



414 Nicollet Mall
Minneapolis, Minnesota 55401-1993

April 5, 2011

--Via Electronic Filing--

Dr. Burl W. Haar
Executive Secretary
Minnesota Public Utilities Commission
121 Seventh Place East, Suite 350
St. Paul, MN 55101

**Re: Notification of Intent to File Site and Route Permit Application under the Alternative Permitting Process for the Proposed Black Dog Repowering Project
Docket No. E002/GS-11-_____**

Dear Dr. Haar:

In accordance with Minnesota Rule 7850.2800, Subpart 2, Northern States Power Company, a Minnesota corporation (“Xcel Energy” or the “Company”), hereby notifies the Minnesota Public Utilities Commission (“Commission”) of the intent to submit an application for both a site and route permit for the Black Dog Repowering Project (“Project”) pursuant to the alternative permitting procedures in Minnesota Rules 7850.2800 to 7850.3900. The Project is eligible for the Alternative Permitting Process because the proposed units will be fueled by natural gas (Minnesota Rules 7850.2800, Subp. 1, Paragraph B) and the proposed transmission lines are less than five miles long (Minnesota Rules 7850.2800 Subp. 1, Paragraph D).

The proposed Project includes: replacing the remaining coal-fired generating Units 3 and 4 at the Plant with about 700 megawatts of natural gas-fired, combined cycle generation located in what is now the coal storage yard; building a new 345 kV substation; building two double circuited 345 kV transmission lines of approximately 4,000 feet in length; and reconfiguring a 1,000 to 1,500 foot-long section of existing 115 kV transmission lines to accommodate the new 345 kV lines that will need to cross over the existing 115 kV lines. The entire Project is located on property already owned by the Company at the existing Black Dog plant site. The Project is needed to meet customers’ increasing demands for electricity in the 2016 time frame. Additionally, the Project makes use of an existing site located close to a major load center thereby helping to maintain system reliability.

We filed a Certificate of Need for this Project on March 15, 2011 (Docket No. E-002/CN-11-184). We plan to file the application in early May 2011 and will work with the Commission and Office of Energy Security staff to address any questions and/or comments in order to expedite application acceptance and completion of the environmental assessment.

This notice filing is being served to those parties on the Black Dog Certificate of Need service list (Docket No. E-002/CN-11-184).

If you have questions, please contact me at (612) 330-7975.

Sincerely,

Sara Cardwell
Manager, Regulatory Administration

Enclosure: Service Lists



January 15, 2011

Ms. Mary Heidemann
State Historic Preservation Office
Minnesota Historical Society
345 Kellogg Boulevard West
Saint Paul, Minnesota 55102-1906

RE: Proposed Xcel Energy Black Dog Repower Project
Dakota County, Minnesota

Dear Ms. Heidemann;

Xcel Energy, Inc. (“Xcel Energy”) proposes to convert two coal burning units at its existing Black Dog Plant in Burnsville, Minnesota from coal-burning to natural gas. This proposed conversion plan includes the construction of a combined-cycle facility on the existing site separate from the main building, and the construction of four 345 Kilovolt (kV) transmission lines between the new facility and existing transmission lines to the south. This project is referred to as the Black Dog Repower Project (“Project”) and is needed to reduce air emissions and increase the generating capacity of the plant.

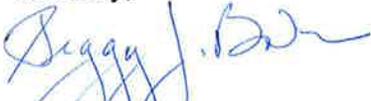
Xcel Energy intends to submit Certificate of Need (“CON”) and Site Permit applications to the Minnesota Public Utilities Commission for the proposed Project. These applications would describe both the Black Dog Plant facility modifications and installation of the 345 kV transmission lines. Per Minn. R. 7850.1600, the proposer of a large electric power generating plant (*i.e.*, Black Dog Plant) that will also require a high voltage transmission line (*i.e.*, proposed 345 kV transmission lines) may elect to apply for both a Site Permit and a Route Permit in one application and in one process. Xcel Energy has elected to adopt this option.

The Project qualifies for the Alternative Permitting Process under Minn. Stat. § 216E.04, subd. 2(3) and pursuant to Minn. Rules Chapter 7850.2800 to 7850.3900 (see Minn. Rules Chapter 7850.2800, subp. 1(C)), which Xcel Energy may elect to use. With regard to cultural resources, Xcel Energy will provide a description of the effects of the proposed facility on archaeological and historic resources in the CON and Site Permit applications, in order to aid in the preparation of an environmental impact statement under Minn. Rules Chapter 7850.1900, subp. 3(d).

On behalf of Xcel Energy, Merjent, Inc. (“Merjent”) conducted a cultural resources Phase Ia literature review (“Report”) for the proposed Project, a copy of which is enclosed for Minnesota State Historic Preservation Office (“SHPO”) review and comment. The Report includes a recommendation that no archaeological or historic resources will be affected by construction or operation of the new facility and transmission lines, and a further recommendation that an unanticipated discovery plan be in place in the event of encountering an archaeological site during construction for the current Project. Merjent and Xcel Energy respectfully request SHPO written agreement with our Report findings. We anticipate that your written comments on the Project will be submitted to us within 30 days. Thank you for your consideration of our request.

If you have questions regarding this Project or require additional information, please contact Timothy G. Rogers, Supervisor of Siting and Permitting with Xcel Energy, at (612) 330-1955 (email timothy.g.rogers@xcelenergy.com) or me at (612) 746-3663 (email pboden@merjent.com).

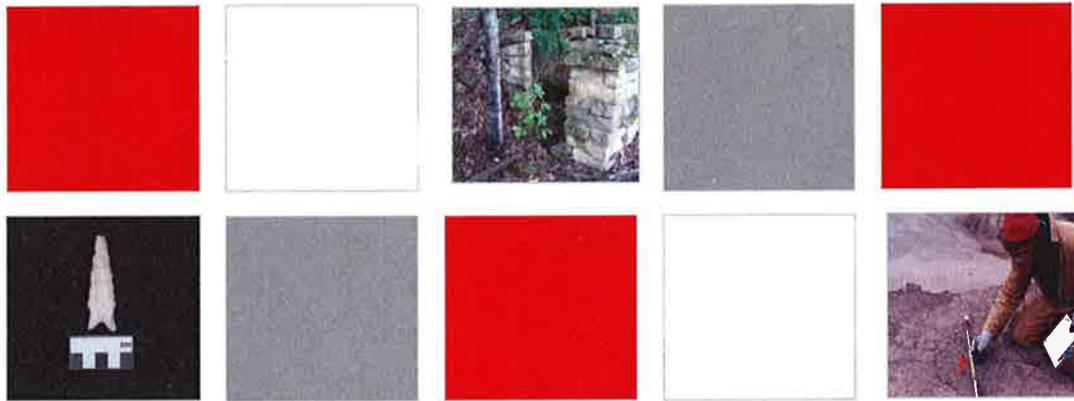
Sincerely,



Peggy J. Boden, PhD
Senior Cultural Resources Specialist

cc: Timothy G. Rogers, Xcel Energy, Inc.

Enclosure: Phase Ia Literature Review for the Xcel Energy Proposed Black Dog Repower Project, Dakota County, Minnesota (dated December 30, 2010)



Phase Ia Literature Review for the Xcel Energy Proposed Black Dog Repower Project, Dakota County, Minnesota

December 30, 2010

This report contains sensitive information about archaeological sites and should not be released to the general public

Report Title: Phase Ia Literature Review for the Xcel Energy Proposed Black Dog Repower Project, Dakota County, Minnesota

Report Prepared by: Merjent, Inc.
615 First Avenue NE, Suite 425
Minneapolis, Minnesota 55413
612.746.3660

Report Author: Peggy J. Boden, PhD

Report Date: December 30, 2010

Submitted to: Timothy G. Rogers, Supervisor of Siting and Permitting
Xcel Energy, Inc.
414 Nicollet Mall, MP8A
Minneapolis, MN 55401

This report contains sensitive information about archaeological sites and should not be released to the general public.

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INTRODUCTION

Project Description

Xcel Energy, Inc. (Xcel Energy) proposes to convert two coal burning units at its existing Black Dog Plant in Burnsville, Minnesota from coal-burning to natural gas. This proposed conversion plan includes the construction of a combined-cycle facility on the existing site separate from the main building, and the construction of new double-circuited, 345 kilovolt (kV) transmission lines between the new facility and existing transmission lines to the south. The resulting conversion will significantly reduce all air emissions and increase the generating capacity of the plant. The new transmission lines will facilitate power to and from the plant. The project is referred to as the Black Dog Repower Project (Project). The general location of the area in the southern suburbs of St. Paul/Minneapolis is depicted on Figure 1.

As part of the environmental review for the proposed Project, Merjent, Inc. (Merjent) is assessing the potential Project impacts on cultural resources. This report presents the methods and findings of a cultural resources literature review for the Project area. The primary goal of a literature review is to identify all known previously recorded archaeological sites and historic standing structures for a given location, as well as the previously completed site inventories. The additional goals are to define the cultural background and determine the potential for the presence of unrecorded cultural sites.

Dr. Peggy J. Boden of Merjent conducted the research and wrote the literature review report. Merjent's Geographic Information System department prepared the project maps.

Jurisdiction

At this time, there are no federal regulatory triggers that would require compliance with federal historic preservation laws, notably Section 106 of the National Historic Preservation Act of 1966, as amended. Environmental review of the Project falls under the jurisdiction of the Minnesota Public Utility Commission (PUC). Specifically, the Minnesota PUC will review the Project for effects on archaeological and historical resources under Minnesota Rules Chapter 7850.1900, subp. 3(d). Also, Minnesota state laws protect burials of all types (Minnesota Private Cemeteries Act [Minn. Stat. § 307]), and archaeological and historic sites that are listed on the National Register of Historic Places (NRHP) or the Minnesota Register of Historic Sites (Minnesota Historic Sites Act [Minn. Stat. § 138.661-138.6691]).

Project Location

The Project will be located within and immediately adjacent to the existing facility boundary of the existing Black Dog Plant, in Section 23, Township 27N, Range 24W in Dakota County, Minnesota. The facility footprint of approximately 500 square feet plus a 200-foot construction buffer, as well as the new transmission lines and a 200-foot buffer on either side of these facilities, is considered the area of potential effect (APE) for direct impacts on cultural resources. In order to study the cultural background and better understand the potential for impacts on cultural resources for the Project APE, a one-mile buffer around the APE was used to gather information. The APE plus the one-mile buffer is called the cultural resources study area (or study area). The cultural resources study area extends into the city of Bloomington, which is in Hennepin County (Figure 2). Within this report, phrases such as "Project area"

or “Project location” refer to the general geographical location of the Project, not the specific APE or study area.

Cultural Resources Study Area Background

The proposed Project is located in southern Minnesota, specifically in the city of Burnsville in the southern Twin Cities Metro area. Archaeologically, this is within the Central Lake Deciduous Archaeological Region (Anfinson 1990). The topography of this region was formed by the retreat of the Wisconsin glaciers and is characterized by patchwork hilly moraines, flat outwash plains, and shallow to very deep lakes. The soils were formed by glacial retreat and subsequent forest vegetation, resulting in medium to coarse texture loams. Prior to Euro-American settlement, the vegetation was predominantly oak forests, with deciduous-coniferous forests more common in the north. The Project study area is further defined by its location within the Minnesota River Valley. The Project location is about seven miles south and west of the junction of the Minnesota, and Mississippi Rivers. This eastern-most portion of the Minnesota River is a broad lowland averaging one mile wide, with intermittent bedrock outcrops and higher river bluffs on both the north and south sides of the river. Following the last glacial retreat, the river valley was further altered by flooding events and alluvial action, and includes lakes and wetlands on both sides of the river (see Figure 1). The study area also lies within the Minnesota Valley National Wildlife Refuge.

The climate of the study area is characteristic of the North American mid-continent, that is, subject to temperature extremes in winter and summer, and turbulent precipitation events. The abundant resources in the Minnesota River lowlands, such as waterfowl and fish, were exploited by both Native American and Euro-American groups. Native Americans occupied villages on the higher ridges above the river and are relatively well known from early historic accounts. Today, the Black Dog energy plant is part of the larger Xcel Energy transmission system that runs parallel to the river and stands as one of the few buildings in the river bottoms.

To provide the briefest cultural background for the Project area, the earliest occupants of the region were Paleo-Indians (9,000-7,500 B.C.), known mostly through chance discovery of their large lithic tools and weapons. Occupation by Archaic period groups followed (7,500-500 B.C.), known by their technically improved lithic tools and exploitation of more diverse resources. By the Woodland period (500 B.C.-1000 A.D.), the bow and arrow and pottery were widely used. The Plains Village groups (1000-1650 A.D.), such as the Oneota, developed distinctive tribal customs and practices, expressing their beliefs through decorative material culture. Prehistorically, the Central Lakes Deciduous Archaeological Region was a favored location for the Woodland period groups. They lived near lakes and utilized the many associated resources such as lake rushes and water lilies, wild rice, fish, and waterfowl.

When the first Europeans came to the region to trade for animal pelts (Early Contact period, 1640-1840), they encountered the Dakota Indians. In preparation for Euro-American entry into the northern frontier, and to monitor disputes between the Dakota and Ojibwe Indians, Fort Snelling (Fort) was built in 1825. At the time the Fort was constructed, several bands of Dakota lived in villages along the terraces of the Minnesota River Valley west of the Fort. These are known from narratives and artwork of the period, from place names, and also from archaeological sites. The leader of one band of Dakota was Black Dog, the namesake for the large lake in the study area and the power plant.

Today, the Project area lies in the metropolitan area of Minneapolis and St. Paul, Minnesota, in the south suburban city of Burnsville. Known mainly as a residential community, the city actually has a diverse economic base in addition to housing development and retail, including manufacturing,

publishing, recreation, and service industry businesses such as educational support, software development, and telecommunications. Land use of the Project location in the Minnesota River bottoms is for the most part limited to industrial and transportation infrastructure, including Xcel Energy substations and transmission lines, the Highway 35W bridge over the Minnesota River two miles to the west, and the Union Pacific Railroad (see Figure 2).

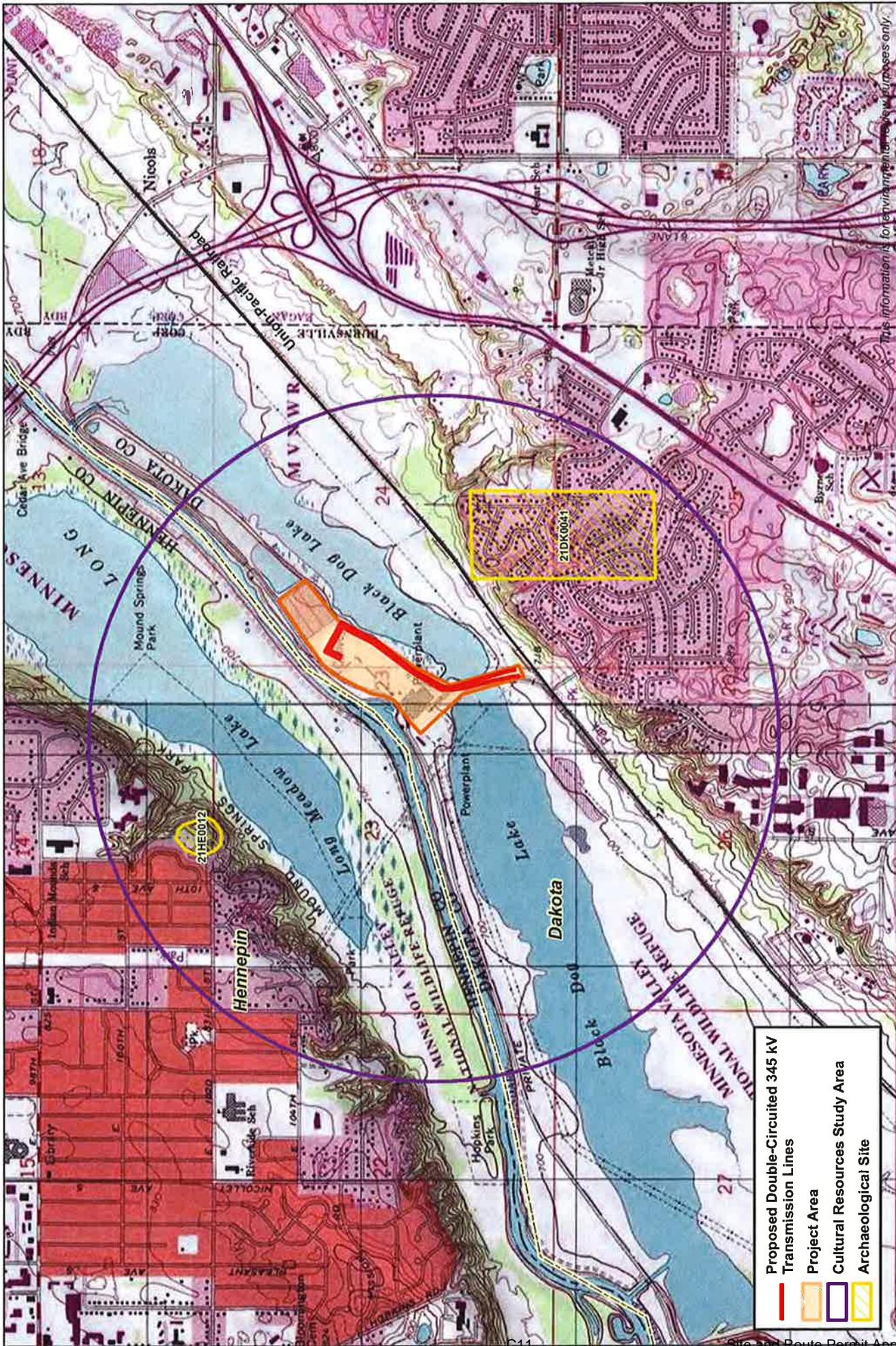


Figure 2
Proposed Black Dog Repower Project
 Topographic Project Location Map Showing Cultural Resources


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Revised: 01/13/2011

METHODS

The main objective in reviewing the cultural resources literature is to identify the recorded cultural sites and assess the potential for unrecorded sites within the Project APE. The standard for considering a cultural property significant is whether it meets the criteria for listing on the NRHP. The initial criterion for such listing is an age of 50 or more years. Beyond age, a property must retain integrity and be associated with significant historic trends, historic persons, building styles and craftsmanship, or the property must have the potential to provide significant information about the past (National Park Service 1995).

Merjent reviewed and followed the published guidelines for conducting cultural resources literature reviews in Minnesota (Anfinson 2005). The Minnesota State Historic Preservation Office (SHPO), located in the Minnesota History Center building in St. Paul, is the record keeper for the state's prehistoric and historic archaeological site files, historic standing structure inventory files, and field survey reports. Dr. Boden made a trip to the Minnesota SHPO on December 2, 2010 and searched the files for information on the Project area.

Dr. Boden examined the current topographic and aerial maps to understand the modern land use of the study area and to provide a baseline for examining the historic maps and documents. Several online resources were used to gather information. Dr. Boden looked up general information online about Dakota County and the city of Burnsville. She also examined primary sources that have been digitized and made available online, such as the original land survey maps, the original land patent records, and historic aerial photos. Many of these same resources are available at the Minnesota History Center library; however, it is preferable to view digitized images that can be enlarged rather than the microfiche copies available in the history library.

Many cities in Minnesota have established a Heritage Preservation Commission (HPC) that is charged with creating policies that promote historic preservation. HPCs may have policies regarding historic preservation for construction on new or existing structures, and may conduct property inventories. The cities of Burnsville and Bloomington (the location of the study area) do not have an HPC. Dakota County has an active historic society and museum located in South St. Paul. The organization's website was viewed for general information about the county (Dakota County Historical Society 2003). The historical society's museum provides displays with historical themes important to the county, and maintains documents on file to assist in family research, such as census records and newspapers. The local historical society does not keep a list of important locations or historic sites.

LITERATURE REVIEW RESULTS

National Register of Historic Places/Minnesota Historic Sites

A search of the NRHP website and the records on file at the Minnesota SHPO revealed that there are 37 properties in Dakota County listed on the NRHP. The listed properties range from individual dwellings or commercial buildings to the historic districts of Mendota and Hastings, and the Mendota Bridge. The closest listed property to the study area is Fort Snelling. None of the NRHP-listed properties are located in the Project APE or study area.

The Union Pacific Railroad, which parallels the Minnesota River and Black Dog Lake just south of the Project APE, is included in the Multiple Property Nomination to the NRHP for *Railroads in Minnesota, 1862 – 1956* (Schmidt et al., 2002). This document describes the significance of the many railroads of Minnesota, and establishes the criteria for considering a rail line and associated railroad features as eligible for listing on the NRHP. This rail line was first built by the Minnesota Valley Railroad Company in 1864, one of the early rail lines in the state. The line changed hands over the decades and is currently part of the Union Pacific network of railroads. This railroad line certainly meets the initial criteria of being more than 50 years old. Only a field survey would determine if the line maintains its historic integrity and setting sufficiently to be eligible for listing on the NRHP, although it almost certainly does. A railroad spur proceeds north to the Black Dog Plant from the Union Pacific centerline; this spur almost certainly was constructed to service the plant and would not be considered part of the original railroad. Because the proposed Project will not alter the landscape or surroundings of the original railroad centerline and the proposed new transmission lines represent an in-kind use of the industrial corridor of the more recent railroad spur, there will be no notable change to the existing setting of the Union Pacific Railroad through the Minnesota River Valley (Figure 3).

In addition to the NRHP, the Minnesota Historical Society maintains a list of properties that have been identified as significant to the history of Minnesota. Some of the Minnesota Historic Sites are also NRHP-listed properties, such as Fort Snelling. No Minnesota Historic Sites are located within the Project study area.

Minnesota State Site Files

Previously Recorded Archaeological Sites

No archaeological sites have been recorded in the Project APE, that is, the construction footprint for the new facility and the 345 kV transmission lines. Within the broader cultural resources study area, two archaeological sites have been recorded (see Figure 2 and Table 1). When Fort Snelling was built, and until their removal in the 1850s, bands of Mdewakanton Dakota lived in villages along the terraces overlooking the Minnesota River Valley west of Fort Snelling. One of the sites, on the northern side of the Minnesota River in Hennepin County, is most likely associated with the Dakota occupation of the area. Site 21HE0012 was first recorded by surveyor Theodore Lewis in the 1890s as 36 mounds overlooking the Minnesota River bottoms. Mound 21 of the group was excavated by a University of Minnesota student in 1933. The mound contained three wooden coffin burials dating to the early historic period, and scattered human remains deeper in the mound that dated to the Woodland Period.

Archaeologists concluded that the original mound was built during the Woodland Period, and the historic Native American coffin burials were excavated into the mound during the Dakota occupation of the area (Arzigian and Stevenson 2003, 392f). The current condition of the site is unknown.

The other archaeological site that lies within the cultural resources study area is on the southern side of the river, site 21DK0041. This site, called the Pemtom or River Hills Site, was discovered during housing construction in 1963 (Arzigian and Stevenson 2003, 371). Seven burial pits were excavated, containing a minimum of 56 individual secondary burials. This site was unique in Minnesota archaeology because it represents the Arvilla Complex, best known from several sites in the Red River Valley (Johnson 1973). The Arvilla Complex is known only through several burial sites in the region, and is characterized by secondary bundle burials, as well as bone and decorated shell grave goods.

Previously Recorded Archaeological Sites within the Project’s Cultural Resources Study Area			
Site number	Site type	Cultural Affiliation	Relevant Findings
21HE0012	Mound Site	Prehistoric or Contact Period	Thirty-six mounds were recorded at this location by Theodore Lewis ca. 1890. Mound 21 excavated in 1933.
21DK0041	Mound Site (River Hills Mounds) destroyed	Prehistoric Arvilla Complex (AD 500-900)	Discovered in 1963 during housing construction; seven burial pits were excavated.

Previously Recorded Standing Structures

The only structure that is more than 50 years old and has been inventoried within the study area is the Union Pacific Railroad that runs along the southern edge of the Minnesota River Valley, with a spur that enters the Project area from the south. The Project is situated in a relatively newly developed part of the Twin Cities metro area; buildings are scarce in the lowlands where the Black Dog Plant and transmission lines are located, and residential development, as well as public and commercial buildings on the higher ground, were built well after the Second World War (see Figure 2).

Previously Conducted Cultural Resources Surveys

The reports of cultural resources inventory surveys in the study area were examined, but there are no professional technical reports for the study area on file at the Minnesota SHPO. The Science Museum of Minnesota sent researchers to excavate the River Hills mound side (21DK0041) when prehistoric burials were discovered during housing construction. However, this was done prior to the establishment of historic preservation laws, so no report of the excavations is on file at the state agencies.

The early efforts of surveyor Theodore Lewis should be mentioned as a source of information about the study area. Lewis was a surveyor by training, and took an interest in the Native American earthworks of

Phase Ia Literature Review, Proposed Xcel Energy Black Dog Repower Project, Dakota County, Minnesota
December 2010

the Upper Midwest. He recorded the mounds through most of Minnesota, including those in this portion of the Minnesota River Valley (Winchell 1911). In many cases, Lewis's records of the mounds in the Minnesota River Valley are the only remaining evidence we have of these sites. The SHPO assigned mound site numbers according to Lewis's published field notes (Winchell 1911). In many cases, including that of 21HE0012, the mound site has not been recently field verified and its current condition is unknown.

Other Resources

Other historical documents relevant to the study area were reviewed in order to identify possible unrecorded historic sites that might be affected by the Project.

General Land Office Survey Maps

The General Land Office (GLO) Survey maps, representing the original township surveying of the Minnesota Territory in 1853, were viewed online through the Minnesota Historical Society's library website. The GLO map of Burnsville Township (T27N, R24W) does not show any cultural features in the Study area.

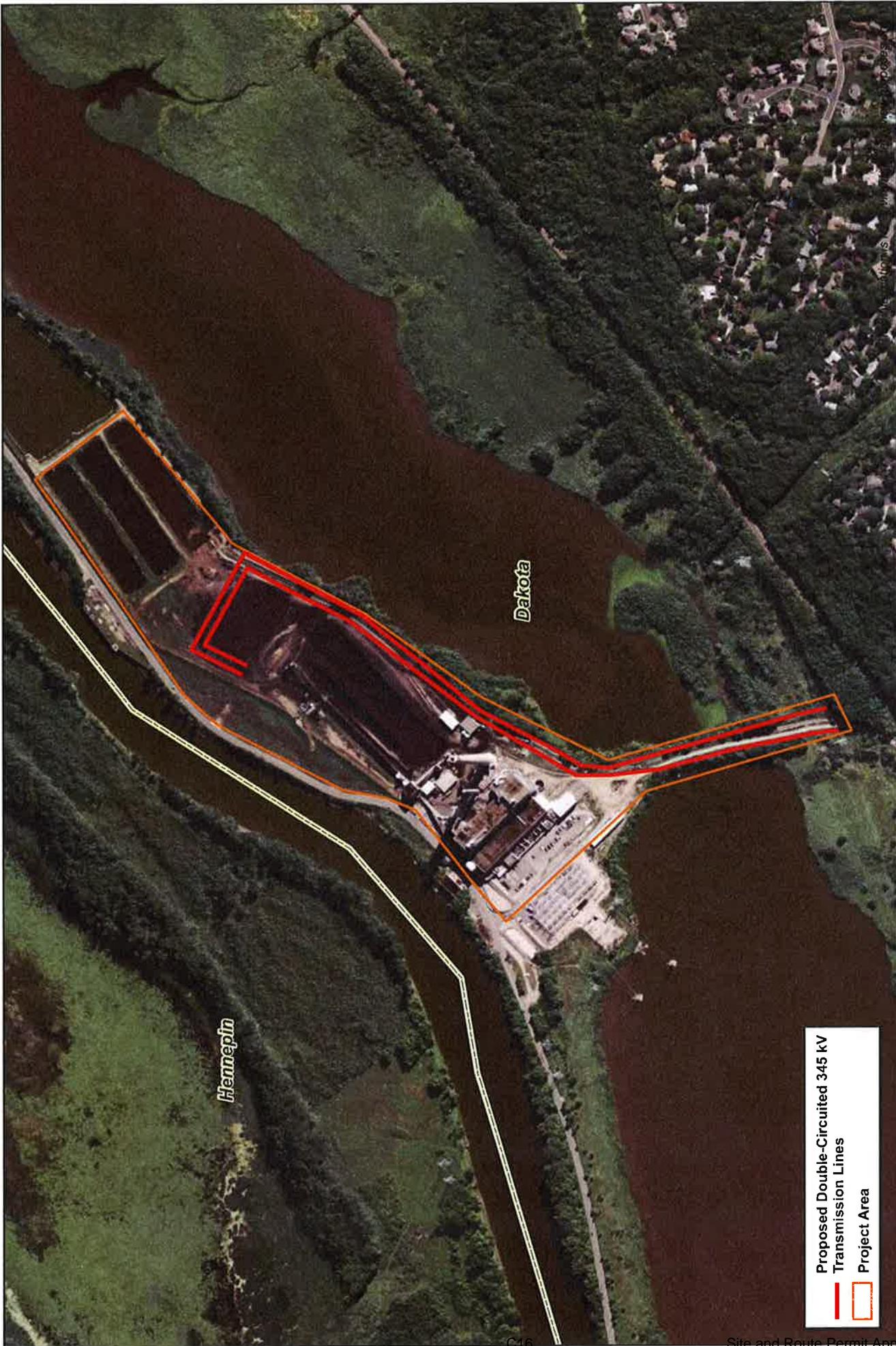
Historic Plat Maps

Several historic plat maps were viewed online to determine if any historic features such as pioneer trails or early homesteads were recorded in the Project APE or study area (John R. Borchert Map Library). Early activity or buildings can become lost to history, although buried remnants may be left behind. Viewing of the early plat maps for Dakota and Hennepin Counties did not reveal any additional cultural information about the study area. On most of the early maps viewed, the legal plats are shown with landowners' names, and little or no depiction of the surrounding terrain or cultural features such as roads, trails, or building sites.

The earliest maps do show the Union Pacific Railroad at its present location along the southern edge of the Minnesota River Valley. This structure is the oldest historical property in the study area. No additional cultural information can be gleaned from the early plat maps.

Historic Aerial Photographs

Merjent reviewed aerial photographs of the study area that are available online from the Minnesota Department of Natural Resources' website. The 1947 aerial photograph shows that the bottom land of the Minnesota River Valley is sparsely occupied, containing mostly urban infrastructure such as the highway and bridge that cross the river, and the Union Pacific Railroad that parallels the river to the south. Up river and west of the study area, Port Cargill, a series of roads and river canals on the Minnesota River just north of Savage, is present on the 1947 aerial photo. The river bluffs in Bloomington and Burnsville, however, are not developed at the time of this photo. Agricultural fields and farmsteads are present a few hundred feet away from the bluff edges. Other than the built environment mentioned, there does not appear to be any standing structures on the 1947 aerial that correspond with current buildings or structures.



Proposed Double-Circuited 345 kV
Transmission Lines
Project Area


Xcel Energy
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0 600 1,200 Feet



Figure 3
Proposed Black Dog Repower Project
 Aerial Project Location Map Showing Artificially Built Environment

Revised: 01/14/2011

RECOMMENDATIONS

There are no historic landmarks, historic properties, districts, or landscapes within the study area that are listed on the NRHP. There are no recorded archaeological sites or historic standing structures within the Project APE. The only feature of potential significance is the segment of the Union Pacific Railroad that is part of a Multiple Property Nomination to the NRHP. The original railroad centerline skirts the Project APE to the south, and a spur of the rail line enters the Project APE. The railroad spur is presumed to be dated to the construction of the existing plant. The construction activities at the existing plant site along with new transmission lines will not affect the historic integrity or setting of the Union Pacific Railroad line south of the Project. Construction will take place in a setting of industrial infrastructure, and is considered an in-kind addition to the landscape, which currently includes several transmission lines in the study area. Merjent recommends that the Project will not adversely affect the historic integrity or setting of the Union Pacific Railroad centerline at this location. It is our recommendation that no recorded archaeological or historic sites will be adversely affected by the proposed construction of the combined-cycle facility and associated transmission lines on the existing plant site.

Within the cultural resources study area (one-mile buffer around the construction footprint), two archaeological sites have been recorded, neither of which is recommended eligible for listing on the NRHP or the Minnesota Register of Historic Sites. One of these is a burial site (21DK0041) that was discovered and excavated in 1963, and has been destroyed by development. The second site was recorded from Theodore Lewis's field notes of his survey of mound sites. This site, 21HE0012, may be associated with the Dakota occupation of the river bluffs in the first half of the nineteenth century. The historic and archaeological record, however, indicate that the Dakota villages best known to the occupants of Fort Snelling, including Black Dog's village, lay closer to the Fort, and north and east of the study area.

The potential for impacting unrecorded archaeological resources within the Project APE is low to very low. The primary reason is because of the Project's location within an existing power plant facility and the artificial berm currently supporting the railroad spur, where the transmission lines will be constructed (see Figure 3). It should also be noted that the Project is located within the Minnesota River bottoms, and as BRW reported in their 1990 study, the dominant soil in the Minnesota River bottoms is wetland muck. In prehistoric and the early historic periods, the bluffs above the river were the preferred location for settlement, and even today, the built environment of the river bottoms of the study area is almost entirely limited to industrial infrastructure. In the past, human groups utilized the resources in the bottomlands and wetlands, but they did not spend significant time or routinely leave behind evidence of their presence there. For all of these reasons, Merjent recommends that a field inventory of the Project APE is not necessary.

Merjent understands that currently the Project is under the jurisdiction of the Minnesota PUC and applicable state and local laws. Merjent is making recommendations according to standard predictability models for discovery of archaeological resources in the Upper Midwest, and in accordance with the relevant PUC regulations, the Minnesota Historic Sites Act, the Minnesota Field Archaeology Act, and the Minnesota Private Cemeteries Act. If there is federal involvement in the Project, such as federal permitting, licensing or funding, Section 106 of the National Historic Preservation Act of 1966, as amended, must be followed.

REFERENCES

Anfinson, Scott

1990 Minnesota Municipal and County Highway Archaeological Reconnaissance Study, Annual Report, 1989. On file at the Minnesota Office of Historic Preservation.

2005 SHPO Manual for Archaeological Projects in Minnesota. Minnesota State Historic Preservation Office.

Arzigian, Constance M. and Katherine P. Stevenson

2003 Minnesota's Indian Mounds and Burial Sites: A synthesis of Prehistoric and Early Historic Archaeological Data. Publication No. 1, the Minnesota Office of the State Archaeologist.

Dakota County Historical Society

2003 Dakota County History. Website viewed at www.dakotahistory.org on December 6, 2010.

John R. Borchert Map Library

Various dates Minnesota County Plat Maps and Atlases in the Borchert Map Library. Viewed online at <http://map.lib.umn.edu/platmaps> in December 2010.

Minnesota Department of Natural Resources

Various dates Historic aerial photographs available as GIS layers on the Minnesota DNR website. Photographs from 1947 were viewed online at <http://www.dnr.state.mn.us/maps/landview.html> in December 2010.

National Park Service

1995 *How to Apply the National Register Criteria*. National Register Bulletin 15, National Park Service, Washington, D.C.

Schmidt, Andrew J., Daniel R. Pratt, Andrea C. Vermeer, and Betsy H. Bradley

2002 *Railroads in Minnesota, 1862 – 1956*. National Register of Historic Places Multiple Documentation Form. On file at Minnesota SHPO.

United States Department of Agriculture (USDA), Farm Service Agency

1947 Aerial Photographs for Agricultural Stability and Conservation. Available online from the John Borchert Map Library University of Minnesota, <http://map.lib.umn.edu/mhapo/index.html>.

United States General Land Office (GLO)

1853 General Land Office Survey Maps. Originally produced in 1853 by the United States Land Office, Dubuque Iowa. Viewed online at <http://www.mnhs.org/collections/digitalmaps/index.htm> in December 2010.

Winchell, Newton Horace

1911 *The Aborigines of Minnesota: a Report Based on the Collections of Jacob V. Brower and on the Field Surveys and Notes of Alfred J. Hill and Theodore H. Lewis.* St. Paul, Minnesota Historical Society.



STATE HISTORIC PRESERVATION OFFICE

February 15, 2011

Ms. Peggy Boden
Merjent
615 First Ave NE, Suite 425
Minneapolis, MN 55413

RE: Xcel Energy Black Dog Repower Project
T27 R24 S23
Burnsville, Dakota County
SHPO Number: 2011-1100

Dear Ms. Boden:

Thank you for the opportunity to review and comment on the above project. It has been reviewed pursuant to the responsibilities given the Minnesota Historical Society by the Minnesota Historic Sites Act and the Minnesota Field Archaeology Act.

Based on our review of the project information, we conclude that there are no properties listed on the National or State Registers of Historic Places, and no known or suspected archaeological properties in the area that will be affected by this project.

Please note that this comment letter does not address the requirements of Section 106 of the National Historic Preservation Act of 1966 and 36CFR800, Procedures of the Advisory Council on Historic Preservation for the protection of historic properties. If this project is considered for federal assistance, or requires a federal permit or license, it should be submitted to our office with reference to the assisting federal agency.

Please contact our Compliance Section at (651) 259-3455 if you have any questions regarding our review of this project.

Sincerely,

A handwritten signature in black ink, appearing to read 'Britta L. Bloomberg'.

Britta L. Bloomberg
Deputy State Historic Preservation Officer

APPENDIX D

The following assessment is based on the MnDNR response letter, a review of the Natural Heritage Database specific to Dakota County that is licensed to Xcel Energy by the MnDNR, and other state and federal rare species and natural community information.

The MnDNR NHIS database was queried to obtain the locations of rare and unique natural resources within a one mile radius outside of the Project area to include the Project area. The result of this review is the species listed in the table that starts on Page Four of this Appendix. This area is also shown on Appendix A, Figure A-14. However, the project-specific discussion of potential impacts on special status species is focused on those within the designated Project Area, which is where Xcel Energy will confine activities and where any direct impacts will occur. The discussion also addresses any other species specifically called out by the MnDNR in its cover letter (e.g., Bulrush Marsh, bald eagle) to ensure we have acknowledged MnDNR concerns.

Only two species were identified via the MnDNR NHIS database within the immediate Project Area; the peregrine falcon (*Falco peregrinus*) and the paddlefish (*Polyodon spathula*). With the exception of these two species, all rare or unique resources are located outside of the Project Area. In addition, in its March 8, 2011 letter, the MnDNR stated that the Minnesota County Biological Survey completed in 1994 identified Bulrush Marsh native plant communities adjacent to the proposed transmission lines.

As currently planned, the Project will be limited to upland areas and no impacts on the state-listed threatened paddlefish are anticipated. Further, the MnDNR stated that provided the transmission foundations are located in upland areas as proposed, the Project is not expected to directly impact the Bulrush Marsh native plant communities. However, as recommended by the MnDNR (2011c), Xcel Energy will attempt to mitigate for surface runoff or the spread of invasive species into this community during construction. Mitigation measures may include use of best management practices such as installation of erosion control devices to prevent runoff in to the waterbody and use of clean equipment to prevent the transfer of noxious weeds to the construction site.

While not afforded protection by the State of Minnesota as a threatened or endangered species, Xcel Energy has committed to mitigating adverse impacts on the

Bullrush Marsh communities to the extent possible. Should the project require work outside of upland areas (e.g., in Black Dog Lake), Xcel Energy will reinitiate consultations with the MnDNR to discuss mitigation measures to avoid adversely impacting the communities.

Xcel Energy is currently determining specific engineering Project details such as structure placement. While the Company anticipates the Project will be confined to upland areas, if Project details change such that a structure(s) will require placement in shoreline areas or in waterbodies, Xcel Energy will contact the MnDNR to develop mitigation measures, if necessary, to avoid adversely impacting any state-listed threatened or endangered aquatic species (e.g., paddlefish).

Regarding the state-listed threatened peregrine falcon, the species is known to have regularly nested on a smokestack at the existing Black Dog Plant since 1993. The MnDNR stated that it is unlikely that the transmission line construction as proposed would affect this species (MnDNR, 2011c). However, as recommended by the MnDNR, Xcel Energy will report any signs of unusual behavior or distress during construction to the regional wildlife specialist.

As mentioned above, specific Project details are currently being determined by Xcel Energy. It is likely the Project will require demolition and removal of structures such as the smokestack as discussed in Section 3.4 of the Application. However, the Company does not anticipate removal of the smokestack structures for at least three years and, at that time, the Company will reinitiate consultations with the MnDNR to discuss measures that can be implemented so as to avoid adversely impacting the peregrine falcon and, as necessary, obtain the necessary authorizations and implement the required measures.

Two additional species were identified in the MnDNR's letter: the federally listed as threatened and state-listed as special concern gray wolf, and the federally listed as threatened Canada lynx. Both species are not currently tracked in the MnDNR NHIS database and, therefore, historical locations are unknown. However, based on the two species' habitat and range (i.e., northern Minnesota) (MnDNR, 2011d; MnDNR, 2011e), it is highly unlikely they would be affected by the Project.

Another species warranting recognition is the bald eagle (*Haliaeetus leucocephalus*), which is granted SPC status in the State of Minnesota and is afforded legal protection under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. A bald

eagle nest is known to occur approximately 1,000 feet to the north of the Project Area. Efforts will be made to determine if the bald eagle nest is occupied prior to initiation of construction activities.

**Rare and Unique Resources Identified by MnDNR NHIS Review
within One Mile of the Project Area**

Common Name	Scientific Name	Most Recent Observation	MN Status ^a	State Rank ^a
Zoological ^a				
Bald Eagle	<i>Haliaeetus leucocephalus</i>	2005	SPC	S3
Black Buffalo	<i>Ictiobus niger</i>	2006	SPC	S3
Black Sandshell	<i>Ligumia recta</i>	1989 and 2006	SPC	S3
Butterfly	<i>Ellipsaria lineolata</i>	2005	THR	S2
Ebonyshell	<i>Fusconaia ebena</i>	2001	END	S1
Elephant-ear	<i>Elliptio crassidens</i>	1977	END	S1
Fluted-shell	<i>Lasmigona costata</i>	2006	SPC	S3
Hickorynut	<i>Obovaria olivaria</i>	2006	SPC	S3
Monkeyface	<i>Quadrula metanевра</i>	2006	THR	S2
Mucket	<i>Actinonaias ligamentina</i>	1989 and 2006	THR	S2
Paddlefish	<i>Polyodon spathula</i>	2004	THR	S2
Peregrine falcon	<i>Falco peregrinus</i>	2010	THR	S2
Pistolgrip	<i>Tritogonia verrucosa</i>	1989	THR	S2
Pugnose shiner	<i>Notropis anogenus</i>	1926	SPC	S3
Regal Fritillary	<i>Speyeria idalia</i>	1968	SPC	S3
Rock Pocketbook	<i>Arcidens confragosus</i>	2006	END	S1
Round Pigtoe	<i>Pleurobema coccineum</i>	2006	THR	S2
Spike	<i>Elliptio dilatata</i>	1989 and 2006	SPC	S3
Wartyback	<i>Quadrula nodulata</i>	2007	END	S1
Washboard	<i>Megalonaias nervosa</i>	2006	THR	S2
Winged mapleleaf ^b	<i>Quadrula fragosa</i>	1989	END	S1
Yellow sandshell	<i>Lampsilis teres</i>	1989	END	S1
Botanical				
Small white lady's-slipper	<i>Cypripedium candidum</i>	1993	SPC	S3
Snow trillium	<i>Trillium nivale</i>	2008	SPC	S3
Sterile sedge	<i>Carex sterilis</i>	1994	THR	S2
Tuberous Indian-plantain	<i>Arnoglossum plantagineum</i>	1993	THR	S2

Common Name	Scientific Name	Most Recent Observation	MN Status ^a	State Rank ^a
Valerian	<i>Valeriana edulis var. ciliata</i>	1993	THR	S2
Ecological				
Calcareous Fen (Southeastern Type)	--	1993 and 1994	N/A	S1
Native Plant Community, Undetermined Class	--	1994	N/A	SNR
Southern Wet Ash Swamp	--	1995	N/A	S2
^a At the state level, “THR” refers to species listed as threatened, “END” refers to species listed as endangered, “SPC” refers to species of special concern. In addition, Minnesota also assigns a rank to listed species. This rank reflects the known extent and condition of that species. Ranks range from S1 (in greatest need of conservation action in the state) to S5 (secure under present conditions), and SNR (rank not yet assessed). ^b This species is also covered under the federal Endangered Species Act and is currently listed as Endangered.				

MnDNR letter reference:

Minnesota Department of Natural Resources. 2011a. Letter dated March 8, from L. Joyal (Natural Heritage Review Coordinator) to T. Janssen (Merjent, Inc.).

References for gray wolf and Canada lynx statements:

Minnesota Department of Natural Resources. 2011b. Gray Wolf/Timber Wolf. Available online at <http://www.dnr.state.mn.us/mammals/graywolf.html>. Accessed March 2011.

Minnesota Department of Natural Resources. 2011c. Canada Lynx. Available online at <http://www.dnr.state.mn.us/mammals/canadalynx.html>. Accessed March 2011.



Minnesota Department of Natural Resources

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March 8, 2011

Correspondence # ERDB 20110351

Mr. Tom Janssen
Merjent, Inc.
615 First Ave. NE, Suite 425
Minneapolis, MN 55413

RE: Natural Heritage Review of the proposed Black Dog Repower Project,
T27N R24W Sections 23 & 24, Dakota County

Dear Mr. Janssen,

As requested, the Minnesota Natural Heritage Information System has been queried to determine if any rare species or other significant natural features are known to occur within an approximate one-mile radius of the proposed project. Based on this query, rare features have been documented within the search area (for details, see the enclosed database reports; please visit the Rare Species Guide at <http://www.dnr.state.mn.us/rsg/index.html> for more information on the biology, habitat use, and conservation measures of these rare species). Please note that the following **rare features may be adversely affected** by the proposed project:

- Peregrine falcons (*Falco peregrinus*), a state-listed threatened species, have nested annually on a smokestack at the Black Dog Plant since 1993. It is unlikely that the proposed construction activities will affect these birds, but if the birds exhibit unusual behaviors or other signs of potential distress during construction please contact Krista Larson, Central Region Nongame Wildlife Specialist, at 651-259-5775.
- In 1994, the Minnesota County Biological Survey (MCBS) identified Bulrush Marsh native plant communities adjacent to the proposed transmission lines. (A GIS shapefile of MCBS Native Plant Communities can be downloaded from the DNR Data Deli at <http://deli.dnr.state.mn.us>.) This particular native plant community has a state rank of 3, indicating that it is vulnerable to extirpation within Minnesota. Provided the transmission foundations are located upland, as proposed, the project will not directly affect these areas. Please consider indirect effects from surface runoff or the spread of invasive species during project construction.

The Natural Heritage Information System (NHIS), a collection of databases that contains information about Minnesota's rare natural features, is maintained by the Division of Ecological and Water Resources, Department of Natural Resources. The NHIS is continually updated as new information becomes available, and is the most complete source of data on Minnesota's rare or otherwise significant species, native plant communities, and other natural features. However, the NHIS is not an exhaustive inventory and thus does not represent all of the occurrences of rare features within the state. Therefore, ecologically significant features for which we have no records may exist within the project area.

The enclosed results include an Index Report and a Detailed Report of records in the Rare Features Database, the main database of the NHIS. To control the release of specific location information, which might result in the destruction of a rare feature, both reports are copyrighted.

The Index Report provides rare feature locations only to the nearest section, and may be reprinted, unaltered, in an environmental review document (e.g., EAW or EIS), municipal natural resource plan, or report compiled by your company for the project listed above. If you wish to reproduce the index report for any other purpose, please contact me to request written permission. **The Detailed Report is for your personal use only as it may include specific location information that is considered nonpublic data under *Minnesota Statutes*, section 84.0872, subd. 2. If you wish to reprint or publish the Detailed Report for any purpose, please contact me to request written permission.**

For environmental review purposes, the Natural Heritage letter and database reports are valid for one year; they are only valid for the project location (noted above) and the project description provided on the NHIS Data Request Form. Please contact me if project details change or if an updated review is needed.

Please note that locations of the gray wolf (*Canis lupus*), federally-listed as threatened and state-listed as special concern, and the Canada lynx (*Lynx canadensis*), federally-listed as threatened, are not currently tracked in the NHIS. As such, the Natural Heritage Review does not address these species.

Furthermore, the Natural Heritage Review does not constitute review or approval by the Department of Natural Resources as a whole. Instead, it identifies issues regarding known occurrences of rare features and potential effects to these rare features. Additional rare features for which we have no data may be present in the project area, or there may be other natural resource concerns associated with the proposed project. For these concerns, please contact your DNR Regional Environmental Assessment Ecologist (contact information available at http://www.dnr.state.mn.us/eco/ereview/erp_regioncontacts.html). Please be aware that additional site assessments or review may be required.

Thank you for consulting us on this matter, and for your interest in preserving Minnesota's rare natural resources. An invoice will be mailed to you under separate cover.

Sincerely,



Lisa Joyal
Natural Heritage Review Coordinator

enc. Rare Features Database: Index Report
Rare Features Database: Detail Report
Rare Features Database Reports: An Explanation of Fields

cc: Jamie Schrenzel, DNR
Melissa Doperalski, DNR
Krista Larson, DNR
Hannah Texler, DNR
Deborah Pile, OES

Minnesota Natural Heritage Information System
Index Report of records within 1 mile radius of:
ERDB #20110351 - Black Dog Repower Project
T27N R24W Sections 23&24
Dakota County

Rare Features Database:

Element Name and Occurrence Number	Federal Status	MN Status	State Rank	Global Rank	Last Observed Date	EO ID #
Vertebrate Animal						
<u>Falco peregrinus</u> (Peregrine Falcon) #56 T27N R24W S23; Dakota County	No Status	THR	S2B	G4	2010-06-10	16125
<u>Haliaeetus leucocephalus</u> (Bald Eagle) #2351 T27N R24W S13, T27N R24W S24; Hennepin County		SPC	S3B,S3N	G5	2005	31995
<u>Ictiobus niger</u> (Black Buffalo) #18 T27N R24W S13, T27N R24W S24, T27N R24W S29; Dakota, Hennepin County		SPC	S3	G5	2006-05-19	30131
<u>Notropis anogenus</u> (Pugnose Shiner) #74 T27N R24W S13, T27N R23W S18; Dakota, Hennepin County		SPC	S3	G3	1926-08-17	29841
<u>Polyodon spathula</u> (Paddlefish) #4 T27N R24W S23, T115N R23W S16, T115N R23W S17, T115N R38W S28, T [...]; Blue Earth, Brown, Carver, Chippewa, [...] County		THR	S2	G4	2004-12-04	16501
<u>Vireo bellii</u> (Bell's Vireo) #2 T27N R24W S34, T27N R24W S26, T27N R24W S35, T27N R24W S23, T [...]; Dakota, Hennepin County	No Status	NON	SNRB	G5	1979-06	3282
Invertebrate Animal						
<u>Actinonaias ligamentina</u> (Mucket) #95 T27N R24W S13; Dakota, Hennepin County		THR	S2	G5	1989-08-31	17131
<u>Actinonaias ligamentina</u> (Mucket) #268 T27N R24W S29, T27N R24W S22, T27N R24W S23; Dakota, Hennepin County		THR	S2	G5	2006-11-PRE	34176
<u>Arcidens confragosus</u> (Rock Pocketbook) #26 T114N R25W S35, T109N R29W S7, T109N R30W S12, T114N R24W S30, T [...]; Blue Earth, Brown, Carver, Dakota, [...] County		END	S1	G4	2006-11-PRE	33200
<u>Ellipsaria lineolata</u> (Butterfly) #51 T115N R21W S9, T27N R24W S27, T27N R24W S28, T115N R21W S4, T [...]; Dakota, Hennepin, Scott County		THR	S2	G4	2005-09-(08-09)	34198
<u>Ellipsaria lineolata</u> (Butterfly) #54 T28N R23W S22, T27N R23W S18, T27N R24W S13, T27N R23W S7, T [...]; Dakota, Hennepin, Ramsey County		THR	S2	G4	1944-PRE	35363

Minnesota Natural Heritage Information System
Index Report of records within 1 mile radius of:
ERDB #20110351 - Black Dog Repower Project
T27N R24W Sections 23&24
Dakota County

Rare Features Database:

Element Name and Occurrence Number	Federal Status	MN Status	State Rank	Global Rank	Last Observed Date	EO ID #
Invertebrate Animal						
<u>Elliptio crassidens</u> (Elephant-ear) #7 T27N R24W S13, T27N R24W S28, T115N R21W S9, T27N R24W S29, T [...]; Dakota, Hennepin, Scott County		END	S1	G5	1977-Pre	28164
<u>Elliptio dilatata</u> (Spike) #106 T27N R24W S13; Dakota, Hennepin County		SPC	S3	G5	1989-08-31	29498
<u>Elliptio dilatata</u> (Spike) #230 T27N R24W S29, T27N R24W S23, T27N R24W S22; Dakota, Hennepin County		SPC	S3	G5	2006-11-PRE	34207
<u>Fusconaia ebena</u> (Ebonyshell) #8 T28N R23W S22, T28N R23W S27, T27N R24W S13, T115N R21W S6, T [...]; Dakota, Hennepin, Ramsey, Scott County		END	S1	G4G5	2001-07-PRE	17119
<u>Lampsilis teres</u> (Yellow Sandshell) #10 T109N R27W S36, T111N R26W S22, T111N R26W S21, T115N R23W S20, T [...]; Blue Earth, Brown, Carver, Dakota, [...] County		END	S1	G5	1989-10-09	17146
<u>Lasmigona costata</u> (Fluted-shell) #221 T27N R24W S29, T27N R24W S22, T27N R24W S23; Dakota, Hennepin County		SPC	S3	G5	2006-11-PRE	34236
<u>Ligumia recta</u> (Black Sandshell) #94 T27N R24W S13; Dakota, Hennepin County		SPC	S3	G5	1989-08-31	17156
<u>Ligumia recta</u> (Black Sandshell) #521 T27N R24W S29, T27N R24W S22, T27N R24W S23; Dakota, Hennepin County		SPC	S3	G5	2006-11-PRE	34248
<u>Megalonaias nervosa</u> (Washboard) #26 T27N R24W S27, T115N R21W S4, T115N R21W S9, T115N R21W S6, T [...]; Dakota, Hennepin, Scott County		THR	S2	G5	2006-11-PRE	34259
<u>Obovaria olivaria</u> (Hickorynut) #149 T27N R24W S29, T27N R24W S23, T27N R24W S22; Dakota, Hennepin County		SPC	S3	G4	2006-11-PRE	34263
<u>Pleurobema coccineum</u> (Round Pigtoe) #156 T27N R24W S29, T27N R24W S22, T27N R24W S23; Dakota, Hennepin County		THR	S2	G4G5	2006-11-PRE	34270
<u>Quadrula fragosa</u> (Winged Mapleleaf) #8 T27N R24W S28, T27N R24W S29, T27N R24W S22, T27N R24W S23; Dakota, Hennepin County	LE	END	S1	G1	1989-10-Pre	28555

Minnesota Natural Heritage Information System
Index Report of records within 1 mile radius of:
ERDB #20110351 - Black Dog Repower Project
T27N R24W Sections 23&24
Dakota County

Rare Features Database:

Element Name and Occurrence Number	Federal Status	MN Status	State Rank	Global Rank	Last Observed Date	EO ID #
Invertebrate Animal						
<u>Quadrula metanevra</u> (Monkeyface) #70 T27N R24W S29, T27N R24W S23, T27N R24W S22; Dakota, Hennepin County		THR	S2	G4	2006-11-PRE	34280
<u>Quadrula nodulata</u> (Wartyback) #10 T28N R22W S7, T28N R23W S28, T28N R23W S14, T27N R24W S27, T [...]; Dakota, Hennepin, Ramsey, Scott County		END	S1	G4	2007-09-26	17141
<u>Speyeria idalia</u> (Regal Fritillary) #43 T27N R24W S13, T27N R23W S18, T27N R23W S19; Dakota, Hennepin County		SPC	S3	G3	1968-07-10	23537
<u>Tritogonia verrucosa</u> (Pistolgrip) #29 T27N R24W S13; Dakota, Hennepin County		THR	S2	G4G5	1989-08-31	17135
Animal Assemblage						
<u>Freshwater Mussel Concentration Area</u> (Mussel Sampling Site) #141 T27N R24W S13; Dakota, Hennepin County		N/A	SNR	G3	1989-08-31	14981
Vascular Plant						
<u>Arnoglossum plantagineum</u> (Tuberous Indian-plantain) #35 T27N R24W S26; Dakota County		THR	S2	G4G5	1993-06-02	17558
<u>Carex sterilis</u> (Sterile Sedge) #7 T27N R24W S24, T27N R23W S19, T27N R23W S18; Dakota County		THR	S2	G4	1994-10-13	4099
<u>Cypripedium candidum</u> (Small White Lady's-slipper) #218 T27N R24W S26; Dakota County		SPC	S3	G4	1993-06-04	17299
<u>Cypripedium candidum</u> (Small White Lady's-slipper) #260 T27N R23W S19, T27N R23W S18; Dakota County		SPC	S3	G4	1993-06	20946
<u>Oxyopolis rigidior</u> (Cowbane) #38 T27N R24W S26; Dakota County		NON	SNR	G5	1993-08-19	17261
<u>Oxyopolis rigidior</u> (Cowbane) #39 T27N R23W S19, T27N R24W S24; Dakota County		NON	SNR	G5	1993-07-21	17260
<u>Oxyopolis rigidior</u> (Cowbane) #40 T27N R23W S19, T27N R23W S18; Dakota County		NON	SNR	G5	1994-08-18	19554

Minnesota Natural Heritage Information System
Index Report of records within 1 mile radius of:
ERDB #20110351 - Black Dog Repower Project
T27N R24W Sections 23&24
Dakota County

Rare Features Database:

Element Name and Occurrence Number	Federal Status	MN Status	State Rank	Global Rank	Last Observed Date	EO ID #
Vascular Plant						
<u>Oxyopolis rigidior</u> (Cowbane) #41 T27N R24W S24, T27N R23W S19; Dakota County		NON	SNR	G5	1994-07-27	19555
<u>Trillium nivale</u> (Snow Trillium) #29 T27N R24W S14; Hennepin County		SPC	S3	G4	2008-04-18	15436
<u>Valeriana edulis var. ciliata</u> (Valerian) #50 T27N R24W S24; Dakota County		THR	S2	G5T3	1993-06-03	16611
<u>Valeriana edulis var. ciliata</u> (Valerian) #51 T27N R24W S26; Dakota County		THR	S2	G5T3	1993-06-04	17316
Native Plant Community (This may not represent a complete list. Also see MCBS Native Plant Communities at http://deli.dnr.state.mn.us.)						
<u>Calcareous Fen (Southeastern) Type</u> #25 T27N R23W S19, T27N R24W S24; Dakota County	(NPC Code: OPp93c)	N/A	S1	GNR	1993-07-21	16550
<u>Calcareous Fen (Southeastern) Type</u> #29 T27N R23W S19, T27N R23W S18; Dakota County	(NPC Code: OPp93c)	N/A	S1	GNR	1994-10-13	20942
<u>Calcareous Fen (Southeastern) Type</u> #30 T27N R23W S19, T27N R23W S18; Dakota County	(NPC Code: OPp93c)	N/A	S1	GNR	1993-09	20943
<u>Native Plant Community, Undetermined Class</u> #2133 T27N R24W S24; Dakota County	(NPC Code:)	N/A	SNR	GNR	1994-10-13	2889
<u>Southern Wet Ash Swamp Class</u> #39 T27N R24W S13, T27N R24W S14, T27N R24W S23; Hennepin County	(NPC Code: WFs57)	N/A	S2	GNR	1995-06-22	21563
<u>Southern Wet Ash Swamp Class</u> #41 T27N R24W S13, T27N R24W S14; Hennepin County	(NPC Code: WFs57)	N/A	S2	GNR	1995-06-20	21564

Records Printed = 45

Minnesota's endangered species law (*Minnesota Statutes*, section 84.0895) and associated rules (*Minnesota Rules*, part 6212.1800 to 6212.2300 and 6134) prohibit the taking of threatened or endangered species without a permit. For plants, taking includes digging or destroying. For animals, taking includes pursuing, capturing, or killing.

Rare Features Database Reports: An Explanation of Fields

The Rare Features Database is part of the Natural Heritage Information System, and is maintained by the Division of Ecological and Water Resources, Minnesota Department of Natural Resources (DNR).

Please note that the database reports are copyrighted and may not be reproduced without permission

Field Name: [Full (non-abbreviated) field name, if different]. Further explanation of field.

-E-

Element Name and Occ #: [Element Name and Occurrence Number]. The Element is the name of the rare feature. For plant and animal species records, this field holds the scientific name followed by the common name in parentheses; for all other elements (such as native plant communities, which have no scientific name) it is solely the element name. Native plant community names correspond to Minnesota's Native Plant Community Classification (Version 2.0). The Occurrence Number, in combination with the Element Name, uniquely identifies each record.

EO Data: [Element Occurrence Data]. For species elements, this field contains data collected on the biology of the Element Occurrence* (EO), including the number of individuals, vigor, habitat, soils, associated species, peculiar characteristics, etc. For native plant community elements, this field is a summary text description of the vegetation of the EO, including structure (strata) and composition (dominant/characteristic species), heterogeneity, successional stage/dynamics, any unique aspects of the community or additional noteworthy species (including animals). Note that this is a new field and it has not been filled out for many of the records that were collected prior to conversion to the new database system. Some of the information meeting the field definition may be found in the General Description field.

EO ID#: [Element Occurrence Identification Number]. Unique identifier for each Element Occurrence record.

EO Rank: [Element Occurrence Rank]. An evaluation of the quality and condition of an Element Occurrence (EO) from A (highest) to D (lowest). Represents a comparative evaluation of: 1) quality as determined by representativeness of the occurrence especially as compared to EO specifications and including maturity, size, numbers, etc. 2) condition (how much has the site and the EO itself been damaged or altered from its optimal condition and character). 3) viability (the long-term prospects for continued existence of this occurrence - used in ranking species only). EO Ranks are assigned based on recent fieldwork by knowledgeable individuals.

Extent Known?: A value that indicates whether the full extent of the Element is known (i.e., it has been determined through field survey) at that location. If null, the value has not been determined.

-F-

Federal Status: Status of species under the U.S. Endangered Species Act: LE = endangered; LT = threatened; LE,LT = listed endangered in part of its range, listed threatened in another part of its range; LT,PDL = listed threatened, proposed for delisting; C = candidate for listing. If null or "No Status" the species has no federal status.

First Observed Date: Date that the Element Occurrence was first reported at the site in format YYYY-MM-DD. A year followed by "Pre" indicates that the observed date was sometime prior to the date listed, but the exact date is unknown.

-G-

General Description: General description or word picture of the area where the Element Occurrence (EO) is located (i.e., the physical setting/context surrounding the EO), including a list of adjacent communities. When available, information on surrounding land use may be included. Note that the information tracked in this field is now more narrowly defined than it was in the old database system, and some of the information still in this field more accurately meets the definition of the new EO Data field. We are working to clean up the records so that the information in the two fields corresponds to the current field explanations described herein. Also note that the use of uppercase in sentences in this field is not significant but rather an artifact of transferring data from the old database system to the new system.

Global Rank: The global (i.e., range-wide) assessment of the relative rarity or imperilment of the species or community. Ranges from G1 (critically imperiled due to extreme rarity on a world-wide basis) to G5 (demonstrably secure, though perhaps rare in parts of its range). Global ranks are determined by NatureServe, an international network of natural heritage programs and conservation data centers.

-L-

Last Observed Date: Date that the Element Occurrence was last observed to be extant at the site in format YYYY-MM-DD.

Last Survey Date: Date of the most recent field survey for the Element Occurrence, regardless of whether it was found during the visit. If the field is blank, assume the date is the same as the Last Observed Date.

Location Description: County or Counties in which the Element Occurrence was documented followed by Township, Range, and Section information (not listed in any particular order). Each unique Township, Range, and Section combination is separated by a comma. In some cases, there are too many Township, Range, and Section combinations to list in the field, in which case, the information will be replaced with, "Legal description is too lengthy to fit in allotted space".

-M-

Managed Area(s): Name of the federally, state, locally, or privately managed park, forest, refuge, preserve, etc., containing the occurrence, if any. If this field is blank, the element probably occurs on private land. If "(Statutory Boundary)" occurs after the name of a managed area, the location may be a private inholding within the statutory boundary of a state forest or park.

MN Status: [Minnesota Status]. Legal status of plant and animal species under the Minnesota Endangered Species Law: END = endangered; THR = threatened; SPC = special concern; NON = tracked, but no legal status. Native plant communities, geological features, and colonial waterbird nesting sites do not have any legal status under the Endangered Species Law and are represented by a N/A.

-N-

NPC Classification (v1.5): Native plant community name in Minnesota's Native Vegetation: A Key to Natural Communities (Version 1.5). This earlier classification has been replaced by Minnesota's Native Plant Community Classification (Version 2.0).

-O-

Observed Area: The total area of the Element Occurrence, in acres, which is measured or estimated during fieldwork. If null, the value has not been determined.

Ownership Type: Indicates whether the land on which the Element Occurrence was located was publicly or privately owned; for publicly owned land, the agency with management responsibility is listed, if known.

-S-

Site Name: The name of the site(s) where the Element Occurrence is located. Sites are natural areas of land with boundaries determined and mapped according to biological and ecological considerations.

Survey Site #/Name: The name of the survey site, if applicable, where the Element Occurrence is located. Survey sites are sites that provide a geographic framework for recording and storing data, but their boundaries are not based on biological and ecological considerations. Minnesota County Biological Survey site numbers, if applicable, are also listed in this field.

Survey Type: Information on the type of survey used to collect information on the Element Occurrence.

Surveyor(s): Name(s) of the person(s) that collected survey information on the Element Occurrence.

State Rank: Rank that best characterizes the relative rarity or endangerment of the taxon or plant community in Minnesota. The ranks do not represent a legal status. They are used by the Minnesota Department of Natural Resources to set priorities for research, inventory and conservation planning. The state ranks are updated as inventory information becomes available. S1 = Critically imperiled in Minnesota because of extreme rarity or because of some factor(s) making it especially vulnerable to extirpation from the state. S2 = Imperiled in Minnesota because of rarity or because of some factor(s) making it very vulnerable to extirpation from the state. S3 = Vulnerable in Minnesota either because rare or uncommon, or found in a restricted range, or because of other factors making it vulnerable to extirpation. S4 = Apparently secure in Minnesota, usually widespread. S5 = Demonstrably secure in Minnesota, essentially ineradicable under present conditions. SH = Of historical occurrence in the state, perhaps having not been verified in the past 20 years, but suspected to be still extant. An element would become SH without the 20-year delay if the only known occurrences in the state were destroyed or if it had been extensively and unsuccessfully looked for. SNR = Rank not yet assessed. SU = Unable to rank. SX = Presumed extinct in Minnesota. SNA = Rank not applicable. S#S# = Range Rank: a numeric range rank (e.g., S2S3) is used to indicate the range of uncertainty about the exact status of the element. S#B, S#N = Used only for migratory animals, whereby B refers to the breeding population of the element in Minnesota and N refers to the non-breeding population of the element in Minnesota.

-V-

Vegetation Plot: Code(s) for any vegetation plot data that have been collected within this Element Occurrence (i.e., either Releve Number or the word "RELEVE" indicates that a releve has been collected).

* Element Occurrence – an area of land and/or water in which an Element (i.e., a rare species or community) is, or was, present, and which has practical conservation value for the Element as evidenced by potential continued (or historical) presence and/or regular recurrence at a given location. Specifications for each species determine whether multiple observations should be considered 1 Element Occurrence or 2, based on minimum separation distance and barriers to movement.

Data Security

Locations of some rare features must be treated as sensitive information because widespread knowledge of these locations could result in harm to the rare features. For example, wildflowers such as orchids and economically valuable plants such as ginseng are vulnerable to exploitation by collectors; other species, such as bald eagles, are sensitive to disturbance by observers. For this reason, we prefer that publications not identify the precise locations of vulnerable species. We suggest describing the location only to the nearest section. If this is not acceptable for your purposes, please call and discuss this issue with the Natural Heritage Review Coordinator at 651- 259-5109.



414 Nicollet Mall
Minneapolis, Minnesota 55401-1993

March 28, 2011

Ms. Jennifer Darrow
U.S. EPA Region 5
77 West Jackson Blvd.
Mail Code: AR-18J
Chicago, IL 60604-3507

Subject: Endangered Species Act Consultation
Xcel Energy – Black Dog Generating Plant
Minnesota Air Permit No. 03700003-009

Dear Ms. Darrow:

Xcel Energy is proposing to modify its Black Dog Generating Plant in Burnsville, Minnesota. Xcel Energy plans to submit an air permit application to the Minnesota Pollution Control Agency (MPCA). The project is expected to trigger PSD review for VOC. Therefore, Xcel Energy requests an Endangered Species Act (ESA) consultation for the project.

This letter provides the required information for EPA to begin the ESA consultation for the proposed Xcel Energy project.

Facility Name and Location

Xcel Energy – Black Dog Generating Plant
1400 East Black Dog Road
Burnsville, Dakota County, MN 55377

Project Description

Xcel Energy proposes to modify its Black Dog Generating Plant in Burnsville, Minnesota. The Black Dog plant is covered by Title V air permit 03700003-009. The plant currently produces electricity using two boilers fired by coal and natural gas and one natural gas-fired combined cycle combustion turbine. Xcel Energy plans to decommission the boilers and replace them with two natural gas-fired combined cycle combustion turbines. Coal firing will be discontinued before the new combustion turbines are operational.

The facility also proposes to install an auxiliary boiler, a fire pump and a cooling tower. The existing diesel-driven emergency generators and fire pump may be retained.

VOC Emissions

A future-projected-actual-to-past-actual analysis was completed as part of the project. Potential VOC emission increases above the baseline VOC emissions for the project are approximately 100 tons per year (tpy). The VOC significant emission rate threshold is 40 tpy. Therefore, this project is expected to trigger PSD review for VOC. All other pollutant increases are expected to be less than the PSD significant emission rate thresholds. As a result, the ESA is specific to VOC.

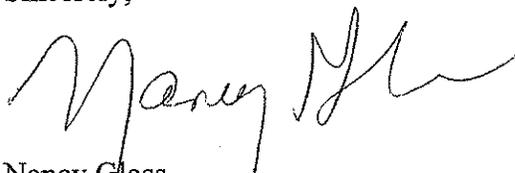
HAP Emissions

A future-projected-actual-to-past-actual analysis was also completed for Hazardous Air Pollutant (HAP) emissions. All single HAP emission increases will be less than 10 tons per year (tpy). The largest single HAP will be formaldehyde. The formaldehyde projected actual increase above the baseline emissions is 4.4 tpy. Total HAP emission increases will be less than 25 tpy. The projected actual total HAP emissions will decrease below the baseline emissions approximately -0.8 tpy.

Discussion

Xcel Energy has submitted the above information to aid in EPA's ESA Consultation for the project. If you have any questions or concerns regarding the request, feel free to contact me at (612) 330-5520.

Sincerely,



Nancy Glass
Senior Environmental Analyst

C: John Chelstrom
Richard Rosvold
Records Center