


FIGURES

This page intentionally left blank.

Figure 1 Project Vicinity

New Frontier Wind Energy Project
McHenry County, North Dakota

 Project Area



0 2 4 Miles

Source: ESRI (2011), NGS USA Topo (2011) / USGS 24k quad.

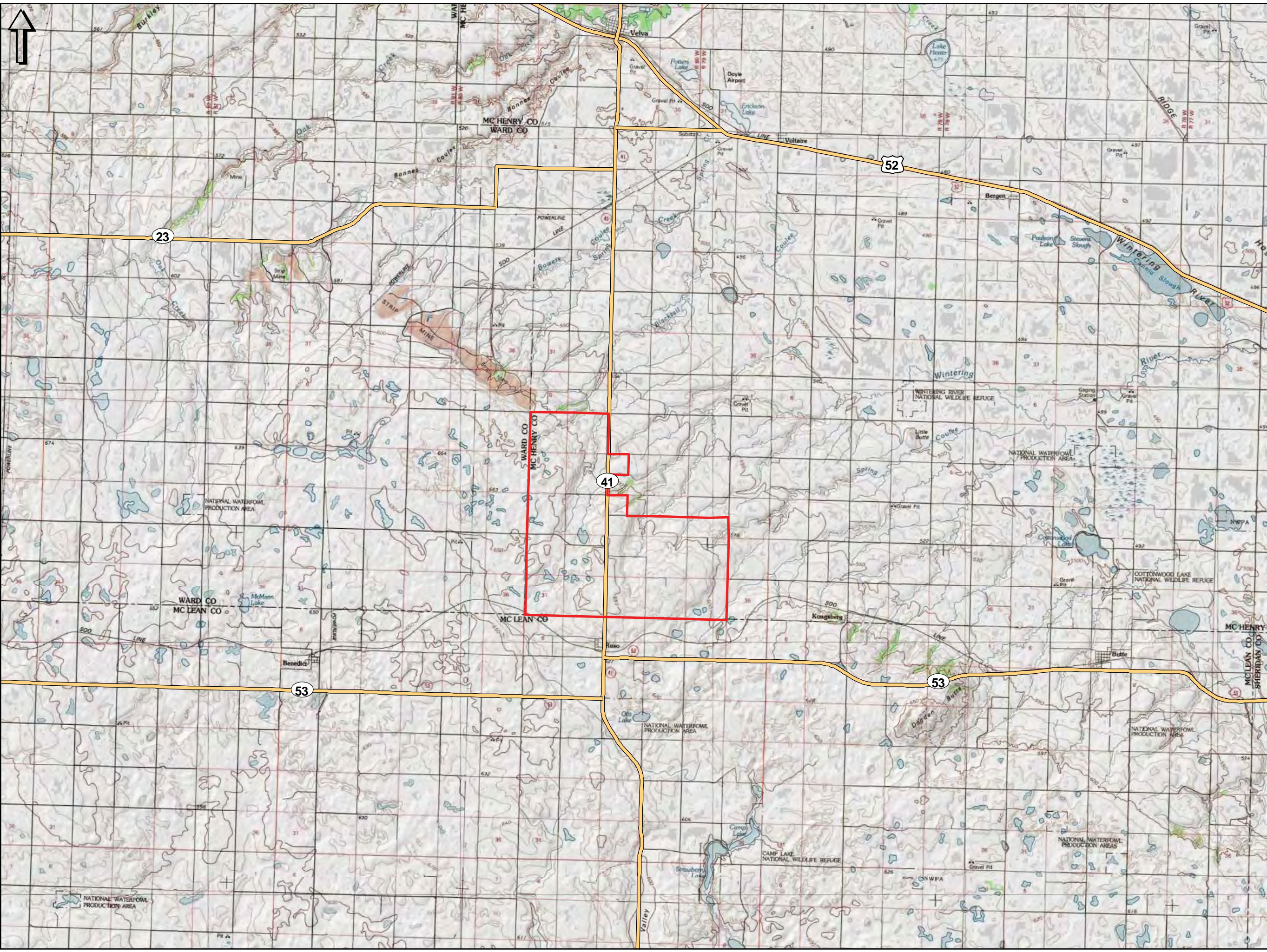
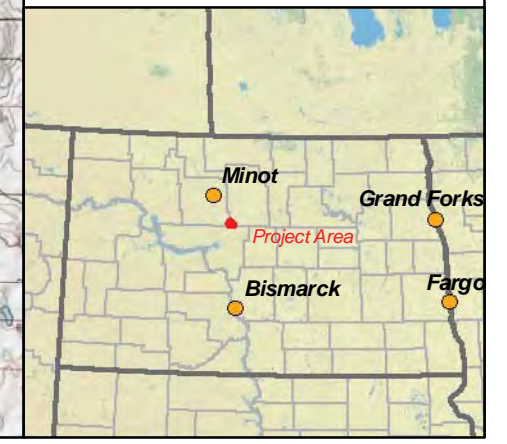



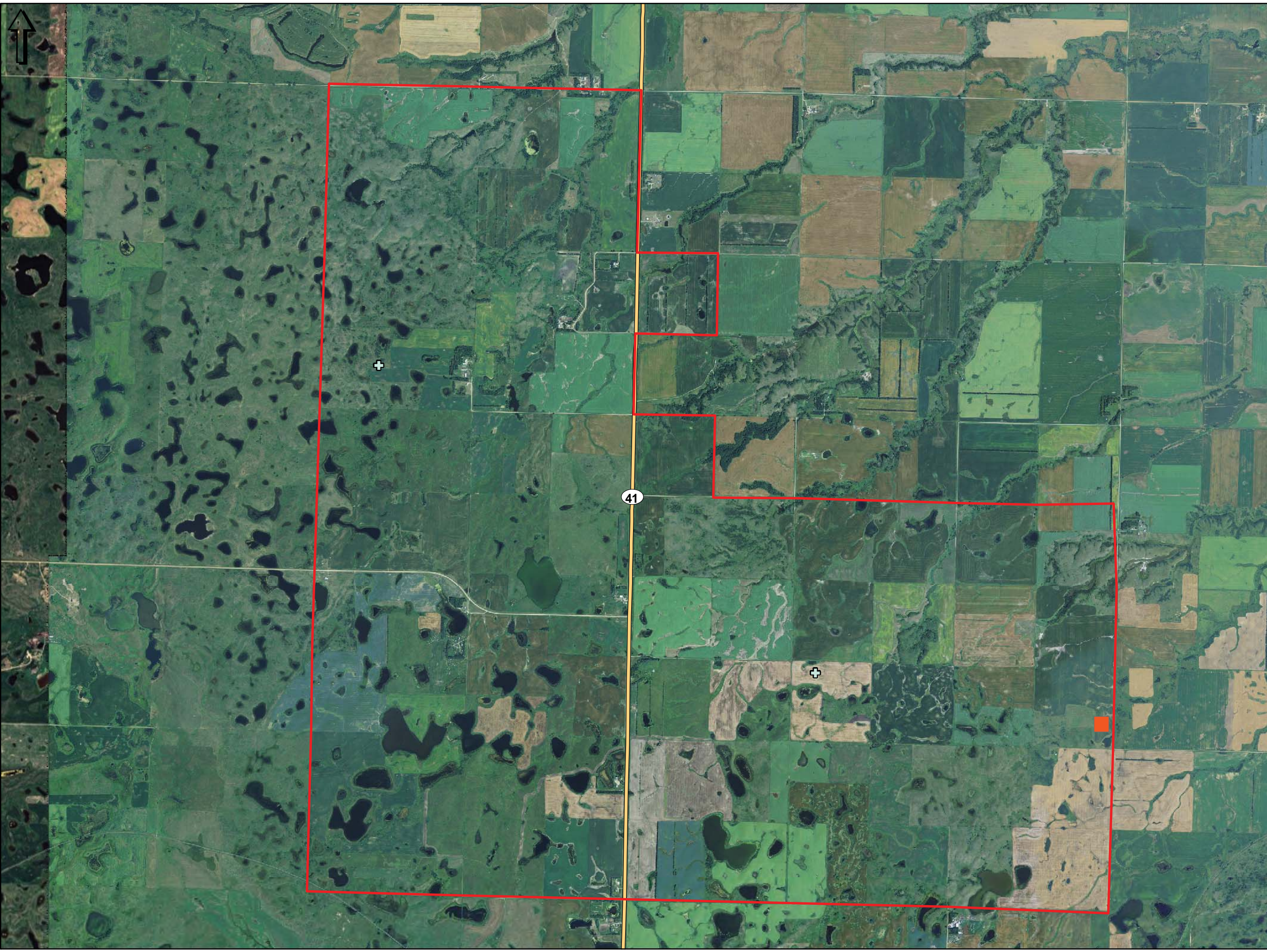


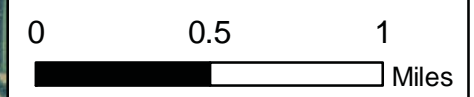
Figure 2 - Project Location Map (Aerial)

New Frontier Wind Energy Project
McHenry County, North Dakota

-  Project Area
-  Existing Met Towers
-  Proposed Substation



elementpower



Source: ESRI (2011), USDA NAIP (2010).

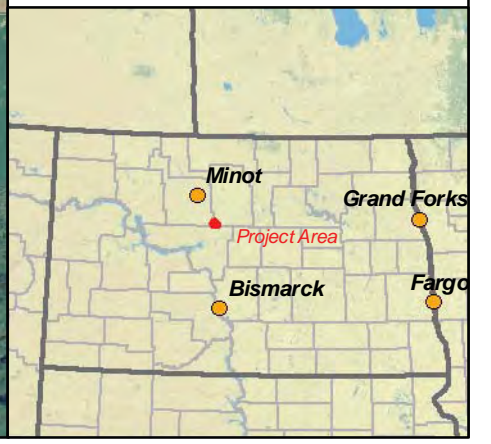



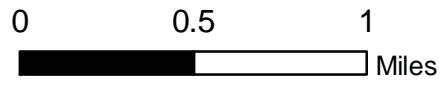
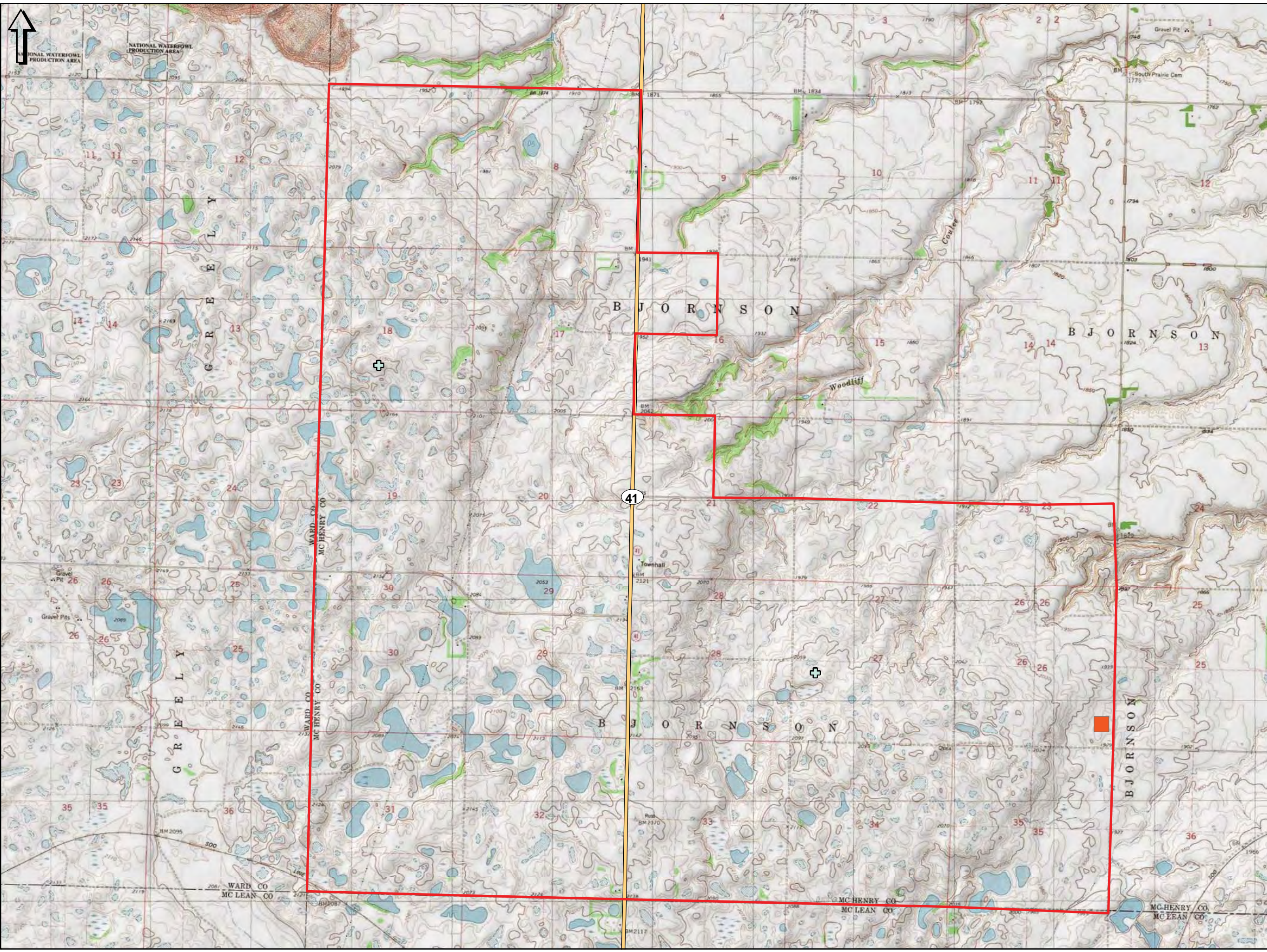


Figure 3 - Project Location Map (Topographic)

New Frontier Wind Energy Project
McHenry County, North Dakota

-  Project Area
-  Existing Met Towers
-  Proposed Substation



Source: ESRI (2011), NGS USA Topo (2011) / USGS 24k quad.

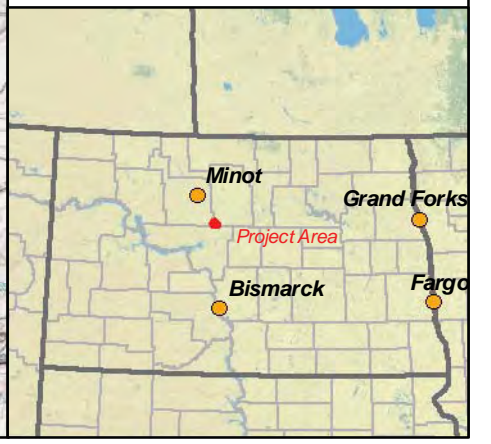
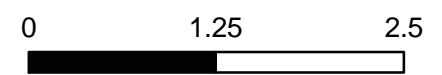


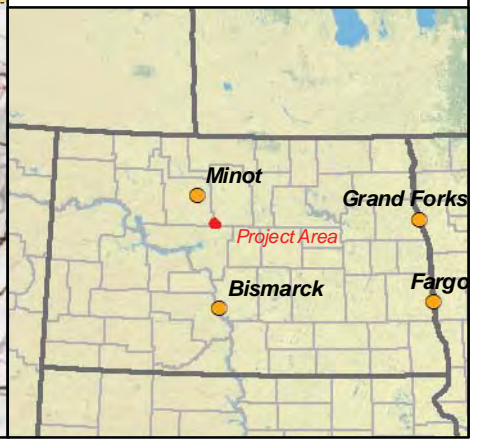
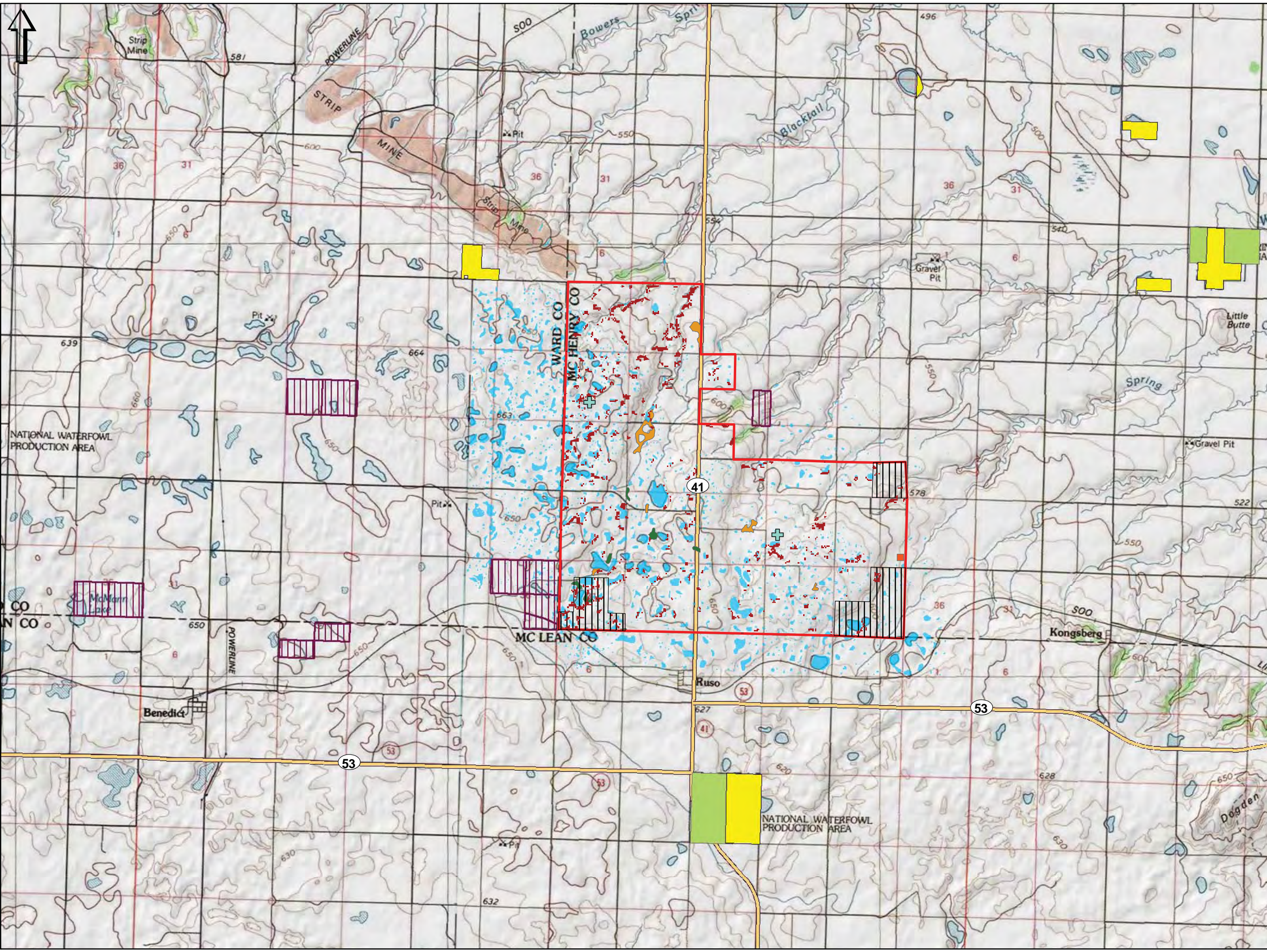
Figure 4 - Exclusion and Avoidance Areas

New Frontier Wind Energy Project McHenry County, North Dakota

- Project Area Fully Leased
- + Existing Met Towers
- Non Participants
- Proposed Substation
- State Owned Land
- National Wildlife Refuge
- Waterfowl Production Area
- NWI Wetlands
- All areas are prime farmland
- Prime farmland if drained
- Wooded Areas



Source: ESRI (2011) MGS USA Topo (2011) / USGS 24k quad, ND State Land Dept. (2011), USFWS Realty (2010). NWI, FSA NASS, SSURGO.



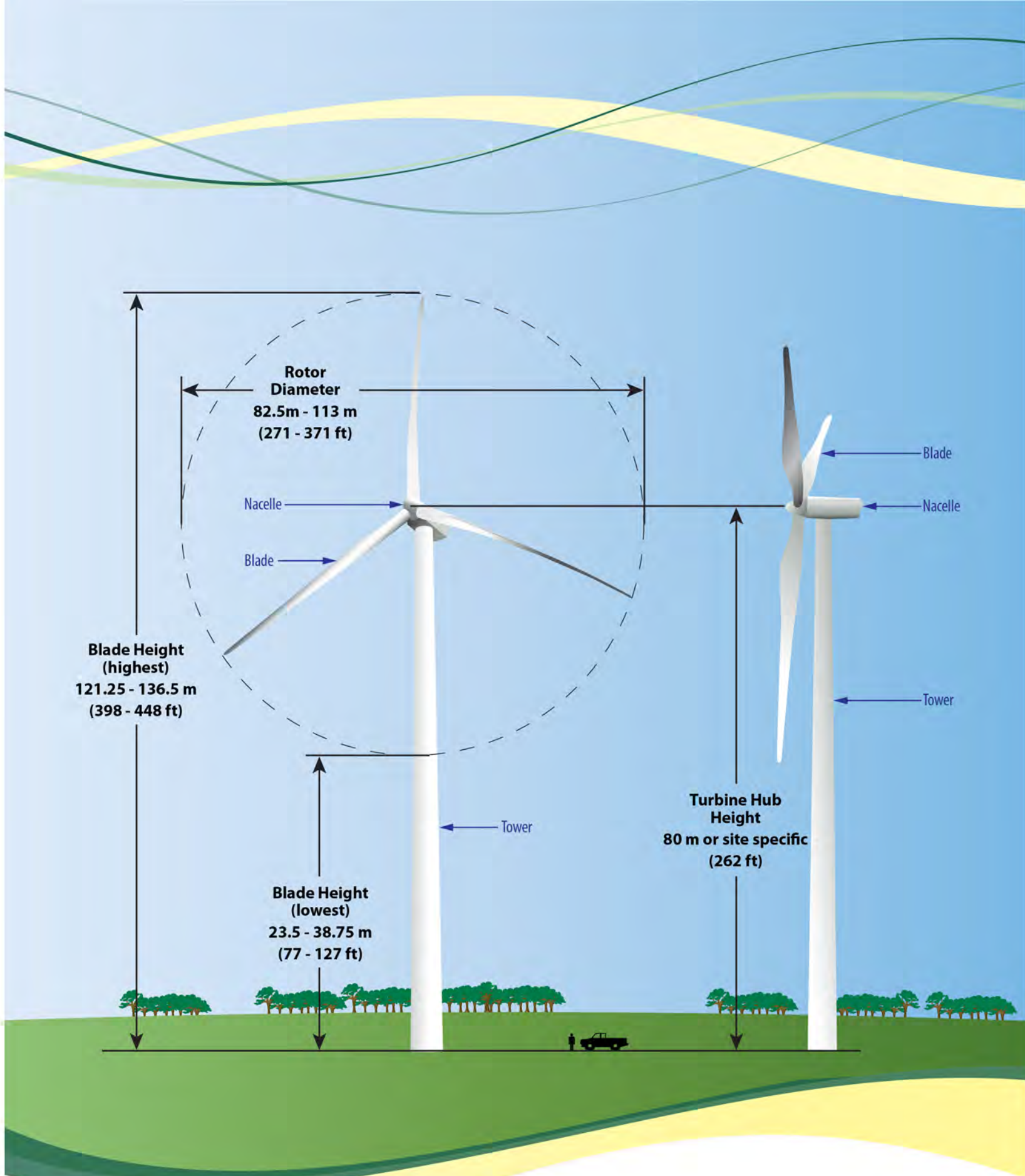


Figure 5a Typical Wind Turbine Design Features

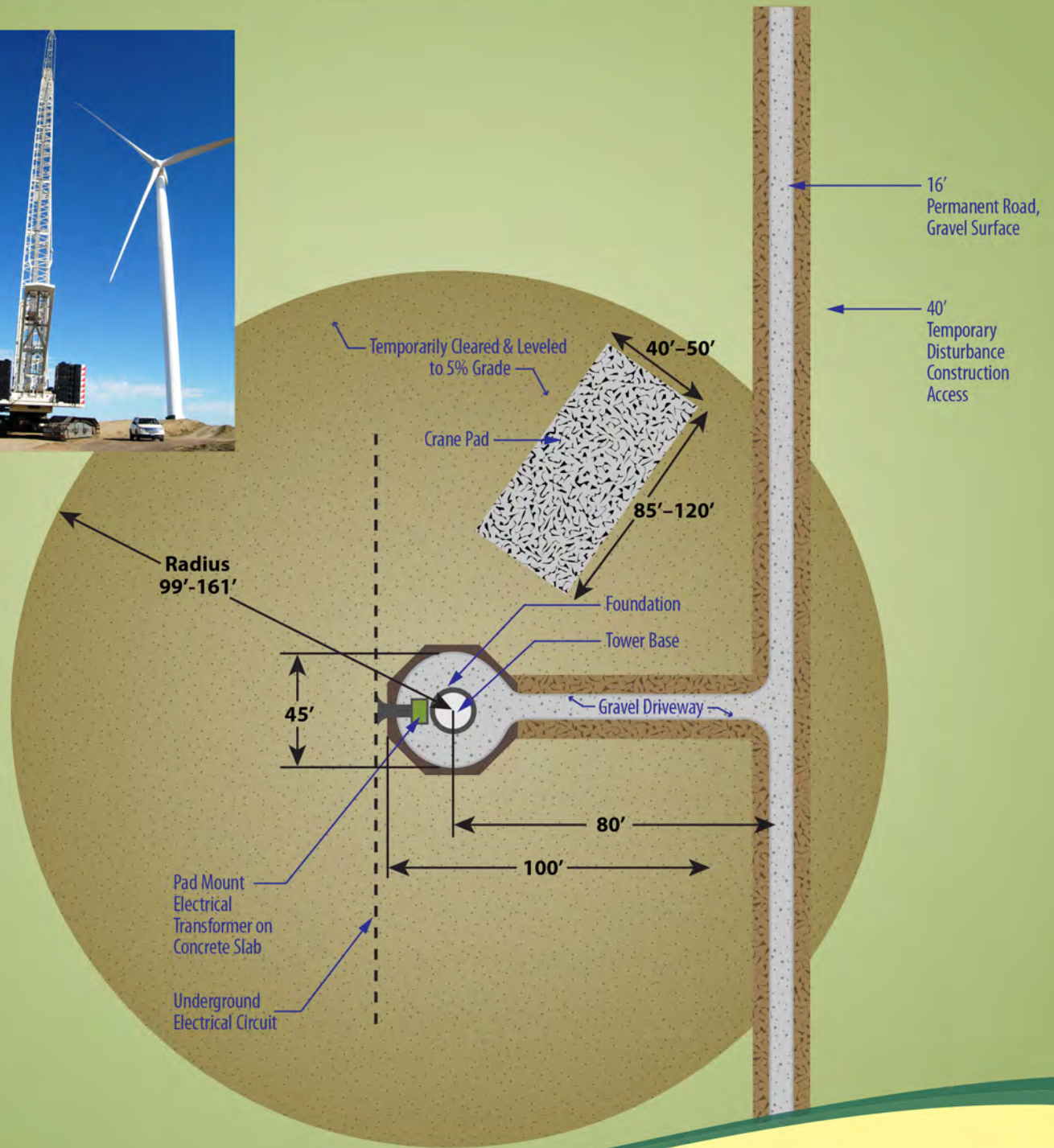


Figure 5b Typical Wind Turbine Construction Site

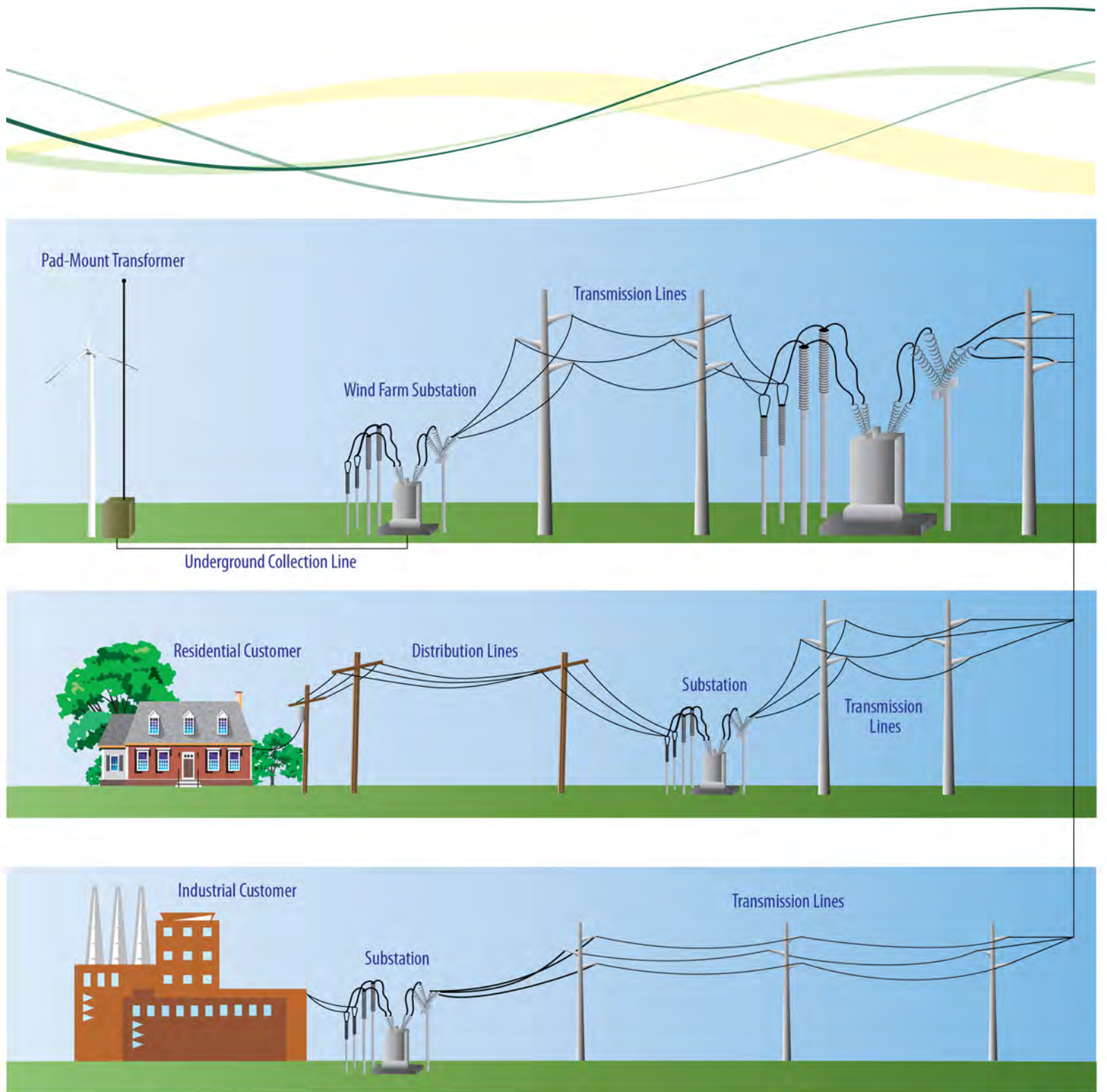








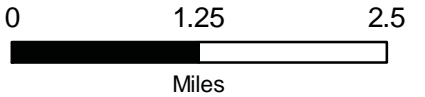
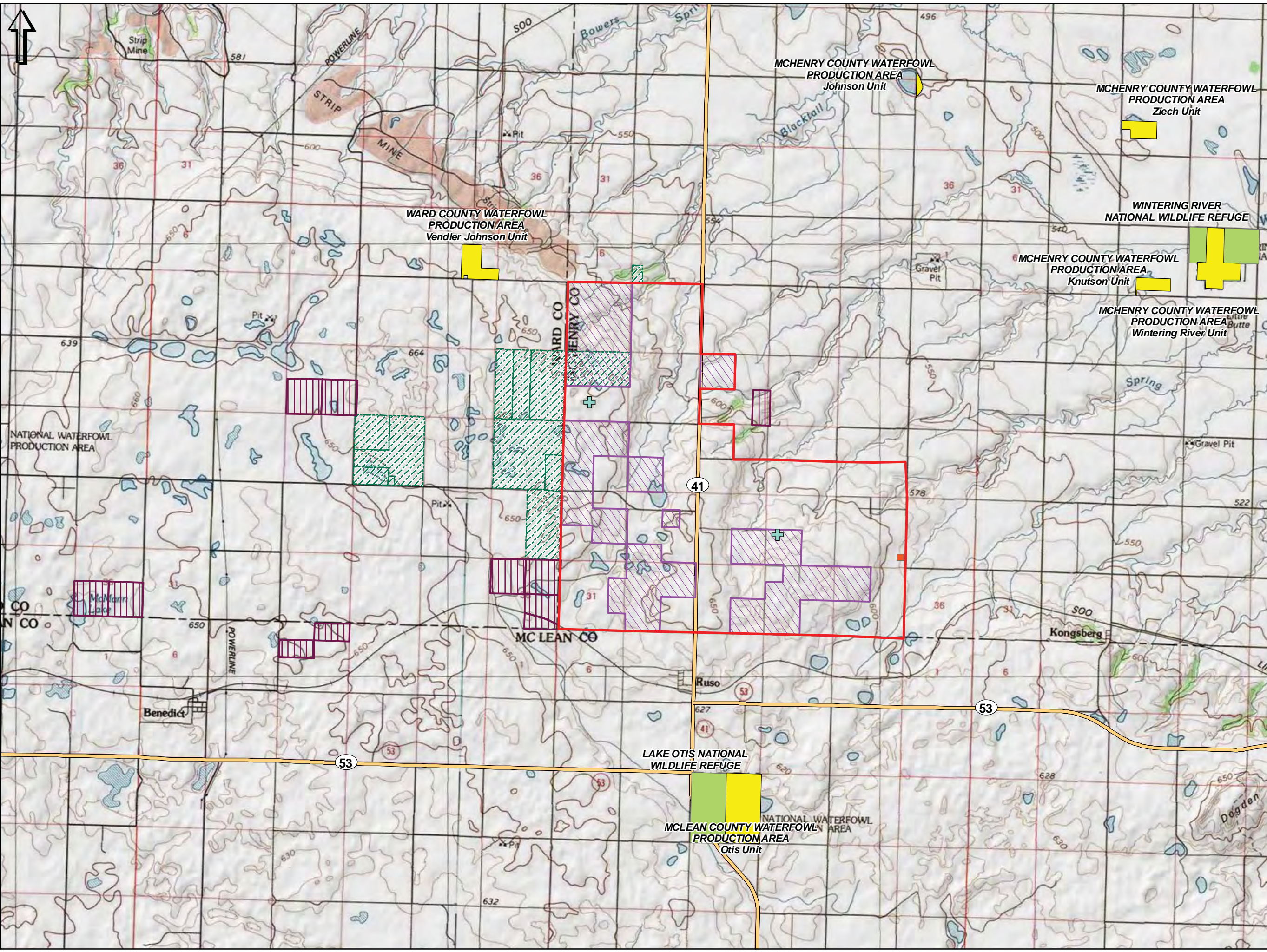


Figure 6 Path of Energy Diagram

Figure 7 - Public Lands and Easements

New Frontier Wind Energy Project
McHenry County, North Dakota

-  Project Area Fully Leased
-  Existing Met Towers
-  Proposed Substation
-  State Owned Land
-  National Wildlife Refuge
-  Waterfowl Production Area
-  USFWS Wetland Easement
-  USFWS Grassland Easement



Source: ESRI (2011), NGS USA Topo (2011) / USGS 24k quad, ND State Land Dept. (2011), USFWS Realty (2010).

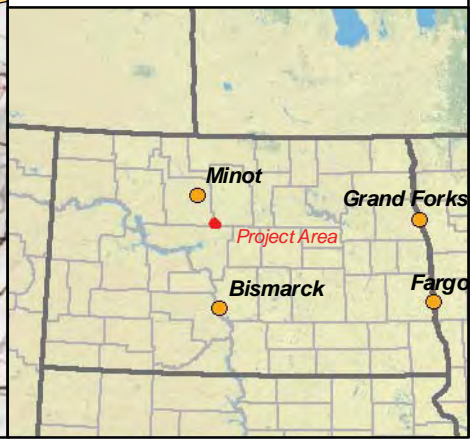
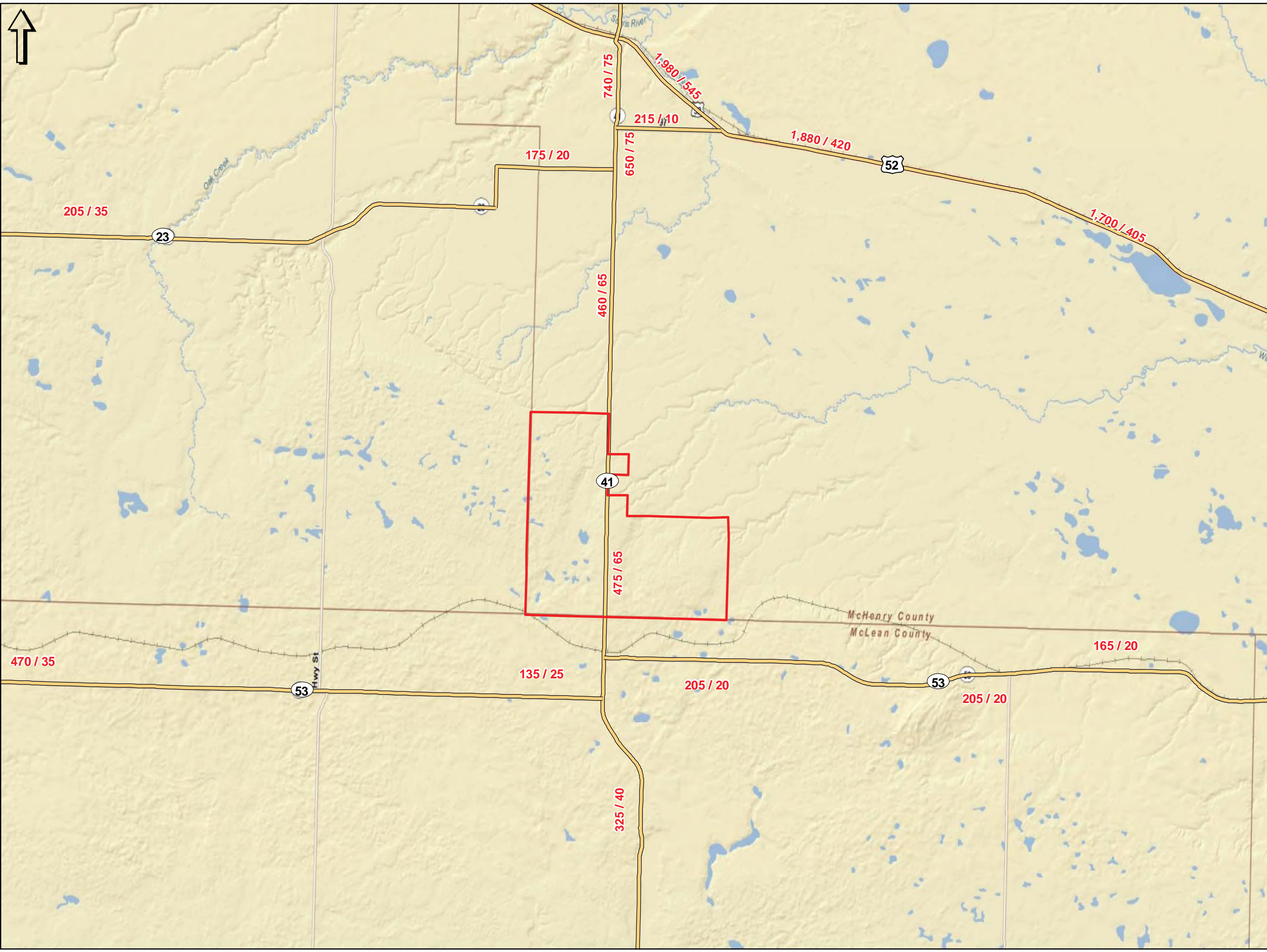
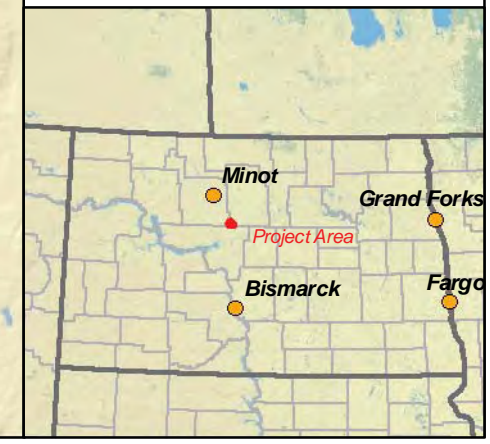


Figure 8 - Average Annual Daily Traffic
New Frontier Wind Energy Project
McHenry County, North Dakota

 Project Area
AADT (Average Annual Daily Traffic) / Commercial Truck Traffic



0 2 4 Miles
Source: ESRI (2011), NDDOT (2009).



205 / 35

23

470 / 35

53

Hwy St

135 / 25

175 / 20

325 / 40

460 / 65

41

475 / 65

740 / 75

215 / 10

650 / 75

205 / 20

1,980 / 545

1,880 / 420

52

McHenry County
McLean County

53

205 / 20

1,700 / 405

165 / 20

Minot

Grand Forks

Project Area

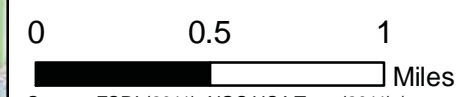
Bismarck

Fargo

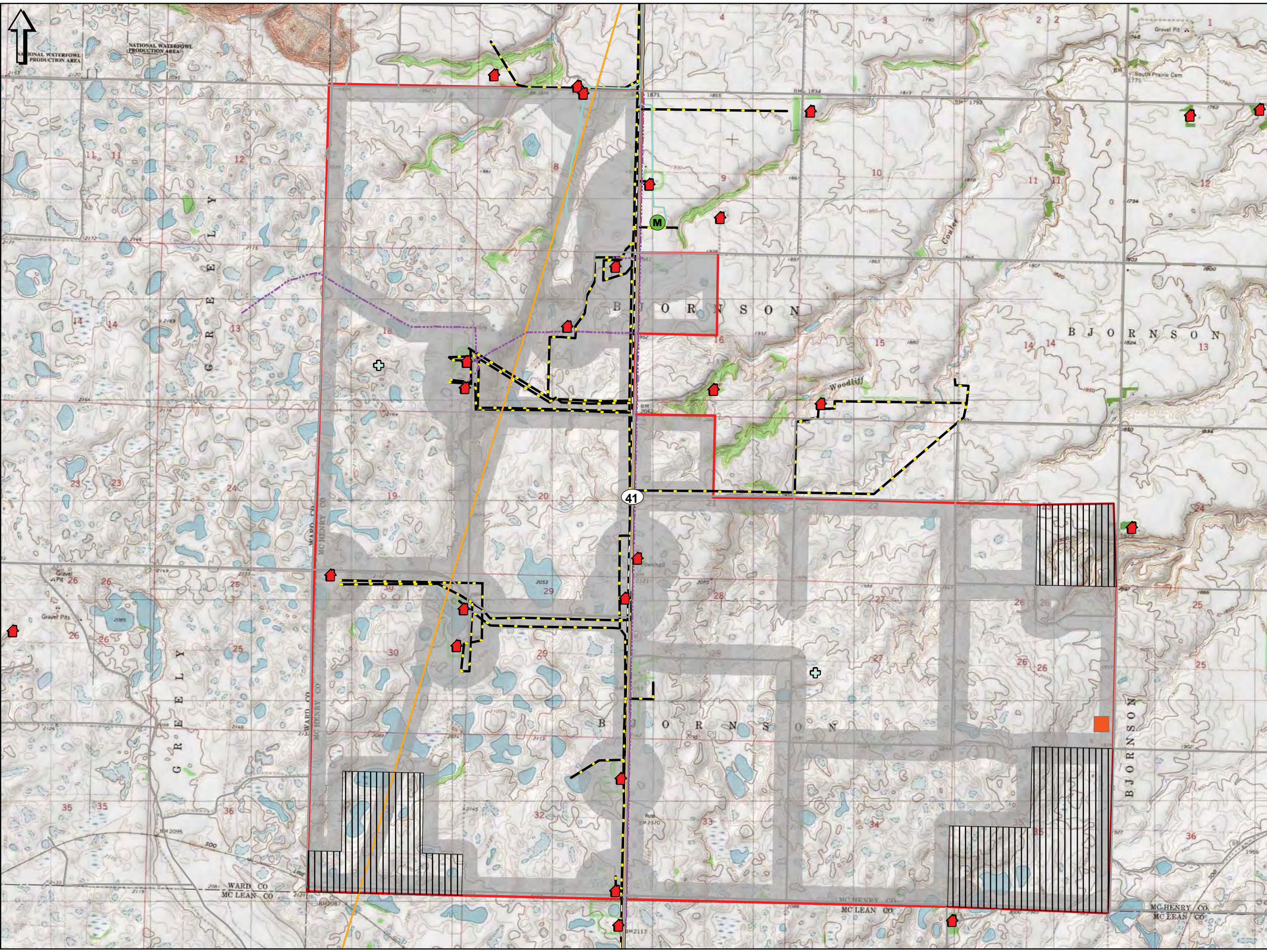
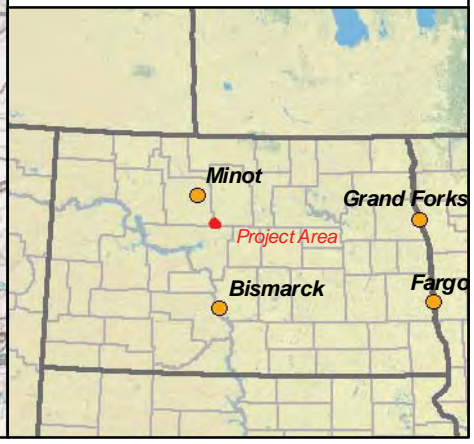
Figure 9 - Environmental and Siting Considerations

New Frontier Wind Energy Project McHenry County, North Dakota

- Project Area
- + Existing Met Towers
- Proposed Substation
- Setback Area
- Entity and Associated Setback**
- Missile Facility (2,640 ft)
- Non Participants (500 ft)
- Residence (1,400 ft)
- Transmission Line (500 ft)
- Overhead Distribution Lines (500 ft)
- Roads (500 ft)
- Mid Continent Cable (50 ft)
- SRT Cable (50 ft)
- NPRWD Water Lines (50 ft)
- Microwave Beam Path (none present)



Source: ESRI (2011), NGS USA Topo (2011) / USGS 24k quad, Ventyx Velocity Suite (2011), Mid Continent, USAF, NPRWD, SRT, ADTI.



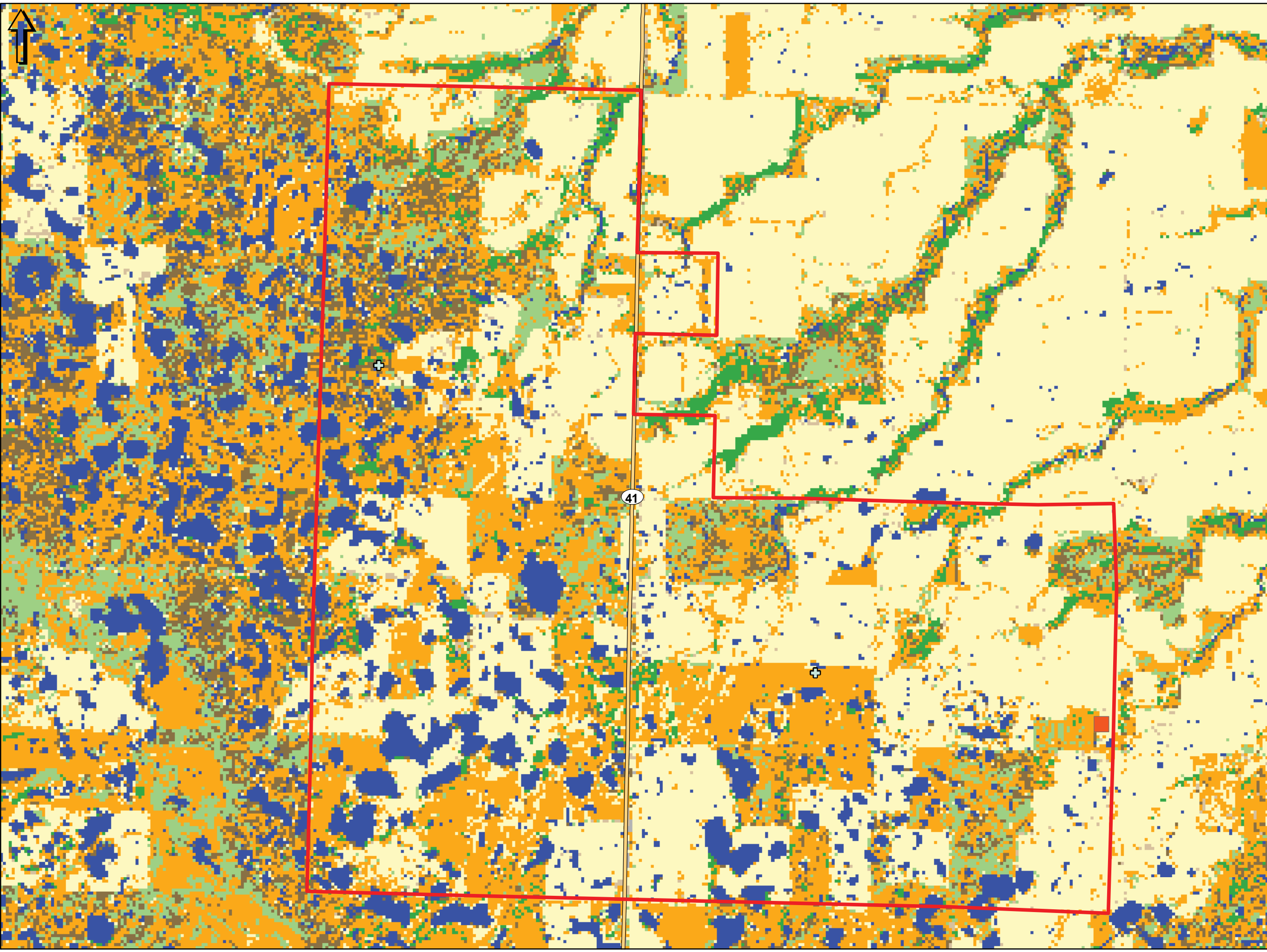


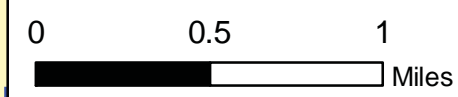
Figure 10 - Land Cover

New Frontier Wind Energy Project McHenry County, North Dakota

- Project Area
- Existing Met Towers
- Proposed Substation
- Background
- Cropland
- Planted Herbaceous Perennials
- Prairie - wet-mesic tall grass
- Prairie - mesic tall grass
- Prairie - mesic tall and mixed grass
- Prairie - bluestem-needlegrass-wheatgra*
- Prairie - wheatgrass Prairie
- Prairie - needlegrass Prairie
- Prairie - little bluestem
- Prairie - fescue
- Prairie - sand
- Prairie - saline
- Shrubland - upland deciduous
- Shrubland - lowland deciduous
- Shrubland - sagebrush
- Woodland - ponderosa pine
- Woodland - limber pine
- Woodland - rocky mountain juniper
- Woodland - mixed conifer and deciduous *
- Woodland - floodplain
- Woodland - deciduous
- Woodland - green ash
- Woodland - aspen
- Woodland - bur oak
- Woodland - aspen and bur oak
- Wetland - lacustrine
- Wetland - riverine
- Wetland - palustrine temporary
- Wetland - palustrine seasonal
- Wetland - palustrine semipermanent
- Wetland - water
- Barren Land
- Sparse Vegetation - badlands
- Sparse Vegetation - riparian
- Developed - high intensity residential
- Developed - low intensity residential
- Developed - commercial/industrial/trans*
- Developed - urban grasslands
- Developed - recently Developed or omis*



elementpower



Source: ESRI (2011), USGS ND GAP Land Analysis (2004).

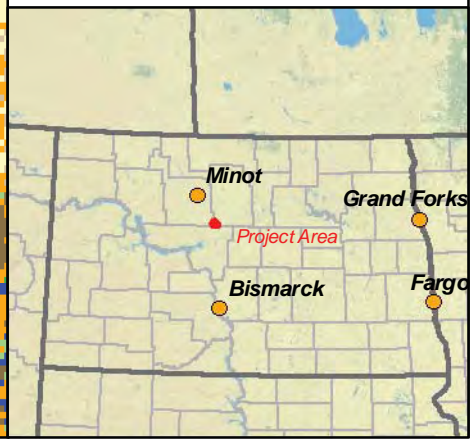
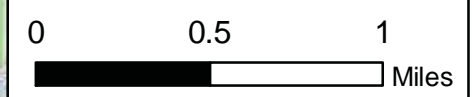
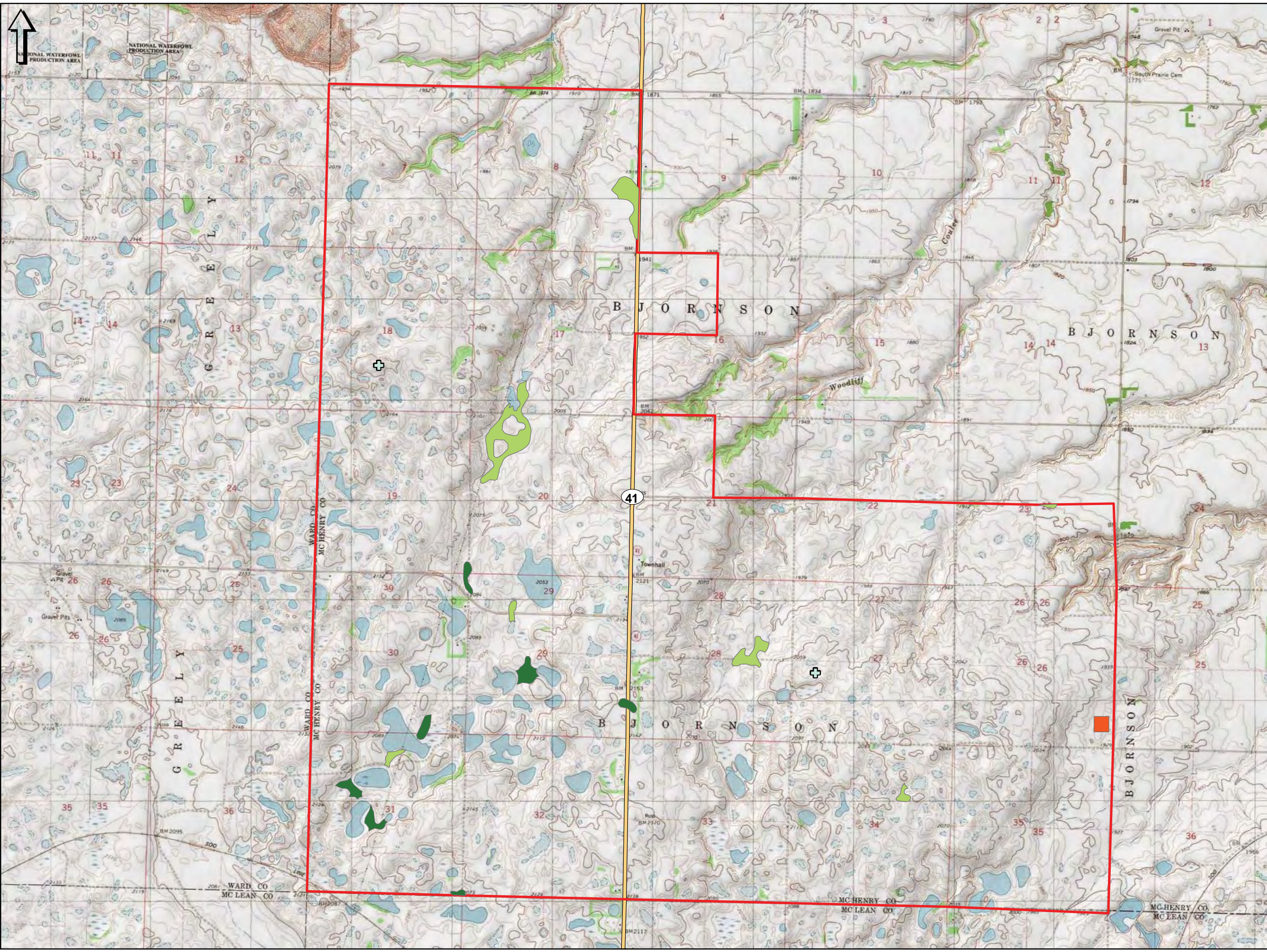


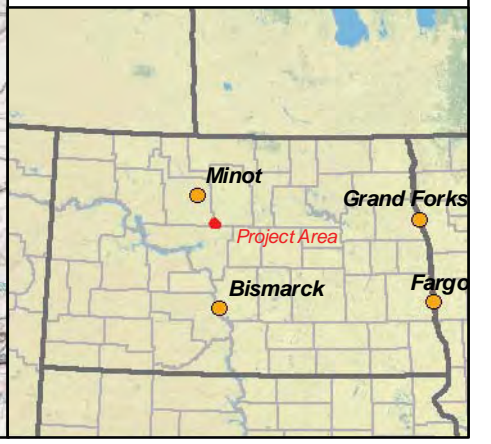
Figure 11 - Prime Farmland Soil Distribution

New Frontier Wind Energy Project
McHenry County, North Dakota

-  Project Area
-  Existing Met Towers
-  Proposed Substation
-  Prime Farmland
-  Prime farmland if drained



Source: ESRI (2011), NGS USA Topo (2011) / USGS 24k quad, SSURGO (2008).



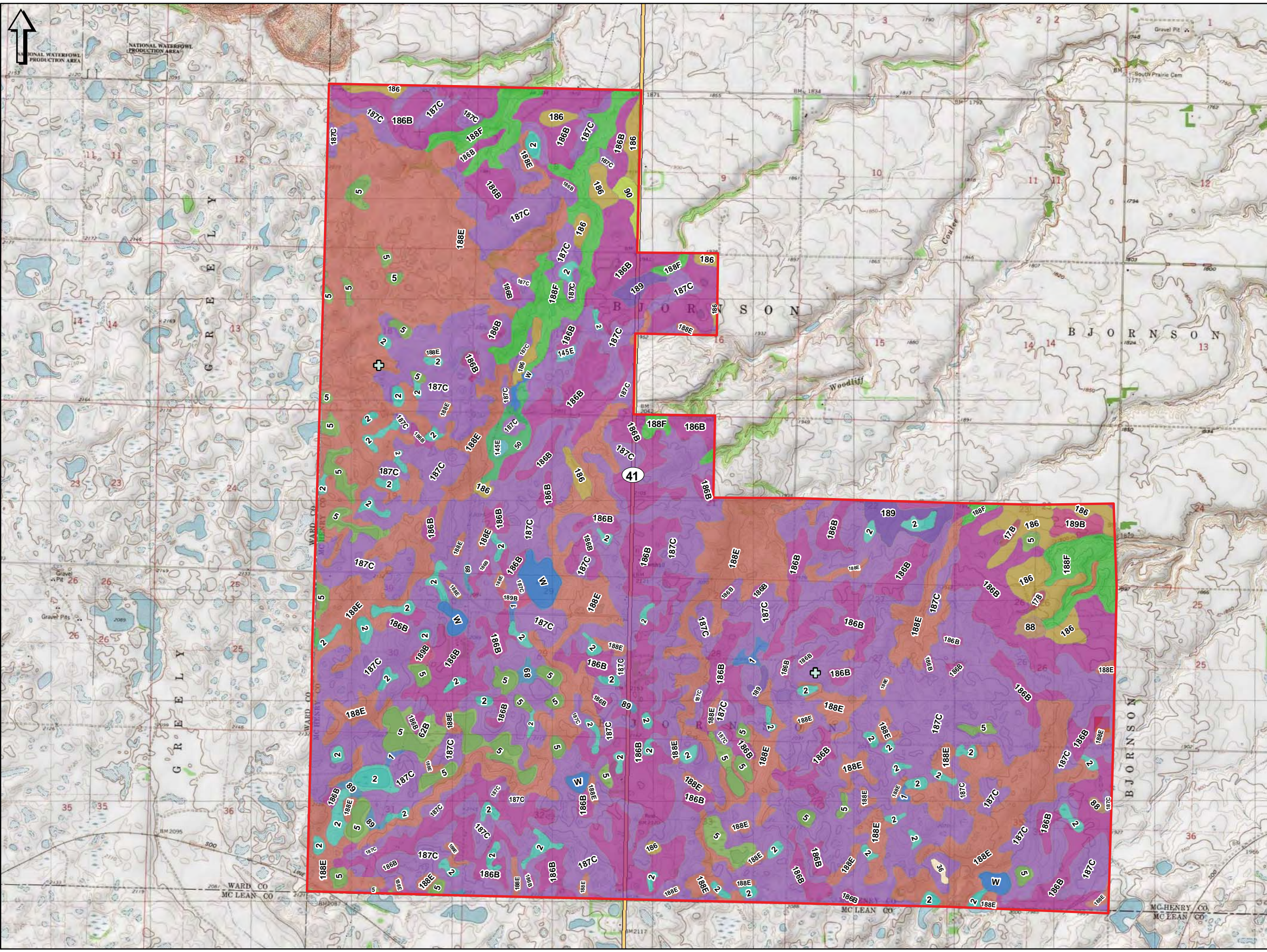
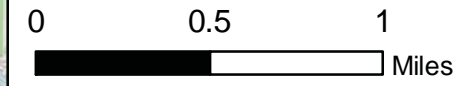


Figure 12 Soils

New Frontier Wind Energy Project McHenry County, North Dakota

- Project Area
 - Existing Met Towers
 - Proposed Substation
- Soils**
- 1 / Tonka silt loam, 0 to 1 percent slopes
 - 145E / Sioux gravelly sandy loam, 6 to 25 percent slopes
 - 151 / Sistrum fine sandy loam, 0 to 1 percent slopes
 - 17B / Arvilla sandy loam, 0 to 6 percent slopes
 - 186 / Williams loam, 0 to 3 percent slopes
 - 186B / Williams loam, 3 to 6 percent slopes
 - 187C / Williams-Zahl loams, 6 to 9 percent slopes
 - 188E / Zahl-Williams loams, 9 to 25 percent slopes
 - 188F / Zahl-Max-Bowbells loams, 6 to 60 percent slopes
 - 189 / Williams-Niobell loams, 0 to 3 percent slopes
 - 189B / Williams-Niobell loams, 3 to 6 percent slopes
 - 2 / Pamell silty clay loam, 0 to 1 percent slopes
 - 36 / Ferney-Cavour loams, 0 to 3 percent slopes
 - 5 / Southam silty clay loam, 0 to 1 percent slopes
 - 50 / Colvin silt loam, 0 to 1 percent slopes
 - 62B / Eglend fine sandy loam, 0 to 6 percent slopes
 - 88 / Hamerly loam, saline, 0 to 3 percent slopes
 - 89 / Hamerly loam, 0 to 3 percent slopes
 - 90 / Hamerly-Tonka complex, 0 to 3 percent slopes
 - W / Water



Source: ESRI (2011), NGS USA Topo (2011) / USGS 24k quad, SSURGO (2008).

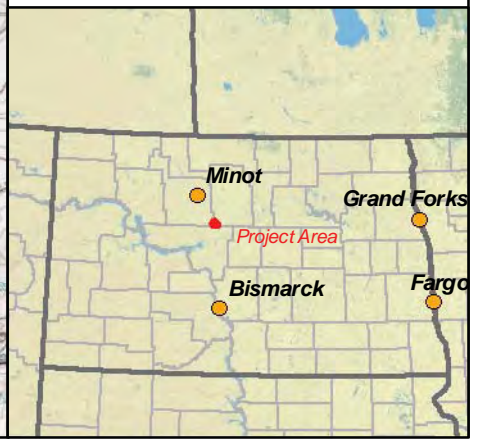




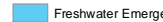
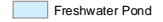

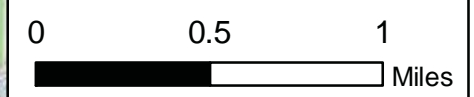
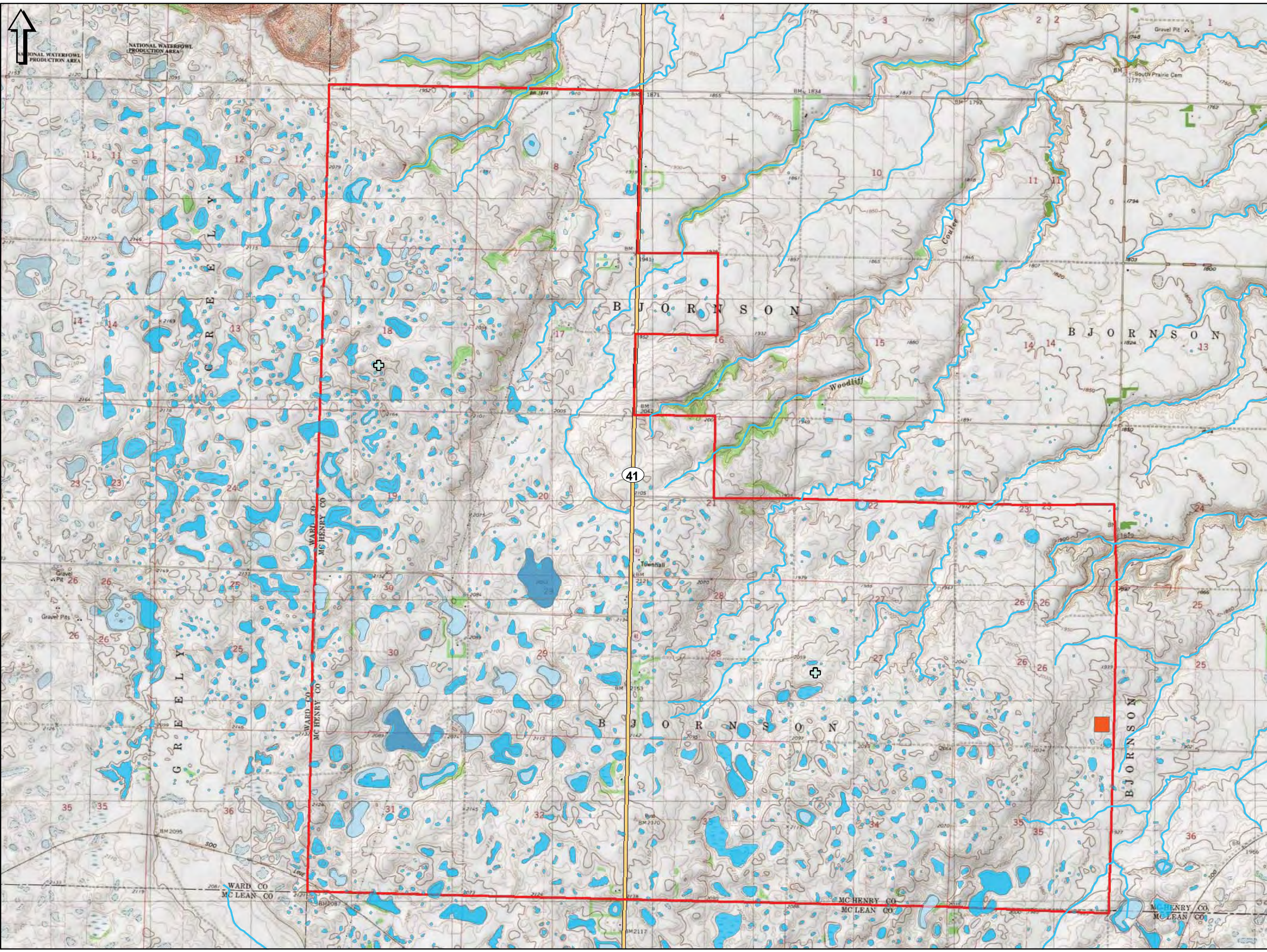


Figure 13 - Wetlands and Surface Waters

New Frontier Wind Energy Project McHenry County, North Dakota

-  Project Area
-  Existing Met Towers
-  Proposed Substation
-  Stream
- NWI Wetland Type**
-  Freshwater Emergent or Forested/Shrub Wetland
-  Freshwater Pond
-  Lake



Source: ESRI (2011), NGS USA Topo (2011) / USGS 24k quad, SSURGO (2008), USGS NHD.

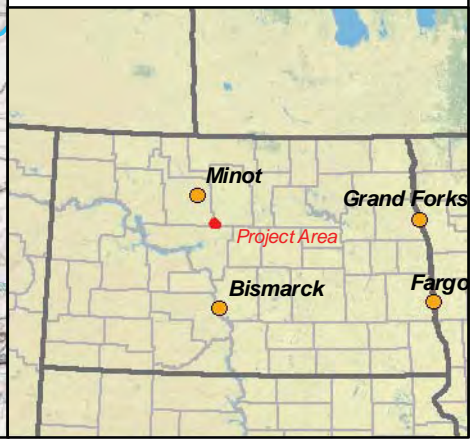







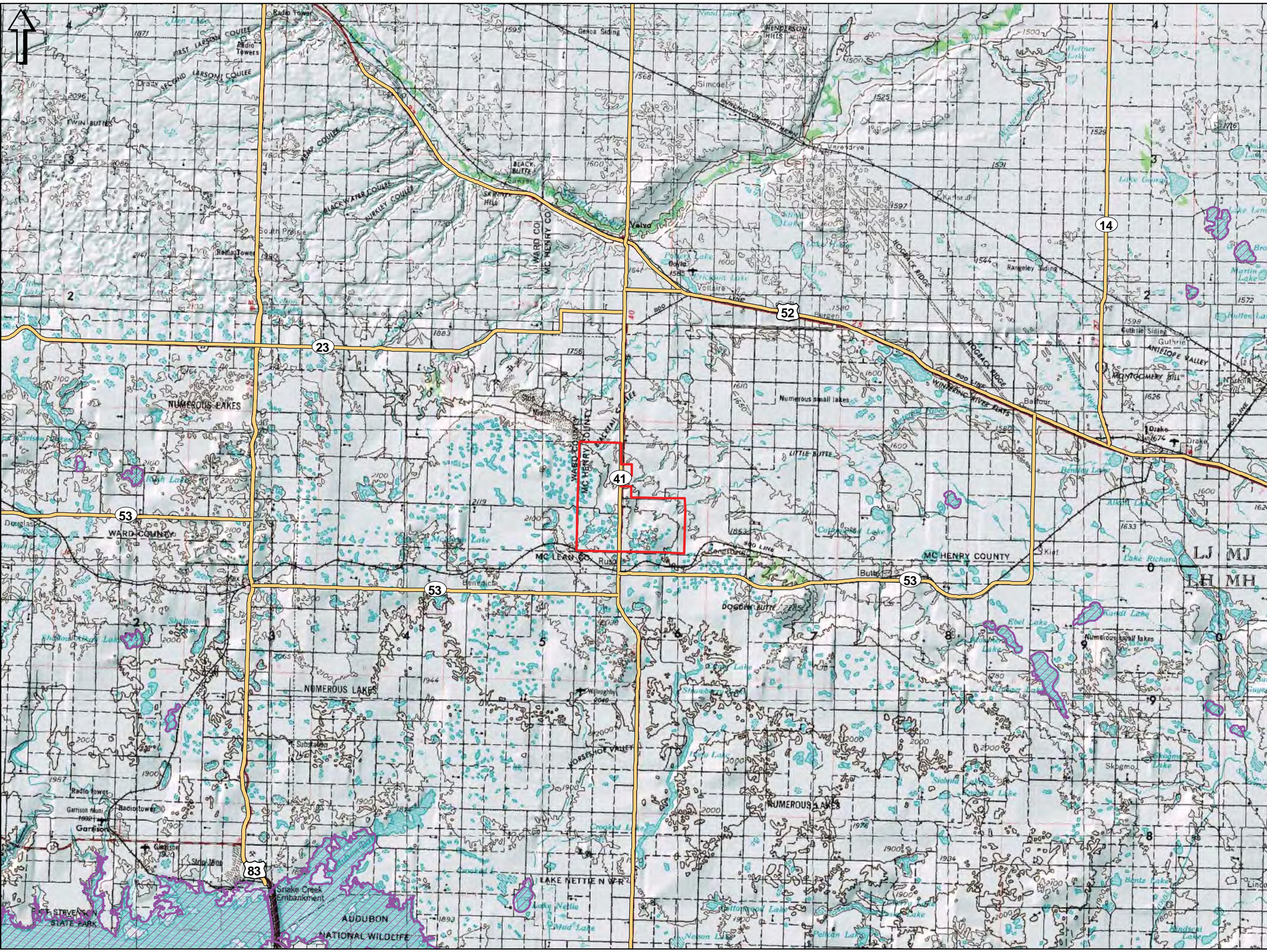


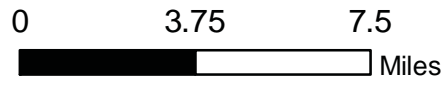
Figure 14 - Natural Resources

New Frontier Wind Energy Project McHenry County, North Dakota

-  Project Area
-  Piping Plover Habitat
- Whooping Crane Migration Corridor**
 -  40 mi (75.08 %)
 -  50 mi (79.44 %)
 -  65 mi (85.04 %)
 -  85 mi (89.83 %)
 -  110 mi (94.83 %)



elementpower



Source: ESRI (2011), NGS USA Topo (2011) / USGS 24k quad, SSURGO (2008), USFWS.

