

6.19 Scandia

The proposed Scandia facility has a capacity of 2.5 MW AC and is located in Section 35 of Franconia Township in Chisago County. The site is located north of the city of Scandia, southeast of the intersection of Oldfield Avenue North and County Road 25. Preliminary plans anticipate a development area of approximately 23.3 acres within the 24.4 acres of Aurora’s site control. Electricity from the facility would be delivered to Xcel Energy’s Scandia Substation located approximately one-quarter mile north of the facility.

The facility is located within the Minnesota and Northeastern Iowa Morainal Section of the Prairie Parkland Province. Land cover within the preliminary development area (Table 36) is dominated by pasture and haylands (96.1 percent) along with developed open space (3.4 percent). The proposed location avoids the forested areas to the west, east and southeast and the scattered water features and wetlands throughout the study area surrounding the Scandia Substation, but is otherwise similar to the agricultural land cover that makes up more than half the land cover in the study area (Figure 80).

Table 36: Scandia Facility - Land Cover

Land Cover	Control Area		Development Area		Study Area	
	Acres	Percent	Acres	Percent	Acres	Percent
Open Water	--	--	--	--	529.3	4.2%
Developed, Open Space	0.8	3.3%	0.8	3.4%	581.0	4.6%
Developed, Low Intensity	--	--	--	--	41.8	0.3%
Developed, Medium Intensity	--	--	--	--	6.7	0.1%
Developed, High Intensity	--	--	--	--	--	--
Barren Land	--	--	--	--	--	--
Deciduous Forest	--	--	--	--	2,921.0	23.3%
Evergreen Forest	--	--	--	--	105.3	0.8%
Mixed Forest	--	--	--	--	8.1	0.1%
Shrub/Scrub	--	--	--	--	30.4	0.2%
Grassland Herbaceous	--	--	--	--	851.9	6.8%
Pasture/Hay	23.3	95.8%	22.4	96.1%	3,665.6	29.2%
Cultivated Crops	0.2	1.0%	0.1	0.5%	3,263.8	26.0%
Woody Wetlands	--	--	--	--	37.4	0.3%
Emergent Herbaceous Wetlands	--	--	--	--	510.1	4.1%
Totals	24.4	100.0%	23.3	100.0%	12,552.3	100.0%

6.19.1 Effects on Human Settlement

The proposed location is a parcel that is a mix of pasture and meadow in an area that is a mixture of scattered rural residences and agricultural land. The nearest home is located

approximately 230 feet north of the preliminary development area. Construction of the facility will not result in displacement of any homes or businesses.

The facility is located north of Scandia in an area zoned as Agricultural by Chisago County. The site is not located within an identified orderly annexation area. Solar farms covering up to 20 acres are a permitted use within the Agricultural District; solar farms covering more than 20 acres require a conditional use. Under the Chisago County Zoning Ordinance components of the farm must meet setback, height, and coverage limitations for the district in which the system is located. The ordinance also prohibits solar energy farms in certain areas:

- Shoreland Districts as designated by the Department of Natural Resources (DNR) and the Chisago County Shoreland Management Ordinance
- Six Hundred (600) feet of areas formally designated or protected from development by Federal, State or County agencies as wildlife habitat, wildlife management areas or designated as National Wild and Scenic land or corridor
- Wetlands to the extent prohibited by the Minnesota Wetland Conservation Act, and
- The Floodplain District.

The conditional use permit conditions require some type of visual screening of the facility as well as preservation of natural wildlife, wetland, woodland or other corridors:

The area of site control is designated as Agricultural in the Growth Management portion of the Chisago County Comprehensive Plan.¹⁷⁴

There are no recreational trails, county, state, or local parks located within one-half mile of the proposed facility. Construction and operation of the facility would not impact the use of nearby recreational resources.

Aurora anticipates that the facility will be accessed through a newly constructed access road off of Olinda Trail (County State Aid Highway 25).

No mitigation measures beyond those described in Section 5.2 are identified for the Scandia facility.

6.19.2 Effects on Land Based Economies

The proposed facility would remove approximately 22 acres from agricultural use. In addition to the Scandia facility, Aurora's Chisago, Lawrence Creek, and Wyoming facilities, as well as the North Star Solar Project, a 100 MW PV project proposed by North Star Solar PV LLC are all proposed in Chisago County. If all of the proposed facilities are developed,

¹⁷⁴ Chisago County. Chisago County Comprehensive Plan. 2010, at Figure 13: Growth Management Plan.
<http://www.co.chisago.mn.us/DocumentCenter/View/4328>

the five facilities would result in a cumulative reduction of approximately 970 acres from agricultural use in Chisago County for at least 25 years.

Approximately 1 acre is considered to be prime farmland if drained (Table 13). Within the study area surrounding the Scandia Substation, approximately 31 percent is considered to be prime farmland and 10 percent is considered to be prime farmland if drained. If the proposed facility were developed to its anticipated design of 2.5 MW, the facility would use approximately 0.4 acres of prime farmland if drained per MW.

The proposed project would not impact tourism, mining or mineral extraction activity, or forest resources of economic importance.

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

6.19.3 Effects on Archaeological and Historic Resources

No archaeological sites were identified in a survey of the Scandia facility. No mitigation measures beyond those described in Section 5.4 are identified for the Scandia facility.

6.19.4 Effects on Natural Environment

There are no rivers, streams or lakes within the area of facility site control. Field delineations performed in the summer of 2014 did not identify any wetlands in the preliminary development area.¹⁷⁵

The preliminary design for the facility anticipates grading of approximately 16.0 acres of the site during construction.¹⁷⁶

No mitigation measures beyond those described in Section 5.5 are identified for the Scandia facility.

6.19.5 Effects on Rare and Unique Natural Resources

A review of the NHIS database did not identify any documented instances of state or federally listed endangered, threatened or special concern species within one mile of the area of site control for the Scandia facility.¹⁷⁷

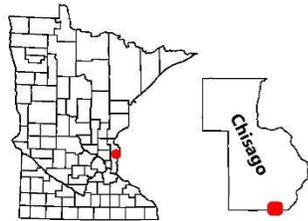
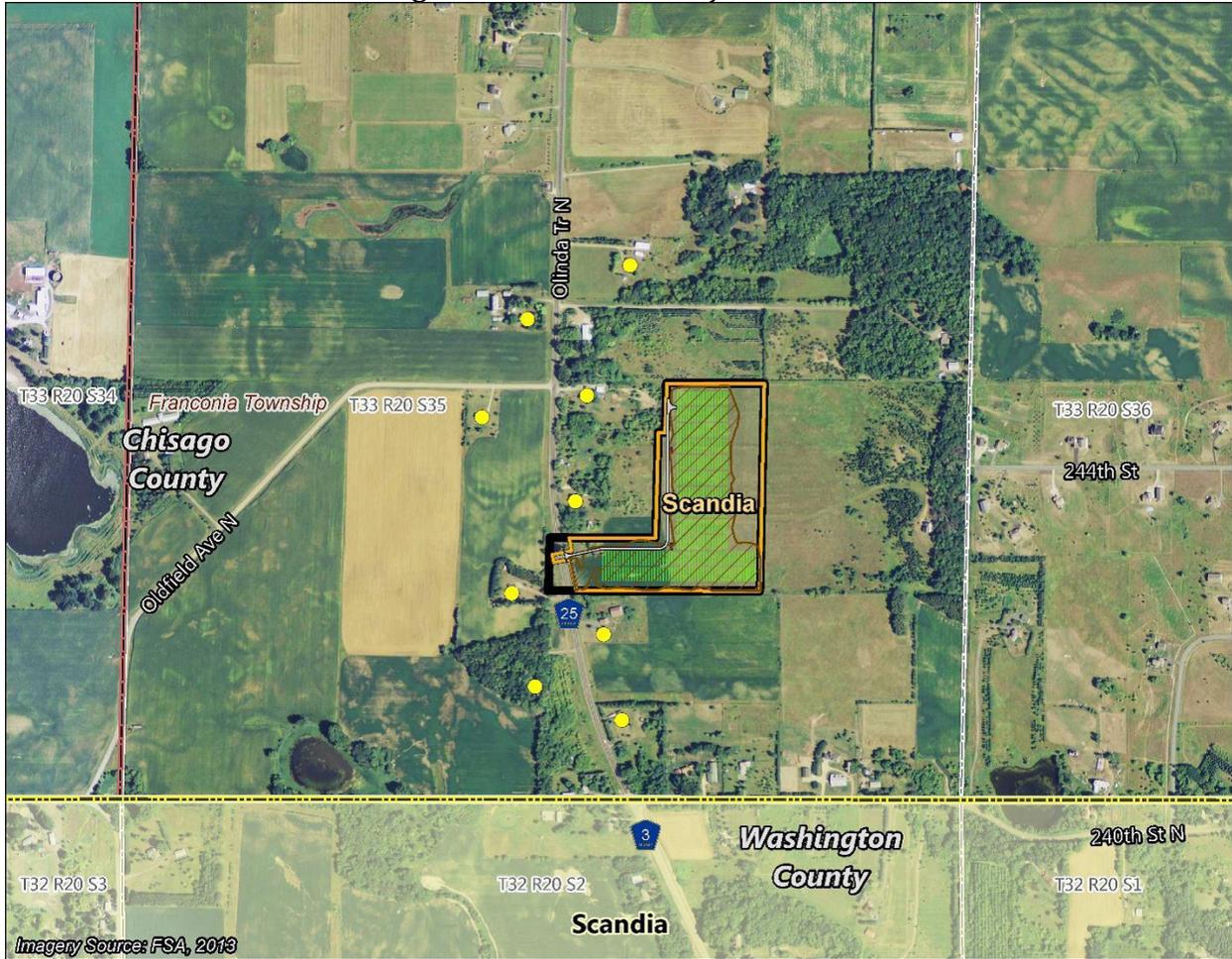
No mitigation measures beyond the field survey described in Section 5.6, are identified for the Scandia facility.

¹⁷⁵ Appendix C

¹⁷⁶ Application, at Appendix F

¹⁷⁷ Application, at p. 81

Figure 79: Scandia Project Detail



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

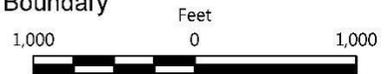


Figure 80: Scandia Land Cover Overview

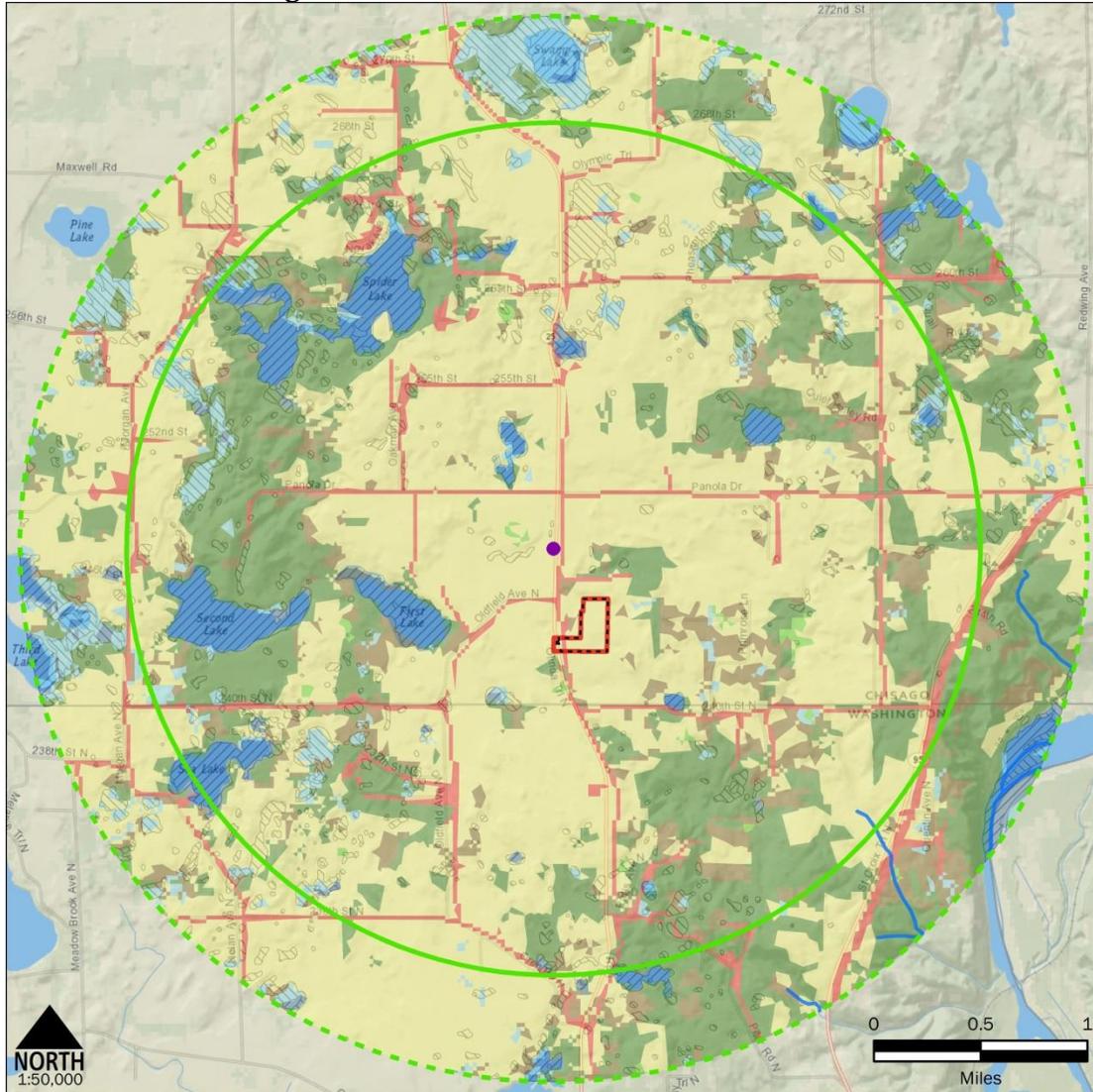
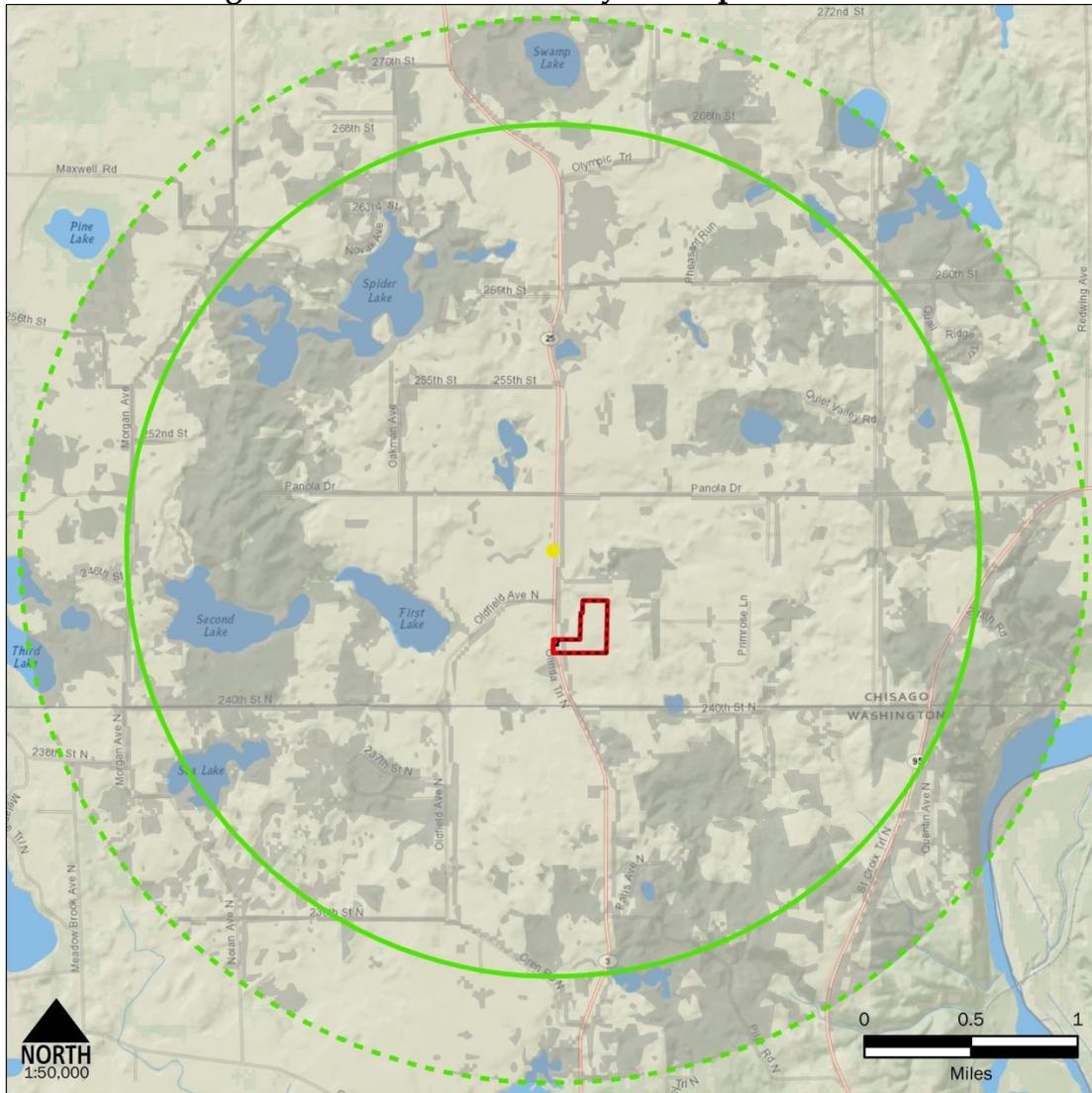


Figure 81: Scandia Generally Incompatible Areas



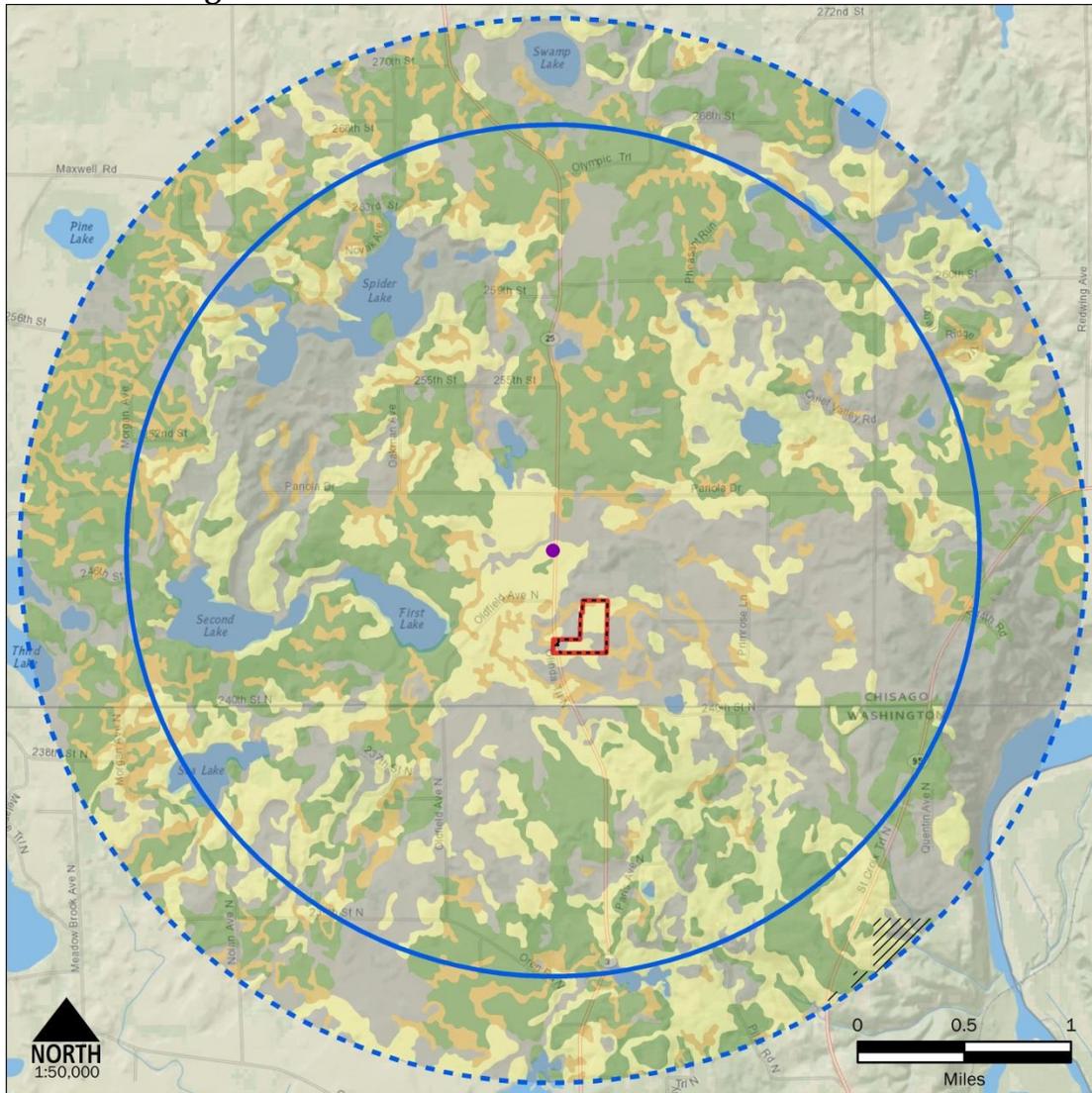
**Scandia Facility
 Generally Incompatible Areas**

- 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 82: Scandia Prime Farmland and Other Areas



NORTH
1:50,000

0 0.5 1
Miles



**Scandia Facility
 Prime Farmland and Other Areas**

- Substation
- Preliminary Development Area
- Facility Control Area
- 2-mile Analysis Buffer
- 2.5-mile Analysis Buffer
- MN Scientific and Natural Area
- Prime Farmland
- Prime Farmland if Drained
- Farmland of Statewide Importance
- Not Prime Farmland
- Other Farmland

