Turbine
- Access Road
- Collection Line
- Crane Path
- Minnesota Water Trail
- Minnesota State Trail
- Snowmobile Trail
- Revised Collector Substation 1
- Collector Substation 2/
O&M Facility
- Ordered Collector Substation 1
- Project Area Boundary
- 10 Mile Buffer
- Rolling Hills Golf Course
- Minnesota Walk-In Hunting Access Site
- US Fish and Wildlife Easement
- National Wildlife Refuge
- Waterfowl Production Area
- Scientific & Natural Area (SNA)
- State Park
- Wildlife Management Area (WMA)
- Aquatic Management Area (AMA)
- CREP and RIM Easement
- County Boundary

*Turbines not to scale

Map 10
Public Land Ownership
and Recreation

Plum Creek Wind Project

Redwood, Murray, and
Cottonwood Counties, MN



Service Layer Credits: MNGeo, FSA 2021
Data Source: National Grid Renewables, US Census, MDNR, USFWS

- ▲ GE154 Proposed Turbine (Primary)
- ▲ GE154 Alternate Turbine (Alternate)
- Access Road
- Revised Collector Substation 1
- Collector Substation 2/ O&M Facility
- Ordered Collector Substation 1
- Project Area Boundary
- City/Township
- County Boundary
- Field Delineated Wetland
- Field Delineated Stream
- Field Delineated Pond
- Desktop Delineated Wetland
- NWI (MNDNR Update)

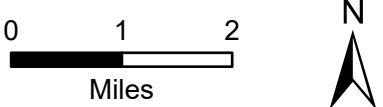
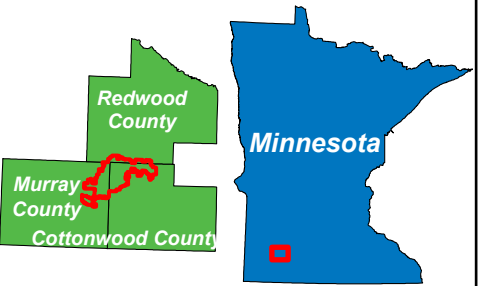
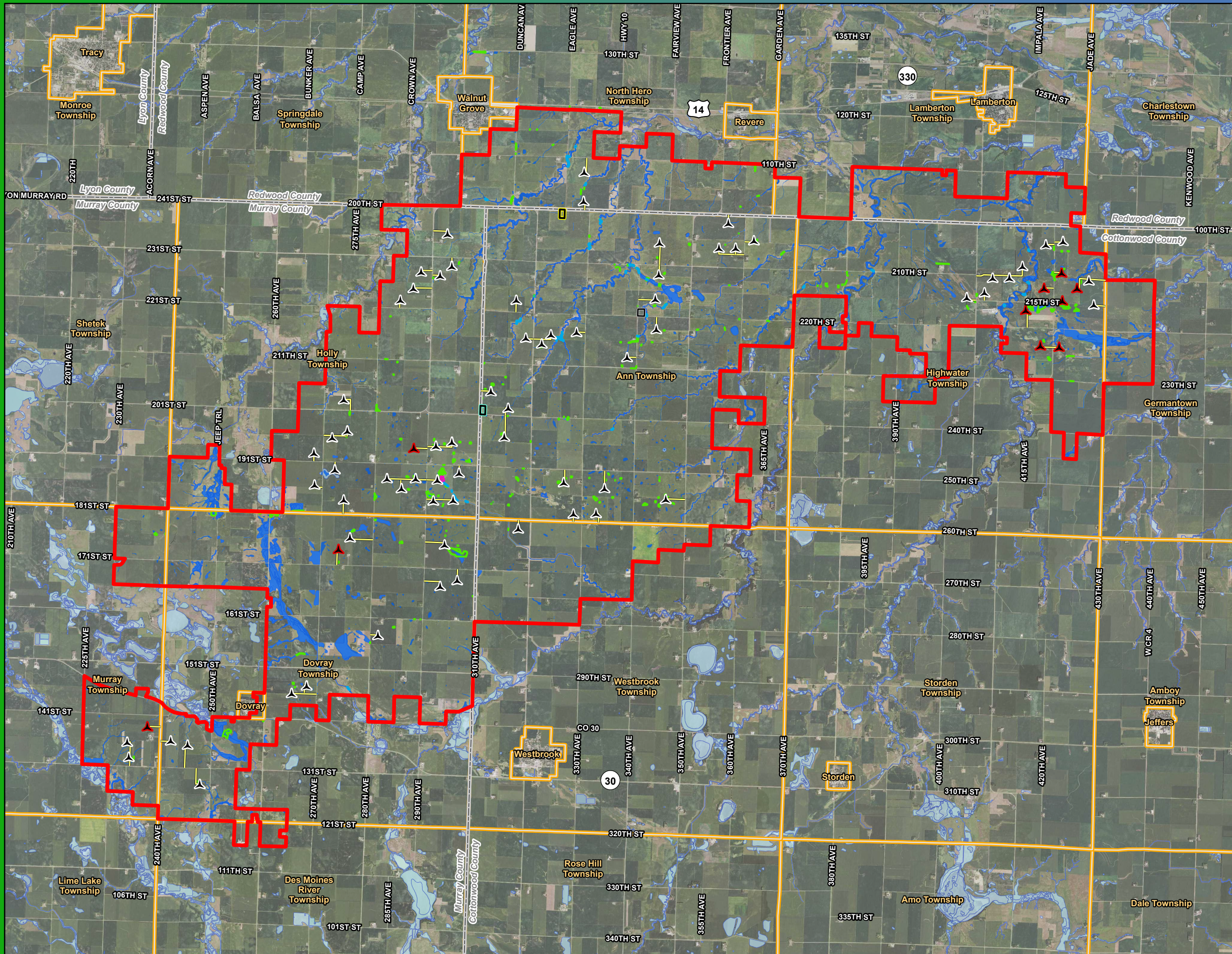
*Turbines not to scale

Map 11a Wetlands Inventory GE 3.8-154

Plum Creek Wind Project

Redwood, Murray, and Cottonwood Counties, MN





Service Layer Credits: MNGeo, FSA 2021
Data Source: National Grid Renewables, US Census, MDNR, USFWS

- GE158 Proposed Turbine (Primary)
- GE158 Alternate Turbine (Alternate)
- Access Road
- Revised Collector Substation 1
- Collector Substation 2/ O&M Facility
- Ordered Collector Substation 1
- Project Area Boundary
- City/Township
- County Boundary
- Field Delineated Wetland
- Field Delineated Stream
- Field Delineated Pond
- Desktop Delineated Wetland
- NWI (MNDNR Update)

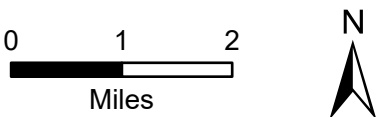
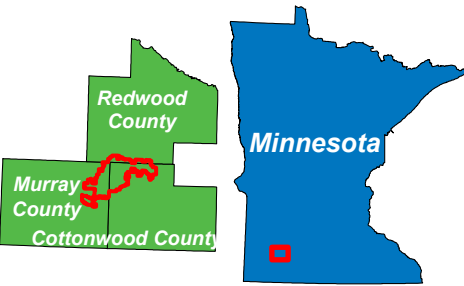
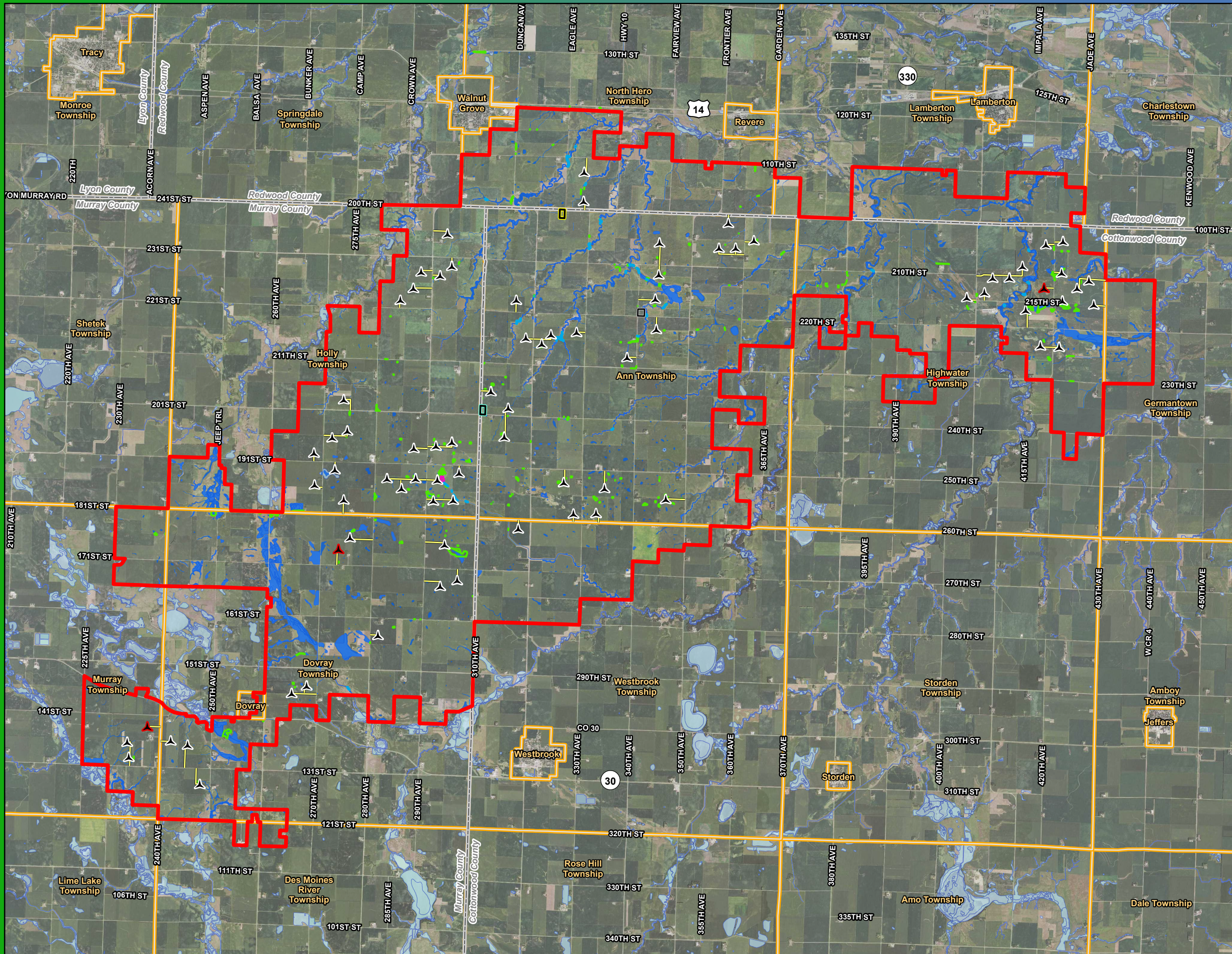
*Turbines not to scale

Map 11b
Wetlands Inventory
GE 6.1-158

Plum Creek Wind Project

Redwood, Murray, and
Cottonwood Counties, MN





Service Layer Credits: MNGeo, FSA 2021
Data Source: National Grid Renewables, US Census, MDNR, USFWS

- ▲ V150 Proposed Turbine (Primary)
- ▲ V150 Alternate Turbine (Alternate)
- Access Road
- Revised Collector Substation 1
- Collector Substation 2/ O&M Facility
- Ordered Collector Substation 1
- Project Area Boundary
- City/Township
- County Boundary
- Field Delineated Wetland
- Field Delineated Stream
- Field Delineated Pond
- Desktop Delineated Wetland
- NWI (MNDNR Update)

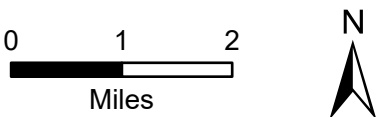
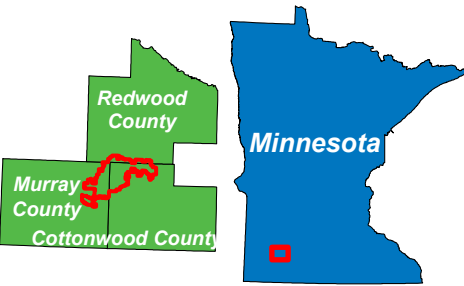
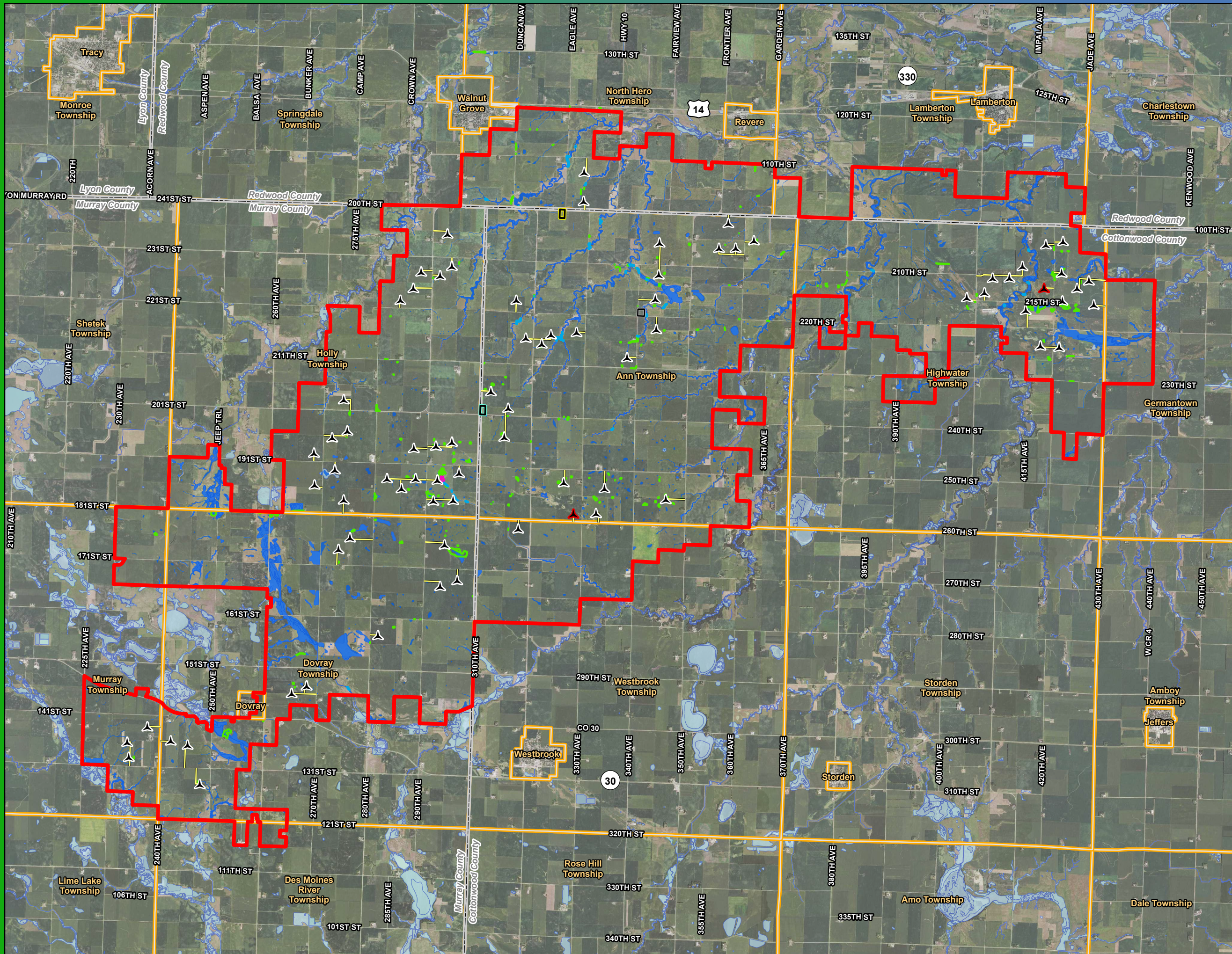
*Turbines not to scale

Map 11c
Wetlands Inventory
Vestas V150-4.5

Plum Creek Wind Project

Redwood, Murray, and
Cottonwood Counties, MN





Service Layer Credits: MNGeo, FSA 2021
Data Source: National Grid Renewables, US Census, MDNR, USFWS

- ▲ V163 Proposed Turbine (Primary)
- ▲ V163 Alternate Turbine (Alternate)
- Access Road
- Revised Collector Substation 1
- Collector Substation 2/ O&M Facility
- Ordered Collector Substation 1
- Project Area Boundary
- City/Township
- County Boundary
- Field Delineated Wetland
- Field Delineated Stream
- Field Delineated Pond
- Desktop Delineated Wetland
- NWI (MNDNR Update)

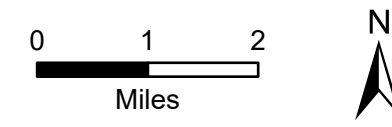
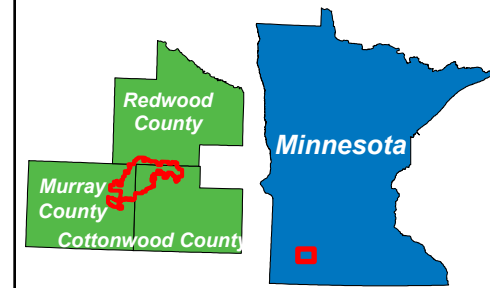
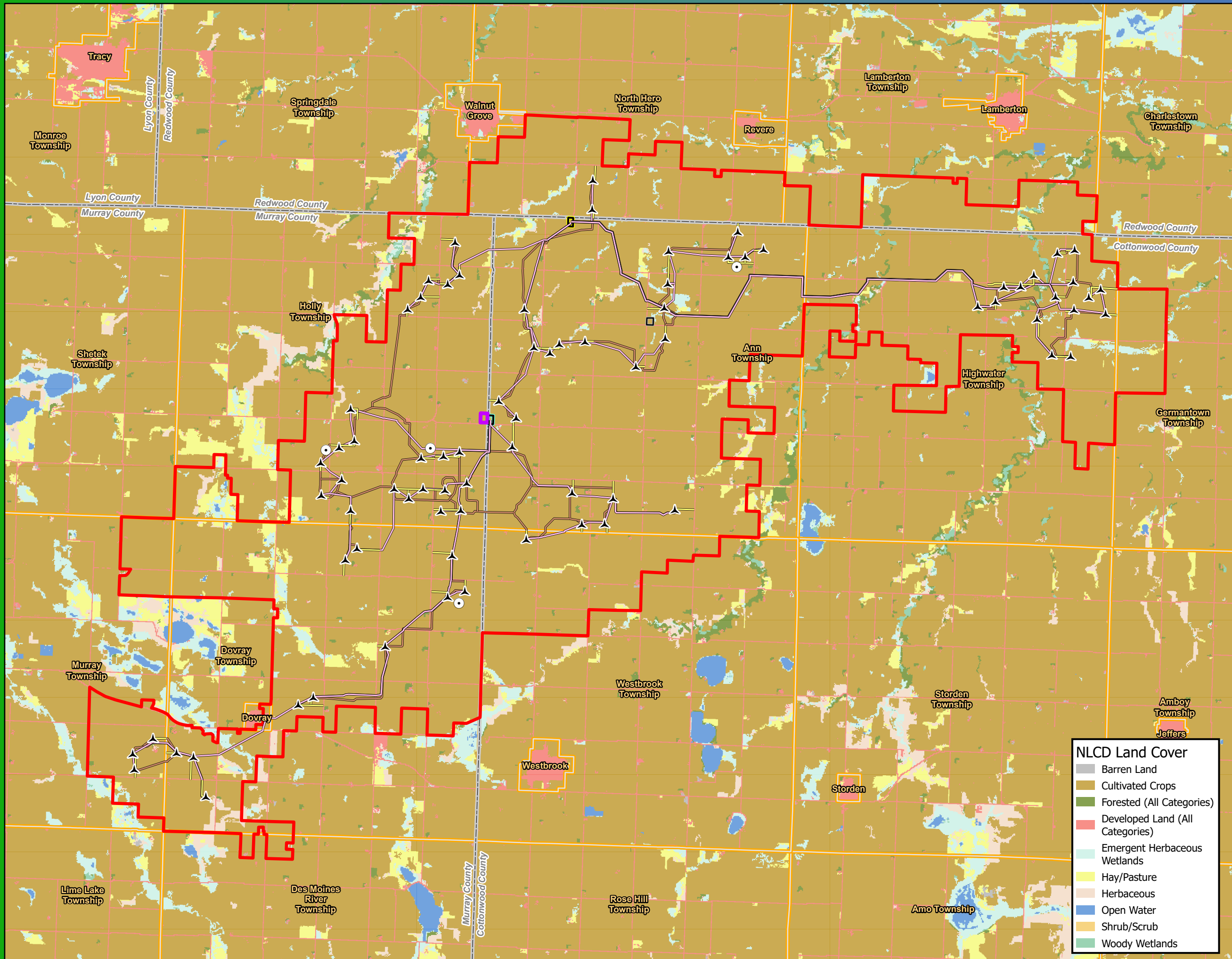
*Turbines not to scale

Map 11d
Wetlands Inventory
Vestas V163-4.5

Plum Creek Wind Project

Redwood, Murray, and
Cottonwood Counties, MN





Data Source: National Grid Renewables, US Census, NLCD

- ▲ Proposed Turbine
- Permanent Met Tower
- ▭ Project Area Boundary
- ▭ City/Township
- ▭ County Boundary
- Access Road
- Collection Line
- Crane Path
- ▭ Laydown Area
- ▭ Revised Collector Substation 1
- ▭ Collector Substation 2/ O&M Facility
- ▭ Ordered Collector Substation 1

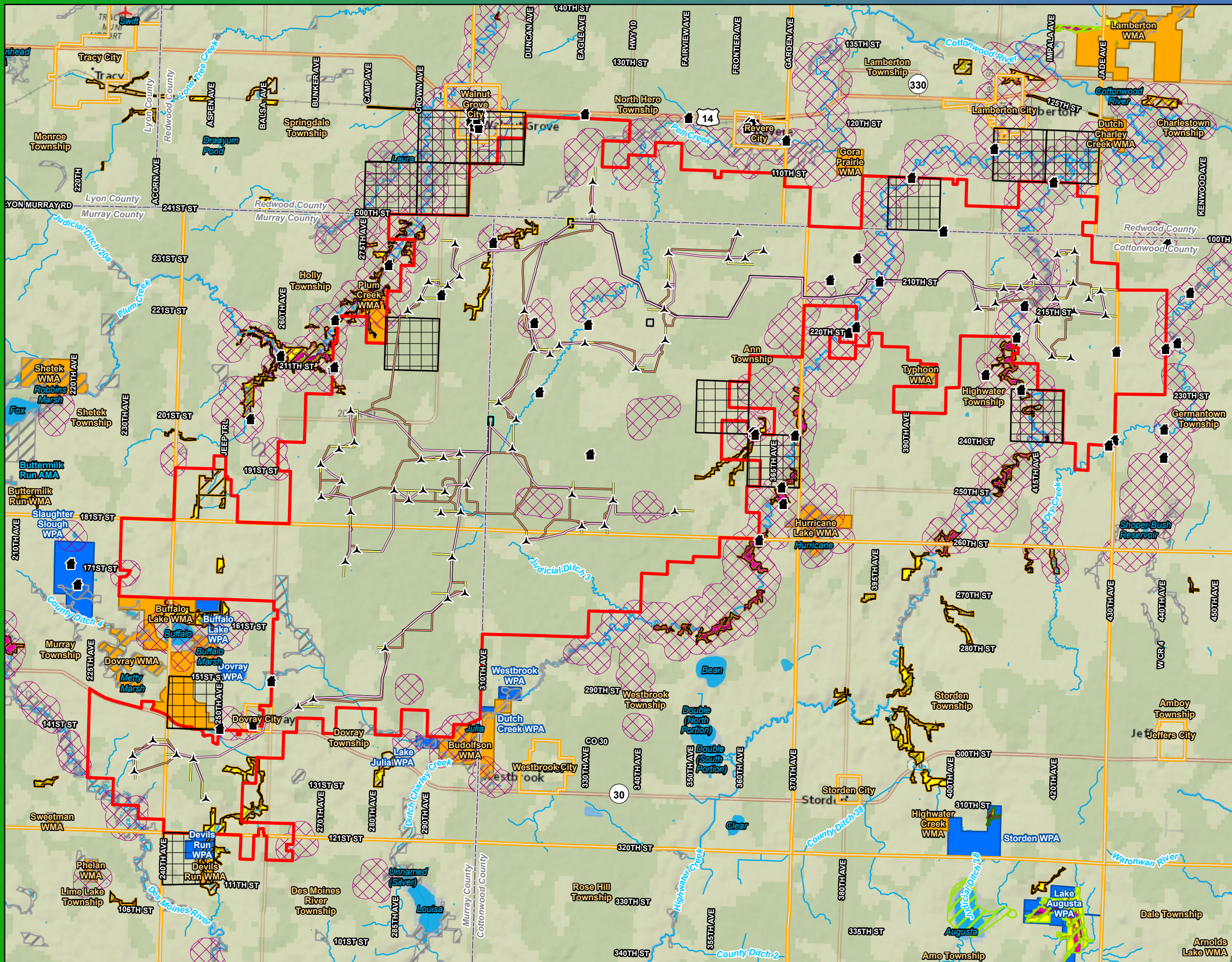
*Turbines not to scale

- NLCD Land Cover**
- Barren Land
 - Cultivated Crops
 - Forested (All Categories)
 - Developed Land (All Categories)
 - Emergent Herbaceous Wetlands
 - Hay/Pasture
 - Herbaceous
 - Open Water
 - Shrub/Scrub
 - Woody Wetlands

Map 12 Land Cover

Plum Creek Wind Project
Redwood, Murray, and
Cottonwood Counties, MN





Data Source: National Grid Renewables USGS, US Census, MDNR
Service Layer Credits: National Geographic World Map

- ▲ Proposed Turbine
- Architectural/Historic Resource
- Access Road
- Collection Line
- Crane Path
- Revised Collector Substation 1
- Collector Substation 2/ O&M Facility
- Ordered Collector Substation 1
- Project Area Boundary
- River/Stream
- Lake, Pond or Reservoir
- City/Township
- County Boundary
- Archaeological Site in Section
- NLEB Forested Areas - 1,000' Buffer
- Native Prairie
- Native Plant Community
- Wildlife Management Area (WMA)
- Waterfowl Production Area (WPA)
- Aquatic Management Area (AMA)
- Sites of Biodiversity Significance**
- Outstanding
- High
- Moderate
- Below

*Turbines not to scale

Map 13 Unique Natural Features Plum Creek Wind Project Redwood, Murray, and Cottonwood Counties, MN

