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Data Source: Apex, US Census, ND GIS Hub, ESRI
Imagery: NAIP 2018

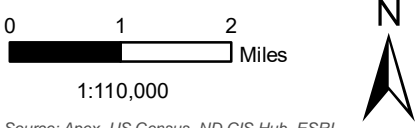
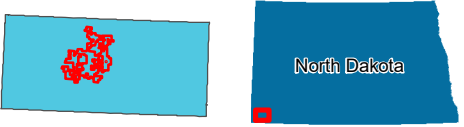
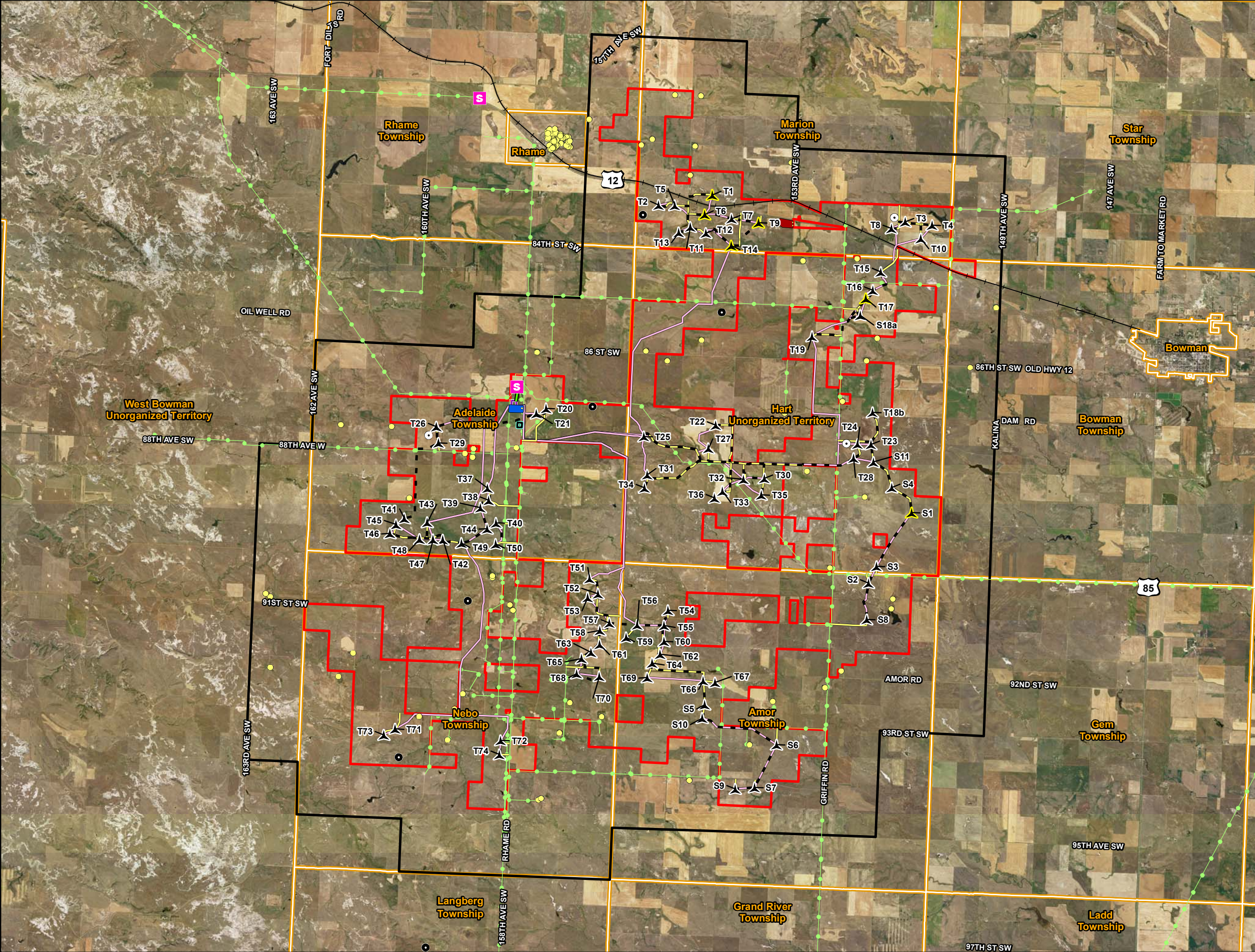
- Existing Substation
- Existing Transmission Line
- Project Boundary
- City/Township
- Study Area
- Non-Participating Landowner Parcel

Figure 1
Project Area
Bowman Wind Project
Bowman County, North Dakota



For Environmental Review Purposes Only

Date: (7/22/2021) Source: Z:\Clients\A_D\Apex\Bowman\Permitting\Site_Permit\Mapping\Fig01_Bowman_Project_Location.mxd



Data Source: Apex, US Census, ND GIS Hub, ESRI
Imagery: ND GIS 2018

- ▲ Proposed Turbine
- ▲ Currently Limited to GE-127 2.82 MW Turbine
- Residence within 1-mile of Project
- Permanent Met Tower
- Temporary Met Tower
- S Existing Substation
- Access Road
- - Crane Path
- Underground Collection Line
- Proposed Transmission Line
- Existing Transmission Line
- Project Substation
- O&M Facility
- Laydown Yard
- Battery Storage
- Project Boundary
- Study Area
- City/Township

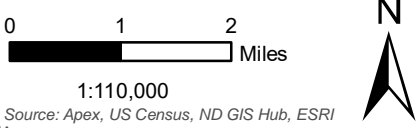
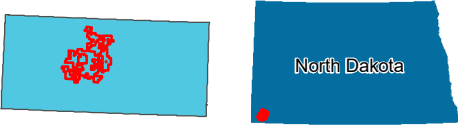
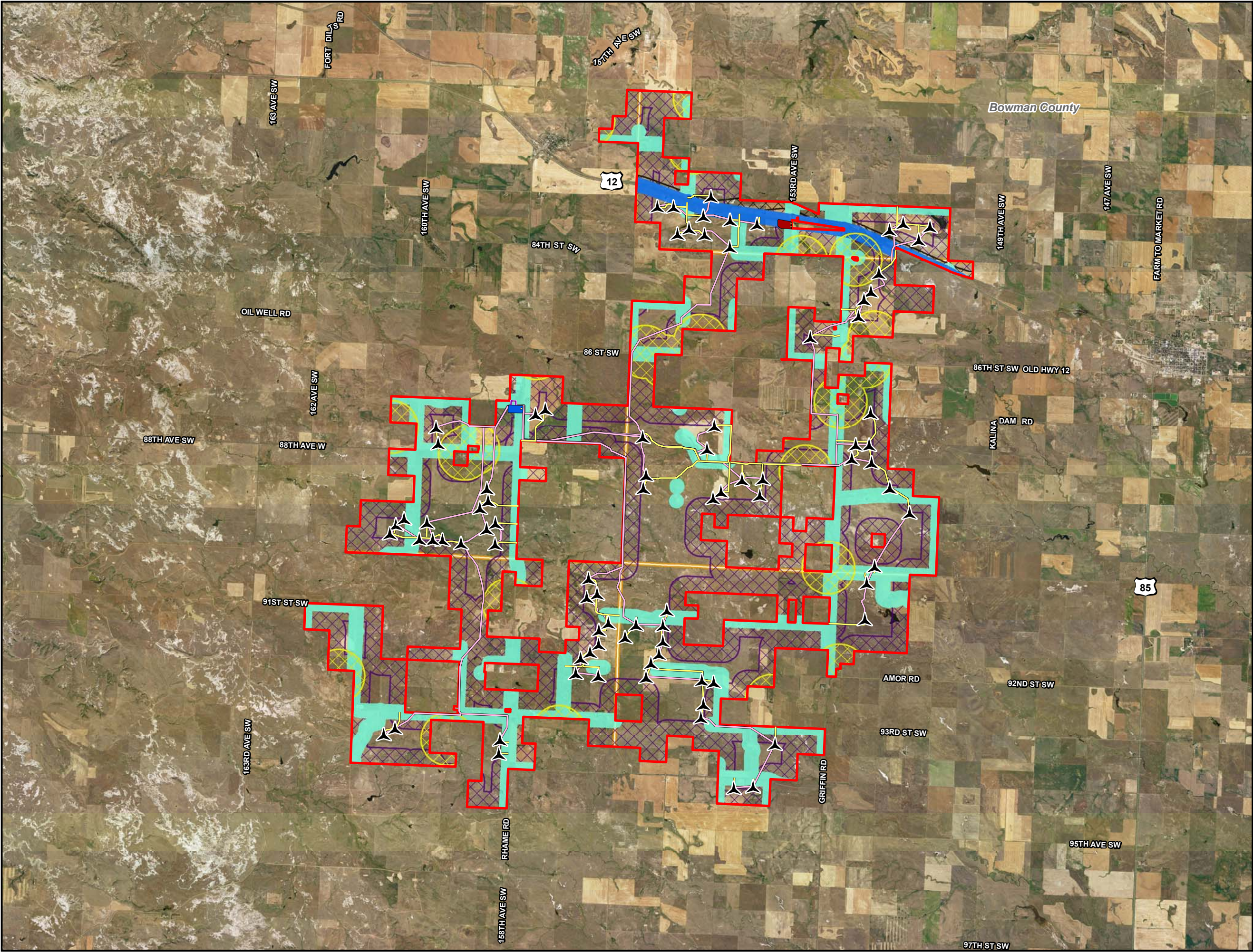
*Turbines Not to Scale

Figure 2
Facilities Layout
Bowman Wind Project
Bowman County, North Dakota



For Environmental Review Purposes Only

Date: 7/21/2021 Source: Z:\Clients\A_D\Apex\Bowman\Permitting\Site_Permit\Mapping\Fig02_Bowman_Facilities_Layout.mxd



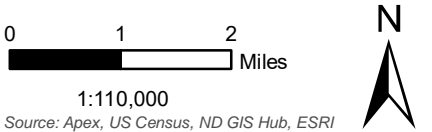
1:110,000
Data Source: Apex, US Census, ND GIS Hub, ESRI
FEMA
Imagery: ND GIS 2018

- ▲ Proposed Turbine
- Access Road
- Underground Collection Line
- Project Substation
- Battery Storage
- Laydown Yard
- Project Boundary
- City/Township
- Exclusion Area**
- County and Maintained Road
- Interstate and State Road
- Non-participating Residence
- Non-participating Landowner Parcel Line
- Railroad










*Turbines Not to Scale
Non-public cultural resource
information has been omitted.

Figure 3
Exclusion Areas
Bowman Wind Project
Bowman County, North Dakota





Data Source: Apex, US Census, ND GIS Hub, ESRI
FEMA
Imagery: ND GIS 2018

-  Proposed Turbine
 Access Road
 Underground Collection Line
 Project Substation
 Battery Storage
 Laydown Yard
 Project Boundary
Avoidance Areas
 Delineated Wetland
 Woodland (Desktop Delineated)
 100-year Floodplain

*Turbines Not to Scale

Non-public cultural resource information has been omitted.

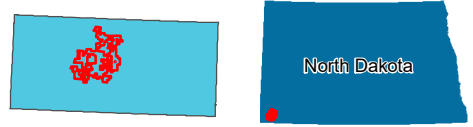
Figure 4 Avoidance Areas

Bowman Wind Project

Bowman County, North Dakota



For Environmental Review Purposes Only



Data Source: Apex, US Census, ND GIS Hub, ESRI

- ▲ Proposed Turbine
- Non-Participant (within one mile of Project Area)
- Participant (within one mile of Project Area)
- Pending-Participant (within one mile of Project Area)
- Access Road
- Underground Collection Line
- Existing Substation
- ✕ Cemetery
- Existing Transmission Line
- Sound Level Isoline - 45dBA
- Project Substation
- O&M Facility
- Laydown Yard
- Battery Storage
- Project Boundary
- Study Area
- Setback
- Shooting Range
- Microwave Beam Path
- Participant
- Pending Participant
- City/Township
- Section Boundary

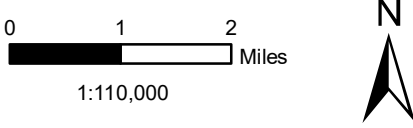
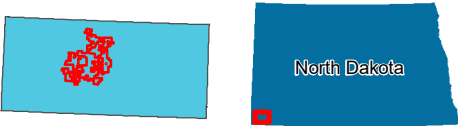
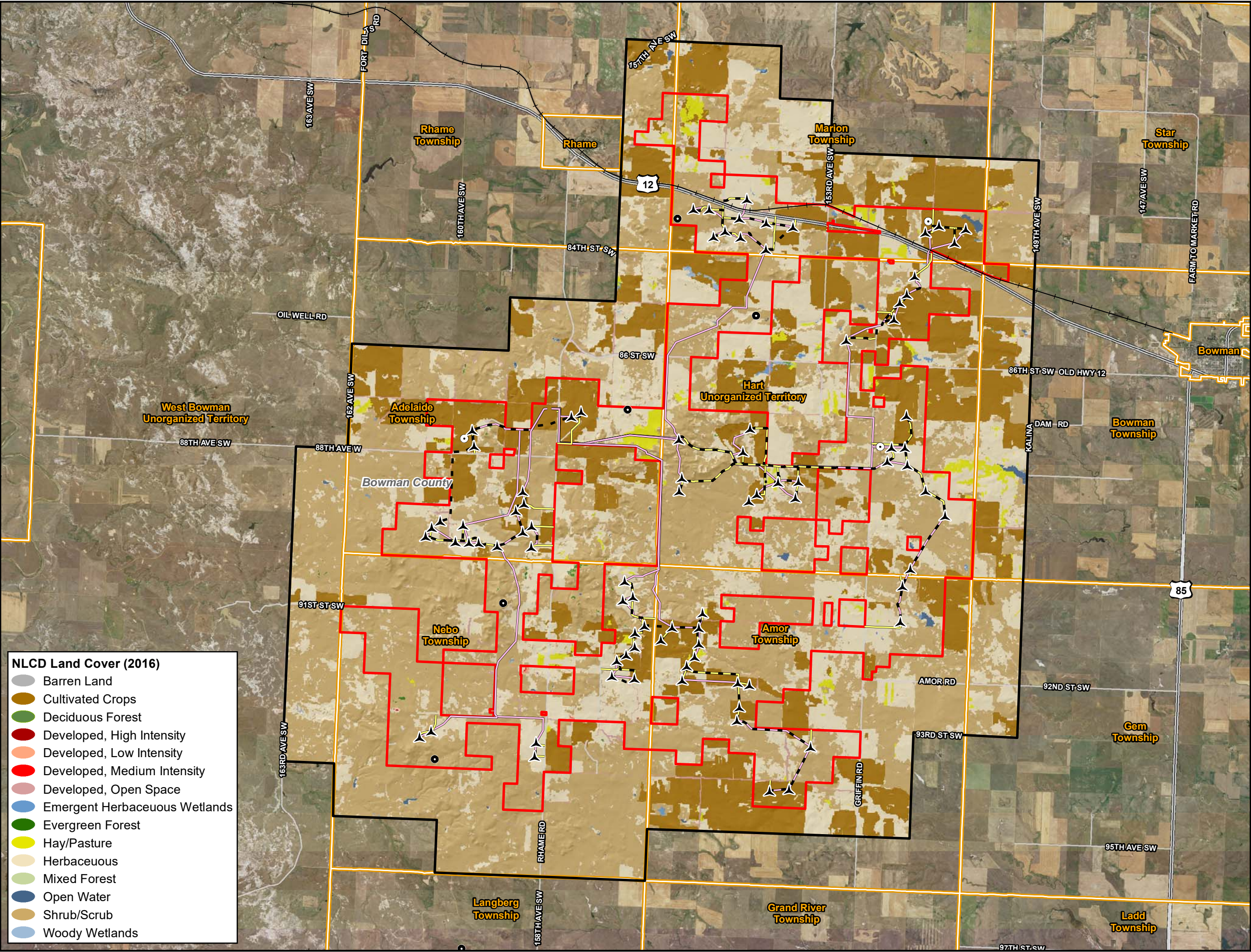
*Turbines Not to Scale

Figure 5
Constraints Map
Bowman Wind Project
Bowman County, North Dakota



For Environmental Review Purposes Only

Date: 7/22/2021 Source: Z:\Clients\A_VA\Bowman\Permitting\Site_Permit\Mapping\Fig05_Bowman_Constraints.mxd



Data Source: Apex, US Census, ESRI, NLCD
Imagery: USGS NED 10M

- Proposed Turbine
- Permanent Met Tower
- Temporary Met Tower
- Access Road
- Underground Collection Line
- Crane Path
- City/Township
- Project Boundary
- Study Area

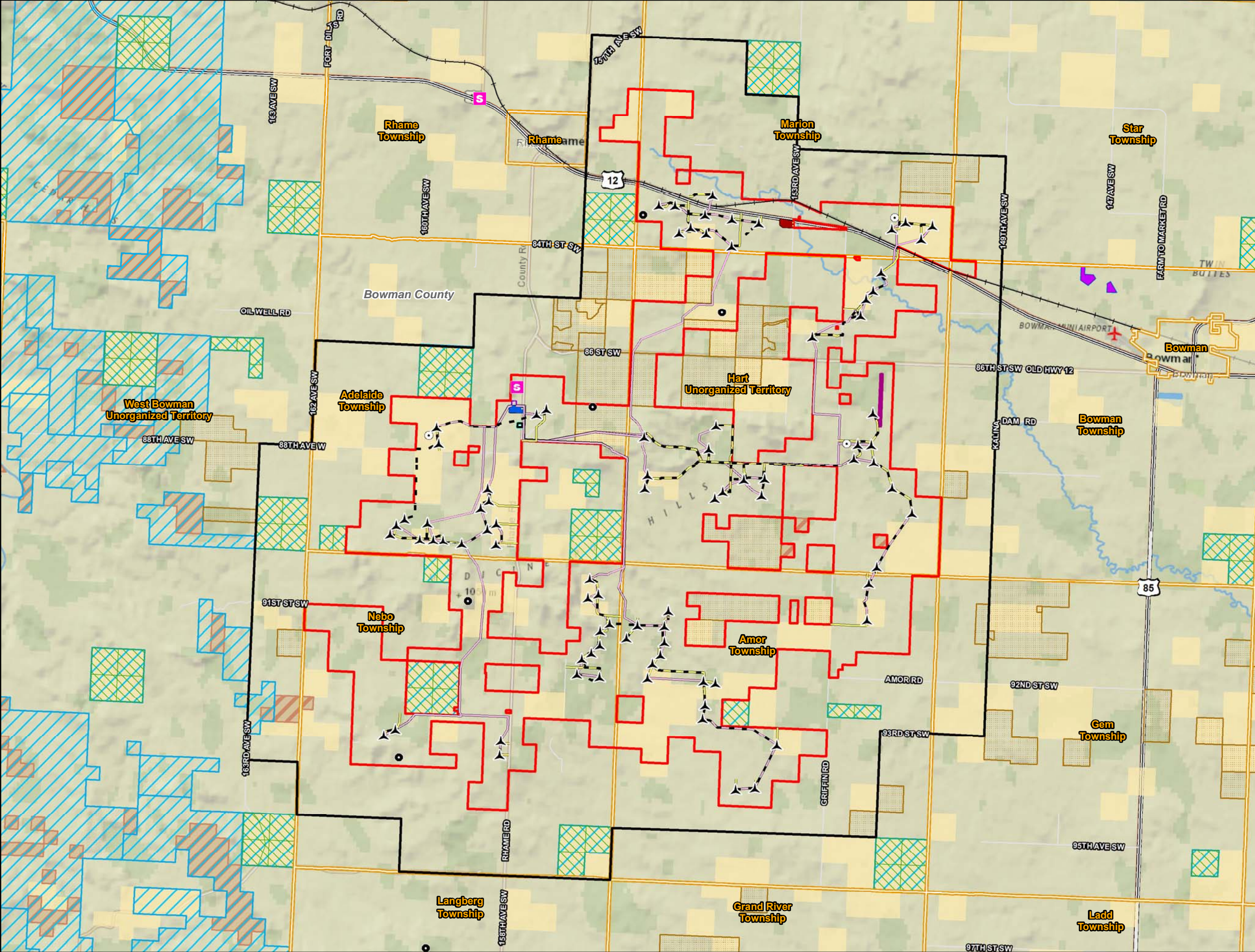
- NLCD Land Cover (2016)**
- Barren Land
 - Cultivated Crops
 - Deciduous Forest
 - Developed, High Intensity
 - Developed, Low Intensity
 - Developed, Medium Intensity
 - Developed, Open Space
 - Emergent Herbaceous Wetlands
 - Evergreen Forest
 - Hay/Pasture
 - Herbaceous
 - Mixed Forest
 - Open Water
 - Shrub/Scrub
 - Woody Wetlands

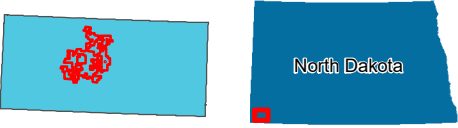
*Turbines Not to Scale

Figure 6
Land Use
Bowman Wind Project
Bowman County, North Dakota



For Environmental Review Purposes Only






North Dakota

0 1 2 Miles

1:110,000



Data Source: Apex, US Census, ESRI, NCED, NDHUB
Imagery: National Geographic


- ▲ Proposed Turbine
- Permanent Met Tower
- Temporary Met Tower
- Existing Substation
- Access Road
- - Crane Path
- Underground Collection Line
- Project Substation
- Battery Storage
- O&M Facility
- Laydown Yard
- Project Boundary
- Study Area
- PLOTS Land
- Shooting Range
- NCED Conservation Easement
- North Dakota Trust Lands - Surface
- North Dakota Trust Lands - Mineral
- BLM Grazing Allotments
- BLM Owned Lands
- City/Township

*Turbines Not to Scale

Figure 7
Public Lands and Easements

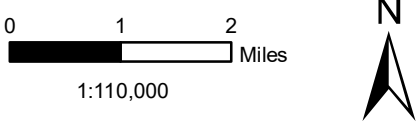
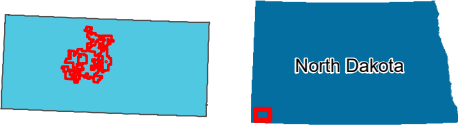
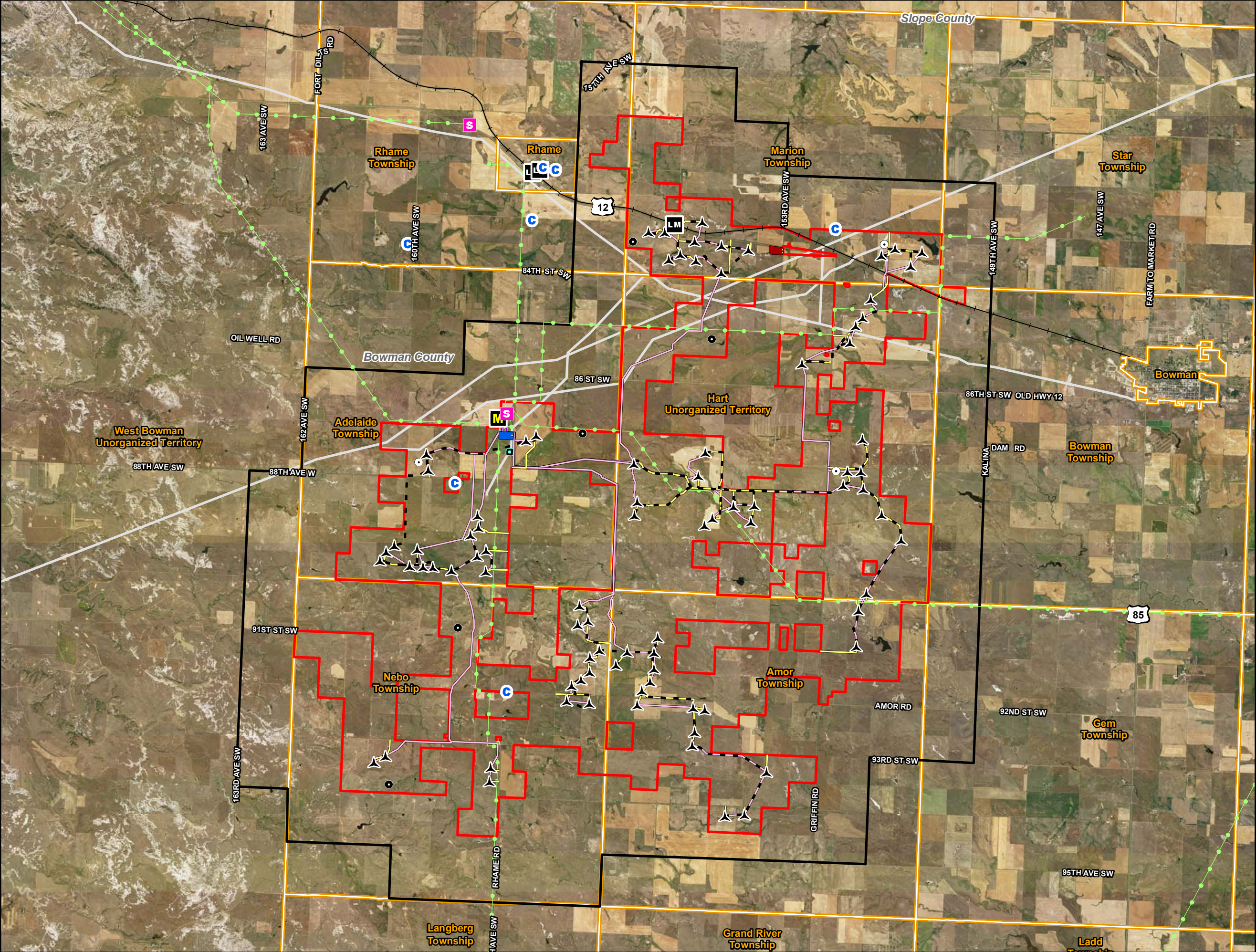
Bowman Wind Project

Bowman County, North Dakota



BOWMAN
WIND

For Environmental Review Purposes Only



Data Source: Apex, US Census, ESRI, NCED
Imagery: NAIP 2018

- ▲ Proposed Turbine
- C Communication Tower
- LM Land Mobile
- M Microwave Tower
- Permanent Met Tower
- Temporary Met Tower
- S Existing Substation
- Access Road
- - Crane Path
- Underground Collection Line
- Existing Pipeline
- Existing Transmission Line
- ▭ Project Boundary
- ▭ Study Area
- ▭ Project Substation
- ▭ O&M Facility
- ▭ Laydown Yard
- ▭ Battery Storage
- ▭ City/Township

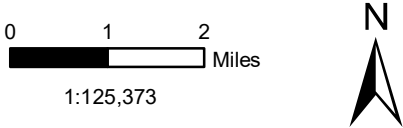
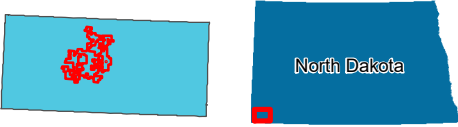
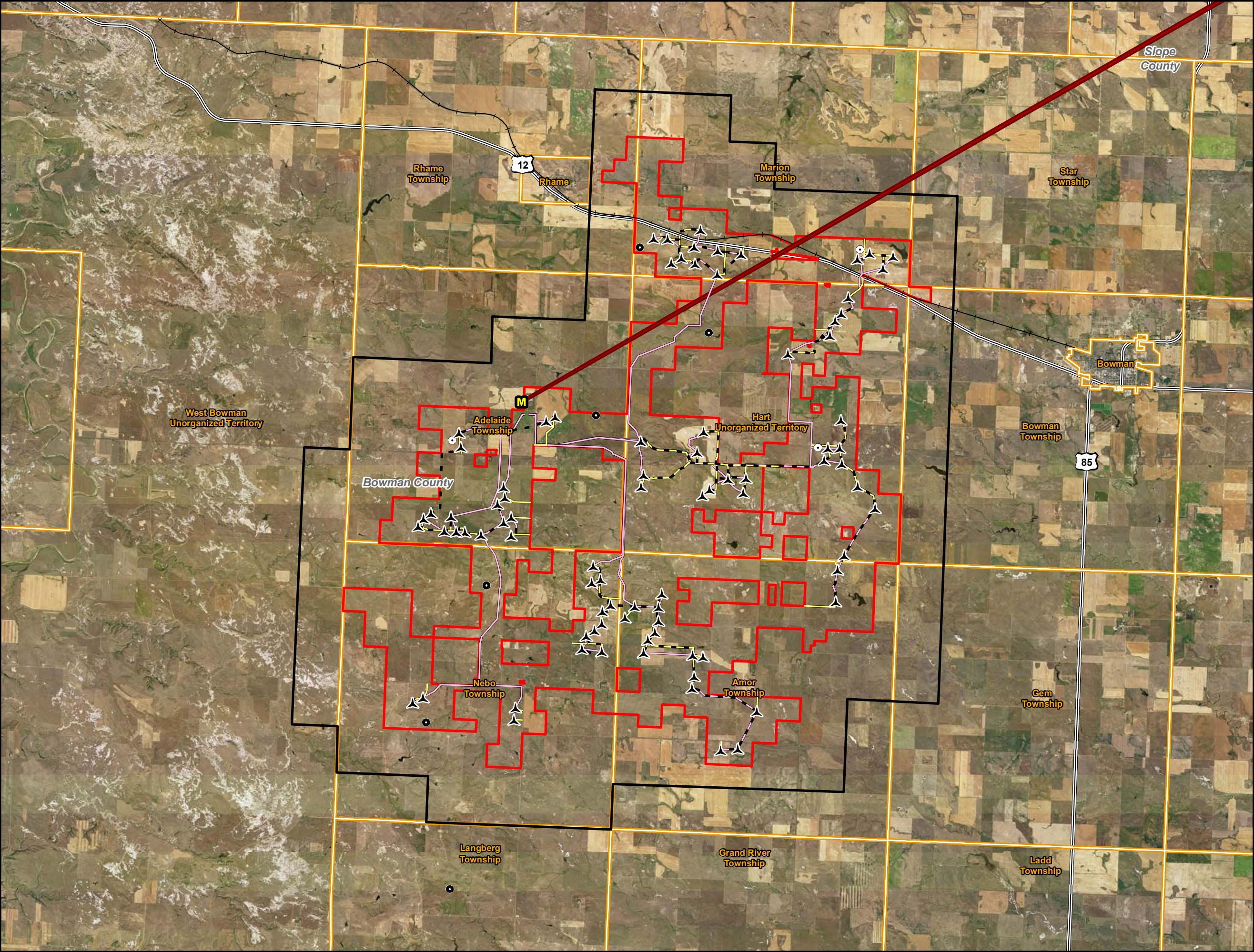
*Turbines Not to Scale

Figure 8
Infrastructure
Bowman Wind Project
Bowman County, North Dakota



For Environmental Review Purposes Only

Date: (7/27/2021) Source: Z:\Clients\A_D\Apex\Bowman\Permitting\Site_Permit\Mapping\Fig08_Bowman_Infrastructure.mxd



Data Source: Apex, US Census, ND GIS Hub, ESRI
Imagery: NAIP 2018

- Proposed Turbine
- Permanent Met Tower
- Temporary Met Tower
- Microwave Tower
- Access Road
- Crane Path
- Underground Collection Line
- Microwave Beam Path
- City/Township
- Project Boundary
- Study Area

*Turbines Not to Scale

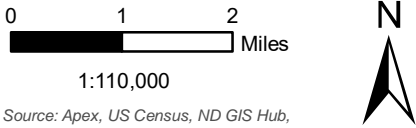
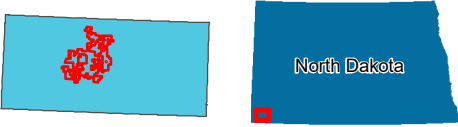
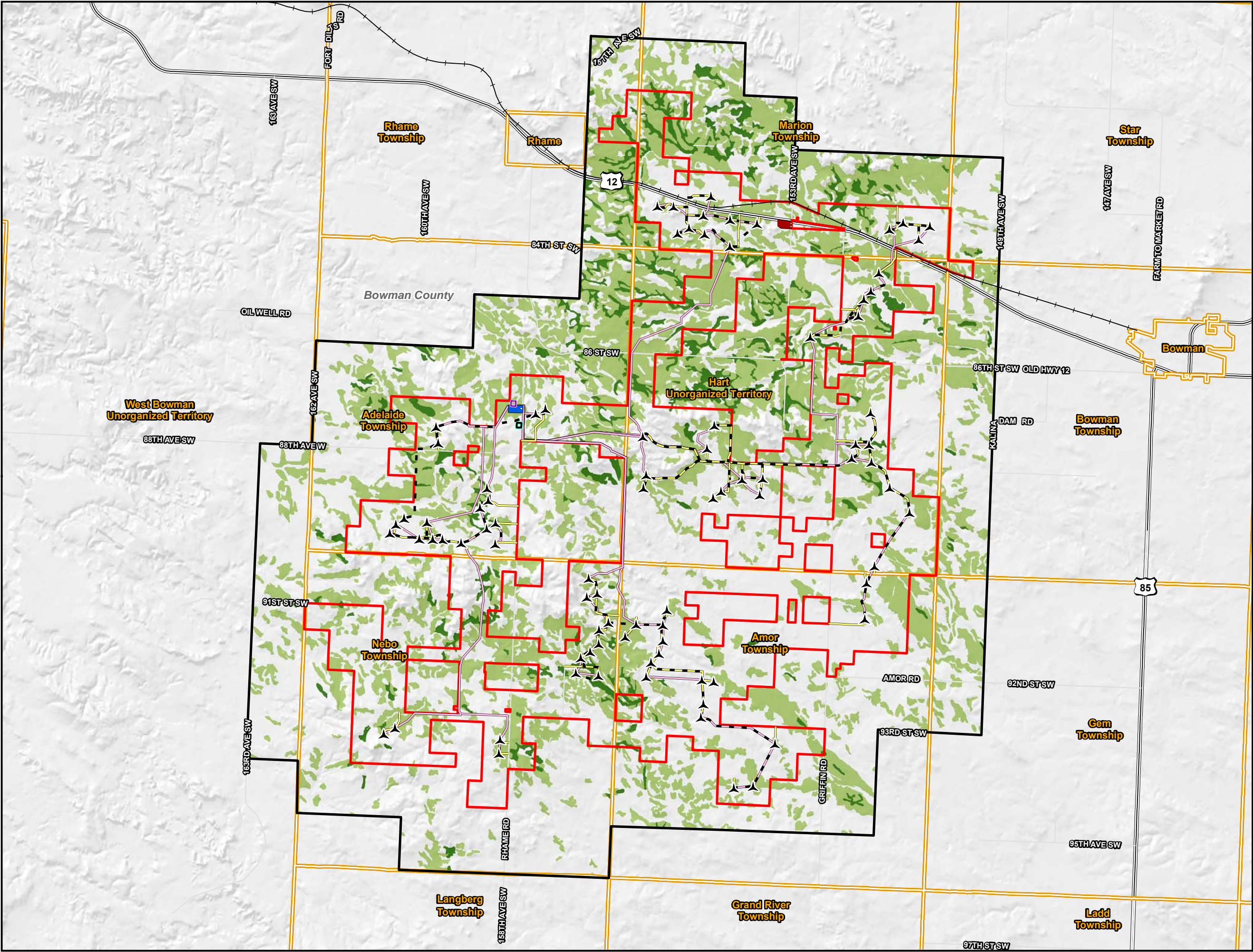
Figure 9
Microwave Beam Path
Fresnel Zones

Bowman Wind Project

Bowman County, North Dakota



For Environmental Review Purposes Only



1:110,000
Data Source: Apex, US Census, ND GIS Hub, SSURGO, ESRI
Imagery: USGS NED 10meter

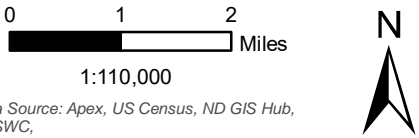
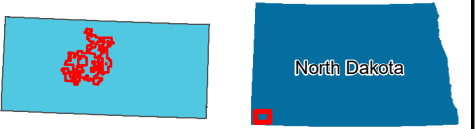
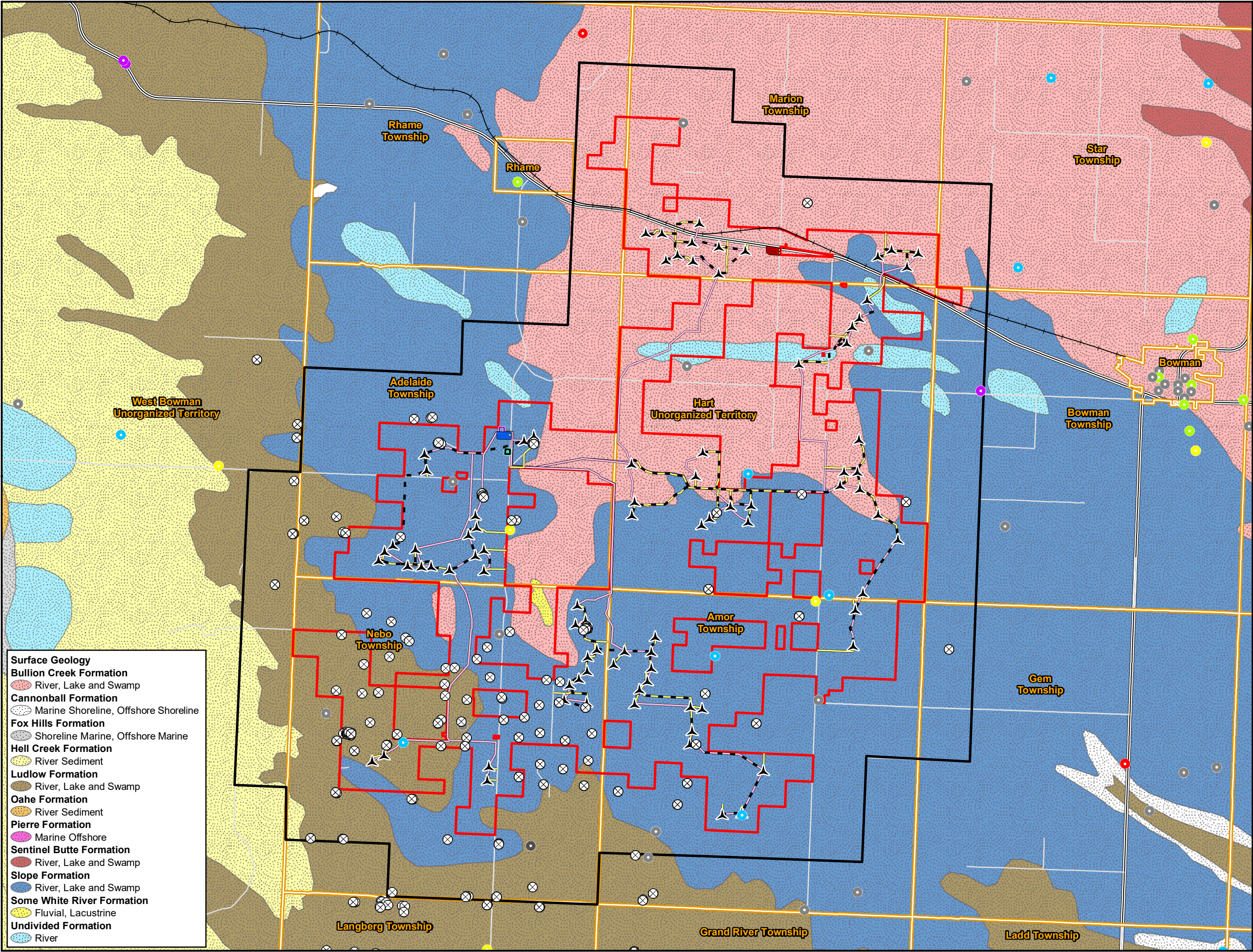
- ▲ Proposed Turbine
- Access Road
- - Crane Path
- Underground Collection Line
- Project Substation
- O&M Facility
- Laydown Yard
- Battery Storage
- Project Boundary
- Study Area
- City/Township
- Prime Farmland
- Farmland of Statewide Importance

*Turbines Not to Scale

Figure 10
Prime and Unique Farmland
Bowman Wind Project
Bowman County, North Dakota



For Environmental Review Purposes Only



1:110,000
Data Source: Apex, US Census, ND GIS Hub, NDSWC, NDGS, ESRI
Imagery: USGS NED 10M

- Proposed Turbine
- Access Road
- Crane Path
- Underground Collection Line
- Project Substation
- Battery Storage
- O&M Facility
- Laydown Yard
- Project Boundary
- Study Area
- City/Township
- Oil - Gas
- Storage Tank
- SWC Well**
 - Domestic Well
 - Observation Well
 - Observation Well - Destroyed
 - Observation Well - Plugged
 - Production Well
 - Stock Well
 - Unknown

*Turbines Not to Scale

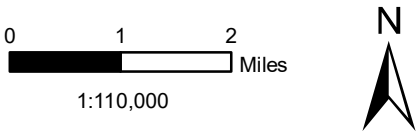
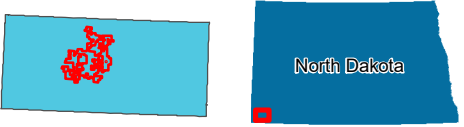
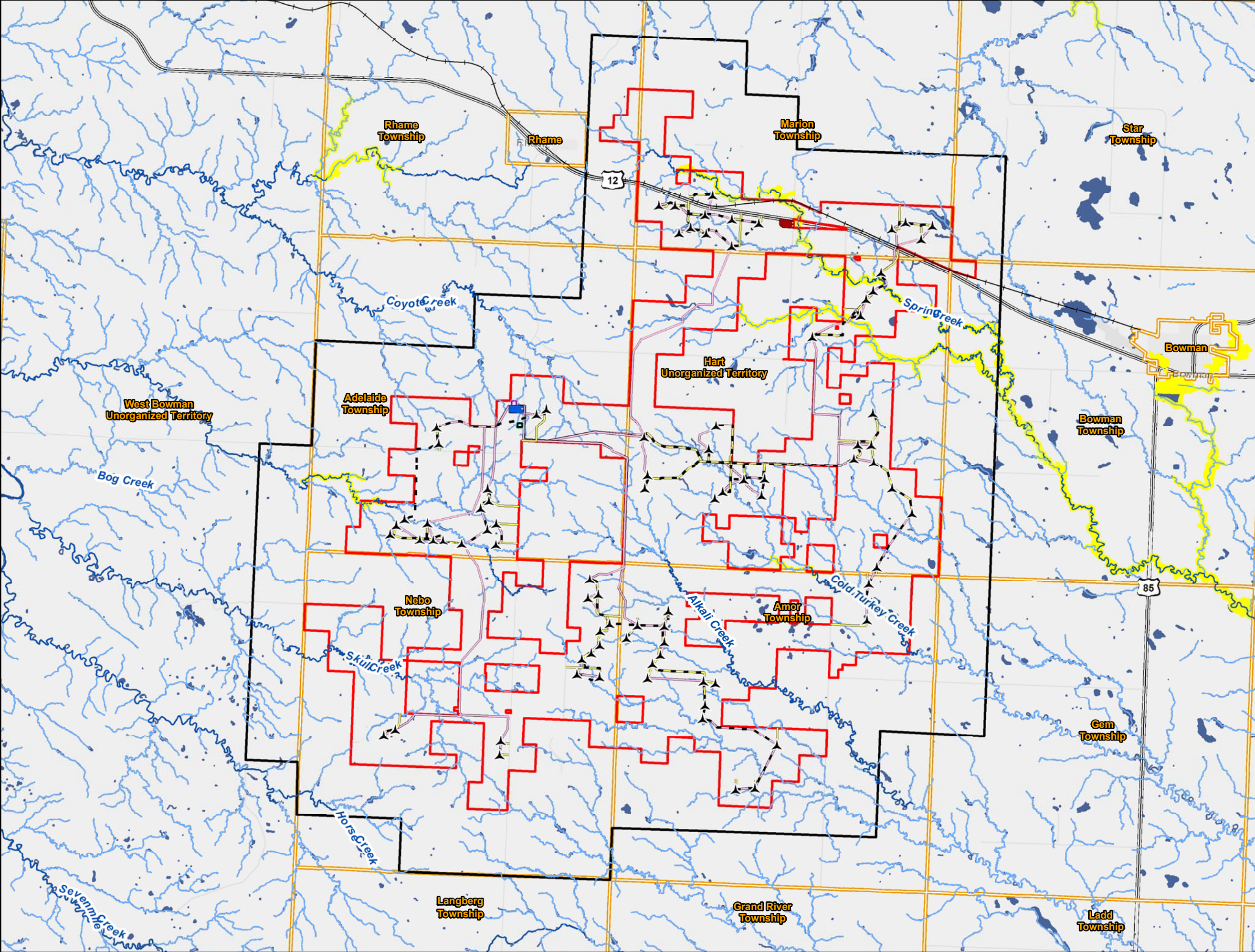
Figure 11
Geologic and Groundwater Resources

Bowman Wind Project

Bowman County, North Dakota



For Environmental Review Purposes Only



Data Source: Apex, US Census, ESRI, USGS, USFWS
Imagery: USGS The National Map 3DEP

- ▲ Proposed Turbine
- Access Road
- - Crane Path
- Underground Collection Line
- Project Substation
- O&M Facility
- Laydown Yard
- Project Boundary
- Study Area
- Battery Storage
- City/Township
- Stream/River - Perennial
- Stream/River - Intermittent/ Other
- NWI Wetland
- 100-year Floodplain

*Turbines Not to Scale

Figure 12
Surface Water and
NWI Wetlands

Bowman Wind Project
Bowman County, North Dakota



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