

## 6.16 Paynesville

The proposed Paynesville facility has a capacity of 10.0 MW AC and is located north of Paynesville in Sections 8 and 9 of Paynesville Township in Stearns County. The site is located on either side of 293<sup>rd</sup> Avenue, north of Minnesota State Highway 23. Aurora anticipates that the western portion of the facility will be accessed through a newly constructed access road off of 293<sup>rd</sup> Avenue, while the eastern portion of the facility would be accessed through a newly constructed access road off of 185<sup>th</sup> Street.

Preliminary plans anticipate a development area of approximately 108.4 acres within the 261.9 acres of Aurora’s site control. Electricity from the facility would be delivered to Xcel Energy’s Paynesville Substation located approximately 480 feet east of the facility.

The facility is located within the North-Central Glaciated Plains Section of the Prairie Parkland Province. Land cover within the preliminary development area (Table 32) is dominated by agricultural vegetation (46.8 percent in cultivated crops and 43.4 percent in pasture and haylands). The proposed facility location avoids the developed area of Paynesville, generally located south of State Highway 23 and the WMAs located to the east and northeast; otherwise the proposed location is similar to the northern portion of the study area around the Paynesville Substation in the dominance of agricultural lands with large wetland complexes (Figure 68).

**Table 32: Paynesville Facility**

Land Cover	Control Area		Development Area		Study Area	
	Acres	Percent	Acres	Percent	Acres	Percent
Open Water	--	--	--	--	231.4	1.8%
Developed, Open Space	8.8	4.0%	4.2	3.9%	560.8	4.5%
Developed, Low Intensity	4.9	2.2%	2.1	2.0%	415.2	3.3%
Developed, Medium Intensity	--	--	--	--	380.2	3.0%
Developed, High Intensity	--	--	--	--	121.4	1.0%
Barren Land	--	--	--	--	9.3	0.1%
Deciduous Forest	27.4	12.2%	1.3	1.2%	983.4	7.8%
Evergreen Forest	--	--	--	--	8.4	0.1%
Mixed Forest	--	--	--	--	4.8	--
Shrub/Scrub	--	--	--	--	11.2	0.1%
Grassland Herbaceous	2.9	1.3%	0.4	0.3%	404.1	3.2%
Pasture/Hay	79.3	35.5%	47.0	43.4%	2,157.5	17.2%
Cultivated Crops	86.1	38.5%	50.8	46.8%	6,804.2	54.2%
Woody Wetlands	6.7	3.0%	2.2	2.0%	97.7	0.8%
Emergent Herbaceous Wetlands	7.4	3.3%	0.5	0.5%	368.4	2.9%
<b>Totals</b>	<b>223.6</b>	<b>100.0%</b>	<b>108.0</b>	<b>100.0%</b>	<b>12,557.8</b>	<b>100.0%</b>

### 6.16.1 Effects on Human Settlement

The location is a cultivated parcel in a rural area with scattered rural residences located just north of the Paynesville municipal boundary. The nearest home is located approximately 1,405 feet northwest of the preliminary development area. The site is zoned as Transitional District T-20 by Stearns County. The T-20 District was created to provide limited residential development opportunity on marginal farmland. Stearns County considers the T-20 District to be a “closed district” and no additional land will be added to the district. Stearns County has a Solar Energy Ordinance that permits solar farms as a conditional use in certain zoning districts, but solar farms are not allowed in the Transitional T-20 District.<sup>151</sup> The area of site control is designated as Agricultural in the *Stearns County 2030 Comprehensive Plan*.<sup>152</sup>

Construction of the facility would result in the removal of one abandoned home (Figure 66).

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<sup>151</sup> Stearns County, *Land Use and Zoning Ordinance#439*. 2014.

<http://www.co.stearns.mn.us/Portals/0/docs/Document%20Library/ordinances/ord439.pdf>, see Section 9.4

<sup>152</sup> *Stearns County 2030 Comprehensive Plan*, March 2008,

<http://www.co.stearns.mn.us/Government/CountyDevelopment/StearnsCountyComprehensivePlan>

See Figure A-4, “Cluster Area 4: South Central: Future Land Use Plan”

<http://www.co.stearns.mn.us/Portals/0/docs/CompPlan/CompPlanFigureA4.pdf> ,

**Figure 66: Abandoned Home at Paynesville Site**



A snowmobile trail runs along the northwestern edge of the western portion of the preliminary development area.<sup>153</sup> The Spirit Prairie WMA, (Figure 70), is located just northeast of the facility. There are no county, states, or local parks located within one-half mile of the proposed facility. Visitors to the Spirit Prairie WMA may experience noise during construction. Operation of the facility would not impact the use of nearby recreational resources.

### **6.16.2 Effects on Land Based Economies**

The proposed facility would remove approximately 98 acres of farmland from agricultural use. Geronimo Energy has applied to Stearns County for a Conditional Use Permit for the 15 MW Paynesville Community Solar Garden Project on a parcel adjacent and to the north of the proposed Paynesville facility. Geronimo anticipates a developed area of 100 acres for the Paynesville Community Solar Garden Project. Along with the proposed Albany and Brooten facilities that are part of the Aurora Distributed Solar Project, Together the four

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<sup>153</sup> Application, at Appendix B

projects would result in the cumulative reduction of approximately 316 acres of agricultural land for at least 25 years.

Approximately 3 acres (2.6 percent) are considered to be prime farmland if drained (Table 13). Within the study area surrounding the Paynesville Substation, approximately 14 percent is considered to be prime farmland and 9 percent is considered to be prime farmland if drained. If the proposed facility were developed to its anticipated design of 10 MW, the facility would use approximately 0.3 acres of prime farmland if drained per MW. As discussed in Section 6.16.4, the presence of wetlands within the area of site control may result in a final design of less than 10 MW. Given the relative scarcity of prime farmland or prime farmland if drained in the study area, it is unlikely that any alternate locations would be sited on prime farmland or prime farmland if drained (Figure 70).

Although there is a gravel pit located northwest of the area of site control, the proposed project would not impact any mining or mineral extraction activity. Construction and operation of the facility would not result in impacts to forest resources of economic importance. The proposed project would not impact tourism or forest resources of economic importance.

No mitigation measures beyond those described in Section 5.3 are identified for the Paynesville facility.

### **6.16.3 Effects on Archaeological and Historic Resources**

Although one archaeological site was identified in a survey of the Paynesville facility, the SHPO concluded the identified site is not eligible for listing on the NRHP. No mitigation measures beyond those identified in Section 5.4 are identified for the Paynesville facility.

### **6.16.4 Effects on Natural Environment**

There are no rivers, streams or lakes within the area of facility site control. Preliminary design information for the Paynesville facility anticipates a grading area of approximately 14.3 acres.<sup>154</sup>

The Spirit Prairie WMA, located immediately northeast of the facility, provides an important wintering area for resident wildlife including deer and pheasants.

Field delineations performed in the summer of 2014 identified approximately 36 acres of wetlands within 108 acre preliminary development area; 6.07 acres of Type 1 (seasonally flooded basins or floodplains, 0.45 acres of Type 2 (wet meadow), 23.63 acres of Type 3 (shallow marsh) and 12.32 acres of Type 6 (shrub swamp).<sup>155</sup>

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<sup>154</sup> Application, at Appendix F

<sup>155</sup> Appendix C

The preliminary design for the facility anticipates grading of approximately 16.5 acres of the site during construction.<sup>156</sup>

As noted in Section 5.5.4 of this document, Section 5.2 of the Site Permit Template prepared by Commission staff in this matter prohibits placement of panels and associated facilities in public waters wetlands as defined in Minnesota Statutes section 103G.005, subdivision 15(a). Field delineations identified a Type 3 wetland of approximately 13.1 acres (as well as two smaller Type 3 wetlands of approximately 3.7 and 6.7 acres) at the Paynesville location; placement of panels and associated facilities would be precluded in at least the largest of the Type 3 wetlands identified in the delineation.

### **6.16.5 Effects on Sensitive Natural Resources**

There is a narrow strip of floodplain forest, identified in the Minnesota Biological Survey as a Site of High Biodiversity Significance, adjacent to the proposed development area of the Paynesville facility.<sup>157</sup>

A review of the NHIS database did not identify any documented instances of state or federally listed endangered or threatened species within the preliminary development area of the Paynesville facility. The NHIS database review did show records for one state-listed threatened (Wilson's Phalarope (*Phalaropus tricolor*)), three special concern species (Marbled Godwit (*Limosa fedoa*), Regal Fritallary (*Speyeria idalia*) and Small White Lady's-slipper (*Cypripedium candidum*)), and one tracked species (Upland Sandpiper (*Bartramia longicauda*)) within one mile of the area of site control for the facility.<sup>158</sup>

Although no NHIS Rare Species are documented within the preliminary development area, the facility does offer suitable habitat. A field survey for the small white lady's slipper at the facility in June 2014 did not document any occurrences of the plant.

As discussed in Section 5.6, a field survey of the Paynesville facility would identify potentially impacted rare or unique natural resources.

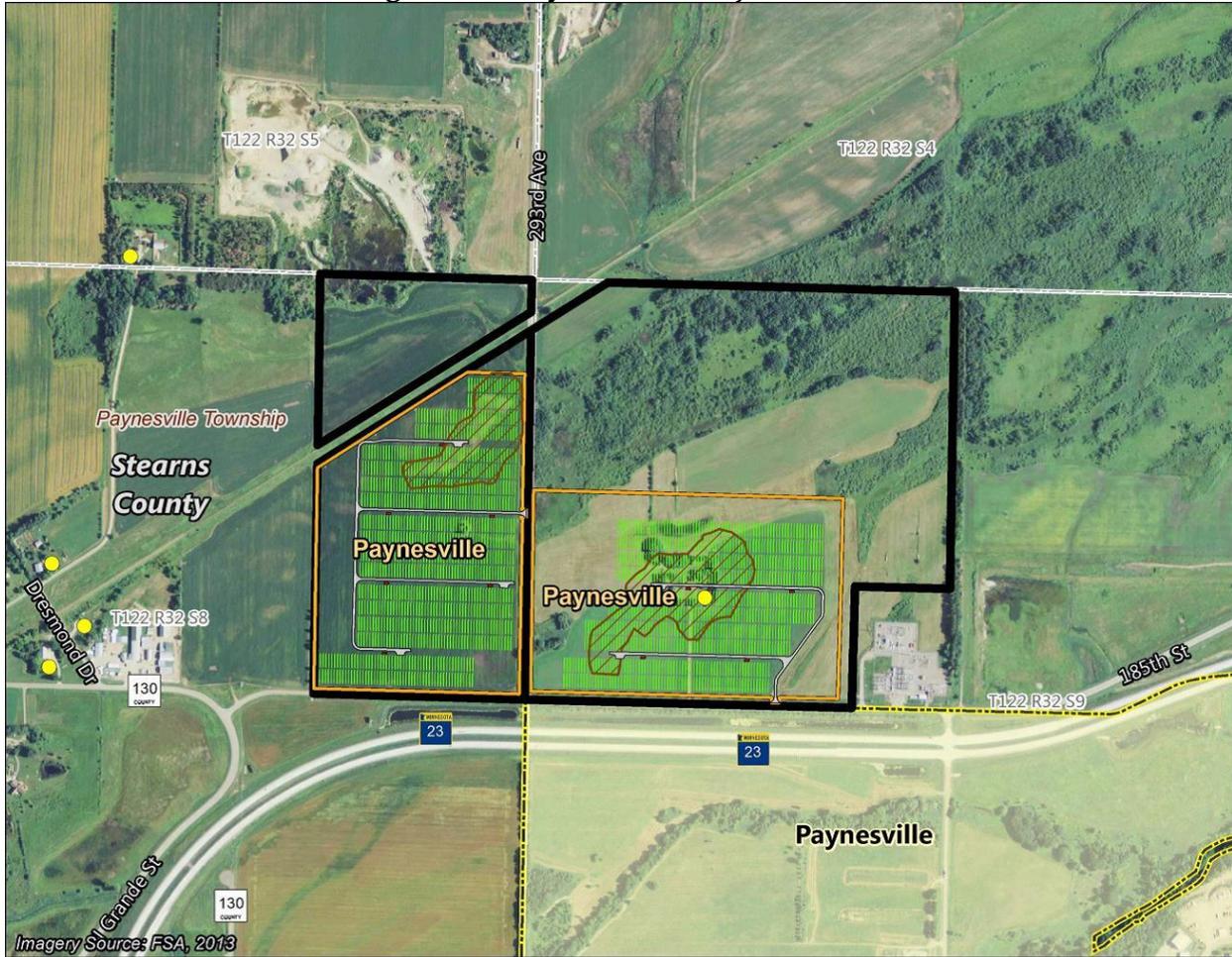
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<sup>156</sup> Application, at Appendix F

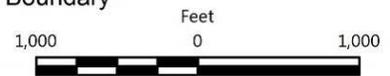
<sup>157</sup> DNR Comment Letter, September 30, 2014,

<sup>158</sup> Application, at p. 81, Appendix I

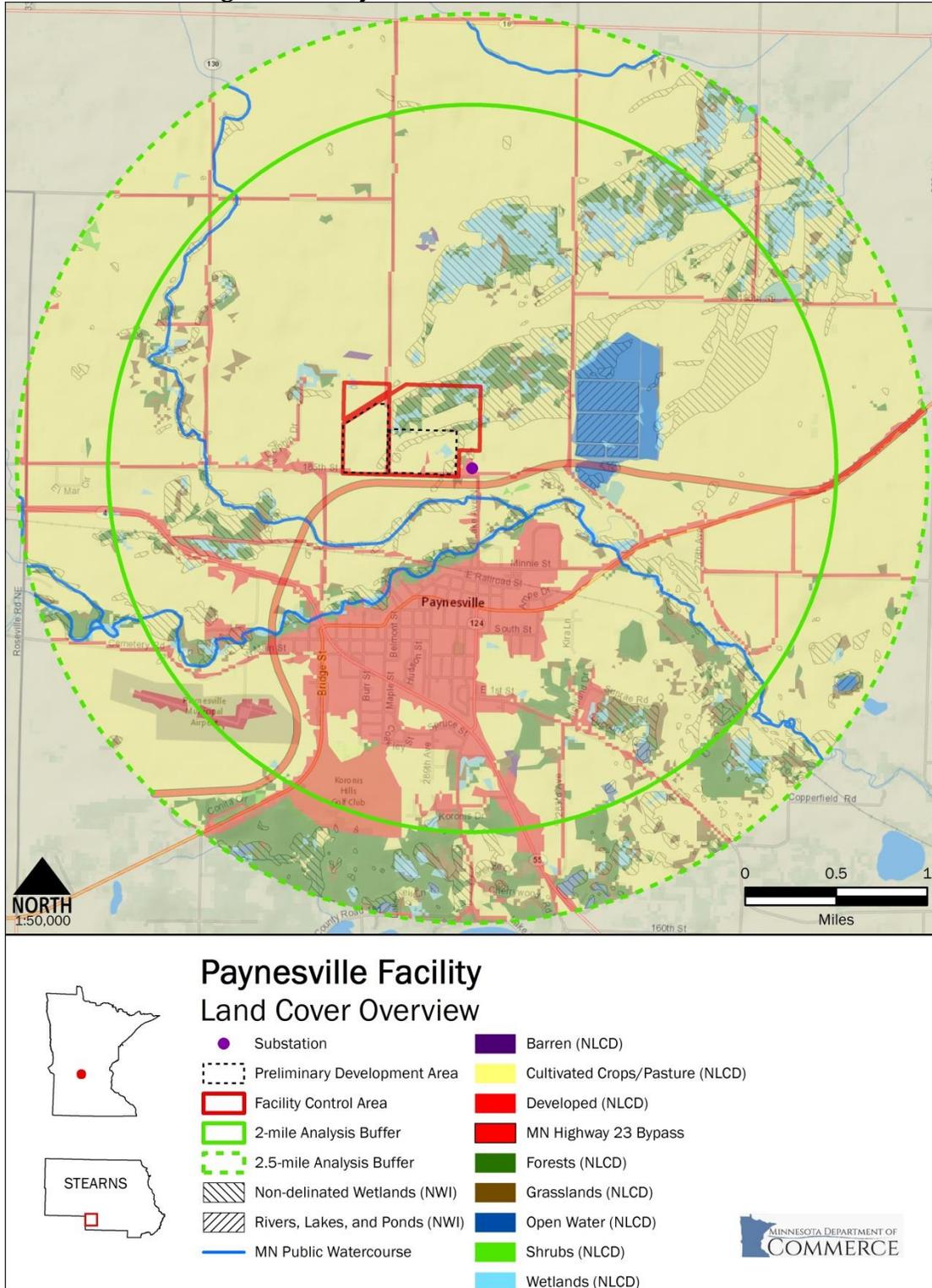
**Figure 67: Paynesville Project Detail**



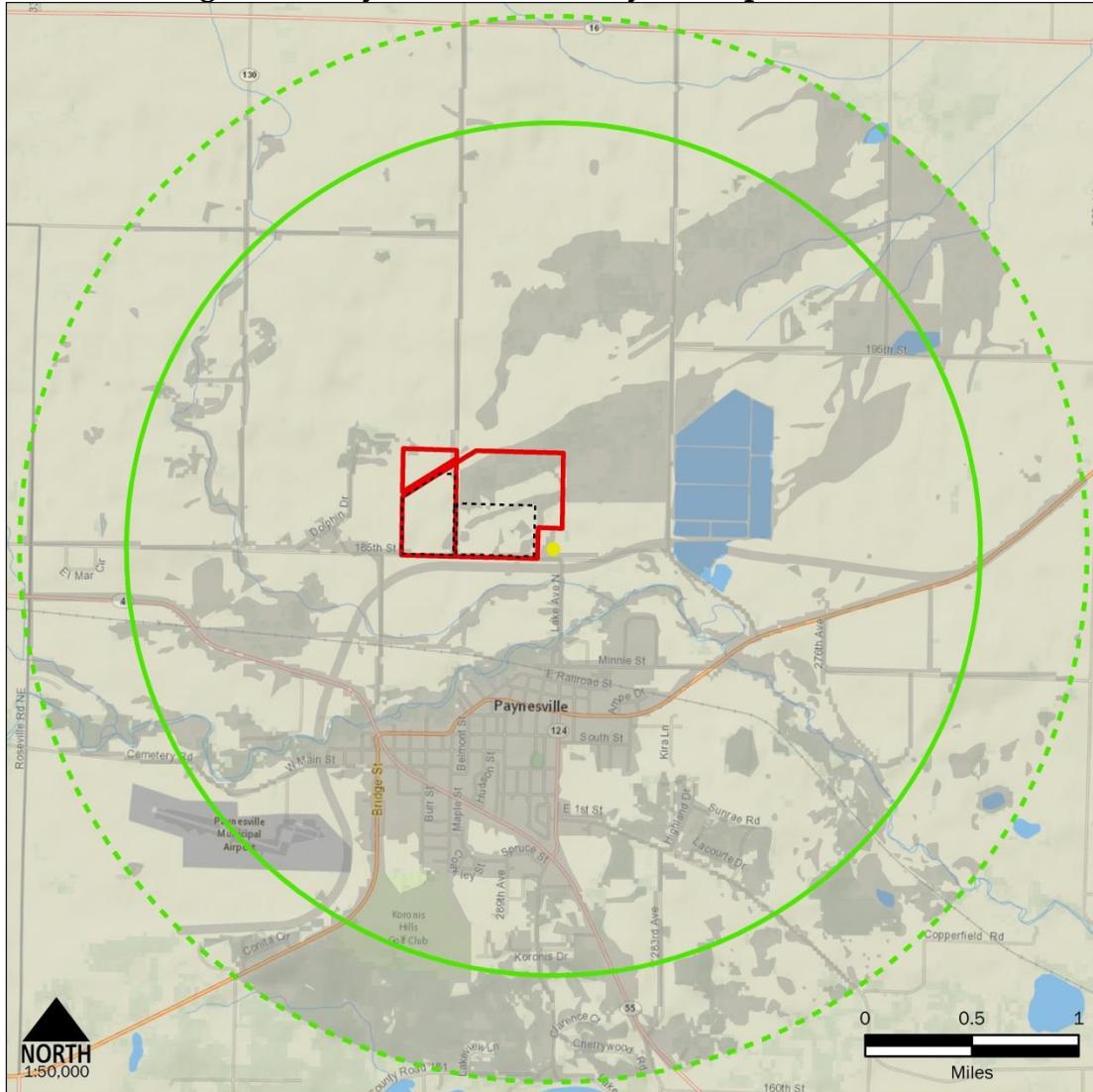
- Residence Location
- Proposed Inverter
- Proposed Arrays
- Proposed Road
- Proposed Grading Area
- Preliminary Development Area
- Facility Land Control
- Municipal Boundary



**Figure 68: Paynesville Land Cover Overview**



**Figure 69: Paynesville Generally Incompatible Areas**



**Paynesville Facility  
 Generally Incompatible Areas**



- Substation
- Preliminary Development Area
- Facility Control Area
- 2-mile Analysis Buffer
- 2.5-mile Analysis Buffer
- Generally Incompatible Areas

“Generally Incompatible Areas” include: Minnesota Scientific and Natural Areas; Minnesota Wildlife Management Areas; US Fish and Wildlife Service Waterfowl Production Areas; the National Wetland Inventory; and areas classified as open water, developed, forest, and wetland in the National Land Cover Database.



**Figure 70: Paynesville Prime Farmland and Other Areas**

