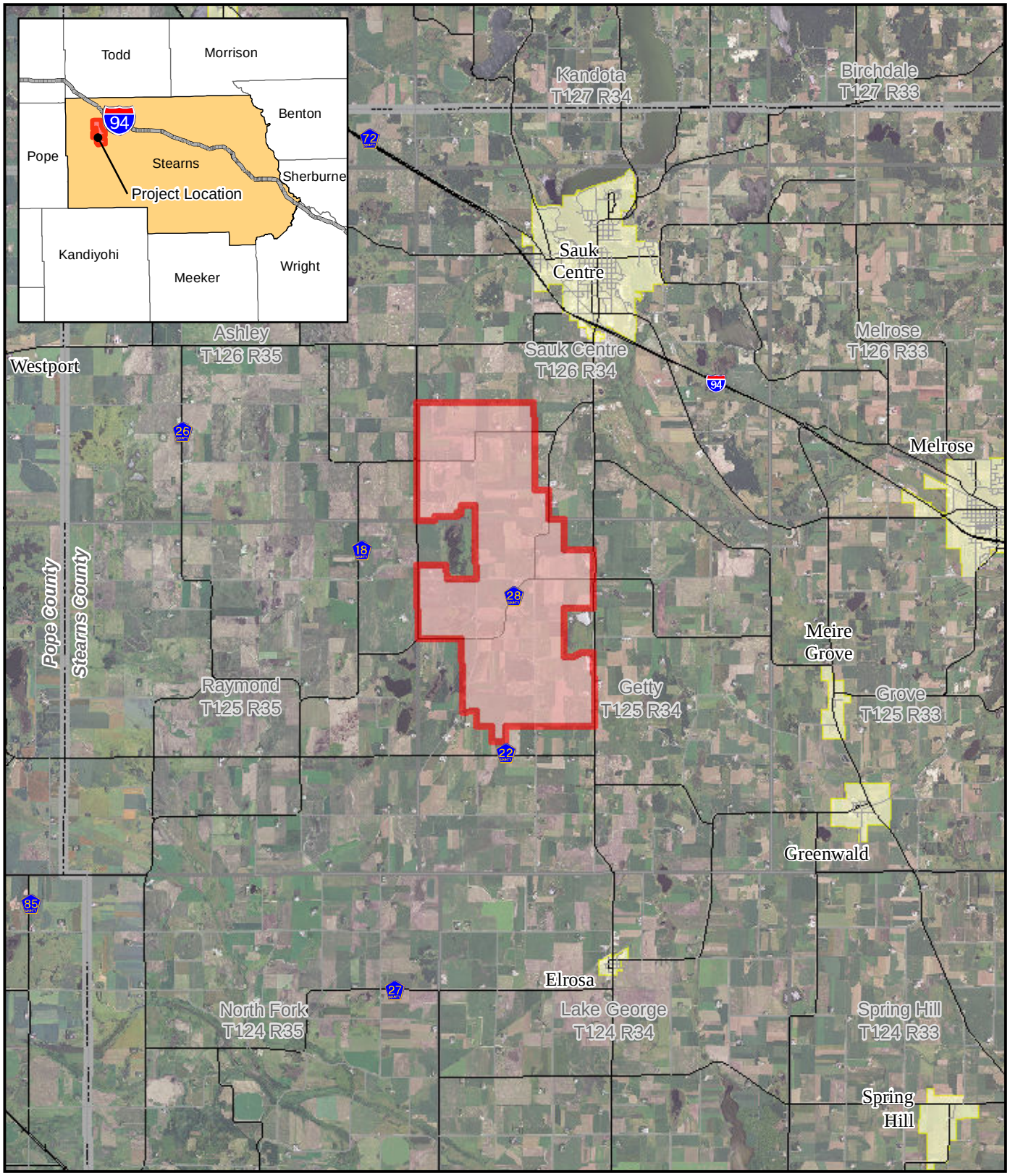
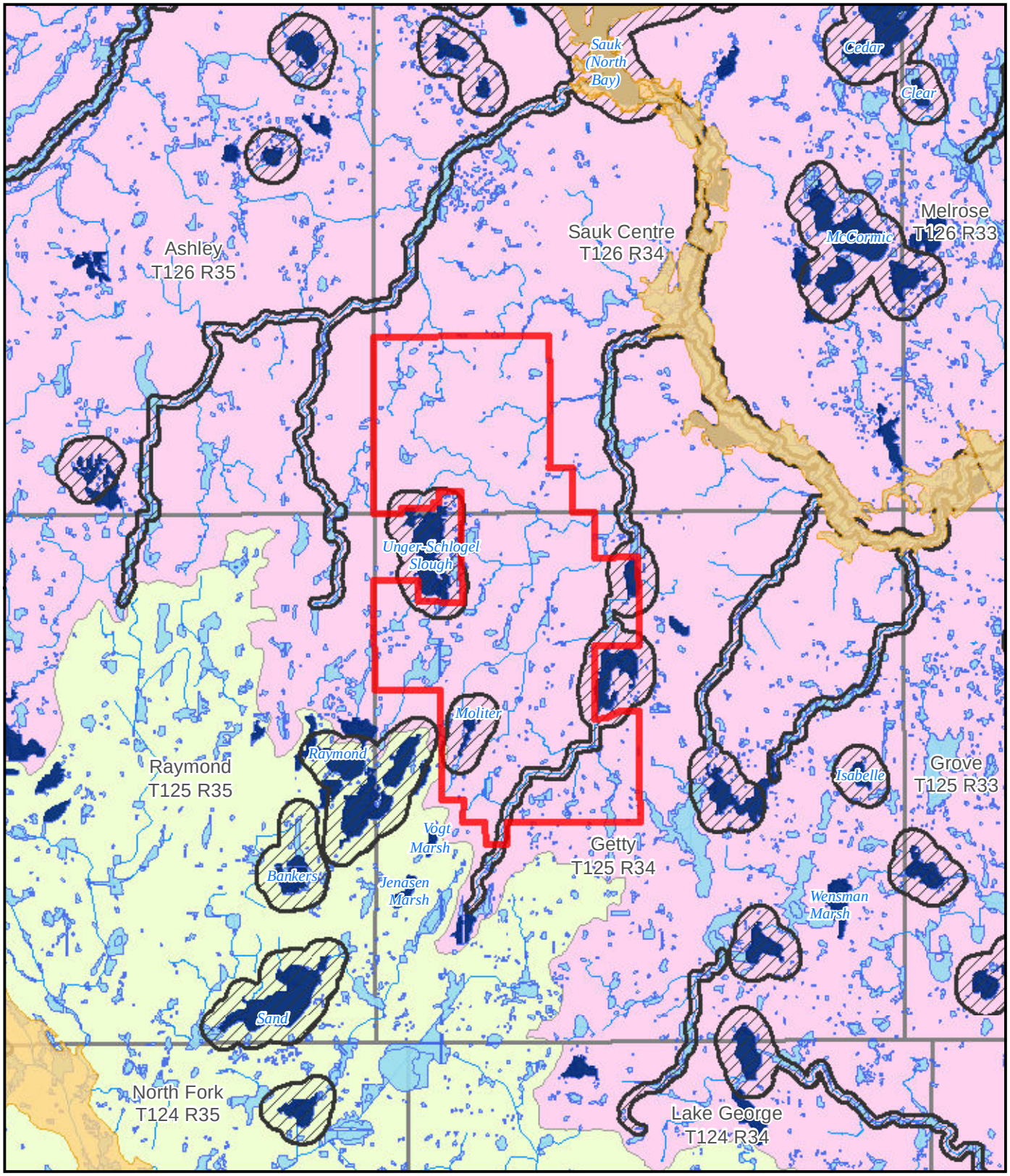


Figure 1
Project Vicinity Map

Getty Wind Farm
Stearns County, MN

Date: 9/21/2011

Path: \\mspe-dis-file\disroot\Getty\Wind\161027\map_docs\LWECS\Fig01_ProjectVicinityMap.mxd



N

HDR

Miles
0 0.5 1

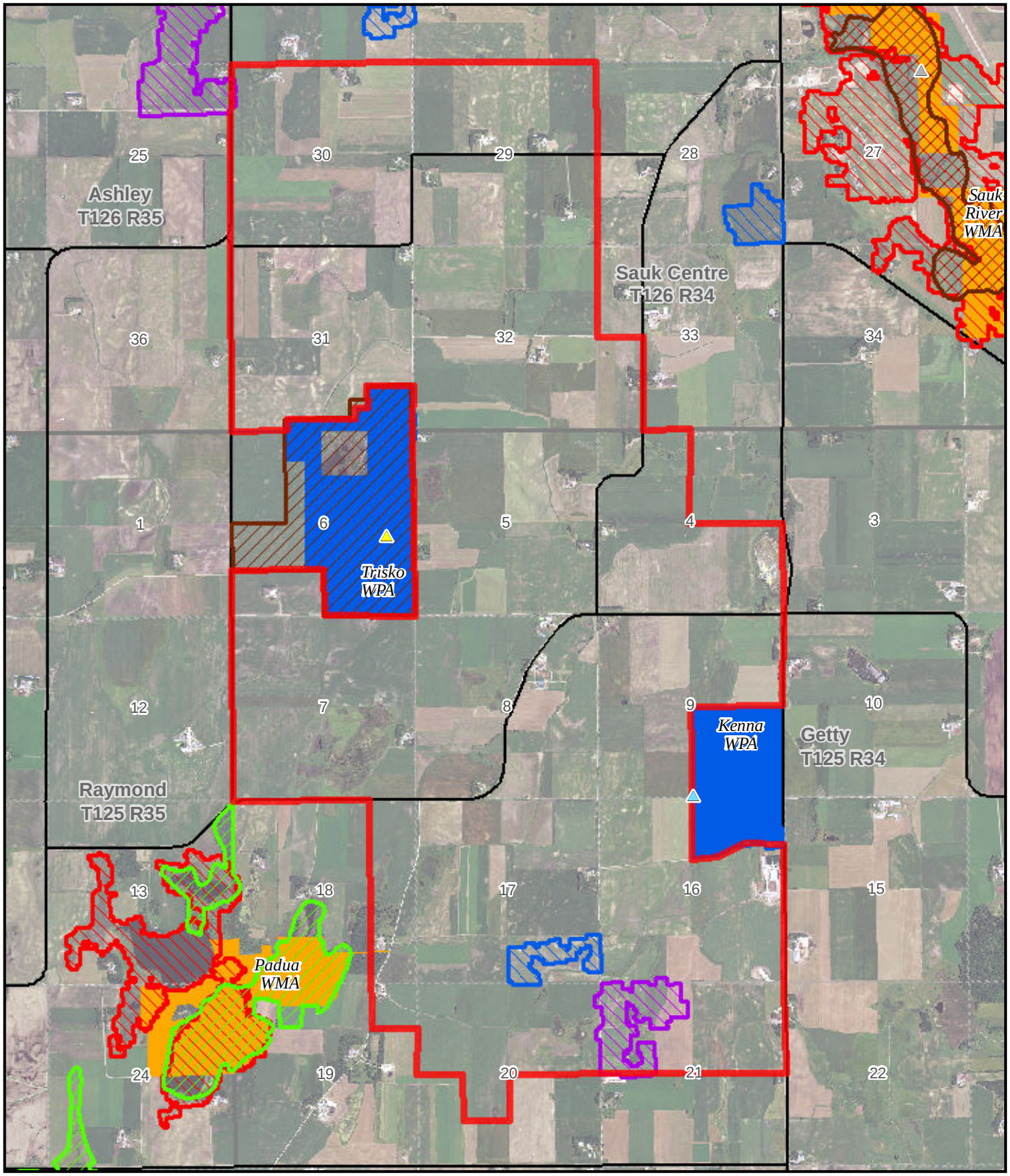
Project Boundary
North Fork Crow River Watershed
Sauk River Watershed
PWI Water
NWI Wetland
Shoreland Overlay District
FEMA Floodplain (100 Year)
24k Stream or Ditch

Figure 10
Surface Waters and FEMA Floodplains

Getty Wind Farm
Stearns County, MN

Date: 9/21/2011

Path: \\mspe-dis-file\disroot\Getty\Wind\161027\map_docs\LWEC\SIFig10_SurfaceWatersandFloodplains.mxd



Project Boundary

Species Status
- Special Concern
- Non-Listed
- Unknown
- USFWS WPA
- DNR WMA

DNR Regionally Significant Areas

Ecological Score
- Outstanding
- High
- Moderate

MCBS Biodiversity Significance
- Moderate
- Below

0 0.5 1 Miles

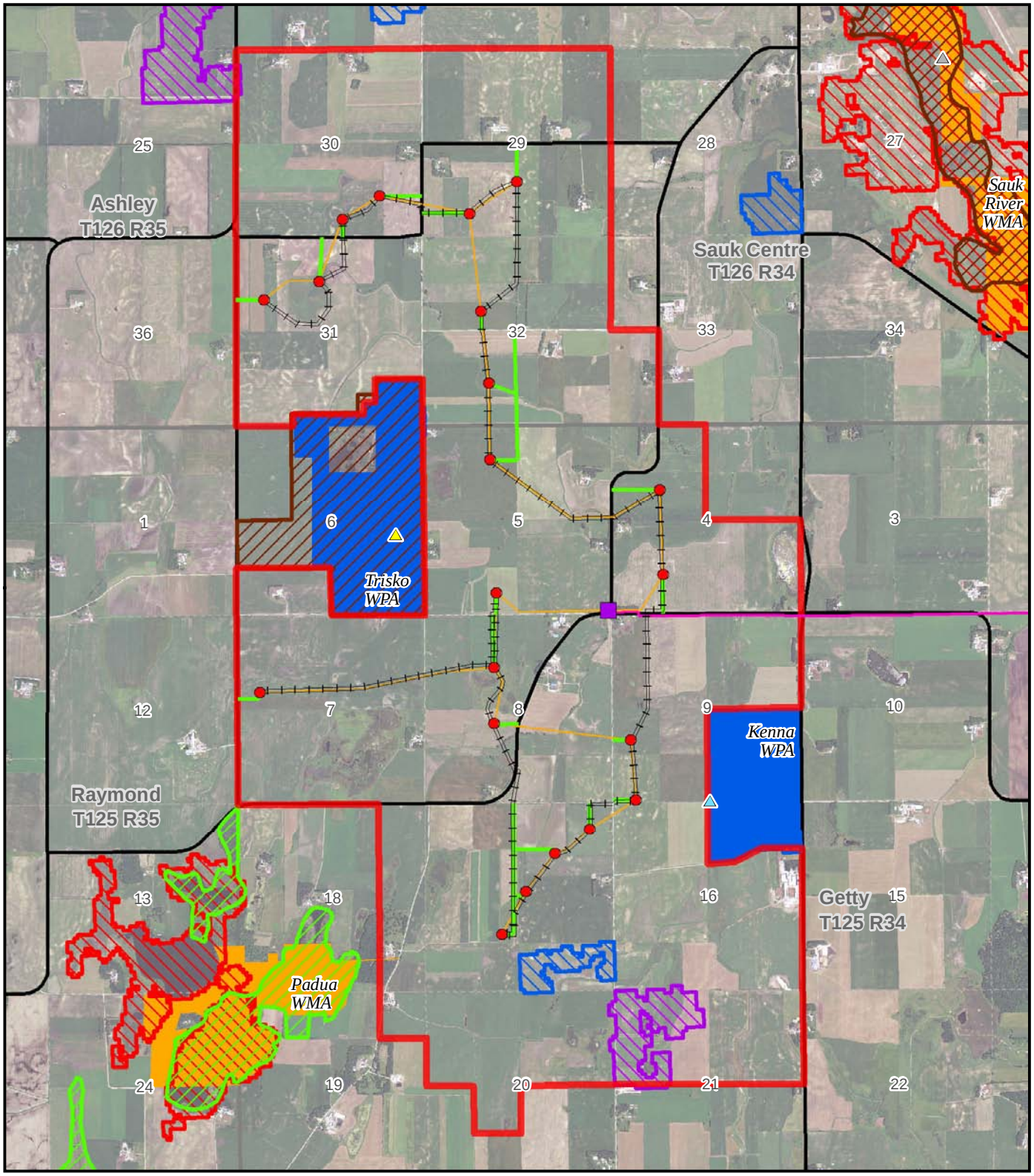
Source: Minnesota Department of Natural Resources, 2010.

Figure 11
Unique Natural Features (Footprint)

Getty Wind Farm
Stearns County, MN

Date: 9/21/2011

Path: \\mspe-gis-file\gisproj\GettyWind\161027\map_docs\LWECS\Fig11_UniqueNaturalFeaturesFootprint.mxd



Project Boundary
Proposed Turbine (REpower MM100)
Access Road (Proposed)
Collection Line (Proposed)
Crane Path (Proposed)
Substation (Proposed)
Proposed 69 kV Transmission Line
USFWS WPA
DNR WMA

Species Status
Special Concern
Non-Listed
Unknown
DNR Regionally Significant Areas
Ecological Score
Outstanding
High
Moderate
MCBS Biodiversity Significance
Moderate
Below

N

HDR

0 0.5 1 Miles

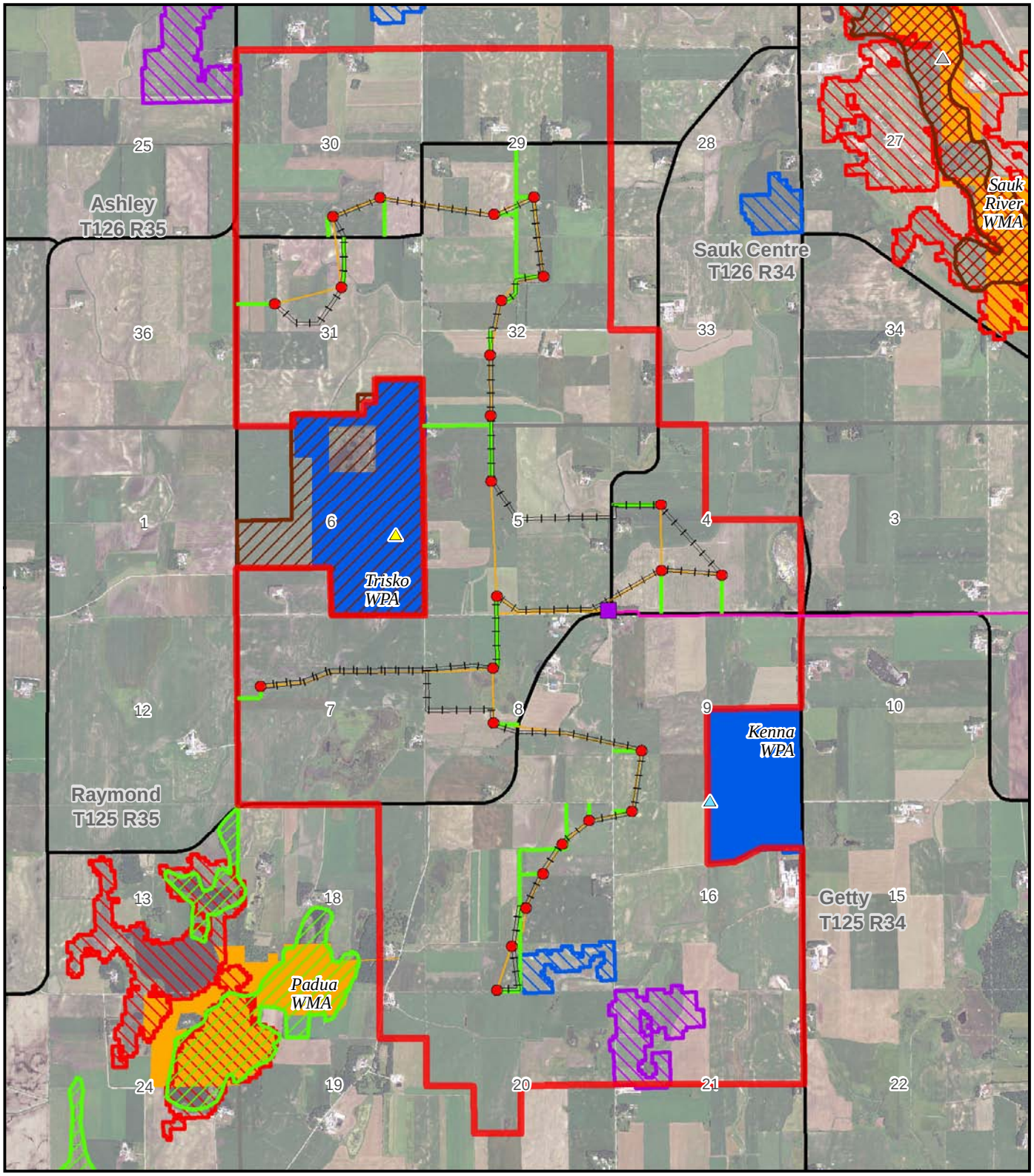
Source: Minnesota Department of Natural Resources, 2010.

Figure 11.1
Unique Natural Features
REpower MM100

Getty Wind Farm
Stearns County, MN

Date: 10/11/2011

Path: \\mspe-gis-file\GISProj\GettyWind\161027\map_docs\LWECS\Fig11-01_UniqueNaturalFeatures_MM100.mxd



Proposed Turbine (Goldwind 87/1500)
Access Road (Proposed)
Collection Line (Proposed)
Crane Path (Proposed)
Substation (Proposed)
Proposed 69 kV Transmission Line
Project Boundary
USFWS WPA
DNR WMA

Species Status
Special Concern
Non-Listed
Unknown
DNR Regionally Significant Areas
Ecological Score
Outstanding
High
Moderate
MCBS Biodiversity Significance
Moderate
Below

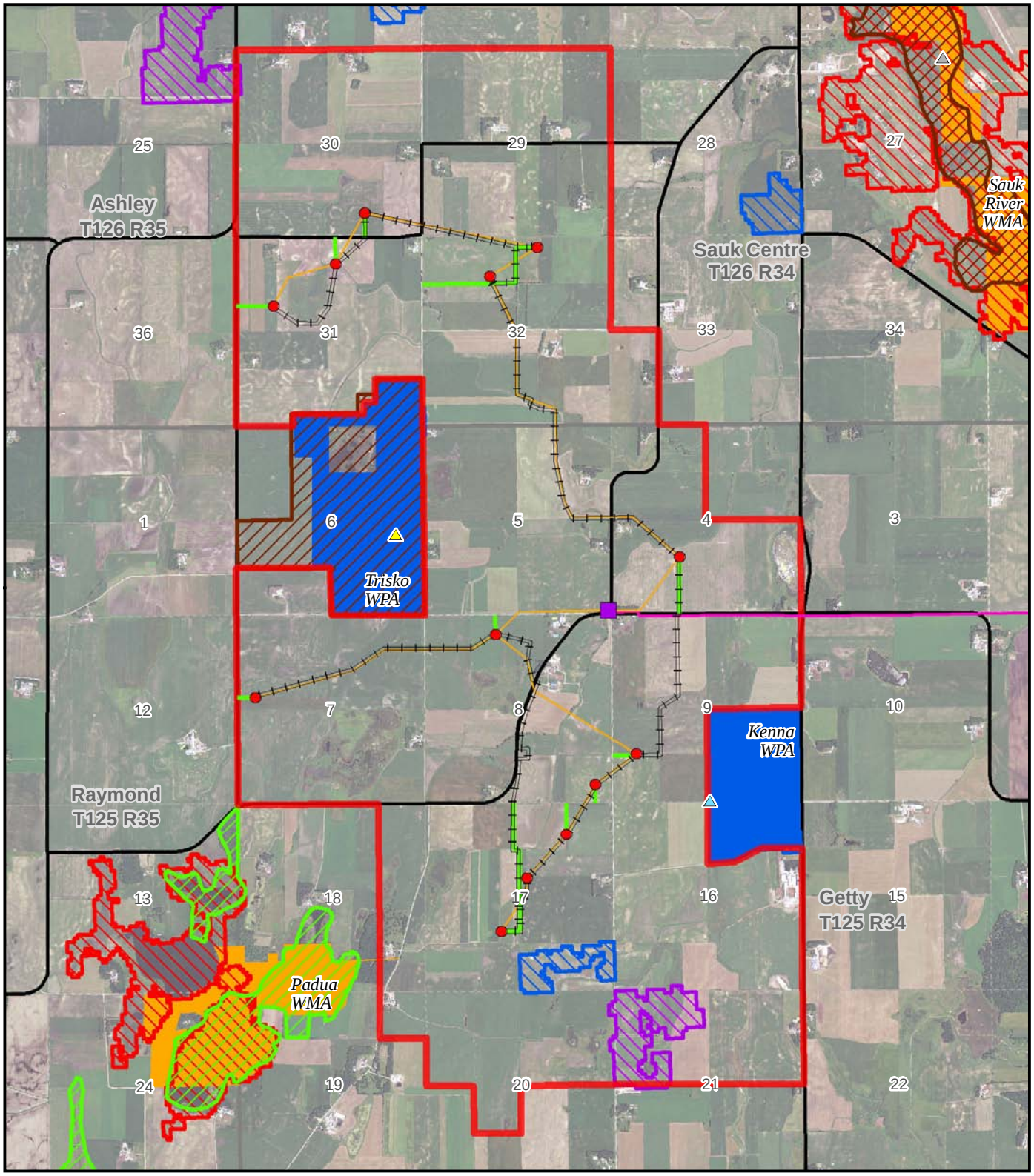
Miles
0 0.5 1

Source: Minnesota Department of Natural Resources, 2010.

Figure 11.2
Unique Natural Features
Goldwind 87/1500

Getty Wind Farm
Stearns County, MN

Date: 10/11/2011
Path: \\mspe-gis-file\GISProj\GettyWind\161027\map_docs\LWECS\Fig11-02_UniqueNaturalFeatures_GW.mxd



Proposed Turbine (Vestas V112)
Access Road (Proposed)
Collection Line (Proposed)
Crane Path (Proposed)
Substation (Proposed)
Proposed 69 kV Transmission Line
Project Boundary
USFWS WPA
DNR WMA

Species Status
Special Concern
Non-Listed
Unknown
DNR Regionally Significant Areas
Ecological Score
Outstanding
High
Moderate
MCBS Biodiversity Significance
Moderate
Below

N

HDR

0 0.5 1 Miles

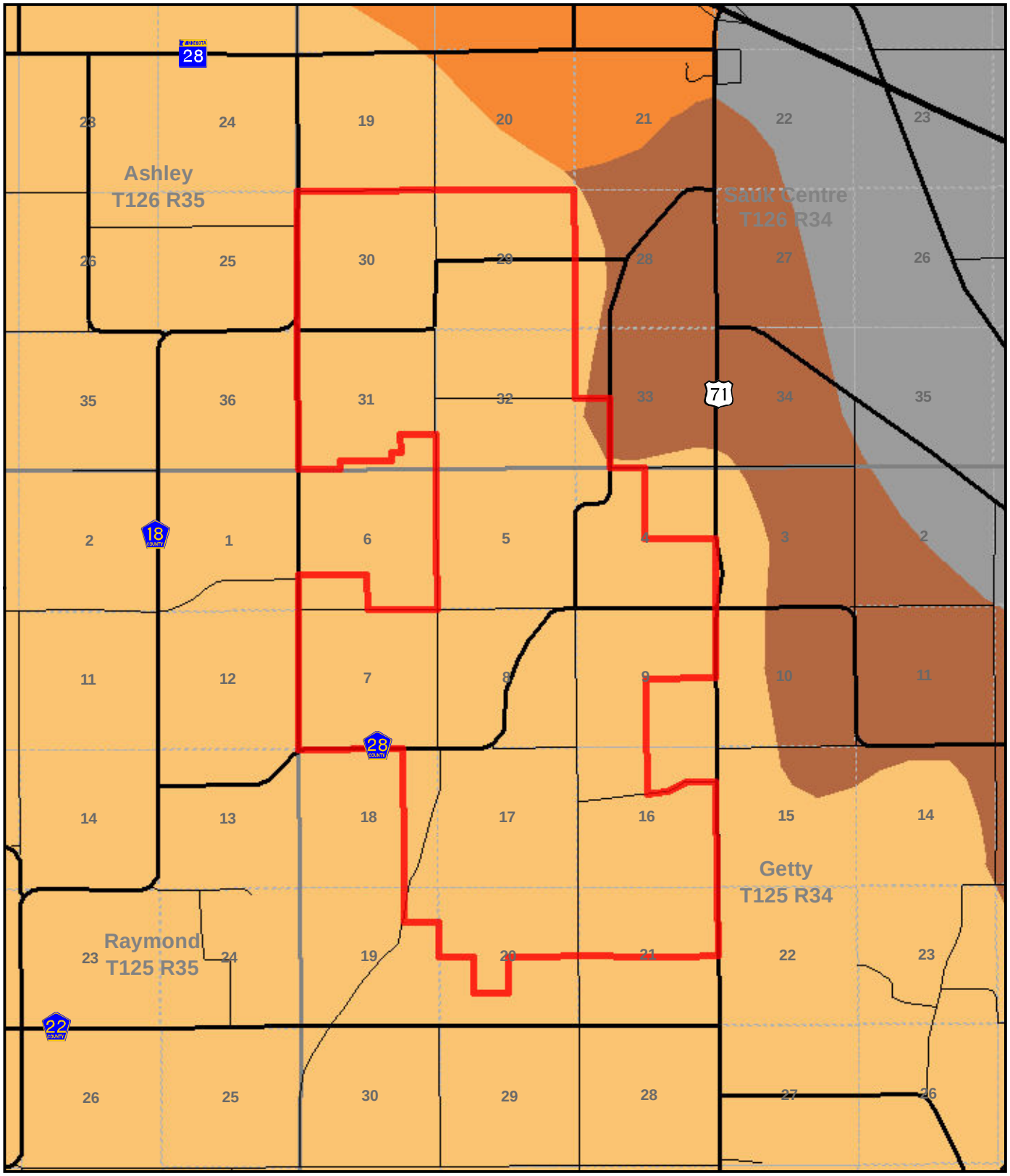
Source: Minnesota Department of Natural Resources, 2010.

Figure 11.3
Unique Natural Features
Vestas V112

Getty Wind Farm
Stearns County, MN

Date: 10/11/2011

Path: \\mspe-gis-file\GISProj\GettyWind\161027\map_docs\LWECS\Fig11-03_UniqueNaturalFeatures_V112.mxd



Project Boundary

Soil Type

- ESTHERVILLE-HAWICK-DICKMAN (MN070)
- GONVICK-WAUKON-CORDOVA (MN069)
- NORMANIA-FLOM-ROLISS (MN064)
- VES-NORMANIA-FLOM (MN068)

Miles

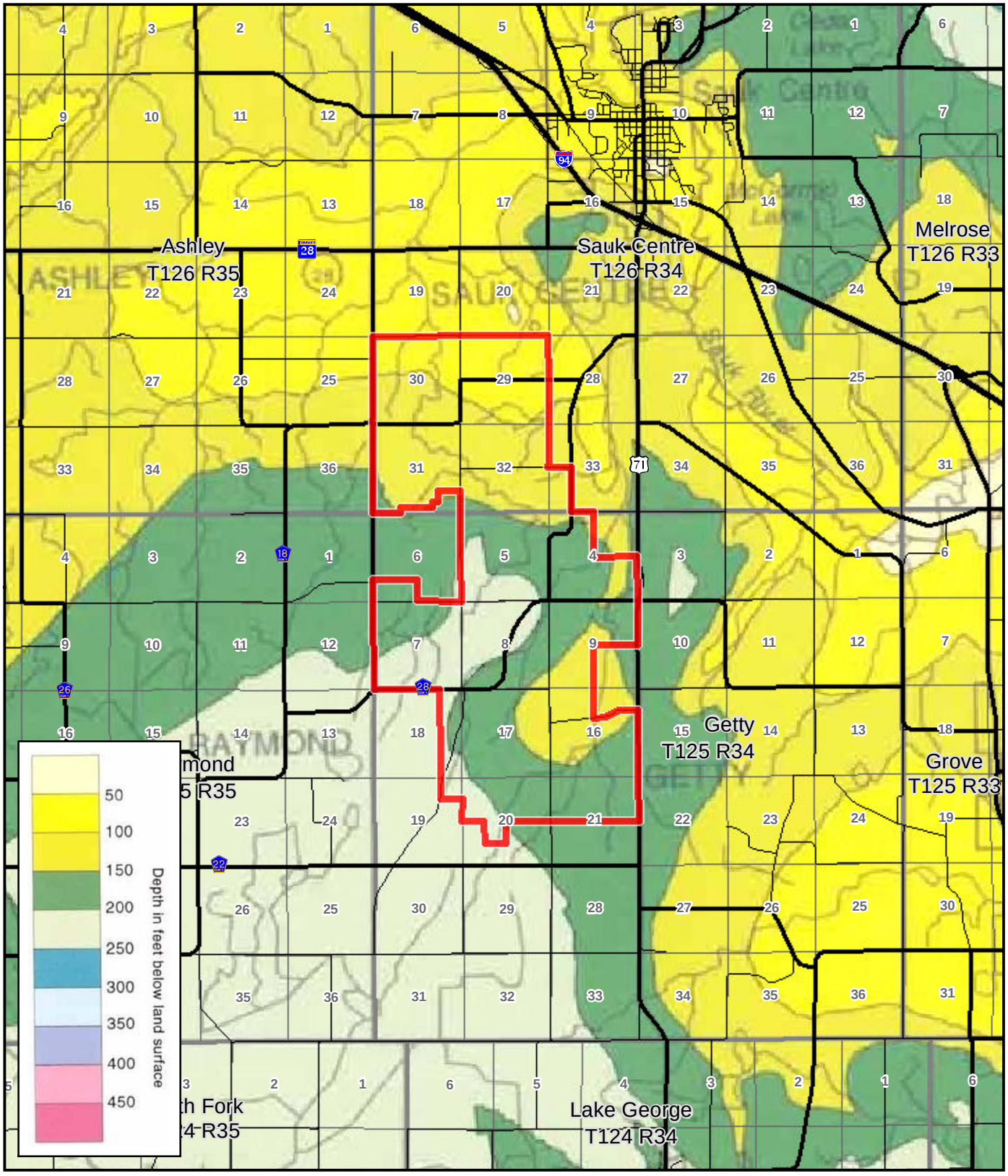
0 0.5 1

Figure 12
Soils

Getty Wind Farm
Stearns County, MN

Date: 9/21/2011

Path: \\mspe-dis-file\disroot\GettyWind\161027\map_docs\LWECS\Fig12_Soils.mxd



Project Boundary

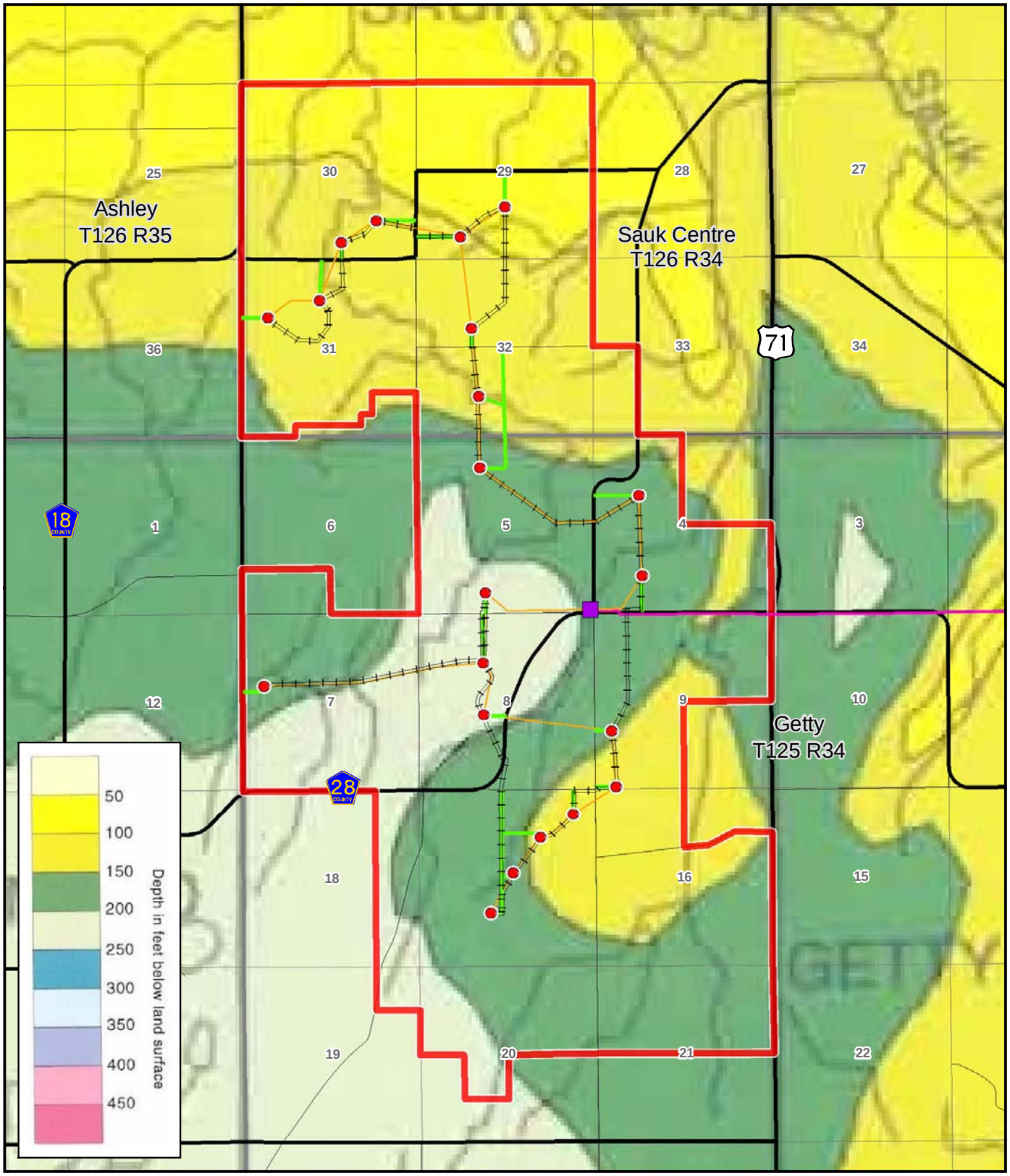
Miles
0 0.5 1

Figure 13
Site Geology and Depth to Bedrock (Footprint)

Getty Wind Farm
Stearns County, MN

Date: 9/21/2011

Path: \\mspe-gis-file\gisproj\GettyWind\161027\map_docs\LWECS\Fig13_GeologyDepthtoBedrockFootprint.mxd



N

HDR

0 0.5 1 Miles

Project Boundary

Proposed Turbine (REpower MM100)

Access Road (Proposed)

Collection Line (Proposed)

Crane Path (Proposed)

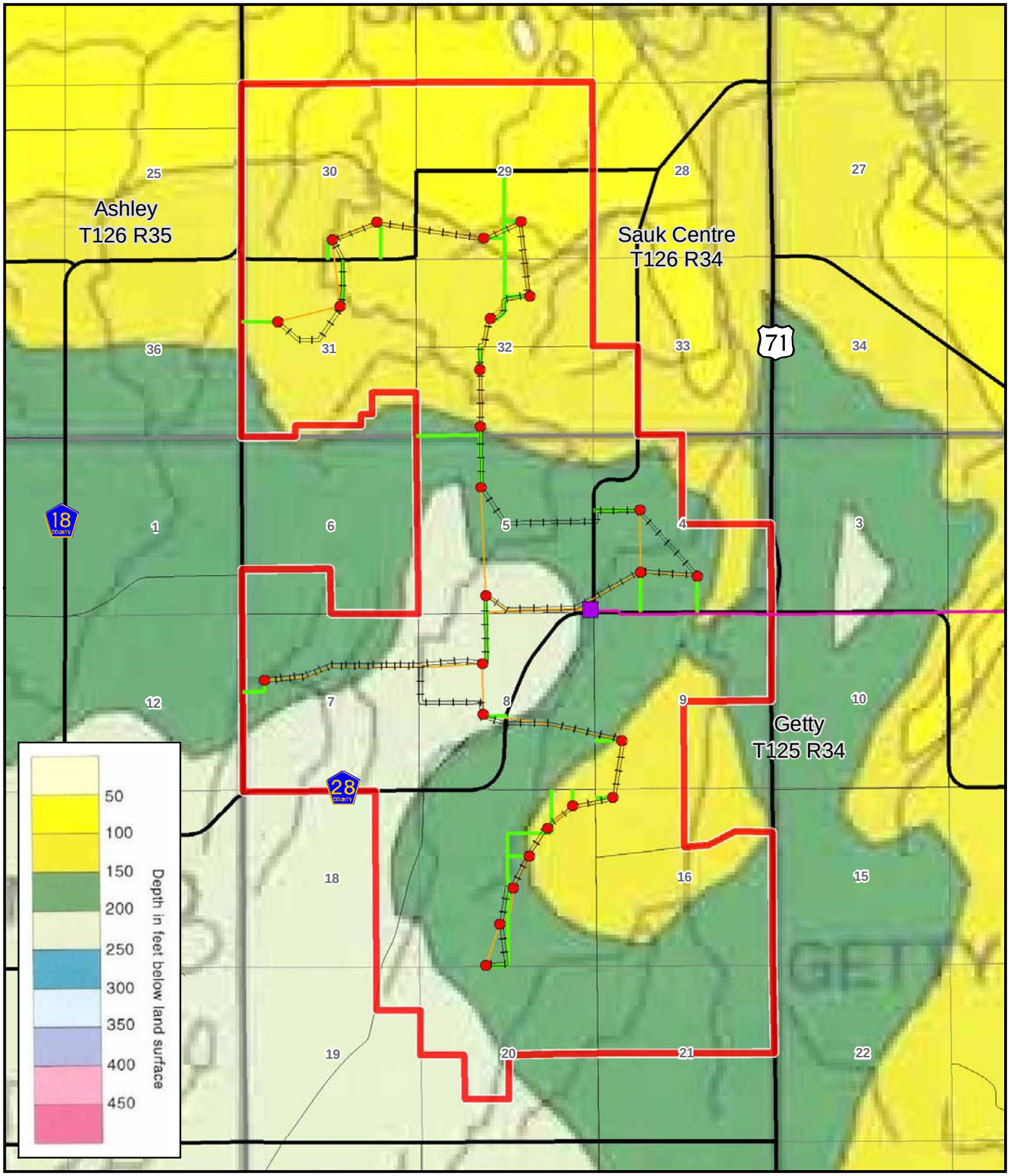
Substation (Proposed)

Proposed 69 kV Transmission Line

Figure 13.1
Site Geology and Depth to Bedrock REpower MM100
Getty Wind Farm
Stearns County, MN

Date: 10/11/2011

Path: \\mspe-gis-file\GISProj\GettyWind\161027\map_docs\LWECS\Fig13-01_GeologyDepthtoBedrock_MM100.mxd



N

HDR

0 0.5 1 Miles

Proposed Turbine (Goldwind 87/1500)
Access Road (Proposed)
Collection Line (Proposed)
Crane Path (Proposed)
Substation (Proposed)
Proposed 69 kV Transmission Line
Project Boundary

Figure 13.2
Site Geology and Depth to Bedrock Goldwind 87/1500
Getty Wind Farm
Stearns County, MN

Date: 10/11/2011
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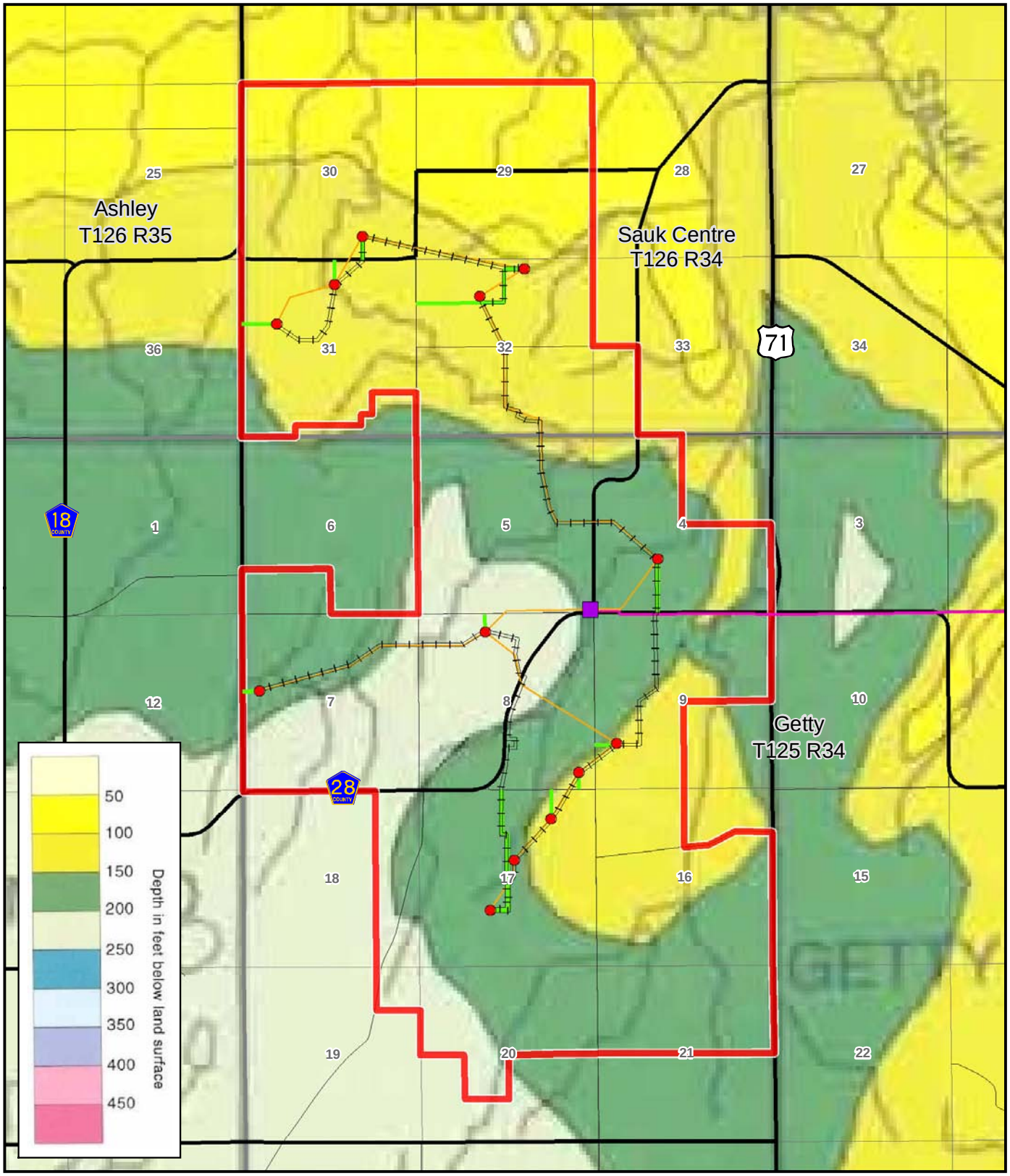


N

HDR

0 0.5 1 Miles

Proposed Turbine (Vestas V112)

Access Road (Proposed)

Collection Line (Proposed)

Crane Path (Proposed)

Substation (Proposed)

Proposed 69 kV Transmission Line

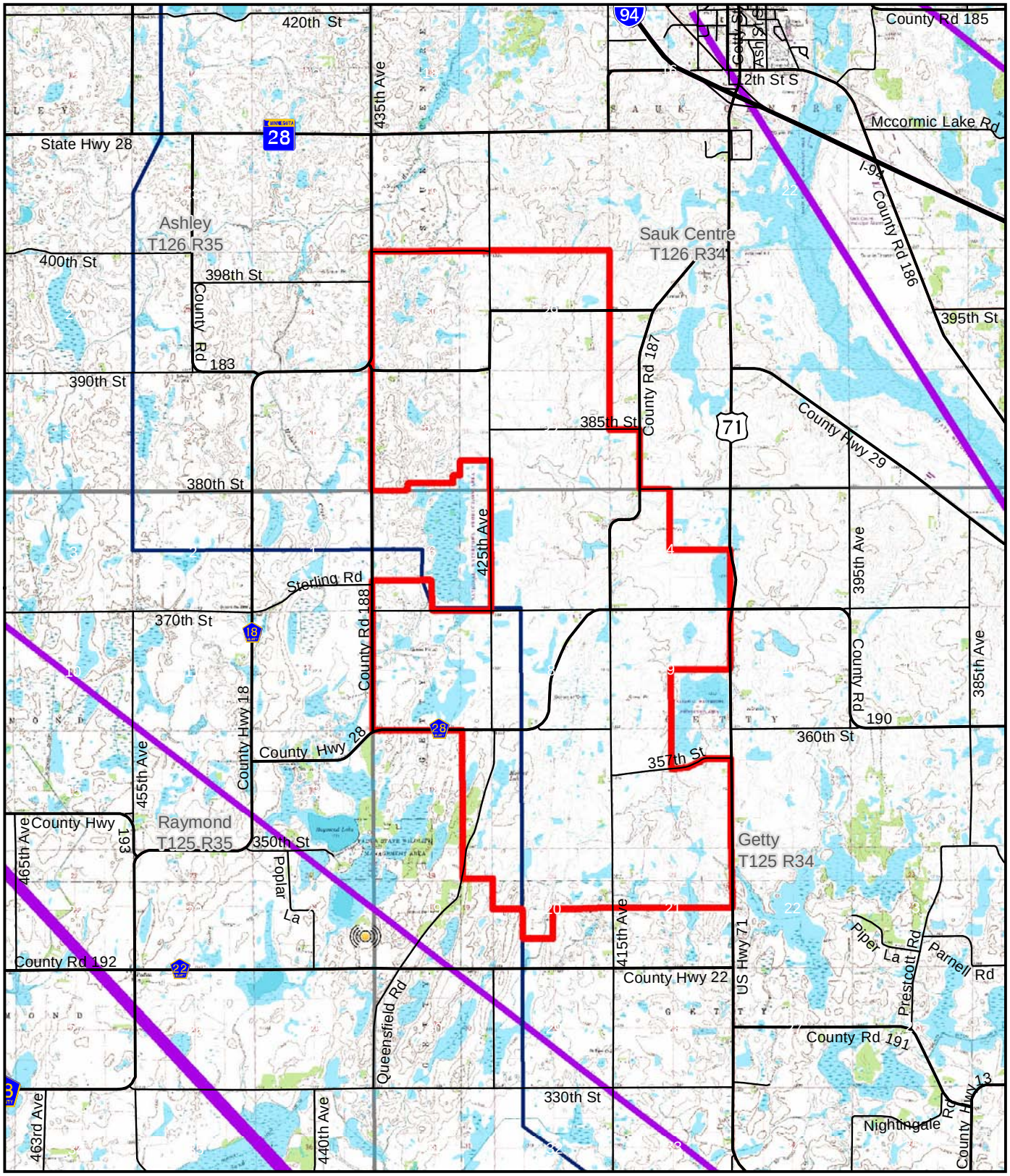
Project Boundary

Figure 13.3
Site Geology and Depth to Bedrock Vestas V112

Getty Wind Farm
Stearns County, MN

Date: 10/11/2011

Path: \\mspe-dis-file\GISProj\GettyWind\161027\map_docs\LWECS\Fig13-03_GeologyDepthtoBedrock_V112.mxd



Project Boundary

Microwave Beam Path

Land Mobile Radio

Miles

0 0.5 1

Figure 14
Microwave Beam Paths

Getty Wind Farm
Stearns County, MN

Date: 10/11/2011

Path: \\mspe-gis-file\GISProj\GettyWind\161027\map docs\LWECS\Fig14 MicrowaveBeamPath.mxd

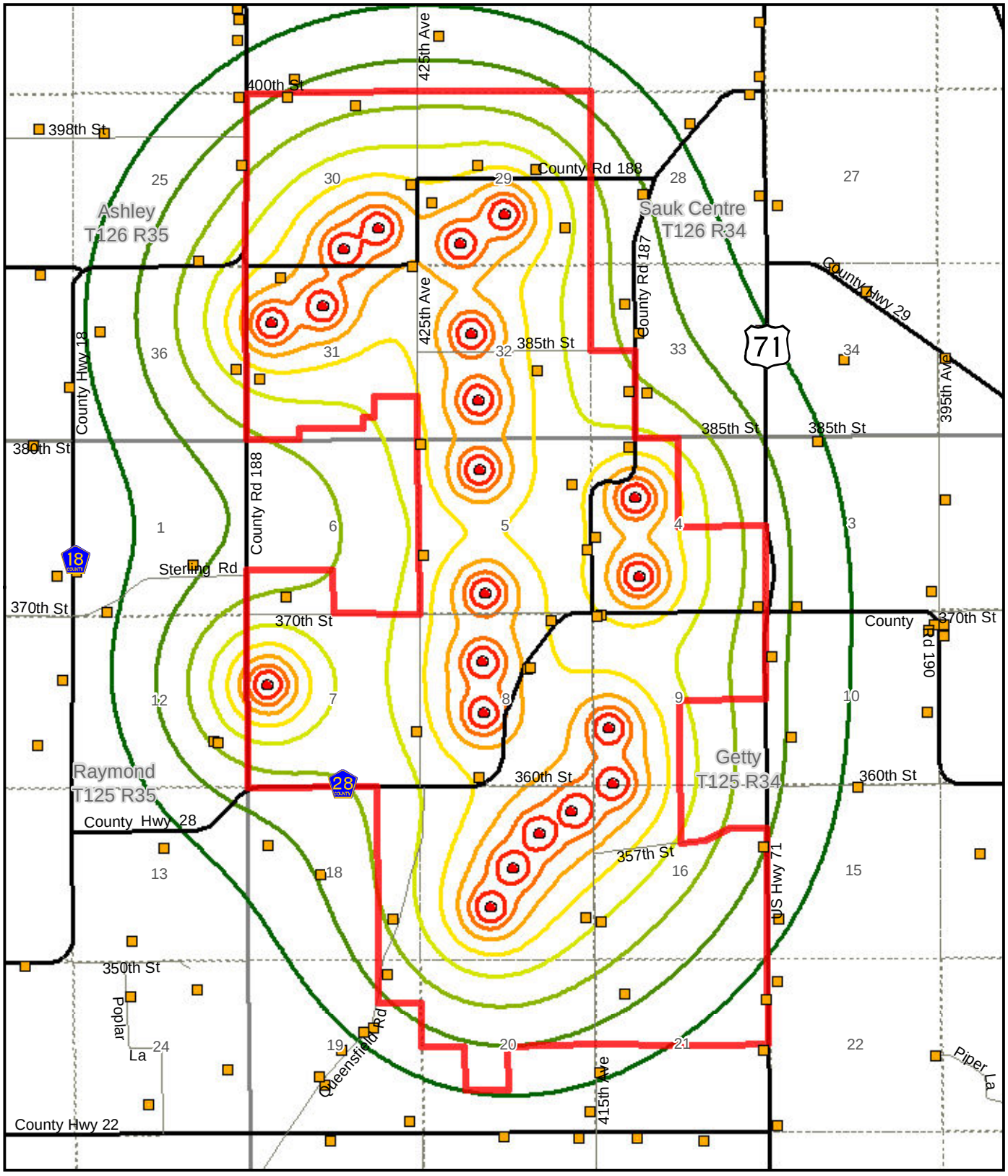
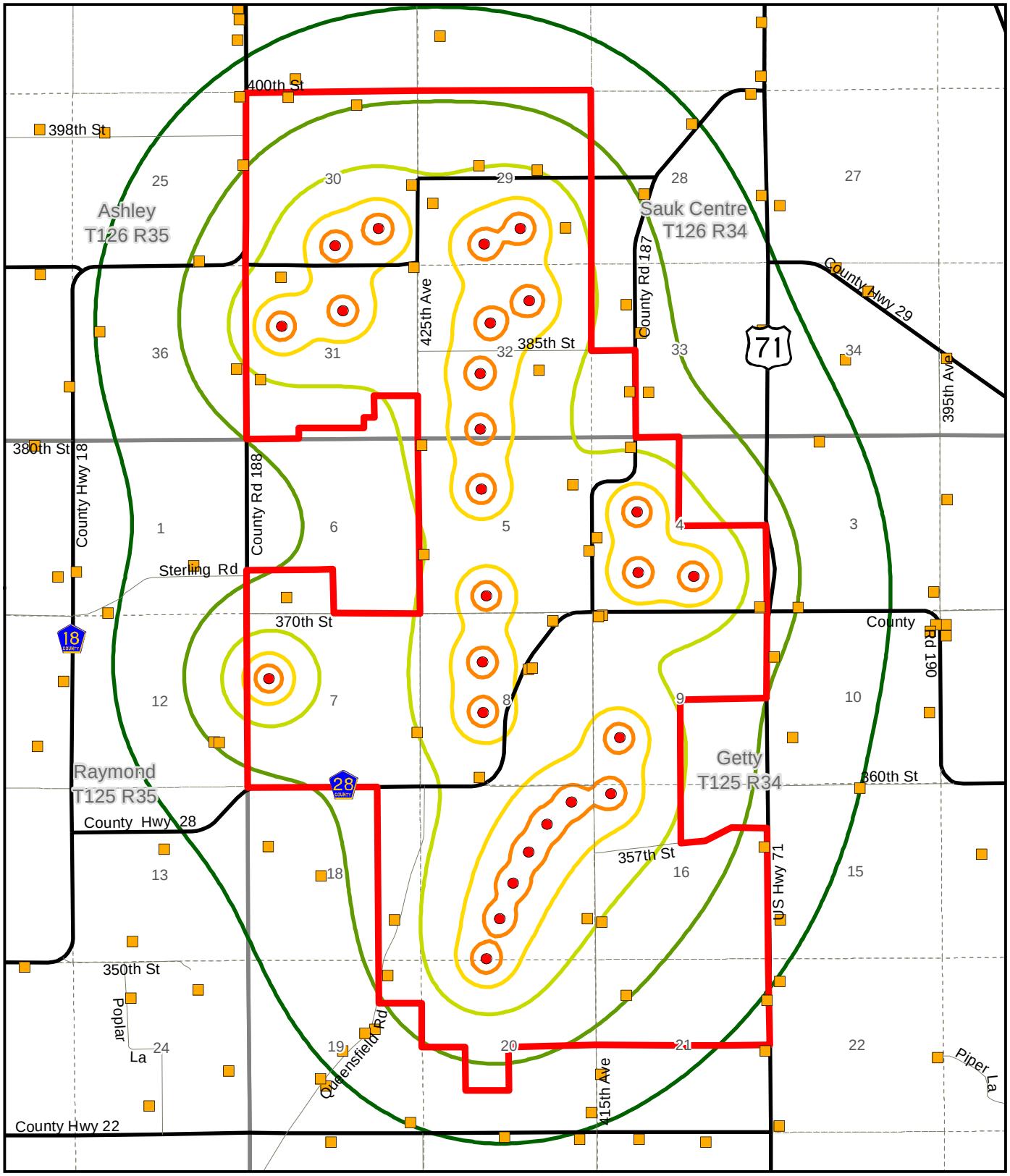


Figure 15.1
Predicted Noise Levels
REpower MM100

Getty Wind Farm
Stearns County, MN

Date: 9/21/2011

Path: \\mspe-dis-file\dois\roi\Getty\Wind\161027\map_docs\LWECS\Fig15-01_PredictedNoiseLevels_MM100.mxd



Project Boundary
Proposed Turbine (Goldwind 87/1500)
Dwelling

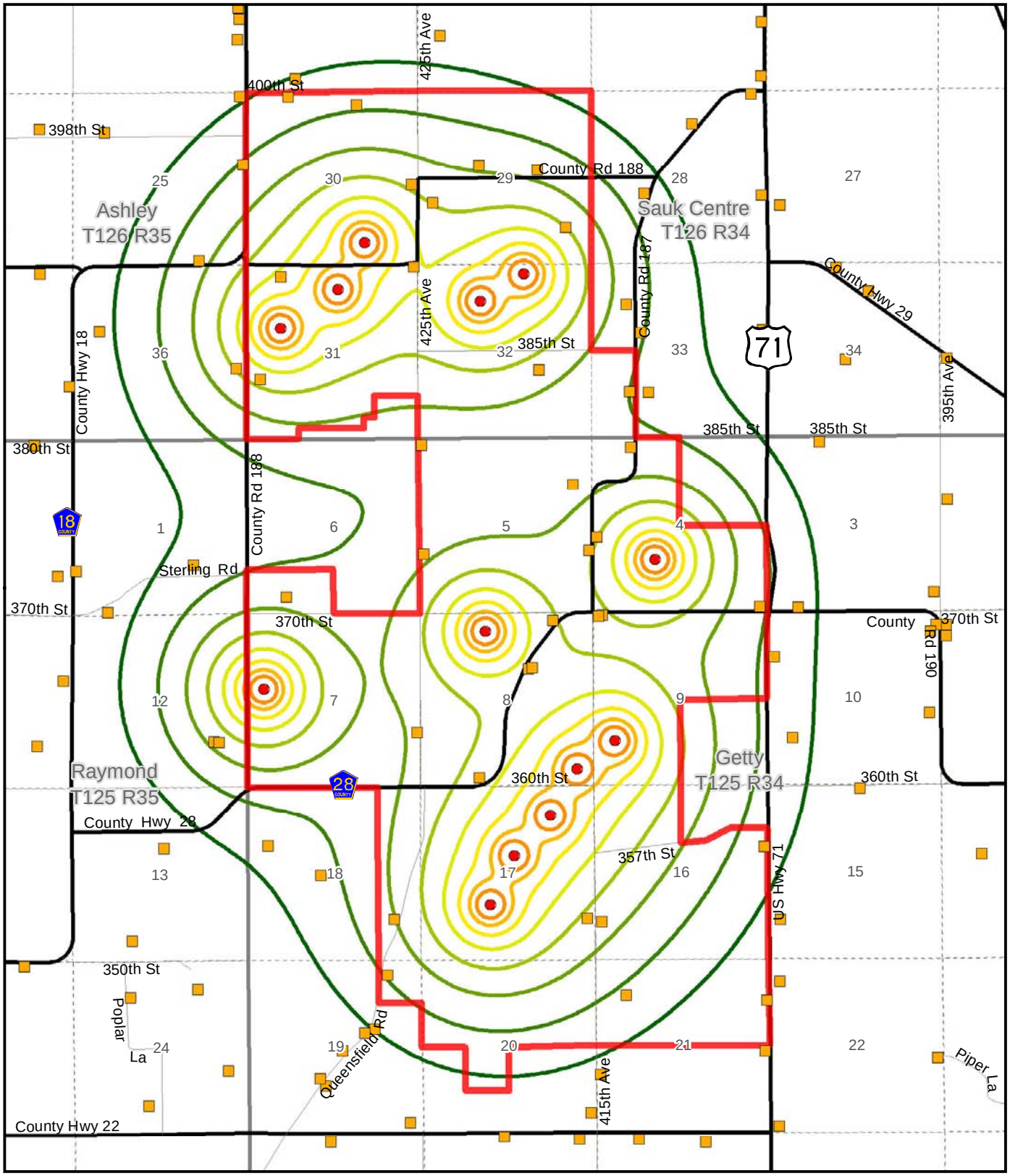
Goldwind 87/1500 Noise Isolines
Hourly Leq, dBA
30
35
40
45
50

Miles
0 0.5 1

Figure 15.2
Predicted Noise Levels
Goldwind 87/1500

Getty Wind Farm
Stearns County, MN

Date: 10/10/2011
Path: \\mspe-dis-file\GISProj\GettyWind\161027\map_docs\LWECS\Fig15-02_PredictedNoiseLevels_GW.mxd



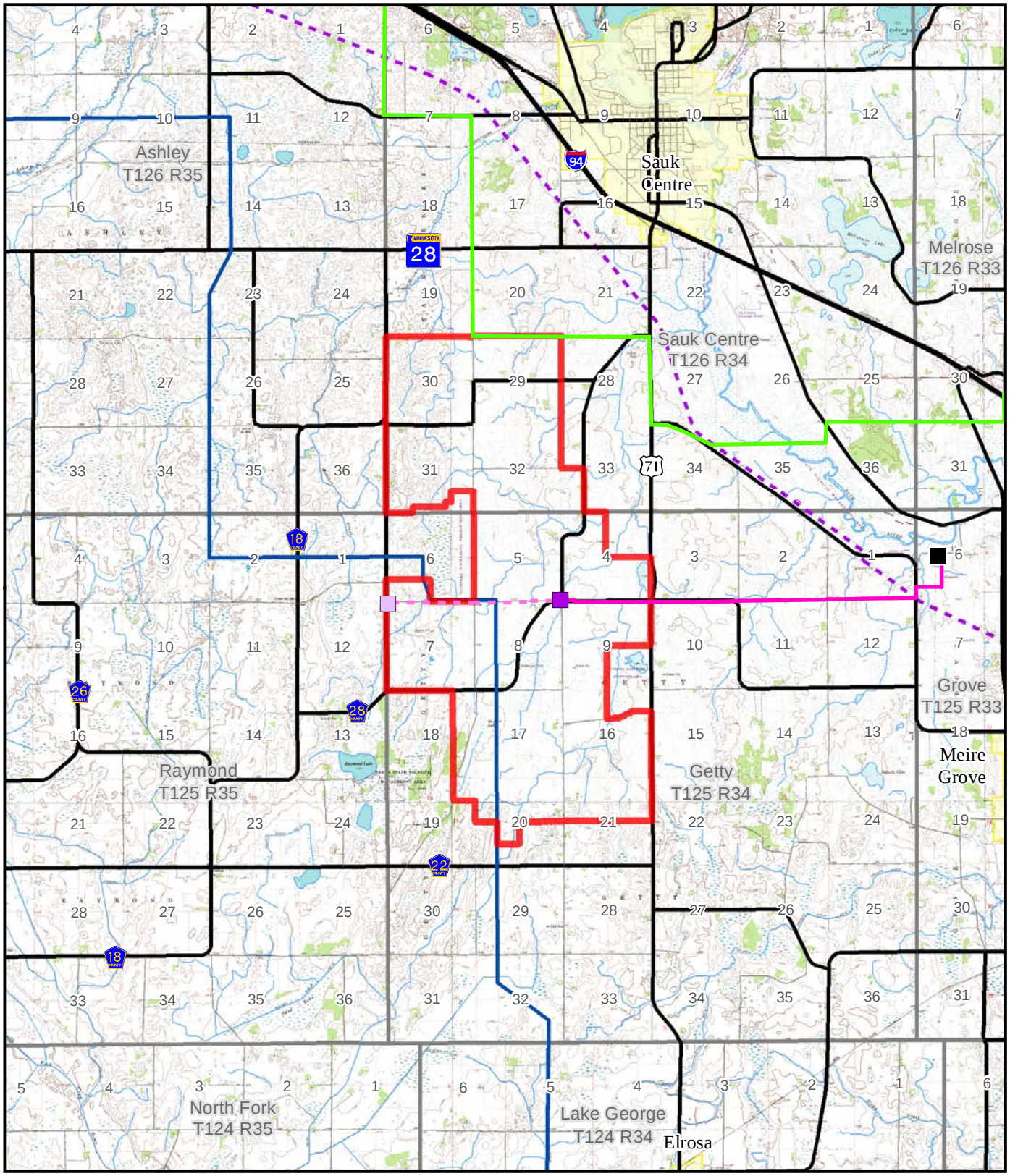
Project Boundary
Proposed Turbine (Vestas V112)
Dwelling
Vestas V112 Noise Isolines
Hourly Leq, dBA
30
33
36
39
42
45
48
51

Miles
0 0.5 1

Figure 15.3
Predicted Noise Levels
Vestas V112

Getty Wind Farm
Stearns County, MN

Date: 10/10/2011
Path: \\mspe-dis-file\GISProj\GettyWind\161027\map_docs\LWECS\Fig15-03_PredictedNoiseLevels_VestasV112.mxd



Project Boundary
Black Oak Substation
Substation (Proposed)
Substation (Alternate)

Proposed 69 kV

Proposed
Alternate

Existing 400 kV DC
Transmission Line
Proposed 345kV
Fargo-St Cloud CAPX
Pipeline
24k Stream

N

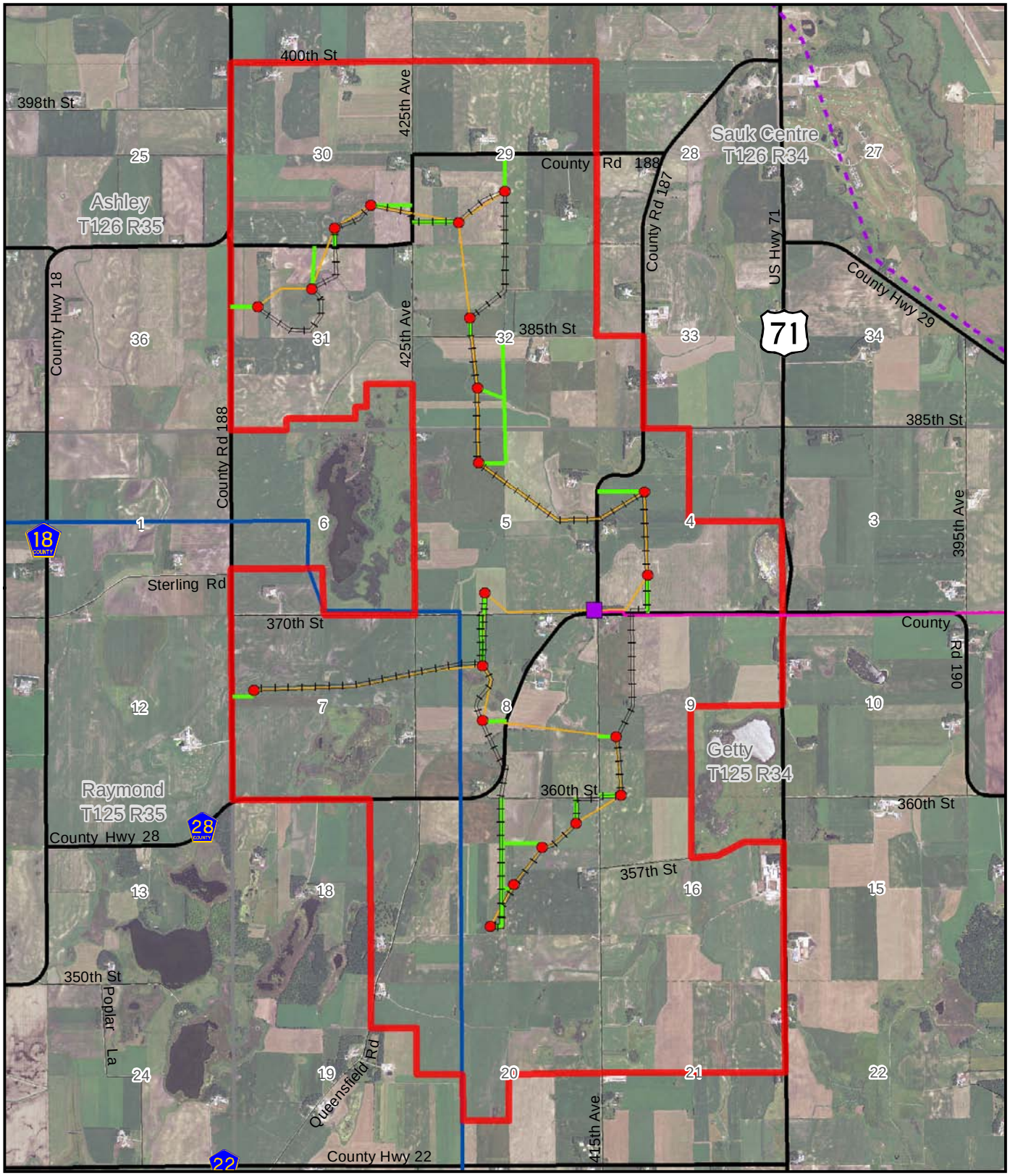
HDR

Miles
0 0.5 1

Figure 2
Project Location Map

Getty Wind Farm
Stearns County, MN

Date: 10/11/2011
Path: \\mspe-gis-file\GISProj\GettyWind\161027\map_docs\LWECS\Fig02_ProjectLocationMap.mxd



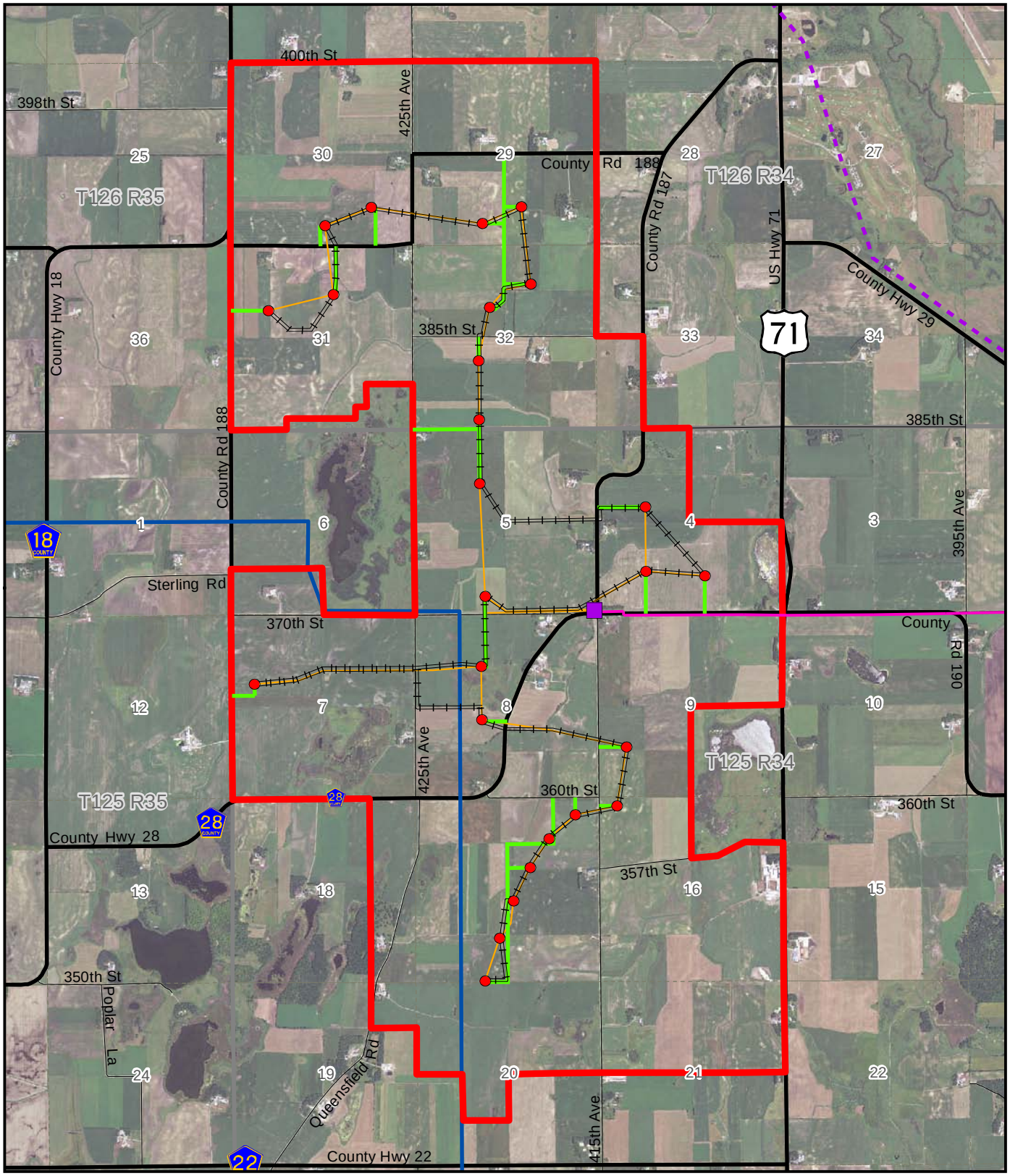
Project Boundary
Proposed Turbine (REpower MM100)
Access Road (Proposed)
Collection Line (Proposed)
Crane Path (Proposed)
Substation (Proposed)
Proposed 69 kV Transmission Line
Existing 400 kV DC Transmission Line
Pipeline

Miles
0 0.5 1

Figure 2.1
Preliminary Site Layout
REpower MM100

Getty Wind Farm
Stearns County, MN

Date: 10/11/2011
Path: \\mspe-gis-file\GISProj\GettyWind\161027\map_docs\LWECS\Fig02-01_PreliminarySiteLayout_MM100.mxd



Project Boundary
Proposed Turbine (Goldwind 87/1500)
Access Road (Proposed)
Collection Line (Proposed)
Crane Path (Proposed)
Substation (Proposed)
Proposed 69 kV Transmission Line
Existing 400 kV DC Transmission Line
Pipeline

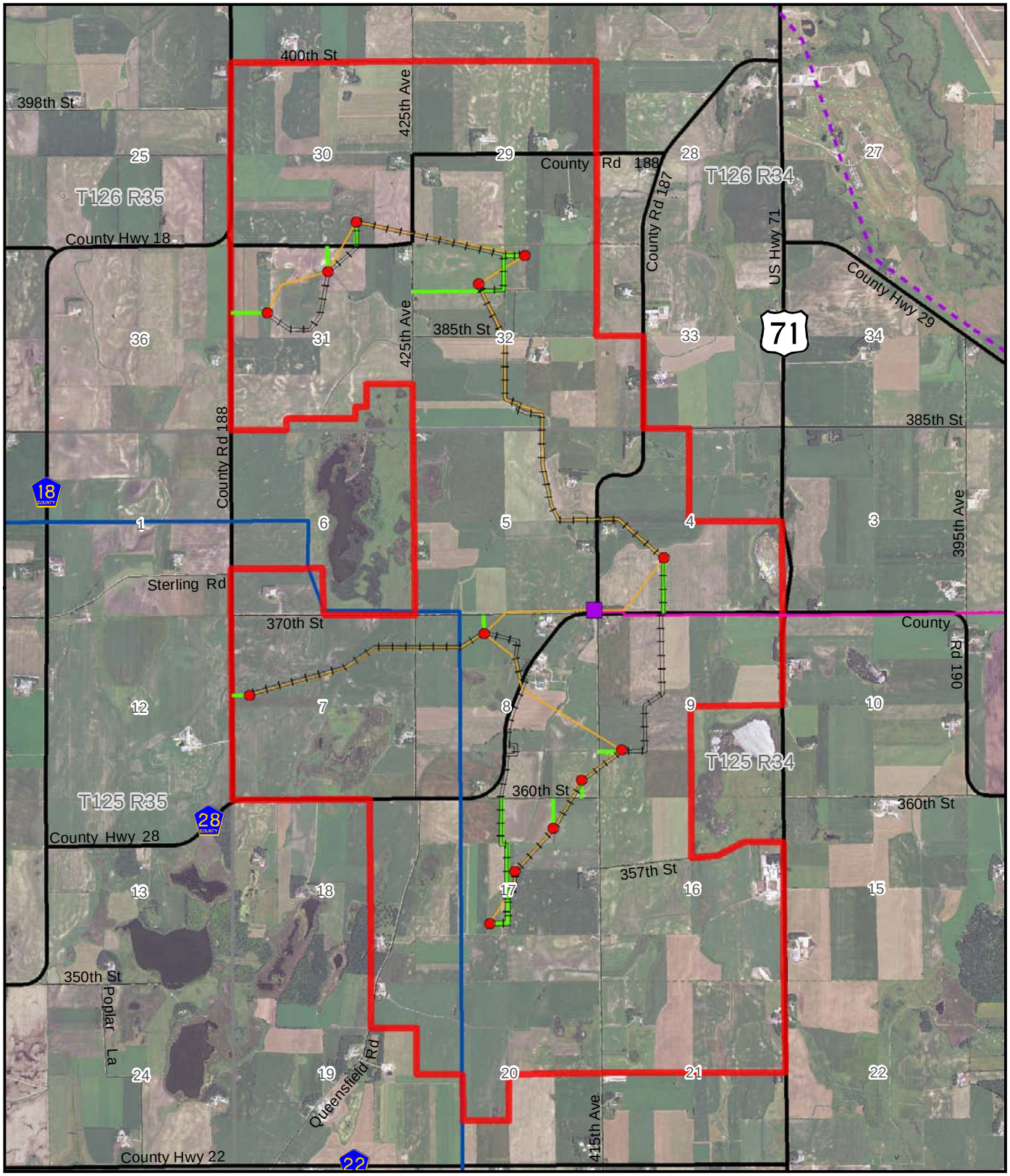
Miles
0 0.5 1

HDR

Figure 2.2
Preliminary Site Layout
Goldwind 87/1500

Getty Wind Farm
Stearns County, MN

Date: 10/11/2011
Path: \\mspe-cis-file\GISProj\GettyWind\161027\map_docs\LWECS\Fig02-02_PreliminarySiteLayout_GW.mxd



Project Boundary
Proposed Turbine (Vestas V112)
Access Road (Proposed)
Collection Line (Proposed)
Crane Path (Proposed)
Substation (Proposed)
Proposed 69 kV Transmission Line
Existing 400 kV DC Transmission Line
Pipeline

Miles
0 0.5 1

HDR

Figure 2.3
Preliminary Site Layout
Vestas V112

Getty Wind Farm
Stearns County, MN

Date: 10/11/2011
Path: \\mspe-gis-file\GISProj\GettyWind\161027\map_docs\LWECS\Fig02-03_PreliminarySiteLayout_V112.mxd

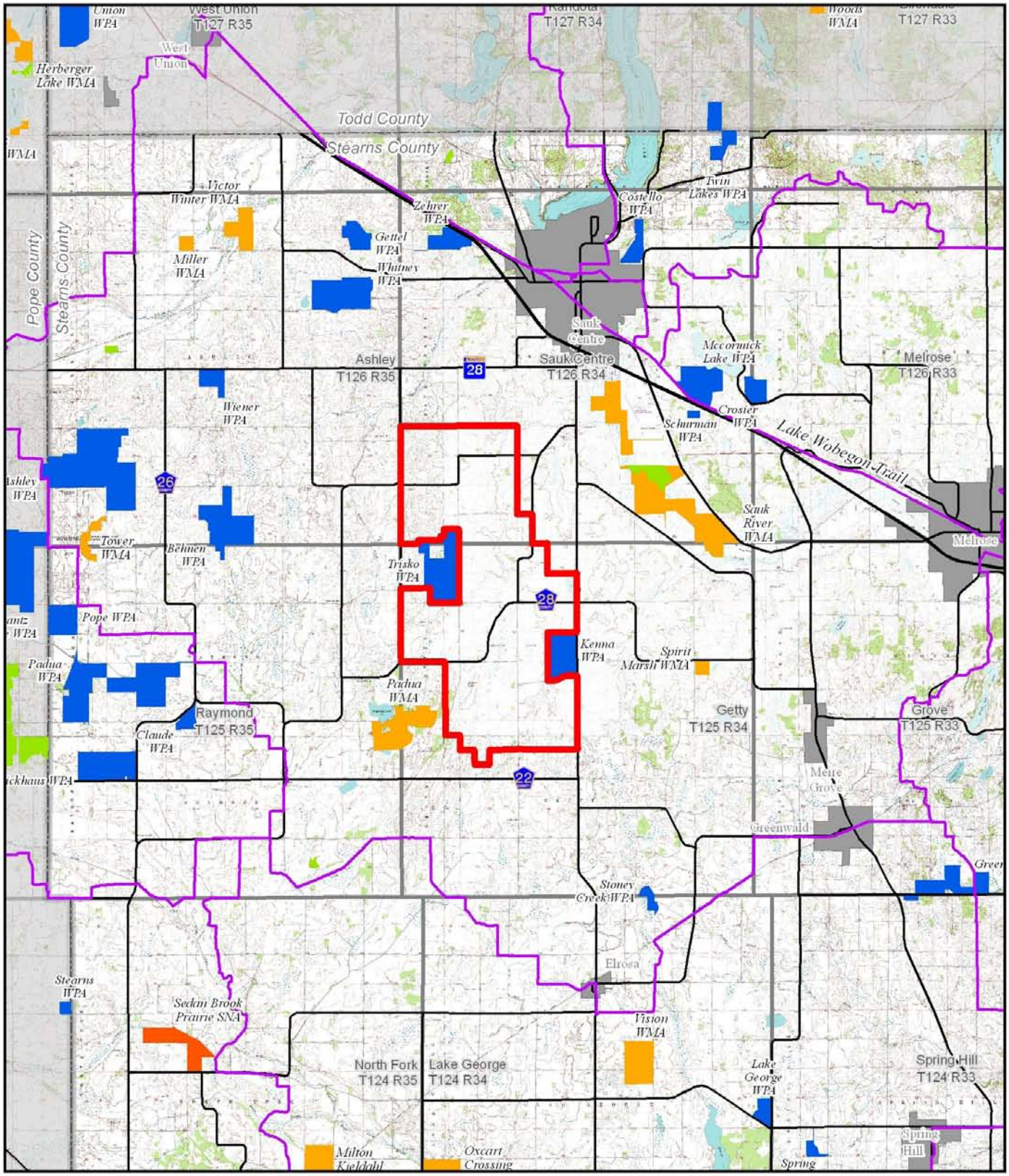
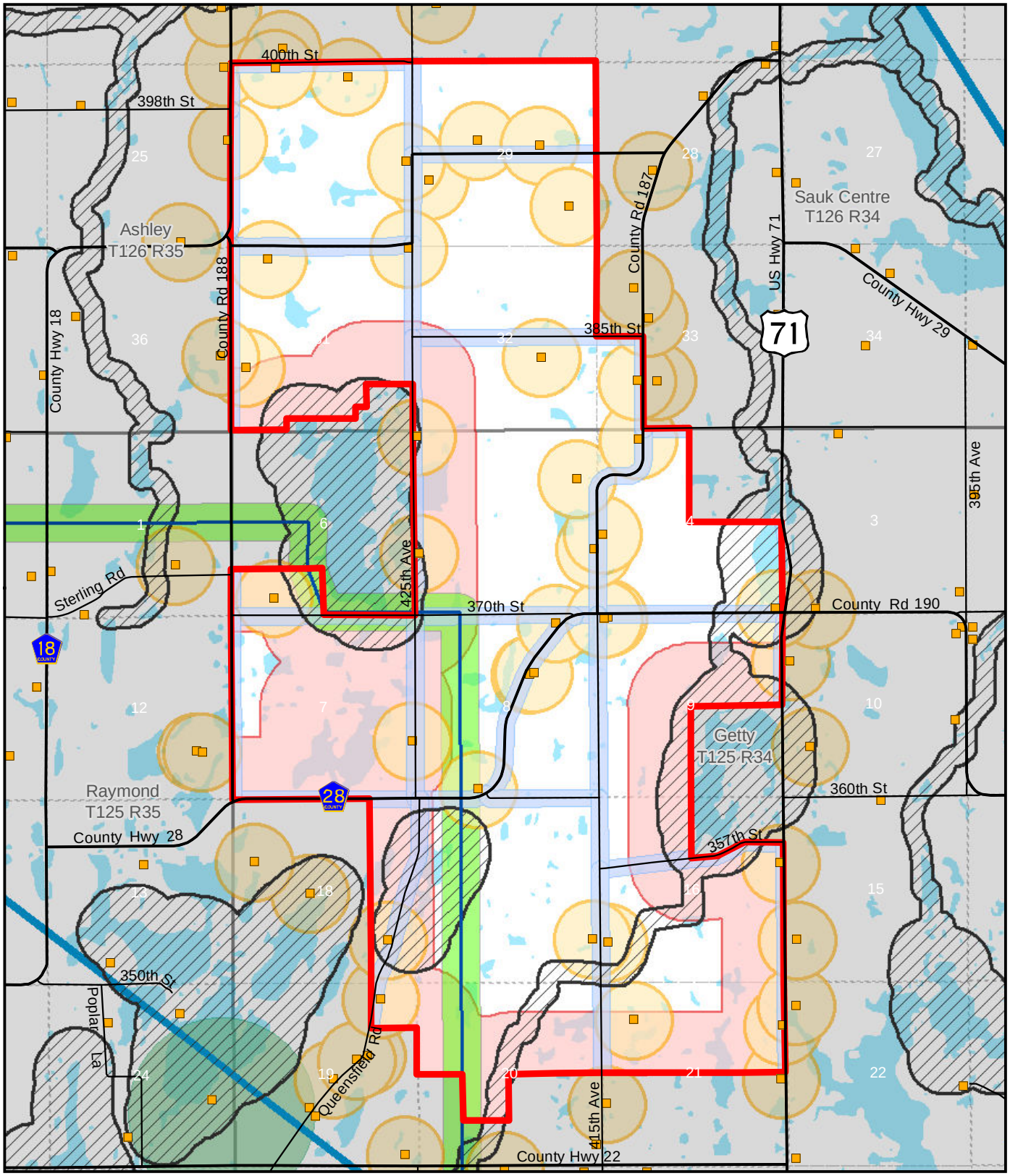


Figure 3
Public Land Ownership and Recreation

Getty Wind Farm
Stearns County, MN



Project Boundary
Dwelling

Setbacks

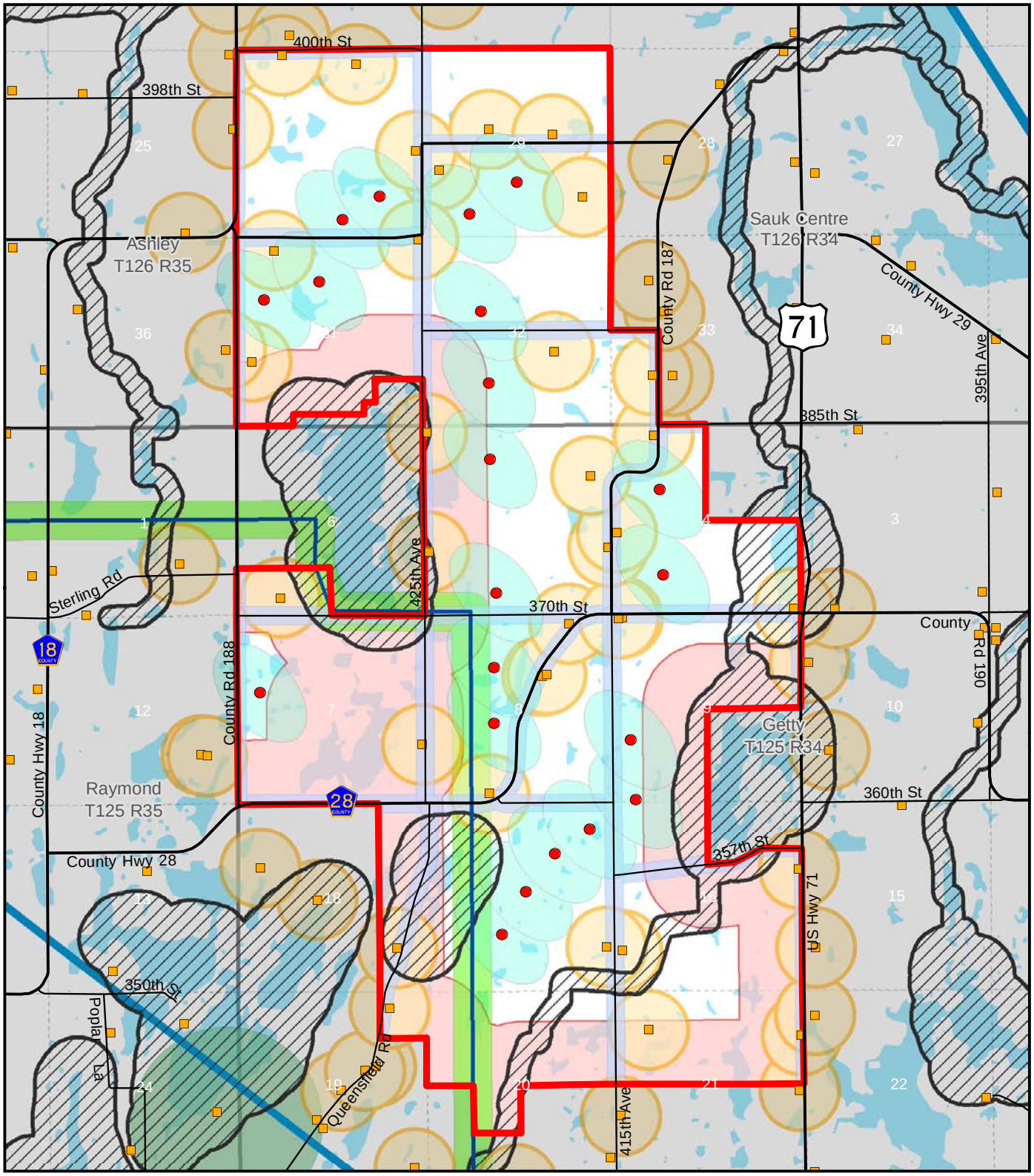
Microwave Beam Path
Dwelling Setback (1000ft)
Road Setback (250ft)
GRE 400kV HVDC Setback (1.1TH=541 ft)
Land Mobile Radio (820 ft)
Sensitive Area Setback (1800 ft)
Shoreland Overlay District

Miles
0 0.5 1

Figure 4
Turbine Layout and Constraints (Footprint)

Getty Wind Farm
Stearns County, MN

Date: 9/21/2011
Path: \\mspe-gis-file\GIS Proj\GettyWind\161027\map_docs\LWECS\Fig04_TurbineLayoutConstraintsFootprint.mxd



Project Boundary
Proposed Turbine (REpower MM100)
Dwelling

Setbacks
Microwave Beam Path
Dwelling Setback (1000ft)
GRE 400kV HVDC Setback (1.1TH=541 ft)
Road Setback (250ft)
Land Mobile Radio (820 ft)
3x5 Wind Access Buffer
Sensitive Area Setback (1800 ft)
Shoreland Overlay District

N

HDR

Miles
0 0.5 1

Figure 4.1
Turbine Layout and Constraints REpower MM100

Getty Wind Farm
Stearns County, MN

Date: 10/11/2011
Path: \\mspe-gis-file\GISProj\GettyWind\161027\map_docs\LWECS\Eid04-01_TurbineLayoutConstrait_MM100.mxd

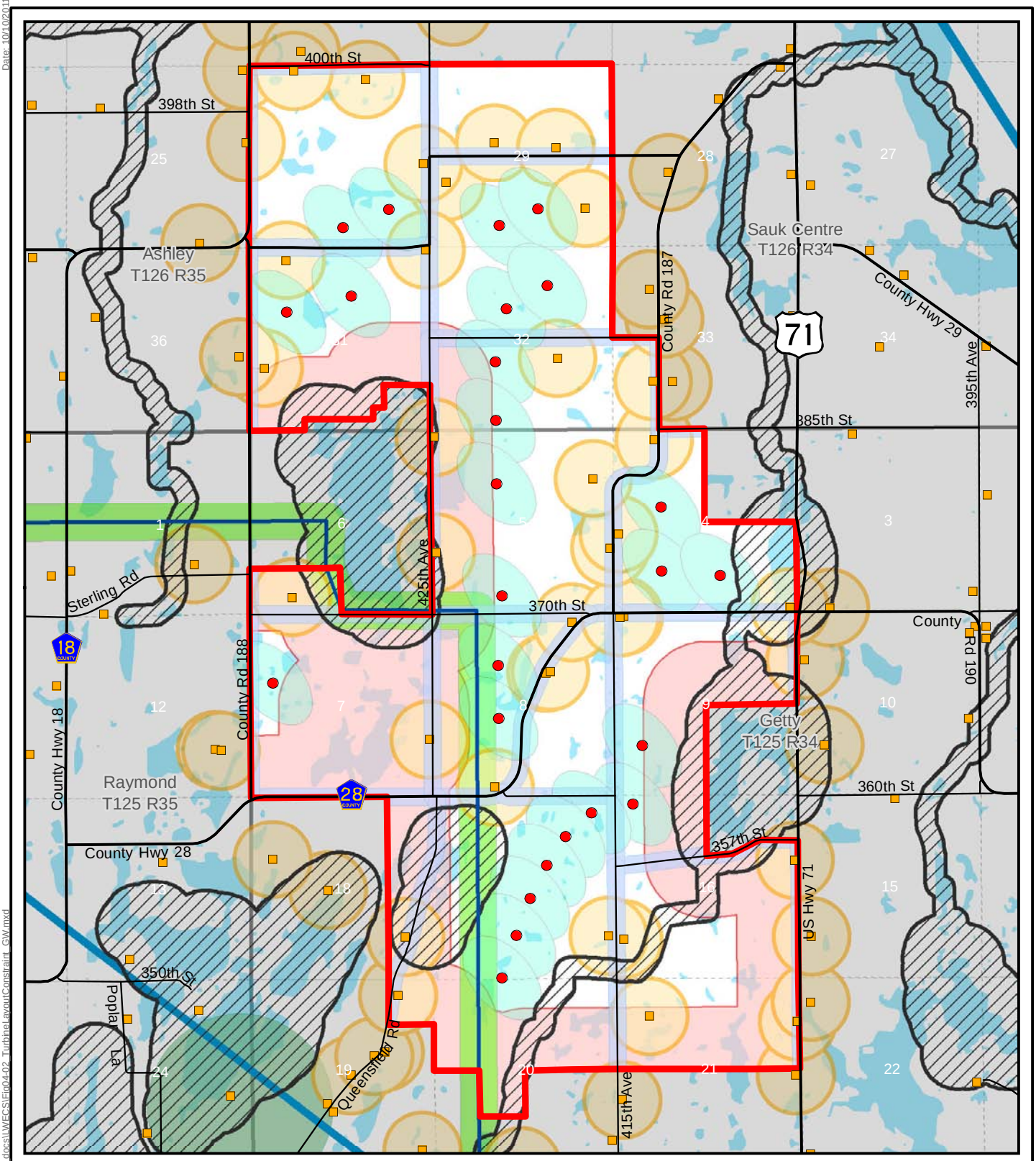


Figure 4.2
Turbine Layout and Constraints
Goldwind 87/1500
Getty Wind Farm
Stearns County, MN

Date: 10/10/2011
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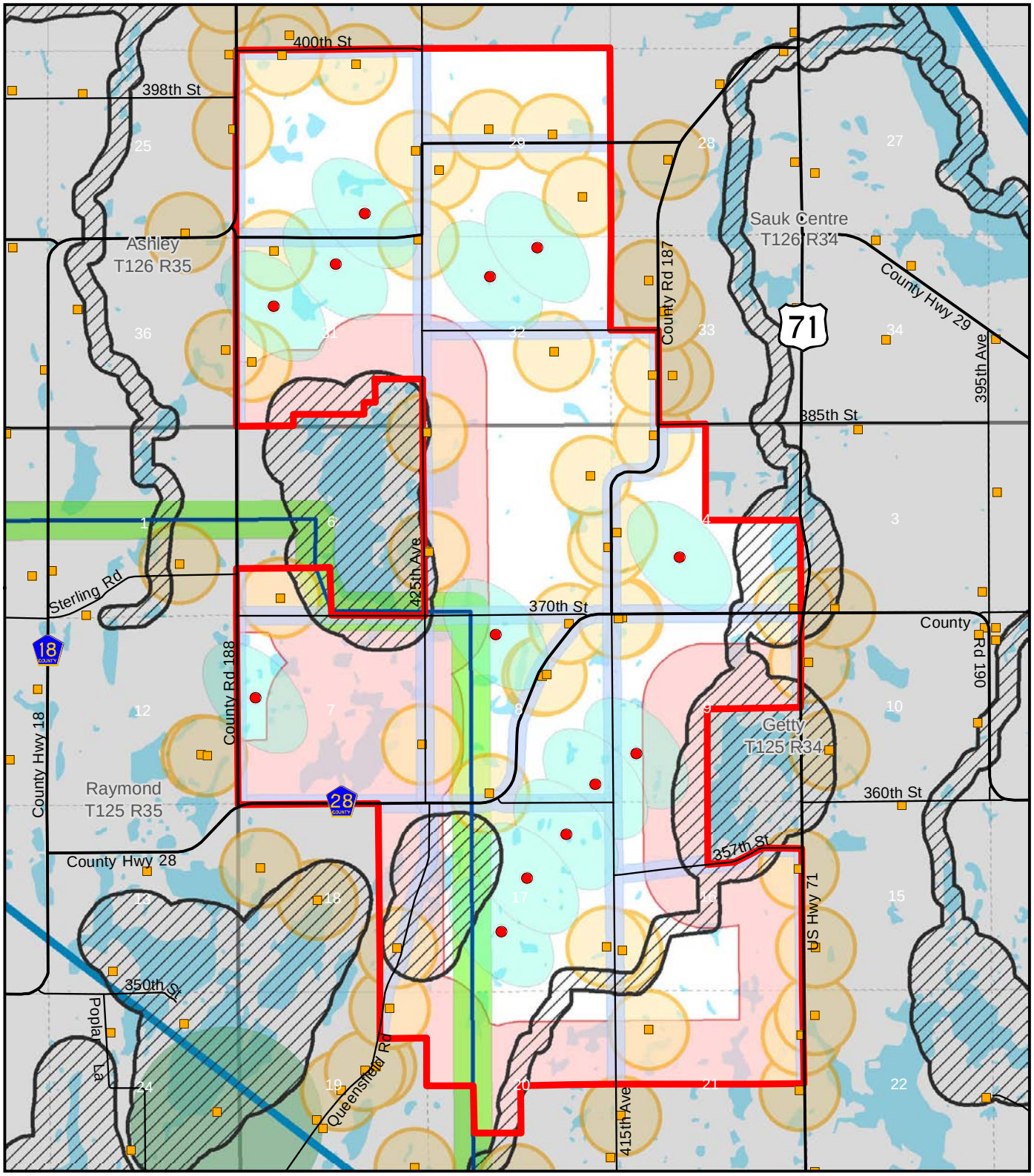

Figure 4.3
Turbine Layout and Constraints Vestas V112

Getty Wind Farm
Stearns County, MN

Date: 10/10/2011

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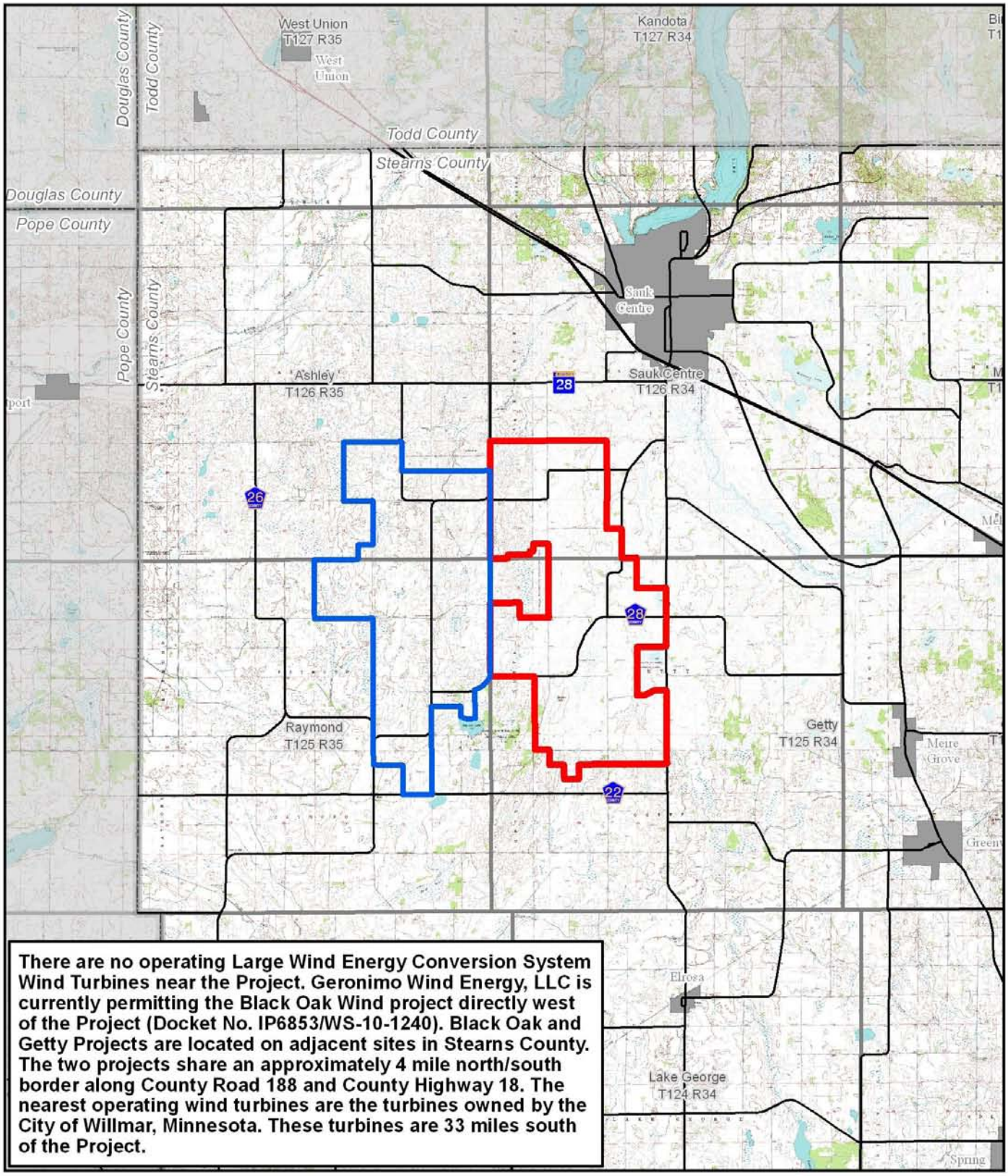
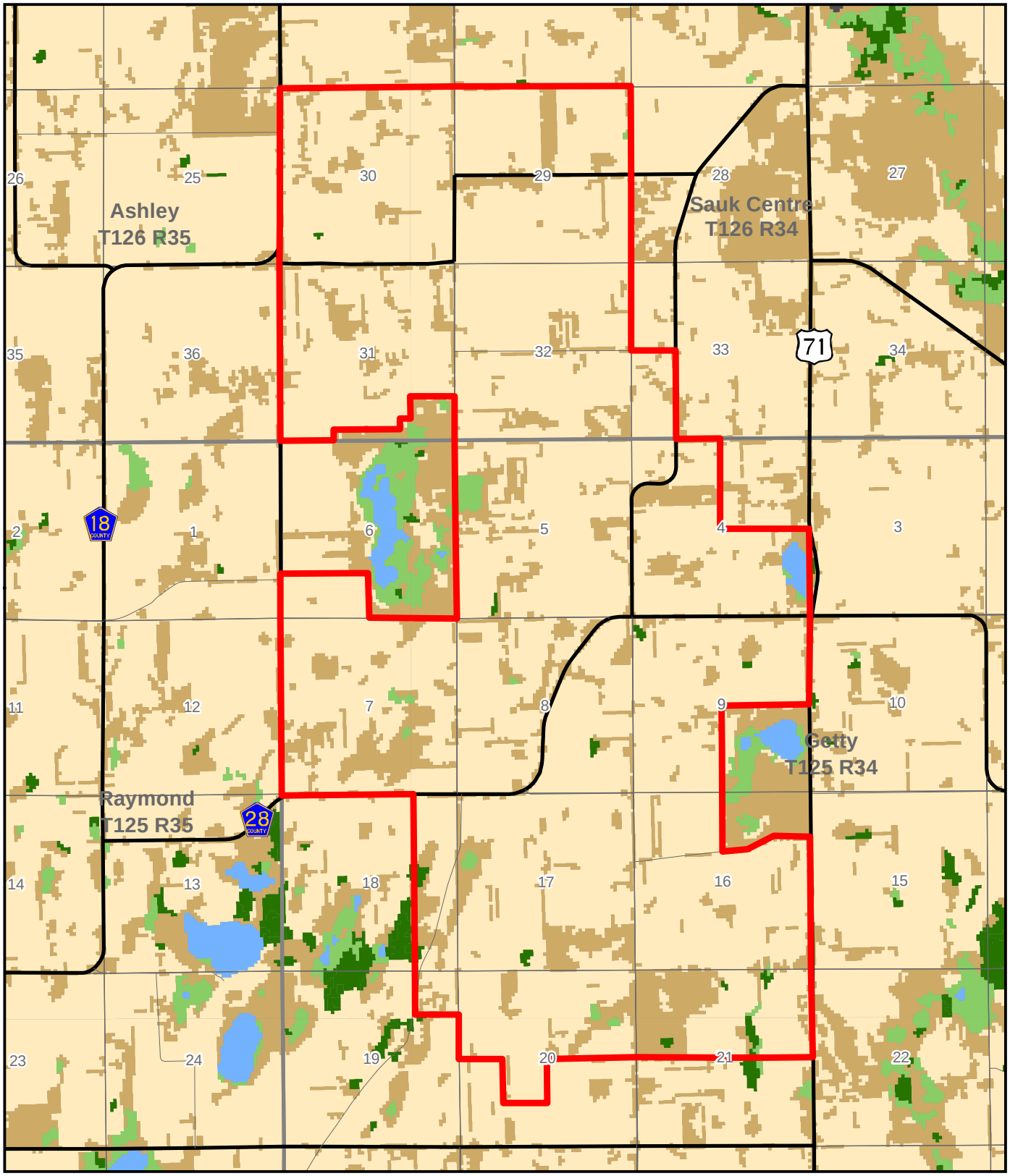


Figure 5
Existing Wind Turbine Locations

Getty Wind Farm
Stearns County, MN



Date: 9/21/2011

Path: \\mspe-gis-file\gisproj\GettyWind\161027\map_docs\LWECS\Fig06_LandCover.mxd

N

HDR

Project Boundary

Land Cover (GAP)

Aquatic

Cropland

Developed

Grassland

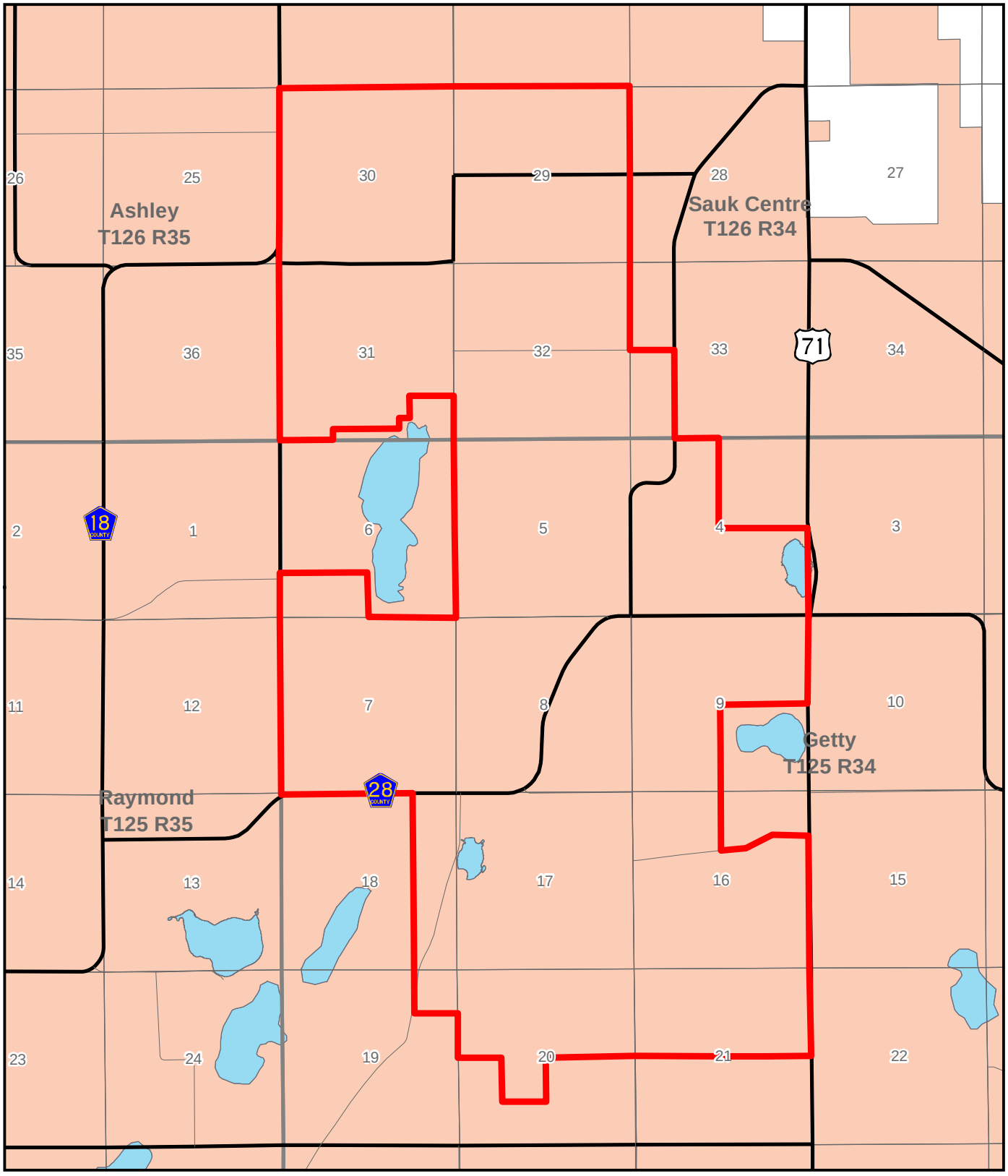
Marsh

Forested

0 0.5 1 Miles

Figure 6
Land Cover

Getty Wind Farm
Stearns County, MN



Project Boundary

Stearns Zoning

Agricultural District A-160

Protected Lake

N

HDR

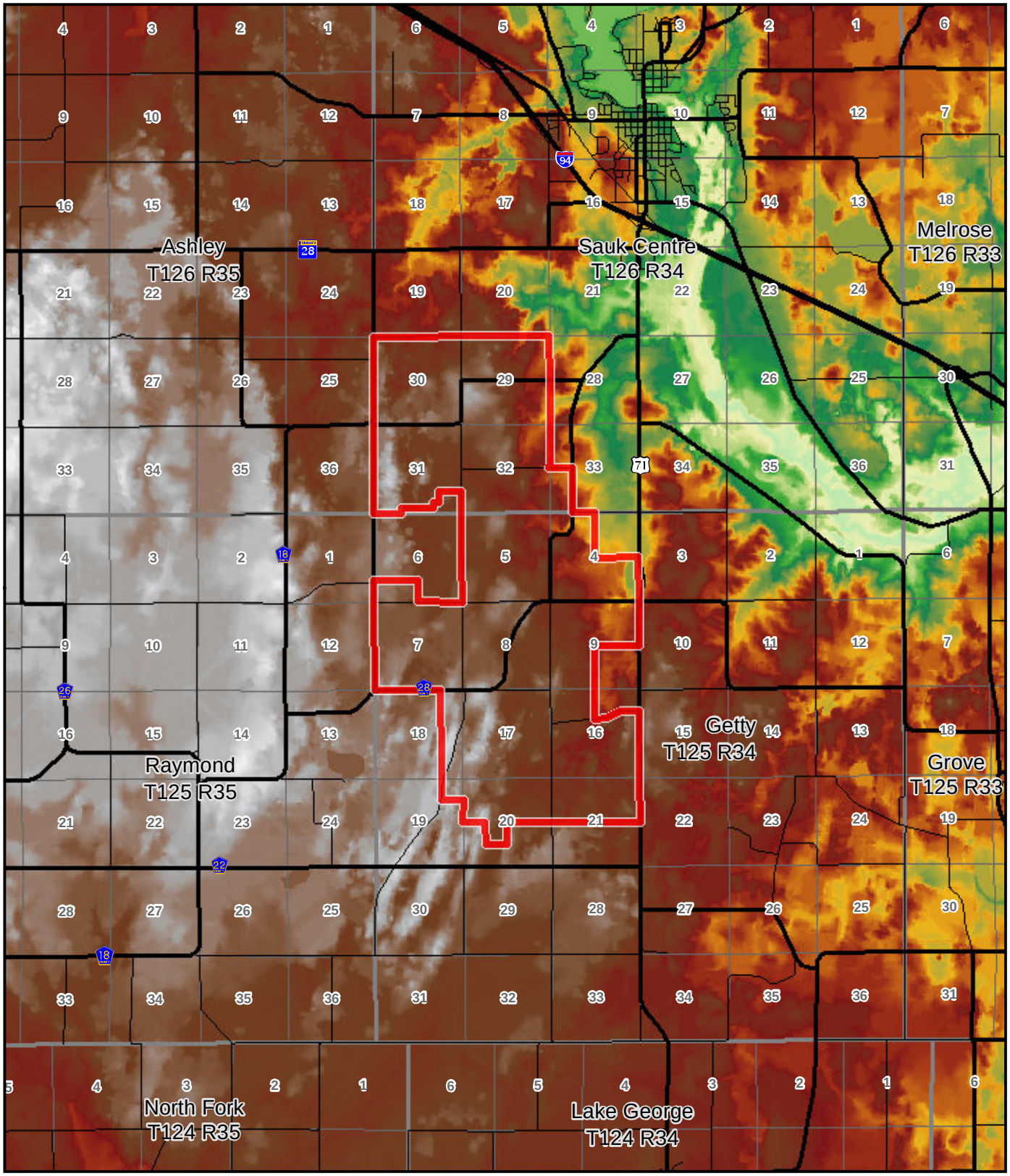
0 0.5 1 Miles

Figure 7
Zoning

Getty Wind Farm
Stearns County, MN

Date: 9/21/2011

Path: \\mspe-dis-file\disroot\GettyWind\161027\map_docs\LWECS\Fig07_Zoning.mxd



Project Boundary

Stearns County DEM (feet)

High : 1432

Low : 1119

Miles

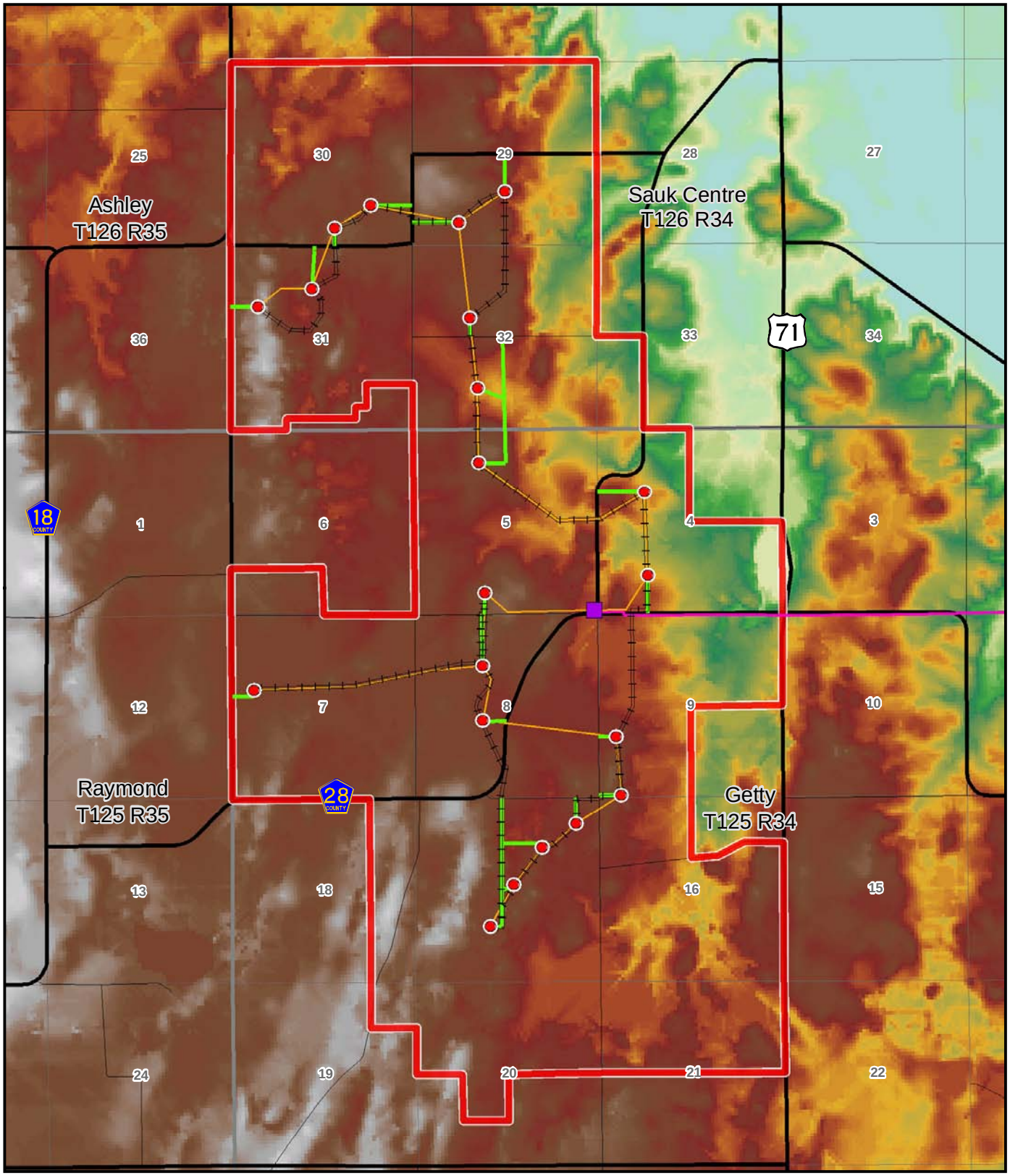
0 0.5 1

Figure 8
Digital Elevation Model (Footprint)

Getty Wind Farm
Stearns County, MN

Date: 9/21/2011

Path: \\mspe-gis-file\data\proj\Getty\Wind\161027\map_docs\LWECS\Flo08_TopographyFootprint.mxd



Project Boundary
Proposed Turbine (REpower MM100)
Access Road (Proposed)
Collection Line (Proposed)
Crane Path (Proposed)

Substation (Proposed)
Proposed 69 kV Transmission Line

Stearns County DEM (feet)
High : 1380
Low : 1203

Miles
0 0.5 1

HDR

Figure 8.1
Digital Elevation Model
REpower MM100
Getty Wind Farm
Stearns County, MN

Date: 10/11/2011
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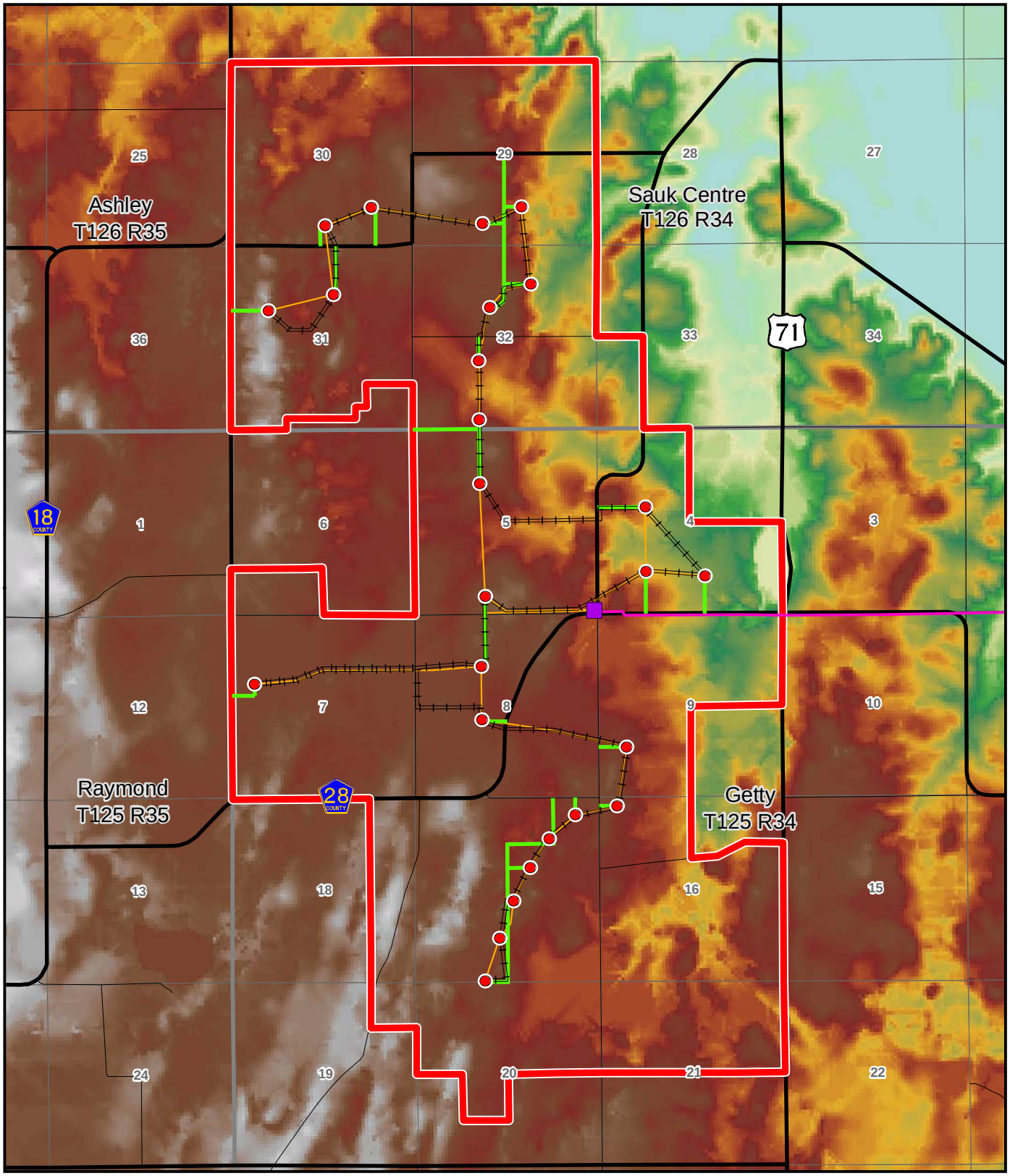


Project Boundary
Proposed Turbine (Goldwind 87/1500)
Access Road (Proposed)
Collection Line (Proposed)
Crane Path (Proposed)

Substation (Proposed)
Proposed 69 kV Transmission Line

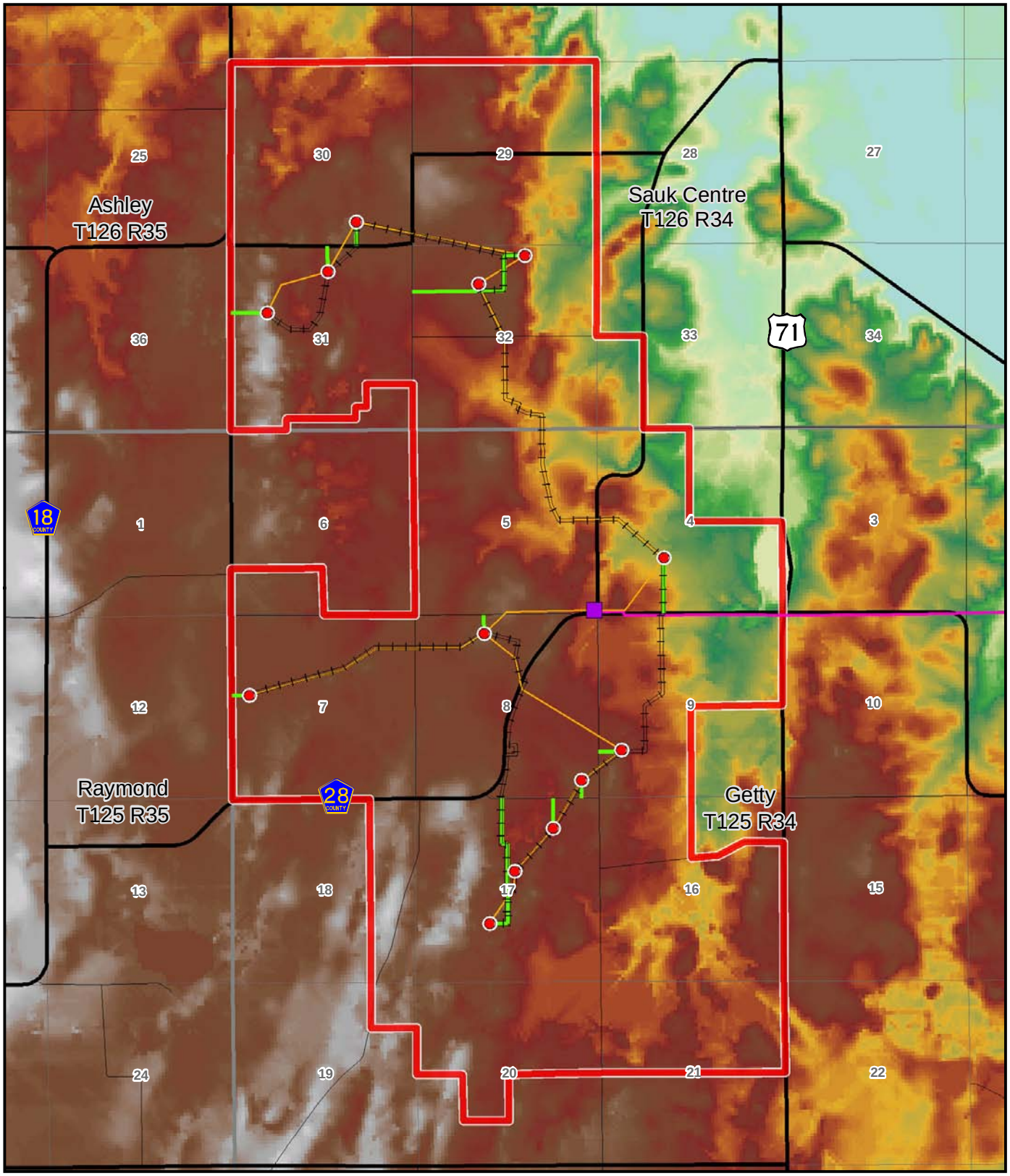
Stearns County DEM (feet)
High : 1380
Low : 1203

Miles
0 0.5 1

Figure 8.2
Digital Elevation Model
Goldwind 87/1500

Getty Wind Farm
Stearns County, MN

Date: 10/11/2011
Path: \\mspe-dis-file\GISProj\GetryWind\161027\mxd_docs\LWECS\Fig08-02_Topography_GW.mxd



N

HDR

0 0.5 1 Miles

Project Boundary
Proposed Turbine (Vestas V112)
Access Road (Proposed)
Collection Line (Proposed)
Crane Path (Proposed)
Substation (Proposed)
Proposed 69 kV Transmission Line

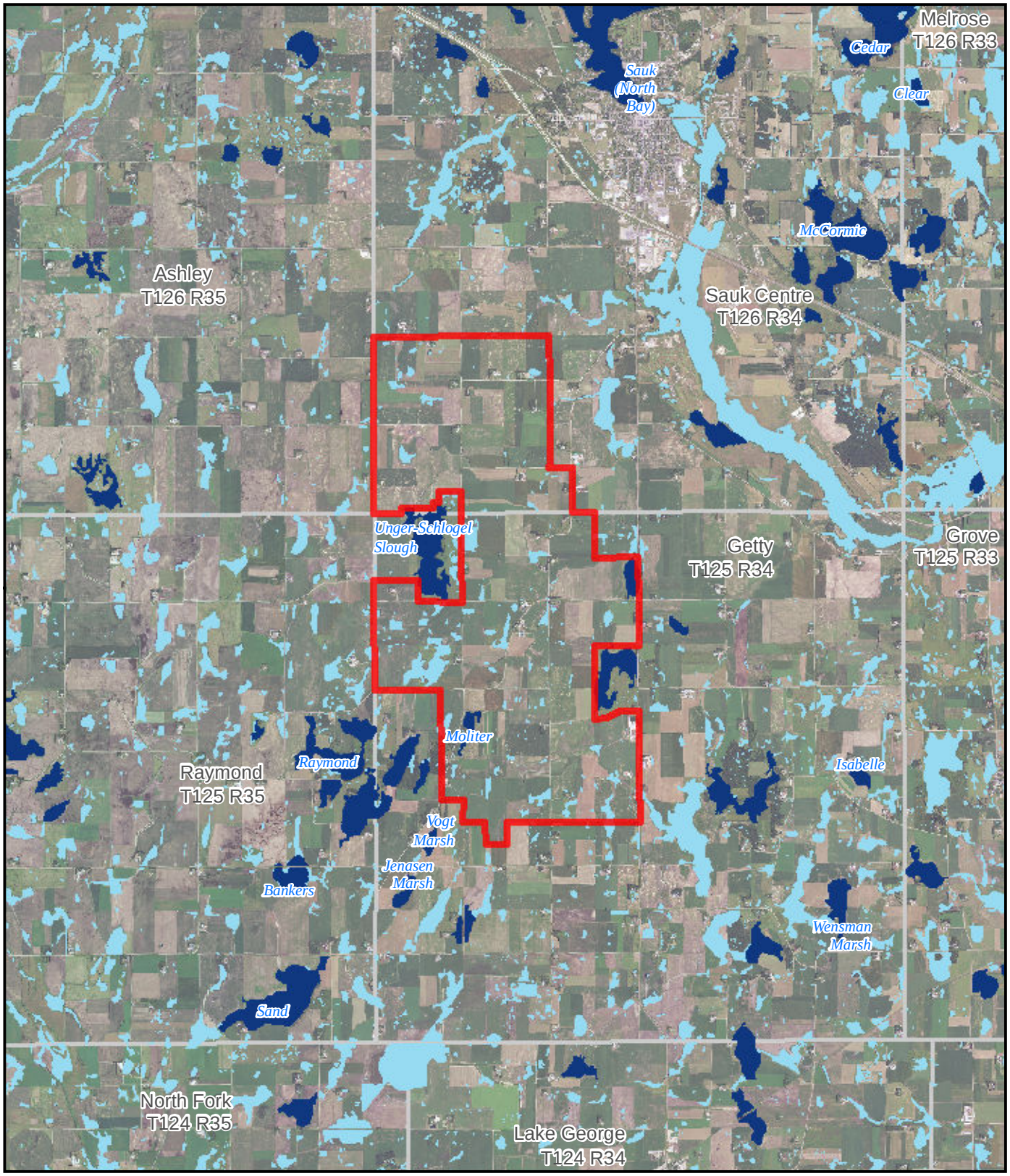
Stearns County DEM (feet)
High : 1380
Low : 1203

Figure 8.3
Digital Elevation Model
Vesta V112

Getty Wind Farm
Stearns County, MN

Date: 10/11/2011

Path: \\mspe-dis-file\GISProj\GettyWind\161027\mxd_docs\LWECS\Fig08-03_Topography_V112.mxd



Project Boundary
PWI Water
NWI Wetland

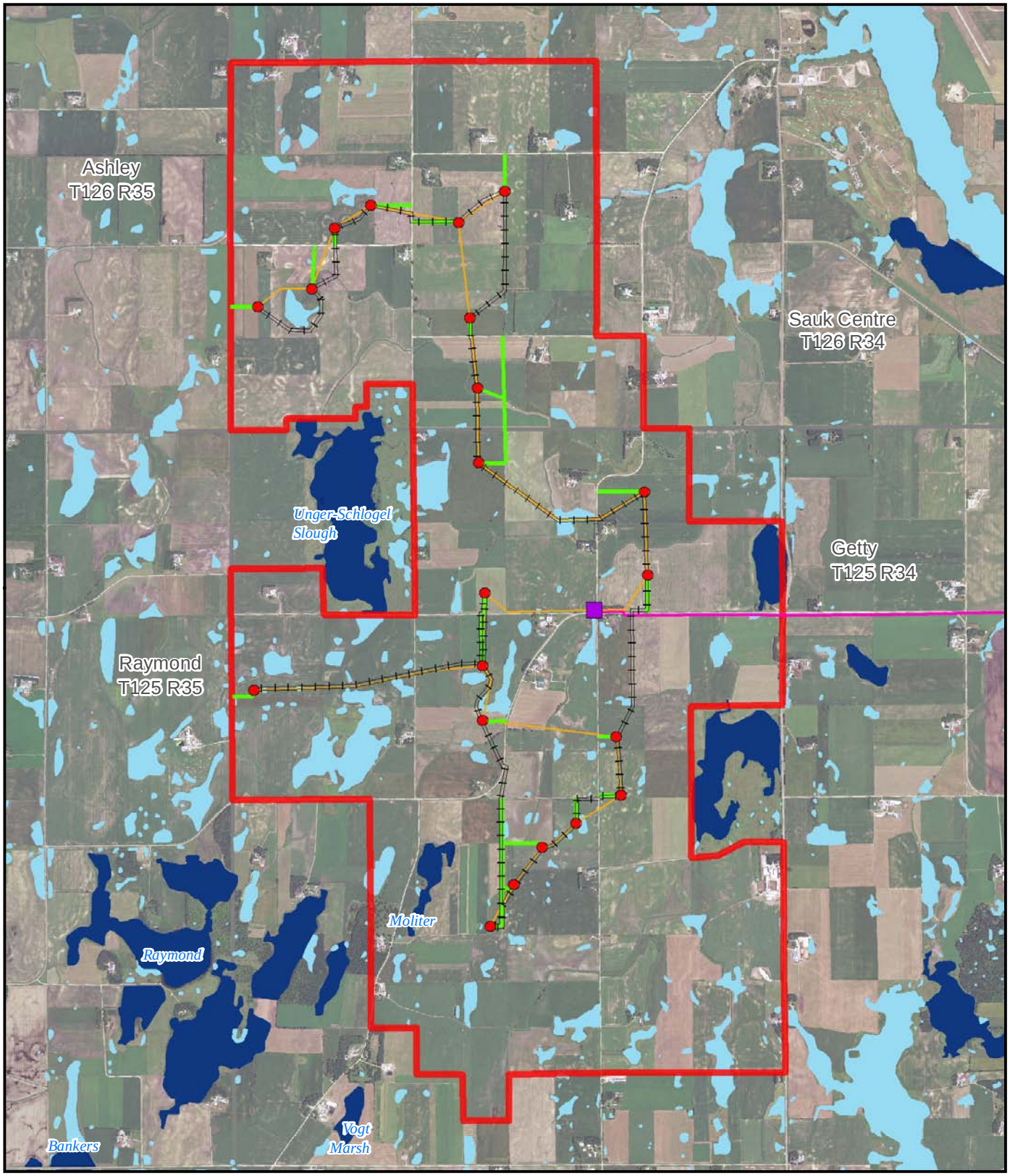
Miles
0 0.5 1

Figure 9
Wetlands Inventory
(Footprint)

Getty Wind Farm
Stearns County, MN

Date: 9/21/2011

Path: \\mspe-gis-file\gisproj\GettyWind\161027\map_docs\LWECS\Fig09_WetlandsInventoryFootprint.mxd



Project Boundary
Proposed Turbine (REpower MM100)
Access Road (Proposed)
Collection Line (Proposed)
Crane Path (Proposed)
Substation (Proposed)
Proposed 69 kV Transmission Line
PWI Water
NWI Wetland

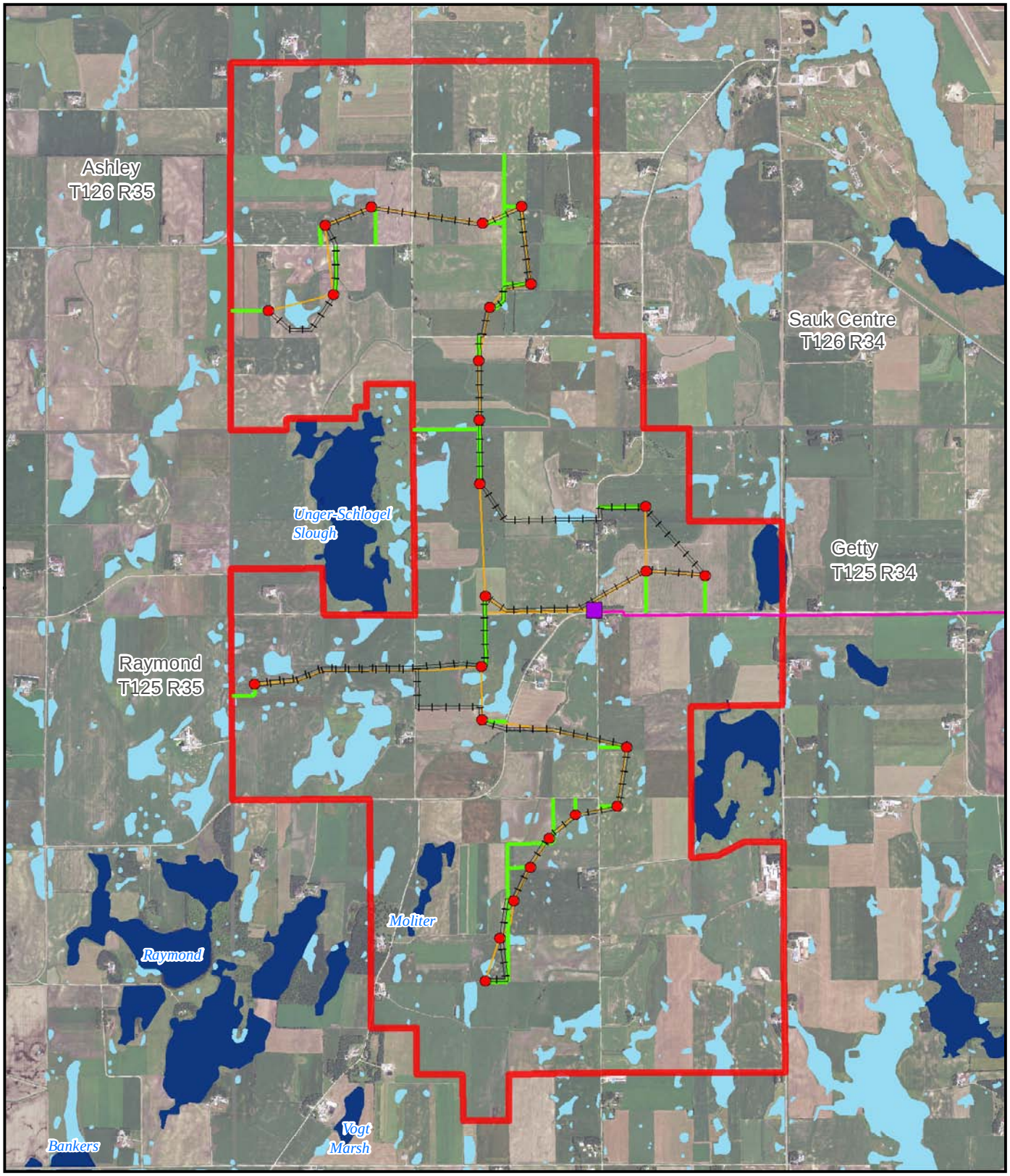
Miles
0 0.5 1

HDR

Figure 9.1
Wetlands Inventory
REpower MM100

Getty Wind Farm
Stearns County, MN

Date: 10/11/2011
Path: \\mspe-gis-file\GISProj\GettyWind\161027\map_docs\LWECS\Fig09-01_WetlandsInventory_MM100.mxd



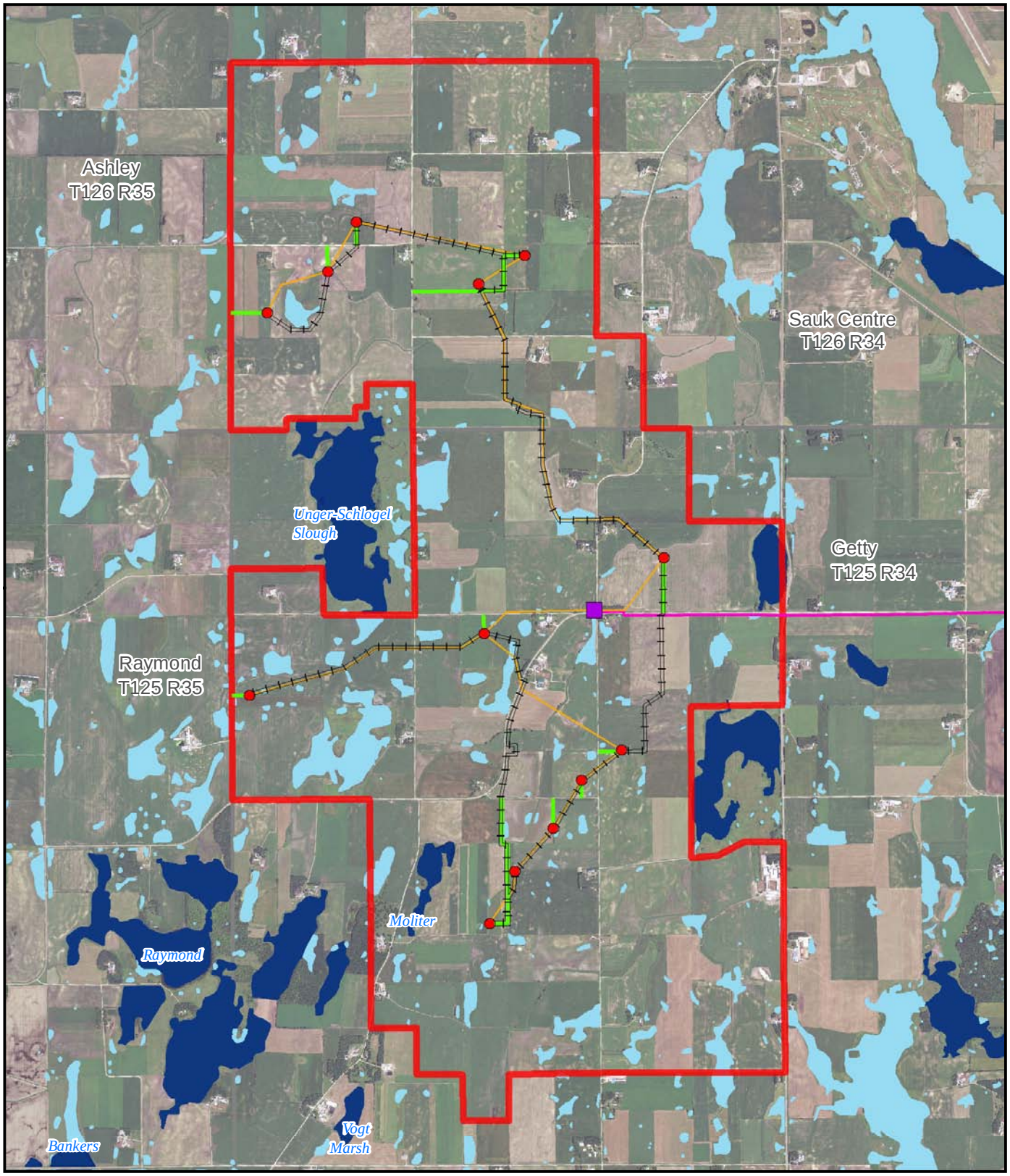
Project Boundary
Proposed Turbine (Goldwind 87/1500)
Access Road (Proposed)
Collection Line (Proposed)
Crane Path (Proposed)
Substation (Proposed)
Proposed 69 kV Transmission Line
PWI Water
NWI Wetland

Miles
0 0.5 1

Figure 9.2
Wetlands Inventory
Goldwind 87/1500

Getty Wind Farm
Stearns County, MN

Date: 10/11/2011
Path: \\mspe-ois-file\GISProj\GettyWind\161027\map_docs\LWECS\Fig09-02_WetlandsInventory_GW.mxd



Project Boundary
Proposed Turbine (Vestas V112)
Access Road (Proposed)
Collection Line (Proposed)
Crane Path (Proposed)
Substation (Proposed)
Proposed 69 kV Transmission Line
PWI Water
NWI Wetland

HDR

0 0.5 1 Miles

Figure 9.3
Wetlands Inventory
Vestas V112

Getty Wind Farm
Stearns County, MN

Date: 10/11/2011

Path: \\mspe-gis-file\GISProj\GettyWind\161027\map_docs\LWECS\Fig09-03_WetlandsInventory_V112.mxd