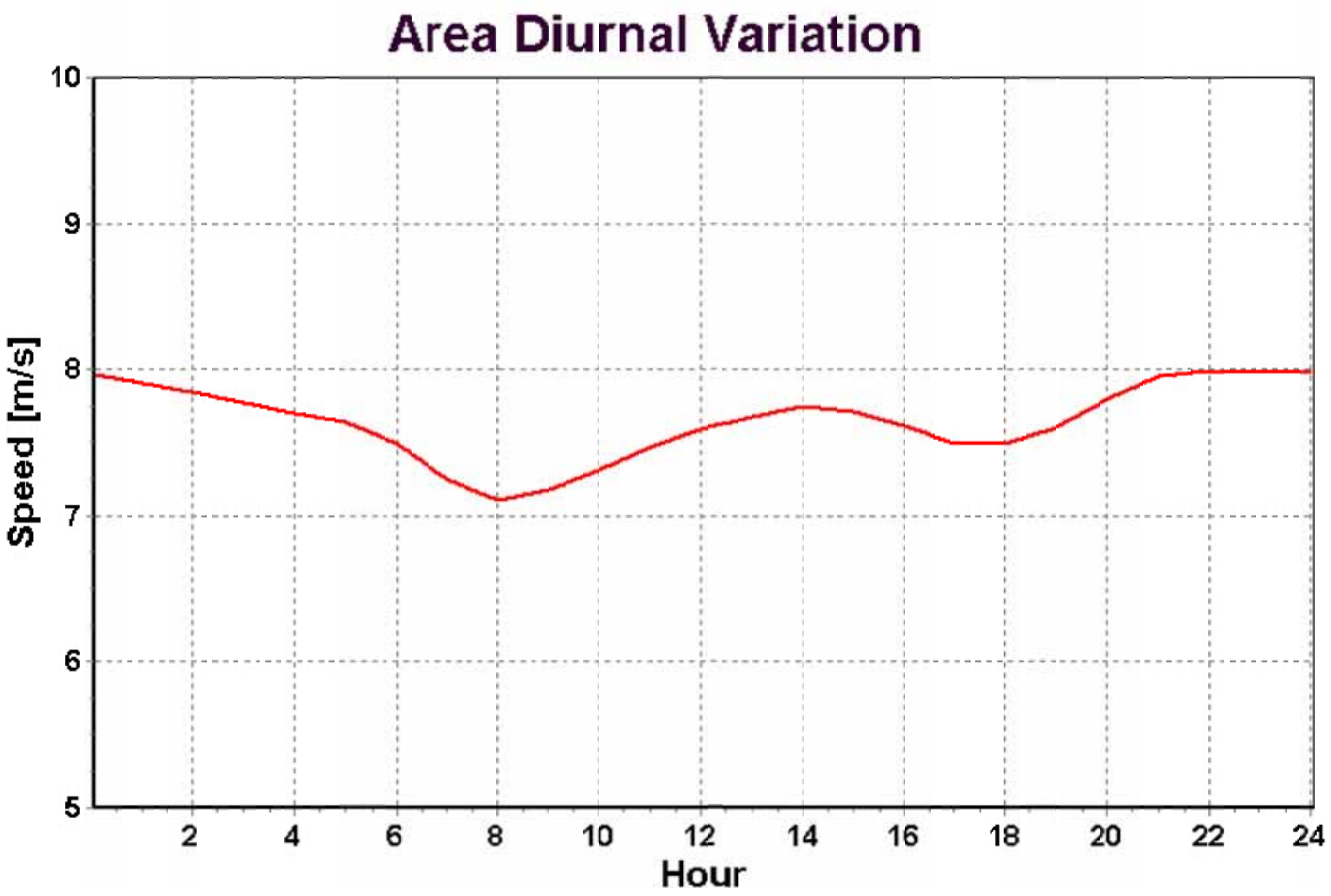

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Figure 3-1
Elm Creek Area Diurnal Wind Speed Variation
Elm Creek Wind Project
Jackson & Martin Counties, MN

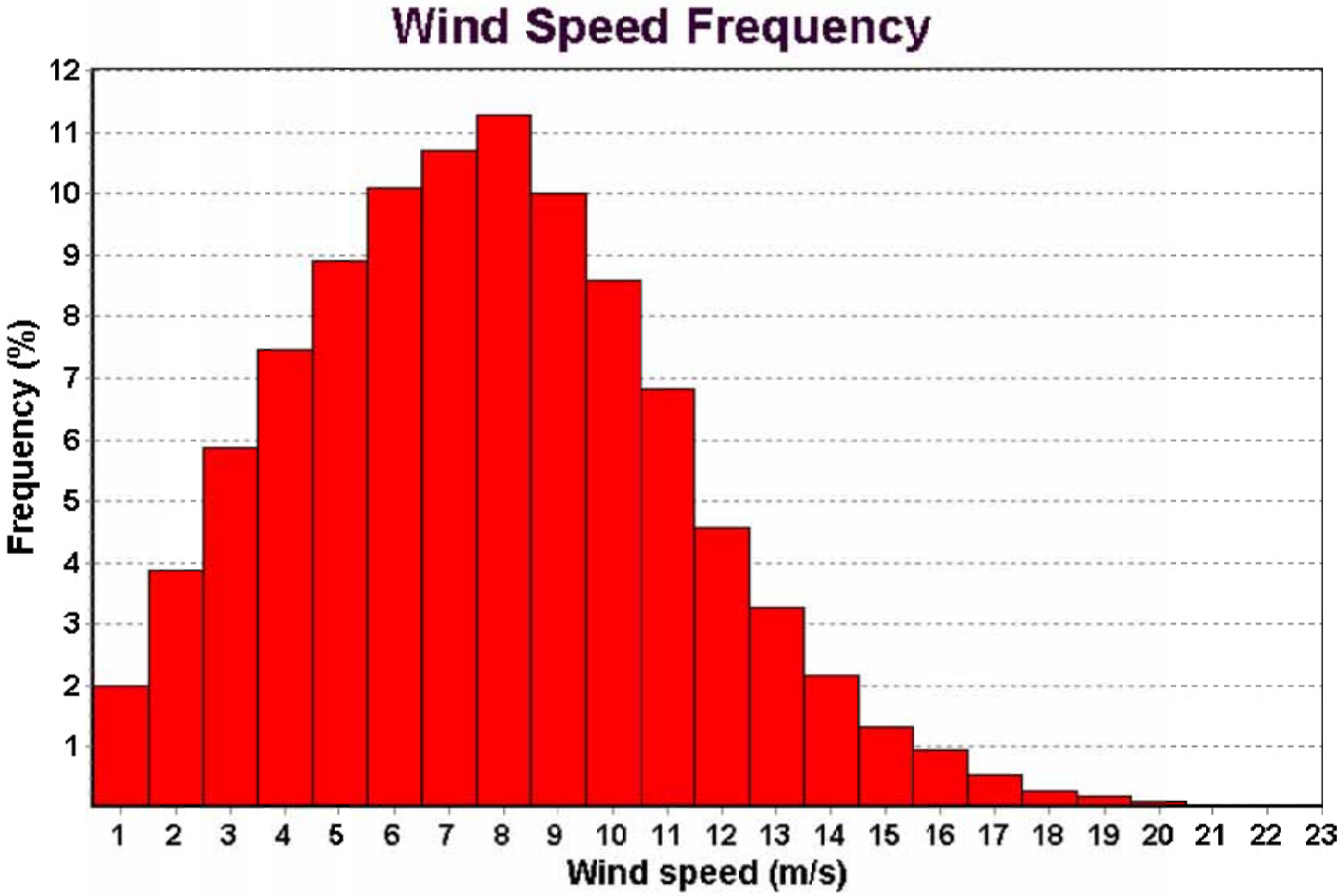

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Figure 3-2
Elm Creek Area Wind Speed Frequency
Elm Creek Wind Project
Jackson & Martin Counties, MN

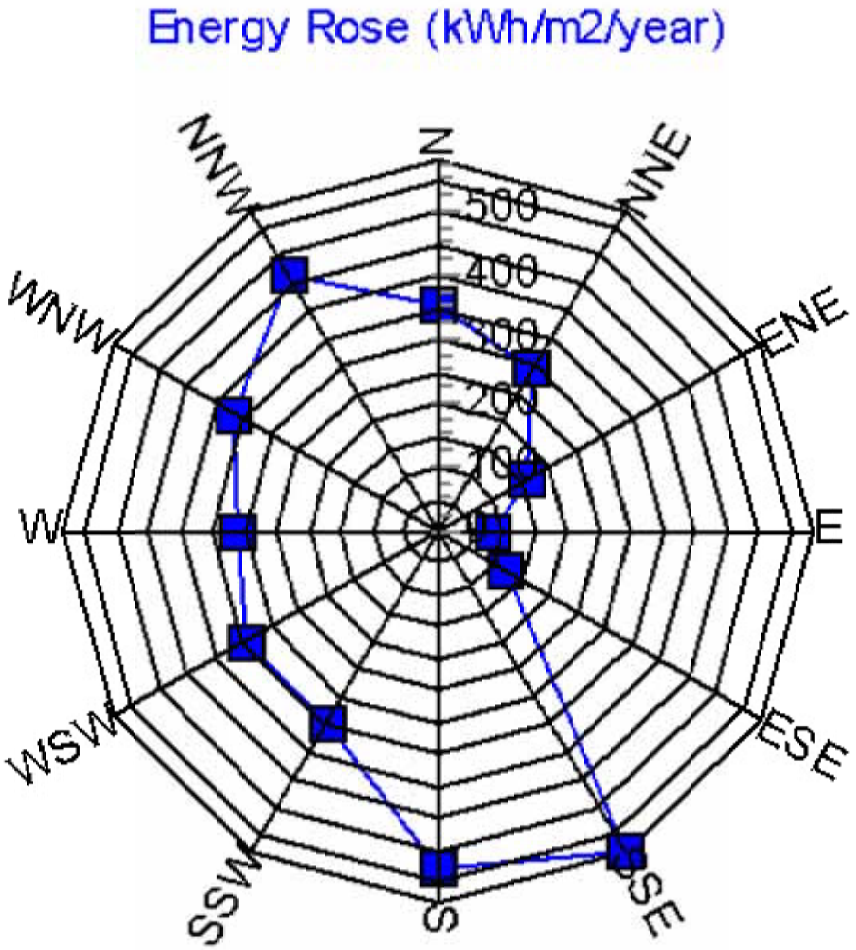

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Figure 3-3
Elm Creek Area Energy Rose
Elm Creek Wind Project
Jackson & Martin Counties, MN

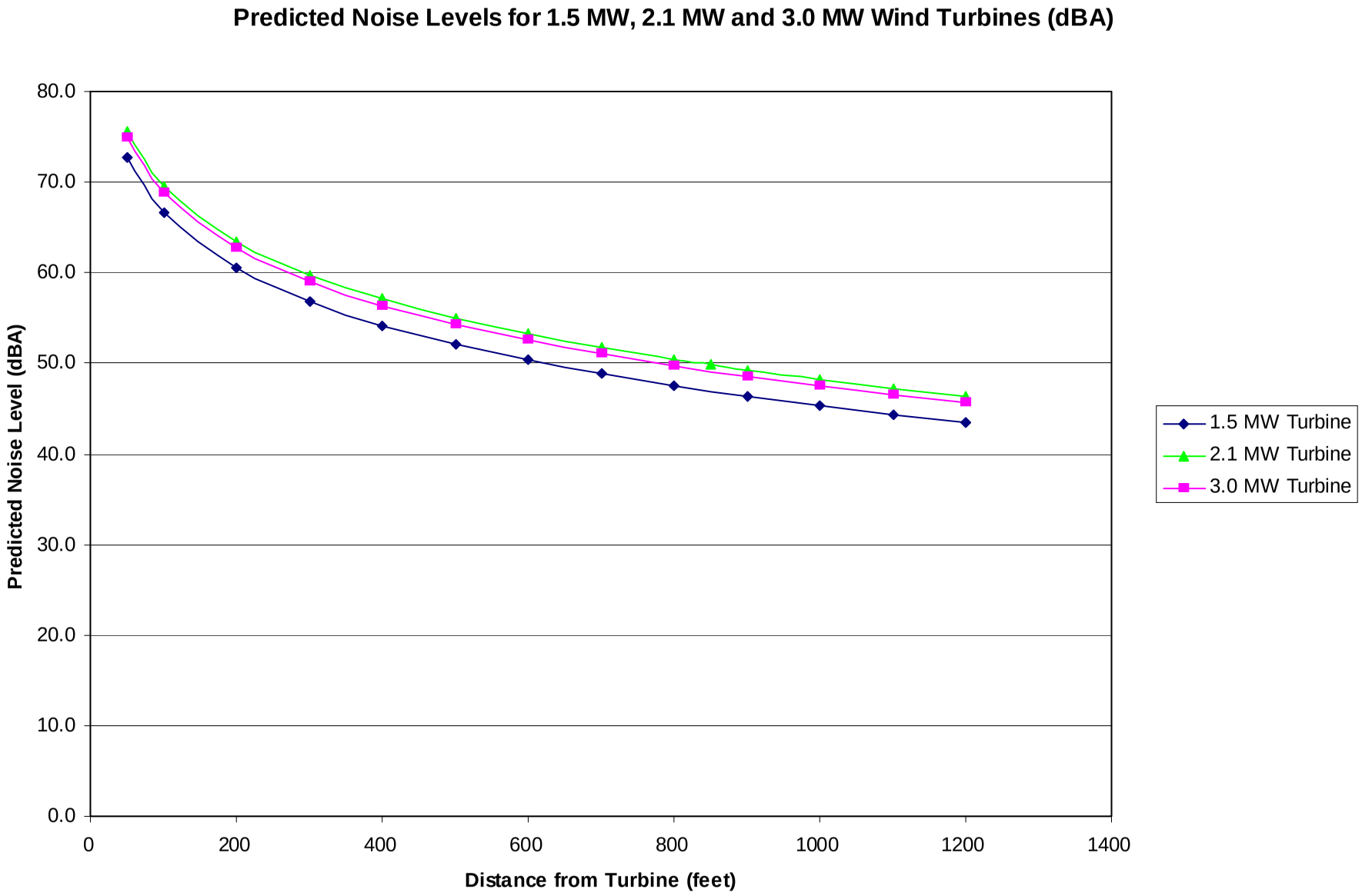

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Figure 5-1
Predicted Noise Levels for 1.5 MW, 2.1 MW and 3.0 MW Wind Turbines
Elm Creek Wind Project
Jackson & Martin Counties, MN

Figure 5-2
Typical Landscape within Project Area
Elm Creek Wind Project
PPM Energy
Jackson & Martin Counties, MN

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Map Document: (N:\GISProj\PPM\54325\map_docs\mxd\LWECSPermitApplication\5_2ElmCreek_TypicalLandscape.mxd)
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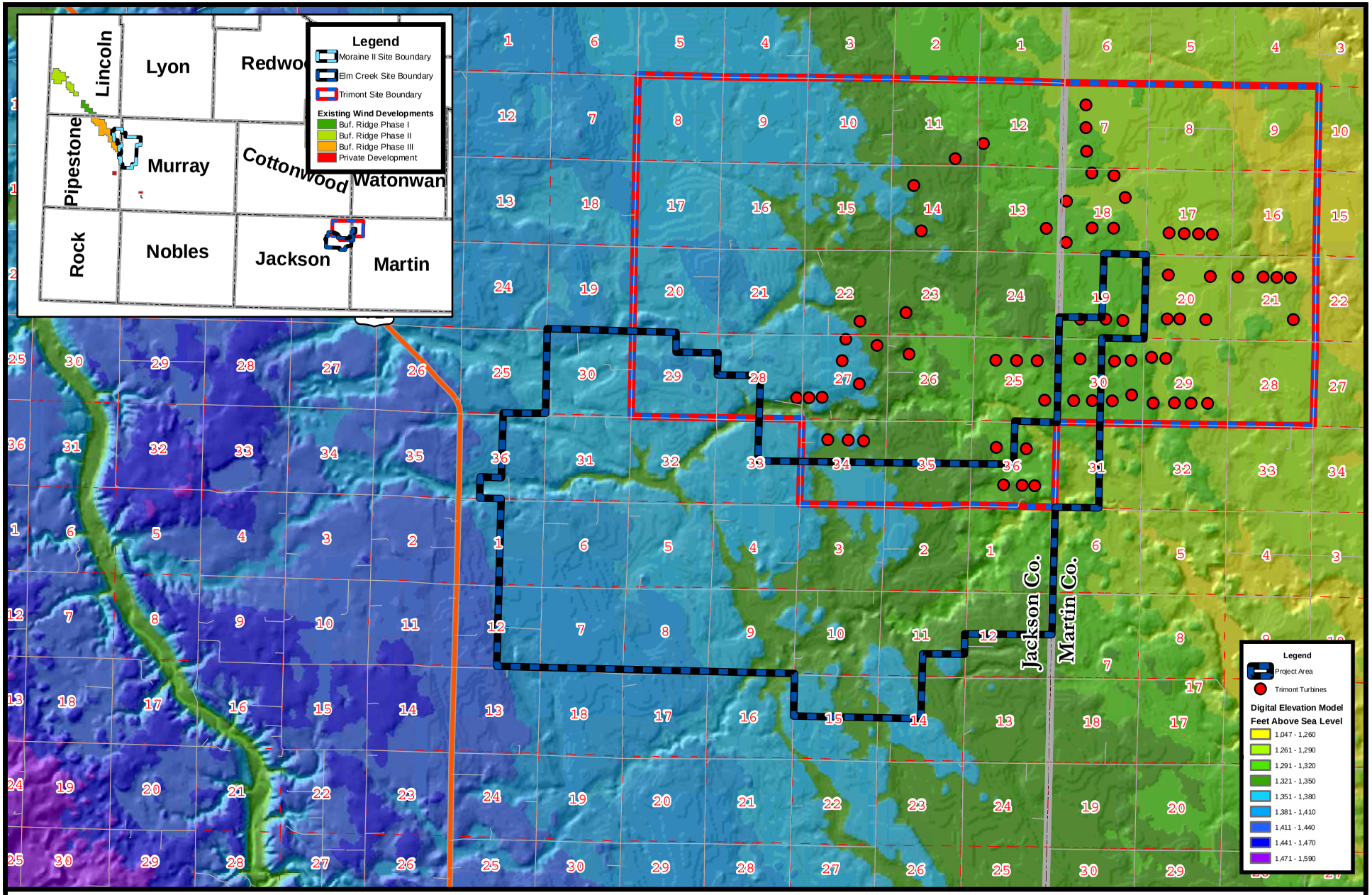

Miles
0 0.5 1 2

Figure 5-3
Existing Wind Turbine Locations
Elm Creek Wind Project
PPM Energy
Jackson & Martin Counties, MN

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Map Document: (N:\GISProj\PPM\54325\map_docs\mxd\LWECSPermitApplication\ElmCreek_Turbines.mxd)
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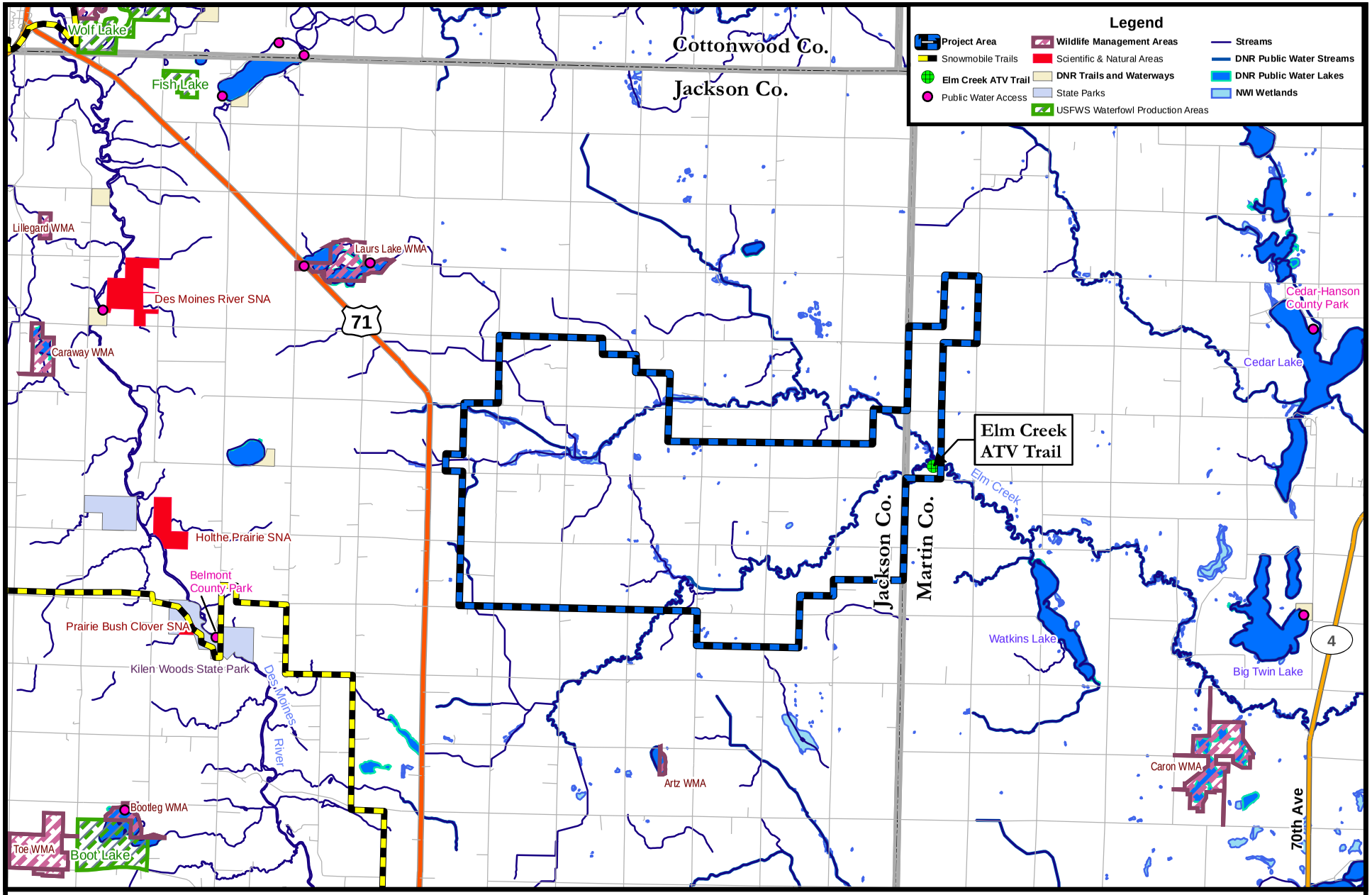

Figure 5-4
Recreation and Wildlife Areas Map
Elm Creek Wind Project
PPM Energy
Jackson & Martin Counties, MN

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Map Document: (N:\GISProj\PPM\54325\map_docs\mxd\LWECSPermitApplication\ElmCreek_RecreationAndWildlifeAreas.mxd)
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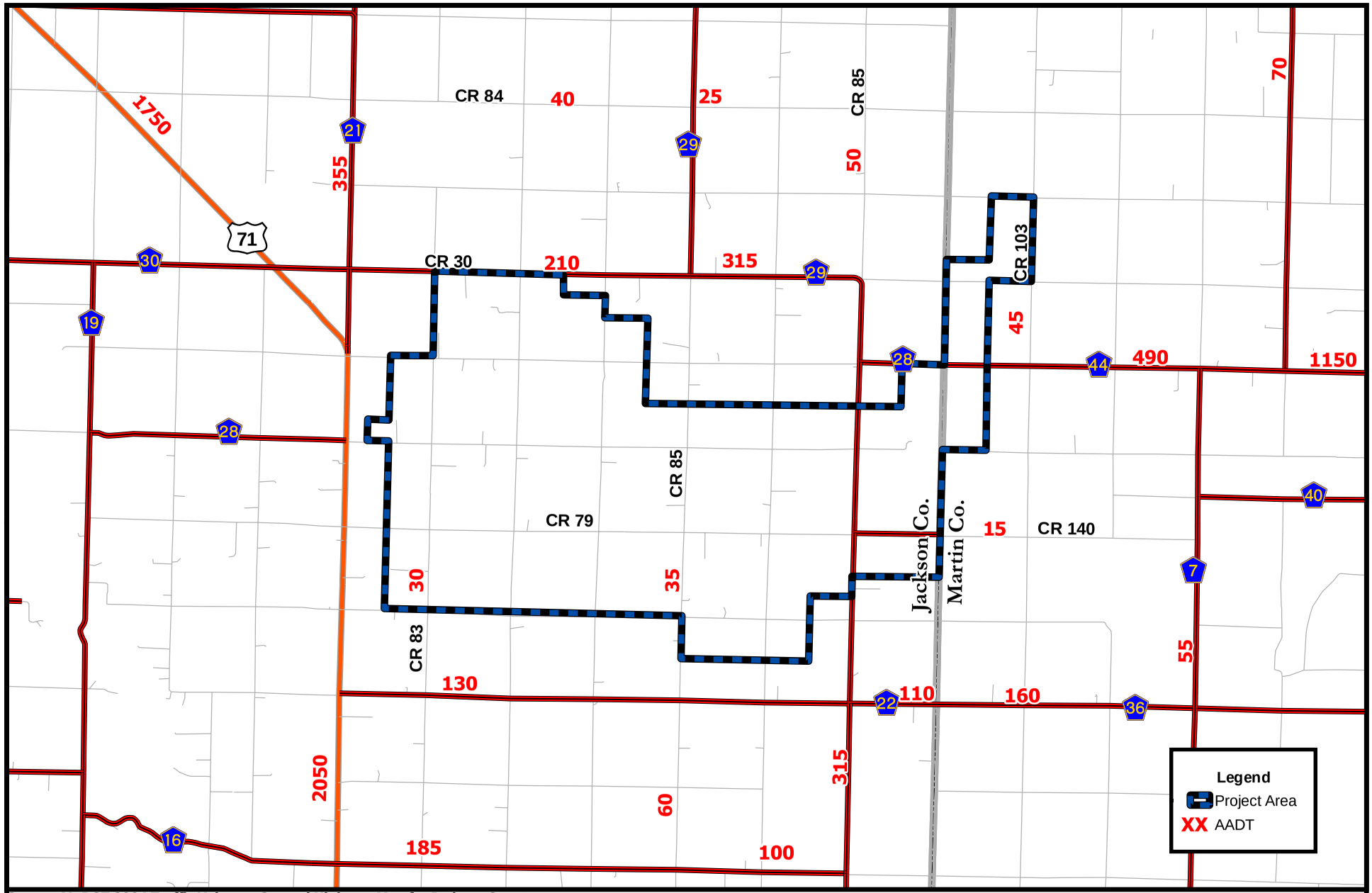

Source: MnDOT 2004 Traffic Volumes General Highway Map for Jackson County and 2005 Traffic Volumes General Highway Map for Martin County

Figure 5-5
Annual Average Daily Traffic (AADT) Map
Elm Creek Wind Project
PPM Energy
Jackson & Martin Counties, MN

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Map Document: (N:\GISProj\PPM\54325\map_docs\mxd\LWECSPermitApplication\ElmCreek_Traffic.mxd)
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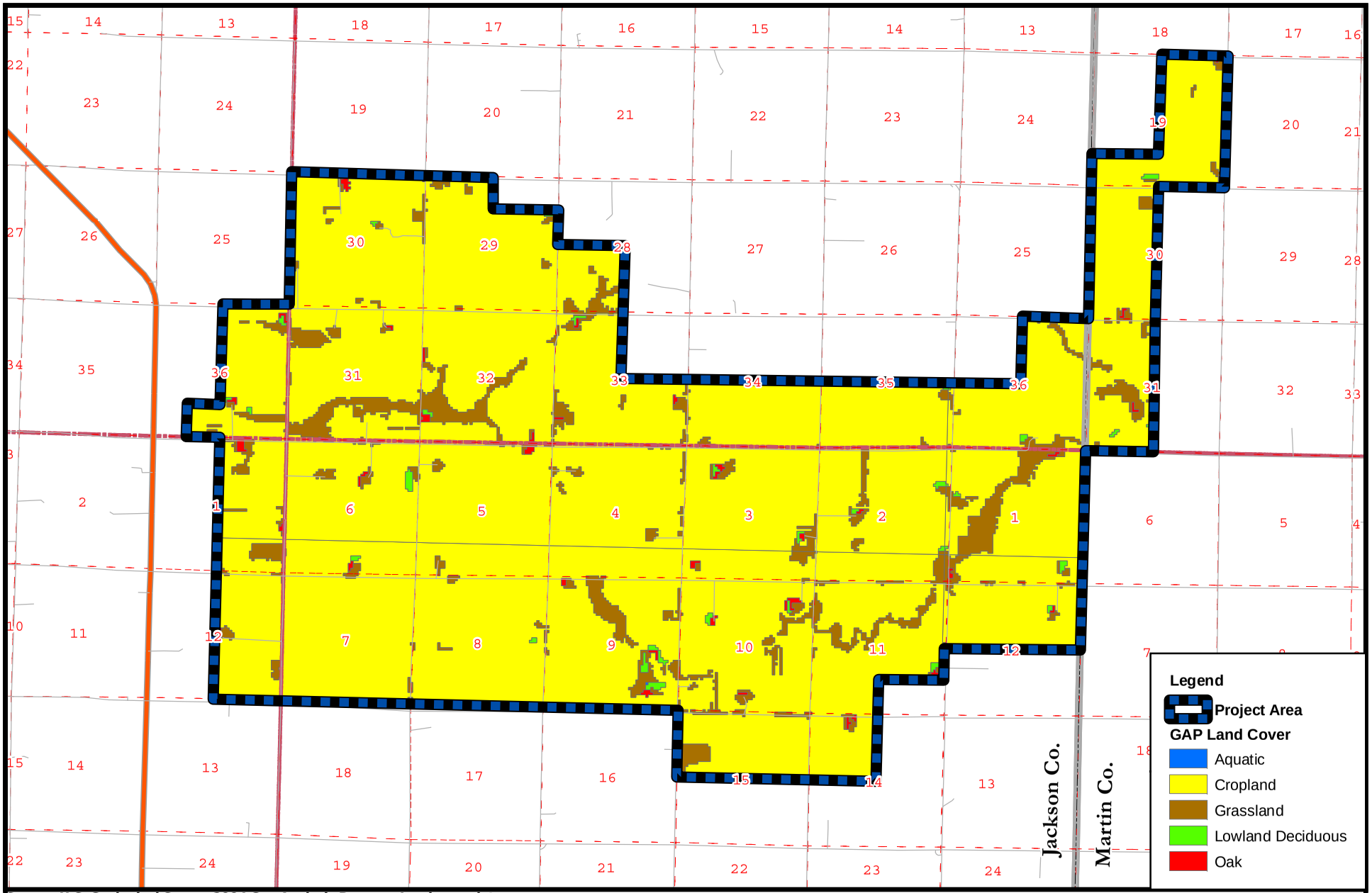

Source: U.S. Geological Survey 2004 Gap Analysis Program Landcover data.

Figure 5-6
Land Cover Map
Elm Creek Wind Project
PPM Energy
Jackson & Martin Counties, MN

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Map Document: (N:\GISProj\PPM\54325\map_docs\mxd\LWECSPermitApplication\ElmCreek_LandUseMap.mxd)
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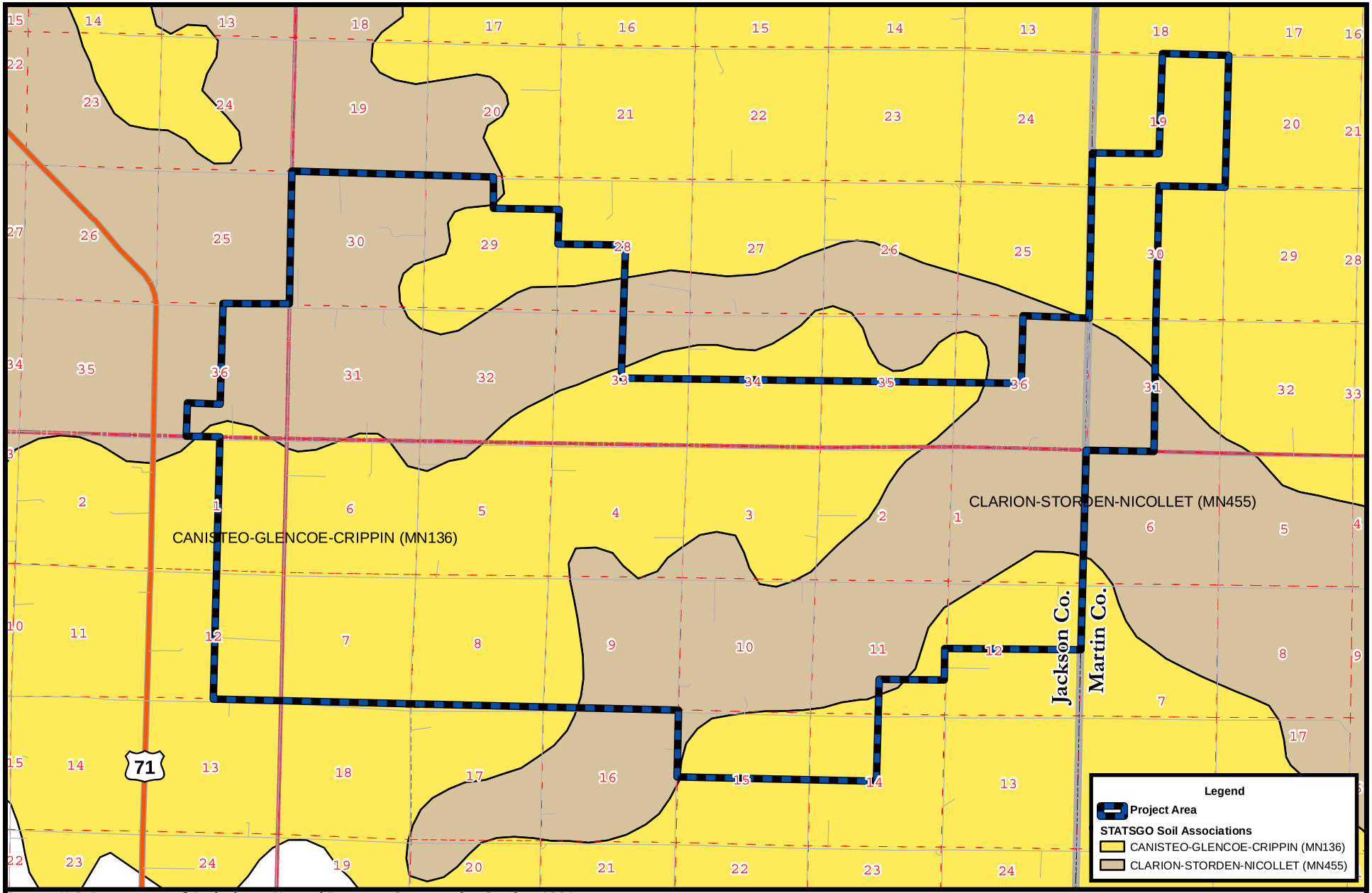

Source: U.S. Department of Agriculture, Natural Resource Conservation Service. 1994. State Soil Geographic (STATSGO) Database for Minnesota.

Figure 5-7
Soils Map
Elm Creek Wind Project
PPM Energy
Jackson & Martin Counties, MN

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Map Document: (N:\GISProj\PPM\54325\map_docs\mxd\LWECSPermitApplication\ElmCreek_Soils.mxd)
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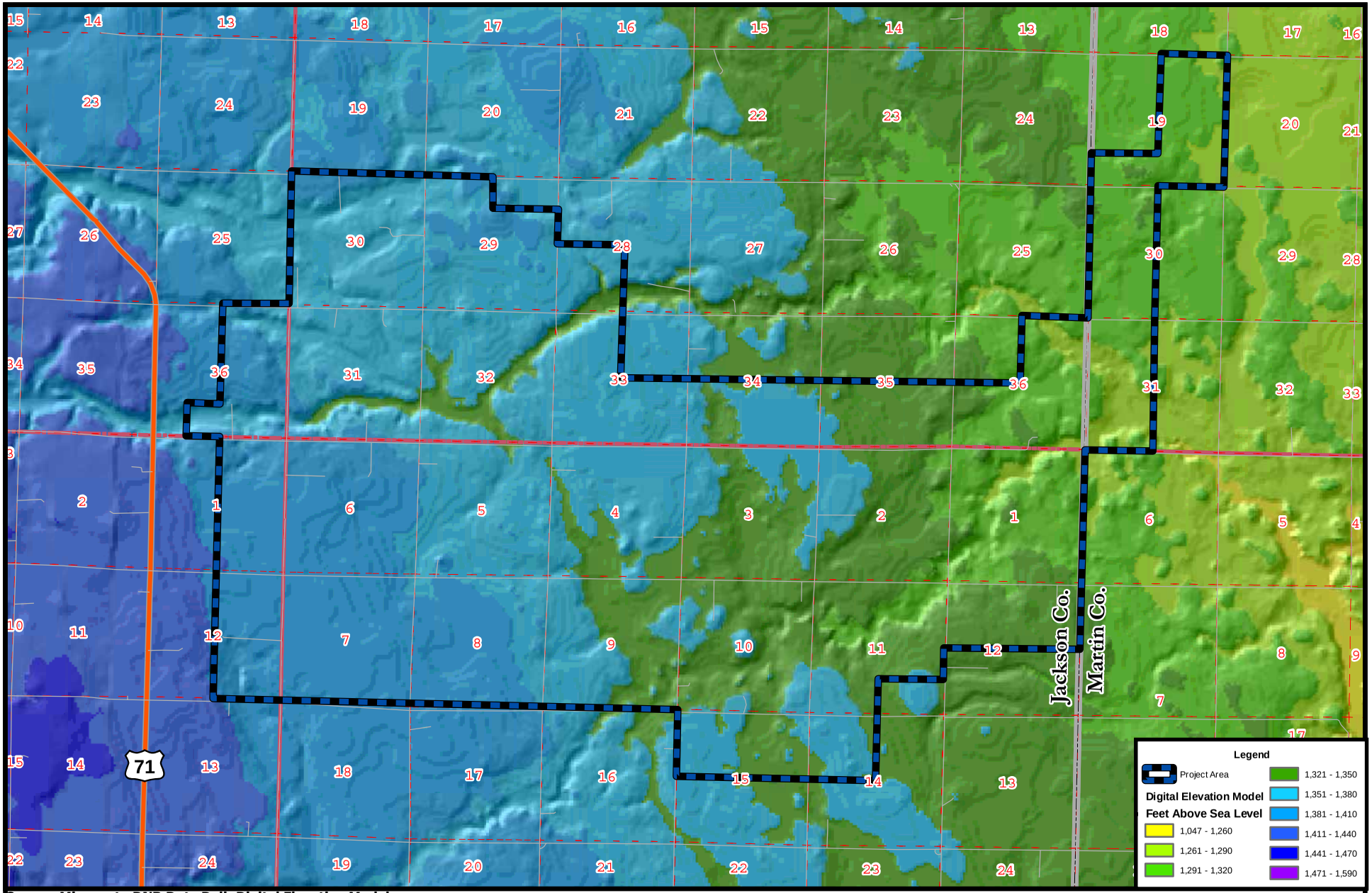

Source: Minnesota DNR Data Deli: Digital Elevation Model.

Figure 5-8
Digital Elevation Model
Elm Creek Wind Project
PPM Energy
Jackson & Martin Counties, MN

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Map Document: (N:\GISProj\PPM\54325\map_docs\mxd\LWECSPermitApplication\ElmCreek_Elevation.mxd)
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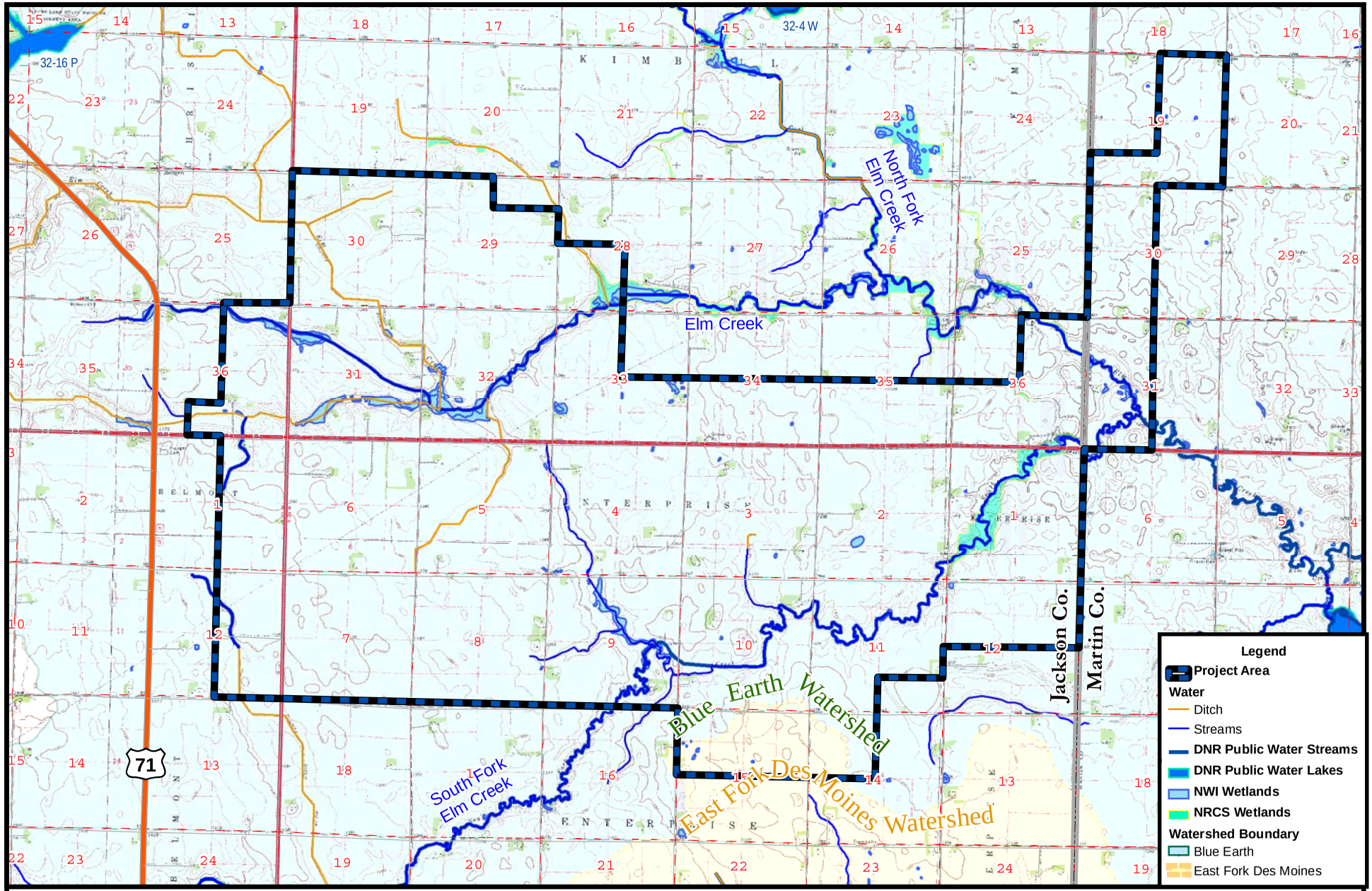

0 0.5 1 2 Miles

Figure 5-9
Surface Waters Map
Elm Creek Wind Project
PPM Energy
Jackson & Martin Counties, MN

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Map Document: (N:\GISProj\PPM\54325\map_docs\mxd\LWECSPermitApplication\ElmCreek_SurfaceWaters.mxd)
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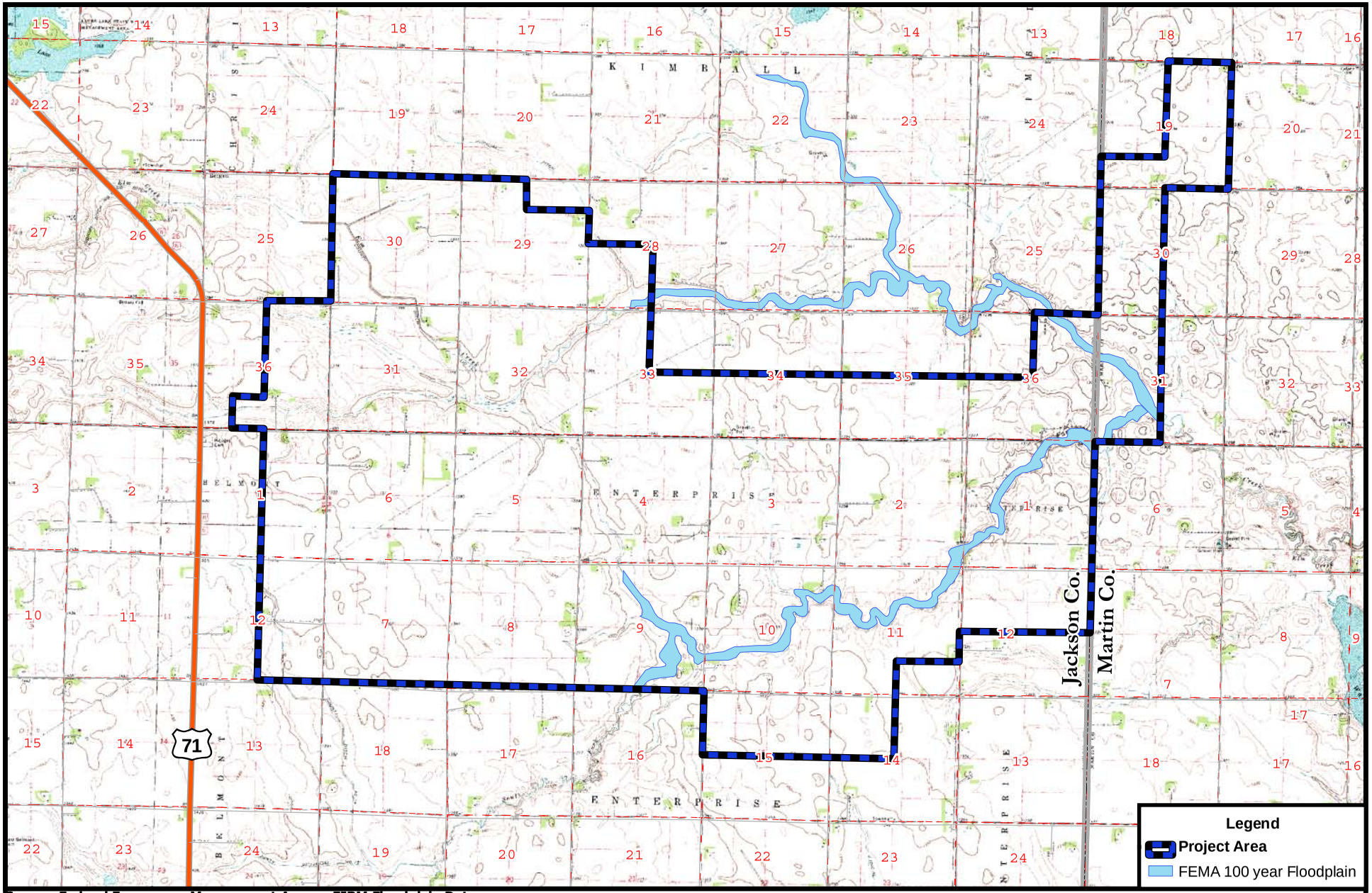

Source: Federal Emergency Management Agency FIRM Floodplain Data.

Figure 5-10
FEMA Floodplain Map
Elm Creek Wind Project
PPM Energy
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Map Document: (N:\GISProj\PPM\54325\map_docs\mxd\LWECSPermitApplication\ElmCreek_FEMA.mxd)
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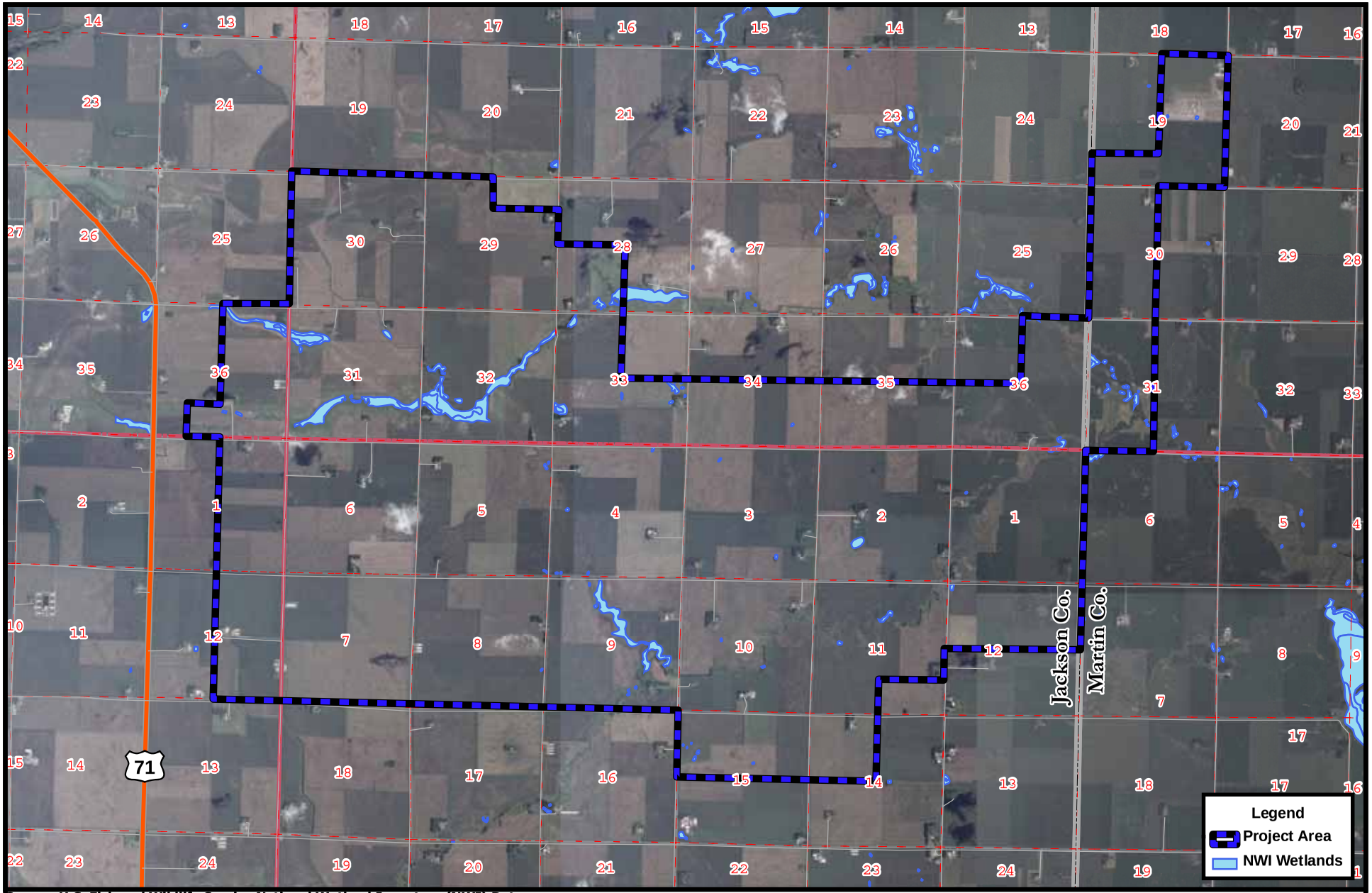

Source: U.S. Fish and Wildlife Service National Wetland Inventory (NWI) Data.

Miles
0 0.5 1 2

Figure 5-11
National Wetland Inventory Map
Elm Creek Wind Project
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Jackson & Martin Counties, MN

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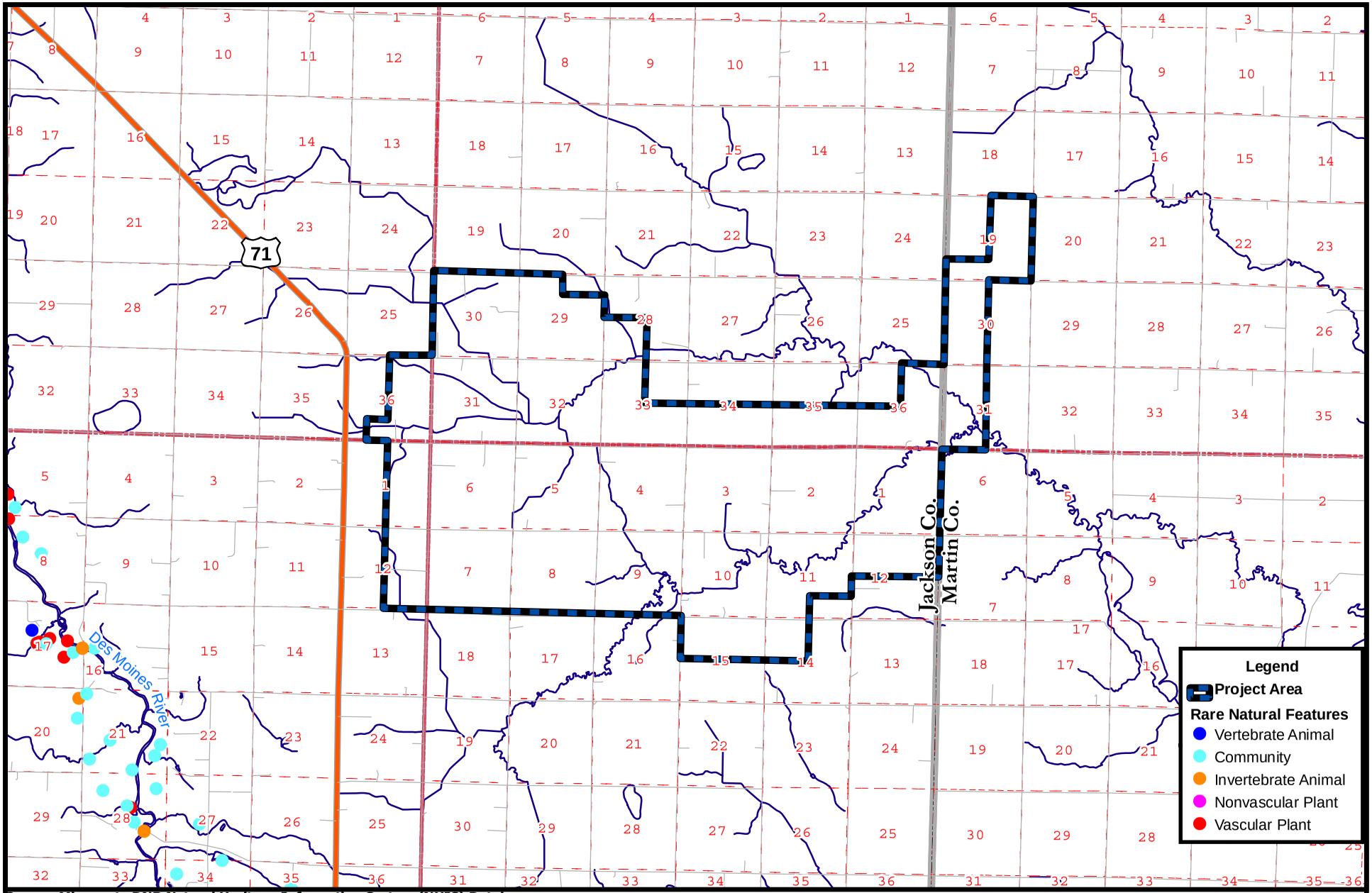

Source: Minnesota DNR Natural Heritage Information System (NHIS) Database.

Figure 5-12
Rare Natural Features Map
Elm Creek Wind Project
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Map Document: (N:\GISProj\PPM\54325\map_docs\mxd\LWECSPermitApplication\ElmCreek_T&E.mxd)
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