

APPENDIX B-11
Cultural Resources Report

To:	File		
From:	Michael Madson	Project:	Stone Lake to Couderay 161 kV Transmission Project
cc:	RaeLynn Asah, Xcel Energy Joyce Pickle, HDR Engineering		
Date:	September 27, 2010		

Re: Stone Lake to Couderay 161 kV Transmission Project Archaeological and Historic Facilities Overview

This memorandum provides results of a cultural resources file search for the Stone Lake to Couderay 161 kV Transmission Project (Project). Xcel Energy proposes to construct a new 161 kV transmission line between the towns of Stone Lake and Couderay in Sawyer County, Wisconsin (Figure 1). At this time Xcel Energy proposes to construct one of three segments between the existing Couderay and Stone Lake Substations. Depending on the selected route, construction of the Project may involve reconstruction along existing utility corridors or use of adjacent areas. Project construction and operation activities have the potential to impact cultural resources, including archaeological sites, historic structures, unplatted burials, and locations of traditional cultural practices. This overview memorandum provides a brief summary of known archaeological sites and historic structures, as well as references to unplatted burials where appropriate.

A portion of the project may cross the Lac Courte Oreilles Reservation (Reservation), managed by the Lac Courte Oreilles Band of Lake Superior Chippewa (LCO) and the Bureau of Indian Affairs (BIA). We expect the BIA to provide oversight and guidance for National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act compliance. Consultation regarding sites, their significance, and impacts or effects to them would be between the BIA and the LCO Tribal Historic Preservation Office (THPO). Outside of the Reservation, the Wisconsin Public Service Commission (PSC) would consult with the State Historic Preservation Office (SHPO) on effects to such resources. In anticipation of BIA/THPO and PSC/SHPO consultation activities, HDR limited its review of existing documentation at this time to readily available sources, namely, SHPO files and the State Archives, both housed at the Wisconsin Historical Society (WHS). As project planning with regard to lands held by the LCO, SHPO recommends that contact be made with THPO in order to understand resources under their jurisdiction. Any such information should be considered with the following in order to present the most accurate picture of the cultural resources data relating to the Project.

HDR archaeologist Michael Madson reviewed electronic and paper files at the WHS on August 25 and 26, 2010. SHPO provided Geographic Information System (GIS) shapefiles and access to the Wisconsin Historic Preservation Database (WHPD) of cultural resources reports and identified archaeological sites, bridges, structures or structure complexes, and unplatted burials. The State Archives houses other materials, including archaeological survey reports, describing the methodology and physical coverage of previous field investigations, and historic-period maps and other documents related to local prehistory.

This memorandum is divided into two parts. The first part provides a general background overview of the environmental and cultural contexts in the Project vicinity. The second part is a description of the resources identified during the archival search.

General Background

The Project is in the Northern Lakes and Forests ecoregion (region). The region has relatively nutrient-poor glacial soils, coniferous and northern hardwood forests, undulating till plains, morainal hills, broad lacustrine basins, and areas of extensive sandy outwash plains. Soils are primarily sandy and loamy and were formed from glacial drift material. Woodland and forest are the predominant land use/land cover of the region.

The project is located in north-central Wisconsin in the Chequamegon Moraine and Outwash Plain and the Chippewa Lobe Rocky Ground Moraine ecoregions (Environmental Protection Agency ftp://ftp.epa.gov/wed/ecoregions/wi/wi_eco.pdf). The Chequamegon Moraine and Outwash Plain consists of irregular plains and stagnation moraines with broad areas of hummocky topography, pitted glacial outwash, numerous kettle lakes, and abundant swamps and bogs. This region has a poorly developed drainage system when compared to adjacent regions to the west. The soils are coarse, acidic, loamy, and sandy-loam mixed. The Chippewa Lobe Rocky Ground Moraine consists of productive but rocky soils, scattered wetlands, extensive eskers and drumlins, and outwash plains. This region has a considerably lower density of lakes, and the lakes present generally trend to high trophic states. The rocky soils are not as conducive to water drainage as compared to nearby regions. The region supports a mosaic of north mesic forests (hemlock, sugar maple, yellow birch, white and red pine) and wetland vegetation (swamp conifer, white cedar, black spruce).

Most of the region is covered by either or both Pleistocene (Wisconsinan) till and stratified drift, ranging in thickness from 100 to 600 feet. Beneath the drift, bedrock consists mostly of Proterozoic igneous rocks. Soils are made up of Boralfs, Orthrepts, and Orthods, with a scattering of Histosols. Precipitation ranges from 26 to 32 inches per year and average snowfall amounts are 50 to 70 inches per year. The growing season lasts for 120 to 140 days and the mean annual temperature ranges from 39 to 45 degrees F.

Humans have occupied this region for around 10,000 years, adapting their ways of life to the changing environments. Conditions have varied from cool, wet, tundra-type lands to dry, savanna-type lands, and to the forests and tall grass prairie-type lands of the present day. People initially lived in small, nomadic groups. Through time these groups became larger and formed villages. Resource procurement changed with the climate and with the growing population to allow the most efficient resource extraction. Horticulture has been practiced in the region for about the last 1,000 years. Within the last 300 years this region has experienced the near extinction of some species of fur-bearing mammals because of the fur trade, the harvesting of virgin forests by logging, and the dramatic change in the vegetation cover due to row crop cultivation and dairy farming.

Previous Cultural Resource Surveys and Identified Sites

HDR reviewed WHPD files in a data gathering area that included the proposed project segments and lands within one mile of them. For purposes of this background research, the data gathering area provided HDR the context needed to understand the previous surveys, known resources (with management decisions), and potential for cultural resources identification during any Project inventory work. Confirmed archaeological site types and contexts are captured in the WHPD, as well as consultant recommendations and federal agency and SHPO determinations regarding eligibility for listing on the National Register of Historic Places (NRHP).

Five cultural resources investigations have been completed in portions of the data gathering area (Table 1).

Table 1: Cultural Resources Investigations

SHPO Number	Title	Author	Date	Comments
00-7704	Trip Report: Red Cedar Resort Burial Report	Broihahn, John	2000	No burials observed during 2000 survey
96-0697	Multiple reports associated with Lakehead Pipeline	Multiple	1990s	Lakehead pipeline survey and testing reports, included Reservation lands
89-1129	Initial Archaeological Investigation For The Upgrading Of STH 27 In Sawyer, Wisconsin.	Meinholz, Norm	1990	Archaeological Inventory along State Highway 27.
90-5522	Unknown	Unknown	1990s	Not available at SHPO/WHS State Archives
AA-0464	Unknown	Unknown	Unknown	Not available at SHPO/WHS State Archives

The WHPD provided information on three of the five cultural resources investigations. Two additional surveys (90-5522 and AA-0464) were not located during the August file search. In general, the surveys indicate a relative lack of archaeological inventory in the Project vicinity,

outside of the Lakehead Pipeline (96-0697). The reporting for the Lakehead pipeline project is extensive, with around 13 volumes on file at the State Archives that illustrate the multi-year inventory and site-specific evaluation program. A number of archaeological resources were identified in Sawyer and Washburn Counties, including SY-0190 and SY-0191 discussed below. In addition, the records indicate that the survey passed through the Reservation and that other archaeological and traditional sites important to the LCO were identified. SHPO files contained little information about these sites and referred to the LCO THPO for more information.

Archaeological Sites

According to the WHPD, two archaeological sites have been identified within the data gathering area (Table 2). These sites (SY-0190 and SY-0191) were identified during the Lakehead Pipeline survey and are along a segment common to all routes. Sites SY-0190 and SY-0191 were determined to be *not eligible* for listing on the National Register of Historic Places (NRHP) during consultation for the Lakehead Pipeline project. While these sites represent the general precontact and historic-period occupation of the Project vicinity, they do not accurately reflect the great number and variety of archaeological sites in the region.

Many other precontact, contact period, and historic period sites have been identified outside the data gathering area, most notably along the shores of Lac Courte Oreilles and Lake Chetac. The sites illustrate the precontact fishing and sugaring activities and historic-period rural, light industrial activities (logging, milling) and reflect long term occupation of the area by both Native Americans and Euro-Americans and represent a broad spectrum of cultural activities and contexts

Burials

Two platted cemeteries are recorded in the WHPD files (Table 2). These two are historic-period/modern cemeteries (BSY-0012, BSY-0016) near Stone Lake and Couderay.

Structures and Bridges

Architectural resources adjacent to the project area reflect the gradual development of a rural area and include a wide variety of structure types typical to Northern Wisconsin (Table 3). The Bekkedahl Lumber Company Storeroom and Office (18249), constructed in the early 1900s, represents early enterprise and opportunity within Sawyer County. Structures associated with the Soo Line Railroad, including a depot (152221), mark the growth and expansion of the rural population. Homes, farm buildings, a dairy barn, a church, and community buildings are represented in the area as well and further add to a sense of community.

Two homes (18261 and 18266), noted as being constructed by a local Native American man by the name of Bill, further reinforce this sense of community. Although the number of buildings constructed by this particular Bill is unclear, it is apparent that he held a valued place within the surrounding area.

Table 2. Archaeological and Burial Sites within One Mile of Routes

Site Number	Burial Code	Site Name	NRHP Status	Comments	Distance to Closest Route Segment (ft)	Route Segment Closest to Site
n/a	BSY-0016	Evergreen Cemetery	n/a	Near Stone Lake; protected under Wis. Stats 157.70	2,133	Segment 41 (Alt A)
n/a	BSY-0012	Evergreen Cemetery	n/a	Near Couderay; protected under Wis. Stats 157.70	2,720	Segment 17 (all routes)
SY-0190	n/a	n/a	not eligible	Historic-period farmstead; consultation with WHS recommended	<5	Segments 12 (Preferred), 28 (Alt A, 60 (Alt B)
SY-0191	n/a	n/a	not eligible	Pre-contact isolated lithic (association unclear); consultation with WHS recommended	76	Segments 12 (Preferred), 28 (Alt A, 60 (Alt B)

Table 3. Historic Structure Sites within One Mile of Routes

State Record Number	Structure Type	Historic Name	Current Name	NRHP Status	Comments	Distance to Closest Route Segment (ft)	Route Segment Closest to Site
18053	Bridge	n/a	n/a	n/a	Removed/replaced	3,988	Segment 40 (Alt A)
18248	House	n/a	n/a	n/a		614	Segment 17 (all routes)
18249	Office building	BEKKEDAHN LUMBER CO STOREROOM AND OFFICE	n/a	n/a	Building moved from Eddy Creek Mill Site	4,377	Segment 17 (all routes)
18250	Tavern/bar	n/a	SILVER FOX TAVERN	n/a	Building damaged by fire	4,737	Segment 17 (all routes)
18252	Barn	JOHN AND CLARA DREGER FARM	n/a	n/a		4,377	Segment 17 (all routes)
18256	Garage	n/a	n/a	n/a		3,308	Segment 68 (Alt B)
18257	Barn	n/a	ERNEST DARFLINGER FARM	n/a		3,308	Segment 68 (Alt B)
18262	Wisconsin dairy barn	n/a	n/a	n/a		279	Segment 66 (Alt B)
18263	House	n/a	n/a	n/a	Asbestos siding	279	Segment 66 (Alt B)
18287	House	n/a	YODER HOUSE	n/a	Building empty by 1975, new church down street	2,339	Segment 24b (Alt A)
18288	Church	OLD ST. PHILIPS CATHOLIC CHURCH	n/a	n/a		1,306	Segment 41 (Alt A)
18289	Barn	PAUL GRUNDFELDER LOG BARN	n/a	n/a		42	Segment 62 (Alt B)
18290	House	n/a	n/a	n/a	Very unusual combination house and barn	1,279	Segment 41 (Alt A)
18291	House	n/a	n/a	n/a		1,509	Segment 41 (Alt A)
37782	Storage building	n/a	Sand Lake Rearing Station - Stor	Contributing	Contributing to the Sand Lake Rearing Station (39 09W-14) complex	5,022	Segments 12 (Preferred), 28 (Alt A, 60 (Alt B)
152221	Depot	SOO Line Railroad Depot	Stone Lake Area Historical Mus	Not Eligible	This depot was moved to its present location in 1995, the operator's bay was removed during the move	2,131	Segment 40 (Alt A)

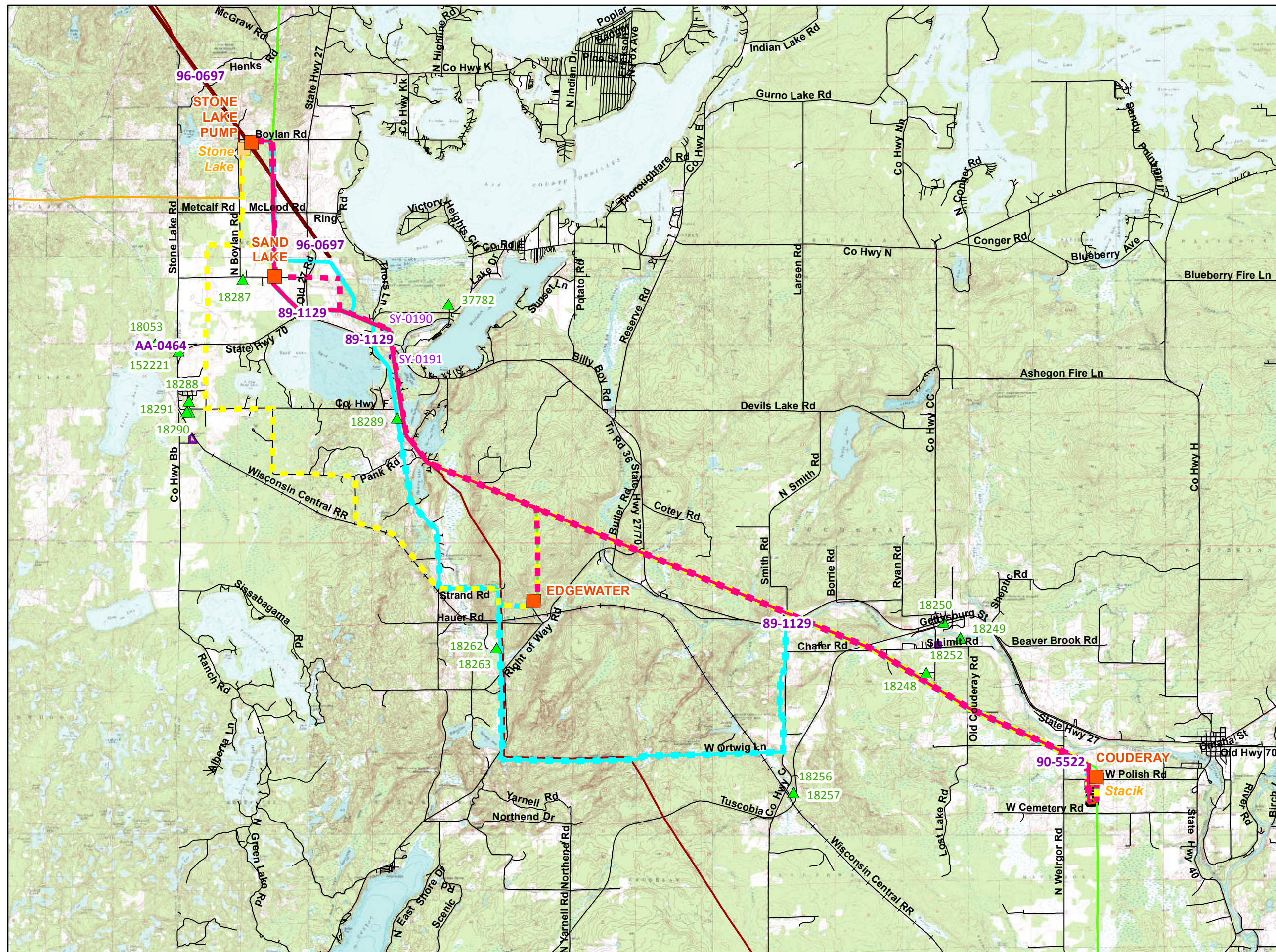
In total, 16 structures were identified during the literature review to be within one mile of the route alternatives. Of the 16 structures, one depot (152221) is considered *not eligible* for listing on the NRHP and one storage building (37782) is considered a contributing element to the Sand Lake Rearing Station (39 09W-14) complex. The remaining 14 structures have not been evaluated for the NRHP.

Map Review

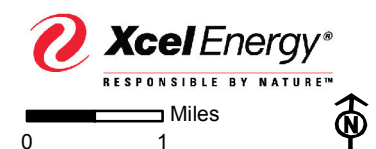
General Land Office maps, illustrating survey work conducted in the mid-1850s, show overland trails around and between water bodies in the Project vicinity. The map of Township 39 North, Range 9 West shows a Sugar Camp of what appears to be a few hundred acres. The survey notes do not provide any additional information. Maps of adjacent townships show other trails and associated vegetation information. Not surprisingly, early Euro-American settlement and land use focused on timber harvesting, as illustrated in early 19th century maps by Christianson (1897) and Anonymous (1906) that show the large extent of the Project vicinity under the ownership of logging concerns or other land companies.

The *Wisconsin Archaeological Atlas* (Brown 1974) shows other known or reported precontact or contact period locations in the vicinity, including mound groups and wild rice stands, although none appear to be immediately crossed by any of the segments. Nevertheless, the density of these locations across the area highlights a relatively intensive land use history.

Appendix B-11
Cultural Resources
Overview
Stone Lake to Couderay
69 kV Rebuild /
161kV Upgrade Transmission Project

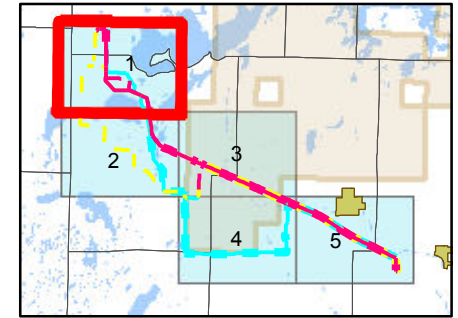


- ▲ Historic Structure
- Archaeological Site
- Archaeological Survey
- Substation (Xcel)
- Substation (Not Xcel)
- Route Alternatives**
- Preferred Route 161 kV
- Preferred Route 69 kV
- Preferred Route 161/69 kV
- Alternate Route A 161 kV
- Alternate Route A 69 kV
- Alternate Route A 161/69 kV
- Alternate Route B 161 kV
- Alternate Route B 69 kV
- Alternate Route B 161/69 kV
- Existing Transmission**
- 69kV AC
- 161kV AC
- 345kV AC
- Radisson Substation Site
- Road
- Railroad

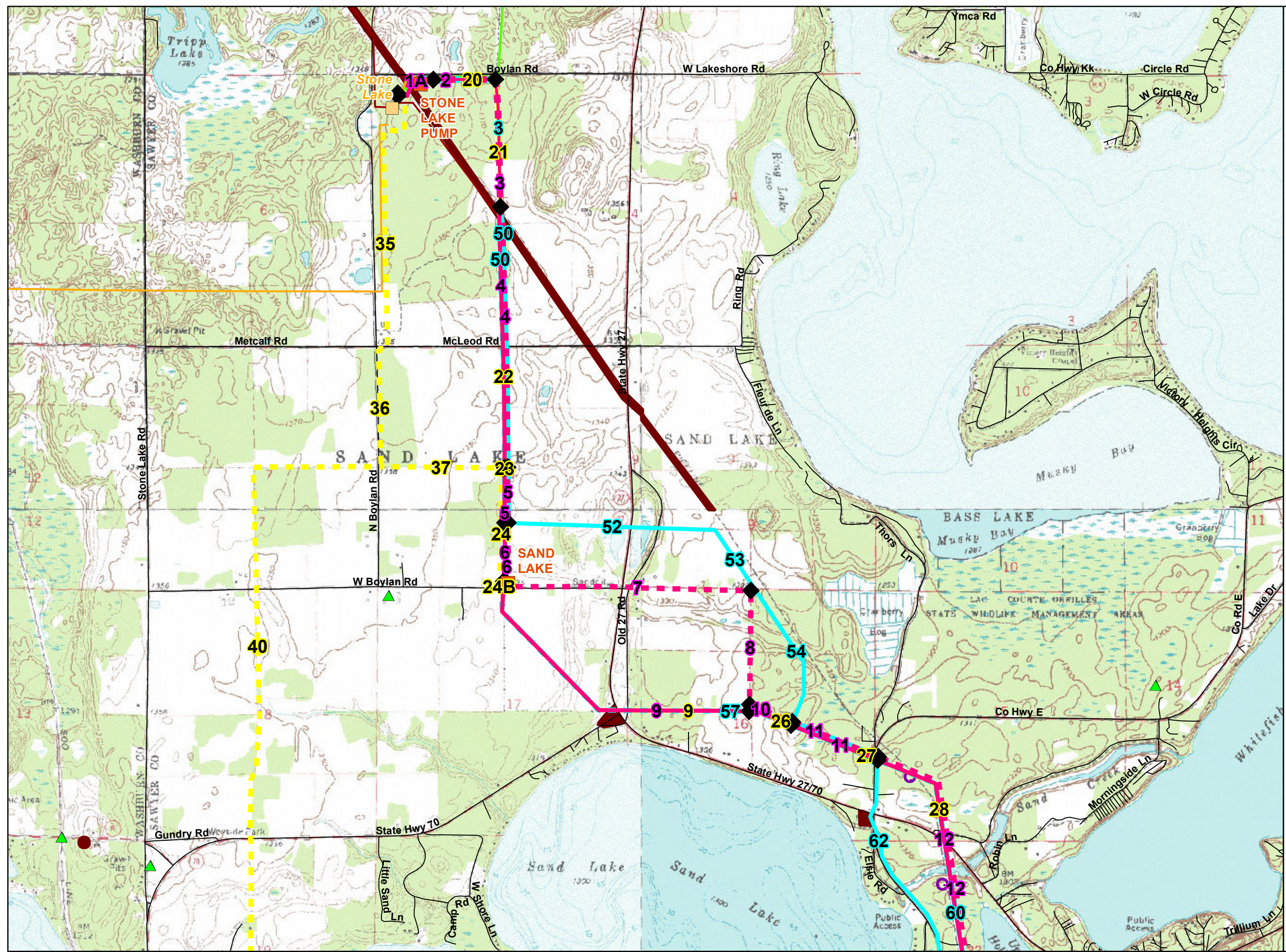
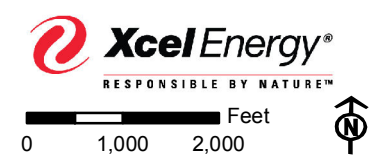


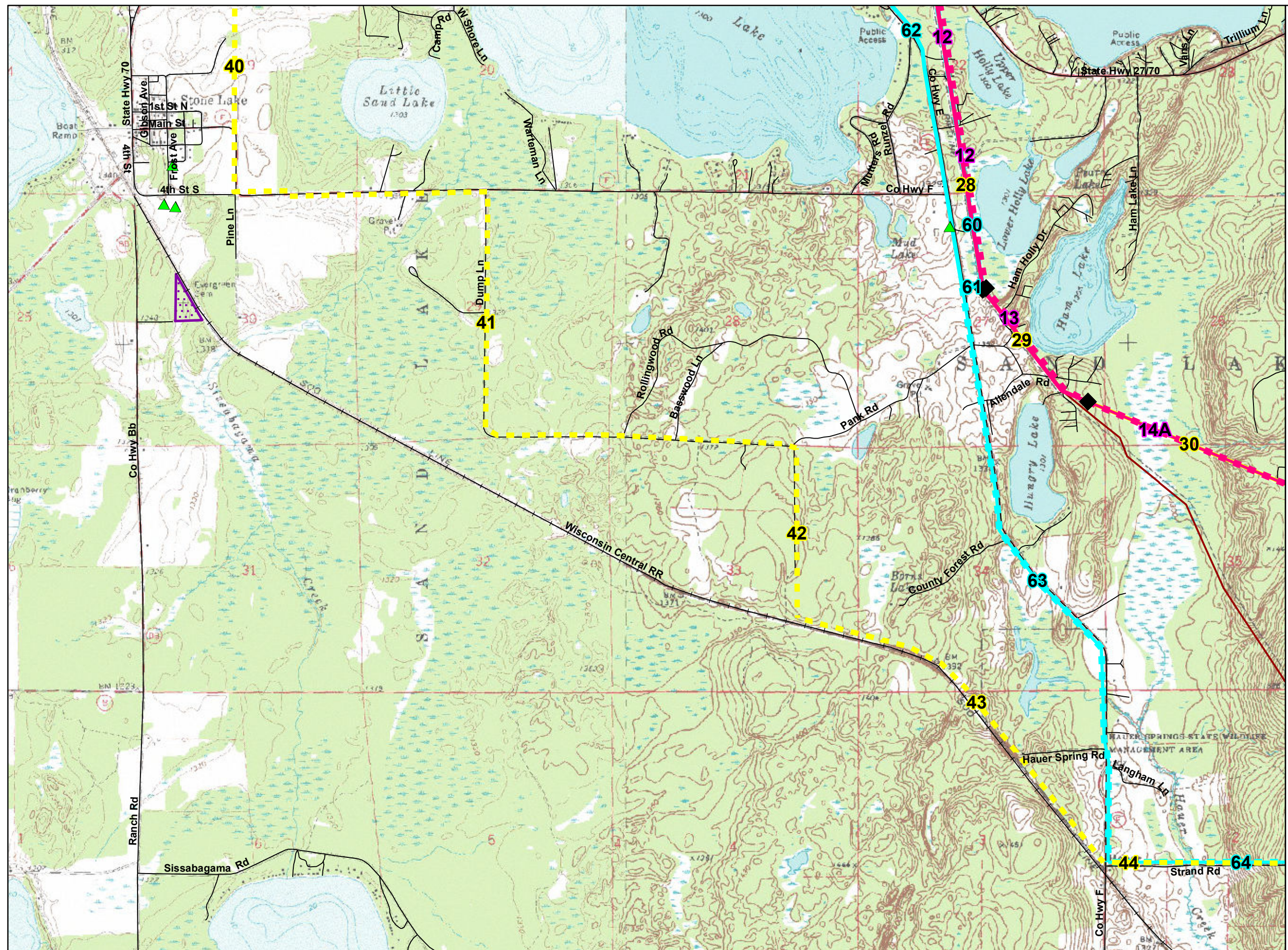
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Stone Lake to Couderay
69 kV Rebuild /
161kV Upgrade Transmission Project



- ▲ Historic Structure
 - Archaeological Site
 - Archaeological Survey
 - Substation (Xcel)
 - Substation (Not Xcel)
 - ◆ Route Segment Endpoint
- Route Alternatives**
- Preferred Route 161 kV
 - Preferred Route 69 kV
 - Preferred Route 161/69 kV
 - Alternate Route A 161 kV
 - Alternate Route A 69 kV
 - Alternate Route A 161/69 kV
 - Alternate Route B 161 kV
 - Alternate Route B 69 kV
 - Alternate Route B 161/69 kV
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- Substation (Xcel)
- Substation (Not Xcel)
- ◆ Route Segment Endpoint

Route Alternatives

- Preferred Route 161 kV
- - - Preferred Route 69 kV
- · - · - Preferred Route 161/69 kV
- Alternate Route A 161 kV
- - - Alternate Route A 69 kV
- · - · - Alternate Route A 161/69 kV
- Alternate Route B 161 kV
- - - Alternate Route B 69 kV
- · - · - Alternate Route B 161/69 kV

Existing Transmission

- 69kV AC
- 161kV AC
- 345kV AC
- Radisson Substation Site
- Road
- + — + Railroad

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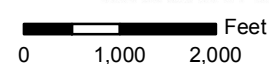
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Source: USGS 1971
Date: 8/29/2011

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- ### Route Alternatives
- Preferred Route 161 kV
 - Preferred Route 69 kV
 - Preferred Route 161/69 kV
 - Alternate Route A 161 kV
 - Alternate Route A 69 kV
 - Alternate Route A 161/69 kV
 - Alternate Route B 161 kV
 - Alternate Route B 69 kV
 - Alternate Route B 161/69 kV

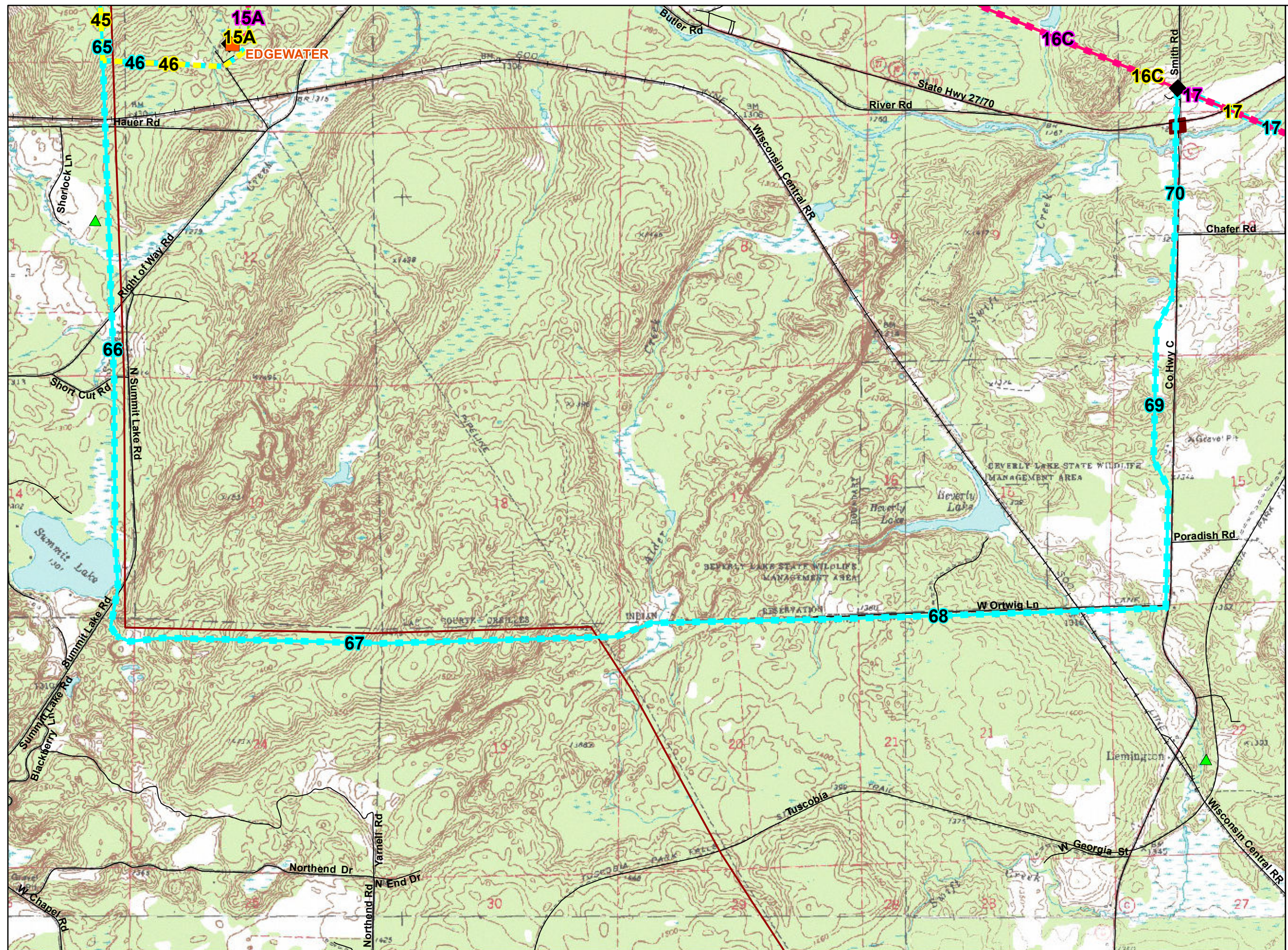
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Cultural Resources

Stone Lake to Couderay

69 kV Rebuild /

161kV Upgrade Transmission Project

- Historic Structure
- Archaeological Site
- Archaeological Survey
- Substation (Xcel)
- Substation (Not Xcel)
- Route Segment Endpoint

Route Alternatives

- Preferred Route 161 kV
- Preferred Route 69 kV
- Preferred Route 161/69 kV
- Alternate Route A 161 kV
- Alternate Route A 69 kV
- Alternate Route A 161/69 kV
- Alternate Route B 161 kV
- Alternate Route B 69 kV
- Alternate Route B 161/69 kV

Existing Transmission

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- Railroad

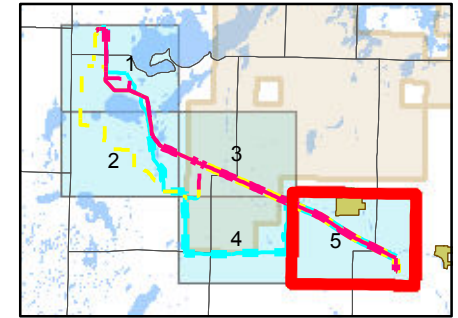
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 - Preferred Route 69 kV
 - Preferred Route 161/69 kV
 - Alternate Route A 161 kV
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 - Alternate Route A 161/69 kV
 - Alternate Route B 161 kV
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