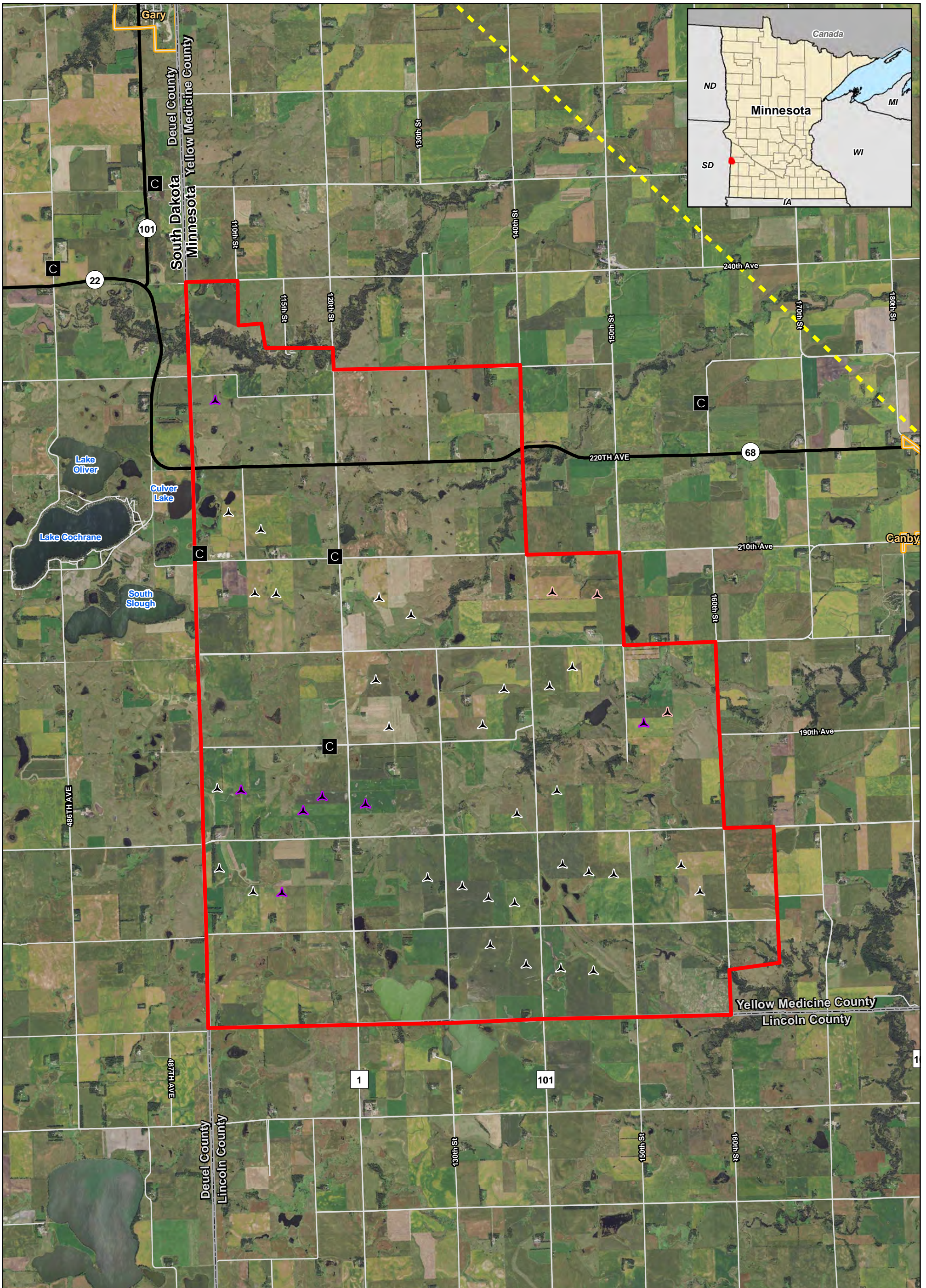


Data Source: RES Americas, DNV GL

**Figure 9**  
**Shadow Flicker**  
**Bitter Root Wind Farm**  
**Flying Cow Wind, LLC**  
**Yellow Medicine County, Minnesota**

Project Components		Shadow Flicker [hour/year]	
	Wind Turbine (40)		100 and over
	Project Area		50 - 99
	Dwelling		25 - 49
	Primary/ Secondary Road		
	Local Road		
	Contour (Interval: 10 m)		
	State Boundary		





0 0.25 0.5 1 Miles

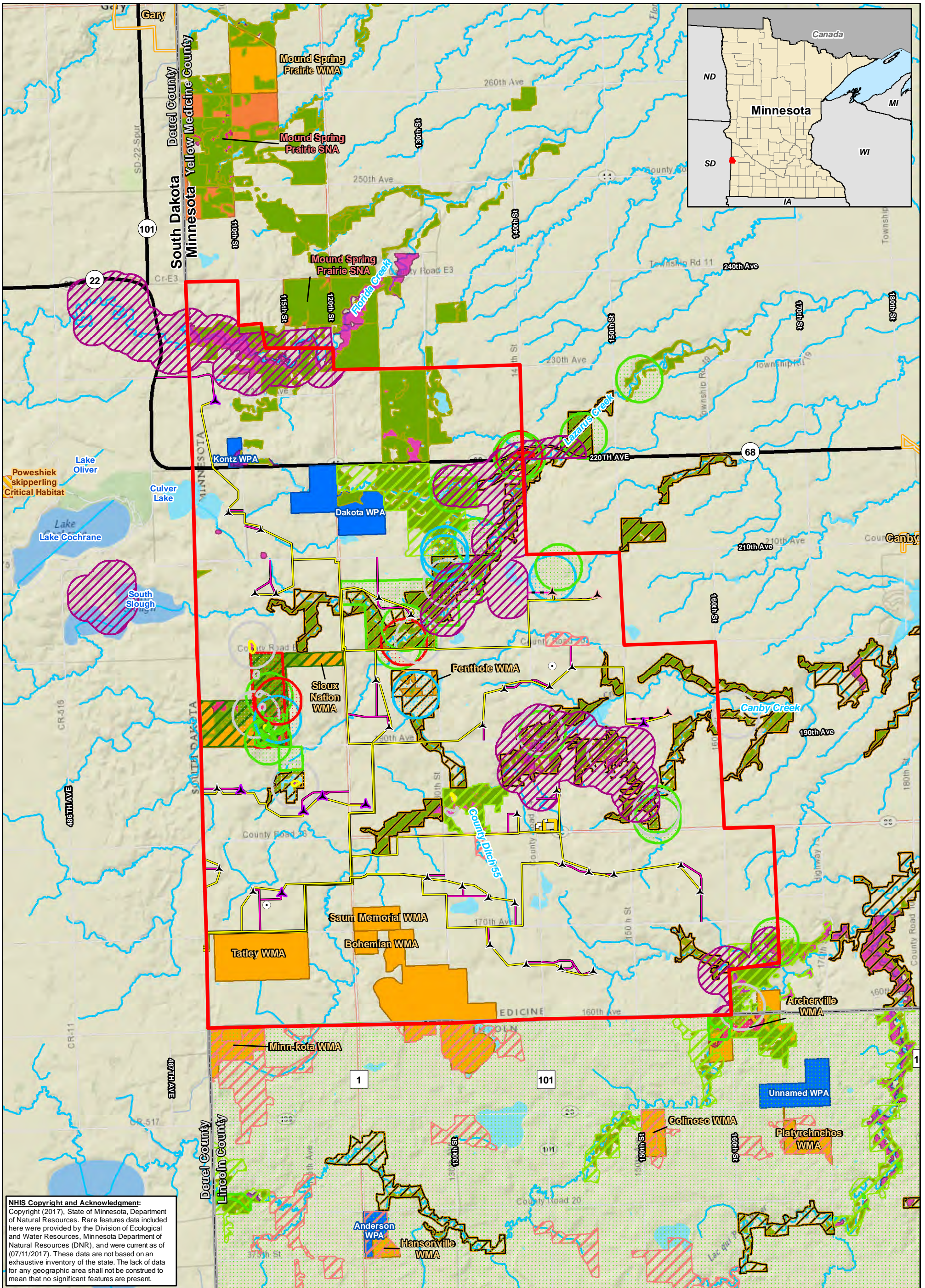
Data Source: RES Americas, Comsearch  
Imagery Source: 2015 Color FSA



**Figure 10**  
**Microwave Beam Path**  
**Bitter Root Wind Farm**  
**Flying Cow Wind, LLC**  
**Yellow Medicine County, Minnesota**

- Proposed Vestas 136-3.45
- Proposed Alternate Vestas 136-4.2
- Proposed Vestas 136-4.2
- Communication Tower
- Microwave Beam Path (wcfz)
- Project Area





**NHIS Copyright and Acknowledgment:**  
 Copyright (2017), State of Minnesota, Department of Natural Resources. Rare features data included here were provided by the Division of Ecological and Water Resources, Minnesota Department of Natural Resources (DNR), and were current as of (07/11/2017). These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.

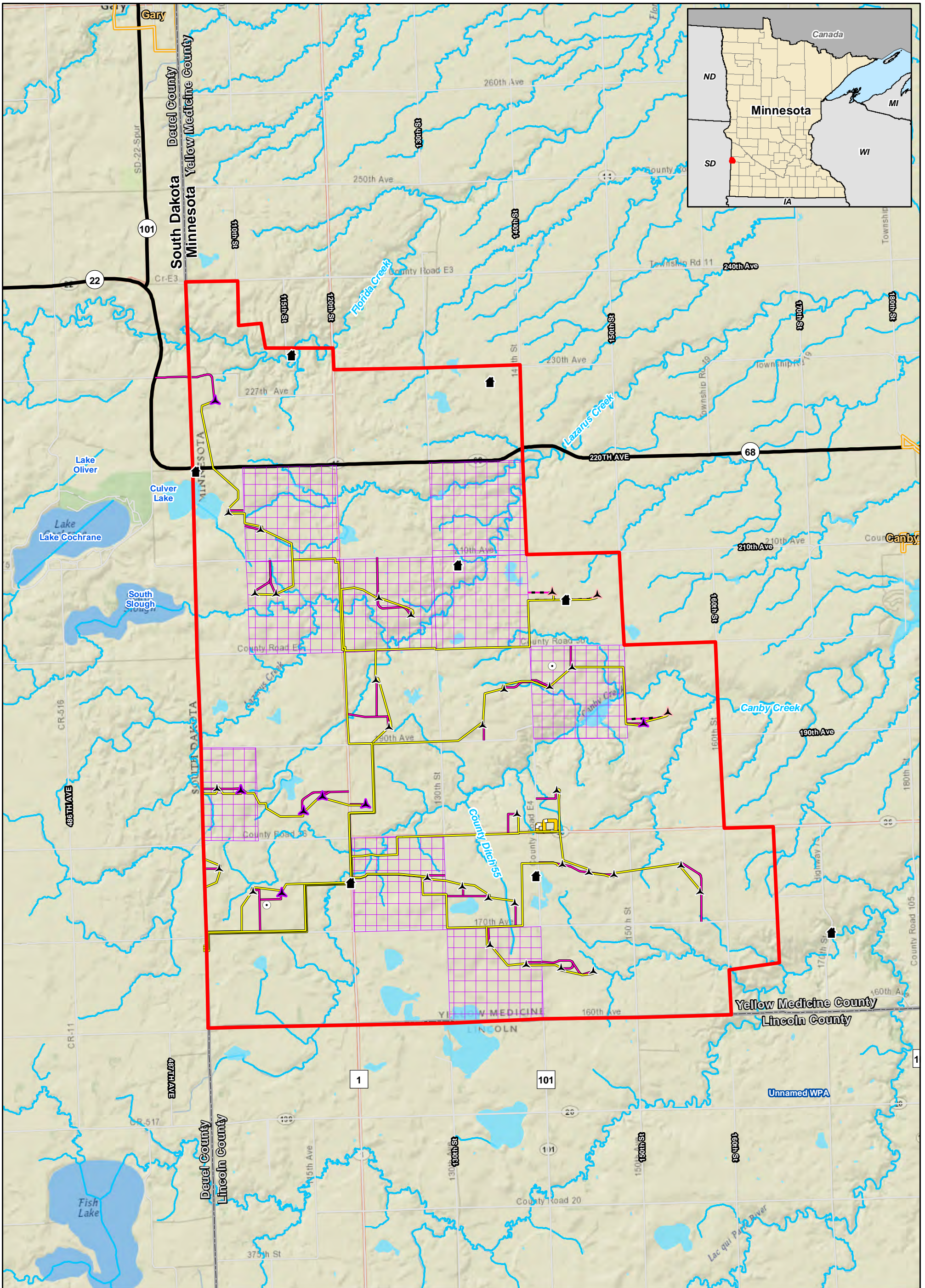


Data Source: RES Americas, MN DNR, USFWS, Mn Geo  
 Imagery Source: National Geographic World Map

**Figure 11a**  
**Unique Natural Features**  
**Bitter Root Wind Farm**  
**Flying Cow Wind, LLC**  
**Yellow Medicine County, Minnesota**

- |   |  |   |
|---|--|---|
| <ul style="list-style-type: none"> <li>▲ Proposed Vestas 136-3.45</li> <li>▲ Proposed Alternate Vestas 136-4.2</li> <li>▲ Proposed Vestas 136-4.2</li> <li>■ Project Area</li> <li>○ Proposed Met Tower</li> <li>■ Proposed Facilities Boundary (OM Building and Laydown Yard)</li> <li>— Proposed Collection Line</li> <li>— Proposed Access Road</li> <li>— Proposed Alternate Access</li> <li>— Road</li> <li>— 24k Stream or Ditch</li> </ul> | <ul style="list-style-type: none"> <li>■ Wildlife Management Area (WMA)</li> <li>■ Waterfowl Production Area (WPA)</li> <li>■ Scientific &amp; Natural Area (SNA)</li> <li>■ Native Prairie</li> <li>■ Native Plant Community</li> <li>■ 1,000 ft NLEB Habitat Buffer</li> <li>■ USFWS Critical Habitat</li> <li>— Sites of Biodiversity Significance</li> <li>■ Outstanding</li> <li>■ High</li> <li>■ Moderate</li> <li>■ Below</li> </ul> | <p><b>MN Natural Heritage Inventory System (NHIS)</b></p> <ul style="list-style-type: none"> <li>■ Endangered</li> <li>■ Threatened</li> <li>■ Special Concern</li> <li>■ Watchlist</li> <li>■ N/A</li> </ul> |
|---|--|---|





**Figure 11b**  
**Cultural and Archaeological Resources**

**Bitter Root Wind Farm**  
**Flying Cow Wind, LLC**  
**Yellow Medicine County, Minnesota**

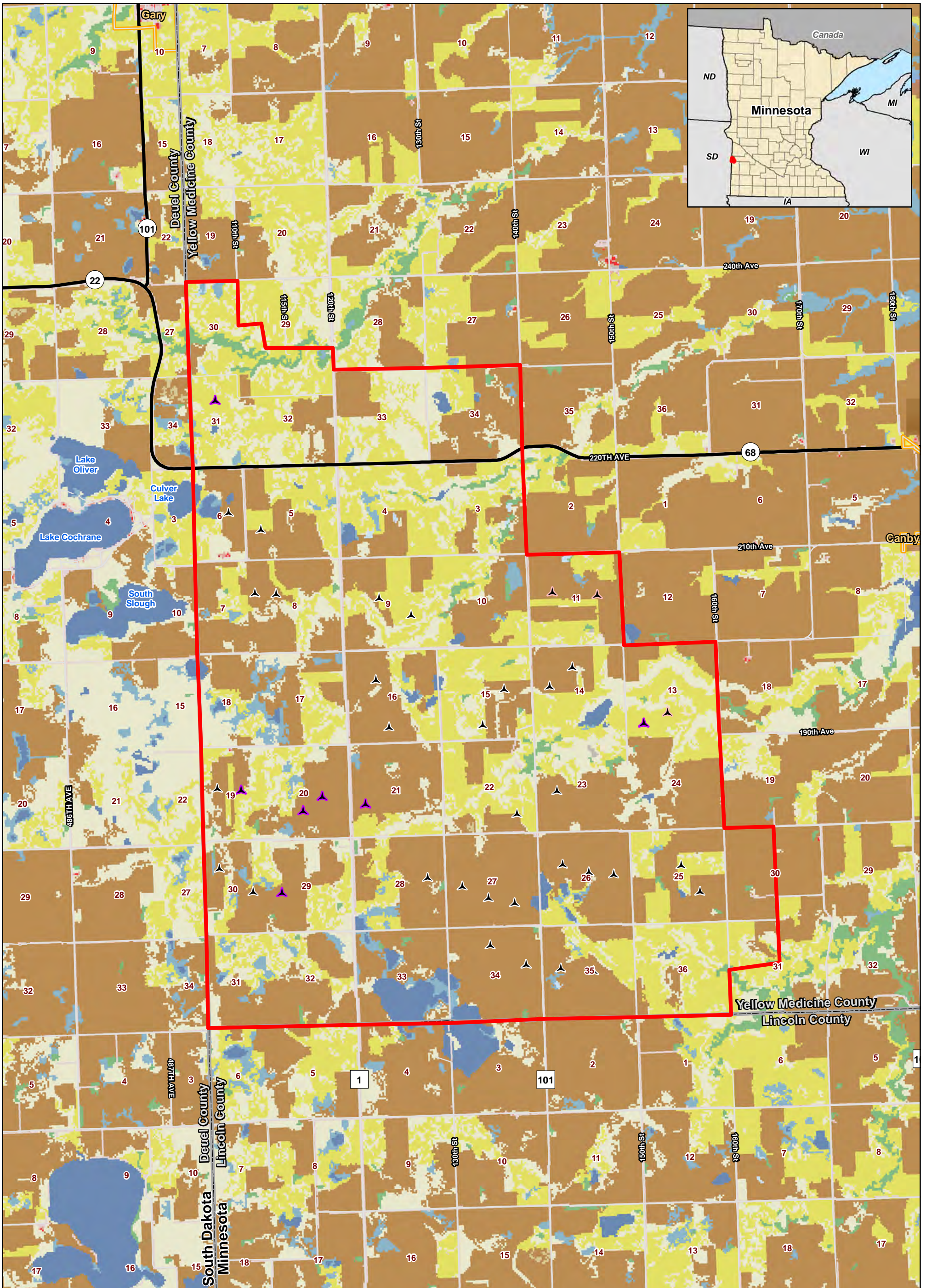
- Proposed Vestas 136-3.45
- Proposed Alternate Vestas 136-4.2
- Proposed Vestas 136-4.2
- Project Area
- Proposed Met Tower
- Proposed Facilities Boundary (OM Building and Laydown Yard)
- Proposed Collection Line
- Proposed Access Road
- Proposed Alternate Access Road
- Architectural/Historic Resource
- Archaeological Site in Section



0 0.25 0.5 1 Miles

Data Source: RES Americas, MN DNR, Mn Geo, MN SHPO  
 Imagery Source: National Geographic World Map





0 0.25 0.5 1 Miles

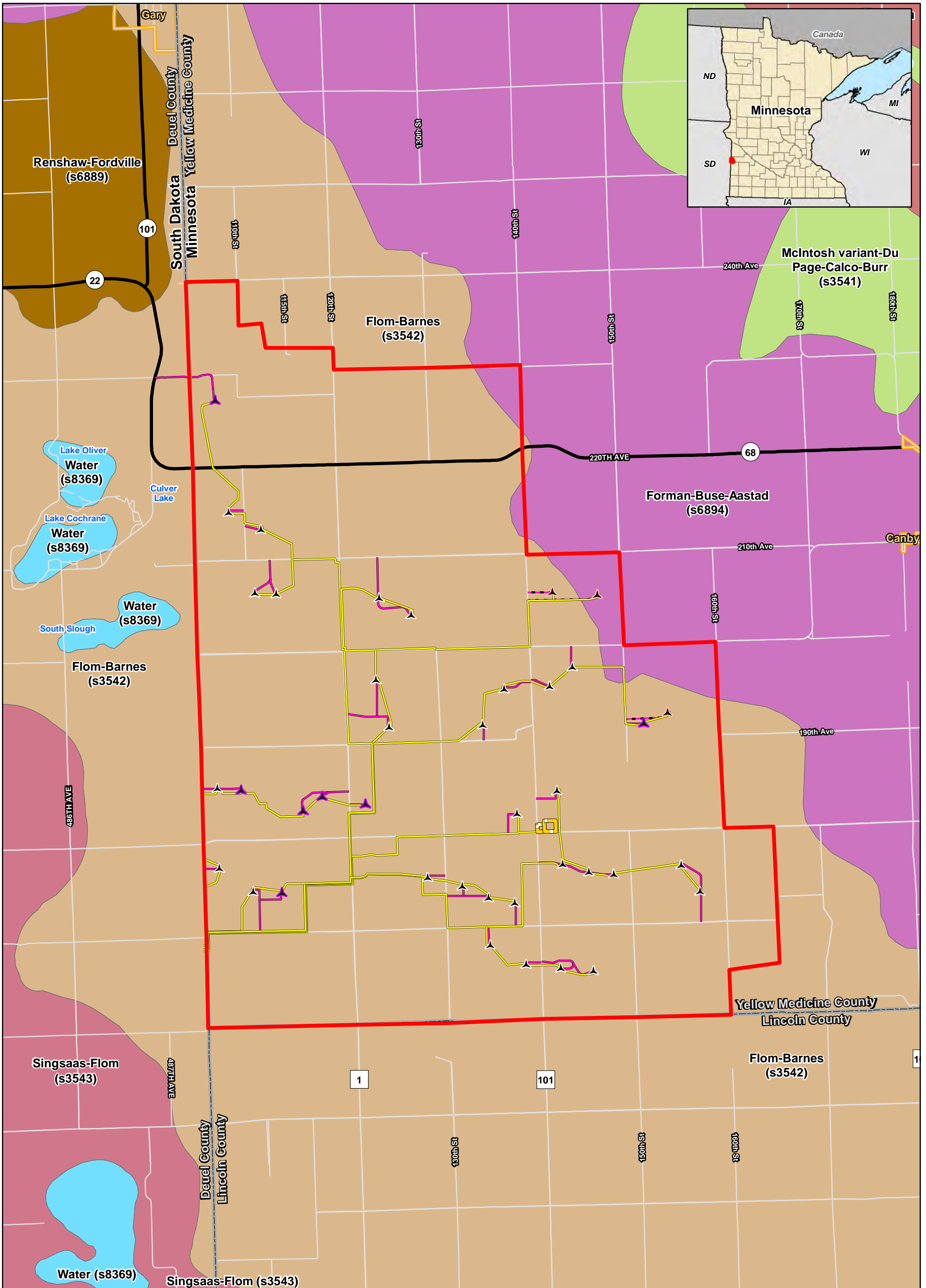
Data Source: RES Americas  
Imagery Source: NLCD LULC

**Figure 12  
Land Cover**

**Bitter Root Wind Farm  
Flying Cow Wind, LLC  
Yellow Medicine County, Minnesota**

- Proposed Vestas 136-3.45
  - Proposed Alternate Vestas 136-4.2
  - Proposed Vestas 136-4.2
  - Project Area
- NLCD Land Cover**
- Open Water
  - Developed, Open Space
  - Developed, Low Intensity
  - Developed, Medium Intensity
  - Developed, High Intensity
  - Barren Land
  - Deciduous Forest
  - Shrub/Scrub
  - Grassland/Herbaceous
  - Hay/Pasture
  - Cultivated Crops
  - Woody Wetlands
  - Emergent Herbaceous Wetlands





0 0.25 0.5 1 Miles

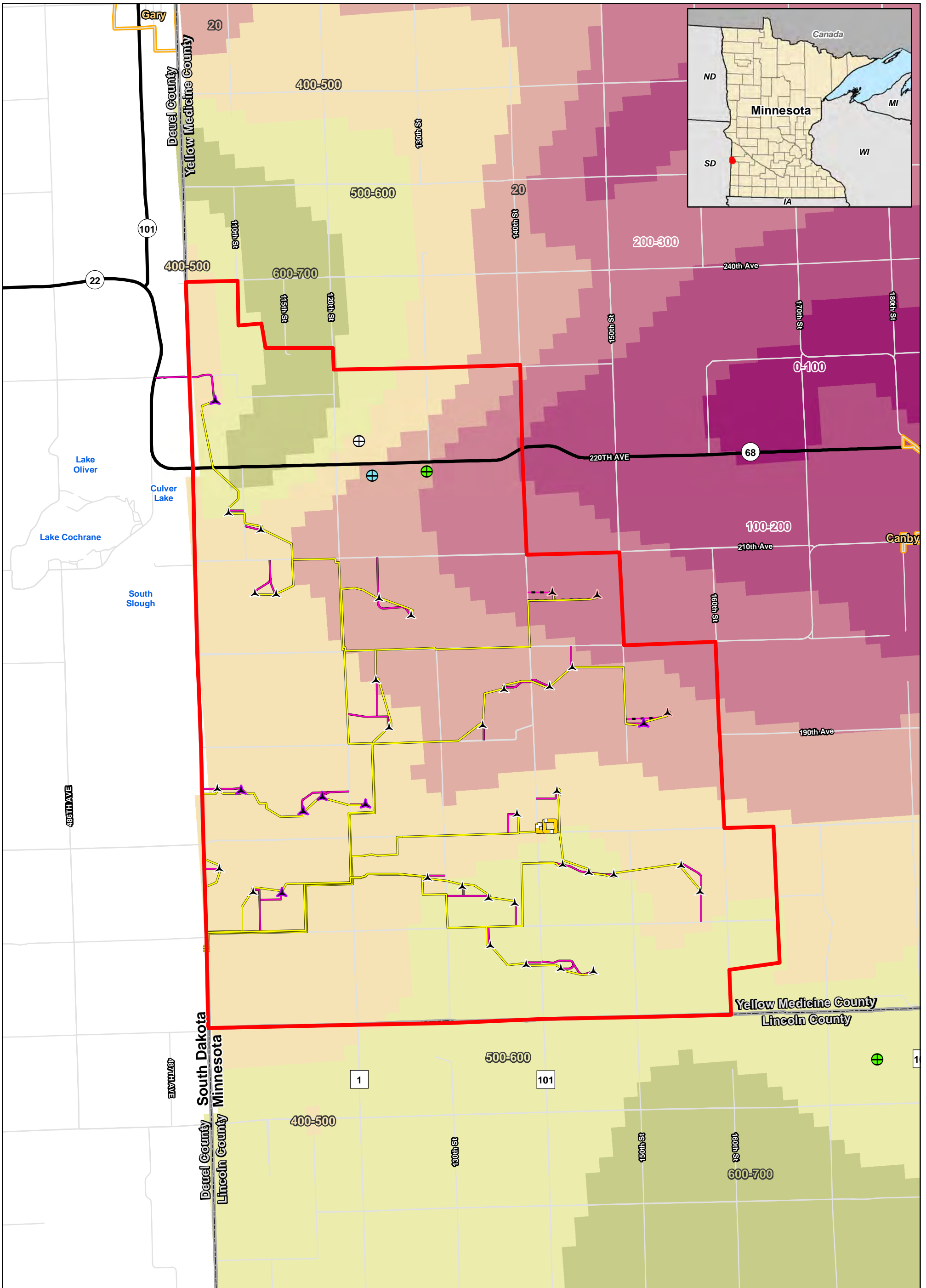
Data Source: RES Americas, NRCS



**Figure 13  
Soils**

**Bitter Root Wind Farm  
Flying Cow Wind, LLC  
Yellow Medicine County, Minnesota**

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li> Proposed Vestas 136-3.45</li> <li> Proposed Alternate Vestas 136-4.2</li> <li> Proposed Vestas 136-4.2</li> <li> Project Area</li> <li> Proposed Facilities Boundary (OM Building and Laydown Yard)</li> <li> Proposed Collection Line</li> <li> Proposed Access Road</li> <li> Proposed Alternate Access Road</li> </ul> | <p><b>STATSGO Soil Type</b></p> <ul style="list-style-type: none"> <li> Flom-Barnes (s3542)</li> <li> Forman-Buse-Aastad (s6894)</li> <li> Marysland-Egeland-Arvilla (s3536)</li> <li> McIntosh variant-Du Page-Calco-Burr (s3541)</li> <li> Renshaw-Fordville (s6889)</li> <li> Singsaas-Flom (s3543)</li> <li> Water (s8369)</li> </ul> |
|---|---|



**Figure 14**  
**Site Geology and Depth to Bedrock**  
**Bitter Root Wind Farm**  
**Flying Cow Wind, LLC**  
**Yellow Medicine County, Minnesota**

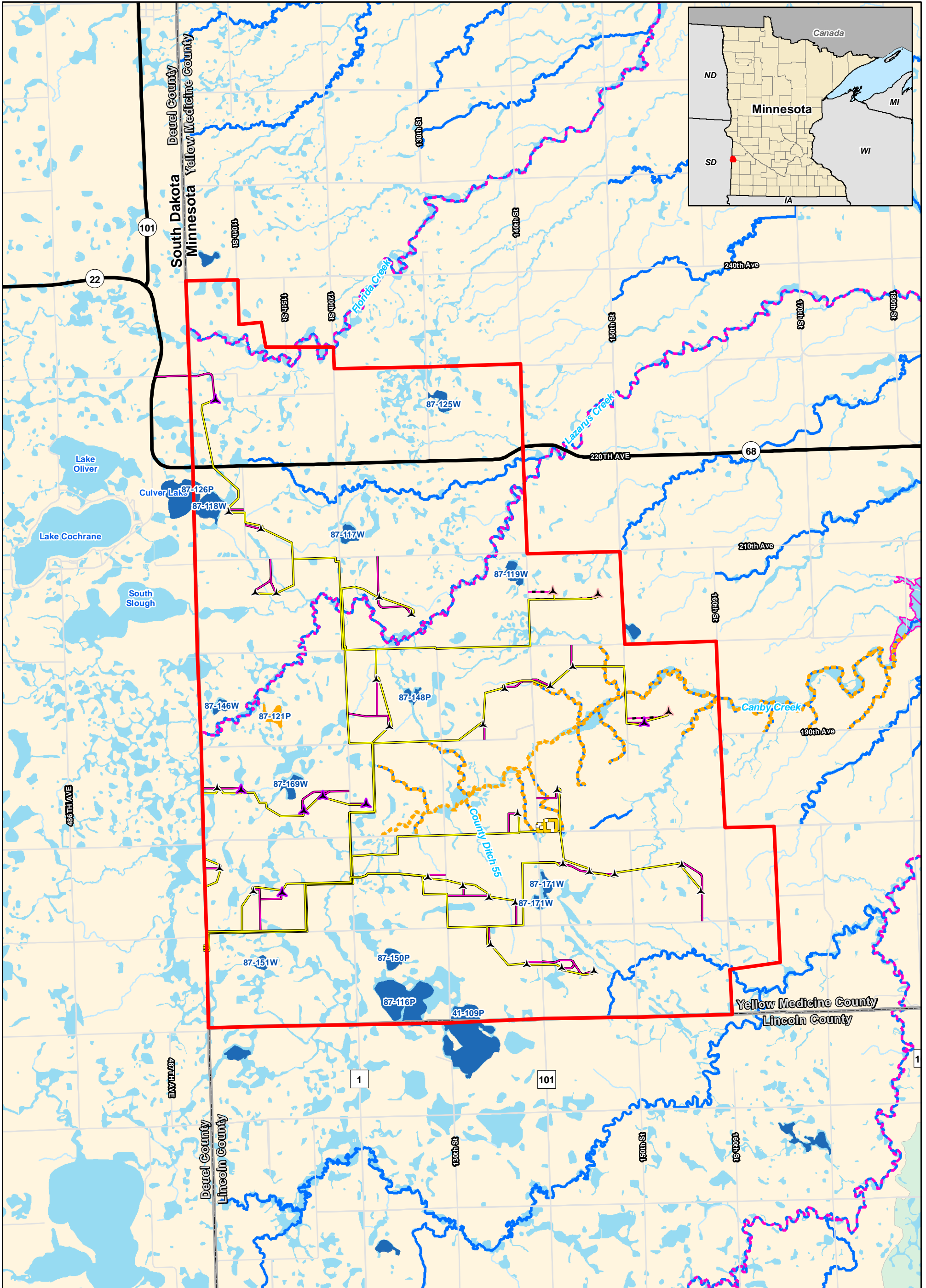


0 0.25 0.5 1 Miles

Data Source: RES Americas, MN DNR, MN DOC, Mn Geo, MN DOT  
 Imagery Source: MN Geological Society

- |   |  |  |
|---|--|--|
| <ul style="list-style-type: none"> <li> Proposed Vestas 136-3.45</li> <li> Proposed Alternate Vestas 136-4.2</li> <li> Proposed Vestas 136-4.2</li> <li> Project Area</li> <li> Proposed Facilities Boundary (OM Building and Laydown Yard)</li> <li> Proposed Collection Line</li> <li> Proposed Access Road</li> <li> Proposed Alternate Access Road</li> </ul> | <p><b>Depth to Bedrock (feet)</b></p> <ul style="list-style-type: none"> <li> 0 - 100</li> <li> 100 - 200</li> <li> 200 - 300</li> <li> 300 - 400</li> <li> 400 - 500</li> <li> 500 - 600</li> <li> 600 - 700</li> </ul> | <p><b>Gravel Pits</b></p> <ul style="list-style-type: none"> <li> Inactive Aggregate Source</li> <li> Aggregate Pit (Mn/DOT)</li> <li> Aggregate Pit (Prospected)</li> </ul> |
|---|--|--|





0 0.25 0.5 1 Miles

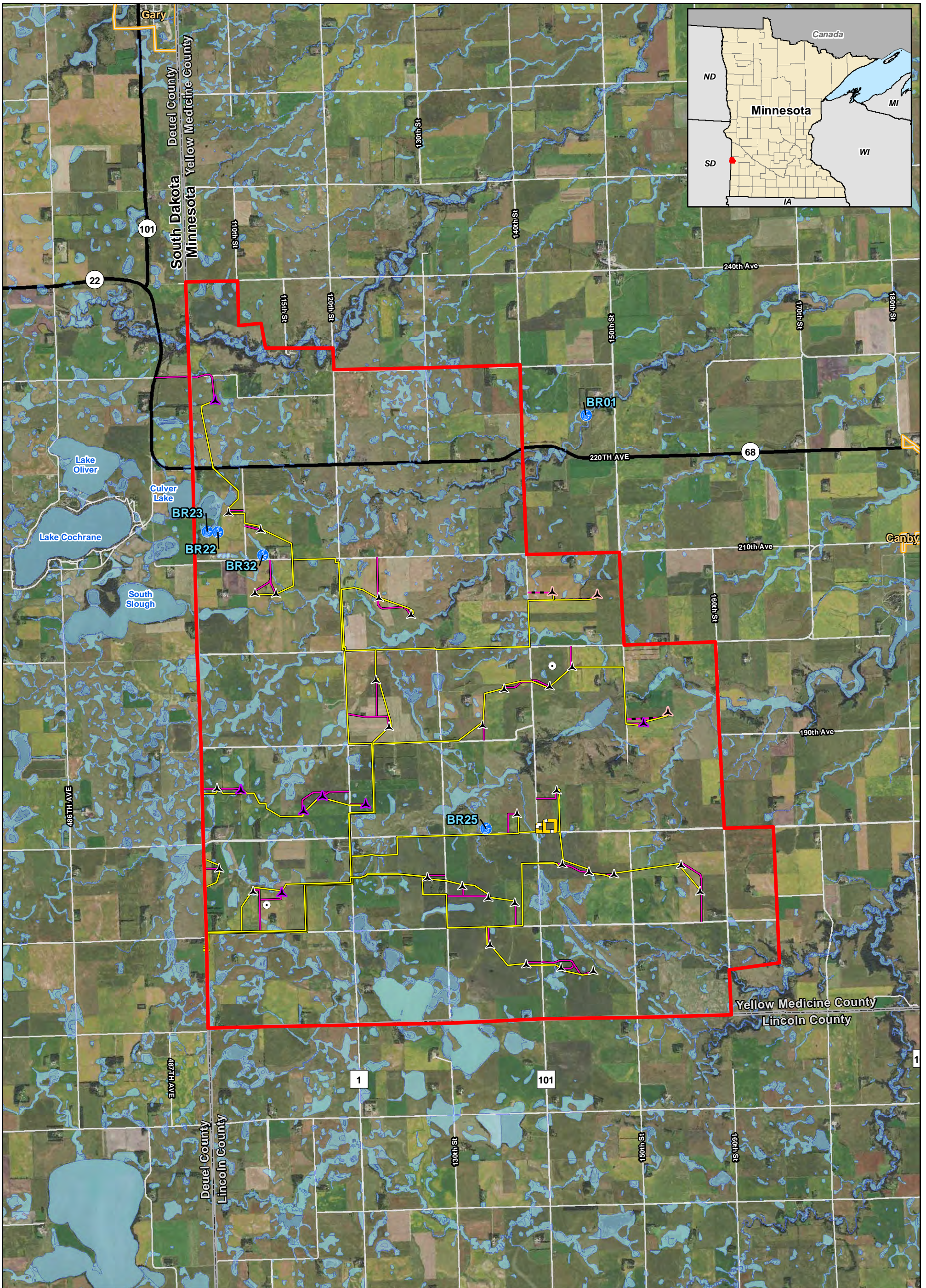
Data Source: RES Americas, MN DNR, MN DOC, Mn Geo, MPCA

**Figure 15**  
**Surface Waters**

**Bitter Root Wind Farm**  
**Flying Cow Wind, LLC**  
**Yellow Medicine County, Minnesota**

- Proposed Vestas 136-3.45
- Proposed Alternate Vestas 136-4.2
- Proposed Vestas 136-4.2
- Project Area
- Proposed Facilities Boundary (OM Building and Laydown Yard)
- Proposed Collection Line
- Proposed Access Road
- Proposed Alternate Access Road
- Impaired Wetland
- Trout Stream
- Impaired Lakes
- Impaired Stream
- MN NWI Wetland
- 24K Stream or Ditch
- Public Waters Inventory**
- Public Water Watercourse
- Public Water Basin/Wetland
- HUC 8**
- Minnesota River - Yellow Medicine River Watershed
- Lac Qui Parle River Watershed





0 0.25 0.5 1 Miles

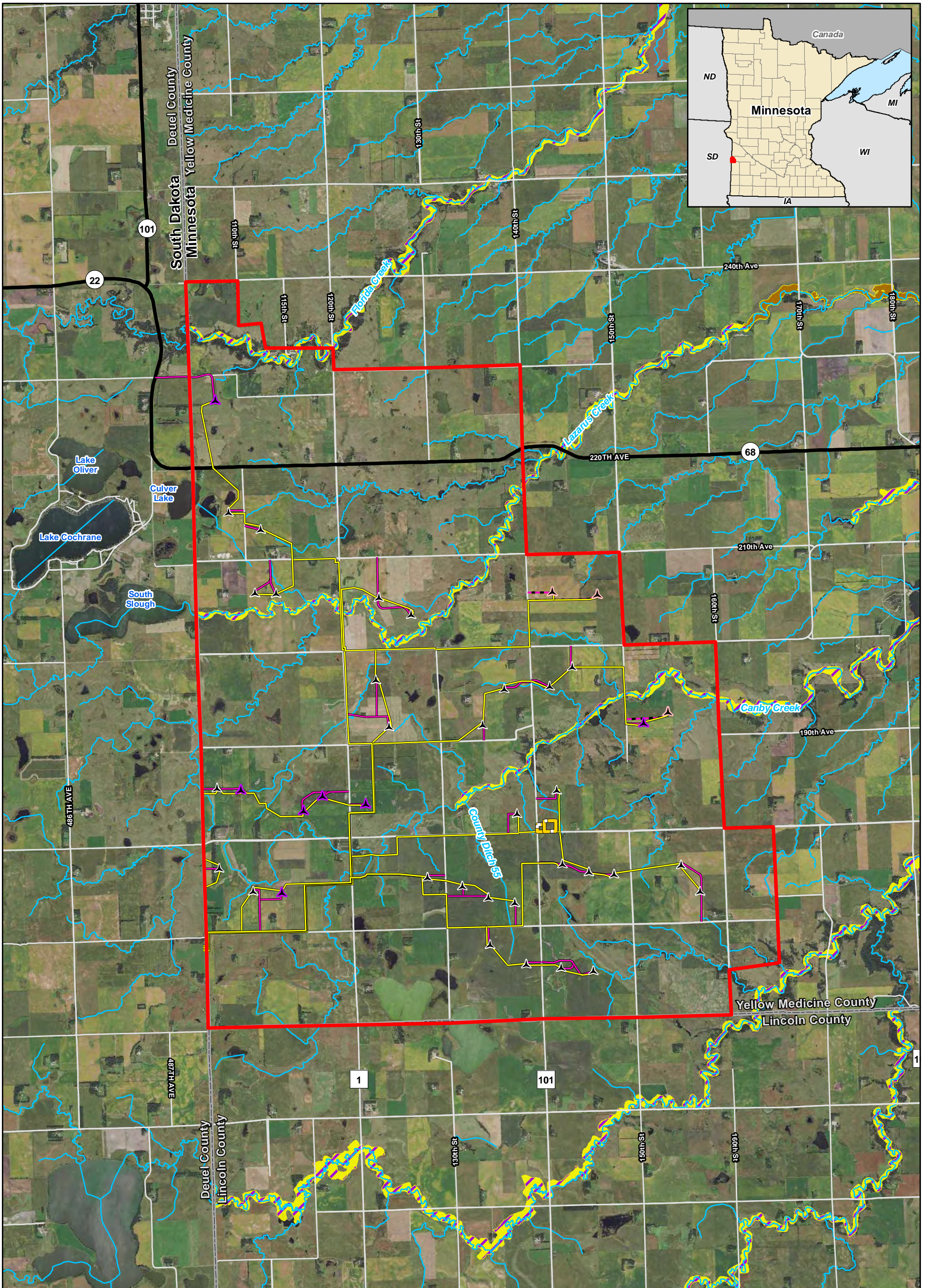
Data Source: RES Americas, MN DNR, USFWS  
Imagery Source: 2015 Color FSA

**Figure 16  
Wetland Inventory**

**Bitter Root Wind Farm  
Flying Cow Wind, LLC  
Yellow Medicine County, Minnesota**

- Proposed Vestas 136-3.45
- Proposed Alternate Vestas 136-4.2
- Proposed Vestas 136-4.2
- Project Area
- Proposed Met Tower
- Proposed Facilities Boundary (OM Building and Laydown Yard)
- Proposed Collection Line
- Proposed Access Road
- Proposed Alternate Access Road
- NWI (MNDNR Update)
- Field Delineated Calcareous Fen
















0 0.25 0.5 1 Miles

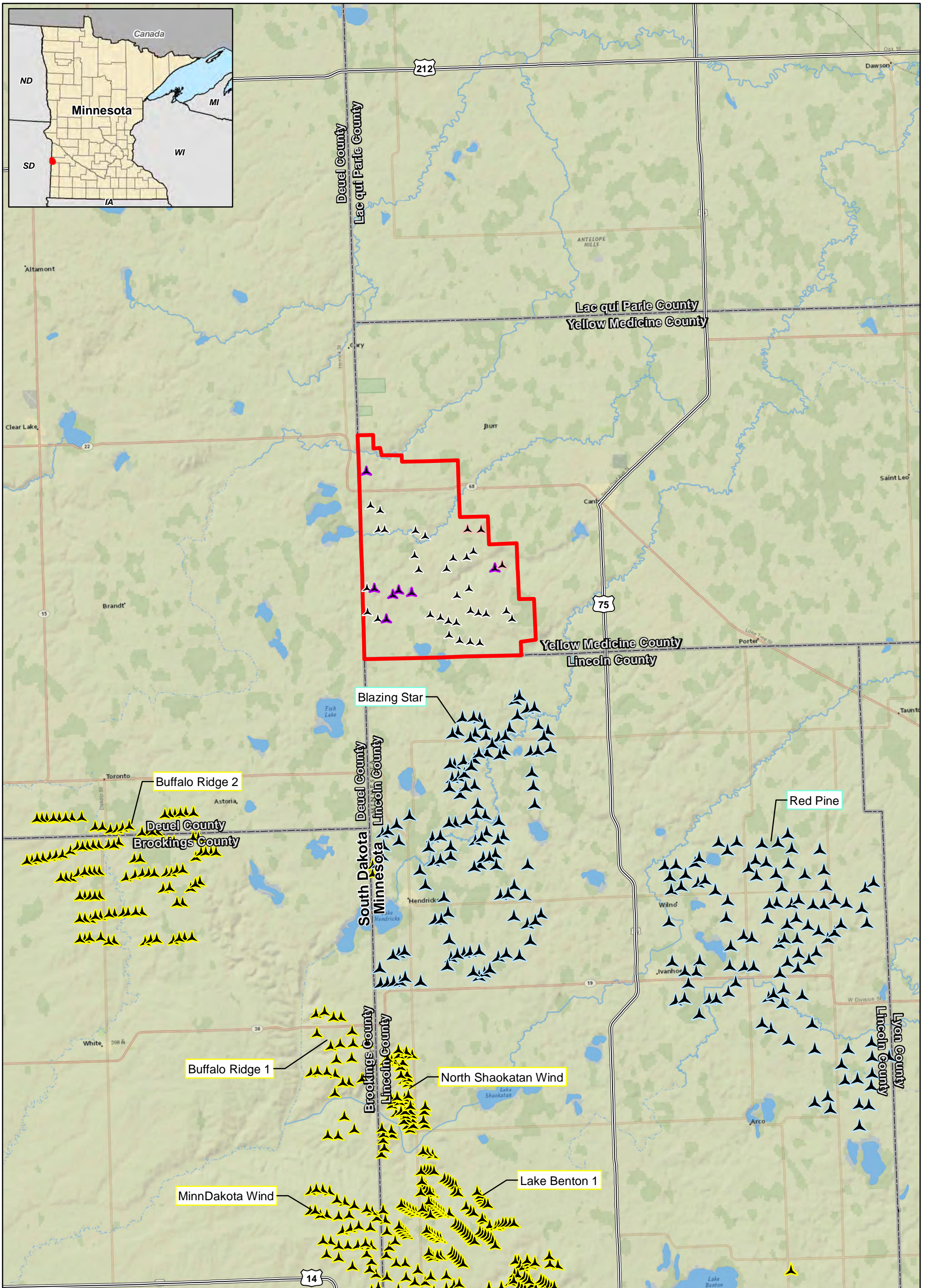
Data Source: RES Americas, MN DNR  
Imagery Source: 2015 Color FSA

**Figure 17  
FEMA Floodplain**

**Bitter Root Wind Farm  
Flying Cow Wind, LLC  
Yellow Medicine County, Minnesota**

-  Proposed Vestas 136-3.45
-  Proposed Alternate Vestas 136-4.2
-  Proposed Vestas 136-4.2
-  Project Area
-  Proposed Facilities Boundary (OM Building and Laydown Yard)
-  Proposed Collection Line
-  Proposed Access Road
-  Proposed Alternate Access Road
-  County Boundary
-  24k Stream or Ditch
-  100 Year Floodplain





0 0.75 1.5 3 Miles

Data Source: RES Americas, USGS  
Imagery Source: Content may not reflect National Geographic's current map



**Figure 18**  
**Existing Turbine Locations**

**Bitter Root Wind Farm**  
**Flying Cow Wind, LLC**  
**Yellow Medicine County, Minnesota**

- Proposed Vestas 136-3.45
- Proposed Alternate Vestas 136-4.2
- Proposed Vestas 136-4.2
- Permitted Turbine
- Existing Turbine
- Project Area
- County Boundary