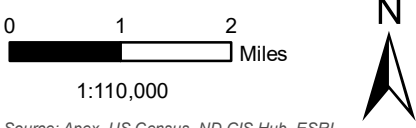
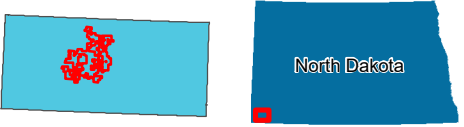
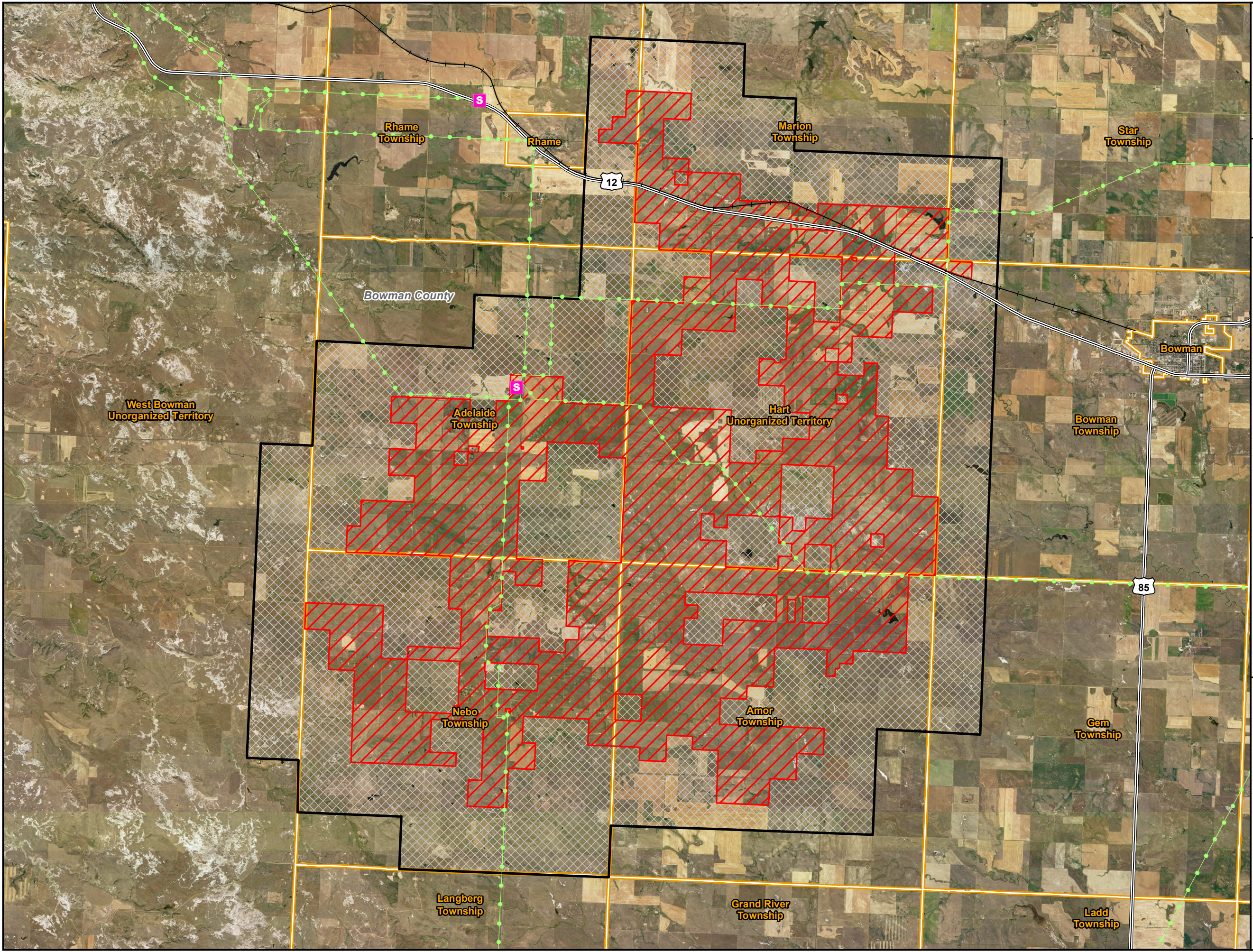


Figures



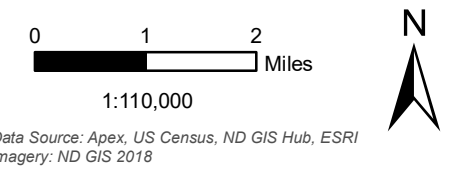
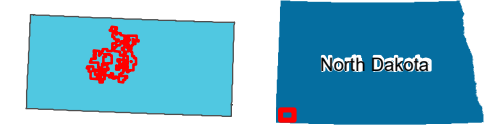
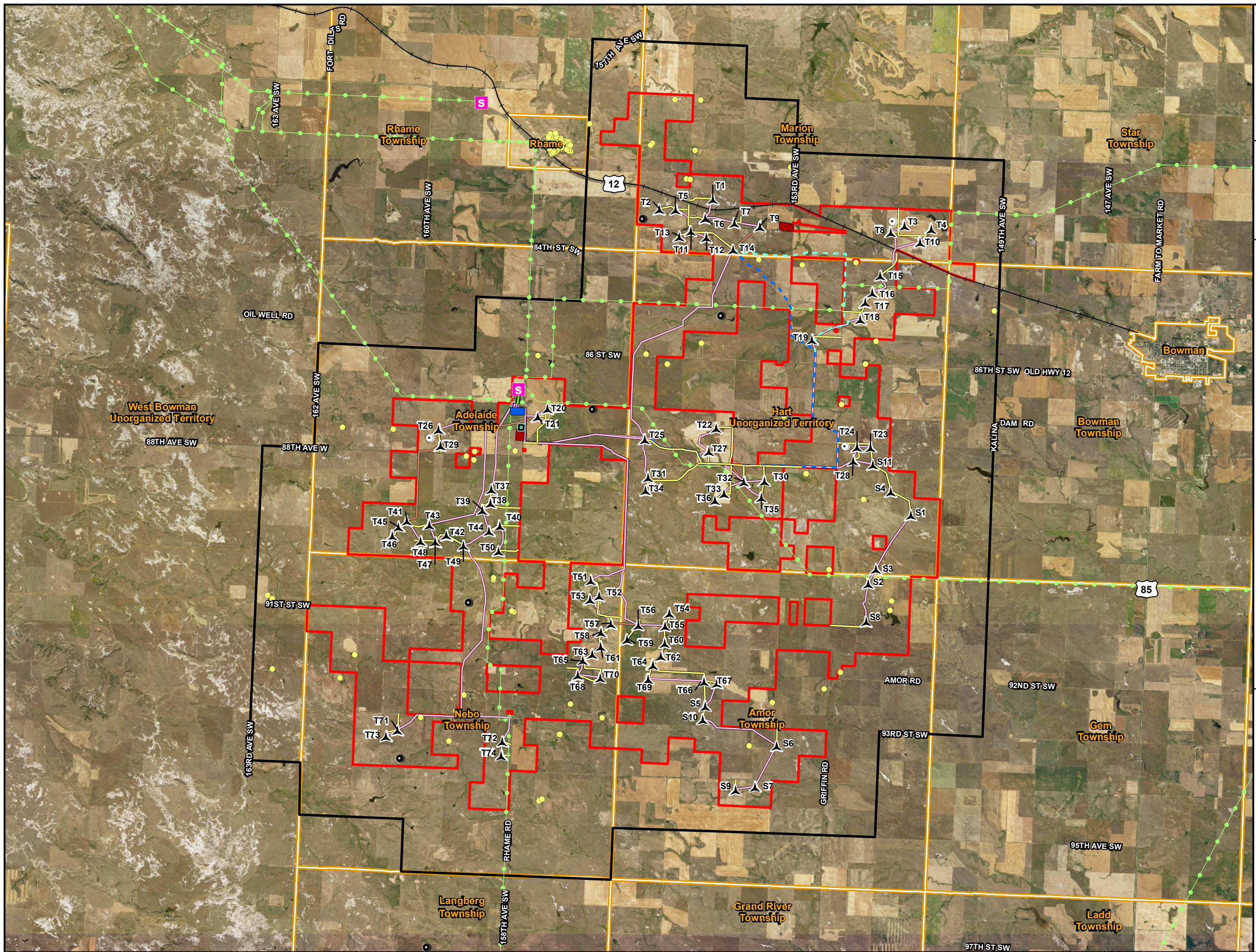
Data Source: Apex, US Census, ND GIS Hub, ESRI
Imagery: NAIP 2018

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

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



For Environmental Review Purposes Only



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

- ▲ Proposed Turbine
- Residence within 1-mile of Project
- Permanent Met Tower
- Temporary Met Tower
- Existing Substation
- Access Road
- Crane Path
- Underground Collection Line
- Underground Collection Line - Alternate 1
- Underground Collection Line - Alternate 2
- Proposed Transmission Line
- Existing Transmission Line
- Project Substation
- O&M Facility
- Laydown Yard
- Battery Storage
- Project Boundary
- Study Area
- City/Township

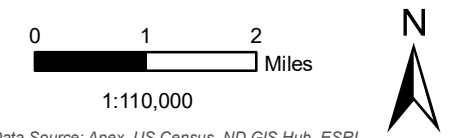
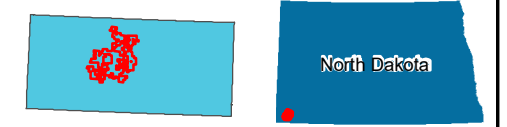
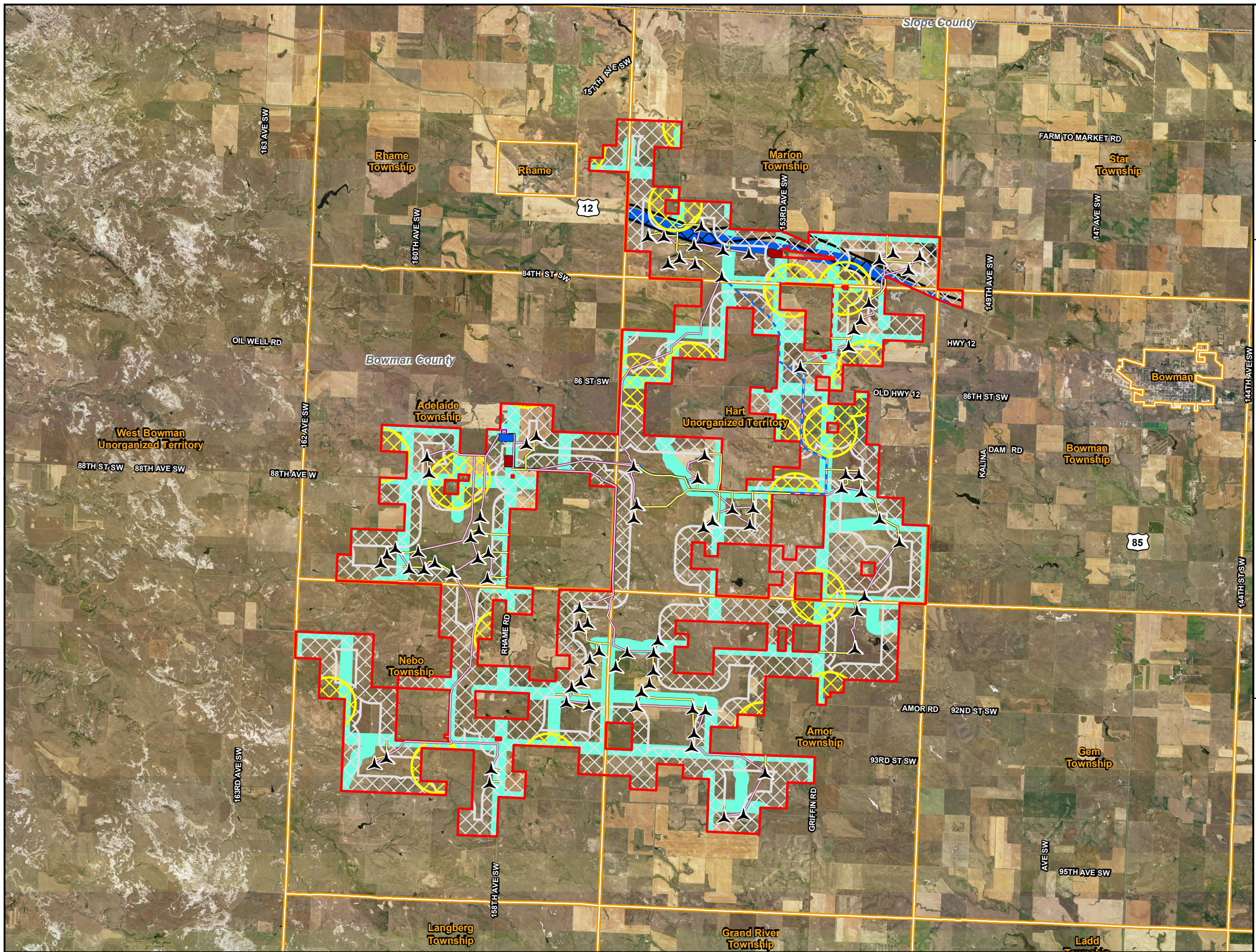
*Turbines Not to Scale

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



For Environmental Review Purposes Only

Date: (3/25/2021) Source: Z:\Clients\A_D\Apex\Bowman\Permitting\Site_PermitMapping\Fig02_Bowman_Facilities_Layout.mxd



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

- ▲ Proposed Turbine
- Access Road
- Underground Collection Line
- - - Underground Collection Line - Alternate 1
- - - Underground Collection Line - Alternate 2
- Project Substation
- Laydown Yard
- Battery Storage
- Project Boundary
- City/Township
- Exclusion Area**
- County and Maintained Road
- Interstate and State Roadway
- Non-Participating Residence
- Nonparticipating Landowner Parcel Line
- Railroad

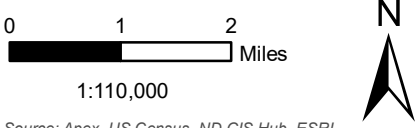
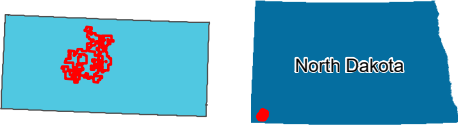
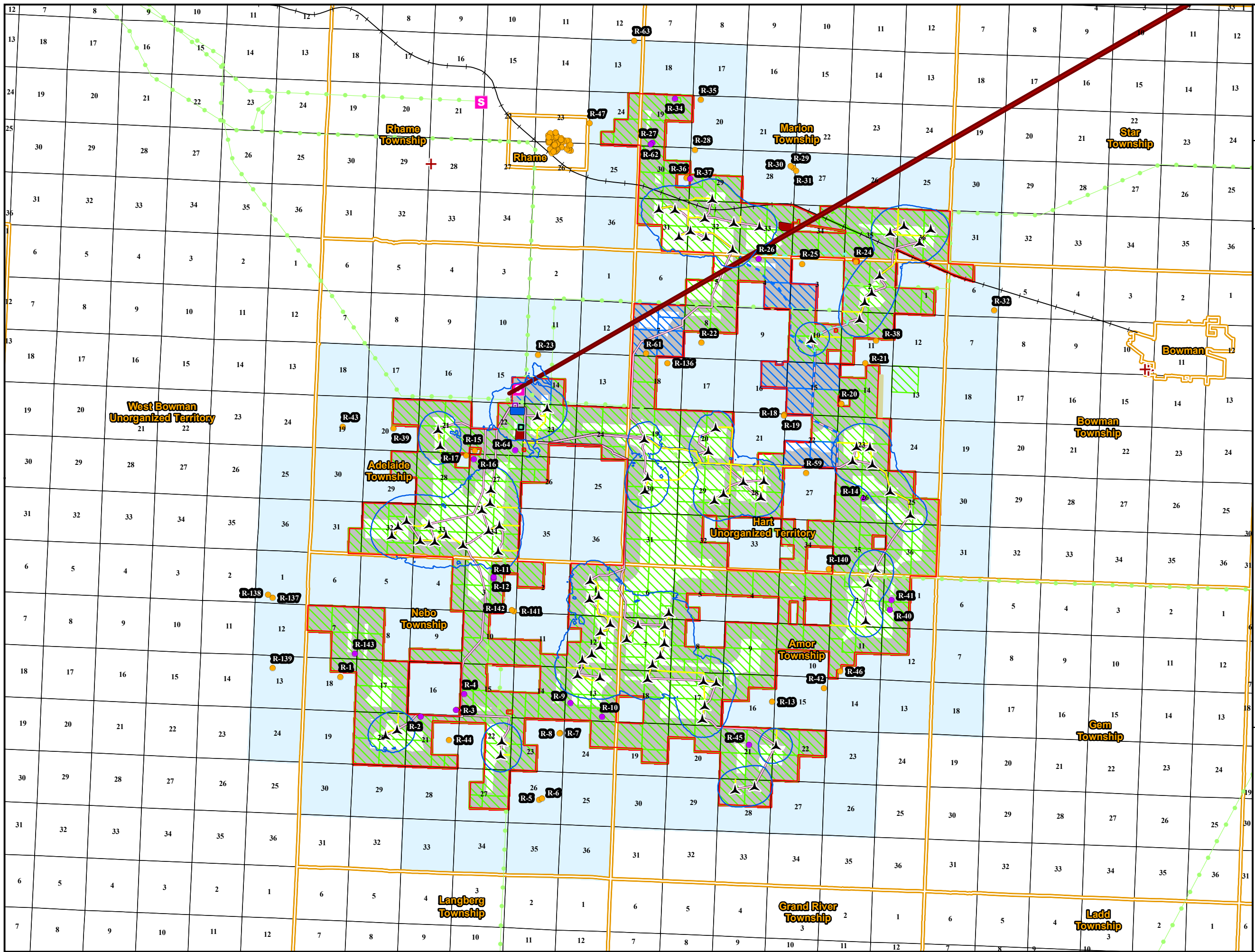
*Turbines Not to Scale

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



For Environmental Review Purposes Only

Date: (3/25/2021) Source: Z:\Clients\A_D\Apex\Bowman\Permitting\Site_Permit\Mapping\Fig03_Bowman_Exclusion_Areas.mxd



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)
- Access Road
- Underground Collection Line
- - - Underground Collection Line - Alternate
- - - Underground Collection Line - Alternate
- 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

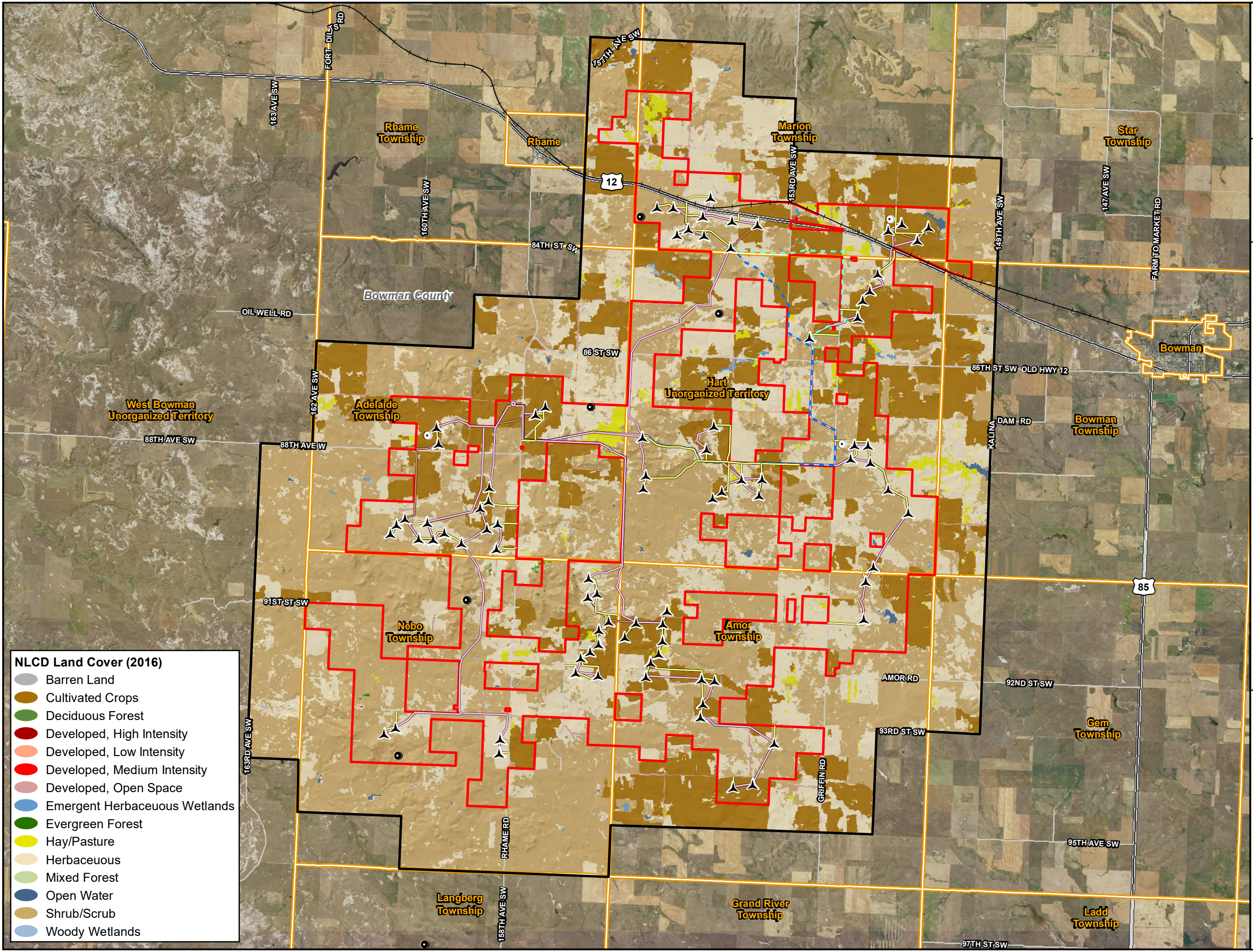
*Turbines Not to Scale
** Residence IDs are provided for residences outside the Town of Rhame

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



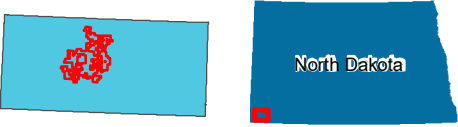
For Environmental Review Purposes Only

Date: (3/25/2021) Source: Z:\Clients\A_VA\Bowman\Permitting\Site_Permits\Bowman\Fig05_Bowman_Constraints.mxd



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



North Dakota

0 1 2 Miles

1:110,000

N

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

- Proposed Turbine
- Permanent Met Tower
- Temporary Met Tower
- Access Road
- Underground Collection Line
- Underground Collection Line - Alternate 1
- Underground Collection Line - Alternate 2
- Crane Path
- City/Township
- Project Boundary
- Study Area

*Turbines Not to Scale

Figure 6
Land Use

Bowman Wind Project

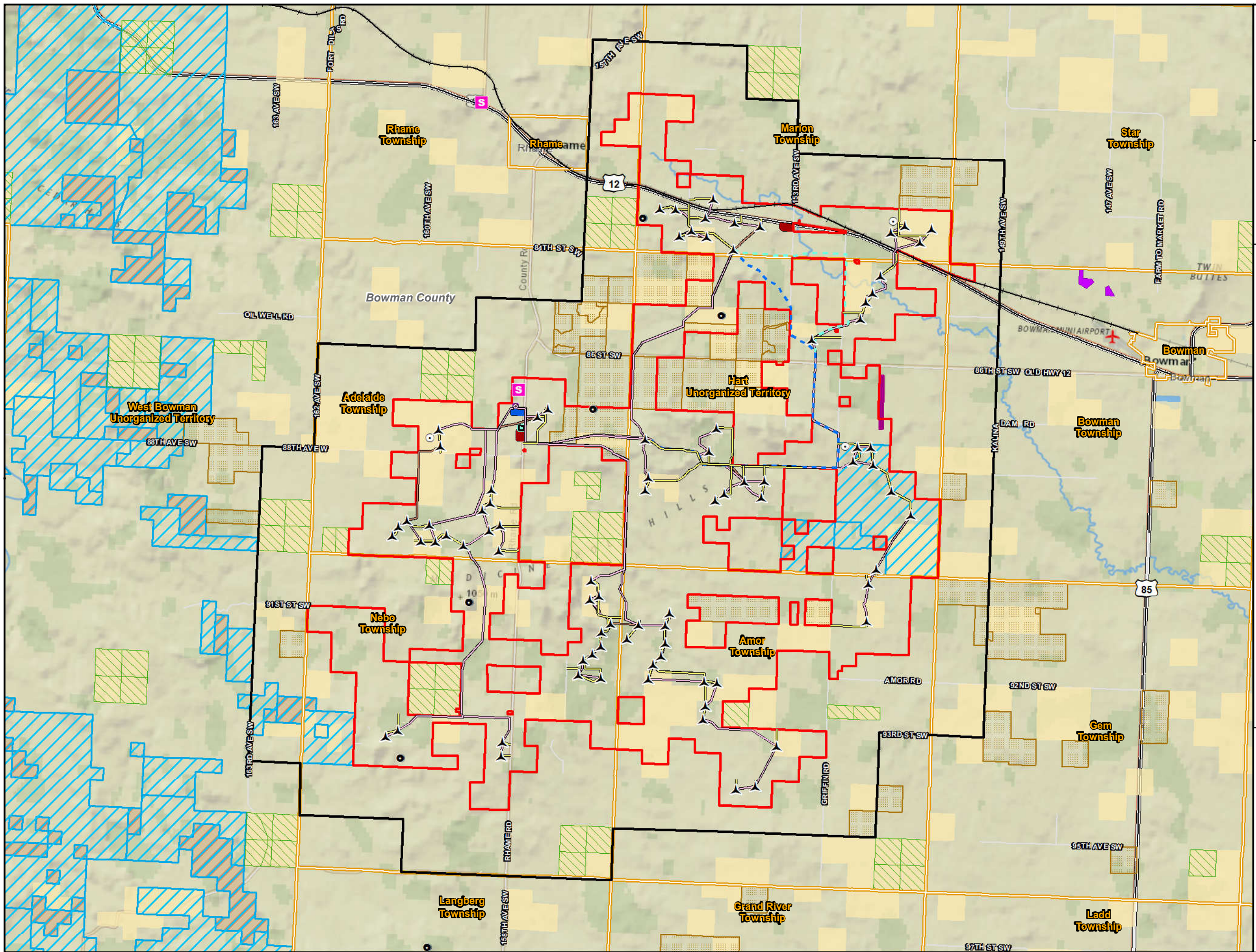
Bowman County, North Dakota



BOWMAN WIND

For Environmental Review Purposes Only

Date: (3/29/2021) Source: Z:\Clients\VA\Apex\Bowman\Permitting\Site_PermitMapping\Fig06_Bowman_LandUse.mxd





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
- S Existing Substation
- Access Road
- Crane Path
- Underground Collection Line
- - - Underground Collection Line - Alternate 1
- - - Underground Collection Line - Alternate 2
- Project Substation
- Battery Storage
- O&M Facility
- Laydown Yard
- Project Boundary
- Study Area
- PLOTS Land
- Shooting Range
- NCED Conservation Easement
- BLM Owned Lands
- North Dakota Trust Lands – Surface
- North Dakota Trust Lands – Mineral
- BLM Grazing Allotments (Private Land in Project Area)
- City/Township

*Turbines Not to Scale

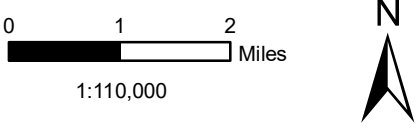
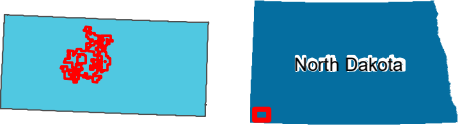
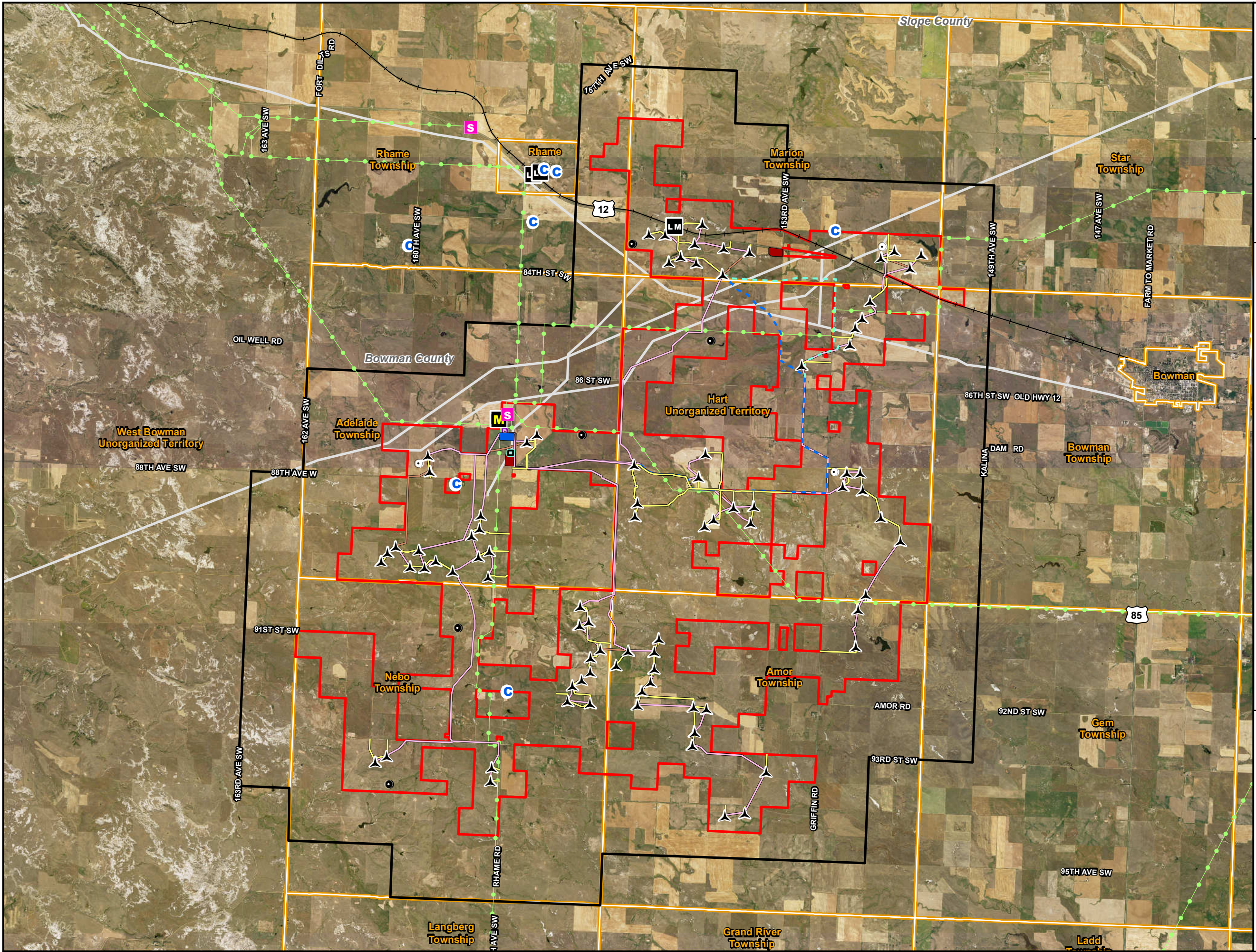
Figure 7
Public Lands and Easements
Bowman Wind Project
Bowman County, North Dakota



BOWMAN
WIND

For Environmental Review Purposes Only

Date: (3/29/2021) Source: Z:\Clients\A_D\Apex\Bowman\Permitting\Site_Permit\Mapping\Fig07_Bowman_Public_Lands_Easements.mxd



Data Source: Apex, US Census, ESRI, NCD
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
- - - Underground Collection Line - Alternate 1
- - - Underground Collection Line - Alternate 2
- Existing Pipeline
- Existing Transmission Line
- ▭ Project Boundary
- ▭ Study Area
- ▭ Project Substation
- ▭ O&M Facility
- ▭ Laydown Yard
- ▭ Battery Storage
- ▭ City/Township

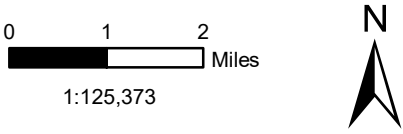
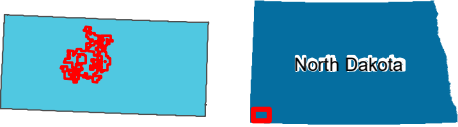
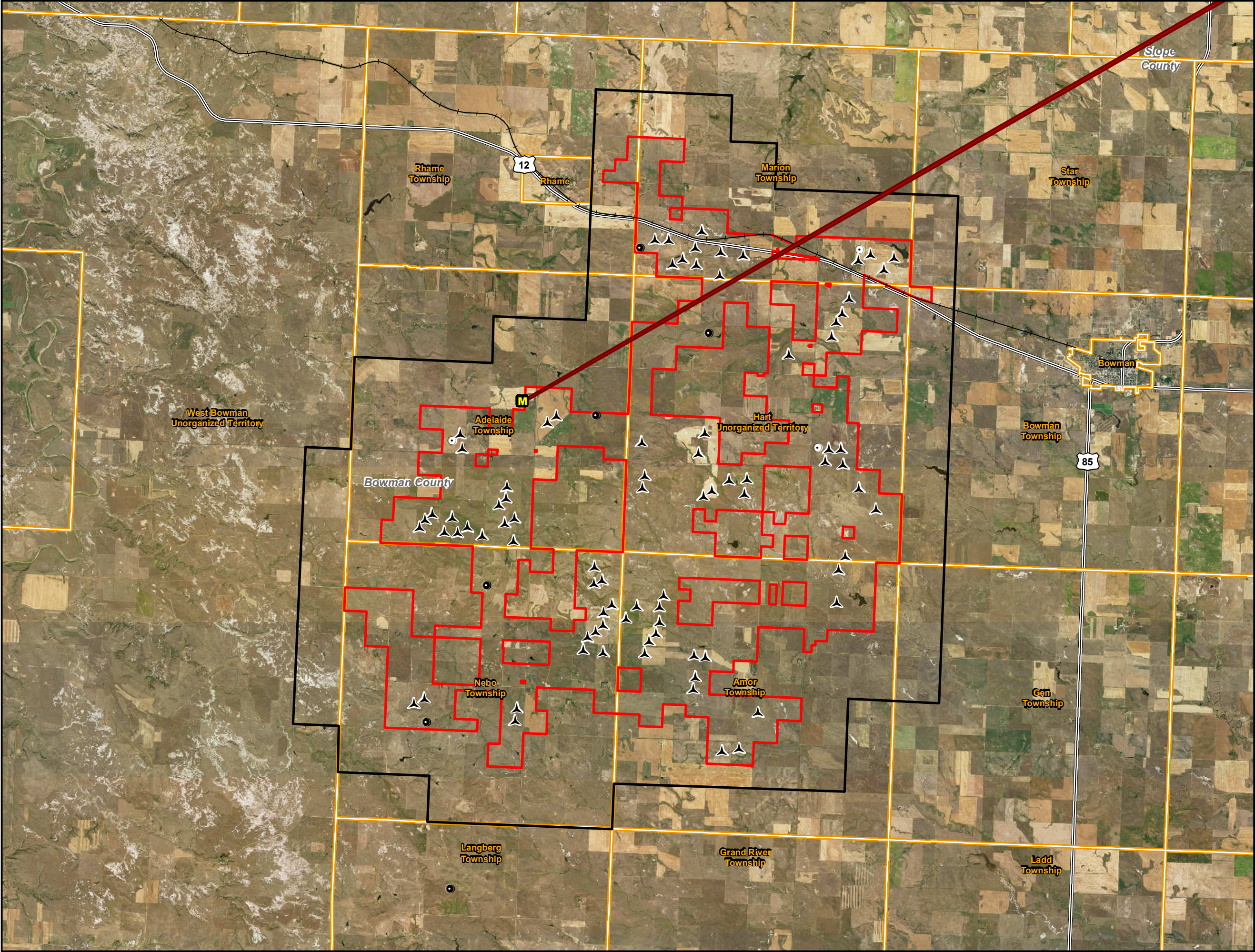
*Turbines Not to Scale

Figure 8
Infrastructure
Bowman Wind Project
Bowman County, North Dakota



For Environmental Review Purposes Only

Date: (3/25/2021) 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
- M Microwave Tower
- Microwave Beam Path
- City/Township
- ▭ Project Boundary
- ▭ Study Area

*Turbines Not to Scale

Figure 9
Microwave Beam Path
Fresnel Zones

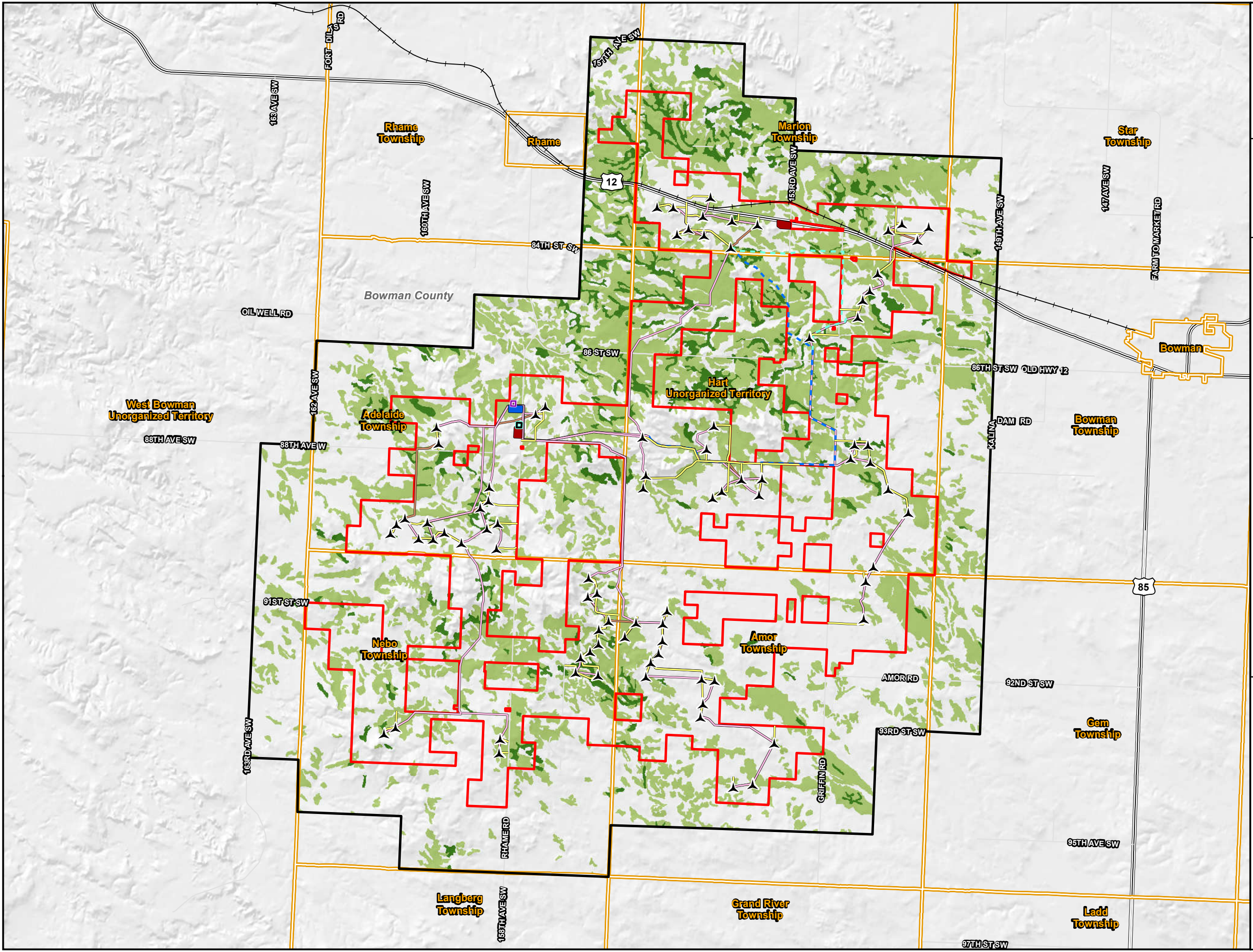
Bowman Wind Project

Bowman County, North Dakota



For Environmental Review Purposes Only

Source: Z:\Clients\A_D\Apex\Bowman\Permitting\Site_PermitMapping\Fig09_Bowman_Microwave_Beam_Path.mxd
Date: (3/25/2021)





0 1 2 Miles

1:110,000

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

N

- ▲ Proposed Turbine
- Access Road
- Crane Path
- Underground Collection Line
- - - Underground Collection Line - Alternate 1
- - - Underground Collection Line - Alternate 2
- 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

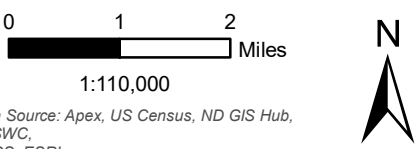
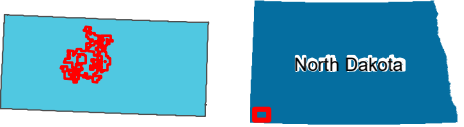
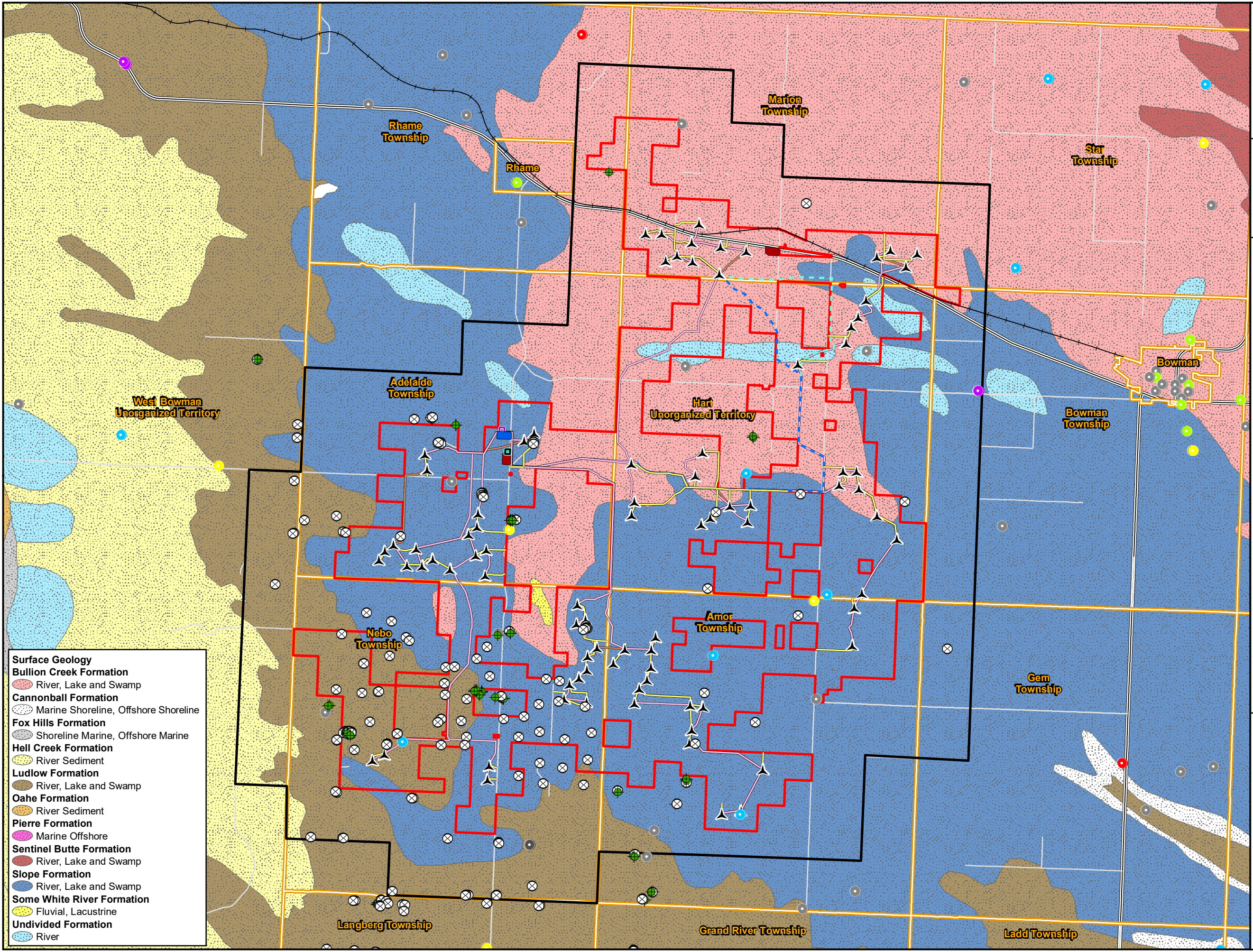
Bowman County, North Dakota



BOWMAN
WIND

For Environmental Review Purposes Only

Date: (3/29/2021) Source: Z:\Clients\A_D\Apex\Bowman\Permitting\Site_Permit\Mapping\Fig 10_Bowman_Unique_Prime_Farmland.mxd



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

- ▲ Proposed Turbine
- Access Road
- Crane Path
- Underground Collection Line
- - - Underground Collection Line - Alternate 1
- - - Underground Collection Line - Alternate 2
- 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

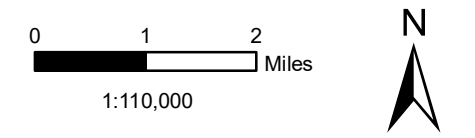
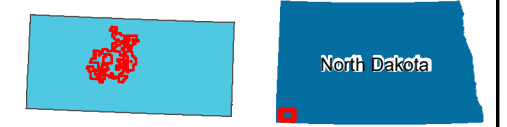
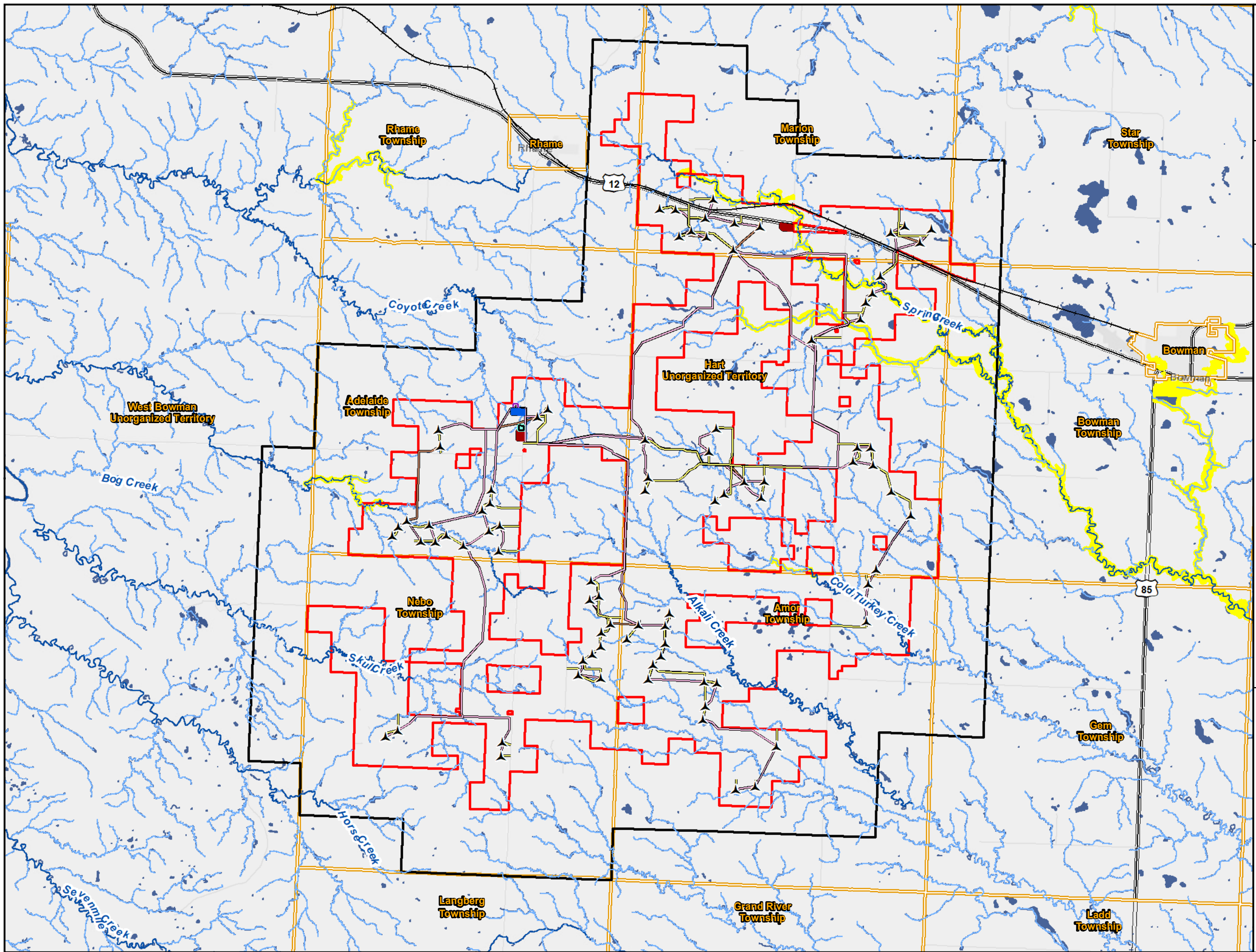
*Turbines Not to Scale

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
- Existing Substation
- Access Road
- Crane Path
- Underground Collection Line
- Existing Transmission 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



For Environmental Review Purposes Only

Date: (3/29/2021) Source: Z:\Clients\A_D\Apex\Bowman\Permitting\Sie_Permit\Mapping\Fig 12_Bowman_Water_Features.mxd

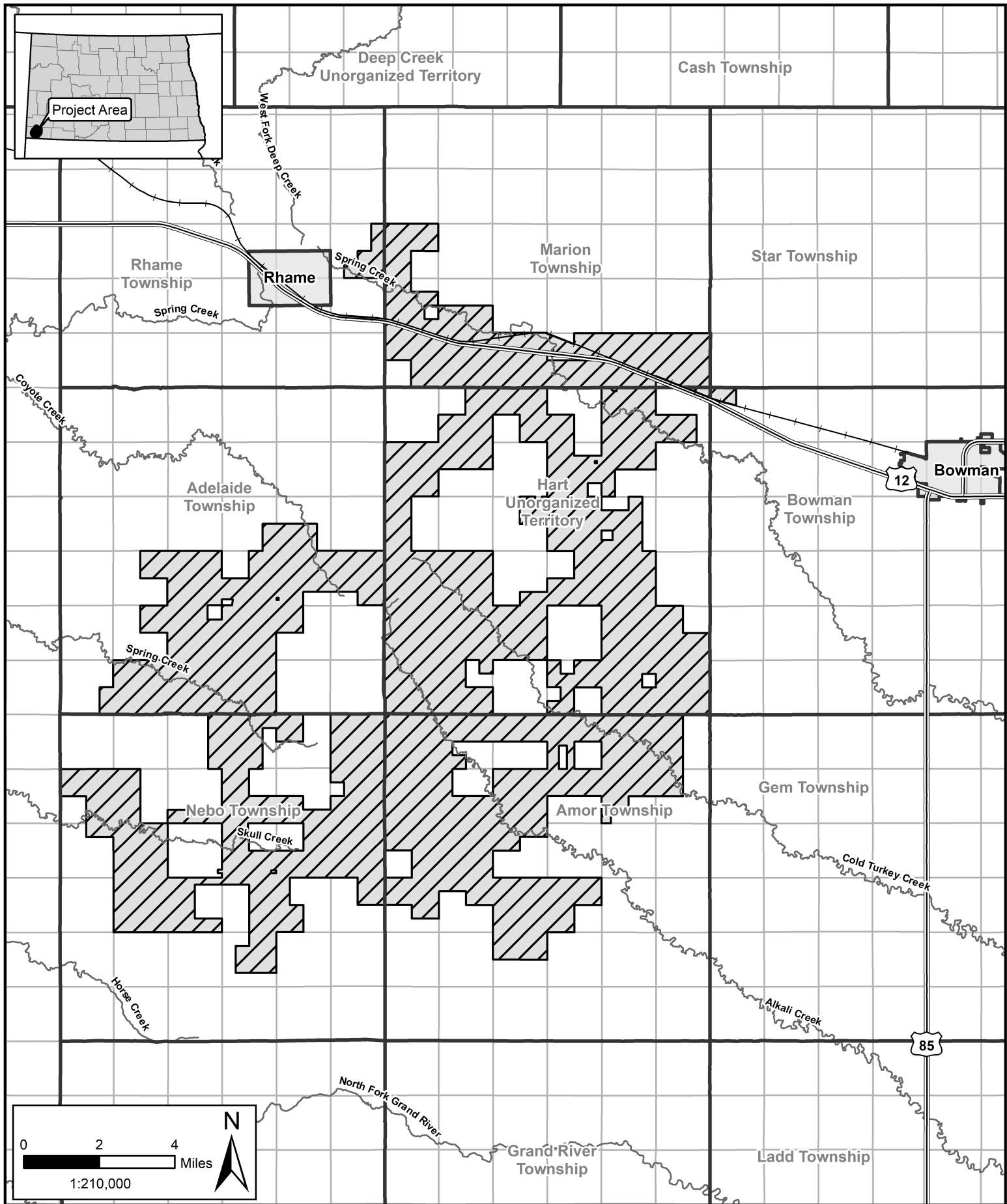


Figure 13
Bowman Wind Project
Bowman County, North Dakota

