10.0 Associated Facilities

This chapter analyzes potential resource impacts associated with the construction of the proposed new North Rochester substation and the expansion of the existing Northern Hills Substation.[10]

10.1 North Rochester Substation—Description of Environmental Setting

The Applicant has identified a 3.5-square-mile North Rochester Substation Siting Area between Zumbrota and Pine Island (Figure 10.1-1). The substation siting area is located within Goodhue County, in Pine Island Township, Sections 7, 18, 19, and the northern quarter of Section 30. A detailed description of the substation siting area and associated components is provided in Chapter 6.1.1.

The land in the 3.5-square-mile substation siting area is mostly cropland with several farmsteads. Residential and farmsteads are concentrated along US-52, but also are located in the interior of the siting area. Stands of trees occur mostly near farmsteads, drainages, and along field windbreaks.

The North Rochester Substation siting area is located entirely within the Rochester Plateau subsection of the EBF Province according to the MDNR Environmental Classification System (MDNR 2000). The Rochester Plateau Subsection is described in detail in Chapter 7.1.

10.1.1 Human Settlement

10.1.1.1 Land Cover and Land Use

Chapter 7.2.1 provides background information on land cover/land use, and methodology used to identify potential impacts.

Existing Environment

Table 10.1-1 shows the acreage and percent of land cover for the various land cover types within the substation siting area. Land cover in the substation siting area is shown in Figure 10.1-2.

The North Rochester Substation siting area is comprised of approximately 2,120 acres and the land cover is approximately 71 percent percent cropland, 25 percent grassland, and 3 percent forested land. Less than 1 percent of the area is land used for transportation and shrubland land cover categories. Rural residences and farmsteads are scattered throughout the substation siting area.

Commercial and industrial land use is principally located in the urban centers of Goodhue County, and the substation is not anticipated to affect the use or operation of any commercial or industrial

[10] No expansion will be required at the Hampton Substation (only equipment additions inside the existing footprint); therefore, it is not included in this chapter.

establishment. A description of zoning and current land use for the substation siting area is provided below.

Table 10.1-1:
North Rochester Substation Siting Area: Land Cover Summary

Land Cover Type	Percent Coverage
Cropland	71
Grassland	25
Shrubland (total)	<1
Lowland Shrub	<1
Upland Shrub	0
Forest (total)	3
Bur/White Oak	<1
Cottonwood	0
Maple/Basswood	<1
All Others	2
Aquatic (total)	0
Open water	0
Marshland	0
Urban (total)	<1
High Intensity Urban	0
Low Intensity Urban	0
Transportation	<1
Total	100 (+/-1)

Source: MN GAP Data.

[1] All acreages and percentages rounded to the nearest whole number.

Goodhue County

Each city in Goodhue County has zoning within municipal boundaries, and the county is responsible for the zoning and land use on property that is unincorporated. Goodhue County identifies the following goals in their comprehensive plan: preservation of the county's natural beauty, preservation of agricultural lands, and the importance of keeping development adjacent to municipalities and unincorporated villages (Goodhue 2004). Both county comprehensive plans place heavy importance in ensuring that counties coordinate effectively with cities, townships, and municipal utilities on issues such as transportation, facilities, and utilities.

The portion of the North Rochester Substation siting area in Sections 7, 18, and 19 is zoned A1, Agricultural Protection District. This purpose of this zoning designation is to maintain, conserve and enhance agricultural lands that have been historically valuable for crop production, pastureland, and natural habitat for plant and animal life. The portion of the North Rochester Substation siting area in Section 30 is zoned A3, Urban Fringe. This zoning designation designates priority areas for urban expansion and conversion from farming and agricultural uses to urban development (Goodhue County 2009). Descriptions of these designations are provided in Chapter 7.2.1.

Although the North Rochester Substation siting area is not located within the municipal boundaries of Pine Island, the Pine Island Comprehensive Plan 2005 identifies future land use classes on a portion of the substation siting area. Preference for future land use is commercial in the southeastern corner of the substation siting area along US-52 (between 0.25 mile north of 500th Street and the southern boundary of the substation siting area), including a portion of the preferred siting area. Future land use is residential in the southwest portion of the substation siting area (between 180th Avenue, County Highway 11, and the Commercial designation), including a portion of the preferred siting area (City of Pine Island 2005). The alternative siting area is not located within a future land use class designated by the City of Pine Island.

Impacts and Mitigation

Ultimately, impacts to land use would depend upon the final substation site. Because most of the land cover in the North Rochester Substation siting area is cropland, construction of the proposed substation would likely require conversion of some land currently used for agricultural purposes. Construction and operation of the proposed North Rochester Substation is not anticipated to impact future commercial, industrial, or residential land uses outside of the 40 acres to be acquired and converted for use of the substation. The substation would be constructed in a manner that limits impacts to the land parcel acquired or adjacent parcels.

10.1.1.2 Residences

The following identifies potential impacts to residences within the North Rochester Substation siting area. A displacement is defined as any occupied structure (residence or business) located within the final site chosen for the substation siting area. Chapter 7.2.2 describes the background information and methodology for identifying potential displacements and impacts to residences.

Existing Environment

Twenty residential structures were identified within the North Rochester Substation siting area (Figure 10.1-3). Nine structures are located in the alternative siting area, and 11 structures are located in the preferred siting area. Other structures in the substation siting area include barns, garages, and other outbuildings.

Impacts and Mitigation

The Applicant will seek to acquire 40 acres for the North Rochester Substation within the substation siting area. Initial screening requirements for the final substation site (listed in Chapter 4.2) include maximizing the distance from occupied residences. Although there are residences located in the substation siting area, the Applicant does not intend to cause any displacements as a result of construction of the North Rochester Substation. The substation siting area is large enough to allow for flexibility when determining the final substation site.

Since no displacements are anticipated, no mitigation measures are proposed. If displacements are later identified due to reroutes or modifications to the substation siting area that may occur through the permitting process, Project land representatives will continue to work with individual landowners to avoid displacements where possible.

10.1.1.3 Noise

Noise associated with substations includes the operation of transformers and switchgear. The transformers produce a constant low-frequency humming noise while the switchgear produces an impulsive or short duration noise during infrequent activation of the circuit breakers. Due to the infrequent operation of the switchgear, the noise generated would be considered temporary in nature and not predicted to exceed the MPCA noise limits.

Existing Environment

Existing sources of noise in the vicinity of the North Rochester Substation siting area include traffic, farm equipment, wind, and insects. Average street traffic produces noise levels that are as high as 70 dBA and a tractor or power lawn mower produces noise levels that are approximately 65 to 95 dBA (Center for Hearing and Communication 2009). Noise levels associated with other common noise sources are listed in Chapter 7.2.3.

Impacts and Mitigation

The North Rochester Substation will be designed such that the MPCA noise limits identified in Chapter 7.2.3 will be met at the edge of the substation property. No mitigation would be required for the audible noise generated by the proposed substation.

10.1.1.4 Aesthetics

The discussion of visual quality and aesthetics is based on a qualitative review of the natural and man-made features of the existing environment within and views toward the Project area. Chapter 7.2.4 provides general information about the methods used to assess potential impacts to aesthetic resources in the Project area.

Existing Environment

The North Rochester Substation siting area is located in Goodhue County between the City of Zumbrota and the City of Pine Island. Land use in the 3.5-square-mile substation siting area is agricultural with several farmsteads. Residential and farmstead structures are concentrated along US-52, but also are located in the interior of the siting area. Rows of crops, fence lines, and local roads create linear patterns across the rolling terrain within the substation siting area. The Prairie Island-Byron 345 kV transmission line bisects the substation siting area north to south. Forested areas and tree stands occur mostly near farmsteads and along drainages.

Visibility is generally high because the North Rochester Substation siting area consists of mostly open fields on flat to gently rolling terrain, with some farmsteads and forested areas. Linear features that already exist in the viewshed include US-52 and high-voltage transmission lines (the Prairie Island-Byron 345 kV transmission line). The Applicant did not identify any areas of high viewer sensitivity within or adjacent to the North Rochester Substation siting area.

Impacts and Mitigation

Linear features in the substation siting area such as transmission lines, field lines, and local roads already create linear patterns on the landscape. The substation facilities would be limited to 5 acres on a 40-acre parcel, which is not dissimilar to current visual patterns on the landscape. The extent to which the substation would affect the viewshed from nearby residences would depend on whether it is shielded by terrain and vegetation. Because terrain in the substation siting area is mostly flat to gently rolling, visual shielding from terrain would be minimal from most vantage points. However, most residences in the substation siting area are surrounded by vegetation that would serve as visual buffers.

10.1.1.5 Social and Economic Resources

The socioeconomic study area for the North Rochester Substation siting area is defined as Goodhue County. The City of Rochester in Olmsted County also is included in the socioeconomic study area, because it is an urban area within convenient driving distance from the North Rochester Substation siting area. Socioeconomic factors analyzed in this Application include, population, race and ethnicity, income, and leading industries. Chapter 7.2.5 provides additional background information and methodology for the socioeconomic analysis in this Application.

Existing Environment

The entire North Rochester Substation siting area is located in Goodhue County. The majority of the land use in Goodhue County is agricultural with agricultural serving communities. According to the MN GAP, most of the land cover in the substation siting area is either cropland or grassland, with pockets of forested area.

Communities in close proximity to the North Rochester Substation siting area include Zumbrota approximately 1 mile to the north, and Pine Island approximately 1 mile to the south (Figure 10.1-1). Residences in the substation siting area occur in a rural setting and typically consist of farmsteads with

associated agricultural operations. Rochester is the closest urban area to the substation siting area, located approximately 12 miles southeast. Table 10.1-2 identifies communities within the socioeconomic study area that were identified in the *Trade Centers of the Upper Midwest 2003 Update* as regional trade centers (Casey 2003).

Table 10.1-2:
Level of Hierarchy of Regional Trade Centers within the Socioeconomic Study Area for the North Rochester Substation Siting Area

Level	Description	Cities/County	Total Establishments
0	Major Metro Area	—	—
1	Primary Wholesale/Retail Center	Rochester/Olmsted	3,757
2	Secondary Wholesale/Retail Center	—	
3	Complete Shopping Center	—	—
4	Partial Shopping Center	Zumbrota/Goodhue	226
5	Full Convenience Center	Pine Island/Goodhue	171
6	Minimum Convenience Center		
7	Hamlet	—	—

Source: Casey 2003.

Population Characteristics

Population characteristics used to analyze the social setting of the substation siting area include the total population, estimated future population, and per capita income. Population information is included in Table 10.1-3. According to the U.S. Census Bureau 2008, the population in the socioeconomic study area has experienced a population change ranging from 4 percent in Goodhue County, to 17 percent in Rochester. The rate of growth between 2000 and 2008 was less in Goodhue County than in Rochester and Olmsted County, most likely due to Rochester's status as a major regional trade center and expansion of the Mayo Clinic within that timeframe. It is projected that population growth in the study area will follow historic trends during the projected construction schedule due to its rural environment, stability of leading industries, size of trade centers, and proximity to US-52, the major transportation corridor between the Twin Cities and Rochester.

The socioeconomic study area is composed of a variety of racial and ethnic groups. Standard procedures used by the U.S. Census Bureau to determine race and ethnicity are discussed in Chapter 7.2.5. As shown in Table 10.1-4, the majority of persons in the study area self-identified as White/Caucasian.

Table 10.1-3:
Population in the Socioeconomic Study Area for the North Rochester Substation Siting Area

City/County	2000 Population	2008 Population	Percent Change 2000-2008
Goodhue County	44,127	45,897	4
Pine Island	2,337	3,326	42
Zumbrota	2,789	3,074	10
Olmsted County	124,277	141,360	14
Rochester	85,806	100,413	17
State of Minnesota	4,919,479	5,220,393	6

Source: U.S. Census Bureau (2008).

Table 10.1-4:
Race or Ethnic Heritage

Geographic Area		White or Caucasian	Black or African American	Hispanic or Latino	Asian	Two or More Races	All Other Races	Total
Siting Area	Number of Persons	28,238	92	2,045	214	297	1,055	29,896
	Percent	94.4	<1	6.8	<1	1	3.5	
Region of Comparison	Goodhue County	43,672	449	768	360	187	871	45,539
	Percent	96	<1	1.6	<1	<1	2	
State of Minnesota	Number of Persons	4,400,282	171,731	143,382	141,968	82,742	65,810	4,919,479
	Percent	89.4	3.5	2.9	2.9	1.6	1.3	

Source: U.S. Census Bureau (2000a, b, c).

Economic Characteristics

The per capita income in 2000 was approximately $21,934 in Goodhue County (U.S. Census 2000). A variety of industries make up the workforce in Goodhue County that range from educational, health and social services; manufacturing; professional, scientific, and management; finance, insurance, and real estate; transportation and warehousing; agriculture, forestry, fishing, hunting and mining. Social service occupations, education, and health care are leading industries in the ROC. Table 10.1-5 provides an overview of the leading county industries for Goodhue County.

Table 10.1-5
Leading Industries in Socioeconomic Study Area for the North Rochester Substation Siting Area

County	Industry[1]	Percent of Workforce
Goodhue	Educational, Health, and Social Services	21.0
	Manufacturing	19.7
	Retail Trade	10.9
	Arts, Entertainment, Recreation, Accommodation, and Food Services	8.0
	Construction	6.5
	Transportation, Warehousing, and Utilities	6.3
	Agriculture, forestry fishing and hunting, and mining	6.0
	Professional, Scientific, Management, Administrative, and Waste Management	5.3
	Finance, Insurance, Real estate, Rental and Leasing	4.5
	Other Services except Public Administration	4.3
	Wholesale Trade	3.4
	Public Administration	2.7
	Information	1.5
	Total	100 (+/-1%)

Source: U.S. Census Bureau (2000a, b, c).

1 Selected industry categories are reported in this table.

Impacts and Mitigation

Any adverse impacts to socioeconomic conditions or factors for the substation construction would be short-term; therefore, no mitigation is proposed. It is estimated that approximately 12 temporary workers would be required for the substation construction and that construction would take approximately 12 months to complete. The types of impacts that may be anticipated within the socioeconomic study area from construction of the North Rochester Substation would be the same as those identified in Chapter 7.2.5. Potential impacts to services such as police, fire, hospital/emergency service, and social services within the study area are discussed in Chapter 7.2.9.

10.1.1.6 Recreation and Tourism

There are a variety of outdoor recreation and tourism opportunities in the vicinity of the North Rochester Substation siting area. Methodology used to identify recreation and tourism resources is described in Chapter 10.1.1.7.

Existing Environment

The land in and surrounding the North Rochester Substation siting area is private and does not provide for public recreation or tourism opportunities. There are no public lands within 1 mile of the North Rochester Substation siting area. One snowmobile trail is crossed at southeast corner of the substation siting area (Figure 10.1-1).

Impacts and Mitigation

Closure or other direct impacts to the snowmobile trail are not anticipated. The preferred substation siting area would likely be visible from nearby portions of the snowmobile trail. The alternative substation siting area may be visible from nearby portions of the snowmobile trail based on local topography and vegetative screening. Impacts to aesthetics in the North Rochester Substation siting area are further discussed in Chapter 10.1.1.4. The construction of the substation at the preferred or alternative substation siting areas would not impact tourism, therefore, no mitigation is proposed.

10.1.1.7 Public Services, Health and Safety

Public services and facilities may be generally defined as services provided by government entities, including hospitals, fire and police departments, schools, public parks, and water supply, and wastewater disposal systems. Public services also include pipelines, transmission lines, and other utility infrastructure. Chapter 7.2.7 describes methodology for identifying and analyzing potential impacts to public services, health, and safety.

Existing Environment

There are no municipal buildings, wastewater treatment facilities, or other public services located along within the North Rochester Substation siting area. No pipelines occur within the boundaries of the substation siting area, or within 1 mile of the substation siting area.

Rural residents and businesses in Goodhue County typically get water from private wells and on-site septic systems provide water treatment. Electricity is typically provided by Xcel Energy and Goodhue County Cooperative Electric and natural gas is provided by Xcel Energy and Minnesota Energy. The entire substation siting area is located in unincorporated portions of Goodhue County and therefore no municipalities provide public services to residences and businesses in the immediate vicinity of the substation siting area.

Electric distribution lines, cable television, and telephone lines providing service to adjacent homes and businesses are located in the substation siting area. These lines do not present a barrier to construction and operation of the North Rochester Substation; however, it may be necessary for the Applicant to work with other public service utilities to relocate existing facilities if there is a conflict with the proposed location of the substation.

High-voltage transmission lines located within the North Rochester Substation siting area are shown in Figure 10.1-1. The existing Prairie Island-Byron 345 kV transmission line crosses the substation siting

area for approximately 5 miles. Two 69 kV transmission lines are located within 1 mile of the substation siting area. One 69 kV line is located to the northeast of the substation siting area, and follows US-52 and MN-60. A second 69 kV transmission line is located adjacent to the northwest corner of the substation siting area, and parallels the substation siting area's western boundary 0.5 mile to the west for 3.5 miles. This 69 kV transmission line crosses the extreme southwest corner of the substation siting area before connecting to the Pine Island Substation south of the substation siting area.

Impacts and Mitigation

There are no hospitals, fire or police departments, schools, public parks, water supply or wastewater disposal systems, or municipal buildings within the North Rochester Substation siting area; therefore, the substation is not anticipated impact the operation of these facilities. Short-term impacts such as electricity disruptions to households or businesses may occur as a result of construction; however, these impacts would be temporary with service restored almost immediately. No further mitigation would be required by the Project.

Chapter 7.2.7 provides a discussion regarding public health and safety measures that would be implemented during construction and operation of the Project. The following provides public health and safety measures that would be specific to substation construction.

Proper safeguards would be implemented to avoid impacts to public health and safety during construction and operation of the substation facility. All substations would be designed to meet local, state, and the NESC recommended safety requirements and electrical clearances. Construction crews and/or contract crews will comply with local, state, the NESC and CapX2020 standards regarding installation of facilities and standard construction practices. Established Applicant and industry safety procedures will be followed during and after construction of the substation. This would include clear signage during all construction activities. When construction is complete, the substation would be fenced appropriately and proper signage installed to alert the public to the dangers of high-voltage power conduction.

10.1.1.8 Transportation

The following identifies potential impacts to transportation corridors, including railroads and roadways, associated with construction and operation of the North Rochester Substation. Transportation corridors near the substation siting area were identified using GIS data. AADT volumes for all roads with data available were obtained from the Mn/DOT and were reported in the impact assessments as available. Future transportation facilities and plans were identified through consultation with the Mn/DOT or planning departments.

Public airports and aviation facilities also were analyzed for potential impacts from the substation siting area. The FAA and the Mn/DOT have each established development guidelines on the proximity of tall structures, including transmission lines, to public use airports and heliports. The FAA also has developed guidelines for the proximity of structures to VOR systems. Chapter 7.2.8 provides detailed information about these guidelines.

Existing Environment

Roads

Surface transportation routes within the North Rochester Substation siting area include a mix of highways, county highways, roads, and local streets, all of which provide access to scattered rural residences and farmsteads. These roads provide good access to both the preferred and alternative substation siting areas for maintenance trucks and heavy equipment moved to the facility.

Roads located within and surrounding the North Rochester Substation siting area are identified on Figure 10.1-1. The eastern boundary of the substation siting area follows US-52 for 3.5 miles. US-52 carries a high volume of vehicles daily, serving as a critical link between the Twin Cities metropolitan area and Rochester. Generally, AADT volumes along US-52 are moderate to high. The volume of vehicles is high because of the large population and employment densities surrounding the two metropolitan areas and travel between the two locations: 18th Avenue bounds the substation siting area the west and 480th and 490th streets cross the substation siting area along section lines in the east-west direction. AADT volumes are not available for 18th Avenue and 480th and 490th streets. County 11 Boulevard is located within 500 feet of the southwest corner of the substation siting area. MN-60 is located within 500 feet of the northeast corner of the substation siting area.

Railroads

No railroads are located within the boundaries of or within 1 mile of the North Rochester Substation siting area.

Airports and Airplane Safety

There are no public airports or aviation facilities within regulated distances from the substation siting area, and substation components would not be taller than 200 feet. Therefore, the FAA review would not be required for construction of the North Rochester Substation.

Impacts and Mitigation

Roadways

During construction, it is anticipated that several types of light-, medium-, and heavy-duty construction vehicles would travel to and from the substation construction site and staging areas, as well as private vehicles used by construction personnel. That volume would occur during the peak construction time when the majority of the foundation and facility assembly would take place. This equipment would be removed at the completion of each construction phase. The Applicant will work with state and local officials to minimize any impacts to traffic during construction and operation of the substation. The Applicant will obtain all appropriate Mn/DOT and county permits as applicable for construction and operation of the substation.

Construction activities may require access from the roadway ROWs to the substation site at existing or additional turnout or approach locations. Construction of additional or temporary and/or permanent turnouts or approaches may require the installation of culverts and fill materials. Installation of additional or temporary access points would be subject to review and approval by local or state roadway officials. Construction crews would implement traffic control measures in accordance with the State Manual on Uniform Traffic Control Devices. Restriction of traffic may occasionally be required for short periods of time during pole deliveries or during critical wire stringing activities. Construction crews would work closely with the Minnesota State Patrol to ensure implementation of appropriate measures to safeguard the public and construction crews.

Railroads

There are no impacts anticipated to railroads from the construction of the proposed substation, therefore no mitigation is proposed.

Airports and Airplane Safety

There are no impacts anticipated to public airports or airplane safety from construction of the North Rochester Substation therefore no mitigation is proposed.

10.1.1.9 Electrical Interference

Background information and methodology for identifying potential impacts to communication devices (radio, television, cellular phones, and GPS) is located in Chapter 7.2.9.

Existing Environment

No communication facilities are located within the substation siting area. There are three communication facilities (one land mobile broadcast and two antenna structure registration) located within 1 mile of the substation siting area.

Impacts and Mitigation

No interference with communications facilities is anticipated. If interference occurs, the Applicant will work with the owner to mitigate impacts. More information on potential interference and mitigation measures is included in Chapter 7.2.9.

10.1.2 Land-Based Economies

10.1.2.1 Agriculture

Agricultural resources evaluated in this Application include areas with land cover identified as cropland, certain categories of prime farmland, center pivot irrigation systems, farmland preservation easements, and organic farms. Background information and methodology are provided in Chapter 7.3.1.

Existing Environment

The North Rochester Substation siting area is zoned A1 Agricultural Protection in Sections 7, 18, and 19. This purpose of this zoning designation is to maintain, conserve and enhance agricultural lands that have been historically valuable for crop production, pastureland, and natural habitat for plant and animal life (Goodhue County 2009). Descriptions of these designations are provided in Chapter 7.3.1. Chapter 7.3.1 provides information on agricultural resources in Goodhue County.

Figure 10.1-2 shows land cover types in the substation siting area. Approximately 1,506 acres (71 percent) of the substation siting area is cropland. Figure 10.2-4 shows soils considered prime farmland, prime farmland when drained, and farmland of statewide importance. Approximately 1,921 acres (91 percent) of soils in the substation siting area are considered prime farmland, prime farmland when drained, and farmland of statewide importance. No center pivot irrigation systems are located in the substation siting area. One organic farm is located approximately 1 mile northwest of the substation siting area.

Impacts and Mitigation

Chapter 7.3.1 provides detailed information regarding potential impacts to agricultural operations and mitigation measures.

The Applicant proposed to acquire a 40-acre site for substation construction, resulting in permanent impacts to cropland and categories of prime farmland on a portion of the final substation site. Permanent impacts to cropland and prime farmland are not expected to occur outside of the final 40-acre substation site unless construction of permanent access roads is required. Initial screening requirements for the substation site includes potential access along existing roads and filed lines to minimize permanent impacts to cropland and soils from access road construction.

Substation construction activities would be confined to the area purchased for the substation and access road. The substation construction activities would have no temporary impact on the agricultural land surrounding the site.

Impacts to organic farms would occur if prohibited substances (such as pesticides, herbicides, or fuel) entered organic agricultural land due to substation construction or operation. The organic farm identified approximately 1 mile northwest of the substation siting area is a sufficient distance away from the substation siting area such that no such impacts are anticipated. As specified in the AIMP, the Applicant would avoid the application of prohibited substances onto organic agricultural land unless requested and approved by the landowner.

Because the substation siting area does not contain center pivot irrigation systems and farmland preservation easements, no impacts to these resources are anticipated with the substation siting area.

10.1.2.2 Forestry

Chapter 7.3.2 provides background information regarding economically important forest resources within the Project area, and methodology for identifying potential impacts to forestry resources.

Existing Environment

The North Rochester Substation siting area is located mostly in grassland and cropland along US-52. The substation siting area includes approximately 65 acres (3 percent) of forested land, which is mostly limited to tree stands along drainages, near farmsteads, and along field windbreaks. Figure 10.1-1 shows land cover in the vicinity of the siting area.

According to the MDNR Forestry Division Fiscal Year 2010 Harvest Plans (MDNR 2009i), the Pine Island Township does not have an AHP. Therefore, no economically important forestry resources were identified within the substation siting area.

Impacts and Mitigation

Depending upon whether the preferred or alternative siting area is selected, some tree clearing may be required in the final 40-acre substation site. Significant impacts to forested areas are not expected because only 3 percent of the North Rochester Substation siting area is forested, which is more than the alternative site. No impacts to economically important forestry resources are anticipated because none occur within the substation siting area.

10.1.2.3 Mining

The Applicant used data collected from the Mn/DOT Aggregate Sources Interactive Map. Information on mining resources in the Project area is included in Chapter 7.3.3.

Existing Environment

No mines were identified within the boundary of the North Rochester Substation siting area, or within 1 mile of the substation siting area.

Impacts and Mitigation

Because no mines are located within the North Rochester Substation Siting area, or within 1 mile of the substation siting area, no impacts are anticipated and no mitigation measures are proposed.

10.1.3 Archaeological and Historic Resources

10.1.3.1 Archaeological

Chapter 7.4.1 describes the methodology used to identify and evaluate potential impacts to archaeological resources.

Project Area

No archaeological sites were documented within the substation siting area. Four archaeological sites were documented in the Project area within 1 mile of the substation siting area. Two sites are listed as lithic scatter, and two sites are listed as historic depressions. The NRHP status of all four archaeological sites is listed as Not Determined (MVAC 2008). A list of archaeological sites within 1 mile of the substation siting area is located in Appendix Q.

Impacts and Mitigation

The sites identified in the Class I are not anticipated to be impacted by the construction of the substation. Chapter 7.4.1 describes mitigation should any additional archaeological resources be identified during construction of the substation.

10.1.3.2 Architectural

The Class I described in Chapter 7.4.1 identified known historical resources within the Project area, including sites listed on the NRHP and architectural properties.

Existing Environment

There are no NRHP-listed sites located within the substation siting area, or within 1 mile of the substation siting area.

There also are 13 historic architecture sites within 1 mile of the substation siting area that have not yet been evaluated for eligibility on the NRHP.

Impacts and Mitigation

Chapter 7.4.2 describes the mitigation approach associated with the discovery of historic resources.

10.1.3.3 Historic Landscapes

Identification of historic landscapes typically occurs through a state's preservation planning program, thematic studies, or compliance-related surveys. The Class I, described in Chapter 7.4.1, identified known cultural resources within the Project area.

Existing Environment

No designated historic landscapes were identified in the Class I (MVAC 2008).

Impacts and Mitigation

If a historic landscape were to be identified prior to construction, consultation with appropriate parties would be initiated and consideration would be given to the Project-related impacts.

10.1.4 Natural Environment

10.1.4.1 Air Quality

Existing Environment

Chapter 7.5.1 provides information general air quality in the Project area, and potential impacts and mitigation associated with Project construction and operation.

Impacts and Mitigation

Chapter 7.5.1 provides information about potential impacts to air quality and mitigation strategies applicable to construction and operation of the proposed North Rochester Substation. No long-term impacts to air quality are anticipated due to the construction and operation of the substation.

10.1.4.2 Water Resources

Water resources considered in this Application include streams and rivers, impaired waters, wetlands, the FEMA floodplains, and the BWSR easements. Chapter 7.5.2 provides information on state and federal regulations regarding water resources as well as wetland classification descriptions.

Existing Environment

Streams

All streams within the North Rochester Substation siting area are shown in Table 10.1-6. The siting area contains 12 streams, of which only Dry Run Creek is a designated PWI stream under the regulatory jurisdiction of the MNR (MDNR 2009). Intermittent streams are located within both the preferred and alternative siting areas (Figure 10.2-5).

Table 10.1-6:
Streams Located within the North Rochester Substation Siting Area

Waterbody Name	PWI Stream (Yes/No)
Unnamed Perennial/Intermittent Stream, Tributary to the Zumbro River North Fork	No
Unnamed Perennial/Intermittent Stream, Tributary to Dry Run Creek	No
Unnamed Perennial/Intermittent Stream, Tributary to Dry Run Creek	No
Unnamed Perennial/Intermittent Stream, Tributary to Dry Run Creek	No
Unnamed Perennial/Intermittent Stream, Tributary to Dry Run Creek	No
Unnamed Perennial/Intermittent Stream, Tributary to Dry Run Creek	No
Unnamed Perennial/Intermittent Stream, Tributary to Dry Run Creek	No
Dry Run Creek	Yes
Unnamed Perennial/Intermittent Stream, Tributary to the Zumbro River North Br Middle Fork	No
Unnamed Perennial/Intermittent Stream, Tributary to the Zumbro River North Br Middle Fork	No
Unnamed Perennial/Intermittent Stream, Tributary to the Zumbro River Middle Fork	No
Unnamed Perennial/Intermittent Stream, Tributary to the Zumbro River Middle Fork	No

The Middle Fork of the Zumbro River from the headwaters to the North Branch of the Middle Fork is impaired due to turbidity (MPCA 2009). Tributaries of the Middle Fork of the Zumbro River are located within the boundaries of the substation siting area.

Wetlands

Chapter 7.5.2 provides a definition of palustrine, riverine, and lacustrine wetland classes, as well as a classification of PFO.

A summary of wetlands identified within the North Rochester Substation siting area is shown in Table 10.1-7. The siting area contains seven discrete NWI wetlands. Approximately 6.41 acres, or 0.3 percent of the total siting area, is mapped as NWI wetlands but none are mapped as a MDNR PWI wetlands. No wetland areas are located within the siting area.

Table 10.1-7:
NWI Wetlands located within the North Rochester Substation Siting Area

Wetland Type	Total NWI Wetlands			Number of MDNR PWI Wetlands Crossed
	Count	Acres in Siting Area	% of Siting Area	
NWI Total	7	6.41	0.3	0
PEMB	3	2.19	0.1	0
PEMC	2	2.44	0.1	0
PSS1B	1	1.17	0.1	0
PUBGh	1	0.61	0.0	0

NWI Wetlands based on NWI data; % of route calculated as acreage within the ROW; Source: USFWS NWI, MDNR PWI.
PEMB—Palustrine, Emergent, Saturated.
PEMC—Palustrine, Emergent, Seasonally Flooded.
PSS1B—Palustrine, Scrub-Shrub, Broad-Leaved Deciduous, Saturated.
PUBGh—Palustrine, Unconsolidated Bottom, Intermittently Exposed, Diked/Impounded.

FEMA 100-Year Floodplains

There are no FEMA 100-year floodplains within the boundaries of the North Rochester Substation siting area.

Minnesota Board of Water and Soil Resources Easements

No BWSR easements are located within the boundaries of the North Rochester Substation siting area.

Impacts and Mitigation

Streams

The Applicant anticipates avoiding streams when selecting the final site for the North Rochester Substation and do not expect any permanent impacts to streams due to construction and operation of the North Rochester Substation. Potential temporary impacts to streams and mitigation strategies are identified in Chapter 7.5.2. Temporary impacts to streams could include increased turbidity. The Middle Fork of the Zumbro River from the headwaters to the North Branch of the Middle Fork is considered impaired due to turbidity (MPCA 2009). Tributaries of the Middle Fork of the Zumbro River are located within the boundaries of the substation siting area.

Wetlands

Permanent impacts to wetlands would occur if facilities or access roads are placed in a wetland, or if wetlands undergo permanent vegetative changes. The Applicant anticipates avoiding wetlands in selecting the final substation site and access road locations. If wetlands cannot be avoided, the Applicant would coordinate with the USACE, the MDNR, and the BWSR to determine appropriate mitigation actions.

Because no wetlands were identified within the siting areas, no permanent or temporary impacts to wetlands are anticipated due to final substation site selection. The Applicant anticipates that permanent and temporary access roads will avoid all wetland features. None of the wetlands in the siting area are forested so no impacts to forested wetlands are anticipated.

FEMA 100-Year Floodplains

No permanent impacts to the FEMA 100-year floodplains are anticipated because none are present within the North Rochester Substation siting area.

Minnesota Board of Water and Soil Resources Easements

No permanent or temporary impacts to the BWSR easements are anticipated because none are present within the North Rochester Substation siting area.

10.1.4.3 Flora

Existing Environment

Common plant species and plant communities known to occur in the Project area are described in Chapter 7.5.3. Data on vegetation that currently and historically exist in the Project area were gathered from the MDNR MCBS (MDNR 2009). This discussion also identifies noxious weeds recognized by the state of Minnesota and by counties within the Project area.

The North Rochester Substation siting area is located entirely within the Rochester Plateau Ecological Subsection of the Paleozoic Plateau Ecological Section (MDNR 2009), described in Chapter 7.5.3. MCBS surveys demonstrate that historically, the predominant vegetation communities in the Rochester Plateau Subsection were tallgrass prairie and bur oak forest. Remnants of historical vegetation communities may occur in the substation siting area. Field surveys to identify native vegetation communities in the Project area would occur prior to construction.

Figure 10.1-2 shows current land cover in the substation siting area. The dominant land cover types in the substation siting area include cropland (70 percent), grassland (25 percent), forested (5 percent).

The state of Minnesota has a total of 11 species of noxious weeds on their primary list, as identified in Chapter 7.5.3 (Table 7.5-6). Goodhue County does not have a secondary noxious weeds list.

Impacts and Mitigation

Impacts to vegetation and proposed mitigation are discussed in detail within Chapter 7.5.3. The Applicant would continue to work with the MDNR and USFWS to identify sensitive habitats and state-listed species toward reducing potential effects to these resources. Construction equipment can spread noxious weed propagating material to new locations. The Applicant will comply with Minnesota noxious weed laws as described in the Minn. R. ch. 1505.

Permanent removal of vegetation would take place within the final substation site and along new permanent access roads, if required. Typically, vegetation growth at the operational site would be controlled mechanically or with herbicides on a regular maintenance schedule. Temporary impacts to flora may occur in the area immediately surrounding the substation site and along temporary access roads. Clearing for access roads would be limited as much as practicable, to a maximum of 20 feet wide. Following construction, any temporary access roads would be removed and the sites would be revegetated. Lengths and locations of temporary access roads are currently unknown pending final site selection.

10.1.4.4 Fauna

Existing Environment

Common wildlife species and habitats known to occur in the Project area are described in Chapter 7.5.3. Species include those found in the vegetation cover types as discussed in Chapter 10.1.4.4. These cover types include cropland, grassland, upland forests, and wetland habitats.

Conservation easements and important wildlife areas in and near the North Rochester Substation siting area are shown on Figure 10.1-5. There are no federally designated WPAs, NWRs, or USFWS easements located within 1 mile of the substation siting area. There are 48 CRP lands within 1 mile of the substation siting area. No WMAs, designated trout streams, or IBAs are located within 1 mile of the substation siting area. There are no GBCAs within 1 mile of the substation siting area.

Impacts and Mitigation

Temporary impacts (potential harm, habitat alteration or removal, and displacement) to fauna would take place most intensively in the immediate area of the substation site. Staging areas also would temporarily impact fauna within the substation construction area. Grading could occur at the staging areas. Clearing for access roads would be limited as much as practicable and would be at maximum 20 feet wide. Temporary access roads would be removed and the area revegetated. There is potential for the displacement of wildlife and loss of habitat from construction of the substation. Many species of wildlife would likely avoid the immediate area during construction. Based on the availability of other unaffected and suitable habitats in the vicinity of the proposed substation, no measureable changes to common wildlife populations would be expected.

To mitigate possible impacts to wildlife, areas surrounding, but not included within the substation that are disturbed by construction activities would be restored to pre-construction contours and would be

reseeded with a MDNR-recommended seed mix that is free of noxious weeds, subject to approval of the landowner. The Applicant will address avian issues by working with MDNR and USFWS to identify any areas that may require mitigation measures to reduce the likelihood of collisions.

10.1.4.5 Rare and Unique Resources

Existing Environment

Chapter 7.5.5 discusses the methodology used to identify potential impacts to rare and unique resources in the Project area, and the legal frameworks that govern them.

The MDNR MCBS data were consulted to determine whether there were areas with moderate, high, or outstanding biodiversity significance within 1 mile of the substation siting area. Within 1 mile of the substation siting area, three MCBS sites are rated high and five MCBS sites were rated moderate. There are no MCBS sites within the substation siting area.

The following discussions focus on federal and state protected species and rare and unique communities within 1 mile of the substation siting area. No federally listed species were identified. Species protected under state statute are those listed as special concern, threatened, and endangered.

Table 10.1-8 lists the MDNR NHIS database element occurrence records for rare and unique species within the boundaries of the North Rochester Substation siting area, and within 1 mile of the substation siting area. Two native plant communities were identified within 1 mile of the substation siting area as shown on Table 10.1-9.

Table 10.1-8:
North Rochester Substation Siting Area: Rare and Unique Species

Common Name	Scientific Name	Status
Mollusks		
Creek heelsplitter	*Lasmigona compressa*	SC
Ellipse	*Venustaconcha ellipsiformis*	ST
Herbaceous Plants		
White wild indigo	*Baptisia alba*	SC
Tubercled rein-orchid	*Platanthera flava* var. *herbiola*	SE
Glade mallow	*Napaea dioica*	ST

SE State Endangered.

ST State Threatened.

SC Species of Concern.

Table 10.1-9:
North Rochester Substation Siting Area: Rare Native Communities

Community Type	Notes
Native Plant Community, Undetermined Class	Two native communities, one oak forest, one maple basswood forest.

Impacts and Mitigation

The Applicant would avoid any habitats related to native prairie remnants, rivers, streams, wetlands and any other rare or unique plant communities, and would use appropriate BMPs. If construction within these resource areas cannot be avoided, surveys would be conducted and the appropriate agencies would be consulted in an effort to minimize and/or mitigate for impacts to listed species or suitable habitat. The Applicant would maintain and implement approved standard water and soil conservation practices during construction of the Project to protect topsoil and adjacent water resources and reduce impacts from potential soil erosion and sedimentation, as necessary

10.2 Northern Hills Substation—Description of Existing Environment

The existing Northern Hills Substation in Rochester is the endpoint for the North Rochester–Northern Hills 161 kV section. A detailed description of the Northern Hills Substation is provided in Chapter 6.1.2.

The Northern Hills Substation is located in a primarily residential area of Rochester. New construction in the vicinity of the Northern Hills Substation includes residences and a new school.

The Northern Hills Substation is located entirely within the Rochester Plateau subsection of the EBF Province according to the MDNR Environmental Classification System (MDNR 2000). The Rochester Plateau subsection is described in detail in Chapter 7.1.

10.2.1 Human Settlement

10.2.1.1 Land Cover and Land Use

Chapter 7.2.1 provides background information on land cover/land use, and methodology used to identify potential impacts.

Existing Environment

The Northern Hills Substation is located in Olmsted County, Cascade Township, and the City of Rochester. The parcel on which the proposed expansion would occur is owned by the City of Rochester and zoned as R1, mixed single family residential area intended to maintain and promote areas of relatively low residential density where the emphasis is generally on the development of one-family

dwellings of various styles designed to meet the housing needs of the complete range of one-family households (City of Rochester 2009).

The substation parcel is used exclusively for operation of the substation. The expansion would likely require removal of some existing substation landscaping and re-design of the landscape plan for the substation. Land use around the Northern Hills Substation is largely residential with some commercial establishments such as retail stores, restaurants, and gas stations. A new school is being constructed along the Douglas Trail approximately 0.5 mile northwest of the substation.

Impacts and Mitigation

The proposed expansion would occur on a parcel already owned by the City of Rochester and used for a substation. Because expansion of the substation would not require the acquisition of land currently used for other purposes, the proposed expansion of the Northern Hills Substation is not anticipated to impact adjacent land use.

10.2.1.2 Residences

Existing Environment

No residences or structures other than substation facilities are located on the Northern Hills Substation parcel.

Impacts and Mitigation

Because no residences or other structures besides substation facilities are located in the substation expansion area, no impacts are anticipated and no mitigation would be required.

10.2.1.3 Noise

Chapter 10.1.1.3 provides background information about noise associated with substations, and methodology for assessing potential impacts from noise.

Existing Environment

Existing sources of noise in the vicinity of the Northern Hills Substation include traffic, farm equipment, wind, and insects. Average street traffic produces noise levels that are as high as 70 dBA and a tractor or power lawn mower produces noise levels that are approximately 65 to 95 dBA (Center for Hearing and Communication 2009). Noise levels associated with other common noise sources are listed in Chapter 7.2.3.

Impacts and Mitigation

Noise levels from the Northern Hills Substation do not exceed MPCA Noise Limits, and the expansion of the substation would not cause any additional noise because no new transformers would be installed at the site.

10.2.1.4 Aesthetics

The discussion of visual quality and aesthetics is based on a qualitative review of the natural and man-made features of the existing environment within and views toward the Project area. Chapter 7.2.4 provides general information about the methods used to assess potential impacts to aesthetic resources in the Project area.

Existing Environment

The Northern Hills Substation expansion area is located in Olmsted County within the city limits of northwestern Rochester, on a parcel with an existing substation. Equipment would be added to the substation that is visually similar to equipment that already exists on the property. Residential structures are located across 55th St. NW to the south of the existing substation and within 1 mile to the north and southwest. There are 161 kV transmission lines that connect the existing substation from the east and south.

Impacts and Mitigation

The expansion of the Northern Hills Substation would not significantly affect scenic quality around the substation because it is an existing facility, and added electrical equipment would be visually similar to facilities that already exist on and near the property. Re-design of the landscape plan would minimize visual impacts and the proposed expansion would not create a significant new visual impact for area residents and travelers.

10.2.1.5 Social and Economic Resources

Social and economic resources were assessed to identify any potential effects that construction and operation of the Project may have on the socioeconomic characteristics within the study area. The socioeconomic study area is defined as Olmsted County and the City of Rochester for the Northern Hills Substation expansion area. Mitigation measures also are recommended to address any impacts found within the study area.

Socioeconomic factors analyzed in this Application include, population, race and ethnicity, income, and leading industries. To consider population characteristics, a ROC was established to understand the dynamics of the population living in proximity to the substation expansion area. The ROCs established for this section of the Project include the county and city where the substation expansion is proposed. U.S. Census data from 2000 used for this evaluation was summarized at the following different geographic levels; state, county, census tracks, and block groups.

Existing Environment

The majority of the land use in Olmsted County is agricultural, agricultural serving communities, and the greater area of the City of Rochester. According to the MN GAP, most of the land cover in the vicinity of the substation expansion area is cropland, grassland, or urban.

Population characteristics used to analyze the social setting of the substation expansion area include the total population, estimated future population, and per capita income. Population information is included in Table 10.2-1. There are no persons living within the substation expansion area. Population density in Olmsted County is shown in Figure 10.2-3.

US-52 is the major transportation corridor between the Twin Cities and Rochester, Minnesota. According to the U.S. Census Bureau, 2000 to 2008, the population in the study area has experienced a growth ranging from 14 percent to over 17 percent (see Table 8.2.4). It is expected population will continue to increase in the study area due to the proximity to regional trade centers and access to US-52.

Table 10.2-1:
Population in the Socioeconomic Study Area for the Northern Hills Substation Expansion Area

City/County	2000 Population	2008 Population	Percent Change 2000–2008
Olmsted County	124,277	141,360	14
Rochester	85,806	100,413	17
State	4,919,479	5,220,393	6

Source: U.S. Census (2008).

The study area is composed of a variety of racial and ethnic groups. Standard procedures used by the U.S. Census for identifying persons of a particular race or ethnic group are described in Chapter 7.2.5. As shown in Table 10.2-2, the majority of persons in the study area self-identified as White/Caucasian.

The per capita income in 2000 was approximately $24,939 in Olmsted County $21,934 (U.S. Census 2000). A range of industries make up the workforce in Olmsted county that range from educational, health and social services; manufacturing; professional, scientific, and management; finance, insurance, and real estate; transportation and warehousing; agriculture, forestry, fishing, hunting and mining. Social service occupations, education, and health care are leading industries in the ROC. Table 10.2-3 provides an overview of the leading county industries for Olmsted County.

Table 10.2-2:
Race or Ethnic Heritage

Geographic Area		White or Caucasian	Black or African American	Hispanic or Latino	Asian	Two or More Races	All Other Races	Total
Expansion Area	Number of Persons	28,238	92	2,045	214	297	1,055	29,896
	Percent	94.4	<1	6.8	<1	1	3.5	
Region of Comparison	Olmsted County	122,950	4,972	3,958	6,701	1,916	565	137,104
	Percent	89.4	3.6	2.9	4.9	1.4	0.4	
State of Minnesota	Number of Persons	4,400,282	171,731	143,382	141,968	82,742	65,810	4,919,479
	Percent	89.4	3.5	2.9	2.9	1.6	1.3	

Source: U.S. Census Bureau (2000a, b, c).

Table 10.2-3:
Leading Industries in Socioeconomic Study Area for Northern Hills Substation Expansion Area

County	Industry[1]	Percent of Workforce
Olmsted	Educational, Health, and Social Services	39.9
	Manufacturing	11.0
	Retail Trade	9.9
	Agriculture, forestry fishing and hunting, and mining	1.3
	Construction	6.0

Source: U.S. Census Bureau (2000a, b, c).

1 Selected industry categories are reported in this table.

Impacts and Mitigation

Any adverse impacts to socioeconomic conditions or factors for the substation construction would be short-term; therefore, no mitigation is proposed. It is estimated that approximately 12 temporary workers would be required for the substation construction and that construction would take approximately 12 months to complete. The types of impacts that may be anticipated within the socioeconomic study area from construction of the North Rochester Substation would be the same as those identified in Chapter 7.2.5. Potential impacts to services such as police, fire, hospital/emergency service, and social services within the study area are discussed in Chapter 10.2.1.7.

10.2.1.6 Recreation and Tourism

There are a variety of outdoor recreation and tourism opportunities in the vicinity of the Northern Hills substation expansion area. Popular activities, and methodology used to identify recreation resources is described in Chapter 7.2.6.

Existing Environment

The land in the substation expansion area is owned by the RPU and does not provide for public recreation or tourism opportunities. The Douglas Trail, described in Chapter 8.2.6, follows the northeast boundary of the substation parcel, which is approximately 0.25 mile long. The Douglas Trail was identified as a tourism resource because it is a recreational resource that may be enjoyed by tourists as well as residents. A baseball diamond is located on a parcel of land owned by the City of Rochester east of the substation. Another baseball diamond associated with the Holy Spirit School is located southwest of the substation parcel. There are no snowmobile trails located in the vicinity of the substation parcel.

Impacts and Mitigation

Temporary impacts to the Douglas Trail may include short-term trail closures during construction to protect public safety. The substation expansion would be visible from the Douglas Trail, and from the baseball diamonds depending on landscaping and vegetative screening. However, the Northern Hills Substation expansion area may not be discernable from the original substation area. Visual impacts associated with the substation expansion are discussed in Chapter 10.2.1.4. The Applicant will work with landowners and managing agencies to minimize visual or other impacts to recreational and tourism resources.

10.2.1.7 Public Services, Health and Safety

Public services and facilities may be generally defined as services provided by government entities, including hospitals, fire and police departments, schools, public parks, and water supply, and wastewater disposal systems. Public services also include pipelines, transmission lines, and other utility infrastructure. Chapter 7.2.7 describes methodology for identifying and analyzing potential impacts to public services, health and safety.

Existing Environment

There are no municipal buildings, wastewater treatment facilities, or other public services located along within the Northern Hills Substation. Two schools are located adjacent to the substation parcel. Gibbs Elementary School, which opened in 2009, is located directly west of the substation parcel. The Holy Spirit School is located southwest of the substation parcel. These schools are labeled on Figure 10.2-1.

The City of Rochester provides residents within municipal boundaries with water, sewer, and electric service through the RPU. A distribution line constructed to accommodate a 161 kV transmission line follows the Douglas Trail and connects with the Northern Hills Substation from the north: The Preferred

and Alternative 161 kV Routes for this Project share an alignment along this distribution line. Two 161 kV transmission lines interconnect to the substation from the east and the west.

Impacts and Mitigation

Except for the two schools, there are no public services, municipal buildings, or wastewater treatment plants located in the vicinity of the substation parcel. The substation expansion occurring within the boundary of the current substation parcel is not anticipated to impact the operation of the schools.

It may be necessary for the Applicant to work with other public service utilities to relocate their facilities if they conflict with the location of the substation expansion area. Minimal disruptions to electric services may take place during construction if the substation construction activities disturb existing utilities. Mitigation measures to be implemented during construction of the substation expansion and measures to ensure that there are disruptions to public services are negligible are described in Chapter 7.2.7. Potential impacts to Public Health and Safety include injury to the general public caused by the construction or operation of the proposed transmission lines and associated facilities. The construction and operation of the proposed substation is not anticipated to impact public health and safety.

Chapter 7.2.7 provides a discussion regarding public health and safety measures that would be implemented during construction and operation of the Project. Chapter 10.1.1.7 provides mitigation strategies specific to substation construction and operation to protect public health and safety.

10.2.1.8 Transportation

The following identifies potential impacts to transportation corridors, including railroads and roadways, associated with the construction and operation of the Northern Hills Substation expansion. Transportation corridors near the Northern Hills Substation were identified using GIS data. AADT volumes for all roads with data available were obtained from the Mn/DOT and were reported in the impact assessments as available.

Public airports and aviation facilities also were analyzed for potential impacts from the substation expansion area. The FAA and the Mn/DOT have each established development guidelines on the proximity of tall structures, including transmission lines, to public use airports and heliports. The FAA also has developed guidelines for the proximity of structures to VOR systems. Chapter 7.2.8 provides detailed information about these guidelines.

Existing Environment

Roads

Roads located at the Northern Hills Substation are identified on Figure 10.2-1. The substation parcel located to the immediate northeast of the intersection of 55th Street NW and 50th Avenue NW. The substation expansion area is bounded on the west by 50th Avenue NW, and bounded on the south by 55th Street NW.

Railroads

No railroads are located adjacent to the proposed North Rochester Substation.

Airports and Airplane Safety

There are no public airports or aviation facilities within regulated distances from the substation, and substation expansion components are not be taller than 200 feet. Review by the FAA would not be required for the Northern Hills substation expansion.

Impacts and Mitigation

Roadways

Potential impacts and mitigation strategies for the Northern Hills Substation expansion area would be similar to those described in Chapter 10.1.1.8, but less pronounced because of the small expansion area.

Railroads

There are no impacts anticipated to railroads from the substation expansion, therefore no mitigation is proposed.

Airports and Airplane Safety

There are no impacts anticipated to public airports or airplane safety from construction of the North Rochester Substation therefore no mitigation is proposed.

10.2.1.9 Electrical Interference

Chapter 10.1.1.9 provides background information and assessment methodology about potential impacts to communication devices from substations.

Existing Environment

There are no communications facilities located within the substation expansion area or within 1 mile of the substation expansion area.

Impacts and Mitigation

If interference with a communication facility occurs, the Applicant would work with the owner to mitigate impacts. More information on potential interference and mitigation measures associated with substations are included in Chapter 10.1.1.9.

10.2.2 Land Based Economies

10.2.2.1 Agriculture

Existing Environment

There are no agricultural land uses on or adjacent to the Northern Hills Substation parcel.

Impacts and Mitigation

Because no agricultural land uses occur on or adjacent to the substation parcel, no impacts are anticipated from the substation expansion and no mitigation is proposed.

10.2.2.2 Forestry

Existing Environment

No economically important forestry resources are located on or adjacent to the Northern Hills Substation parcel.

Impacts and Mitigation

Because no forestry land uses occur on or adjacent to the substation parcel, no impacts are anticipated from the substation expansion and no mitigation is proposed.

10.2.2.3 Mining

Existing Environment

No active mines occur on or adjacent to the Northern Hills Substation parcel.

Impacts and Mitigation

Because no active mines occur on or adjacent to the substation parcel, no impacts are anticipated from the substation expansion and no mitigation is proposed.

10.2.3 Archaeological and Historic Resources

10.2.3.1 Archaeological

Existing Environment

Chapter 7.4.1 describes the methodology used to identify and evaluate potential impacts to archaeological resources.

Project Area

No archaeological occurrences were documented within the North Rochester Substation parcel, or within 1 mile of the substation parcel.

Impacts and Mitigation

The sites identified in the Class I are not anticipated to be impacted by construction of the substation expansion. Chapter 7.4.1 describes mitigation should any archaeological resources be identified during construction of the substation expansion.

10.2.3.2 Architectural

The Class I described in Chapter 7.4.1 identified known historical resources within the Project area, including sites listed on the NRHP and architectural properties. Physical avoidance of these resources also was a consideration during the siting and route development process.

Existing Environment

There are no NRHP-listed sites located within 1 mile of the substation expansion area. There are no historic architecture sites within 1 mile of the substation parcel.

Impacts and Mitigation

Chapter 7.4.2 describes the mitigation approach associated with the discovery of historic resources.

10.2.3.3 Historic Landscapes

Identification of historic landscapes typically occurs through a state's preservation planning program, thematic studies, or compliance-related surveys. The Class I described in Chapter 7.4.1 identified known cultural resources within the Project area.

Existing Environment

No designated historic landscapes were identified in the Class I for the Northern Hills substation parcel (MVAC 2008).

Impacts and Mitigation

If a historic landscape were to be identified prior to construction, consultation with appropriate parties would be initiated and consideration would be given to the potential impacts from the Project.

10.2.4 Natural Environment

10.2.4.1 Air Quality

Existing Environment

Chapter 7.5.1 provides information general air quality in the Project area, and potential impacts and mitigation associated with Project construction and operation.

Impacts and Mitigation

Chapter 7.5.1 provides information about potential impacts to air quality and mitigation strategies for construction and operation of the Northern Hills Substation expansion. No long-term impacts to air quality are anticipated due to the construction and operation of the substation.

10.2.4.2 Water Resources

Water resources considered in this Application include streams and rivers, impaired waters, wetlands, the FEMA floodplains, and the BWSR easements. Chapter 7.5.2 provides information on state and federal regulations regarding water resources as well as wetland classification.

Existing Environment

One drainage ditch is located adjacent to the Northern Hills Substation site, along the Douglas Trail. No wetlands, FEMA 100-year floodplains, or BWSR easements are located within or adjacent to the Northern Hills Substation site.

Impacts and Mitigation

No permanent or temporary impacts to streams are anticipated because none are present within the parcel boundary.

No permanent or temporary impacts to wetlands, the FEMA 100-year floodplains, or the BWSR easements are anticipated because none occur within or adjacent to the Northern Hills Substation site.

10.2.4.3 Flora

Existing Environment

Common plant species and plant communities known to occur in the Project area are described in Chapter 7.5.3. Data on vegetation that currently and historically exist in the Project area were gathered from the MDNR MCBS (MDNR 2009). This discussion also identifies noxious weeds recognized by the state of Minnesota and by counties within the Project area.

The Northern Hills Substation parcel is located within the Rochester Plateau Ecological Subsection of the Paleozoic Plateau Ecological Section (MDNR 2009), described in Chapter 7.5.3. Field surveys to identify native vegetation communities in the area would occur prior to construction.

Impacts and Mitigation

Permanent removal of vegetation would take place within an area less than 0.25 acre where vegetation management practices are already in place. An area slightly larger than this may be temporarily disturbed during of construction activities. These areas would be revegetated, as appropriate, for this substation parcel.

Construction equipment can spread noxious weed propagating material to new locations. The Applicant would comply with Minnesota noxious weed laws as described in the Minn. R. ch. 1505. Eleven species of weeds are listed as noxious in Minnesota. The state of Minnesota has a total of 11 species of noxious weeds on their primary list, as identified in Chapter 7.5.3 (Table 7.5-6). Olmsted County does not have a secondary noxious weeds list.

10.2.4.4 Fauna

Common wildlife species and habitats known to occur in the Project area are described in Chapter 7.5.4. Species include those found in the vegetation cover types as discussed in Chapter 10.2.1.1. These cover types include developed land, grassland, shrubland, and forested cover. Because the Northern Hills Substation parcel is developed, it is unlikely that this site supports high quality habitat that supports a variety of common wildlife species. Forested cover on the northern portion of the site provides suitable nesting habitat for avian species.

No conservation easements, the WMAs, designated trout streams, IBAs, or GBCAs are located within 1 mile of the Northern Hills Substation.

Impacts and Mitigation

Temporary impacts to fauna are anticipated to be minimal because the site has existing disturbance including a substation, transmission line, and access roads. There is potential for the displacement of wildlife and minimal loss of habitat from expansion of the substation. Many species of wildlife would likely avoid the immediate area during construction. To mitigate possible impacts to wildlife, areas surrounding the substation that were disturbed due to construction activities would be re-landscaped. The Applicant would address avian issues at areas of concern by working with the MDNR and the USFWS to identify any areas that may require mitigation measures to reduce the likelihood of collisions.

Chapter 7.5.4 identifies and discusses potential temporary and permanent impacts to wildlife that apply to the Northern Hills Substation, as well as potential mitigation strategies.

10.2.4.5 Rare and Unique Resources

Existing Environment

Chapter 7.5.5 discusses the methodology used to identify potential impacts to rare and unique resources in the Project area, and the legal frameworks that govern them. The MDNR MCBS data were consulted to determine whether areas with moderate, high, or outstanding biodiversity significance occur within 1 mile of the route centerline. No MCBS sites were identified within 1 mile of the Northern Hills Substation. The MDNR NHI data were reviewed to determine if any federal or state listed species or rare natural communities are documented within 1 mile of the substation. No records of federal or state listed species were found. In addition, no rare natural communities were identified within 1 mile of the substation.

Impacts and Mitigation

No rare or unique resources have been identified in proximity to the substation. The Project is not anticipated to impact rare and unique resources. Field surveys would be performed prior to construction to confirm the absence of special status species or suitability of habitat.

Zumbrota
162nd Ave
Mill St
460th St
58
County Hwy 10
160th Ave
North Rochester Substation Siting Area
60
County Rd 43
170th Ave
Alternative Siting Area
480th St
480th St
Dry Run Creek
195th Ave
490th St
Dry Run Creek
Preferred Siting Area
180th Ave
County Rd 55
52
500th St
195th Ave
180th Ave
County Hwy 11
County Hwy 11
203rd Ave
North Middle Fork Zumbro River
511th St
5th St NE
3rd St NE
County Hwy 11
Pine Island
County Hwy 27
210th Ave
Middle

North Rochester Substation Siting Area:

Overview

Proposed Features

161 kV Routes

- Preferred 161 kV Route
- Alternative 161 kV Route

345 kV Routes

- Preferred Route
- Alternative Route

Proposed Substation Features

- Substation Siting Area
- Siting Area

Jurisdiction

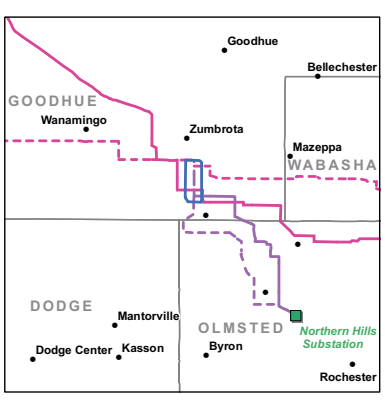
- Municipal Boundary

Existing Utilities

- 69 kV Transmission Line
- 345 kV Transmission Line

Recreational Snowmobile Trail

- Goodhue County Trail



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Overview
MN Route
Permit Application

10.1-1: North Rochester Substation Siting Area

Zumbrota
58
Mill St
162nd Ave
460th St
County Hwy 10
160th Ave
County Rd 43
170th Ave
60
Alternative Siting Area
480th St
480th St
Dry Run Creek
195th Ave
490th St
Dry Run Creek
Preferred Siting Area
180th Ave
North Rochester Substation Siting Area
County Rd 55
52
500th St
195th Ave
180th Ave
County Hwy 11
203rd Ave
County Hwy 11
North Middle Fork Zumbro River
511th St
5th St NE
3rd St NE
County Hwy 11
Pine Island
County Hwy 27
210th Ave

North Rochester Substation Siting Area:
Land Cover

Proposed Features

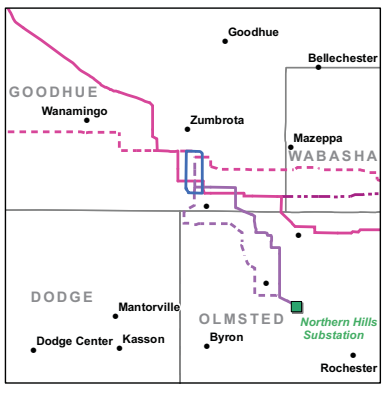
161 kV Routes
- Preferred 161 kV Route
- Alternative 161 kV Route

345 kV Routes
- Preferred Route
- Alternative Route
- Route Option

Proposed Substation Features
- Substation Siting Area
- Siting Area

Existing Utilities
- 69 kV Transmission Line
- 345 kV Transmission Line

Land Cover in Corridor
- Aquatic
- Cropland
- Developed
- Grassland
- Forest
- Shrub
- Marsh



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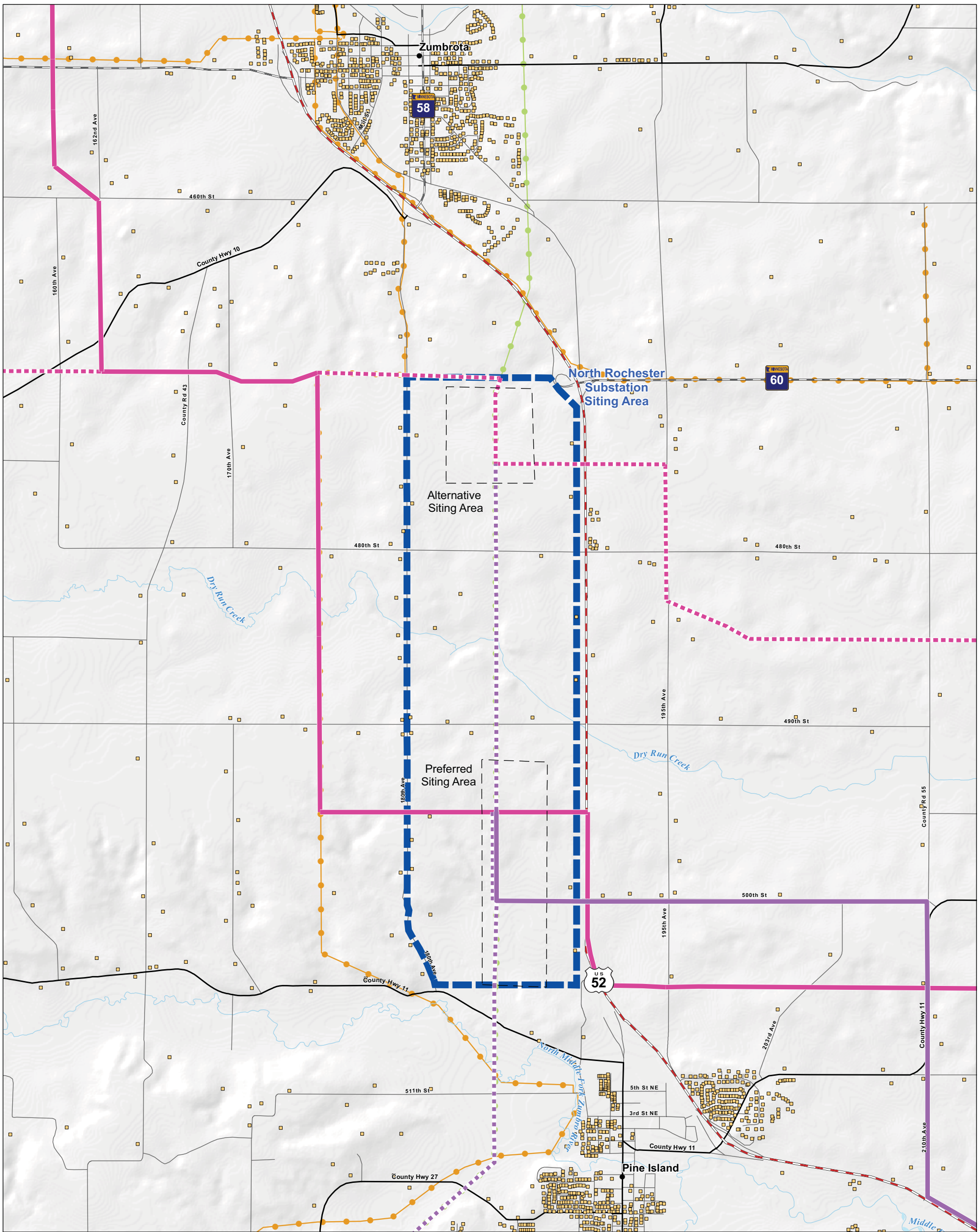
Land Cover
MN Route
Permit Application

10.1-2: Land Cover



North Rochester Substation

Residences and Structures

Proposed Features

161 kV Routes

- Preferred 161 kV Route
- Alternative 161 kV Route

345 kV Routes

- Preferred Route
- Alternative Route
- Route Option

Proposed Substation Features

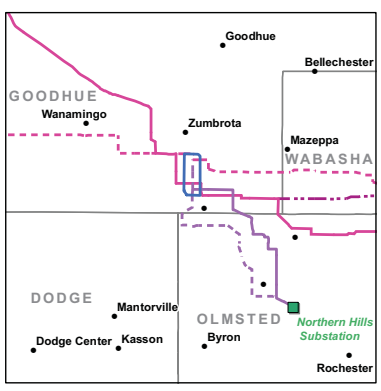
- Substation Siting Area
- Siting Area

Structures

- Residence

Existing Utilities

- 69 kV Transmission Line
- 345 kV Transmission Line



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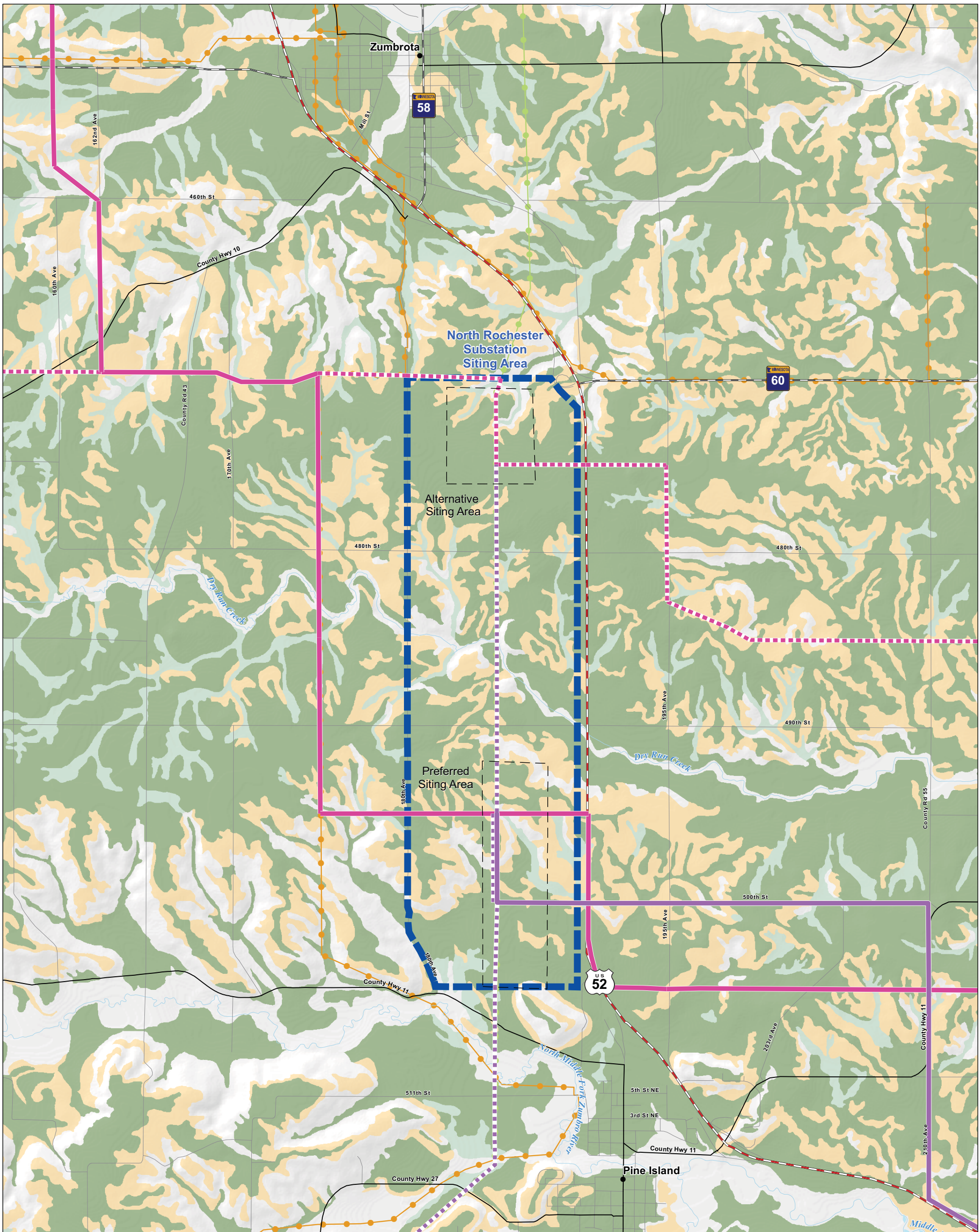
Residences and Structures
MN Route
Permit Application



North Rochester Substation

Prime Farmland

Proposed Features

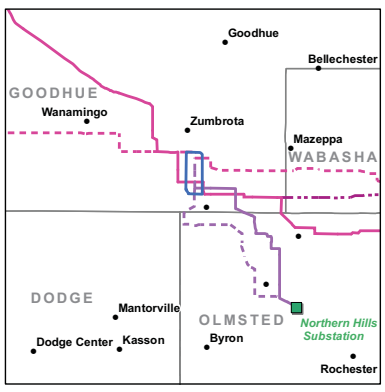
161 kV Routes
- Preferred 161 kV Route
- Alternative 161 kV Route

345 kV Routes
- Preferred Route
- Alternative Route
- Route Option

Proposed Substation Features
- Substation Siting Area
- Siting Area

Existing Utilities
- 69 kV Transmission Line
- 345 kV Transmission Line

Farmland
- Prime farmland
- Prime farmland if drained
- Farmland of statewide importance



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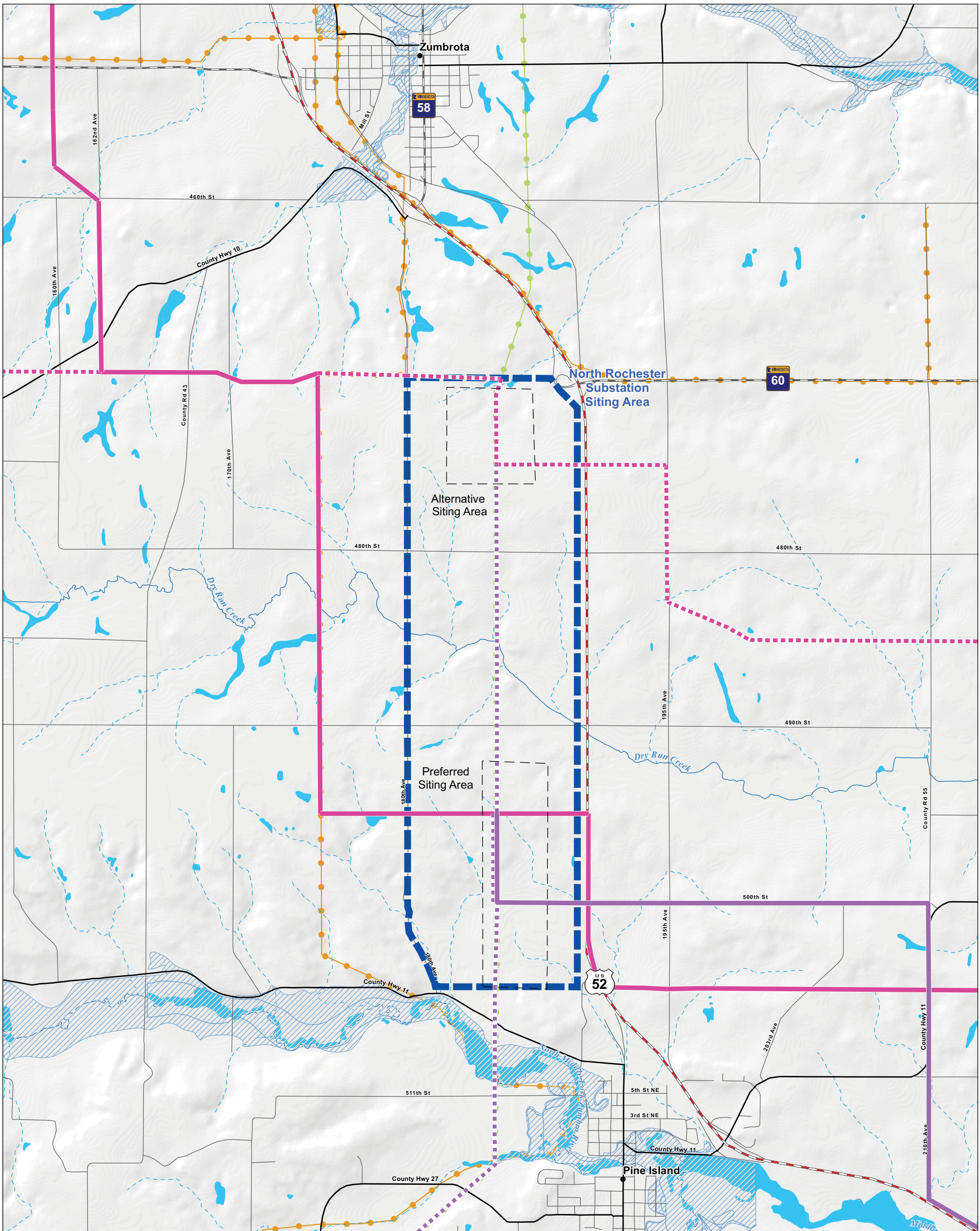
Prime Farmland
MN Route
Permit Application



North Rochester Substation

Water Resources

Proposed Features

161 kV Routes

- Preferred 161 kV Route
- Alternative 161 kV Route

345 kV Routes

- Preferred Route
- Alternative Route
- Route Option

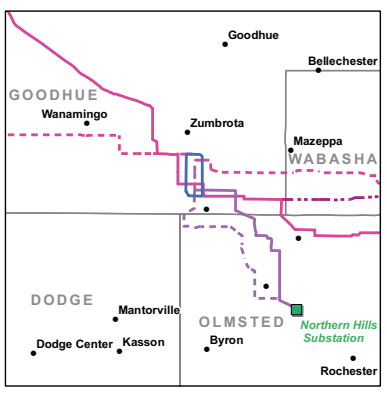
Proposed Substation Features

- Substation Siting Area
- Siting Area

Existing Utilities

- 69 kV Transmission Line
- 345 kV Transmission Line

ater Features



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SE Twin Cities • Rochester • La Crosse 345kV Transmission Project

Water Resources
MN Route
Permit Application

Zumbrota
58
Mill St
162nd Ave
460th St
County Hwy 10
160th Ave
North Rochester Substation Siting Area
60
County Rd 43
170th Ave
Alternative Siting Area
480th St
480th St
Dry Run Creek
195th Ave
490th St
Dry Run Creek
Preferred Siting Area
180th Ave
County Rd 55
52
500th St
195th Ave
180th Ave
County Hwy 11
203rd Ave
County Hwy 11
North Middle Fork Zumbro River
5th St NE
511th St
3rd St NE
County Hwy 11
210th Ave
Pine Island
County Hwy 27
Middle

North Rochester Substation
Easements

Proposed Features

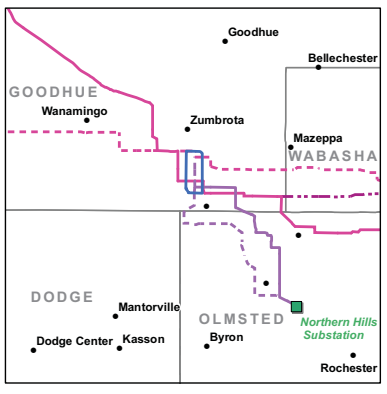
161 kV Routes
- Preferred 161 kV Route
- Alternative 161 kV Route

345 kV Routes
- Preferred Route
- Alternative Route
- Route Option

Proposed Substation Features
- Substation Siting Area
- Siting Area

Existing Utilities
- 69 kV Transmission Line
- 345 kV Transmission Line

Easements
- USDA - Conservation Reserve Program (Minnesota)



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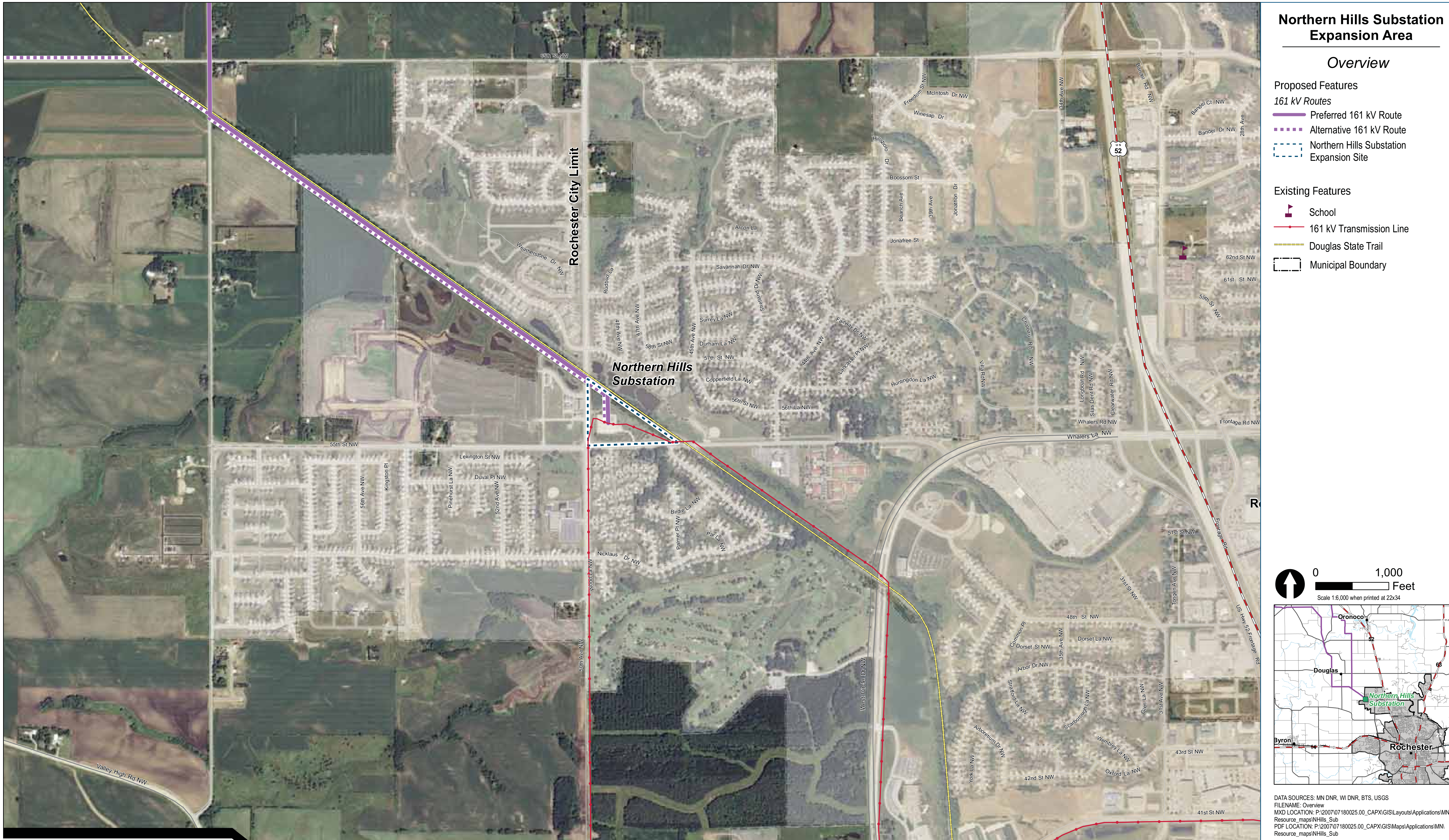
SE Twin Cities • Rochester • La Crosse 345kV Transmission Project

Easements
MN Route Permit Application



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Hampton • Rochester • La Crosse 345 kV Transmission Project

Overview Map
MN Route Permit Application

10.2-1: Northern Hills Substation Overview Map

11.0 Permits and Approvals

The Project would be constructed in Minnesota and Wisconsin. A list of permits and other anticipated approvals potentially required for the Project, in addition to a Certificate of Need and Route Permit from the Minnesota PUC, are listed in Table 11.0-1 and described below. Also listed in Table 11.0-1 are other permits and approvals required and guidelines applicable to the Project. The Applicant would obtain the permits and/or approvals from local, state, and federal agencies prior to construction of the proposed transmission line and associated facilities. The Project may be subject to permits, approvals or other guidelines in addition to those listed in Table 11.0-1.

Table 11.0-1
Permits and Approvals

Jurisdiction	Permits, Approvals, and Other Guidelines
Federal	
U.S. Department of Agriculture Rural Utility Service	• Environmental Policies and Procedures, NEPA Compliance (7 CFR 1794) • Section 106 National Historic Preservation Act Compliance
U.S. Army Corps of Engineers	• Nationwide permit or individual permit under Section 404 of the CWA of 1977 (33 USC 1251) • Section 10 Permit of the Rivers and Harbors Act of 1899 (33 USC 403) for crossing the Mississippi River
U.S. Federal Aviation Administration	• Form 7460-1, Objects Affecting Navigable Airspace (17 CFR 77)
U.S. Fish and Wildlife Service	• Use authorization if ROW required on Wetland Management District Lands (Standard Form 299) • Special Use Permit for crossing National Wildlife Refuge • Section 7 of the Endangered Species Act 1973 (16 USC 1531–1544; 50 CFR 22 Consultation) • Bald and Golden Eagle Protection Act (16 USC 668, 50 CFR 22) • Migratory Bird Treaty Act (16 USC 701–712)
U.S. Environmental Protection Agency	• Spill Prevention, Control and Countermeasure Plan (40 CFR 112)
U.S. Department of Treasury, Bureau of Alcohol, Tobacco, Firearms, and Explosives	• Explosives user permit
State of Minnesota	
Minnesota Department of Natural Resources	• License to cross Public Lands and Waters • Public Waters Work Permit • Minnesota Wild and Scenic Rivers Program • Minnesota State Forests • Endangered Species Statutes—Permits and Coordination
Minnesota Department of Transportation	• Utility Permit on Trunk Highway ROW (Long Form No. 2525)
Minnesota Pollution Control Agency	• National Pollutant Discharge Elimination System Storm Water Permits (construction, operation) • Section 401 Water Quality Certification (if an individual 404 permit is required by U.S. Army Corps of Engineers)

Table 11.0-1
Permits and Approvals

Jurisdiction	Permits, Approvals, and Other Guidelines
Minnesota Department of Agriculture	• Agricultural Mitigation Plan
Minnesota Historical Society Minnesota State Preservation Office	• National Historic Preservation Act, Section 106 Compliance
State of Minnesota – Local Government	
Minnesota Board of Water and Soil Resources and Local Governmental Units	• Local/State/Federal Application for Water/Wetland Projects (under Wetlands Conservation Act)
County, Township, City	• Lands Permit • Over-Width Load Permit • Road Crossing Permit • Driveway/Access Permit
State of Wisconsin	
Public Service Commission of Wisconsin	• Certificate of Public Convenience and Necessity •
Wisconsin Department of Natural Resources	• Joint state-federal application for impacts to waterways and wetlands (may also include WI Chapter 30 application) • Indication of Endangered/Threatened Species Incidental Take Authorization • Construction Site Erosion Control and Storm Water Discharge Permit • General Utility Crossings Permit • Section 401 Water Quality Certification (if 404 permit is required by U.S. Army Corps of Engineers)
Wisconsin Department of Agriculture, Trade, and Consumer Protection	• Agricultural Impact Statement Notification Packet
Wisconsin Department of Transportation	• Application to Construct and Operate Utility Facilities on Highway ROW (Form DT1553) • Access Driveway Permit (may be required) • Drainage Permit (may be required)
Wisconsin Historical Society/Office of Preservation Planning	• National Historic Preservation Act, Section 106 Compliance
State of Wisconsin – Local Government	
County, Township, City	• Over-Width Load Permit • Lands Permit • Road Crossing Permit • Driveway/Access Permit
Other	
State or Federal Conservation Easement Programs	• Coordination or approval to cross enrolled lands

11.1 Federal

11.1.1 USDA Rural Utilities Service

Dairyland Power Cooperative has indicated it will seek financial assistance from RUS for its ownership interest in the Project. RUS has determined that the possibility of funding Dairyland's ownership interest constitutes a federal action and therefore subject to NEPA and Section 106 of the NHPA. The RUS is the lead agency for both NEPA and Section 106 review. As such, RUS is coordinating compliance with Section 106 and its implementing regulations to meet NEPA requirements. According to RUS guidance (§1794.24(b)(1)), the Project would typically require an EA with scoping. However, given the potential for significant impacts, RUS is requiring that an EIS for the Project be prepared prior to issuing a decision regarding Dairyland's request for funding.

11.1.2 U.S. Army Corps of Engineers

A Section 404 permit is required from the USACE under the CWA for discharges of dredged or fill material into waters of the U.S. A permit is required for the Project if the placement of structures or other disturbances within wetlands cannot be avoided. The USACE also regulates impacts to navigable waters of the U.S. under Section 10 of the Rivers and Harbors Act. The Mississippi River is classified as a navigable water by the USACE. The Applicant will apply for this permit concurrent with the RUS NEPA review.

11.1.3 U.S. Federal Aviation Administration

Use of the airspace over and around civil and military airports in the U.S. is governed by the FAR under 49 CFR Part 77 (Objects Affecting Navigable Airspace).

An analysis of the plan and profile view of imaginary surfaces relative to the proposed route and structure height would be performed to identify regulated airport spaces for public airports along the Preferred and Alternative Routes. Notice of planned construction of a structure that falls in into one the following categories is required:

- Greater than 200 feet in height
- Greater height than 100:1 slope within 20,000 feet of a runway more than 3,200 feet in length
- Greater height than 50:1 slope within 10,000 feet of a runway shorter than 3,200 feet in length
- Greater in height than 25:1 slope within 5,000 feet from a heliport

If a structure falls into one of the categories listed above, FAA form 7460-1 would be completed to notify the FAA of the structures potentially impacting navigable airspace.

11.1.4 U.S. Fish and Wildlife Service

The Applicant is coordinating with the USFWS regarding potential impacts to endangered species, migratory birds, and other species of concern. A Special Use Permit is expected to be required for crossing the Upper Mississippi River National Wildlife and Fish Refuge, and use authorization may be required if the ROW is located in Wetland Management District Lands. This permit is required for work within easements managed by the USFWS. Compatibility is determined in accordance with the National Wildlife Refuge System Improvement Act. The Applicant will work closely with the USFWS to mitigate potential impacts to the refuge.

11.1.5 U.S. Environmental Protection Agency

Coordination with the EPA with regard to a Spill Prevention, Control, and Countermeasures (SPCC) Plan is required to prevent discharge of oil into navigable waters of the U.S. A SPCC Plan also is required if the aboveground storage capacity for oil is greater than 1,320 gallons and there is a reasonable expectation of a discharge into navigable waters of the U.S. The Applicant would update and/or develop SPCC Plans for the Project substations and meet the criteria per 40 CFR 112.

11.1.6 U.S. Department of the Treasury, Bureau of Alcohol, Tobacco, Firearms, and Explosives

Permits or licenses from the Bureau of Alcohol, Tobacco, Firearms, and Explosives may be required if bedrock is encountered during placement of transmission line structures or substation footings. In the event that explosives are necessary, the Applicant would ensure the contractor has obtained the appropriate permits or licenses for handling or use of explosives.

11.2 State of Minnesota

11.2.1 Minnesota Department of Natural Resources

The Applicant will continue to coordinate with the MDNR Division of Ecological Resources regarding the potential for occurrence of threatened or endangered species or their habitats that may be affected by the Project.

The MDNR Division of Lands and Minerals regulates utility crossings over or under public waters identified on the MDNR Public Waters and Wetlands maps. A Utility Crossing License from the MDNR is required under Minn. Stat. § 84.415 and Minn. R. ch. 6135. The Applicant would submit license applications to the MDNR upon completion of near final engineering and design plans for the Project.

The MDNR also regulates water appropriation activities that exceed 10,000 gallons per day or a total of one million gallons per year under Minn. R. 6115.0620. The Applicant would obtain authorization for the Project under the MDNR's General Permit 1997-2005 for Temporary Projects, as necessary, for activities such as construction site dewatering.

In addition, the MDNR may require additional permits for crossing state lands and public waters.

11.2.2 Minnesota Department of Transportation

There are various parts of the proposed routes that will parallel or cross State highways. Applicant will need to obtain Utility Permits from the Mn/DOT to occupy state highway ROW, including interstate roads (also called freeways), for crossings and longitudinal installations. Minn. R. 8810.3300, Subp. 1. Applicant generally applies for Utility Permits after the Route Permit is issued and detailed engineering and design is completed.

11.2.3 Minnesota Pollution Control Agency

A NPDES permit from the MPCA is required for storm water discharges associated with ground-disturbing construction activities equal to or greater than 1 acre. A requirement of the permit is to develop and implement a SWPPP, which includes implementation of construction BMPs intended to establish sediment and erosion control and minimize discharge of pollutants. The Applicant would prepare a SWPPP for the Project and submit an application to MPCA to obtain permit coverage under General Permit No. MN R100001 prior to beginning construction activities.

Section 401 water quality certification is required from the MPCA to obtain a federal permit for any activity that may result in a discharge to navigable waters of the U.S. This ensures compliance with state water quality standards and the federal CWA. More specifically, the MPCA uses its Section 401 authority to review Section 404 Corps Individual Permit applications for projects that meet one or more of the following criteria:

- Within areas that directly drain to Impaired Waters (or those close to being impaired), Outstanding Resource Value Waters (ORVWs), or trout waters
- Affect more than 3 acres of private property or 5 acres of public road wetlands within 0.5 mile of listed Impaired Waters (smaller projects with special concerns may also be considered)
- Have the potential to inundate or deepen by excavation greater than 2 acres of wetland or otherwise not regulated by the Wetlands Conservation Act (WCA)
- Result in typically large wetland fills or drainage (e.g., linear projects, mining activities, multi-purpose roads with new bed alignments, new judicial ditching that has the potential to affect downstream waters, flood impoundment or diversion projects, large development, and projects that may have adverse impacts on the watershed)

If the Project requires an individual permit from the USACE, a Section 401 water quality certification would be obtained as well.

11.2.4 Minnesota Department of Agriculture

The Applicant developed an AIMP in cooperation with the Minnesota Department of Agriculture (Appendix G). It is anticipated that the final plan would be incorporated into the Route Permit upon issuance.

11.2.5 Minnesota State Historic Preservation Office

The Applicant has conducted a Class I to determine whether features eligible for listing in the NRHP are present within the area of the Preferred and Alternative Routes. The Applicant would continue to coordinate with the SHPO.

11.3 Minnesota—Local Government

Once the Commission has issued a Route Permit, local zoning, building, and land use regulations and rules are preempted per Minn. Stat. § 216E.10, subd. 1. Other local approvals typically associated with transmission line construction are listed below.

11.3.1 Minnesota Board of Soil and Water Resources

The Minnesota WCA is administered at the local level with oversight from the Minnesota BWSR in accordance with Minn. R. ch. 8420. The Project may require a permit under these rules if permanent impacts to wetlands cannot be avoided. The Applicant would consult with the appropriate agencies upon final design and engineering of the Project.

11.3.2 Other Local Permits

These permits may be required to move oversize or heavy loads on county, township, or city roads.

11.3.2.1 Lands Permits

These permits may be required to cross certain local jurisdictional lands such as county or city parks.

11.3.2.2 Oversize Loads Permits

These permits may be required to move oversize loads on county, township, or city roads.

11.3.2.3 Road Crossing Permits

These permits may be required to cross or occupy county, township, and city road ROWs.

11.3.2.4 Driveway/Access Permits

These permits may be required to construct access roads or driveways that access county, township, or city roadways.

11.3.3 Approval to Cross Lands with Conservation Easements

As described in Chapters 7.0 through 10.0, there are lands throughout the Project area that are part of various conservation programs including, but not limited to RIM, CREP, and FNAP. The Applicant would work with landowners, local government entities that administer such programs, and the sponsoring federal agency on an individual site basis to coordinate the approvals necessary for placing the transmission facilities on these lands.

11.4 State of Wisconsin

11.4.1 Public Service Commission of Wisconsin

The PSCW presides over utility permitting in Wisconsin. A CPCN application combines approvals of need and transmission line routing into a single application. The Applicant anticipates filing a CPCN application in the summer of 2010.

11.4.2 Wisconsin Department of Natural Resources

The Office of Energy within the WDNR was created to centralize the review of utility projects and the environmental permitting process in Wisconsin. The WDNR and the PSCW would work together in completing the regulatory review for the Project. Permits and approvals required in Wisconsin under the WDNR include, but are not limited to, the following: state EIS, joint state-federal application for impacts to waterways and wetlands, indication of endangered/threatened species incidental take authorization, construction site erosion control and storm water discharge permit, general utility crossings permit, and Section 401 Water Quality Certification. The Applicant would coordinate with the WDNR to ensure that all necessary permits and approvals are obtained prior to construction of the Project.

11.4.3 Wisconsin Department of Agriculture, Trade, and Consumer Protection

The Wisconsin Department of Agriculture, Trade & Consumer Protection (DATCP) would prepare an Agricultural Impact Statement (AIS) to inform the Applicant of potential impacts to farmland or farm operations to recommend strategies for lessening such impacts. It is intended to be an informational document that would assist the Applicant in making decisions on Project alternatives. To initiate the AIS process, the Applicant would complete an AIS Notification Packet and submit it to Wisconsin DATCP upon completion of near final engineering and design plans for the Project.

11.4.4 Wisconsin Department of Transportation

The Applicant would complete Form DT1553, an Application to Construct and Operate Utility Facilities on Highway Right-of-Way. This application is required if the Project is located on ROWs owned and operated by WisDOT. Drainage permits and access driveway permits may also be required from WisDOT.

12.0 Federal and State Agency, Local Government, and Public Involvement

The Applicant conducted a public outreach effort that has provided the opportunity and encouragement for potentially affected landowners and other stakeholders to be involved in the routing process. The Applicant hosted 18 public open houses, 5 routing work group meetings, and met with landowners, government agencies, and other stakeholders to provide Project and routing information and collect comments and suggestions on the route options. The Applicant also provided technical and logistical support for 6 federal public scoping meetings hosted by the RUS.

This chapter discusses the agency, government, landowner, and other stakeholder outreach efforts in general. More detailed information is included in Appendix C.

12.1 Agency Involvement in Pre-Application

The Applicant began engaging interested agencies starting in July 2007 with a notice letter of the CON application filing with the Commission. The letter included information on the proposed Group 1 projects, the Minnesota permitting processes, and Project contact information. Federal, state, and local government and tribal contacts are included in Appendix C-1. The Applicant received agency comments throughout the process. Agency meetings held during the pre-application process are included in Table 12.1-1.

Table 12.1-1:
Agency Meetings Held During Pre-Application Process

Agencies	Date
USFWS Project Kick-off Meeting	January 25, 2008
WDNR and PSCW Coordinated Filing, Fieldwork, and Process Management Meeting	February 26, 2008
RUS Introduction Meeting	March 19, 2008
WDNR Field Survey Plan Review Meeting	March 28, 2008
Interagency Meeting	April 2, 2008
RUS NEPA Process Determination Meeting	April 30, 2008
RUS NEPA Process and RUS Role Determination Meeting	September 3, 2008
PSCW Project Update Meeting	September 8, 2008
PSCW and WDNR Update Meeting	February 12, 2009
MDNR Routing Meeting	February 20, 2009
RUS Review of AES and MCS, and Scoping Process Meeting	April 23, 2009
RUS Agency Scoping Meetings in Wanamingo, Minnesota and La Crosse, Wisconsin	June 17 and June 23, 2009
RUS and State Agency Coordination Meeting	August 31, 2009
RUS and USACE Coordination Meeting	September 22, 2009
RUS and Resource Agency Coordination Meeting	October 21, 2009

Correspondence with federal agencies and the RUS, the lead federal agency, began with several Project informational and permitting meetings in March 2008, April 2008, September 2008, and November 2008. The USACE attended the interagency meeting in April 2008. The USFWS met with the Applicant in January 2008 for a Project overview and introduction meeting and attended the April 2008 interagency meeting. The RUS initiated the federal environmental review with a series of public and agency scoping meetings held in June 2009. The RUS notified the federal, state, and local agencies, and tribal leaders and THPOs by letter in May 2009.

Correspondence with Minnesota state agencies includes the Commission, the MDNR, the Mn/DOT, the OES, and the MN SHPO. The Commission and the MDNR attended the interagency meetings in April 2008 and October 2008. The Applicant contacted the Mn/DOT via email in January 2009 to discuss permitting requirements along U.S.-52.

To obtain information on the Nansen Historical Property protection strategy, the Applicant contacted the MN SHPO in January 2009.

Correspondence with Wisconsin state agencies includes the PSCW, WDNR, and WisDOT. The PSCW attended the interagency meeting in April 2008. In July 2008, the Applicant sent a CON proceedings update letter to the PSCW. The PSCW staff and the Applicant discussed Project updates and routing in September 2007. In February 2008, the Applicant sent the WDNR the 2008 fieldwork plan and conducted a meeting to discuss coordinating the PSCW and the WDNR permit filing and fieldwork. The Applicant and the WDNR met in March 2008 to discuss the fieldwork plan and met again in April 2008 for the interagency meeting. Starting in March 2008, the Applicant and WisDOT discussed, via email, contacts and useful information for the Applicant's use in the Project planning stages. In January 2009, the parties again corresponded via email about guidance for structures near airports and shared information and data files.

12.1.1 Federal Agencies

12.1.1.1 Rural Utilities Service

Meetings with the RUS took place on March 19, April 2, April 30, September 30, November 25, 2008; and April 23, June 17 and 23, August 31, September 22, and October 21, 2009.

At the March 2008 meeting, the RUS was provided an introduction to the Project and an opportunity for the Applicant to start the NEPA compliance process. The RUS clarified the schedule and timeframes for completing review of the Macro-Corridor Study and the Alternative Evaluation Study (AES), the public scoping meetings, the Mississippi River Crossing Analysis, and future meetings between the Applicant and the RUS.

The RUS and other state and federal agencies attended the April 2, 2008, interagency meeting hosted by the Applicant. The group discussed each agency's permitting requirements, the RUS federal review process, concurrent state and federal permitting processes, Project details, the Mississippi River crossings, fieldwork requirements, and agency contacts.

On April 30, 2008, a meeting took place in Washington D.C. at the RUS office. Discussion topics included the NEPA documentation determination, third party contractor, concurrence with the Minnesota and the Wisconsin state processes, and coordination with other agencies.

On September 3, 2008, a meeting between the Applicant and the RUS was held to clarify the RUS NEPA determination and the process requirements and timeframes. Other discussion items included the role of RUS as lead federal agency, the potential for a different lead agency, whether an EA or EIS was appropriate, and scenarios if RUS were to assume the lead agency role. The group discussed the schedule and process including key milestones.

The Applicant met with representative of the RUS a third time in Washington D.C. on November 25, 2008, to discuss the following: Project draft Macro-Corridor Study (MCS) review and comments; scoping meetings, notice requirements and associated deliverables; and the NEPA Process. The Applicant attended an additional meeting with the RUS in Washington D.C. on April 23, 2009, to discuss the final MCS and the AES, and the public and agency scoping process.

In June 2009, the Applicant and the RUS conducted agency and public scoping meetings in an open house format that served as the beginning of the formal NEPA agency scoping process. The MCS and the AES were made available for public review during the scoping period, as required by RUS guidance. Representatives of the following attended the agency scoping meeting in Wanamingo, Minnesota; the USFWS, the Commission, the MDNR, the Mn/DOT District 6, the MN OES, representatives from the Minnesota legislature, Goodhue County, the City of Wanamingo, the City of Cannon Falls, and Cherry Grove Township. Representatives of the following attended the agency scoping meeting in La Crosse, Wisconsin; the Bureau of Indian Affairs, the WDNR, PSCW, La Crosse County, La Crosse County Zoning and Planning Department, the City of La Crosse, the City of Onalaska, and the City of Onalaska Planning Department. The RUS gave a formal presentation at each meeting and answered agency representative's questions.

Three additional meetings with the Applicant and the RUS met to facilitate continued coordination between the RUS, other federal agencies, and state agencies. In August 2009, the Applicant held a coordination meeting with the RUS, the Commission, the MDNR, and the PSCW, and the WDNR to discuss routing and river crossing scenarios. In September 2009, the Applicant held a meeting with RUS to provide a Project update to the USACE. In October 2009, the Applicant held a resource coordination meeting with the RUS, the MDNR, the Commission, the MDNR, the USFWS, and the USACE to discuss in detail potential impacts to natural resources, including the Mississippi River as well as provide participants with a Project update and an opportunity to respond to refined routes.

12.1.1.2 U.S. Fish and Wildlife Service

The Applicant met with the USFWS on January 25, 2008. Following the meeting, the USFWS issued a correspondence on February 19, 2008, with two recommendations to consider during the Project's planning phases: to use existing utility ROWs or easements when crossing the Mississippi River and to keep any new connecting lines away from the Mississippi River corridor. The USFWS also indicated that the Alma Mississippi River crossing "may pose the least environmental impact" (USFWS 2008).

At an April 2, 2008, interagency meeting, the Applicant and the USFWS discussed the possibility that the Applicant would need a threatened and endangered species take permit. The Mississippi River crossing options and fieldwork requirements also were discussed. Since the meeting, the Applicant and the USFWS have corresponded via email about data sharing and information requests.

The Applicant met with the USFWS staff on November 12, 2008, and February 11, 2009, to discuss potential Mississippi River crossing locations and conceptual structure configurations.

Representative of the USFWS attended the June 17, 2009, the RUS-led agency scoping meeting in Wanamingo. The RUS gave a Project presentation as well as information on the Project purpose and need, the routing process, the federal environmental review process, and the schedule for the NEPA process and other permitting activities. Mississippi River crossing options also were discussed. The USFWS also participated in the October 2009 Resource Coordination Meeting.

12.1.1.3 U.S. Army Corps of Engineers

The USACE and the Applicant discussed permitting requirements, including the Section 404 permit and the involvement of the MDNR, at an interagency meeting on April 2, 2008. The Mississippi River crossing options and fieldwork requirements also were discussed. The USACE also met with the Applicant and the RUS on September 23, 2009, where the Applicant provided a Project update and the USACE and the RUS discussed federal coordination.

12.1.1.4 Federal Aviation Administration

The FAA provided comments during the federal public scoping comment period.

12.1.1.5 Bureau of Indian Affairs

A representative of the Bureau of Indian Affairs attended the RUS-led agency scoping meeting in La Crosse, Wisconsin. The RUS gave a Project presentation as well as information on the Project purpose and need, the routing process, the federal environmental review process, and the schedule for upcoming permitting activities. Mississippi River crossing options also were discussed.

In May 2009, tribal representatives and THPOs were sent notification letters for public and agency scoping meetings and the availability of the AES and the MCS documents. A representative of the Shakopee Dakota Tribe attended the agency scoping meeting in Wanamingo, Minnesota. The following tribes submitted written comments; Bois Forte Band of Ojibwe, Oneida Nation of Wisconsin, Leech Lake Band of Ojibwe, Ketegitigaaning Ojibwe Nation, Ho-Chuck Nation, Mille Lacs Band of Ojibwe, Stockbridge Munsee, Little Traverse Bay Band of Odawa Indians. A tribal contact list is included as part of Appendix C-1.

12.1.2 State Agencies

12.1.2.1 Minnesota Public Utilities Commission

At an April 2, 2008, interagency meeting, the Commission and the Applicant discussed Minnesota's permitting requirements, which include the CON, and the Route Permit, and the MDNR's involvement in the Route Permit process. Also discussed were the required approvals to cross the Cannon River, state forests and designated trout streams; a utility crossing license for public lands and waters; a public waters work permit; and threatened and endangered species take permits. The Mississippi River crossing options and associated fieldwork requirements also were discussed.

The Commission attended the June 17, 2009, agency scoping meeting held in Wanamingo, the August 2009 agency coordination meeting, and the October 2009 Resource Coordination meeting.

12.1.2.2 Minnesota Department of Natural Resources

The Applicant initiated contact with the MDNR by conducting a conference call to introduce the Project, and discuss the process with the Commission and the MDNR. The MDNR also attended the April 2, 2008, interagency meeting that was hosted by the Applicant. The group discussed the permitting requirements for the state of Minnesota which includes the Minnesota CON, and the Route Permit. The MDNR's role in the Route Permit process also was discussed. The possibilities for obtaining approvals to cross the Cannon River, state forests and designated trout streams; utility crossing license for public lands and waters; public waters work permit; and threatened and endangered species take permits. Mississippi River crossing options and associated fieldwork requirements were discussed as well.

The Applicant met with the DNR on November 12, 2008, to discuss routing concerns related to the Cannon River crossing, Douglas Trail corridor, Richard Dorer Memorial Hardwood State Forest, the Zumbro River crossing options, McCarthy Lake WMA, and the Winona and La Crescent Bluffs area.

In January 2009, the MDNR provided official agency comment on the Project. The Applicant and the MDNR met again in February 2009 to discuss the comment letter and the McCarthy Lake WMA; a Project update was given and potential Mississippi River Crossing areas also were discussed.

The MDNR attended the June 17, 2009, agency scoping meeting in Wanamingo, the August 2009 interagency coordination meeting, and the October 2009 Resource Coordination meeting, which is described in Chapter 12.1.1.1.

12.1.2.3 Minnesota Department of Transportation

The Applicant requested information via email regarding airport safety guidance from the Mn/DOT in January 2009. The Mn/DOT provided a link to its website about safety restrictions.

The Applicant met with the Mn/DOT on March 10, 2009, and discussed the Project in general and possible routes along US-52. The Mn/DOT attended the June 17, 2009, agency scoping meeting in Wanamingo.

The Applicant also met with the Mn/DOT on November 3, 2009. This meeting focused on identifying and characterizing future Mn/DOT projects along Highway 52 between Hampton and Oronoco. The information obtained from this meeting was used in compiling Table 7.2-11 and also was used to determine where additional width was added to the route along Highway 52.

12.1.2.4 Minnesota State Historic Preservation Office

The Applicant requested the protection strategy for Goodhue County's Nansen Agricultural Historic District from the MN SHPO in January 2009. It was provided to the Applicant. The Minnesota SHPO office contacted the Applicant in February 2009 to express concern about how the Project may affect the Nansen Agricultural District.

12.1.2.5 Other Minnesota State Agencies

In addition to the state agencies discussed above, the OES and a Minnesota House representative attended the June 17, 2009, agency scoping meeting in Wanamingo.

12.1.3 Counties and Local Government Units

The Applicant organized meetings with the LGUs including counties, townships, cities and regional planning organizations. All townships in the Project corridor were contacted and given an opportunity to request a meeting on the Project. These meetings allowed coordination with local governments, ensured validity of data collected and provided opportunities for local governments to participate in the route refinement process.

The Applicant sent a letter to all the LGUs in September 2008 notifying them of the upcoming Route Permit application filing and indicating that the Applicant was available to discuss the Project if requested. This letter, included in Appendix C-2, complies with the new Minnesota requirement to notify LGUs of a Route Permit application filing at least 90 days in advance of the filing (Minn. Stat. § 216E.03, subd. 3a). The recipients of this letter are included in the LGU section of Appendix C-3.

The following LGUs attended the agency scoping meetings in Wanamingo and La Crosse: Goodhue County, City of Wanamingo, City of Cannon Falls, Cherry Grove Township, La Crosse County, La Crosse County Zoning and Planning Department, City of La Crosse, City of Onalaska, and the City of Onalaska Planning Department.

The Applicant has met with LGUs throughout the life of the Project to discuss the details of the Project and potential routing issues specific to each local area. The LGU meeting schedule is provided in Table 12.1-2.

Table 12.1-2:
Local Government Meetings Held During Pre-Application Process

Local Government Unit	Meeting Date
La Crescent City Council	July 29, 2008
Ken Tschumper Minnesota House of Representatives (DFL-La Crescent)	July 30, 2008
Mississippi River Parkway Commission / USFWS	August 8, 2008
Alma City Council	October 6, 2008
Mississippi River Regional Planning Commission	October 8, 2008
Winona County Economic Develop Board	October 8, 2008
Cannon Falls City Administrator, Dakota County Planner	October 14, 2008
La Crosse County Planning, Resource, and Development Committee	October 27, 2008
Wabasha County Staff Briefing	November 4, 2008
Trempealeau County Supervisors	November 12, 2008
Wabasha County Board of Commissioners	November 25, 2008
City of Pine Island	December 18, 2008
Hampton City Council	January 13, 2009
Pine Island Economic Development Authority	January 15, 2009
Winona City Council	January 28, 2009
Mississippi River Parkway Commission	January 29, 2009
City of Zumbrota	February 19, 2009
Zumbro Falls Community Meeting	February 26, 2009
Farmington Township	April 6, 2009
Dakota County Commissioners	April 14, 2009
Oronoco Township Board	April 20, 2009
Goodhue County Commissioners	April 21, 2009
La Crosse County Planning, Resource, and Development Committee	June 1, 2009
Winona City Council	June 29, 2009
City of Cannon Falls	December 21, 2009

12.2 Public information Outreach

The Applicant has actively implemented public outreach throughout the life of the Project. The Applicant developed mailing lists, distributed numerous newsletters and issued notifications, and participated in statewide conferences sharing Project information. The Project public participation process included three rounds of public open houses and one round of RUS public scoping meetings. In addition, two rounds of routing work group meetings were conducted. The CapX2020 website provided another venue for public participation. Public comments have been collected throughout the Project and summarized after each round open houses, workshops, or meetings.

12.2.1 Mailings and Newsletters

In summer 2007, the Applicant assembled a list of more than 23,000 landowners in the Project area. The landowner list is based on taxpayer information publicly available through each county. As the Project area has evolved and additional areas were added to the initial study area, additional landowners were added to the list. Public meeting participants also were encouraged to add their names to the mailing list if they had not received mailings. The Applicant has continued to mail meeting notices and Project updates to the entire list even those areas not currently being considered for the Project.

In July 2007, landowners and county and local government officials were notified of the CON proceeding and provided with a description of the three CapX2020 Group 1 projects. Announcement of the schedule for the CON public information meetings for the Group 1 projects was distributed to the same mailing list in August 2007.

Over a period of 2 years, several newsletters and invitations to public open houses were mailed to the Project mailing list, which included landowners within the original macro-corridors, landowners added with modifications to those corridors, and contacts added through the signing up for the mailing list either on the Project website or at public meetings . The September 2008 mailing notified landowners of the Project, as new areas were being considered. The newsletters included:

- Notice of the CON application filing and description of the CON permitting process, July 2007
- Invitation to CON public informational meetings, August 2007
- Project notice to Wisconsin landowners, August 2008
- Announcement of Minnesota Department of Commerce public meetings and routing work group meeting request for participants, December 2007
- Announcement of public open houses and schedule, CON, and permitting updates, May 2008
- Project timeline, schedule and Project corridors update, and announcement of CON public hearings, June 2008

- Announcement of public open house for recently noticed landowners in the North Rochester area, September 2008
- Announcement of public open house schedule for review of new route options, December 2008
- Announcement of public scoping meetings locations and schedule in the Project area, May 2009

Advertisements were placed in newspapers throughout the Project area at least 1 week prior to each round of open houses, public meetings, or public hearings. The meeting dates also were posted on the calendar section of the CapX2020 website. A list of property owners by county is included in Appendix C-4. The complete list of the 23,000 stakeholders who received the mailings is not included in this Application.

12.2.2 Statewide Conferences

The Applicant staffed a CapX2020 booth at many statewide conferences. A detailed list of the conferences is included in Table 12.2-1.

Table 12.2-1:
Statewide Conferences

Date	Conference Name
November 2006	Minnesota Association of Townships annual meeting
November 2006	Minnesota Transmission Owners biennial transmission planning meetings
June 2007	Minnesota Utility Investors Action Team meeting
June 2007	League of Minnesota Cities conference
August 2007	Farmfest
October 2007	Minnesota Utility Investors annual meeting
November 2007	Minnesota Association of Townships annual meeting
November 2007	Minnesota Farm Bureau annual conference
November 2007	Minnesota Farmers Union annual conference
December 2007	Association of Minnesota Counties annual conference
January 2008	Minnesota Agriculture Expo
August 2008	Farmfest
September 2008	Minnesota Utility Investors regional meeting
September 2008	Minnesota Chamber of Commerce Executives fall conference
November 2008	Minnesota Association of Townships annual meeting
December 2008	Association of Minnesota Counties annual conference
January 2009	Minnesota Soybean Growers annual conference
January 2009	Minnesota Agriculture Expo

Table 12.2-1:
Statewide Conferences

Date	Conference Name
January 2009	Minnesota Organic conference
February 2009	Clean Energy Resource Teams (CERTs) conference
August 2009	Farmfest
October 2009	Minnesota Utility Investors annual meeting
November 2009	Minnesota Farm Bureau annual meeting
December 2009	Association of Minnesota Counties annual conference

12.3 Public Open Houses and Meetings

The Applicant conducted a 15-month public participation process to provide stakeholders the opportunity to discuss Project goals, routing criteria, and environmental concerns. As presented in Table 12.3-1, the Project public participation process consisted of:

- One round of CON public information meetings held in six locations in southeast Minnesota in September 2007 as part of the Minnesota CON process.
- A second round of public open houses were held in May 2008 in five locations, to provide new information to the public and gather input on the siting process and newly developed macro-corridors.
- A third round of public open houses was conducted in December 2008. New route options within the previously identified macro-corridors were presented to attendees in seven locations within the Project area.
- One round of RUS public scoping meetings were conducted in June 2009. New route centerline options within the previously identified macro-corridors were presented to attendees in six locations within the Project area.

Public open houses provided an opportunity to present information to landowners and other stakeholders, answer questions about the need for the new transmission lines, discuss the routing process used for the transmission lines, and environmental concerns. The routing work group meetings described in the following section focused on the routing process and criteria. Both types of meetings provided opportunities to discuss the public process and to collect information and comments on community preferences about the state routing criteria the Applicant followed to develop route options. The public scoping meetings focused on providing the public with information regarding the Project, answering questions from the public, identifying concerns regarding the potential environmental impacts that may result from construction and operation of the Project, and gathering information to determine the scope of issues to be addressed in the RUS environmental review and documentation of the Project.

Table 12.3-1:
Hampton-Rochester- La Crosse Open House Meetings

Round	Date	City	Meeting Location
Round One: CON Public Information Meetings	September 11, 2007	Winona, MN	Riverport Inn
	September 12, 2007	Rochester, MN	International Event Center
	September 13, 2007	Wabasha, MN	Coffee Mill Golf Course and Country Club
	September 25, 2007	Redwing, MN	Red Wing Community Library, Foot Room
	September 26, 2007	Northfield, MN	Archer House
	September 27, 2007	Lakeville, MN	Holiday Inn
Round Two: May 2008 Public Open Houses	May 20, 2008	Winona, MN	Riverport Inn
	May 20, 2008	Trempealeau, WI	Town of Trempealeau Community Center
	May 21, 2008	Rochester, MN	International Event Center
	May 21, 2008	St. Charles, MN	City of St. Charles Community Meeting Room
	May 22, 2008	Cannon Falls, MN	Grandpa's Event Center
Round Three: December 2008 Public Open Houses	December 8, 2008	Winona, MN	Riverport Inn
	December 9, 2008	St. Charles, MN	City of St. Charles Community Meeting Room
	December 9, 2008	Alma, WI	Alma High School
	December 10, 2008	Trempealeau, WI	Town of Trempealeau Community Center
	December 10, 2008	La Crescent, MN	La Crescent American Legion
	December 11, 2008	Oronoco, MN	Oronoco Community Center
	December 11, 2008	Cannon Falls, MN	Grandpa's Event Center
Round Four: RUS Public Scoping Meetings	June 16, 2009	Plainview, MN	Plainview-Elgin-Millville High School
	June 17, 2009	Wanamingo, MN	Wanamingo Community Center
	June 18, 2009	St. Charles, MN	City of St. Charles Community Meeting Room
	June 23, 2009	La Crescent, MN	La Crescent American Legion
	June 24, 2009	Trempealeau, WI	Town of Trempealeau Community Center
	June 25, 2009	Fountain City, WI	Cochrane-Fountain City High School

The public open house format included large informational displays that provided Project purpose and need, permitting process information, detailed aerial maps with Project corridors or routes, handouts, and comment forms. Project representatives staffed the meetings and answered questions and engaged the public in discussion. The aerial maps were used to show greater routing area detail and to collect site-specific public input. The third round of public open houses in December 2008 included a GIS station that allowed landowners to obtain a detailed map of their property in relation to the route options. Public scoping meetings also were conducted in the open house format and included two GIS stations.

The public open houses solicited information about the types of land use in the Project area, environmental considerations, routing suggestions, and the criteria that should be used in developing proposed routes. Comments were recorded on the detailed aerial maps and comment forms, while notes were taken of conversations with stakeholders' approval. The team also provided explanations on various aspects of the Project and the public participation process.

A similar format was used for the RUS public scoping meetings with the full suite of Project materials presented in addition to a RUS representative attending and providing additional information on the NEPA and Section 106 processes.

Approximately 1,126 people signed in at all three rounds of public open houses; more people attended, but did not sign in. Approximately 339 comment forms were received throughout the three rounds of public open houses. Approximately 540 people signed in at the RUS public scoping meetings, and 337 comment forms, letters, or emails were received during the formal scoping comment period. Comments received consisted of a range of issues that included Project need, Project alternatives, cumulative impacts, connected actions, land use, land rights, agriculture, proximity to residences, biological and vegetation resources, health and safety, EMF, visual resources, water resources, historical and cultural resources, noise, and TV and radio interference. Chapter 11.3.3 contains a summary of the comments from each round of meetings. Table 12.3-1 identifies the dates and locations of the public open houses.

The open houses and meetings provided stakeholders with opportunities to be involved in the routing process at each successive routing milestone, including the CON corridors, the macro-corridors, and the macro-corridors with route options. A summary of the public comments received on comment forms, letters, email, and on sheet maps, are provided in Appendix C-5.

Landowners, interested parties, local government representatives, and other public officials representing communities in the Project corridors were invited to participate in the public open houses and the routing work group meetings discussed below. Many of the same stakeholders remained involved throughout the two year public participation process. Communication with stakeholders occurred throughout that time. Project newsletters and meeting invitations were distributed across the Project area.

Input obtained during the public participation process was used during Project development to minimize impacts to environmentally sensitive areas, include public-preferred corridors, and ultimately narrow the route options.

12.3.1 CapX2020 Website

The public participation process has been continuously promoted and periodically updated through the virtual open house on the CapX2020 website at http://www.capx2020.com/Gallery/openhouse/index.html.

The website contains tools to inform stakeholders and provides contact information for Project leads so that stakeholders can submit questions, suggestions, and concerns. A member of the Project team typically responds to emails and comments within a week. Updated Project fact sheets about the routing

process, permitting and public processes, and environmental issues are provided on the Project website for wide ranging accessibility.

12.3.2 Routing Work Group Meetings

Routing work group meetings were held during March and May 2008 in five locations in the Project area. The workshop format featured small group discussion on the importance and implications of the Project routing criteria. Federal, state, regional, county and city officials and representatives, and members of the general public who requested to be included were invited to participate. Participants were asked to provide comments, data and input representing their organizations or communities. Some participants were appointed or selected by their respective agency. Members of the general public were invited to participate using the December 2007 CapX2020 update newsletter; interested individuals signed up to participate at the December 2007 CON scoping meetings.

The routing work group meetings included several different activities. The CapX2020 Routing Leads gave a presentation describing the Project, siting approach, criteria, resources, opportunities and constraints, and comparative analysis. Small group discussions focused on the siting criteria. Map workshops focused on the specific work groups' section of the Project area. The meetings collected input and routing suggestions and identified challenges for routing in the area. A summary of the comments received is included in the common themes summary in Chapter 12.3.3. Table 12.3-2 identifies the dates and locations of the route working group meetings.

Table 12.3-2:
Routing Work Group Meetings

Date	City	Meeting Location
March 3, 2008	Rochester, MN	Rochester International Event Center - Ballroom C
March 4, 2008	Winona, MN	Riverport Inn
March 5, 2008	La Crosse, WI	La Crosse Center - Boardroom B
March 6, 2008	Lakeville, MN	Holiday Inn
May 22, 2008	Cannon Falls, MN	Grandpa's Event Center

12.3.3 Summary of Common Themes

The comments received during each round of public open houses and the routing work group meetings were categorized and summarized into several common themes, including:

- Avoid and minimize impacts to sensitive and common animal and plant species including threatened, endangered, federally listed, and state listed plant and animal species and habitats.
- Avoid and minimize impacts to culturally significant resources and historic places and landmarks in the Project area including sites on the NRHP.

- Avoid and minimize human and animal health impacts caused by EMF and transmission lines and provide the public with supplemental information regarding EMF. Consider safety implications when routing the transmission line.
- Avoid and minimize impacts to agricultural land, production, resources, equipment, and operations.
- Prefer to route the Project on existing linear corridors, including highways and roadways, existing utility easements and ROWs, and field lines.
- Route the line along US-52 rather than on agricultural land.
- Avoid and remedy radio, television, cell phone, and GPS equipment interference caused by the Project.
- Avoid and minimize impacts to property value, land value, personal income, tourism, resale value, insurance rates, personal and business investments, future market appreciation, infrastructure projects, local business, and local economies in the Project area.
- Avoid and minimize visual and aesthetic impacts, especially in the scenic corridors surrounding the Mississippi River and rural southeast Minnesota.
- Avoid and minimize impacts to ecologically valuable wetlands, floodplains, and river valleys.
- Address and justify the Project need more thoroughly, and explore other options like alternative energy sources and local supply.
- Avoid existing and future homes, residential developments, and densely populated areas when routing the transmission lines. Minimize impacts to residential property by working with landowners to route the transmission line in the least burdensome areas.
- Provide information to landowners on land rights and easement acquisition. Consider providing monthly payments for transmission line easements. Avoid using eminent domain to secure property rights.
- Avoid highly erodible soils, historic flood areas, steep terrain, and bluffs.
- Follow local, state, and federal land use codes, regulations, and guidance.
- Avoid impacts to recreation areas, activities, and businesses in the Project area.

The Applicant considered common themes and comment topics when developing the routes proposed in this Application. See Chapter 4.0 the Route Selection Process and Chapter 5.0 for the Rationale of the Preferred Route Selection for additional information regarding methodology. Routes suggested through public and agency involvement are discussed below.

12.4 Routes Suggested through Public and Agency Involvement

The Applicant analyzed more than 600 route segments in the route development process (over 500 segments in Minnesota). During agency consultation and the public participation process, numerous route segments were suggested and considered. Some of these recommended options were minor variations of the Applicant's proposed route segments and others were major revisions of proposed route

segments. Some of these recommended route segments were incorporated into the Preferred or Alternative Routes evaluated in this document and some were eliminated. A complete discussion of all route segments suggested by the public and agencies is outside the scope of this document. However, two of the more significant options incorporated into the Preferred Route for the 345 kV transmission line are discussed below.

12.4.1 Route Segments Incorporated

12.4.1.1 Hampton to North Rochester 345 kV Section

Representatives of Dakota County requested that FNAP farm preservation easement areas on both sides of US-52 be avoided by any proposed routes. The Applicant widened the route in the FNAP areas to accommodate the FNAP parcels and provide a flexible routing area, as shown on Map 2 in Appendix M. The Dakota County officials also requested that potential impacts to Lake Byllesby be mitigated by routing around the lake. Both the Preferred and Alternative Routes lie to the east and the west of Lake Byllesby, respectively, by approximately 1 to 2 miles.

12.4.1.2 North Rochester to the Mississippi River 345 kV Section

The MDNR has requested that the McCarthy Lake WMA area be avoided completely on the approach to the Mississippi River. The original alignment crossed the McCarthy Lake WMA between US-61 and the Mississippi River. In addition to serving conservation purposes, McCarthy Lake WMA provides recreational activities such as hunting, birding, and wildlife viewing. The Preferred Route follows the existing Dairyland Q-3 line and crosses the McCarthy Lake WMA for 0.91 mile: approximately 127.97 acres of the McCarthy Lake WMA occurs within 500 feet of the route centerline. A route option was developed as an alternative to the existing Dairyland Q-3 alignment, where the route would parallel US-61 north and then turn east to the original Alma crossing location, avoiding the WMA by crossing agricultural land.

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