

# Pillsbury - Fargo Generation Outlet Project



Amendment  
to the  
Application  
for a Waiver of  
Procedures and  
Timelines, and  
Consolidated  
Certificate of  
Corridor  
Compatibility  
and Route  
Permit

April 16, 2008




Prepared by:



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Your Touchstone Energy® Partner 

April 16, 2008

Ilona A. Jeffcoat-Sacco  
Executive Secretary  
North Dakota Public Service Commission  
600 E. Boulevard; Dept. 408  
Bismarck, ND 58505-0480

*Re: In the Matter of Amendment to an Application to the North Dakota Public Service Commission for a Waiver of Procedures and Timelines, and Consolidated Certificate of Corridor Compatibility and Route Permit, Pillsbury-Fargo Generation Outlet Project. Case Number PU-08-48*

Dear Ms. Jeffcoat-Sacco:

With this letter, Minnkota Power Cooperative submits its amendments to Application to the North Dakota Public Service Commission for a Waiver of Procedures and Timelines, and Consolidated Certificate of Corridor Compatibility and Route Permit, Pillsbury-Fargo Generation Outlet Project.

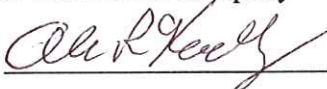
The original application included two applicants, Minnkota Power Cooperative and Otter Tail Power Company. Minnkota requests, and Otter Tail Power Company concurs, that Otter Tail Power Company be withdrawn as an applicant in this proceeding. Otter Tail is no longer an owner of the project, but will likely contract with Minnkota Power Cooperative to provide some services.

Pursuant to § 49-22-08 of the North Dakota Century Code, the Energy Conversion and Transmission Facility Siting Act, and rules promulgated thereunder, enclosed for filing please find:


1. Original and ten (10) copies of Amendment to an Application for a Waiver of Procedures and Timelines, and Consolidated Certificate of Corridor Compatibility and Route Permit, Pillsbury-Fargo Generation Outlet Project, with exhibits.

Should you have any questions with respect to this filing, please contact me.

Otter Tail Power Company

By  4-16-08

Minnkota Power Cooperative

By  4-16-08

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**DOCKET #: PU-08-48**  
**Pillsbury - Fargo**  
**Generation Outlet Project**

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**Amendment to an Application to the  
North Dakota Public Service Commission  
for a  
Waiver of Procedures and Timelines, and  
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*April 16, 2008*

*Submitted by:*



*Prepared by:*

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## 1.0 INTRODUCTION

This document and supporting materials provide information to amend the application submitted under Docket number PU-08-48 for a Waiver of Procedures and Time Schedules, and a Consolidated Certificate of Corridor Compatibility (Corridor Certificate) and Route Permit to construct the Pillsbury to Fargo Generation Outlet Project. The original application was dated March 14, 2008, and was filed with the Public Service Commission (Commission or PSC) on March 18, 2008.

Subsequent to the above referenced application, and based on ongoing landowner and partner negotiations, the following changes occurred which necessitated an amendment to the original application:

- Otter Tail Power Company (Otter Tail Power) excused itself as a project partner; and
- Landowner negotiations near Amenia, North Dakota, resulted in the need to modify the corridor and route in that area.

No other changes have been identified that would affect the project scope, schedule or other merits of the original application. However, this amendment request does also provide updated information about the status of agency consultations, permits and easement negotiations to help support Commission approval of the proposed corridor and route defined herein.

## 2.0 AMENDMENT REQUEST

The North Dakota Energy Conversion and Transmission Facility Siting Act (Siting Act) requires applications for a Corridor Certificate and a Route Permit to meet the criteria set forth in North Dakota Century Code (NDCC) 49-22. On March 18, 2008, Minnkota Power Cooperative, Inc (Minnkota) and Otter Tail Power filed an application for a Waiver of Procedures and Time Schedules, and a Corridor Certificate and Route Permit. Subsequent to that submittal, Otter Tail Power is no longer a planned owner in the project and an alternative route is proposed in the vicinity of Amenia, North Dakota. Minnkota has prepared this amendment to the original application to document these changes and requests that PSC consider this amended information in its review and decision on the original application.

The Pillsbury to Fargo Generation Outlet Project is still principally located in Cass and Barnes counties, North Dakota (figure 1). Due to changes subsequent to the original application, the transmission line will now total approximately 61.6 miles (previously 56.5 miles) of 230,000 volt (230-kV) transmission line on single circuit 230-kV steel davit arm steel mono-pole or wooden or steel H-frame structures between a new project substation located in Section 7 of Ellsbury Township, Barnes County, North Dakota, and the existing Maple River substation, near Fargo, Cass County, North Dakota. The purpose and need for the

facility remains to serve as a generation outlet for planned wind development projects in Barnes, Griggs, and Steele counties.

For this amendment, Minnkota has evaluated exclusion areas, avoidance areas, selection criteria and policy criteria during the selection and design of the revised corridor and route (figure 2). Minnkota has identified a revised corridor that is still largely adjacent to existing utility and transportation corridors, which thereby helps to minimize environmental impacts.

Tables 1 and 2 in Appendix A outline the criteria required to receive a Corridor Certificate and Route Permit with the PSC. The sections highlighted in the tables indicate what has changed to sections of the original application. Only information that has changed from the original application is covered in this amendment. The remaining sections of the original application remain valid and are incorporated by reference.

### **3.0 CHANGE IN OWNERSHIP**

The original application was jointly submitted by Minnkota and Otter Tail Power. These entities decided subsequent to the original application submittal that Minnkota would become the sole owner of the generation outlet and that Otter Tail Power's interests in the proposed facilities will be transferred to Minnkota accordingly.

## **4.0 ALTERNATIVES TO THE PROPOSED CORRIDOR OR ROUTE**

### **4.1 TRANSMISSION FACILITY CORRIDOR AND ROUTE CRITERIA**

The factors addressed in NDCC 49-22-09 were considered in evaluating the corridor for a 230-kV transmission line and are discussed in section 8.0. All exclusion and avoidance criteria were considered in selecting the revised corridor (See figure 2). Minnkota sought to avoid residential areas, irrigated land, recreational areas, waterfowl production areas (WPAs), and wildlife management areas (WMAs) to the extent practicable. Minnkota also considered utilizing existing transmission corridors and interconnecting with existing infrastructure where possible. This is consistent with NDAC Policy Criteria for transmission corridors and routes (§§69-06-08-02-2e; 69-06-08-02-4i; 69-06-08-02-4g) which encourages applicants to avoid places of residence, maximize benefits by utilizing existing and proposed route corridors and coordinating facilities.

### **4.2 CORRIDOR ALTERNATIVES**

In the original application, other alternatives to the proposed corridor were not identified because the proposed corridor met the requirements prescribed by the PSC. The original corridor was selected to convey energy from the proposed wind generation facilities Barnes, Griggs, and Steel counties to the Maple River substation for integration into the power grid. However, as an outcome of detailed

landowner negotiations and local permitting efforts for the originally proposed route, the corridor had to be slightly revised to be wide enough to accommodate a route revision. The amended corridor configuration is shown on figures 3 and 4.

### 4.3 ROUTE ALTERNATIVES

Alternatives to the original route segments were considered based on input received during the open houses, input from regulatory agencies, and analysis of exclusion and avoidance areas within the corridor. The original alternatives analysis resulted in selection of the originally proposed route that was identified in the original application, and which met the criteria prescribed by the PSC. That route closely paralleled a Cenex pipeline previously reviewed and approved by the PSC and/or a Burlington Northern Santa Fe (BNSF) railroad facility in the area immediately north and east of Amenia, North Dakota. However, subsequent to submittal of the application, input from landowners and the Amenia Township Board about the proposed route near Amenia revealed opposition to the route by one key landowner due to potential impacts of the transmission line on an existing private airstrip. There was reluctance to approve the route by the Amenia Township Board because landowner agreements and final routing could not be verified.

Upon further examination, it was determined that the Cenex pipeline deviated south of the BNSF railroad in this area, apparently to avoid crossing the same landowner's property who is opposed to the original route. As a result, an alternative that followed the Cenex pipeline, and several other route alternatives to the south of that landowners property, were evaluated to avoid crossing the opposed landowner and potentially impacting the private airstrip. Unfortunately, following the Cenex route in that area was not considered preferable because it would involve routing through wooded areas and within 500 feet of at least one occupied residence. Other route alternatives identified to the south of the originally proposed route revealed similar constraints or other landowners who were generally opposed to routing across their property and unwilling to negotiate. Based on these reasons, route alternatives north of the originally proposed route were also evaluated.

In evaluating route alternatives north of the proposed route, Minnkota sought a route that minimized and avoided impacts to the exclusion and avoidance areas, and which was consistent with the originally defined route selection criteria. In addition, route selection included initial negotiations with potentially affected landowners. Based on these efforts, several potential route alternatives were evaluated to identify a route that avoids the issues and constraints identified to the south of the originally proposed route, and resulted in the newly proposed route which is the most acceptable to affected landowners and which meets the route selection criteria.

The revised route presented in this amendment is depicted on figures 3 and 4. This route is longer than the original route by about 5.1 miles. It crosses approximately 13.5 more acres of greenfield than the original route but parallels a Rush River Watershed Resource District (RRWRD) irrigation ditch for a portion of the revised route. This alternative minimizes and avoids impacts to exclusion and avoidance

areas, is considered more acceptable from a land acquisition perspective, and is otherwise consistent with selection criteria identified in the original application. A detailed listing of these criteria is provided in appendix B along with descriptions of how the revised route satisfies these criteria.

## 5.0 CORRIDOR MODIFICATION

As noted in section 4.3, several routes were evaluated as alternatives within the original corridor near Amenia Township. However, because the newly proposed route extended slightly outside the original corridor, a revised corridor was identified that is compatible with PSC guidelines. The corridor remains unchanged except near Amenia Township, as shown in figure 1, where it now extends outward to the north and east from the original corridor limits. The revised corridor was identified after considering the exclusion and avoidance criteria outlined in NDAC 69-06-08-02. In identifying a new corridor near Amenia, Minnkota sought to follow other existing corridor facilities, where possible, and although no other transmission line, railroad, or pipeline corridors are within the additional area identified, the new corridor does include numerous roadways and an existing irrigation ditch managed by the RRWRD. The revised corridor is generally six miles wide for the generation outlet, but is now wider than six miles in width in the vicinity of Amenia Township. This deviation from the widths set forth in NDCC 69-06-04-02 is necessary to accommodate analysis of potential routes and avoidance of resources near Amenia Township.

Table 1 summarizes the legal descriptions (townships, ranges and section numbers) that were added to the original corridor. Table 2 summarizes all of the legal descriptions within the revised corridor. Section 7.0, Environmental Analysis, documents the resources and potential impacts to these resources resulting from the revised corridor.

**Table 1  
 Legal Descriptions Added due to the Revised Corridor**

Township Name	Township	Range	Sections
Berlin	141	50	3-10; 15-16
Rush River	141	51	1-2
Gardner	142	50	15-22; 27-34
Gunkel	142	51	13-30; 33-36
Arthur	142	52	7; 13-16; 23-24

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**Table 2**  
**Revised Corridor Legal Descriptions**

Township Name	Township	Range	Sections
Barnes	139	49	2 – 10
Mapleton	139	50	1, 2
Reed	140	49	4 – 11; 13 – 36
Raymond	140	50	1 – 30; 33 – 36
Harmony	140	51	1 – 6; 8 – 15; 23; 24
Casselton	140	52	1
Harwood	141	49	31; 32
Berlin	141	50	3-10; 15 – 22; 25 – 36
Rush River	141	51	1– 36
Amenia	141	52	1 – 28; 35; 36
Empire	141	53	1- 6; 9 – 14
Gardner	142	50	15 – 22; 27 – 34
Gunkel	142	51	13 – 36
Arthur	142	52	7; 13 – 36
Erie	142	53	2 – 36
Rich	142	54	1 – 30; 33 – 36
Lake	142	55	1 – 17; 23; 24
Dows	143	53	31; 32
Page	143	54	19; 20; 26 – 36
Rochester	143	55	6 – 9; 13 – 36
Minnie Lake	142	56	1 – 4; 12
Ellsbery	143	56	1 – 36
Baldwin	143	57	1 – 27

Township Name	Township	Range	Sections
Sibley Trail	143	58	1; 12
Carpenter	144	56	29 – 34
Willow Lake	144	57	20 – 36

## 6.0 ROUTE MODIFICATION

Within the corridor, Minnkota identified a proposed route after considering the exclusion and avoidance criteria outlined in NDAC 69-06-08, as outlined in appendix B of this application, and after considering public and agency input as described in sections 8.0 and 9.0 of this application. Figure 2 identifies the proposed route relative to the corridor and exclusion and avoidance criteria. The route remains unchanged from the original application except near Amenia Township. Figures 3 and 4 show the portion of the route near Amenia, which is the area where the route was relocated. The legal descriptions for the area relocated near Amenia provided in Table 3. Legal descriptions of the entire revised route location are provided in Table 4. Section 7.0, Environmental Analysis, documents the resources and potential impacts to these resources resulting from the revised route.

**Table 3 Legal Descriptions Added due to the Revised Route**

Township Name	Township	Range	Sections
Rush River	141	51	2 – 6; 11- 14; 24 – 25
Gunkel	142	51	31; 34
Arthur	142	52	32 – 36

**Table 4 Revised  
Revised Route Legal Descriptions**

County	Township Name	Township	Range	Sections
Cass	Reed	140	49	7; 8; 16-17; 21; 28
Cass	Raymond	140	50	7 - 12
Cass	Harmony	140	51	1; 12
Cass	Rush River	141	51	2 – 6; 11- 14; 36
Cass	Gunkel	142	51	31; 34

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Cass	Arthur	142	52	31 - 36
Cass	Erie	142	53	28-30; 33-36
Cass	Rich	142	54	6-8; 17; 20; 21; 25-28
Cass	Lake	142	55	1; 2
Cass	Rochester	143	55	29; 30; 32-35
Barnes	Ellsbery	143	56	7-10; 15; 22-25

**6.1 DESCRIPTION OF THE REVISED ROUTE**

The revised route follows the route described in the original application except to the north and east of Amenia. The western end of revised route departs from the original route at the eastern end of the north-south quarter section line of Section 36 in Erie Township. There, the route passes to the north side of the BNSF railroad and continues in a due east direction for four miles along the north-south quarter section line until reaching Section 34 of Arthur Township. The route then turns due south on west side of the east-west section line for about one quarter mile. The route then turns due east into Section 35 on the north side of the north-south section line and continues in this direction until reaching the eastern end of Section 36. The route then turns southeast to enter Section 6 of Rush River Township and immediately turns due east to follow the RRWRD irrigation ditch for about three miles to the eastern end of Section 3. The route continues to follow the irrigation ditch by crossing over the section line into Section 34 of Gunkel Township and continuing due east for about one mile before turning due south to cross back into Section 2 of Rush River Township and continuing south to the quarter section line and then turning due east along the quarter section line of Section 2 for about one mile. The route then turns due south following the eastern section line of Sections 2 and 11, and then crosses over to Section 13 and continues in a due south direction on the western section line until crossing back over to the south side of the BNSF railroad in Section 36. The route continues due south until reaching the south section line and then turns due east along the south section line until rejoining the original route at the east section line of Section 36.

**7.0 ENVIRONMENTAL ANALYSIS**

This section provides a description of the environmental conditions that exist within the revised corridor and route. In particular, this section will document specific changes from the original application associated with the revised corridor and route as described in Sections 6 and 7.

Conservative impact estimates associated with the proposed route assumed that the line will be approximately 61.6 miles in length, with both mono-pole and H-frame pole structures with an average of about 600- and 900-foot-long spans between structures, respectively. The approximate number of structures for a line of this length will be 481 mono-poles and 57 H-frame structures, respectively, based

on the average spans. Each mono-pole structure is estimated to permanently impact approximately 100 feet<sup>2</sup> and the temporary impacts are estimated to be approximately 10,000 feet<sup>2</sup>. Each H-frame structure is estimated to permanently impact approximately 300 feet<sup>2</sup> around each structure and the temporary impacts are estimated to be approximately 10,000 feet<sup>2</sup>. The total permanent impact is estimated to be 1.5 acres and the total temporary impact is estimated to be 123.7 acres, which is greater than the impact reported in the original application.

Quantification of land uses within the corridor were estimated using the corridor limits, whereas the land use impacts for the route were estimated using the proposed right-of-way. The right-of-way for the 230-kV transmission line is 125 feet wide, or about 62.5 feet on either side of the structure centerline. The transmission line is proposed to be placed about 75 to 125 feet from the centerline of the nearest existing transmission line structure, pipeline, railroad, and roadway.

## 7.1 DEMOGRAPHICS

The revised corridor and route are located within a sparsely populated rural area in northeastern North Dakota. There are no known plans for new residential developments or other new construction within the revised corridor or revised route. The data and description of resources presented in the original application does not change with the corridor and route revisions. The impacts within the revised corridor are the same as those reported in the original application. The impacts from the revised route increase slightly.

Based on a review of structure types and locations relative to existing land use, approximately 123.7 acres of agricultural land will be temporarily removed from production during transmission line pole construction, not including potential impacts due to temporary access. Permanent agricultural land conversion associated with the project will be approximately 1.5 acres for the transmission line structures and 3.0 acres for the substation. As stated above, agricultural areas surrounding transmission line structures generally will still be able to be farmed following construction of the project.

The mitigation proposed for the revised corridor and revised route will be the same as documented in the original application.

## 7.2 LAND USE

Incorporated communities including Reiles Acres, Fargo, West Fargo, Amenia, Page, Arthur, Pillsbury, Harwood, and Luverne, and the unincorporated town of Prosper, are located within revised corridor. These are the same communities that were included in the corridor submitted in the application. The generation outlet parallels the existing transmission, buried pipeline, railroad, an irrigation ditch and roadways for the majority of its length. The original route did not follow the irrigation ditch.

The majority of the land area within reroute area of the revised corridor and route is agricultural land (figure 6) used for crops and cattle grazing. Smaller portions of the land area are grasslands, wetlands and other minor uses (e.g., utilities, railroads, roads). Table 5 updates the acreage of current land use in the revised corridor and along the revised route. This table also shows the increase or decrease in acreages of land use types compared to the corridor and route submitted in the original application.

**Table 5**  
**Current Land Uses**

Habitat	Transmission Corridor			Transmission Route		
	Acreage	Percent of Corridor	Change in Acreage Since Original Application	Acreage	Percent of Route	Change in Acreage Since Original application
Cropland	212,662	82	26,365	892	78	264
Undisturbed Grassland (including CRP)	20,442	8	1,425	143	13	13
Native Grassland	4280	2	305	12	1	2
Shrublands (upland and lowland)	1,316	<1	<1	6	<1	-2
Woodlands	3143	1	243	5	<1	1
Open Water, Lake, Riparian	390	<1	4	<1	<1	<1
Wetlands	10231	4	404	36	3	3
Developed (Farmsteads, Roads, etc.)	5939	2	110	44	3	1

The unique land uses described in the original application—Eire Dam WMA, USFWS WPA, school trust lands, landfill, and aggregate mining areas—are still present in the revised corridor. Figure 6 shows the land use conditions for the portion of the corridor that has been revised. One additional private airport, Walkinshaw, is within the revised corridor. Turner Field, which was previously shown in the corridor, was decommissioned by the landowner (appendix E).

The land use impacts described in the original application remain valid for the revised corridor; land use is not expected to change as the land uses in the corridor have already adapted to the various linear facilities, including transmission lines, Cenex pipeline, railroads, roadways, and the RRWRD irrigation ditch. The Walkinshaw Airport would not be impacted.

There are two additional residences within 500 feet of the revised route that will require waivers in the portion of the reroute. Minnkota is currently working the landowners on these waivers; one of the two waivers has been obtained (appendix D).

The revised route will parallel existing transmission line, Cenex pipeline, BNSF railroad, RRWRD irrigation ditch, and roadways for the majority of its length. The majority of the land use impacted by the construction of the transmission line is used for agriculture. About 1.5 acres of agricultural land will be removed from production. An additional 3.0 acres of agricultural land will be converted to use by the proposed new substation. Since submittal of the original application, consultation with the FAA has been completed (Section 10) and the revised route will not impact any of the airports in the revised corridor.

No additional mitigation measures beyond those proposed in the original application are necessary for the revised route or corridor.

### 7.3 PUBLIC SERVICES

The communities of Reiles Acres, Fargo, West Fargo, Amenia, Arthur, Page, and Pillsbury, and the unincorporated town of Prosper, are located within the revised corridor. The description of local services for these communities and local residents is the same for the revised corridor as submitted in the original application. No additional transmission and distribution facilities, state highways, or public water supplies are located in the revised corridor; the revised route crosses State Highway 18 farther north than the route in the original application (figure 5). The ADT reported for this portion of SH 18 is 1,600 (ND DOT website, 2008). The original application lists the existing communication facilities in the corridor. There is an increase in the number of microwave facilities from 46 to 50 and increase in antenna structures from 18 to 19 in the revised corridor. However, there are no communication facilities located within the route right-of-way which remains unchanged since the original application.

There are no changes in impacts for local services, electrical services, roads, traffic, and water supply between the corridor in the original application and the revised corridor. These are four additional microwave facilities and one antenna structure in the revised corridor. These facilities will not be impacted by the generation outlet as none are within the 125-foot revised route.

The mitigation for the revised corridor and revised route will be the same as documented in the original application.

### 7.4 HUMAN HEALTH AND SAFETY

Based on current research there are no discernable health impacts from power lines. The description related to human health and safety is the same for the revised corridor and revised route as documented in the original application. As described in the original application, proper safeguards will be implemented

during construction and operation of the facility. The revised corridor impacts on human health and safety are the same as the original application.

The original application notes that based on the proposed ROW, the levels of EMF are expected to be less than exposure levels less than of common household appliances. Except for the four structures described in section 7.2, the nearest potential receptors to the proposed route are at least 550 feet away from the transmission line, where EMF is predicted to be significantly below background levels. The number of residences closer than 550 feet has increased by two with the revised route. However, these residences are still expected to have exposures lower than those of common household appliances based on the analysis in the original application. No impacts to safety are anticipated from the revised route.

In selecting a route that avoids impacts to residences and other occupied structures, Minnkota has limited human exposure to EMF to the extent practicable. No additional mitigation should be needed for the corridor. Assuming the proper safeguards and protective measures are implemented as described above, no additional mitigation safety measures are proposed for the revised corridor or revised route.

## 7.5 NOISE

The revised corridor will have noise levels consistent with rural background noise levels. Where the revised corridor is adjacent to the railroad, the background noise levels will be greater.

The impacts in the revised corridor will be the same as reported in the original application. The impacts of the revised route will be the same as documented in the original application where the route is at least 550 feet from occupied houses and park areas. Where possible, the revised route was sited to be at least 550 feet from occupied houses and structures. However, there are two occupied houses that are less than 550 feet from the revised route. Noise levels for these residences may be greater than for other residences. During construction activities, there will be noise associated with the construction equipment. The noise will be temporary at any given location, lasting only for a few days to a week along given segments of the route, and is not expected to be significant.

Minnkota will work with the two potentially affected residences to either avoid the residence by 500 feet, purchase the residence, or get a signed waiver from the people owning the residence. To date, one of the two waivers for the revised route has been signed (appendix D). The mitigation measures for construction impacts in the corridor and route will be the same as documented in the original application.

## 7.6 VISUAL IMPACTS

The visual resources in the revised corridor do not vary from the corridor. The topography is mostly flat with some rolling hills near the Sheyenne and Maple River confluence and along the other rivers in the corridor including Goose River and Rush River. A topographic map of the revised corridor is shown in figure 4.

The revised corridor and revised route still parallel much of the existing BNSF railroad, portions of the Cenex pipeline (which is generally next to the BNSF railroad) and segments of Minnkota's existing 345-kV transmission lines. Where it is was not possible to follow these corridors, the revised route follows a segment of the RRWRD irrigation ditch. These existing facilities and other manmade features are within the viewshed of the Project, but the dominant land use is row crop agriculture as described in the original application.

The proposed transmission line will be visible to landowners and community residents who live near the proposed line within the corridor. In the portion of the corridor that was revised (near Amenia), mono-pole structures will be used. These structures will not be adjacent to existing rail or pipeline infrastructure, but will be adjacent to the RRWRD irrigation ditch for 5.4 miles. Structures in the rest of the corridor will be new visible features; however, because they will be mostly adjacent to existing infrastructure (e.g., Cenex pipeline, BNSF rail line, roadways), visual impacts are expected to be minimized.

The revised route will be located outside of local communities, but it may be visible to some residents in or traveling to these communities. The impacts of the revised route will be the same as documented in the original application, except the route will follow the RRWRD irrigation ditch for 5.4 miles and greenfield for 13.5 miles, instead of the BNSF railroad north of Amenia. The majority of the revised route will also be crossing agricultural land. The mono pole structures used along this portion of the revised route will be up to 130 feet in height with a typical span between each structure of approximately 600 feet.

The mitigation for the revised corridor and route is the same as described in the original application.

## 7.7 CULTURAL RESOURCES

Based on the change in the corridor and route near Amenia, North Dakota, Minnkota revisited the North Dakota State Historic Preservation Office (SHPO) to review potential project-related impacts on known or suspected cultural resources. An archival records search was completed, generally not more than one-mile-wide centered on the revised route to determine the nature of previous cultural resource investigations and the location of known cultural resources in the proposed project vicinity.

The archival records search report, which was prepared for the original application, was amended to include the revised route (Appendix C)<sup>1</sup>. The original application identified 15 previous investigations, 15 cultural resource sties, and nine cultural resource site leads within the one-mile project area. The revised route identified 12 previous investigations, 13 cultural resource sites, and six cultural resource site

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<sup>1</sup> The amendment reflects the revised route information. However, for consistency with professional standards all areas identified during archival research are reported on in the amended Class I cultural resource inventory (appendix C).

leads within the one-mile project area. Table 6 lists the 12 previous Class I cultural resource inventories on file at the SHPO for the revised project area, and Table 7 summarizes the 13 cultural resource sites and six cultural resource site leads identified within these previous investigations for the revised project area. Some of the sites identified during previous projects have had National Register of Historic Places (NRHP) eligibility determinations by lead federal agencies and others have had management recommendations by the SHPO.

**Table 6**  
**Previously Identified Investigations in the Project Area**

Manuscript Number	Manuscript Title	Author(s)/Associations	Report Date
000222	<i>Lower Sheyenne River Archaeological Survey</i>	Rain Vehik University of Wisconsin-La Crosse	December 1977
001738	<i>Cultural Resource Inventory Report, HAS INC. Project #81-10</i>	Historical & Archaeological Surveys, Inc.	May 1981
004280	<i>Field Reconnaissance Survey of Churches in Barnes, Ransom, Richland, Sargent and Steele Counties of North Dakota</i>	Prairie Research	May 1997
005443	<i>Cenex Pipeline Company Fargo Extension Class III Cultural Resource Survey</i>	Cultural Research Management	December 1990
006449	<i>North Dakota Department of Transportation Safety Project Cultural Resource Review 1992-1994</i>	North Dakota Department of Transportation	January 1995
006565	<i>Log Piles of Cass, McHenry, Ransom, and Walsh Counties North Dakota, Cultural Resources Inventory</i>	University of North Dakota	January 1996
007216	<i>Preliminary Cultural Resource Survey For Project 4814 City of Fargo, Engineering Department, Cass County, North Dakota</i>	The 106 Group Ltd.	June 1998
007223	<i>Report 1 for the 1998 Field Season: Cultural Resource Inventories for the Cass Rural Water System, Cass County, North Dakota</i>	LTA, Inc	July 1998
008028	<i>Cultural Resource Survey Western Area Power Administration Fiber Optic Cable Installation, Cass County, Fargo, North Dakota</i>	Western Cultural, Inc.	October 2001
009393	<i>State Highway 38 From Buffalo to Page: A Class III Cultural Resource Inventory In Cass County, North Dakota</i>	Metcalf Archaeological Consultants, Inc.	September 2005

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Manuscript Number	Manuscript Title	Author(s)/Associations	Report Date
010128	<i>Historic Bridges in North Dakota</i>	Renewable Technologies, Inc.	April 2005
010185	<i>Cass Rural Water Contract 2007-1 (effluent line): Class I and Class III Cultural Resource Inventory. In Cass County, North Dakota</i>	Jeff Kinney & Associates	August 2007

The SHPO determined that there is a potential for unrecorded cultural properties to exist in the project route. Therefore, the SHPO recommended that a field survey, primarily pedestrian, should be conducted in the project route for portions that have not been previously surveyed (e.g., along the Cenex pipeline) as soon as field conditions allow. Because there are fewer previous investigations that have been completed along the revised route, more of the revised route will require field surveys than would have been necessary for the route in the original application. Minnkota will continue to coordinate with SHPO in anticipation of conducting archaeological field investigations in areas of the project where the transmission line deviates from the Cenex pipeline or other previously surveyed areas. These investigations will be conducted by a professional archaeologist permitted by the State of North Dakota per NDCC 55-03-01. Minnkota will provide the SHPO a report for review following its investigations, and will consult upon report recommendations with SHPO staff.

The anticipated impacts and mitigation for the revised corridor and route is the same as documented in the original application.

**Table 7**  
**Previously Identified Archaeological Sites and Archaeological Site Leads within a Half Mile of the Project Area**

Site Number	Site Type	Cultural Affiliation	Comments	Manuscript Number	Location			Eligibility to NRHP	Management Recommendations
					Township	Range	Section		
32BA202	Church	Historic	Baldwin Presbyterian Church	4280, 5443	143N	56W	17	Unevaluated	No further work
32BAX181	Post Office	Historic	Ellsbury Post Office	None	143N	56W	21	Unevaluated	No further work
32BAX182	Halfway House	Historic	Halfway House	None	143N	56W	21	Unevaluated	No further work
32CS121	Church	Historic	Herby Lutheran Church	4280	141N	50W	18	Not Eligible	No further work
32CS4444	Farm	Historic	Abandoned Farmstead	5443	141N	50W	31	Unevaluated	No further work
32CS4445	Farm	Historic	Grain storage bins and sparse historic scatter	1738, 5443	142N	53W	30	Unevaluated	No further work
32CS4446	Farm Dump	Historic	Farm dump/scatter	5443	143N	55W	30	Unevaluated	No further work
32CS4447	Railroad Siding	Historic	Apparent remains of the Walden town site and Walden Siding	5443	143N	55W	30	Unevaluated	No further work
32CS4448	Homestead	Historic	Historic scatter	5443	142N	54W	21	Unevaluated	No further work
32CS4453	Farm	Historic	Sparse historic scatter	5443, 10128	142N	53W	36	Unevaluated	No further work

Site Number	Site Type	Cultural Affiliation	Comments	Manuscript Number	Location			Eligibility to NRHP	Management Recommendations
					Township	Range	Section		
32CS4675	Commerce-Grain Elevator	Historic	Historic scatter	7223	140N	50W	17	Unevaluated	No further work
32CS4956	Bridge	Historic	Rural bridge over a branch of the Rush River	5443, 10128	142N	53W	36	Eligible	No further work
32CS4964	Bridge	Historic	Rural bridge over the Sheyenne River	222, 10128, 10185	140N	49W	18	Eligible	No further work
32CS4965	Bridge	Historic	Rural bridge over the Sheyenne River	222, 10128, 10185	140N	49W	18	Unevaluated	No further work
32CS4967	Bridge	Historic	Rural bridge over an intermittent stream	222, 7223, 10128, 10185	140N	49W	17	Unevaluated	No further work
32CSX96	Town Site	Historic	Prosper Great Northern	5443, 5945	140N	50W	8	Unevaluated	No further work
32CSX147	Post Office	Historic	Oatland and Mason Post Office	5443	142N	53W	36	Unevaluated	No further work
32CSX176	Loading Station	Historic	Walden Great Northern Loading Station	5443	143N	55W	30	Unevaluated	No further work
32CSX197	Station/Post Office	Historic	Oatland Great Northern Station and Post Office	5443, 10128	142N	53W	36	Unevaluated	No further work

## 7.8 RECREATIONAL RESOURCES

The recreational opportunities in the revised corridor are the same as documented in the original application. There are no registered national wildlife refuges, state game refuges, or nature preserves are present within portion of the corridor that was revised (Figure 10). There is no private land open to sportsmen (PLOTS) for hunting and fishing in the portion of the corridor that was revised. On April 7, 2008, the USFWS Valley City Wetland Management District noted that there are no USFWS wetland or grassland easements in the portion of the corridor that was revised. There are no other parks in the portion of corridor that was revised. There is one additional snowmobile trail within the revised corridor, as shown on figure 10.

In general, recreational impacts will be visual in nature and limited to individuals using public or private property in the revised corridor and along the revised route for hiking, hunting, fishing, or nature observation as noted in the original application. There are no USFWS easements or PLOTS areas in the portion of route that was revised.

The mitigation for the revised corridor and route is the same as documented in the original application.

## 7.9 EFFECTS ON LAND BASED ECONOMIES

The majority of the revised corridor is cultivated farmland and grasslands as summarized in Table 5. Approximately 212,662 acres of the revised corridor and 893 acres of the revised route are composed of cultivated land. Crop descriptions provided for in the original application still apply to the revised corridor and route. Woodlands make up approximately 3,143 acres of the revised corridor and five acres of the revised route. Economically important forestry resources are not found in the revised corridor. Woodlands along the revised portion of the route are depicted on figure 6.

Figures 7 and 8 show the soil unit and prime farmland soil distribution in the area of the revised in the corridor and along the revised route. The amount of prime farmland and soils of statewide/local significance in the revised corridor and along the revised route do not change in Barnes or Steel counties from what was documented in the original application. In Cass County, 76,109 acres, or 44 percent, of the soil is classified as prime farmland in the corridor and 415 acres, or 40 percent, within the 125-foot-wide right of way route is classified as prime farmland. This is an increase in 1,302 acres for the revised corridor and 256 acres along the revised route. This increase is attributable to the increase in the length of the revised corridor and revised route.

The soils considered prime farmland and soils of statewide or local importance in the corridor and route remain unchanged from the original application, except ten additional prime farmland soils and three soils or statewide or local importance were present in the revised corridor and revised route. These soils are shown in figure 7 for the portion of the corridor that was revised.

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Based on additional data provided by the State Water Commission, within in the revised corridor in Cass County, there are 54 irrigation permits, which is an increase of nine permits from the original application. These additional permits are not in the areas of the corridor that was revised but result from additional data provided by the North Dakota State Water Commission. There are still no irrigation permits in Barnes or Steele Counties within the revised route. The area of the revised route will parallel the RRWRD irrigation ditch for 5.4 miles.

There are several farms with residences within the revised corridor. Occupied residences are identified on figure 2. The route centerline was sited to be at least 550 feet from occupied houses and structures. However, there are two locations where the revised route will be closer than 550 feet to an occupied structure.

The impacts to farming and woodlands in the revised corridor will be the same as documented in the original application. Minnkota sited the route with assistance from the landowners to avoid windbreaks to the extent practical.

The revised route will not have a substantially greater impact on overall agricultural production than documented in the original application. Agricultural land converted due to the revised route will be approximately 1.5 acres for the transmission line structures and 3.0 acres for the substation. This is an increase of 0.1 acres documented in the original application. Approximately 123.7 acres of agricultural land will be temporarily removed from production during construction of the transmission line poles, not including potential impacts due to temporary access. This is an increase of 16.3 acres from documented in the original application. The agricultural areas surrounding transmission line structures generally will still be able to be farmed following construction of the project. The revised route may compact soils as documented in the original application. As noted in the original application, where CRP lands are crossed by the revised and acreage is removed from production (subject to final pole placement), the landowners may have to work with the FSA to address the CRP status associated with these lands. The revised route will not impact irrigated parcels as Minnkota sited the revised route to avoid irrigated parcels. The transmission line will not affect the RRWRD irrigation ditch.

Approximately five acres of woodlands will be crossed by the revised route. This is an increase of 0.9 acres from the impacts documented in the original application. The additional woodlands are associated with homesteads and windbreaks. However, relatively few trees within the right-of-way are expected to need removal, except where needed for safe operation of the facilities.

Minnkota will use the same mitigation measures stated in the original application for the revised corridor and revised route impacts.

## 7.10 SOILS

The soil types and their characteristics remain unchanged from the original application. The types of impacts described in the original application for the corridor are the same for the revised corridor and the route. The acreages of most of the soil types increased due to the increase in corridor and right-of-way associated with the revised corridor and route. The permanent impact to soils in the area will be limited to areas removed from agricultural production at transmission line structure locations. These impacts will be relatively minor, totaling approximately 1.5 acres for the revised route, an increase of 0.1 acres from the original application. During transmission line construction, approximately 123.7 acres may be impacted temporarily for access roads and staging areas, an increase of 16.3 acres from the original application.

The mitigation measures for the revised corridor and revised route are the same as provided in the original application.

## 7.11 GEOLOGIC AND GROUNDWATER RESOURCES

The description of geologic and groundwater resources in Cass, Barnes and Steele Counties is the same for the revised corridor and route as was provided in the original application.

Sixteen extractive or storage resources were identified within the revised corridor, but none of these sources will be within the right-of-way for the revised route. Depending on route location, isolated gravel resource areas could be made unavailable for future development. The impacts to groundwater are the same for the revised corridor and revised route as those documented in the original application.

The mitigation of the revised corridor and revised route impacts on geological and groundwater resources is the same as described in the original application.

## 7.12 SURFACE WATER AND FLOODPLAIN RESOURCES

Water resources in the portion of the corridor that was revised are depicted in figure 9. In total, the revised corridor crosses the Sheyenne River, Lower Branch of the Rush, and two crossings each of the Maple and Rush Rivers. In addition, 15 unnamed minor streams, one unnamed perennial stream, the RRWMD irrigation ditch, Goose Lake and one unnamed pond also occur within the corridor. The original application documented all floodplains; there are no additional floodplains in the revised corridor.

As noted in the original application, no impact to surface waters or floodplain resources within the corridor is anticipated. The transmission line structures will be placed to avoid surface waters and impacts to floodplain resources are not anticipated from this project.

There are no anticipated impacts within the revised corridor or revised route which would require mitigation. If mitigation is necessary it will be as described in the original application.

### 7.13 WETLANDS

Wetlands within the revised corridor and along the revised route have been provisionally identified by reviewing NWI data and recent aerial photography (figure 9). Additional wetlands occur within the revised corridor and along the revised route. An updated summary of the overall wetland types and acreages for the revised corridor and route are contained in tables 8 and 9, respectively, and are depicted in figure 9. A formal wetland delineation will be completed prior to construction to ensure that wetlands are avoided through pole placement.

Total wetland acreages within the revised corridor increased to a total of 1,475.6 acres or 21.59 percent due to the project changes. The majority of the wetland increases are associated with palustrine emergent wetlands. Although the revised route avoids the majority of the wetlands identified in the revised corridor, in total the revised route right-of-way overlaps 58 NWI wetlands totaling 27.0 acres. This was an increase of 4.3 percent or 1.1 acres over the original application. The NWI wetlands along the revised route are 97.3 percent palustrine emergent wetlands (table 9). Additional wetland areas identified along the revised route include palustrine forested to scrub-shrub, palustrine aquatic bed and riverine wetlands.

**Table 8**  
**NWI Wetland Types and Acreages in Revised Corridor**

Wetland Acreages (by type)		
Cowardin Classification	Count	Acres <sup>1</sup>
Lagustrine, Limnetic and Littoral	15	850.73
Palustrine Aquatic Bed, Flooded	62	700.23
Palustrine Emergent, Flooded	5,263	6,450.62
Palustrine Forested and Scrub-Shrub, Flooded	141	143.17
Palustrine Unconsolidated Shore, Flooded	24	8.10
Riverine Lower Perennial, Unconsolidated Bottom	6	142.68
Riverine Intermittent, Unconsolidated Shore, Flooded	3	14.75
<b>Total</b>	<b>5,514</b>	<b>8,310.29</b>

<sup>1</sup> Wetland acreage is calculated using USFWS NWI data.

**Table 9**  
**NWI Wetland Types and Acreages along the Revised Route**

Wetland Acreages (by type)		
Cowardin Classification	Count	Acre <sup>1</sup>
Palustrine Emergent Temporarily Flooded (PEMA)	39	12.03
Palustrine Emergent Seasonally Flooded (PEMC)	13	12.49
Palustrine Emergent Semi permanently Flooded (PEMF)	1	0.32
Palustrine Forested to Scrub-shrub Seasonally Flooded (PFO/PSSC)	3	1.01
Riverine Lower Perennial Unconsolidated Bottom Permanently Flooded	1	0.73
Freshwater Pond (PABF)	1	0.36
<b>Total</b>	<b>58</b>	<b>26.94</b>

<sup>1</sup> Wetland acreage is calculated using USFWS NWI data.

As documented in the original application, there are no anticipated impacts to wetland areas within the revised corridor. In general, the transmission line can be routed to avoid, or structures can be designed to span, and thus avoid, wetland areas. Construction impacts will be the same as those documented in the original application. A review of the revised route indicates that there are no wetlands along the proposed route which cannot be avoided by the route or spanned using the proposed transmission line structures. Wetlands more than 1,000 feet in length, which is the maximum span of the proposed transmission line design, may require that transmission structures be placed in wetlands. If this occurs, each structure would result in 100 feet<sup>2</sup> of permanent impact.

Minnkota will use the mitigation for the revised corridor and revised route described in the original application.

## 7.14 VEGETATION

Both the revised corridor and revised route are dominated by cropland (82 percent and 78 percent, respectively), which is similar to the description of vegetation provided in the original application. The other vegetation types are also similar in abundance by type to the descriptions provided in the original application. The noxious weeds listed in the original application are the same for the revised corridor. The total acreage of each vegetation type is summarized in Table 10. The descriptions for each vegetation type are contained in the original application. There are no state or federal grasslands, WPA's or wetland easements within the portion of the corridor that was revised. These lands are identified in figures 9 and 10 for the revised area of the corridor and on figure 2 for the entire corridor.

**Table 10**  
**Vegetation Types**

Vegetation Type	Approximate Acreage					
	Original Corridor	Revised Corridor	Change	Original Route	Revised Route	Change
<b>Cropland.</b> Lands tilled and planted to annual herbaceous small grain and row crops. The land cover category includes both non-irrigated and irrigated crops.	186,297	212,662	26,365	628	893	265
<b>Planted herbaceous perennials.</b> Lands planted to perennial herbaceous grasses, forbs, or grass-legume mixtures. Most lands are used to produce forage crops for harvest or for grazing by domestic livestock.	19,017	20,442	1,425	130	144	14
<b>Wet-Mesic Tall Grass Prairie.</b> Low lying lands of depressions and drainage ways with a high water table and high water availability.	<1	<1	0	NA	NA	NA
<b>Bluestem - Needlegrass-Wheatgrass transition prairie.</b> A transition prairie between tall grass prairie to the east and mixed grass prairie to the west generally occurring on soils derived from glacial materials.	3,952	4,257	305	10	12	2
<b>Wheatgrass Prairie.</b> This vegetation occurs on nearly level to rolling landscapes with deep, well drained, medium to fine textured soils.	<1	<1	0	NA	NA	NA
<b>Needlegrass prairie.</b> Dominant grasses are needle and thread grass, blue grama, and upland western wheatgrass and prairie sandreed are abundant locally. This vegetation occurs on nearly level to rolling landscapes with shallow to deep, moderately coarse textured soils, with moderate permeability and low to moderate available water capacity.	22	22	0	NA	NA	NA
<b>Upland Deciduous Shrubland.</b> Upland areas dominated by shrubs typically occur on sites where available soil moisture is greater than sites with prairie land cover types and less than sites with woodland land cover types. Sites include well-drained depressions and riparian areas, north and east facing slopes, and woodland edges. Stands are typically small and vary greatly in shrub density and species composition.	1,232	1,232	0	6	6	0
<b>Lowland Deciduous Shrubland.</b> Depression and riparian areas dominated by shrubs with a high water table and high water availability.	84	84	0	2	2	0
<b>Floodplain Woodland.</b> Woodlands occurring on the floodplains of the Red River and its tributaries, the Sheyene River, James River, Souris River, Mouse River, Missouri River and its tributaries, and Little Missouri River.	985	991	6	1	1	0
<b>Deciduous woodland.</b> Woodlands dominated by mixtures of deciduous species and conifer tree species planted in shelterbelts, windbreaks and	1,856	2,091	235	3	4	1

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Vegetation Type	Approximate Acreage					
	Original Corridor	Revised Corridor	Change	Original Route	Revised Route	Change
tree rows.						
<b>Green Ash Woodland.</b> Stands occur on the upland edge of floodplain woodlands, in the bottom and sides of draws and ravines, and mesic, typically north and north east facing, slopes.	16	16	0	NA	NA	NA
<b>Bur Oak Woodland.</b> Woodlands dominated by bur oak generally occur in the bottom and sides of draws and ravines, and well drained upland areas on a wide range of slope angles and aspects.	44	44	0	NA	NA	NA
<b>Lacustrine wetlands.</b> Wetlands and deepwater habitats with all of the following characteristics: (1) situated in a topographic depression or a dammed river channel, (2) lacking trees, shrubs, persistent emergents, emergent mosses or lichens.	872	872	0	NA	NA	NA
<b>Riverine wetlands.</b> Wetlands and deepwater habitats contained within a channel, with the following exception (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens.	559	559	0	<1	<1	0
<b>Palustrine temporary wetland.</b> Wetlands dominated by persistent emergents or aquatic beds where surface water is present for brief periods during the growing season, but the water table usually lies well below the soil surface.	3,193	3,303	110	12	15	3
<b>Palustrine seasonal wetland.</b> Wetlands dominated by persistent emergents or aquatic beds where surface water is present for extended periods especially early in the growing season, but is absent by the end of the growing season in most years.	3,795	4,074	279	20	20	0
<b>Palustrine semipermanent wetland.</b> Wetlands dominated by persistent emergents or aquatic beds where surface water persists throughout the growing season in most years.	1,408	1,423	15	2	2	0
<b>Water.</b> Surface water identified from analysis of Landsat Thematic Mapper imagery that was not identified as wetlands in the U.S. Fish and Wildlife Service National Wetland Inventory Data.	386	390	4	<1	<1	0
<b>Developed - High intensity residential.</b> Highly developed areas where people reside in high numbers.	280	283	3	<1	<1	0
<b>Developed - Low intensity residential.</b> Lands consisting of a mixture of constructed materials and vegetation.	465	491	26	1	1	0
<b>Developed - Commercial/industrial/transportation.</b> Infrastructure such as roads, railroads, airports and other highly developed areas not classified as high intensity residential.	2,858	2,898	40	41	42	1

Vegetation Type	Approximate Acreage					
	Original Corridor	Revised Corridor	Change	Original Route	Revised Route	Change
<b>Developed - Urban grasslands.</b> Lands planted to primarily grasses in developed settings for recreation, erosion control or aesthetic purposes.	1,399	1,437	38	NA	NA	NA
<b>Developed - Recently Developed lands.</b> Areas that have been recently developed or were omissions in the developed land cover categories in the 1992 North Dakota National Land Cover data.	827	827	0	NA	NA	NA

The revised corridor impacts are the same as the impacts described in the original application. It is anticipated that temporary impacts will occur during construction and will include ground disturbance by construction equipment around each structure and along the revised route as the transmission line is constructed. These impacts are anticipated to total approximately 123.7 acres, which is an increase in 16.3 acres from the original application. Approximately 5.0 acres of woodland will be crossed by the proposed right-of-way, which is an increase of 0.9 acres from the original application.

The mitigation for the revised corridor and route is the same as in the original application.

### 7.15 WILDLIFE

The wildlife documented in the original application does not change with the revised corridor and route. Raptors, waterfowl and other bird species may be affected by the construction and placement of the generation outlet as documented in the original application.

The mitigation proposed in the original application will be the same for the revised corridor and the revised route.

### 7.16 RARE AND UNIQUE NATURAL RESOURCES

The USFWS, North Dakota Game and Fish Department (NDGF), and North Dakota Parks and Recreation Department (NDPR) were contacted again to review the changes in the corridor and route original application for threatened and endangered species and unique habitats, as summarized in section 9.0. The only response received to-date has been USFWS indicated that there are no USFWS easements in the portion of the corridor that was revised. Minnkota will continue to coordinate with these agencies; however, it is not anticipated that the description of resources will vary from the original application as the land use is primarily agricultural and representative of the original corridor.

As described in the original application, no impacts to rare and unique natural resources are anticipated as both open water and other sensitive habitats are expected to be avoided by routing and pole placement. No additional potentially sensitive ecological wet prairies communities have been identified along the revised route. Habitat surveys for these sensitive communities will be completed prior to construction. In the event that those habitats cannot be avoided, Minnkota will coordinate directly with both the USFWS and the NDPR, as appropriate, to evaluate the potential impacts and develop acceptable mitigation measures.

The mitigation measures in the original application will be implemented for the revised corridor and revised route.

## 7.17 SUMMARY OF ROUTE IMPACTS

Table 11 summarizes the resources that will be impacted as a result of the construction of the generation outlet and the appropriate mitigation. Generally, the revised corridor and route have slightly increased acreages of impact over the corridor and route in the original application due to the increased length of the revisions. However, the natures of the impacts does not substantially change, as Minnkota identified a route that follows the RRWRD irrigation ditch for portion of the revised route and as Minnkota expects to avoid resources by pole placement and spanning.

**Table 11**  
**Summary of Route Impacts and Mitigation and Changes from the Original Application**

Resource	Impact	Mitigation
Demographics	Socioeconomic impacts are primarily positive due to increased expenditures during construction and the long term benefits of an increased tax base of the county due to property taxes. A nominal amount of land will be permanently removed from production due to the construction of the project. <i>These impacts have not changed since the original application.</i>	Impacts are primarily positive, so no mitigation is proposed for socioeconomic impacts. Impacts to landowners will be minimized to the extent practicable. <i>This mitigation has not changed since the original application.</i>
Land Use	Approximately 4.5 acres of land will be permanently impacted due to the construction of the generation outlet (1.5 acres of land for the transmission line and 3.0 acres for the new substation). This is an increase of 0.1 acres from the original application. The existing land use is primarily agriculture and will remain in agriculture use since the land under or adjacent to the line can still be used by the landowner.	Minnkota will work with landowners and regulatory agencies to minimize impacts of the project. <i>This mitigation has not changed since the original application.</i>

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Resource	Impact	Mitigation
Public Services	No impacts are anticipated. <i>This impact has not changed since the original application.</i>	The transmission system will be constructed according to the configuration identified by Minnkota to mitigate any potential impacts. Impacts to existing public services will be avoided to the extent practicable. <i>This mitigation has not changed since the original application.</i>
Human Health and Safety	No impacts are anticipated. <i>This impact has not changed since the original application.</i>	The Utilities will follow “prudent avoidance” methods to minimize EMF exposure and any potential impacts to human health. If proper safeguards are implemented, no additional mitigation is required. <i>This mitigation has not changed since the original application.</i>
Noise	There are two additional occupied structures within 550 feet of the generation outlet. No impacts to noise sensitive land uses are anticipated.	Waivers will be obtained for structures closer than 500 feet to the route. No additional mitigation measures are proposed.
Visual	The generation outlet will be evident to individuals traveling on adjacent as well as residences and landowners that live in close proximity to the transmission line and substations. <i>This impact has not changed since the original application.</i>	The route minimizes the number of residences impacted by the line. <i>This mitigation has not changed since the original application.</i>
Cultural and Archaeological	No impacts to previously identified cultural resources are anticipated. <i>This impact has not changed since the original application.</i>	The Utilities has completed a Class I Cultural Resources Inventory for the corridor and route. The Utilities will conduct a Class III inventory along the proposed route. <i>This mitigation has not changed since the original application.</i>
Recreational Resources	Impacts to recreational resources are primarily visual, and limited to individuals using the resources. One additional snowmobile trail will be crossed by the generation outlet.	The generation outlet will follow an existing pipeline, RRWRD irrigation ditch, and BNSF railline route. Visual impacts will be minimized by placement of structures away from these features to the extent possible. Access to PLOTS and trails will be maintained. <i>This mitigation has not changed since the original application.</i>
Land Based Economies	A total of approximately 4.5 acres of land will be permanently impacted by the generation outlet construction (1.5 acres for the transmission line and 3.0 acres for the Pillsbury substation). This is an increase in 0.1 acres from the original application. Approximately 123.7 acres of temporary impacts are anticipated. This is an increase in 16.3 acres from the original application.	Minnkota will work with landowners to minimize impacts to their land. Prime farmland will be avoided to the extent practicable. <i>This mitigation has not changed since the original application.</i>

**Pillsbury - Fargo  
Generation Outlet Project**



Resource	Impact	Mitigation
Soils	A total of approximately 1.5 acres of land will be permanently impacted by the transmission line construction, an increase of 0.1 from the original application. Approximately 123.7 acres of temporary impacts are anticipated, an increase of 16.3 acres from the original application. The project substation will occupy approximately 3.0 acres of land.	BMPs for erosion and sediment control will be utilized to minimize wind and water erosion along the route. Only land needed for the generation outlet will be permanently impacted. Temporarily disturbed areas that are not cultivated will be revegetated. <i>This mitigation has not changed since the original application.</i>
Geologic and Groundwater Resources	No impacts to geologic and groundwater resources are anticipated.	No mitigation measures are necessary. <i>This mitigation has not changed since the original application.</i>
Surface Water and Floodplain Resources	No impacts are anticipated to intermittent streams, drainageways or floodplain resources. <i>This impact has not changed since the original application.</i>	To minimize impacts during construction an NPDES permit and SWPPP will be prepared and submitted to the North Dakota of Health. No structures will be placed within a regulatory floodway. <i>This mitigation has not changed since the original application.</i>
Wetlands	No impacts are anticipated. <i>This impact has not changed since the original application.</i>	The Utilities will mitigate impacts according to USACE requirements. All additional wetlands will be avoided to the extent practicable. <i>This mitigation has not changed since the original application.</i>
Vegetation	A total of approximately 1.5 acres of land will be permanently impacted by the transmission line construction, an increase of 0.1 acres from the original application. Approximately 123.7 acres of temporary impacts are anticipated, an increase of 16.3 acres from the original application. The project substation will occupy approximately 3.0 acres of land.	The Utilities will work with the USFWS to minimize impacts. The Utilities will avoid existing trees and shrubs as practicable. Otter Tail Power will use BMPs during construction and operation to minimize impacts. Impacts to individual trees or shrubs will be replaced at a ratio of 2:1 and will be monitored for survival for five years. Temporarily disturbed areas will be reseeded per USFWS and NRCS recommendations. <i>This mitigation has not changed since the original application.</i>
Wildlife	Impacts to wildlife populations are expected to be minimal. Potential avian and bat collisions may occur, but are anticipated to be relatively small. <i>This impact has not changed since the original application.</i>	A variety of mitigation measures will be implemented, as discussed in section 8.15.3. <i>This mitigation has not changed since the original application.</i>
Rare and Unique Natural Resources	Impacts to rare and unique natural resources are not anticipated. <i>This impact has not changed since the original application.</i>	Surveys will be completed for wet prairie prior to construction to ensure that transmission structures can span the community. No mitigation additional mitigation measures are necessary. <i>This mitigation has not changed since the original application.</i>

## **8.0 PUBLIC AND LANDOWNER COORDINATION**

Since the original application, Minnkota has been working with landowners along the proposed route. Minnkota has consulted with landowners to discuss the project and has secured approval to conduct necessary engineering surveys and soil investigations. Minnkota has also initiated right-of-way acquisition and is obtaining options to purchase right-of-way for the proposed route. Maps depicting the status of survey permission or easements for the route have been updated and are provided in appendix D.

In addition, the Minnkota has continued to correspond with Cass and Barnes County Commissioners, and township and city officers representing the project area and their staff to inform them of the project changes and obtain local permits and approvals. Minnkota is working with the RRWRD to secure an easement along the irrigation ditch.

## **9.0 AGENCY CONSULTATION**

Agencies were contacted to comment on the generation outlet in a letter sent on February 8, 2008. Agency responses were provided in the original application. Minnkota also notified agencies on April 2, 2008, and April 4, 2008, who had previously submitted comments or manage resources in the portion of the corridor that was added. A copy of the correspondence with these agencies is provided in appendix E and a summary of comments received in response are provided below.

### **9.1 NORTH DAKOTA GAME AND FISH DEPARTMENT**

NDGF has not responded to the letter that was sent April 4, 2008, requesting comment on the revised corridor. Minnkota will continue to coordinate with NDGF.

### **9.2 U.S. FISH AND WILDLIFE SERVICE**

The USFWS responded that there are no wetland or grassland easements in the portion of the corridor that was revised. They indicated that there may be additional comments to follow regarding other resources managed by USFWS. Minnkota will continue to coordinate with USFWS.

### **9.3 STATE HISTORICAL SOCIETY OF NORTH DAKOTA (SHPO)**

The SHPO was contacted to discuss the need to complete an amended Class I cultural resources inventory for the portion of the route that was revised. The additional data collection occurred at the SHPO office on March 27, 2008. Minnkota will continue to coordinate with SHPO during the Class III cultural resources that will be completed prior to construction. Minnkota is committed to minimizing impacts to these resources as noted in the original application.

### **9.4 NORTH DAKOTA PARKS AND RECREATION DEPARTMENT**

NDPR has not responded to the letter that was sent April 4, 2008, requesting comment on the revised corridor. Minnkota will continue to coordinate with NDPR.

### 9.5 NORTH DAKOTA STATE WATER COMMISSION

The Office of the State Engineer/State Water Commission was contacted to provide data on irrigation permits in the portion of the corridor that was revised. The data was provided on April 4, 2008. Minnkota will avoid irrigated lands.

### 9.6 FEDERAL AVIATION ADMINISTRATION

As suggested by the Aeronautics Commission, Minnkota consulted with the FAA on March 19, 2008. The FAA provided clarification on the filing requirements for FAA form 7460-1. Minnkota is in compliance with the FAA clearance requirements for public airports.

### 9.7 NORTH DAKOTA FARM SERVICE AGENCY

A request was made to the North Dakota Farm Service Agency (FSA) on April 2, 2008, to provide data on CRP lands within area of corridor that was revised. Minnkota will continue to coordinate with NDPR.

## 10.0 IDENTIFICATION OF REQUIRED PERMITS/APPROVALS

The federal and state permits or approvals that have been identified as potentially being required for the construction and operation of the project are shown in Table 12. The table has been revised to reflect the current status of the possible permits and approvals.

**Table 12**  
**Possible Permits and Approvals**

Agency	Type of Approval	Status*	Need
--------	------------------	---------	------

**Pillsbury - Fargo  
Generation Outlet Project**



Agency	Type of Approval	Status*	Need
<b>Federal Approvals</b>			
USACE	Section 404 Permit	3	Permit required for fill in jurisdictional waters of the US. If needed, authorization under Nationwide Permit 12 is anticipated.
Environmental Protection Agency	Spill Prevention Control and Countermeasure (SPCC) Plan	3	Required if the substation facility has greater than 1320 gallons of oil. A copy of the plan will be maintained on file with the substation's owner/operator and will be reviewed by the certifying engineer every five years.
Federal Aviation Administration	Acknowledgement of Receipt of Notice, FAA form 7460-1 and Receipt of Study Results	2	Notice of construction of line is required for three public airports. FAA will conduct study and report findings within 30-45 days of original application.
BNSF Railroad	Temporary Occupancy Permit	2	Required for any geotechnical studies required for the project.
	Wire Line Crossing or Longitudinal Communication and Electric Permit	1	Required for a project that crosses or is within the railroad right-of-way.
<b>State of North Dakota</b>			
Public Services Commission	Waiver of Procedures and Time Schedules	1	Included in original application
	Certificate of corridor Compatibility	1	Included herein and in original application.
	Route Permit	1	Included herein and in the original application.
North Dakota Department of Health	401 Water Quality Certification	3	Required for fill in jurisdictional waters of US. If needed, authorization under Nationwide Permit 12 is anticipated.
	NPDES Permit: General Construction Storm Water	2	Required for disturbance of over 1 acre of land. Must prepare a Storm Water Pollution Prevention Plan (SWPPP).
North Dakota Division of Emergency Management	Emergency Planning and Community Right-to-Know Act (EPCRA) Tier II report	2	Required for owner/operators of facilities containing hazardous materials. A copy of the report must be filed annually by March 1 <sup>st</sup> .

**Pillsbury - Fargo  
Generation Outlet Project**



Agency	Type of Approval	Status*	Need
SHPO	Permit to Investigate Effects on Cultural Resources	1	Compliance with NDCC 55-03 to assess the potential project effects to cultural resources.
	Section 106 Compliance Approval	3	Compliance with Section 106 of the NHPA is required if a project is considered a federal undertaking (i.e. federal funding, USACE.) Need for this compliance is not anticipated at this time due to the lack of a federal undertaking.
North Dakota Highway Patrol	Overheight/Overweight Permit	2	Permit required for hauling construction equipment and materials on state highways.
North Dakota Department of Transportation	Road Approach/Access Permit	2	Permit required for construction of access roads from state highways.
	Utility Permit/Risk Management Documents	2	Permit required for utility crossings on state highway right-of-way.
<b>Local Permits</b>			
Barnes County and Cass County Townships (Lake, Rich, Arthur, Gunkel, Rush River, Harmony, Raymond, and Reed)	Conditional Use Permit	1	Permit required for project construction.
	Building Permit	1	Permit required for substation construction and generation outlet line.
	Haul Road Agreement	1	Permit required for hauling construction equipment and materials on County Roads.
	Utility Permit	1	Permit required for utility crossings on County road right-of-way.

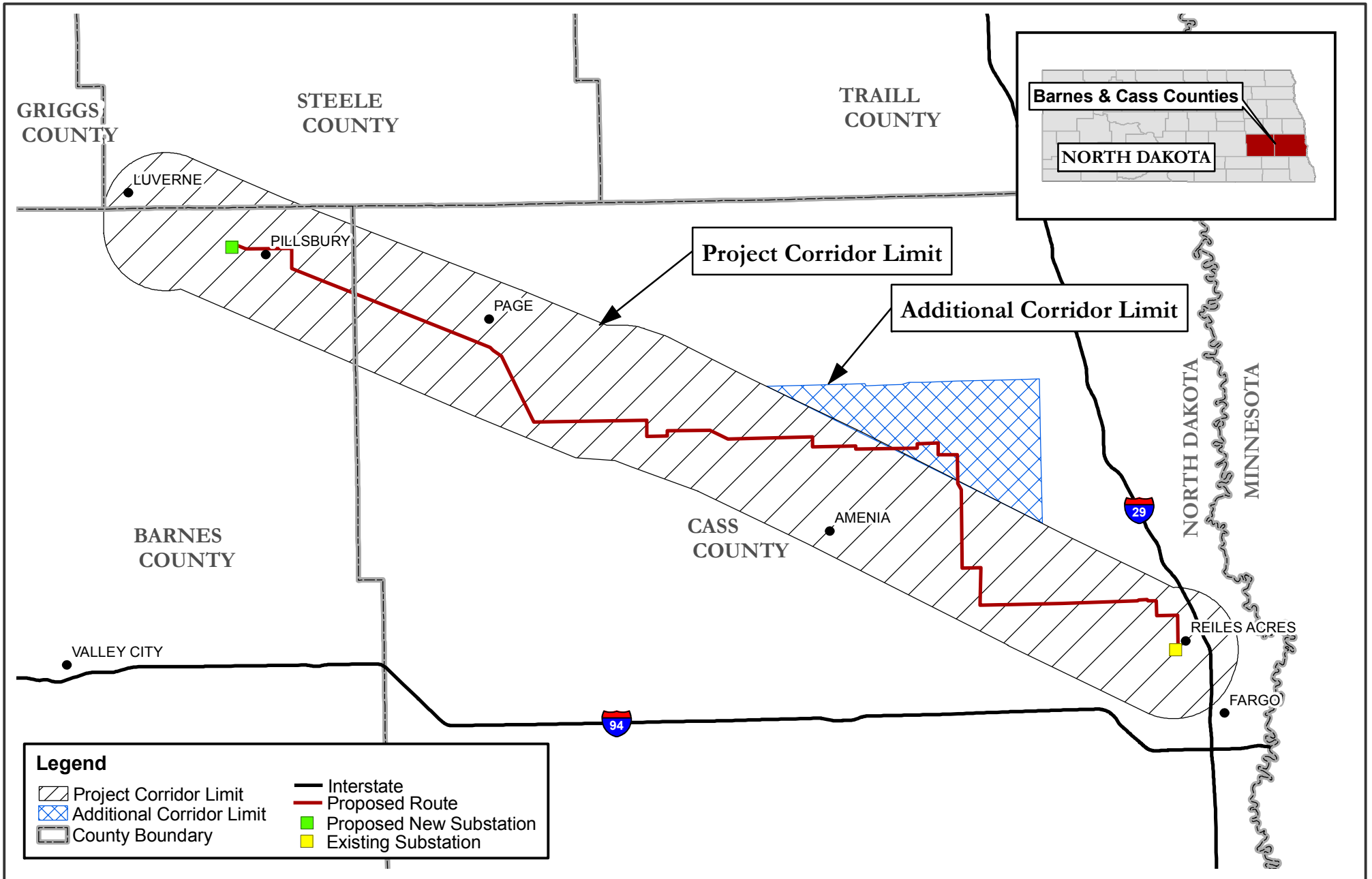
\* Status Explanation:

- 1 Applied – Decision Pending
- 2 Will Apply Once Certificate and Route Permit is Received
- 3 Final Layout will Determine Whether Permit/Approval is needed

Pillsbury - Fargo  
Generation Outlet Project



**FIGURES**



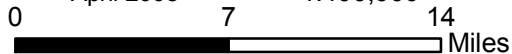
Prepared By:



April 2008



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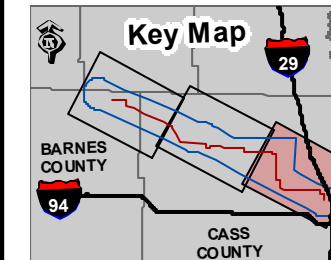
**Minnkota Power**  
MPC COOPERATIVE, INC.

Your Touchstone Energy® Partner

Figure 1  
Project Vicinity Map  
**Pillsbury-Fargo Generation Outlet**  
Barnes and Cass Counties, North Dakota

**Pillsbury-Fargo  
 Generation Outlet  
 Corridor/Route Exclusion  
 And Avoidance Area  
 Figure 2a**

Barnes and Cass Counties,  
 North Dakota



**Legend**

- Existing Substation
  - Proposed New Substation
  - Proposed Route
  - Corridor Limit
  - Railroad
  - Highway
  - County Line
  - Township Boundaries
  - Section Boundaries
  - Urban Area
  - Surface Water
- Exclusion Areas**
- ▲ Bremer Lake Park within Erie Dam
  - Unique Habitat
- Avoidance Areas**
- USFWS WPAs
  - NDGF WMAs
  - ▲ Occupied House
  - Residence Location (550 Foot Buffer)
  - Active Irrigation Permits
  - Snowmobile Trails
  - Multi Use Trails

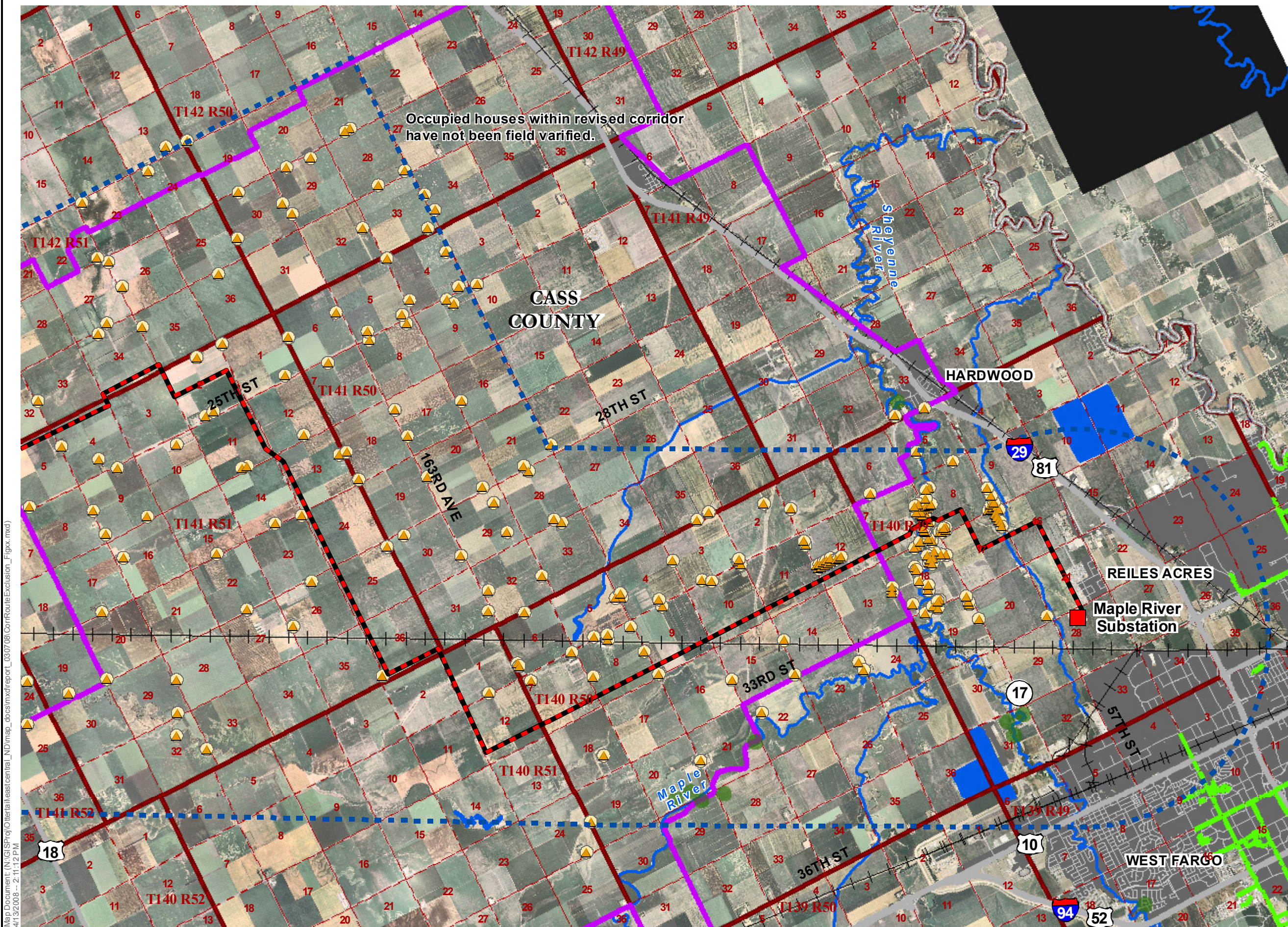


1 inch equals 1.5 miles  
 0 1 2  
 Miles

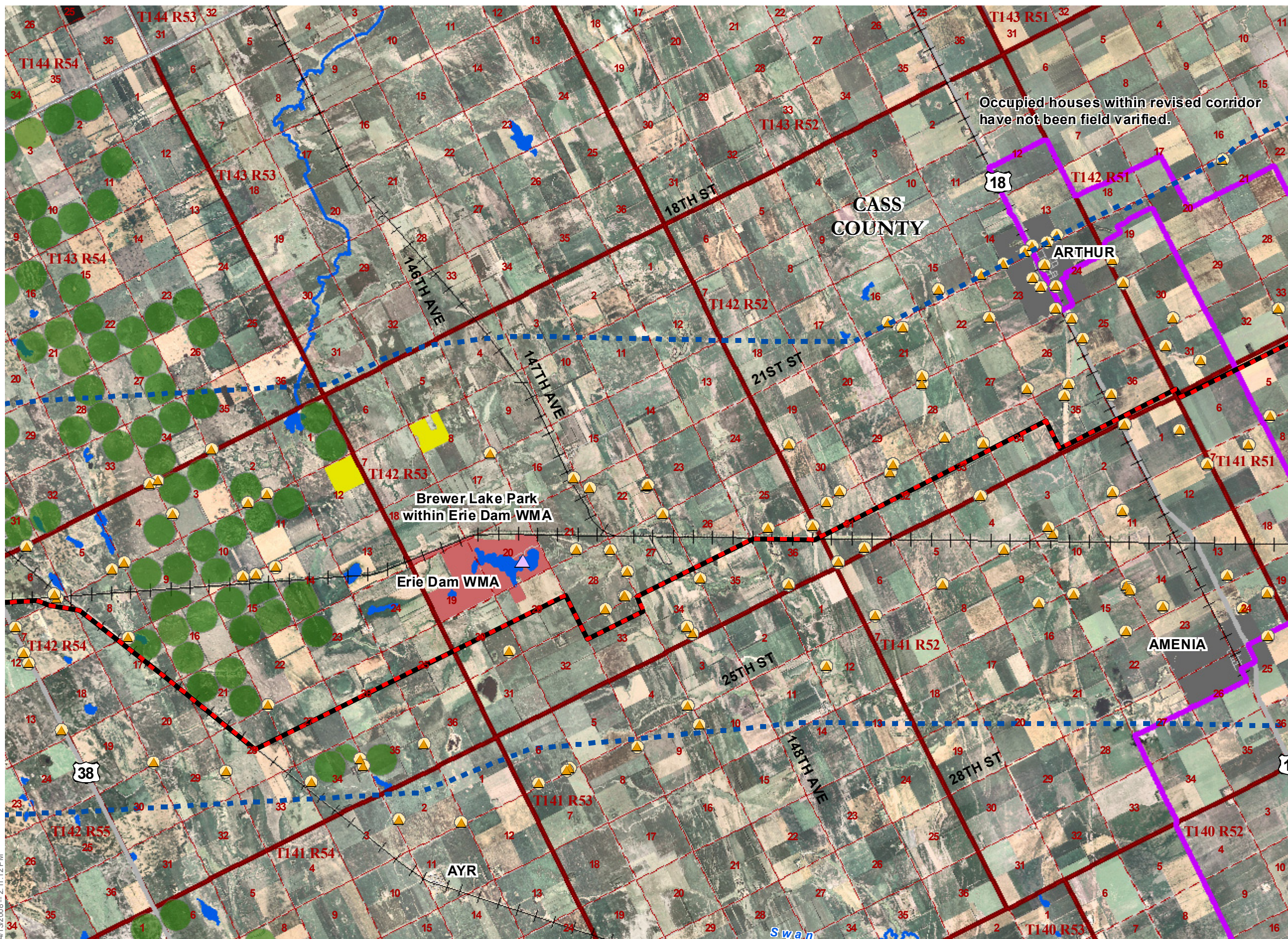
Prepared By:  
**HDR**

April 2008

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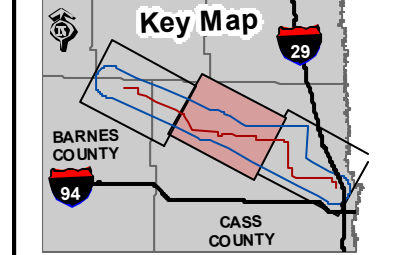


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**Pillsbury-Fargo  
Generation Outlet  
Corridor/Route Exclusion  
And Avoidance Area  
Figure 2b**

Barnes and Cass Counties,  
North Dakota



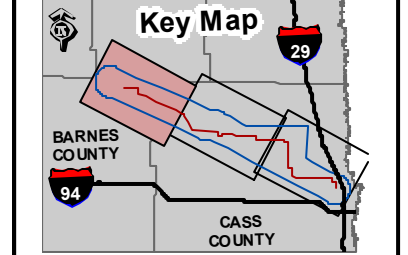
- Legend**
- Existing Substation
  - Proposed New Substation
  - Proposed Route
  - Corridor Limit
  - Railroad
  - Highway
  - County Line
  - Township Boundaries
  - Section Boundaries
  - Urban Area
  - Surface Water
- Exclusion Areas**
- Bremer Lake Park within Erie Dam
  - Unique Habitat
- Avoidance Areas**
- USFWS WPAs
  - NDGF WMAs
  - Occupied House
  - Residence Location (550 Foot Buffer)
  - Active Irrigation Permits
  - Snowmobile Trails
  - Multi Use Trails

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**Pillsbury-Fargo  
 Generation Outlet  
 Corridor/Route Exclusion  
 And Avoidance Area  
 Figure 2c**

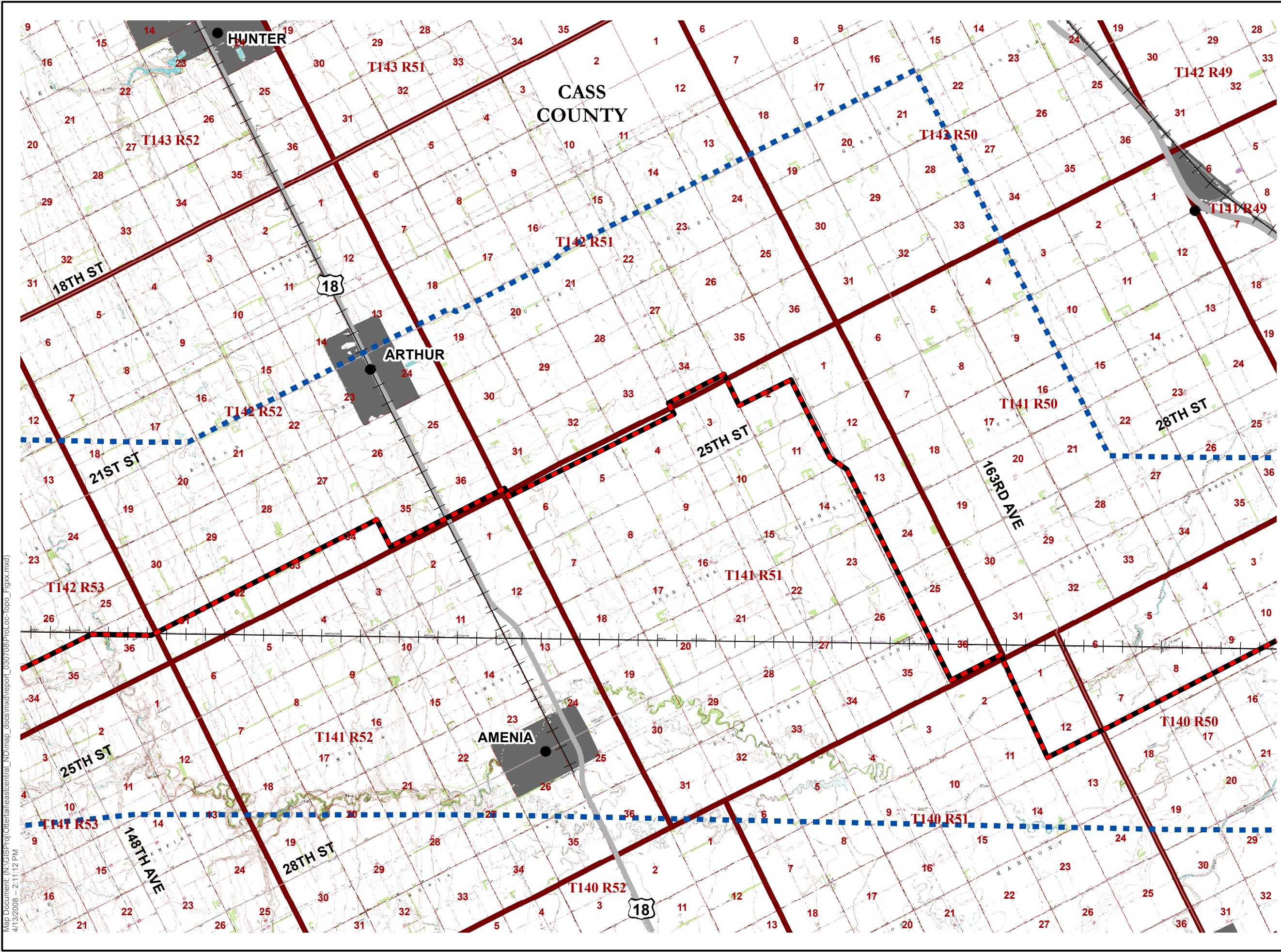
Barnes and Cass Counties,  
 North Dakota



- Legend**
- Existing Substation
  - Proposed New Substation
  - Proposed Route
  - Corridor Limit
  - Railroad
  - Highway
  - County Line
  - Township Boundaries
  - Section Boundaries
  - Urban Area
  - Surface Water
- Exclusion Areas**
- ▲ Bremer Lake Park within Erie Dam
  - Unique Habitat
- Avoidance Areas**
- USFWS WPAs
  - NDGF WMAs
  - ▲ Occupied House
  - Residence Location (550 Foot Buffer)
  - Active Irrigation Permits
  - Snowmobile Trails
  - Multi Use Trails

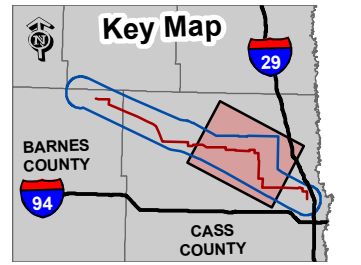


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**Pillsbury-Fargo  
Generation Outlet  
Project Location Map  
(Topographical)  
Figure 4**

Barnes and Cass Counties,  
North Dakota



- Legend**
- Existing Substation
  - Proposed New Substation
  - Proposed Route
  - Corridor Limit
  - Railroad
  - Highway
  - County Line
  - Township Boundaries
  - USFS Urban Area



1 inch equals 1.5 miles  
0 1 2

Miles

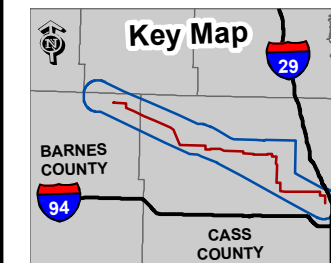
Prepared By:



April 2008

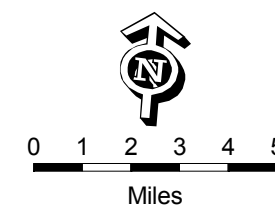
**Pillsbury-Fargo  
 Generation Outlet**  
 Average Daily Traffic Map  
 Figure 5

Barnes and Cass Counties,  
 North Dakota



**Legend**

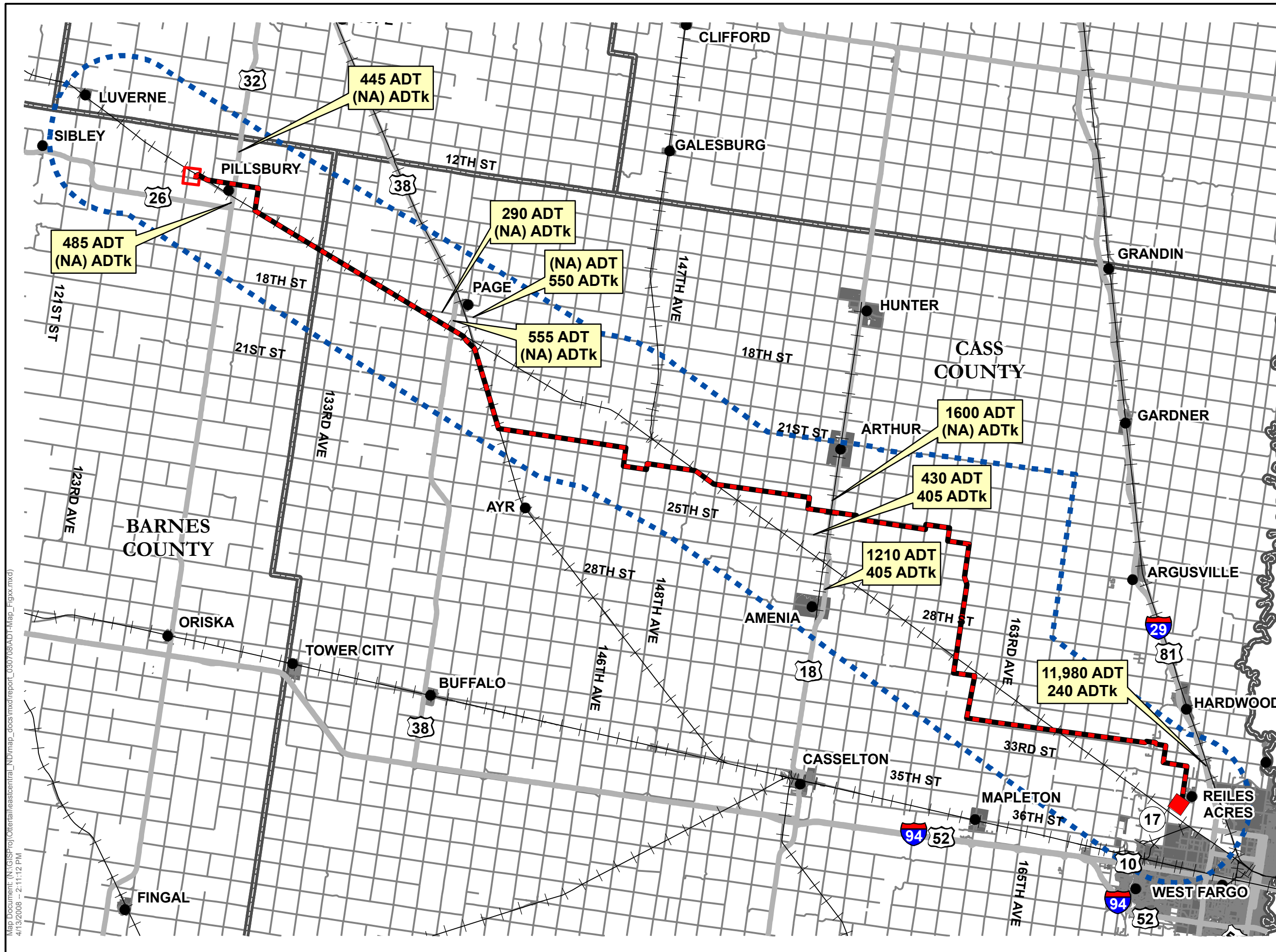
- Existing Substation
  - Proposed New Substation
  - Proposed Route
  - Corridor Limit
  - Railroad
  - Highway
  - Roadway
  - County Line
  - Urban Area
- ADT** Average Daily Traffic  
**ADTk** Average Daily Truck Volumes



Prepared By:



April 2008

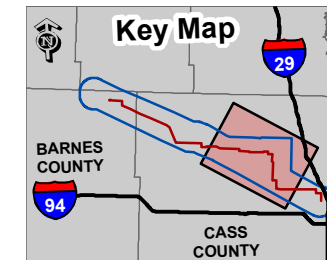


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**Pillsbury-Fargo  
 Generation Outlet  
 Existing Land Use Map**

Figure 6

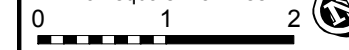
Barnes and Cass Counties,  
 North Dakota



**Legend**

- Existing Substation
  - Proposed New Substation
  - Proposed Route
  - Corridor Limit
  - Railroad
  - Highway
  - County Line
  - Township Boundaries
  - Section Boundaries
  - Extraterritorial Jurisdiction
  - Antenna Structure
  - Cemetery
  - Church/Cemetery
  - Airport
  - School
  - Occupied House
  - Factory/Industrial Plant
  - Warehouse
  - Post Office
  - Store/Small Business
  - Small City Center/Townhall/Community Hall
  - Sewage Disposal Plant
  - Storage Tanks (Gas/Oil)
  - Garbage/Rubbish Dump
  - Gravel Pit
- USFWS Cover Type**
- Native Grassland
  - Undisturbed Grassland
  - Hayland
  - Cropland
  - Undefined (9)
  - Forest and Shelterbelt
  - Riparian
  - Open Water
  - Temporary Wetland
  - Seasonal Wetland
  - Semipermanent Wetland
  - Lake
  - River
  - Urban Area

1 inch equals 1.5 miles

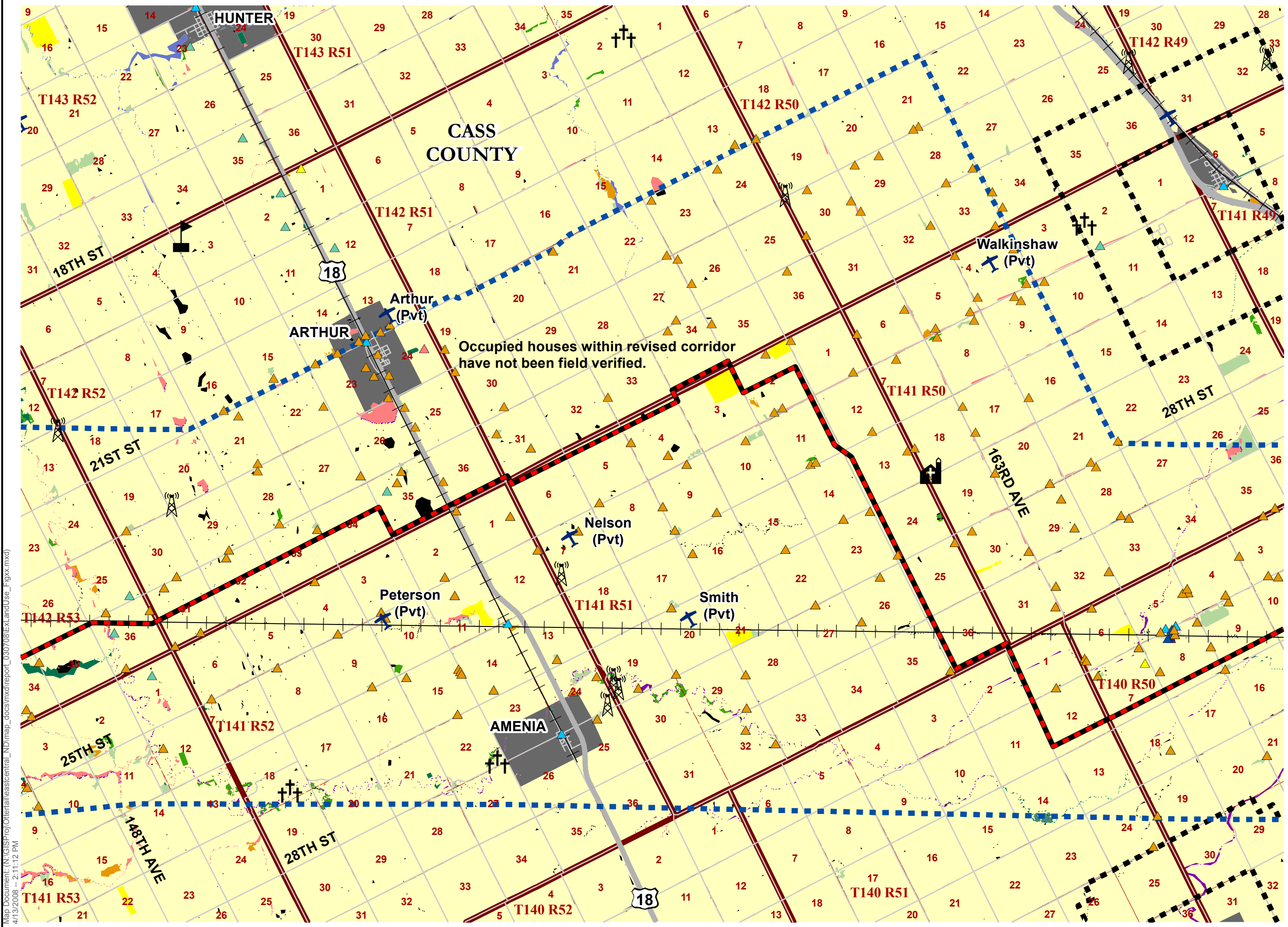


Miles

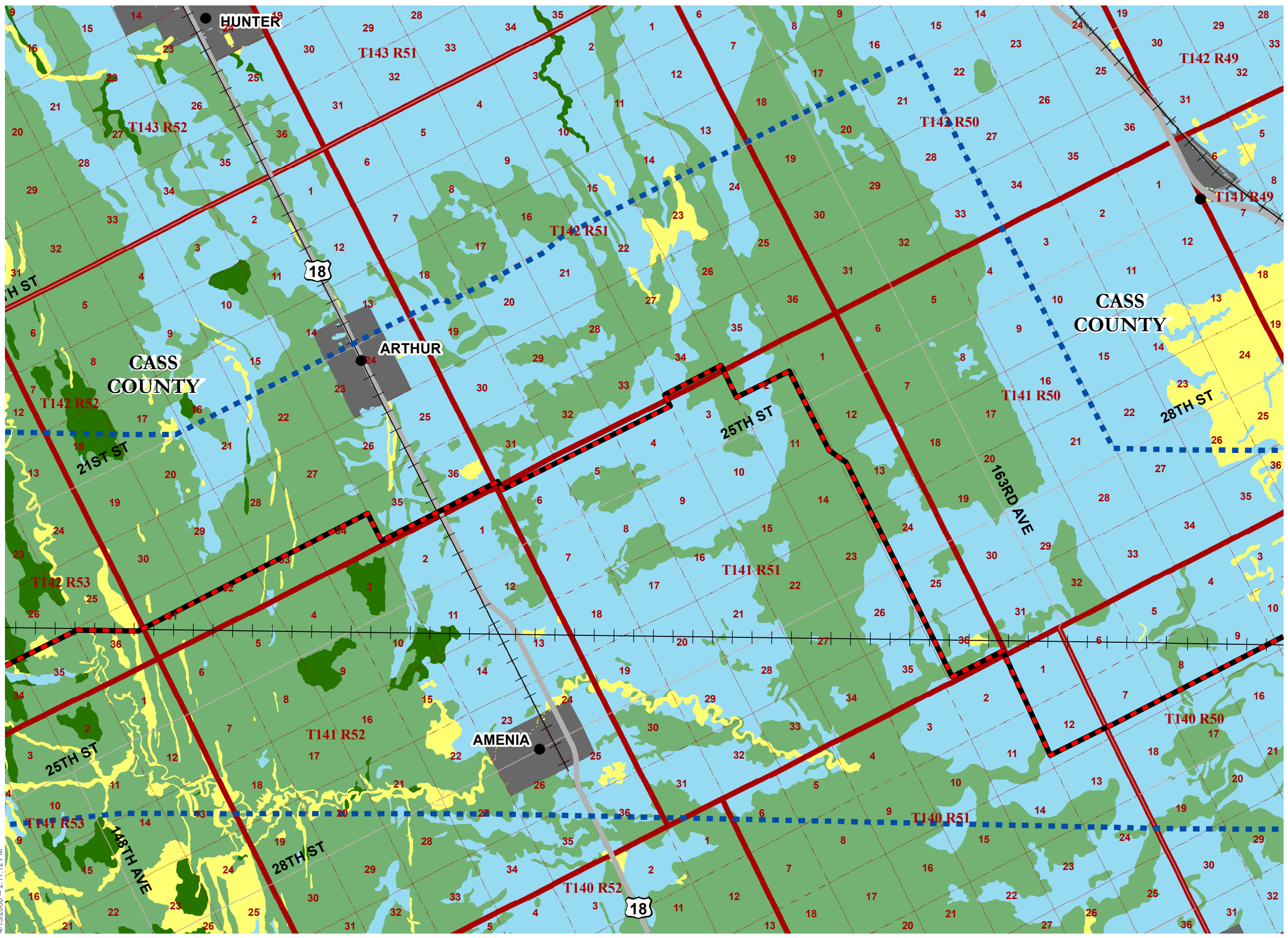


April 2008

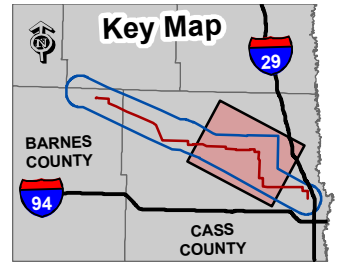
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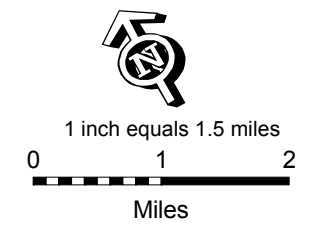


**Pillsbury-Fargo  
Generation Outlet  
Prime Farmland and  
Soil Distribution Map  
(SSURGO)  
Figure 7**  
Barnes and Cass Counties,  
North Dakota



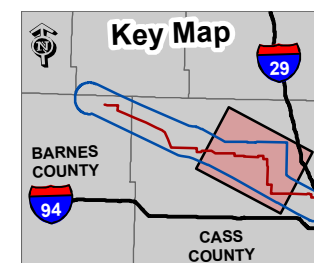
- Legend**
- Existing Substation
  - Proposed New Substation
  - Proposed Route
  - Corridor Limit
  - Railroad
  - Highway
  - County Line
  - Township Boundaries
  - Section Boundaries
  - USFWS Urban Area

- SSURGO Soil Data**
- No Classification
  - Not prime farmland
  - Prime farmland if drained
  - All areas are prime farmland
  - Farmland of statewide importance



**Pillsbury-Fargo  
 Generation Outlet  
 State Soils  
 Association Map  
 (STATSGO)  
 Figure 8**

Barnes and Cass Counties,  
 North Dakota



**Legend**

- Existing Substation
- Proposed New Substation
- Proposed Route
- Corridor Limit
- Railroad
- Highway
- County Line
- Township Boundaries
- Section Boundaries
- USFWS Urban Area



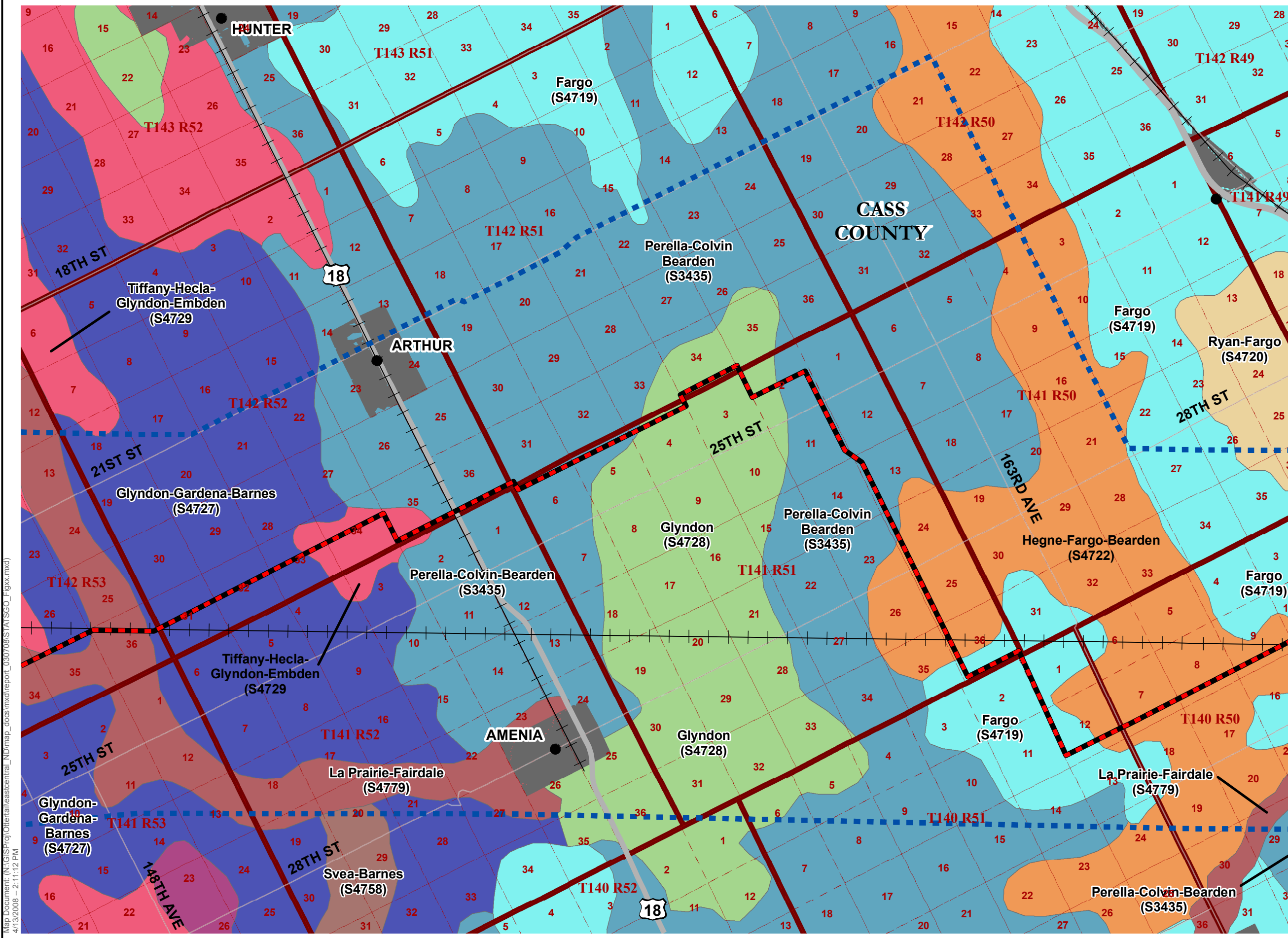
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 Miles

Prepared By:



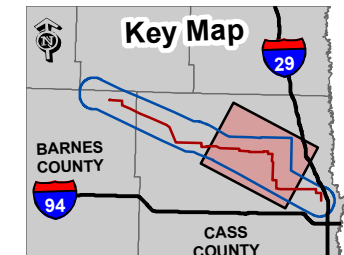
April 2008

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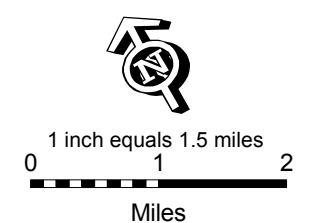


**Pillsbury-Fargo  
 Generation Outlet**  
 National Wetlands  
 Inventory, Surface Waters  
 and Irrigation Permits Map  
 Figure 9

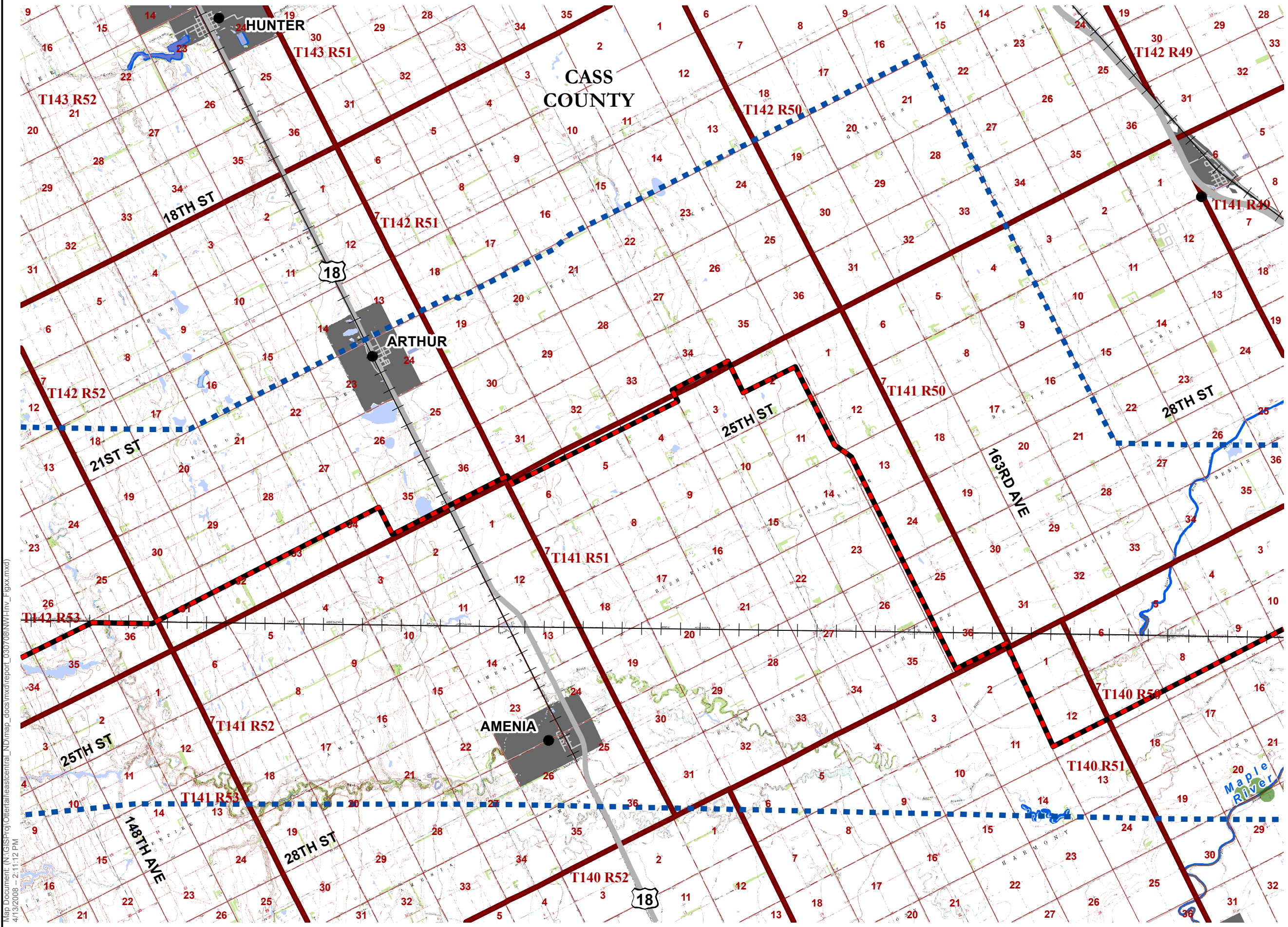
Barnes and Cass Counties,  
 North Dakota



- Legend**
- Existing Substation
  - Proposed New Substation
  - Proposed Route
  - Corridor Limit
  - Railroad
  - Highway
  - County Line
  - Township Boundaries
  - Section Boundaries
  - Urban Area
  - Surface Water
  - Active Irrigation Permits
- NWI Wetlands**
- Emergent
  - Pond
  - Lake
  - Riverine
  - Forested/Shrub
  - USFWS Wetland
  - Easements
  - USFWS WPAs



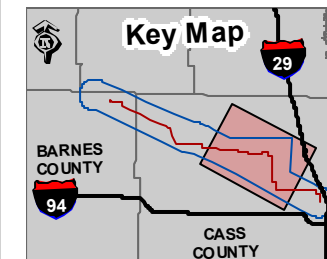
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**HDR**  
 April 2008



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**Pillsbury-Fargo  
 Generation Outlet  
 Recreation Lands Map  
 Figure 10**

Barnes and Cass Counties,  
 North Dakota



**Legend**

- Existing Substation
- Proposed New Substation
- Proposed Route
- Corridor Limit
- Railroad
- Highway
- County Line
- Township Boundaries
- Section Boundaries
- Urban Area
- Surface Water
- Multi Use Trails
- Snowmobile Trails

- ▲ Beach/Swimming Pool
- ▲ Dock/Pier/Landing
- ▲ Picnic Ground
- ▲ Rifle Club
- NWI Wetlands
- USFWS WPAs
- USFWS Wetland Easements

**North Dakota Game & Fish**

- PLOTS
  - CRP
  - WMA
  - Habitat
- (CRP-Not open for public recreation)

Minnkota is coordinating with FSA on CRP locations in the revised corridor



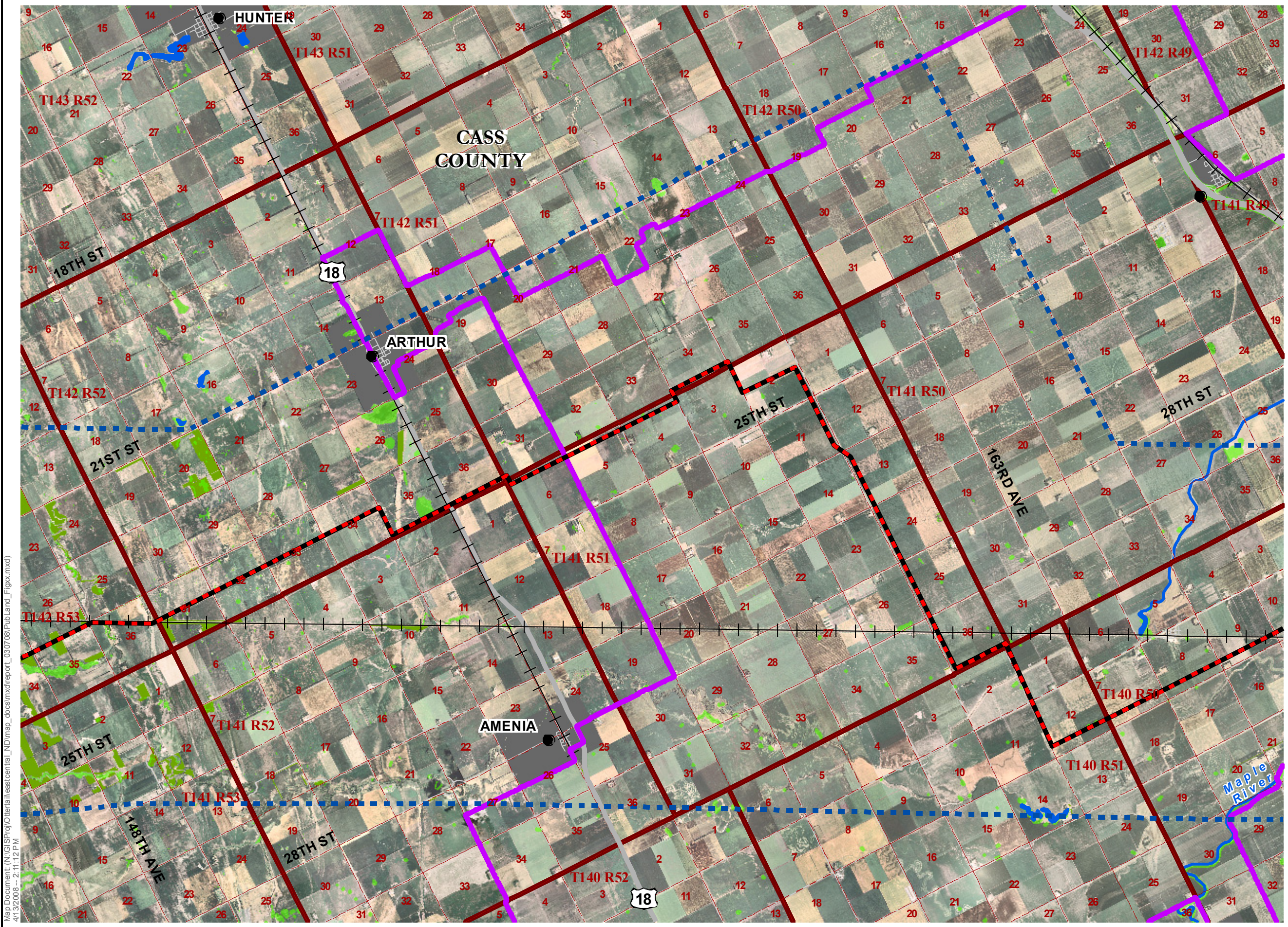
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 Miles

Prepared By:

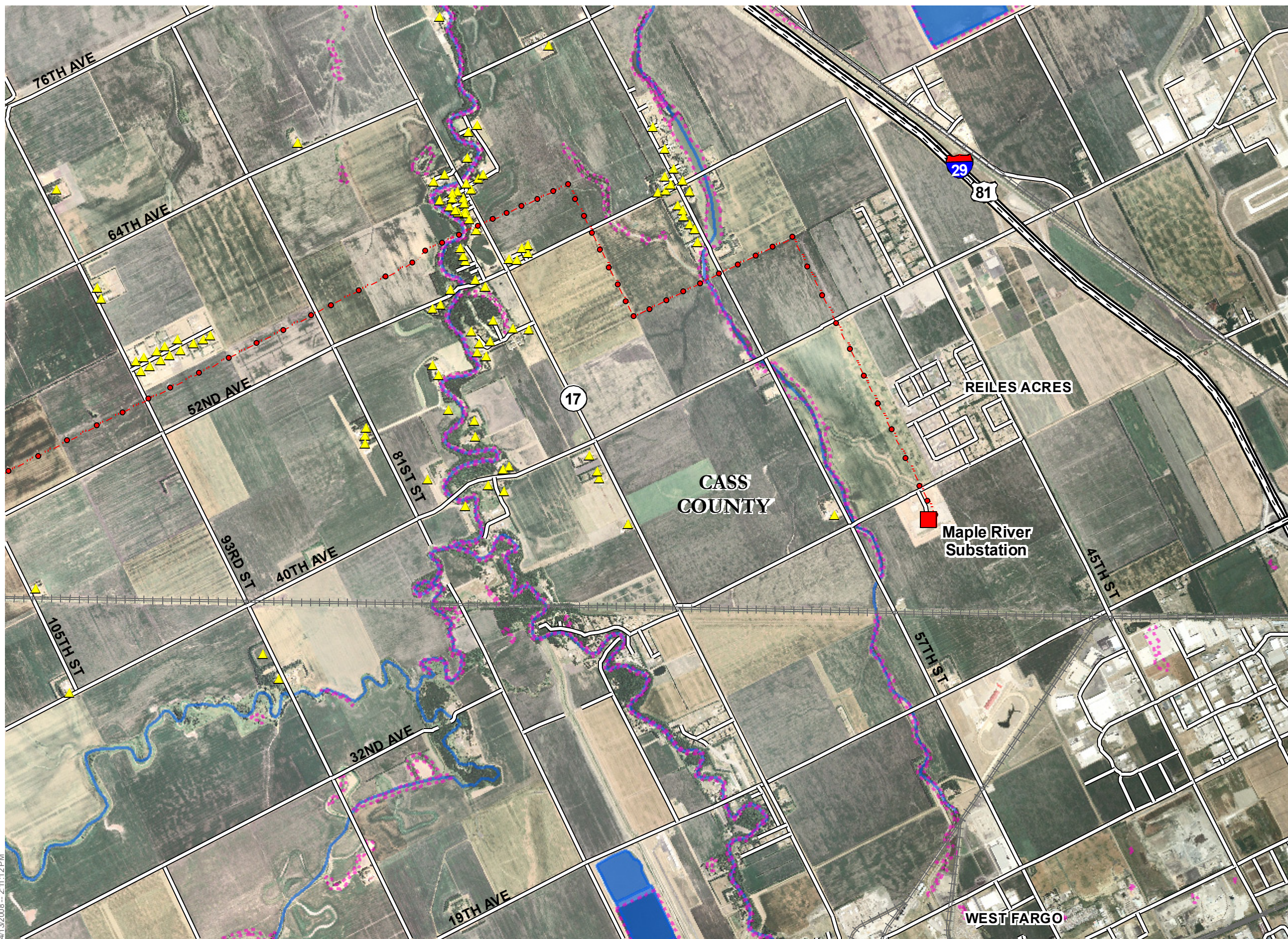


April 2008

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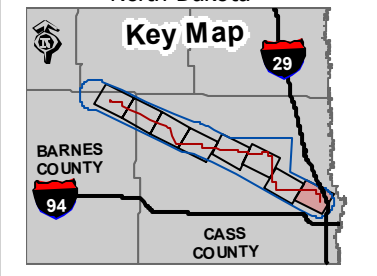


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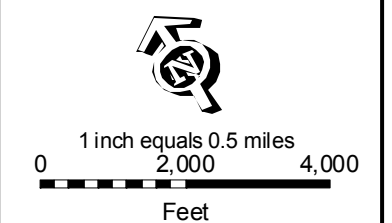


**Pillsbury-Fargo  
Generation Outlet**  
Preliminary Pole Location  
Figure 11a

Barnes and Cass Counties,  
North Dakota



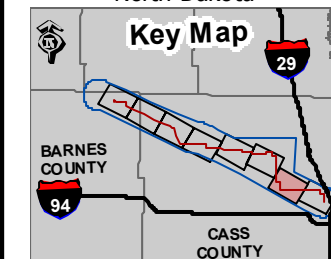
- Legend**
- Existing Substation
  - Proposed New Substation
  - Occupied House
  - Preliminary Pole Locations
  - Proposed Route
  - Railroad
  - Highway
  - County Line
  - Surface Water
  - NWI Wetlands



Prepared By:  
**HDR**  
April 2008

**Pillsbury-Fargo  
 Generation Outlet**  
 Preliminary Pole Location  
 Figure 11b

Barnes and Cass Counties,  
 North Dakota



**Legend**

- Existing Substation
- Proposed New Substation
- ▲ Occupied House
- Preliminary Pole Locations
- - - Proposed Route
- Railroad
- Highway
- County Line
- Surface Water
- NWI Wetlands



1 inch equals 0.5 miles  
 0 2,000 4,000  
 Feet

Prepared By:

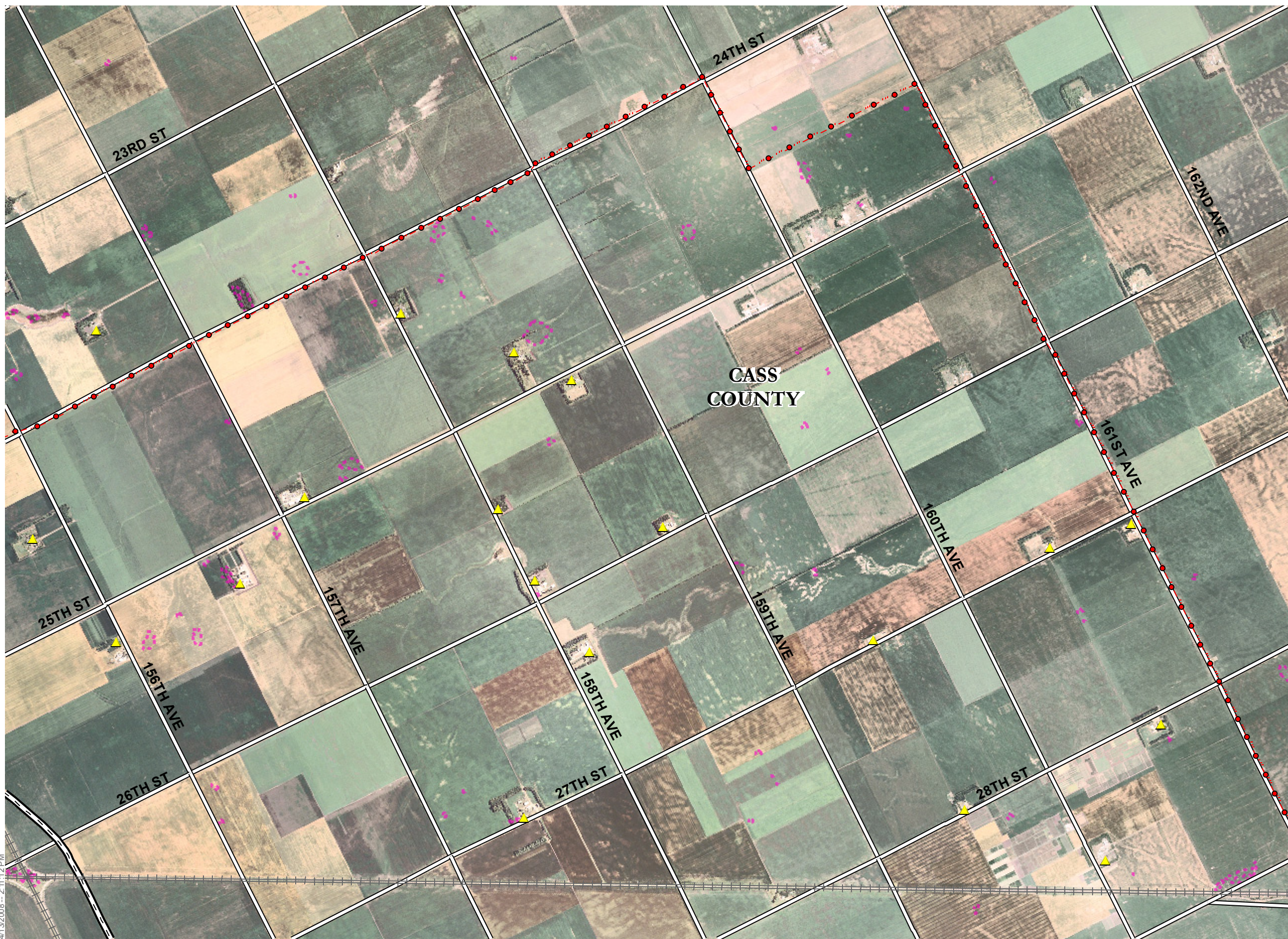


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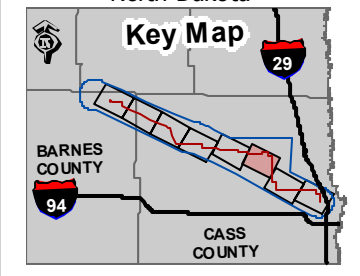


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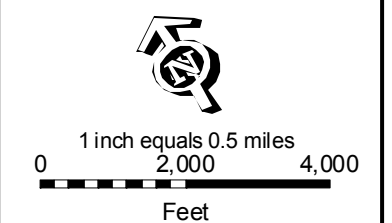


**Pillsbury-Fargo  
Generation Outlet**  
Preliminary Pole Location  
Figure 11c

Barnes and Cass Counties,  
North Dakota



- Legend**
- Existing Substation
  - Proposed New Substation
  - Occupied House
  - Preliminary Pole Locations
  - Proposed Route
  - Railroad
  - Highway
  - County Line
  - Surface Water
  - NWI Wetlands



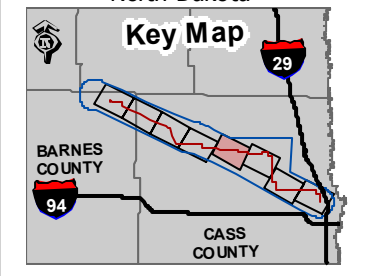
Prepared By:  
**HDR**  
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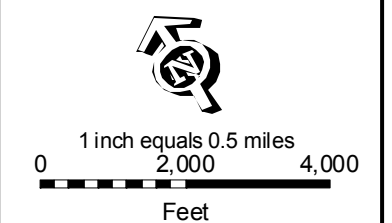


**Pillsbury-Fargo  
Generation Outlet**  
Preliminary Pole Location  
Figure 11d

Barnes and Cass Counties,  
North Dakota

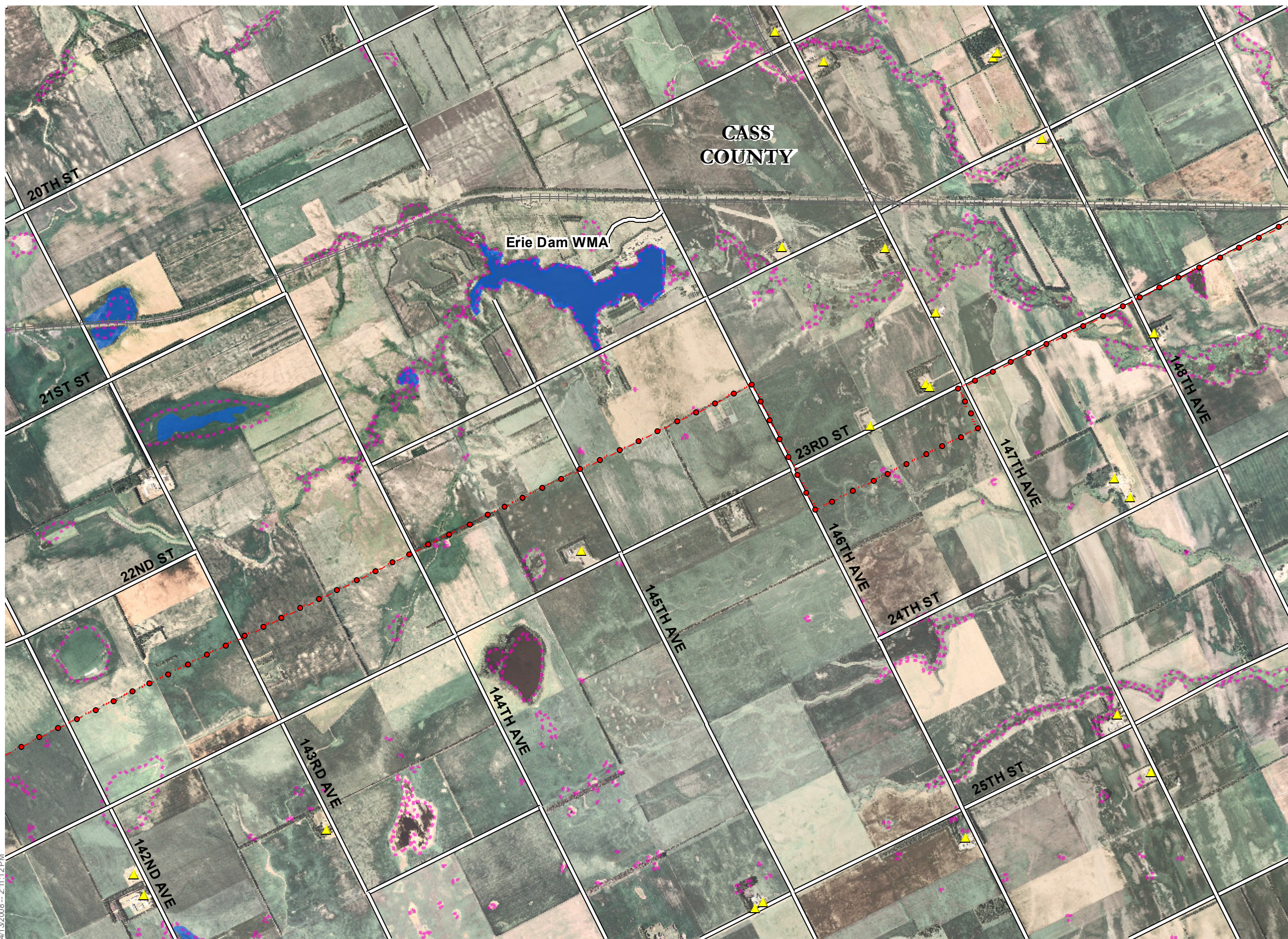


- Legend**
- Existing Substation
  - Proposed New Substation
  - Occupied House
  - Preliminary Pole Locations
  - Proposed Route
  - Railroad
  - Highway
  - County Line
  - Surface Water
  - NWI Wetlands



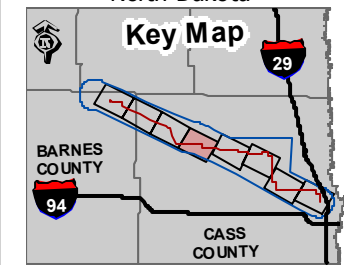
Prepared By:  
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











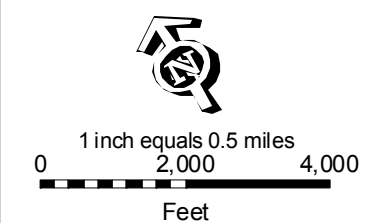
**Pillsbury-Fargo  
Generation Outlet**  
Preliminary Pole Location  
Figure 11e

Barnes and Cass Counties,  
North Dakota



**Legend**

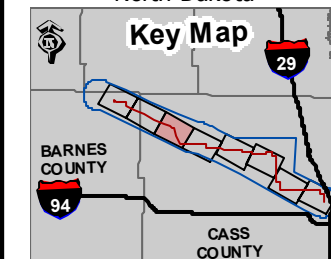
-  Existing Substation
-  Proposed New Substation
-  Occupied House
-  Preliminary Pole Locations
-  Proposed Route
-  Railroad
-  Highway
-  County Line
-  Surface Water
-  NWI Wetlands



Prepared By:  
**HDR**  
April 2008

**Pillsbury-Fargo  
 Generation Outlet**  
 Preliminary Pole Location  
 Figure 11f

Barnes and Cass Counties,  
 North Dakota



**Legend**

- Existing Substation
- Proposed New Substation
- ▲ Occupied House
- Preliminary Pole Locations
- Proposed Route
- Railroad
- Highway
- County Line
- Surface Water
- NWI Wetlands



1 inch equals 0.5 miles  
 0 2,000 4,000  
 Feet

Prepared By:



April 2008

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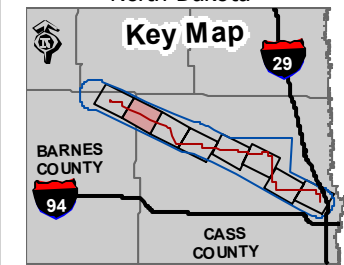


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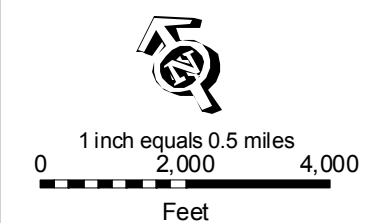


**Pillsbury-Fargo  
Generation Outlet**  
Preliminary Pole Location  
Figure 11g

Barnes and Cass Counties,  
North Dakota



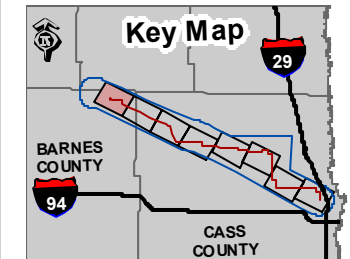
- Legend**
- Existing Substation
  - Proposed New Substation
  - Occupied House
  - Preliminary Pole Locations
  - Proposed Route
  - Railroad
  - Highway
  - County Line
  - Surface Water
  - NWI Wetlands



Prepared By:  
**HDR**  
April 2008

**Pillsbury-Fargo  
 Generation Outlet**  
 Preliminary Pole Location  
 Figure 11h

Barnes and Cass Counties,  
 North Dakota



**Legend**

- Existing Substation
- Proposed New Substation
- ▲ Occupied House
- Preliminary Pole Locations
- - - Proposed Route
- Railroad
- Highway
- County Line
- Surface Water
- NWI Wetlands

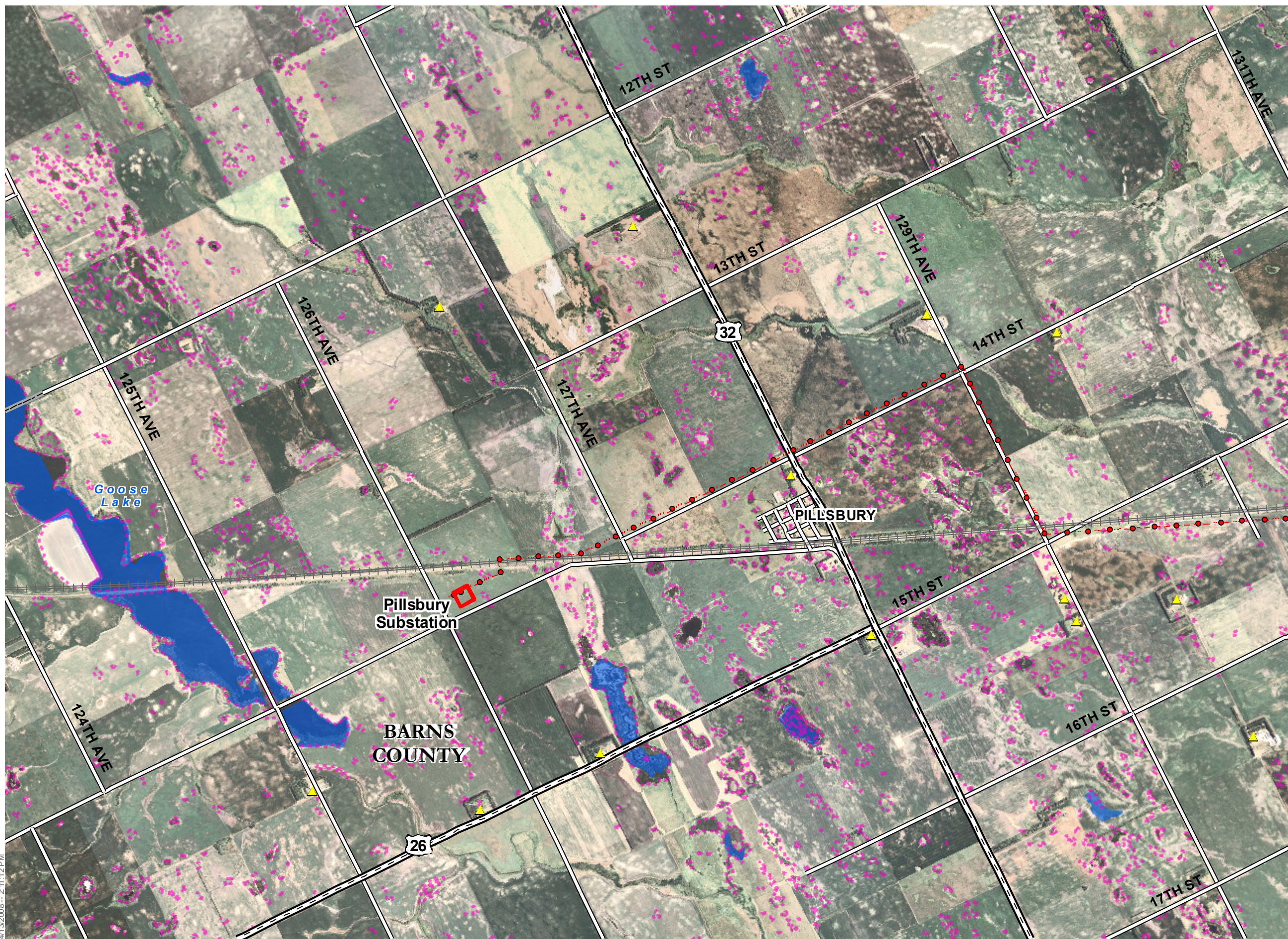


1 inch equals 0.5 miles  
 0 2,000 4,000  
 Feet

Prepared By:  
**HDR**

April 2008

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**APPENDIX A**

**PSC Criteria**

## A.1 CERTIFICATE OF CORRIDOR COMPATIBILITY

Table A-1 outlines the information required in the PSC Guidelines dated November 1979 for a Corridor Certificate. This table notes where there have been changes in the information resulting from the revised corridor and route.

**Table A-1  
Corridor Certificate Completion Checklist**

State Authority	Changed from Original Application	Description	Amendment Section Addressed
Chapter 49-22	No	PSC Guidelines: Energy Conversion and Transmission Facility Siting	
Section A		Description	
1.	No	Type: Describe the type of transmission facility addressed in this application. The description shall include the purpose of the facility and the technology to be employed	
2.	No	Product: Describe the type, source, and final destination of the product to be transmitted by the proposed facility.	
3.	No	Size and Design:	
a.	No	Provide a description of the size and design of the <u>ELECTRICAL</u> facility including, but not limited to, the following:	
1.	No	Width of right of way;	
2.	No	Estimated span lengths;	
3.	No	Anticipated type of structure;	
4.	Yes	Approximate length of facility	2.0; 6.0; Figures 1, 2
5.	No	Voltage; and	
6.	No	The requirement for a general location of any new associated facilities.	
b.	No	Provide a description of the size and design of the <u>PIPELINE</u> facility including, but not limited to, the following:	
4.	No	Time Schedule: Provide the anticipated time schedule for the accomplishment of the following events:	
a.	No	Certificate of Corridor Compatibility;	
b.	No	Route Application;	
c.	No	Route Permit;	
d.	No	Construction start date;	

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State Authority	Changed from Original Application	Description	Amendment Section Addressed
e.	No	Construction complete; and	
f.	No	In-service date.	
Section B		Studies	
	Yes	Provide a copy of any evaluative studies or assessments of the environmental impact of the proposed facility submitted to any federal, regional, state or local agency.	Studies completed: 1. Class I Cultural Resources Inventory (appendix C) 2. Minnkota will conduct a Class III cultural resources survey, and wetland delineation, prior to construction.
Section C		Need for Facility	
1.	No	An analysis of the need for the proposed facility based on present and projected demand for the product to be transmitted by the facility, including the most recent system studies supporting the analysis of the need.	
2.	No	A description of any feasible alternative methods of serving the need.	
3.	No	A statement justifying any deviations from the most recent Ten-Year Plan which the proposed facility may present.	
Section D		Location	
1.	Yes	Select a study area, which includes the proposed corridor, of sufficient width to enable the Commission to evaluate the factors addressed in Section 49-22-09, NDCC.	4.0; 5.0
2.	Yes	Identify and map the criteria that led to the proposed corridor location within the study area.	Figure 2; 4.0
3.	Yes	Discuss the relative value of each criteria and how the proposed corridor location was selected giving consideration to all criteria.	Figure 2; 4.0; 6.0
4.	Yes	The criteria to be evaluated shall include at a minimum all of the following which are within the study area:	4.0
a.	Yes	Exclusion areas;	4.0; Appendix B
b.	Yes	Avoidance areas;	4.0; Appendix B
c.	Yes	Selection criteria;	4.0; Appendix B
d.	Yes	Policy criteria;	4.0; Appendix B
e.	No	Design and construction limitations; and	

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State Authority	Changed from Original Application	Description	Amendment Section Addressed
f.	No	Economic considerations.	
5.	Yes	Discuss the general mitigation measures that will be taken to minimize adverse impacts that result from a route location in the proposed corridor.	7.1; 7.2; 7.3; 7.4; 7.5; 7.6; 7.7; 7.8; 7.9; 7.10; 7.11; 7.12; 7.13; 7.14; 7.15; 7.16
6.	No	List the qualifications of the people in the various disciplines that contributed to the corridor location study	
7.	Yes	Maps	Figures
a.	Yes	Map the criteria within the study area showing the proposed corridor. Several different criteria may be shown on each map, depending on the map scale and the density and nature of the criteria. Minimum map scale shall be ½ inch = 1 mile. All maps shall be at the same scale unless otherwise specified.	Figures
b.	Yes	Furnish one set of Mylar maps, separate from the application, of the same scale as the criteria maps and showing the same basic features as the criteria maps, including the study area, but not the proposed facility location.	Figures
Chapter 49-22-09	No	Factors to be considered in evaluating applications and designation of sites, corridors, and routes.	
1.	No	Available research and investigations relating to the effects of the location, construction, and operation of the proposed facility on public health and welfare, natural resources, and the environment.	
2.	No	The effects of new energy conversion and transmission technologies and systems designed to minimize adverse environmental effects.	
3.	No	The potential for beneficial uses of waste energy from a proposed energy conversion facility	
4.	No	Adverse direct and indirect environmental effects which cannot be avoided should the proposed site or route be designated.	
5.	No	Alternatives to the proposed site, corridor, or route which are developed during the hearing process and which minimize adverse effects.	

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State Authority	Changed from Original Application	Description	Amendment Section Addressed
6.	No	Irreversible and irretrievable commitments of natural resources should the proposed site, corridor, or route be designated.	
7.	No	The direct and indirect economic impacts of the proposed facility	
8.	No	Existing plans of the state, local government, and private entities for other developments at or in the vicinity of the proposed site, corridor, or route.	
9.	No	The effect of the proposed site or route on existing scenic areas, historic sites and structures, and paleontological or archaeological sites.	
10.	No	The effect of the proposed site or route on areas which are unique because of biological wealth or because they are habitats for rare and endangered species	
11.	Yes	Problems raised by federal agencies, other state agencies, and local entities	8.0; 9.0

**A.2 ROUTE PERMIT APPLICATION**

Table A-2 below outlines the information required in the PSC Guidelines dated November 1979 for a Route Permit. Information regarding easements for transmission lines per NDCC 49-22-08.1(f) is also included Appendix B of this amendment.

**Table A-2  
Route Permit Completion Checklist**

State Authority	Changed from the Original Application	Description	Amendment Section Addressed
Chapter 49-22	No	PSC Guidelines: Energy Conversion and Transmission Facility Siting	
Section A	Yes	Description	2.0; 6.1; figures 1,2
1.	No	Type: Describe the type of transmission facility proposed.	
2.	No	Product: Describe the product or products to be transmitted.	
3.	No	Size and Design: Provide a general description of the proposed size and design, and any alternate size or design, which was considered. Provide one (1) copy of the design data report, separate from the application, for the proposed facility and any associated facilities.	
4.	No	Time Schedule: Provide the anticipated time schedule for the accomplishment of major events including, at a minimum, the following:	
a.	No	Route Permit;	
b.	No	Right-of-way acquisition complete;	
c.	No	Construction start date;	
d.	No	Construction complete;	
e.	No	Test operations; and	
h.	No	In-service date.	
Section B		Studies	
	Yes	Provide a copy of any evaluative studies or assessments of the environmental impact of the proposed facility submitted to any federal, regional, state or local agency.	Studies completed: 1. Class I Cultural Resources Inventory (appendix C) 2. Minnkota will conduct a Class III

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State Authority	Changed from the Original Application	Description	Amendment Section Addressed
			cultural resources survey, and wetland delineation, prior to construction.
Section C		Need for Facility	
1.	No	An analysis of the need for the proposed facility based on present and projected demand for the product to be transmitted by the facility, including the most recent system studies supporting the analysis of the need.	
2.	No	A description of any feasible alternative methods of serving the need.	
3.	No	A statement justifying any deviations from the most recent Ten-Year Plan which the proposed facility may present.	
Section D	Yes	Location	2.0; 6.0; figure 1
1.	No	Discuss the utility's policies and commitments to limit the environmental impact of its facilities, including copies of board resolutions and management directives.	
2.	Yes	Discuss the factors listed in Section 49-22-09, NDCC to aid the Commission's evaluation of the proposed route.	8.0; 9.0
3.	Yes	Identify and map the criteria that led to the proposed route location within the designated corridor.	Figure 2, 4.0
4.	Yes	Discuss in detail the relative value of each criteria and how the location, construction, and operation of the facility will affect each criteria.	Figure 2; 4.0; 6.0
5.	Yes	The criteria to be evaluated shall include at a minimum all of the following which are within the designated corridor:	4.0
a.	Yes	Exclusion areas;	4.0; Appendix B
b.	Yes	Avoidance areas;	4.0; Appendix B

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State Authority	Changed from the Original Application	Description	Amendment Section Addressed
c.	Yes	Selection criteria;	4.0; Appendix B
d.	Yes	Policy criteria;	4.0; Appendix B
e.	No	Design and construction limitations; and	
f.	No	Economic considerations.	
6.	Yes	Discuss the mitigative measures that will be taken to minimize adverse impacts which result from the location, construction, and operation of the proposed facility.	7.1; 7.2; 7.3; 7.4; 7.5; 7.6; 7.7; 7.8; 7.9; 7.10; 7.11; 7.12; 7.13; 7.14; 7.15; 7.16
7.	No	List the qualifications of the people in the various disciplines that contributed to the facility route location study.	
8.	Yes	Maps	Figures
a.	Yes	Map the criteria within the designated corridor showing the proposed route and location of any new associated facilities. Several different criteria may be shown on each map, depending on the map scale and the density and nature of the criteria. Minimum map scale shall be ½ inch = 1 mile. All maps shall be at the same scale unless otherwise specified.	Figures
b.	Yes	Furnish one (1) set of Mylar maps, separate from the application, of the same scale as the criteria maps and showing the same basic features as the criteria maps, including the designated corridor, but not the proposed route or location of any new associated facilities.	Figures
c.	Yes	Furnish one (1) set of uncontrolled 9x9 inch stereo-pair aerial photographs, separate from the application, with acceptable resolution showing the designated corridor, proposed route and location of any new associated facilities, and Section, Township and Range numbers, at a scale of 1 inch = 2000 feet, together with a flight map at a scale of ½ inch = 1 mile showing each flight line and the beginning and ending photo number of each flight line. Photo mosaic strip maps will also be acceptable. If the applicant can demonstrate that because of the limited size and scope of the project, aerial photographs would not be practical,	Figures

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State Authority	Changed from the Original Application	Description	Amendment Section Addressed
		this requirement may be waived.	
Chapter 49-22-09	No	Factors to be considered in evaluating applications and designation of sites, corridors, and routes.	
1.	No	Available research and investigations relating to the effects of the location, construction, and operation of the proposed facility on public health and welfare, natural resources, and the environment.	
2.	No	The effects of new energy conversion and transmission technologies and systems designed to minimize adverse environmental effects.	
3.	No	The potential for beneficial uses of waste energy from a proposed energy conversion facility	
4.	No	Adverse direct and indirect environmental effects which cannot be avoided should the proposed site or route be designated.	
5.	No	Alternatives to the proposed site, corridor, or route which are developed during the hearing process and which minimize adverse effects.	
6.	No	Irreversible and irremediable commitments of natural resources should the proposed site, corridor, or route be designated.	
7.	No	The direct and indirect economic impacts of the proposed facility	
8.	No	Existing plans of the state, local government, and private entities for other developments at or in the vicinity of the proposed site, corridor, or route.	
9.	No	The effect of the proposed site or route on existing scenic areas, historic sites and structures, and paleontological or archaeological sites.	
10.	No	The effect of the proposed site or route on areas which are unique because of biological wealth or because they are habitats for rare and endangered species	
11.	Yes	Problems raised by federal agencies, other state agencies, and local entities	8.0; 9.0

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Generation Outlet Project**



**APPENDIX B**

**Avoidance and Exclusion Criteria**

## B.1 INTRODUCTION

The following tables provide updates to the exclusion areas, avoidance areas, selection criteria, and policy criteria tables that were in the original application. The updates reflect the revised corridor and where noted the reroute within the revised corridor. Unless noted, the table remains unchanged for the equivalent tables in the original application.

## B.2 EXCLUSION AREAS

Per Section 69-06-08-02-1, the following geographical areas (Table B-1) shall be excluded in the consideration of a route for a transmission facility, and shall include a buffer zone of reasonable width to protect the integrity of the area. Exclusion areas are mapped for the revised corridor and route in figures 2 and 3.

**Table B-1  
Exclusion Areas**

Geographic Area	Present within Project Vicinity?	Changed from the Original Application	Proposed Buffer		Amendment Section Addressed
			Revised Corridor	Revised Route	
Designated or registered national: parks; memorial parks; historic sites and landmarks; natural landmarks; monuments; and wilderness areas	None	No	None	None	7.2; 7.7; 7.8; 7.14
Designated or registered state: parks; historic sites; monuments; historical markers; archaeological sites; and nature preserves	None	No	None	None	7.7; 7.8
County parks and recreational areas; municipal parks; and parks owned or administered by other governmental subdivisions	Present (Bremer Lake Park within Erie Dam WMA)	No	No impacts are anticipated and no buffer is proposed.	None	7.8
Areas critical to the life stages of threatened or endangered species	None	No	No areas critical to threatened and endangered species have been identified in the corridor.	No areas critical to threatened and endangered species have been identified in the route.	7.16

Geographic Area	Present within Project Vicinity?	Changed from the Original Application	Proposed Buffer		Amendment Section Addressed
			Revised Corridor	Revised Route	
Areas where animal or plant species that are unique or rare to this state would be irreversibly damaged	Potentially Present	No	There are plant species of concern, animal species of concern, and one significant ecological community identified in the corridor. Habitat surveys for this community and wetland delineation will be completed prior to construction.	No plant species or animal species of concern have been identified along the reroute. The reroute may pass through potentially sensitive ecological wetland communities. Habitat surveys for this community and wetland delineation will be completed prior to construction.	7.16

### B.3 AVOIDANCE AREAS

Per Section 69-06-08-02-2, the following geographical areas (Table B-2) shall not be considered in the routing of a transmission facility unless the applicant shows that under the circumstances there is no reasonable alternative. In determining whether an avoidance area should be designated for a facility, the Commission may consider, among other things, proposed management of adverse impacts; orderly siting of facilities; system reliability and integrity; efficient use of resources; and alternative routes. Avoidance areas are mapped for the revised corridor and route in figures 2 and 3.

**Table B-2  
Avoidance Areas**

Avoidance Areas	Present within Project Vicinity?	Changed from Original Application?	Proposed Buffer		Amendment Section Addressed
			Corridor	Route	
Designated or registered national: historic districts; wildlife areas; wild, scenic or recreational rivers; wildlife refuges; and grasslands	Present (One WPA approximately 1.0 miles west of the route).	No	No buffer is proposed as no impacts are anticipated.	None	7.7; 7.8; 7.12; 7.15
Designated or registered state: wild, scenic, or recreational rivers; game refuges; game management areas; management areas; forests, forest management lands; and grasslands	Present (Erie Dam WMA approximately 0.5 miles north of the route)	No	No buffer is proposed as no impacts are anticipated	None	7.12; 7.14
Historical resources which are not specifically designated as exclusion or avoidance areas	None identified to date	No	No historical resources that were within the revised corridor were on record with the North Dakota State Historic Preservation Office (SHPO). In consultation with the SHPO, a professional archaeologist would establish buffer appropriate to resources discovered during the Class III Survey.	No historical resources that were along the reroute were on record with the SHPO. In consultation with the SHPO, a professional archaeologist would establish a buffer appropriate to resources discovered during the Class III Survey.	7.7
Areas that are geologically unstable	None	No	None	None	7.11

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Avoidance Areas	Present within Project Vicinity?	Changed from Original Application?	Proposed Buffer		Amendment Section Addressed
			Corridor	Route	
Within 500 feet of a residence, school, or place of business	Present (Two residences)	Yes	Two additional residences are within 500 ft of the reroute in the revised corridor. Minnkota is negotiating with these landowners for purchase of the property or to obtain waivers.	Two additional residences are within 500 ft of the reroute. Minnkota is negotiating with these landowners for purchase of the property or to obtain waivers.	7.2; 7.5; 7.9
Reservoirs and municipal water supplies	None	No	None	None	7.11
Water sources for organized rural water districts	None	No	None	None	7.11
Irrigated land. This criterion shall not apply to an underground transmission facility.	Present (There are several active irrigation permits in the corridor).	Yes (More irrigation permit data shown on figures. No additional impacts from the Project).	None. Otter Tail Power will generally avoid parcels of land with active irrigation. No buffers have been established and no conflicts are anticipated.	None. There are no irrigation permits along the reroute. The revised route does follow the RRWRD irrigation ditch. There will be no impacts to the irrigation ditch. No buffer has been established and no conflicts are anticipated.	7.9
Areas of recreational significance which are not designated as exclusion areas	Present (Multi-use trails and snowmobile trails)	Yes (one additional snowmobile trail within revised corridor and route)	None. Access to and use of these trails will not be impacted by the transmission line. No buffers have been established.	None. Structures will not be located within any trails and access to and use of these trails will not be impacted by the transmission line. No buffers have been established	7.8

**B.4 SELECTION CRITERIA**

Per Section 69-06-08-02-3, a corridor or route shall be designated only when it is demonstrated to the Commission by the applicant that any significant adverse effects resulting from the location, construction and maintenance of the facility, as they relate to the following, will be at an acceptable minimum or that those effects will be managed and maintained at an acceptable minimum (Table B-3). Figures 5 to 10 identify the selection criteria for the project as well as other related resources.

**Table B-3  
Selection Criteria**

Selection Criteria		Potential Adverse Effects		Amendment Section Addressed
The impact upon ...	Change from the original application	Corridor	Route	
Agricultural production	Yes	Facility structures proposed will permanently impact approximately 100 ft <sup>2</sup> of land each due to pole placement for mono-poles and 300 ft <sup>2</sup> for H-frame structures. Less than 0.1 percent of the yearly production of the top five commodities will be impacted for the corridor.	Approximately 1.5 acres of land will be permanently impacted due to facility structure placement along the route and approximately 3.0 acres of land will be permanently impacted by the new substation. Less than 0.1 percent of the yearly production of the top five commodities will be impacted.	7.9
Family farms and ranches	No	Land area lost to the construction of the transmission line structures will have a minimal adverse effect to family farms. No family farms will be displaced due to construction in the corridor.	Land area lost to the construction of the transmission line structures will have a minimal adverse effect to family farms. No family farms will be displaced due to construction of the route.	7.9
Land which the owner demonstrates has soil, topography, drainage, and an available water supply that cause the land to be economically suitable for irrigation	No	Where impacts are expected, no owner has expressed concerns related to economically suitable irrigation on their land.	Where impacts are expected, no owner has expressed concerns related to economically suitable irrigation on their land.	7.9
Surface drainage patterns and ground water flow patterns	No	No impacts to surface drainage patterns or groundwater flow patterns are anticipated.	No impacts to surface drainage patterns or groundwater flow patterns are anticipated.	7.11, 7.12
Noise sensitive land uses	Yes	The noise sensitive land uses within the revised corridor are the residences near the reroute. No impacts to noise sensitive land uses are anticipated.	Noise impacts are nominal. Two residences are within 500 feet of the reroute. Minnkota is negotiating with these landowners on purchase of the property or waivers.	7.5

**Pillsbury - Fargo  
Generation Outlet Project**



Selection Criteria		Potential Adverse Effects		Amendment Section Addressed
The impact upon ...	Change from the original application	Corridor	Route	
The visual effect on the adjacent area	No	The transmission line will be visible to landowners and residents who live near the line. Minnkota will minimize visual impacts to the extent practicable.	Visual impacts will be most evident to landowners and residents in close proximity to the route and drivers traveling along adjacent roadways. Minnkota will minimize impacts by utilizing the existing transmission line corridor and will line up the new route structures with the existing structures to the extent practicable. Structures will also avoid sensitive areas to the extent practicable.	7.6
Extractive and storage resources		No impacts are anticipated to extractive or storage resources.	No impacts are anticipated to extractive or storage resources.	7.11
Wetlands, woodlands, and wooded areas	Yes	<p>Wetland resources will be avoided to the extent practicable. Minnkota will utilize line designs to avoid and minimize impacts to wetlands in the corridor.</p> <p>Woodlands are primarily associated with homes in the form of windbreaks and at the river crossings.</p> <p>If impacts to wetlands and woodlands cannot be avoided, options to minimize impacts will be considered and mitigation will be proposed consistent with regulatory requirements.</p>	<p>An initial review of proposed route relative to National Wetland Inventory data and recent aerial photography indicates that wetlands can be spanned using the proposed transmission line design. Minnkota will delineate wetland boundaries as soon as possible in the spring, and plans to finalize pole placement and structure types needed to avoid wetlands at that time. In the event a wetland is delineated that is too large to span and is within USACE jurisdiction, Minnkota may seek a minor route variation to avoid the wetland, or will obtain coverage and mitigate impacts for pole placement within the wetland as authorized by the USACE and North Dakota Department of Health under Nationwide Permit 12.</p> <p>Approximately 5 acres of woodlands and windbreaks will be crossed by the right-of-way. Trees and shrubs will be replaced at a ratio of 2:1 as necessary and will be monitored for survival for five years.</p>	7.9, 7.13

**Pillsbury - Fargo  
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Selection Criteria		Potential Adverse Effects		Amendment Section Addressed
The impact upon ...	Change from the original application	Corridor	Route	
Radio and television reception and other communication or electronic control facilities	Yes (additional facilities within the revised corridor but no additional impacts)	No impact to radio and television reception or other communication or electronic control facilities is anticipated.	No impact to radio and television reception or other communication or electronic control facilities is anticipated due to the construction of the line in the proposed location.	7.3
Human health and safety	No	Mitigation measures will be implemented as discussed in the original application, and if maintenance schedules are met, no impacts to human health and safety are anticipated.	Mitigation measures will be implemented as discussed in the original application, and if maintenance schedules are met, no impacts to human health and safety are anticipated.	7.4
Animal health and safety	No	No impacts to livestock are anticipated from the operation of the transmission line. Raptors, waterfowl and other bird species may be affected by the construction and placement of the transmission lines. Avian collisions are a possibility after the completion of the transmission line. Waterfowl are typically more susceptible to transmission line collision, especially if the line is placed between agricultural fields that serve as feeding areas, or between wetlands and open water, which serve as resting areas. Generally, the most difficult part of the structure for the bird to see is the shield wire. Mitigation measures will minimize these impacts.	No impacts to livestock are anticipated from the operation of the transmission line Raptors, waterfowl and other bird species may be affected by the construction and placement of the transmission lines. Avian collisions are a possibility after the completion of the transmission line. Waterfowl are typically more susceptible to transmission line collision, especially if the line is placed between agricultural fields that serve as feeding areas, or between wetlands and open water, which serve as resting areas. Generally, the most difficult part of the structure for the bird to see is the shield wire. Mitigation measures, as outlined in the original application, will minimize these impacts.	7.9, 7.15

Selection Criteria		Potential Adverse Effects		Amendment Section Addressed
The impact upon ...	Change from the original application	Corridor	Route	
Plant life	Yes	The land is primarily agricultural in nature. Only the areas where the structures will be placed will permanently impact plant life. Other areas where temporary impacts may occur will be restored.	Approximately 1.5 acres of land will be permanently impacted from the transmission line structure placement for the route. Approximately 3.0 acres of land will be permanently impacted from placement of the new substation. The land is primarily agricultural in nature. Temporary impacts will be restored.	7.9, 7.14

## B.5 POLICY CRITERIA

Per Section 69-06-08-02-4, the Commission may give preference to an applicant that will maximize benefits that result from the adoption of the following policies and practices, and in a proper case may require the adoption of such policies and practices (**Error! Reference source not found.**). The policy criteria remain principally unchanged from the application except that Minnkota will utilize these criteria instead of the utilities, jointly.

**Table B-4  
Policy Criteria**

Policy Criteria	Change from the original application	Suitable Policy or Practice of Applicant	Amendment Section Addressed
Location and design	No	Minnkota policy is to locate and design the proposed generation outlet to minimize environmental impacts and utilize existing corridors.	NA
Training and utilization of available labor in this state for the general and specialized skills required	No	Minnkota will use local labor to the extent practicable.	7.1
Economies of construction and operation	No	Minnkota will utilize local contractors to the extent practicable.	7.1
Use of citizen coordinating committees	No	Minnkota will work with landowners of properties for the project in siting the transmission line.	8.0
A commitment of a portion of the transmitted product for use in this state	No	Energy transmitted by the project will be used by the Utilities for its North Dakota customers.	NA
Labor relations	No	No labor relations will be affected.	NA
The coordination of facilities	No	Minnkota is coordinating with landowners and wind developers to coordinate the location of the facilities to maximize benefits and minimize duplication of efforts.	8.0
Monitoring of impacts	No	Minnkota will monitor that Best Management Practices (BMPs) are utilized during construction to minimize environmental impacts and will monitor construction compliance with the commitments made in this amendment, the original application, and applicable permit conditions, including the PSC order. Minnkota will monitor tree and shrub replacement for five years, if needed.	7.10, 7.14, 7.15
Utilization of existing and proposed rights of way and corridors	No	One of the primary goals in locating the proposed route was to maximize use of existing transmission, pipeline, railroad, and roadway corridors. The reroute will use the RRWRD irrigation ditch for a portion of the reroute. The proposed 230-kV transmission line location is consistent with this policy and is the best location when considering the factors identified by the Commission, Minnkota policy and project purpose and need.	4.0; 6.0
Other existing or proposed transmission facilities	No	The corridor included existing transmission, pipeline and railroads and the proposed route parallels these facilities to the extent practical.	4.0; 6.0

Pillsbury - Fargo  
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**APPENDIX C**

**Class I Cultural Resource Inventory**

Note: May Contain Privileged and Confidential Information

Distribution Limited by Hard Copy Only

DO NOT RELEASE



March 17, 2008

Mr. Paul Picha  
State Historical Society of North Dakota  
North Dakota Heritage Center  
612 East Boulevard Avenue  
Bismarck, ND 58505-0830

Re: **NDSHPO: 08-0343 RUS/RDUP**  
PSC 230-kV Transmission Line, Pillsbury to Fargo Generation Outlet Project

Dear Mr. Picha:

On February 8, 2008, HDR Engineering, Inc. (HDR) contacted the North Dakota SHPO (SHPO) on behalf of Minnkota Power Cooperative, Inc (Minnkota) to request a review of potential project-related impacts on known or suspected cultural resources along a proposed 230-kV transmission line route in Cass and Barnes Counties, North Dakota. The NDSHPO responded with a letter dated February 11, 2008, recommending that Minnkota sponsor a Class I literature search generally not more than one-mile-wide centered on the proposed route (1/2 mile on each side of the centerline) to determine the nature of previous cultural resource investigations and the location of known cultural resources in the proposed project vicinity. Enclosed for your review and concurrence are the results of that Class I Literature Search and our recommendations regarding Class III survey requirements.

The initial project route (appendix A) initiated by Otter Tail Power has been revised by Minnkota. The revised Class I cultural resource inventory reflects the revised project route information. However, for consistency with professional standards all areas identified during archival research are reported on in the revised Class I cultural resource inventory (appendix C).

Township, range, and section locations reviewed for previous cultural resources and previous cultural resource investigations are: Barnes Co. 143N 57W 12, 13; 143N 56W 7-10, 14-18, 21-26 Cass Co. 143N 55W 19, 27-35; 142N 55W 1-3, 12; 142N 54W 5-8, 16-21, 25-29, 33-36; 142N 53W 19, 20, 25-36; 142N 52W 31-36; 142N 51W 31-36; 142N 50W 31; 141N 52W 1-6, 8-15; 141N 51W 1-6, 12, 13, 17-22, 24-29, 34-36; 141N 50W 6, 7, 18, 19, 30-32; 140N 51W 1-3, 10-15, 140N 50W 5-18; 140N 49W 7, 8, 16-18, 20, 21, 28, 29.

In total twelve previous cultural resource investigations and nineteen cultural resource sites were reviewed. The proposed transmission route has been found to follow a previously intensively surveyed Cenex Pipeline. Two cultural resource sites have been found near the route vicinity that are eligible for the National Register of Historic Places.

HDR recommends a Class III intensive cultural resources inventory, primarily pedestrian, for areas that have not received previous survey for construction of the transmission line.

Please contact me if you have any questions or need additional information to complete your review. You can contact me by phone at 763.278.5992 or by email at [stephen.sabatke@hdrinc.com](mailto:stephen.sabatke@hdrinc.com). Thank you for your attention to this matter.

Best Regards,  
HDR Engineering, Inc.

Stephen Sabatke  
Archaeologist

Enclosure: Class I Literature Search

cc w/o enclosure: Al Koeckeritz, HDR  
Mitchell Shields, HDR

**Manuscript Number:**

**SHPO Reference #: NDSHPO: 08-0343 RUS/RDUP**

**Author: Stephen Sabatke**

**Minnkota Power Cooperative, Inc: Gen-Tie Project: Class I Literature Search in  
Barnes and Cass Counties, North Dakota**

**April/16/2008**

**21 pages**

**Class I Literature Search**

<u>County</u>	<u>TWP</u>	<u>R</u>	<u>SEC</u>
Barnes	143N	57W	12, 13
	143N	56W	7-10, 14-18, 21-26
Cass	143N	55W	19, 27-35
	142N	55W	1-3, 12
	142N	54W	5-8, 16-21, 25-29, 33-36
	142N	53W	19, 20, 25-36
Revised	142N	52W	31-36
Revised	142N	51W	31-36
Revised	142N	50W	31
Revised	141N	52W	1-6, 8-15
Revised	141N	51W	1-6, 12, 13, 17-22, 24-29, 34-36
Revised	141N	50W	6, 7, 18, 19, 30-32
Revised	140N	51W	1-3, 10-15
	140N	50W	5-18
	140N	49W	7, 8, 16-18, 20, 21, 28, 29

**Minnkota Power Cooperative, Inc: Pillsbury-Fargo Generation Outlet  
Project  
Revised Class I Literature Search  
In Barnes and Cass Counties, North Dakota**

**For**

**Minnkota Power Cooperative, Inc  
Grand Forks, North Dakota**

**By**

**Stephen Sabatke, M.A.**

**HDR Engineering Inc  
701 Xenia Avenue South  
Suite 600  
Minneapolis, MN 55416**

**(763) 591-5400**

**Project No: 77817  
March 17, 2008**

## Pillsbury-Fargo Generation Outlet Cultural Resource Literature Review

This memorandum documents the cultural resources data collection (Class I Literature Search) for the proposed 230 kV transmission line from near Pillsbury, North Dakota to Maple River Substation in West Fargo North Dakota, also known as the Pillsbury-Fargo Generation Outlet project. In January of 2008, HDR Engineering, Inc. (HDR) began assisting Minnkota Power Cooperative, Inc (Minnkota) in preparing the application for the Certificate of Corridor Compatibility and Route Permit, planning and creating maps of the proposed route, and participating in open house meetings to gather public input on the transmission line. In January, February, and March of 2008 HDR reviewed information on file at the North Dakota State Historic Preservation Office (SHPO) to ensure that relevant cultural properties in the study area were considered during project planning. Cultural resource data, housed at the SHPO in Bismarck, North Dakota, consisted of cultural resource site files, cultural resource site leads, and previous professional cultural resource surveys and reports. In addition, HDR reviewed 19<sup>th</sup>-century Public Land Survey (PLS) maps to identify potential historic-period cultural features in the project area.

The initial project route (appendix A) initiated by Otter Tail Power has been revised by Minnkota. The revised Class I cultural resource inventory reflects the revised project route information. However, for consistency with professional standards all areas identified during archival research are reported on in the revised Class I cultural resource inventory (appendix C).

### Cultural Resource Reports and Sites

HDR reviewed existing cultural resources documentation for specific sections in the following townships for the study area (Table 1). These township sections are spread across Barnes and Cass counties in North Dakota. The project area is comprised of a linear route that travels in a general northwest to southeast direction.

Table 1. Study Area (Pillsbury-Fargo Generation Outlet project).

County	Township	Range	Section
Barnes	143N	57W	12, 13
	143N	56W	7-10, 14-18, 21-26
Cass	143N	55W	19, 27-35
	142N	55W	1-3, 12
	142N	54W	5-8, 16-21, 25-29, 33-36
	142N	53W	19, 20, 25-36
	142N	52W	31-36
	142N	51W	31-36
	142N	50W	31
	141N	52W	1-6, 8-15
	141N	51W	1-6, 12, 13, 17-22, 24-29, 34-36
	141N	50W	6, 7, 18, 19, 30-32
	140N	51W	1-3, 10-15

	140N	50W	5-18
	140N	49W	7, 8, 16-18, 20, 21, 28, 29

The archival report inventory documented fifteen previous cultural resource investigations in the study area and vicinity. These reports illustrate a wide variety of investigations in the study area, including those conducted in support of transmission line upgrade, petroleum and water pipeline, road construction and road upgrade, and historic church inventories. In summary, ten of the investigations coincided with portions of the study area. Five of the investigations were located in the vicinity of the study area.

Table 2. Previous Cultural Resource Investigations in the Study Area

Manuscript Number	Report Date	Manuscript Title	Author(s)/ Association	Comment
000222	December 1977	<i>Lower Sheyenne River Archaeological Survey</i>	Rain Vehik/ University of Wisconsin-La Crosse	General identification of numbers, types, and qualities of cultural resources along the lower Sheyenne River, IN
001738	May 1981	<i>Cultural Resource Inventory Report, HAS INC. Project #81-10</i>	Kent N. Good/ Historical & Archaeological Surveys, Inc.	Archival inventory of sites in response to the proposed Erie Dam Wildlife Management Area, no cultural resources identified, IN
004280	May 1997	<i>Field Reconnaissance Survey of Churches in Barnes, Ransom, Richland, Sargent and Steele Counties of North Dakota</i>	James R. Schimmer/ Prairie Research	Field survey of churches in 5 ND counties, NEAR
005443	December 1990	<i>Cenex Pipeline Company Fargo Extension Class III Cultural Resource Survey</i>	Kurt P. Schweigert/ Cultural Research Management	Field survey for a petroleum pipeline, IN
005945	October 1985	<i>Architectural and Photographic Survey of Churches in Eight Eastern North Dakota Counties</i>	Frank E. Vyzralek	Field survey of churches in 8 eastern ND counties, NEAR
006449	January 1995	<i>North Dakota Department of Transportation Safety Project Cultural Resource Review 1992-1994</i>	Jeani L. Borchert/ North Dakota Department of Transportation	Consideration of safety projects activities on cultural resources, NEAR
006565	January 1996	<i>Log Piles of Cass, McHenry, Ransom, and Walsh Counties North Dakota, Cultural Resources Inventory</i>	Cynthia Kordecki/ University of North Dakota	Pedestrian survey around identified log piles to determine mitigation techniques, NEAR
007216	June 1998	<i>Preliminary Cultural Resource Survey For Project 4814 City of</i>	Gabrielle Bourgerie and	A field reconnaissance survey for the

		<i>Fargo, Engineering Department, Cass County, North Dakota</i>	Elizabeth J. Able/ The 106 Group Ltd.	improvement to a road, IN
007223	July 1998	<i>Report 1 for the 1998 Field Season: Cultural Resource Inventories for the Cass Rural Water System, Cass County, North Dakota</i>	Sarah J. Rothwell/ LTA, Inc	Archival, field reconnaissance, and field survey for water pipeline, NEAR
008028	October 2001	<i>Cultural Resource Survey Western Area Power Administration Fiber Optic Cable Installation, Cass County, Fargo, North Dakota</i>	Daniel S. Hall/ Western Cultural, Inc.	Archival and field survey for transmission line upgrades, IN
008048	October 2001	<i>Rush River Bridge Replacement: A Class III Cultural Resource Inventory, Cass County, North Dakota</i>	John G. Morrison/ Metcalf Archaeological Consultants, Inc.	Field survey of road realignment, NEAR
008851	July 2004	<i>Cass Rural Water Users 2004 Class III Cultural Resources Survey, Cass County, North Dakota</i>	Michael A. Jackson/ Anthropology Research University of North Dakota	Field survey for expansion of water line, no cultural resources identified, NEAR
009393	September 2005	<i>State Highway 38 From Buffalo to Page: A Class III Cultural Resource Inventory In Cass County, North Dakota</i>	Amy Bleier/ Metcalf Archaeological Consultants, Inc.	NDDOT road resurfacing, IN
010128	April 2005	<i>Historic Bridges in North Dakota</i>	Mark Hufstetter and Jennie Goff/ Renewable Technologies, Inc.	NDDOT field reconnaissance and field survey to create and inventory of bridges throughout the state, IN
010185	August 2007	<i>Cass Rural Water Contract 2007-1 (effluent line): Class I and Class III Cultural Resource Inventory. In Cass County, North Dakota</i>	Jeff Kinney & Associates	Field survey for an effluent line, IN

Previous documentations in the study area documented 15 cultural resource sites and ten cultural resource site leads. All the cultural resource sites or cultural resource leads are within or in the vicinity of the study area.

Table 3. Previously Identified Cultural Resources located in the Study Area

Site Number	Site Type	Comment
32BA202	Church	Baldwin Presbyterian Church
32BAX181	Post Office	Ellsbury Post Office
32BAX182	Halfway House	Halfway House
32BAX184		
32CS116	Church	Maple Sheyenne Lutheran Church
32CS121	Church	Herby Lutheran Church
32CS4444	Farm	Abandoned Farmstead

32CS4445	Farm	Grain storage bins and sparse historic scatter
32CS4446	Farm Dump	Farm dump/scatter
32CS4447	Railroad Siding	Apparent remains of the Walden town site and Walden Siding
32CS4448	Homestead	Historic scatter
32CS4449	Farm	Abandoned Farmstead
32CS4451	Farm	Abandoned Farmstead
32CS4453	Farm	Sparse historic scatter
32CS4675	Commerce-Grain Elevator	Historic scatter
32CS4956	Bridge	Rural bridge over a branch of the Rush River
32CS4964	Bridge	Rural bridge over the Sheyenne River
32CS4965	Bridge	Rural bridge over the Sheyenne River
32CS4967	Bridge	Rural bridge over an intermittent stream
32CSX96	Town Site	Prosper Great Northern
32CSX140	Junction	Vance Great Northern Junction
32CSX147	Post Office	Oatland and Mason Post Office
32CSX164	Loading Station	Dartmoor Great Northern Loading Station
32CSX176	Loading Station	Walden Great Northern Loading Station
32CSX197	Station/Post Office	Oatland Great Northern Station and Post Office
32CSX203	Remains	Skeletal Remains

The following paragraph, organized by report number, describes the nature of these investigations and identified cultural resources. All sites with an alpha-numeric site number (00ABX0000) are considered unevaluated by the SHPO and recommended for no further work. Alpha-numeric sites are identified by two definitions. One definition states that a cultural resource reported by a landowner or other non-professional as containing cultural resources is not acceptable as a positive identification of a cultural resource. The second definition states that a location where four or fewer artifacts are identified and the possibility exists for further buried artifacts in the immediate vicinity, the site should be considered for further investigation. However, if the site is identified as having four or fewer artifacts and through further investigation it is determined to only contain those few artifacts, the site will be referred to as an “Isolated Find” and also receive an alpha-numeric number.

The initial project route (appendix A) identified 15 previous investigations, 15 cultural resource sites, and ten cultural resource site leads. The revised project route identified 12 previous investigations, 13 cultural resource sites, and six cultural resource site leads. The revised Class I cultural resource inventory reflects the revised project route information. However, for consistency with professional standards all areas identified during archival research are reported on in the revised Class I cultural resource inventory (appendix C). In order to differentiate between sites and surveys within the initial project route and sites and surveys within the revised project route information has been added to each description describing its location in or out of the revised project route.

*#10185 Cass Rural Water Contract 2007-1(effluent line): Class I and Class III Cultural Resource Inventory. In Cass County, North Dakota.*

Kinney (2007) documented a literature search and an intensive cultural resource inventory for a rural effluent line. The 2007 surveys included portions of the study area, namely in sections 16-18, 21, and 28 of township 140N range 49W, as well as other liner segments in neighboring townships. No cultural resources sites were observed within the inventory area (Kinney 2007). The survey is located within the revised project route.

*#10128 Historic Bridges in North Dakota 2004 Revision*

Goff and Hufstetler (2005) inventoried bridges throughout the state of North Dakota. The 2004 survey inspected sections 7, 16-18 of township 140N range 49W and section 36 township 142N range 53W of the study area, as well as other locations out side the study area. Four bridges (32CS4956, 32CS4964, 32CS4965, 32CS4967) recorded in 2004 are located in the study area. The survey is located within the revised project route.

32CS4956 is a bridge located on the section line between township 142N range 53W section 36 and township 141N range 53W section 1. The bridge is single-span steel stringer beam bridge, 31 feet long and 24 feet wide. The bridge has been determined by NDDOT to be National Register of Historic Places (NRHP) eligible based on its high level of integrity, reflection of both historical and technological construction of a mid-twentieth century county bridge in North Dakota, and its innovative design of its concrete piers. The site is not located within the revised project route.

32CS4964 is a bridge located on the section line between township 140N range 49W sections 7 and 18. The bridge is a four-span timber stringer beam bridge, 156 feet long and 24 feet wide. The bridge has been determined by NDDOT to be NRHP eligible based on its high level of integrity, reflection of both historical and technological construction of a mid-twentieth century county bridge in North Dakota, and because it is a relatively large example of its type. The site is located within the revised project route.

32CS4965 is a bridge located near the section line between township 140N range 49W sections 18 and 19. The bridge is a four-span steel stringer beam bridge, 299 feet long and 26.6 feet wide. The bridge is unevaluated and has a SHPO preservation recommendation for no nomination potential. The site is not located within the revised project route.

32CS4967 is a bridge located on the section line between township 104N range 49W sections 16 and 17. The bridge is a single-span steel stringer beam bridge, 42 feet long and 24 feet wide. The bridge is unevaluated and has a SHPO preservation recommendation for no nomination potential. The site is located within the revised project route.

*#9393 State Highway 38 from Buffalo to Page: A Class III Cultural Resource Inventory in Cass County, North Dakota*

Bleier (2005) surveyed a corridor along North Dakota State Highway 38 from Interstate 94 to Page. The 2005 survey included sections 6,7, and 18 of township 142N range 54W and sections 1 and 12 of township 142N range 55W of the study area. Other sections from other townships and ranges were also surveyed. No cultural resources were observed in the survey area (Bleier 2005). The survey is located within the revised project route.

*#8851 Cass Rural Water Users 2004 Class III Cultural Resource Survey, Cass County, North Dakota*

Jackson (2004) surveyed three segments for a water line expansion. The 2004 survey examined two sections that are near the study area. The sections are township 141N range 51W section 33 and township 140N range 50W section 6. No cultural resources were identified during the survey (Jackson 2004). The survey is not located within the revised project route.

*#8048 Rush River Bridge Replacement: A Class III Cultural Resource Inventory, Cass County, North Dakota*

Morrison (2001) surveyed a road realignment corridor. The 2001 survey included section 34 of township 141N range 50W of the study area and three other sections located outside of the study area. Two non-NRHP eligible bridges were located during the survey. The bridges are located outside of the study area. No other cultural resources were identified during the survey. The survey is not located within the revised project route.

*#8028 Cultural Resource Survey Western Area Power Administration Fiber Optic Cable Installation Cass County, Fargo, North Dakota*

Hall (2001) conducted a literature search and intensive cultural resource inventory for a replacement of overhead ground wires with optical fiber cable towers. Sections sharing investigations with the study area are; township 140N range 49W section 28 and township T140N range 50W section 12. No cultural resources were located during this investigation. The survey is located within the revised project route.

*#7223 Report 1 for the 1998 Field Season: Cultural Resource Inventories for the Cass Rural Water System, Cass County, North Dakota*

Rothwell (1998) conducted a literature search, reconnaissance inventory, and an intensive cultural resources inventory for a water pipeline. Sections sharing investigations with the study area are: township 140N range 49W sections 17 and 28, township 140N range 50W sections 15 and 17, and township 140N range 51W section 1. Twenty four cultural resources were identified during the 1998 project. One cultural resource (32CS4675) was located within the study area. The survey is located within the revised project route.

32CS4675 is an extensive scatter of historic artifacts in a cultivated field. Site integrity is very poor. The site is located in section 17 of township 140N range 50W. The SHPO recommends the site as having no nomination potential. The site is located within the revised project route.

*#7216 Preliminary Cultural Resource Survey (Class II Reconnaissance Inventory) For Project 4814 City of Fargo, Engineering Department Cass County, North Dakota*

Abel and Bourgerie (1998) completed a literature search and a reconnaissance inventory for a widening of 19<sup>th</sup> Avenue NW and 45<sup>th</sup> Street NW in Fargo, North Dakota. The section sharing investigation with the study area is section 28 of township 140N range 49W. Three other sections located outside the study area were also surveyed for cultural resources. No cultural resources were located during this survey. The survey is located within the revised project route.

*#6565 Log Piles of Cass, McHenry, Ransom, and Walsh Counties North Dakota, Cultural Resources Inventory*

Kordecki (1996) conducted intensive cultural resource inventories of 101 log pile locations in four North Dakota counties. The section sharing investigation with the study area is section 7 of township 140N range 49W. Twenty two cultural resources were located during this survey. All twenty two cultural resources are located outside of the study area. The survey is located within the revised project route.

*#6449 North Dakota Department of Transportation Safety Project Cultural Resource Review 1992-1994*

Borchert (1995) completed a summary report of 119 safety projects completed by NDDOT from 1992-1994. This summary report included documentation of literature searches, reconnaissance inventories, and intensive cultural resource inventories. The section sharing investigation with the study area is section 12 of township 141N range 52W. Sixty seven cultural resources were identified during the 1995 investigations. One of the cultural resources (32CSX203) is located near or in the study area. The survey is located within the revised project route.

32CSX203 is a site that contains human remains and is suggested to be a grave. The cultural affiliation of this site is unknown. The site retains an alpha-numeric site designation because the SHPO determined that the site was not identified by a professional. Part of the discrepancy for the site is derived from fact that the site has two different coordinates used to describe its location. One set of coordinates places it in the study area and the other set of coordinates places it just outside the study area. The site is unevaluated and has a SHPO recommendation of an area of concern. The site is not located within the revised project route.

*#5945 Report of an Architectural and Photographic Survey of Churches in Eight Eastern North Dakota Counties*

Vyrlek (1985) recorded, through documentation and photographs, all the churches in eight eastern North Dakota counties to create an inventory of these structures within those counties. The section sharing investigation with the study area is section 13 of township 140N range 50W and section 18 of township 141N range 50W. Over all 481 churches were documented by Vyrlek in 1985. Two of the churches (32CS0116 and 32CS0121) are located near the study area. The survey is located within the revised project route.

32CS0116 is a church located near the southern edge of section 13 township 140N range 50W. The church was constructed in 1913. The church has a SHPO recommendation of not NRHP eligible. The site is not located within the revised project route.

32CS0121 is a church located in the southwest section of 18 township 141N range 50W. The church was constructed in 1949. The church has a SHPO recommendation of not NRHP eligible. The site is not located within the revised project route.

#### *#5443 Cenex Pipeline Company Fargo Extension Class III Cultural Resource Survey*

Schweigert (1990) conducted an intensive cultural resources inventory for a petroleum pipeline from Minot, North Dakota to West Fargo, North Dakota. The sections sharing investigation with the study area are; sections 18, 22-25 of township 143N range 56W, sections 28-30, 32-35 of township 143N range 55W, sections 1-2 of township 142N range 55W, sections 6-8, 17, 20, 21, portion of section 28 of township 142N range 54W, sections 34-36 of township 142N range 53W, section 31 of township 142N range 52W, sections 4-6, 9-11, 13-14 of township 141N range 52W, sections 18-21, 28-26, 35-36 of township 141N range 51W, and portions of sections 9-10 of township 140N range 50W. Eighty seven cultural resources were located during the 1990 survey. Twelve cultural resource sites (32CSX140, 32CSX147, 32CSX176, 32CSX197, 32CS4444, 32CS4445, 32CS4446, 32CS 4447, 32CS4448, 32CS4449, 32CS4451, and 32CS4453) identified in 1990 are located within the study area. One additional site (32CSX0096) is located outside of the study area, but is included in the 1990 Cenex Pipeline survey. The survey is located within the revised project route.

32CSX140 is a SHPO alpha-numeric site of the Vance Great Northern junction. The site is suggested to be located in section 11 of township 141N range 52W. The site is not located within the revised project route.

32CSX147 represents two SHPO alpha-numeric sites of the Oatland Great Northern and Mason Great North Post Offices. The sites are suggested to be located in section 36 for township 142N range 53W. The site is not located within the revised project route.

32CSX176 is a SHPO alpha-numeric site of the Walden Great Northern Loading Station. The site is suggested to be located in section 30 of township 143N range 55W. The site is located within the revised project route.

32CSX197 is a SHPO alpha-numeric site of the Oatland Great Northern Railroad Station and Post Office. The site is suggested to be located in section 36 of township 142N range 53W. The site is located within the revised project route.

32CS4444 is an abandoned farmstead containing four standing outbuilding structures. The site is located in section 31 of township 141N range 50W. The dwelling has been removed from the site. The four standing structures are not considered to have any architectural distinction. The SHPO recommends the site as having no nomination potential. The site is located within the revised project route.

32CS4445 is a site consisting of two standing grain storage bins. The site is located in section 30 township 142N range 53W. The SHPO recommends the site as having no nomination potential. The site is located within the revised project route.

32CS4446 is a site consisting of a sparse to moderate historic artifact scatter. The site is suggested as being a dump. The site is located in section 30 of township 143N range 55W. The SHPO recommends the site as having no nomination potential. The site is located within the revised project route.

32CS4447 is a site consisting of a low mound of bulldozed earth. The mound contains large fragments of poured concrete. The site may be the location of the Walden Siding and a Great Northern Railroad station. The site is located in section 30 of township 143N range 55W. The SHPO recommends the site as having no nomination potential. The site is located within the revised project route.

32CS4448 is a site consisting of a moderate historic cultural material scatter. The site is suggested to be an abandoned farmstead. No standing structures remain at the site. The site is located in section 21 of township 142N range 54W. The SHPO recommends the site as having no nomination potential. The site is located within the revised project route.

32CS4449 is an abandoned farmstead consisting of standing structure, a cistern, a depression, and a small dump. None of the features located at this site retain any degree of integrity. The site is located in section 35 of township 141N range 51W. The SHPO recommends the site as having no nomination potential. The site is not located within the revised project route.

32CS4451 is an abandoned farmstead consisting of ten standing outbuilding structures and two features. The dwelling has been removed from the site and the remnants buried. None of the remaining structures exhibit significant physical characteristics. The site is located in section 21 of township 141N range 51W. The SHPO recommends the site as having no nomination potential. The site is not located within the revised project route.

32CS4453 consists of a very sparse historic cultural material scatter. The site is suggested to be an abandoned farmstead. No standing structures remain at the site. The site is located in section 36 of township 142N range 53W. The SHPO recommends the site as having no nomination potential. The site is located within the revised project route.

32CSX0096 is a SHPO alpha-numeric site of the Prosper Great Northern town site. The site is suggested to be located in section 8 of township 140N range 50W. The site is not located within the revised project route.

*#4280 Field Reconnaissance Survey of Churches in Barnes, Ransom, Richland, Sargent and Steele Counties of North Dakota*

Schimmer (1987) conducted a reconnaissance inventory of churches in five North Dakota counties. The section sharing investigation with the study area is section 17 of township 143N range 56W. During the 1987 survey of the five counties 163 churches were documented. One of the churches (32BA202) is located in the study area. The survey is located within the revised project route.

32BA202 is a church located near the northeast corner of section 17 township 143N range 56W. The church was constructed in 1905. The church has a SHPO recommendation of not significant. The site is located within the revised project route.

*#1738 Cultural Resource Inventory Report, HAS Inc. Project #81-10*

Good (1981) conducted a literature search and an intensive cultural resource inventory for seven small areas as dams and ponds as part of the Erie Dam Wildlife Management Area in Cass County. The sections sharing investigation with the study area are; sections 19, 29, and 30 of township 142N range 53W. No cultural resource sites were found during this survey. The survey is located within the revised project route.

*#222 Lower Sheyenne River Archaeological Survey*

Vehik (1977) conducted a literature review, informant interviews, and an intensive cultural resource inventory to determine the general manner, the number, types, and qualities of cultural resources in the lower Sheyenne River. The sections sharing investigation with the study area are; sections 7, 8, 17, 18 of township 140N range 49W. Sixty one sites were recorder during the 1977 survey. None of the sites are located within the study area. The survey is located within the revised project route.

Four additional alpha-numeric sites are identified in or near the study area, but are not attached to any report. The sites are 32BAX0181, 32BAX0182, 32BAX0184 and 32CSX0164.

32BAX0181 is a SHPO alpha-numeric site of a halfway house. The site is suggested to be located in section 21 of township 143N range 56W. The site is not located within the revised project route.

32BAX0182 is a SHPO alpha-numeric site of the Ellsbury Post Office. The site is suggested to be located in section 21 of township 143N range 56W. The site is located within the revised project route.

32BAX0184 is a SHPO alpha-numeric site of the Algeo Post Office. The site is suggested to be located in either section 4 of township 143N range 57W or section 12 township 143N range 57W. The site is not located within the revised project route.

32CSX0164 is a SHPO alpha-numeric site of the Dartmoor Great Northern Loading Station. The site is suggested to be located in section 34 of township 142N range 54W. The site is not located within the revised project route.

**Public Land Survey Map Review**

HDR reviewed Public Land Survey (PLS) maps for the study area (Table 4). The maps illustrate environmental conditions, including elevation variation across the landscape and watercourses, during the 1870’s. None of the maps show cultural features or locations of historic land use.

Table 4. Public Land Survey Data

Township	Range	Public Land Survey Publish Date	Cultural Feature/Locations
140N	49W	1871	None
140N	50W	1871	None
140N	51W	1872	None
141N	50W	1872	None
141N	51W	1872	None
141N	52W	1874	None
142N	50W	1872	None
142N	51W	1873	None
142N	52W	1874	None
142N	53W	1875	None
142N	54W	1876	None
142N	55W	1876	None
143N	55W	1876	None
143N	56W	1876	None
143N	57W	1878	None

**SHPO Correspondence**

In February 2008 Minnkota contacted the North Dakota SHPO (ND SHPO) to request a review of potential project-related impacts on known or suspected cultural resources along the proposed 230-kV transmission line route (appendix D). The ND SHPO responded with a letter (SHPO: 08-0343 RUS/RDUP) (appendix D) in February 2008 recommending that Minnkota sponsor an archival records search generally not more than one-mile-wide centered on the proposed route (1/2 mile on each side of the centerline) to determine the nature of previous cultural resource investigations and the location of known cultural resources in the proposed project vicinity. The ND SHPO also stated that there is a potential for unrecorded cultural properties to exist in the project area.

Therefore, the ND SHPO suggested that a field survey, primarily pedestrian, take place in the proposed project area.

### **Tribal Correspondence**

During a meeting with SHPO on February 13, 2008 SHPO confirmed that tribal consultations would not be needed since the project lacks need for compliance with federal cultural resource requirements. However, SHPO recommended that Minnkota submit a notification in good faith to the Indian Affairs Office in Bismarck, North Dakota, as part of other federal, state and local project notifications.

### **Implications for Archaeological Resources**

After review of the recorded cultural resource information, the information in previous survey reports, and communication with SHPO, HDR believes that the project area has potential to yield additional cultural resources. Stream crossing, high landforms, and areas of previous significant land use have the potential to contain cultural resources. The construction of transmission line features will determine the potential impacts to cultural resources. Minnkota in consultation with HDR will consider impacts to identified potential NRHP eligible cultural resources to the extent practical. Constructing the line when possible to avoid or span sensitive identified cultural resources in the area.

Two of the sites have been identified as potential NRHP eligible cultural resources as historic bridges. These bridges are currently open to public use, and will not be affected by the proposed transmission line facilities. The bridges are likely to be used by construction personnel and for equipment and material deliveries to the project site, but do not appear to need further consideration provided weight restrictions are not exceeded.

### **Conclusions**

HDR recommends a Class III intensive cultural resources inventory for areas that have not received previous survey for construction of the transmission line. These investigations must be conducted by a professional archeologist permitted by the State of North Dakota per NDCC 55-03-01. The nature of the cultural resource inventory would depend on surface exposure and the characteristics of the landform for development. For the survey, HDR archaeologists will design a survey methodology to document the areas proposed for ground disturbance, identify existing archaeological resources within those areas, and offer recommendations for archaeological avoidance and impact minimization.

**Pillsbury - Fargo  
Generation Outlet Project**



**APPENDIX D**

**Survey Permissions and Waivers**

WAIVER

I have been advised of and understand my right to decline to waive the five hundred foot avoidance area criteria for an inhabited rural residence. I have also been advised to contact my attorney or the staff of the North Dakota Public Service Commission if I have questions about this waiver. It is my voluntary decision this 12th day of April, 2008 to waive the five hundred foot avoidance area criteria for an inhabited rural residence located in the part of the Northeast Quarter of the Northeast Quarter (NE 1/4 NE 1/4) of Section 23, Township 141, Range 51, Cass County, North Dakota.

If occupied homeowners, **Mark Reisenauer**, choose to relocate within two years of signing the Waiver under North Dakota Law (ND Century Code 49-22-05.1 and ND Administrative Code 69-06-08-02) and being in the limits of the 500-foot avoidance area, Minnkota Power Cooperative agrees to purchase property at appraised value (obtained by two independent appraisers) minus the cost of waiver.

[Signature]

[Signature]

Mark Reisenauer

STATE OF \_\_\_\_\_ )  
 )SS  
COUNTY OF \_\_\_\_\_ )

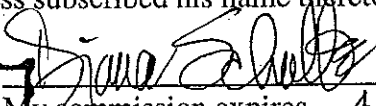
On this \_\_\_\_\_ day of \_\_\_\_\_, 2008, before me a Notary Public, personally appeared **Mark Reisenauer, a single person**, known to me to be the person described in and who executed the foregoing instrument and acknowledged to me that he executed the same as his free act and deed.

(SEAL)

Notary Public \_\_\_\_\_  
County of \_\_\_\_\_ State of \_\_\_\_\_  
My Commission Expires \_\_\_\_\_

STATE OF ND )  
 )SS  
COUNTY OF CASS )

This 14<sup>th</sup> day of April, 2008, appeared before me CURT BECKLER  
to me personally known to be the person whose name is subscribed to this instrument as a  
subscribing witness, and acknowledged to me that he subscribed as such, who being first duly  
sworn, says that **Mark Reisenauer, a single person**, whose name(s) is/are subscribed to the  
instrument as party(ies) of the first part is/are the person(s) described in it, that such person(s)  
executed it in his presence and that the witness subscribed his name thereto as a witness.

 Notary Public  
My commission expires 4.17.2012

**DIANA SCHULTZ**  
Notary Public  
State of North Dakota  
My Commission Expires April 17, 2012

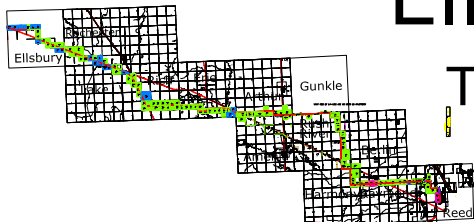


# Ellsbury

## Ellsbury Township

T-143-N

R-56-W



### Legend

	Need Permission
	Permission to Survey
	Option to purchase easement
	Easement agreement
	Damage settlements

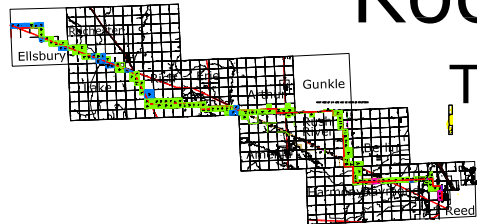
See Rochester



# Rochester

See Ellsbury

See Lake



## Rochester Township

T-143-N

R-55-W

### Legend

	Need Permission
	Permission to Survey
	Option to purchase easement
	Easement agreement
	Damage settlements

See Rochester

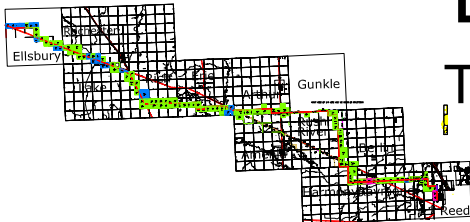
See Rich







# Lake Township

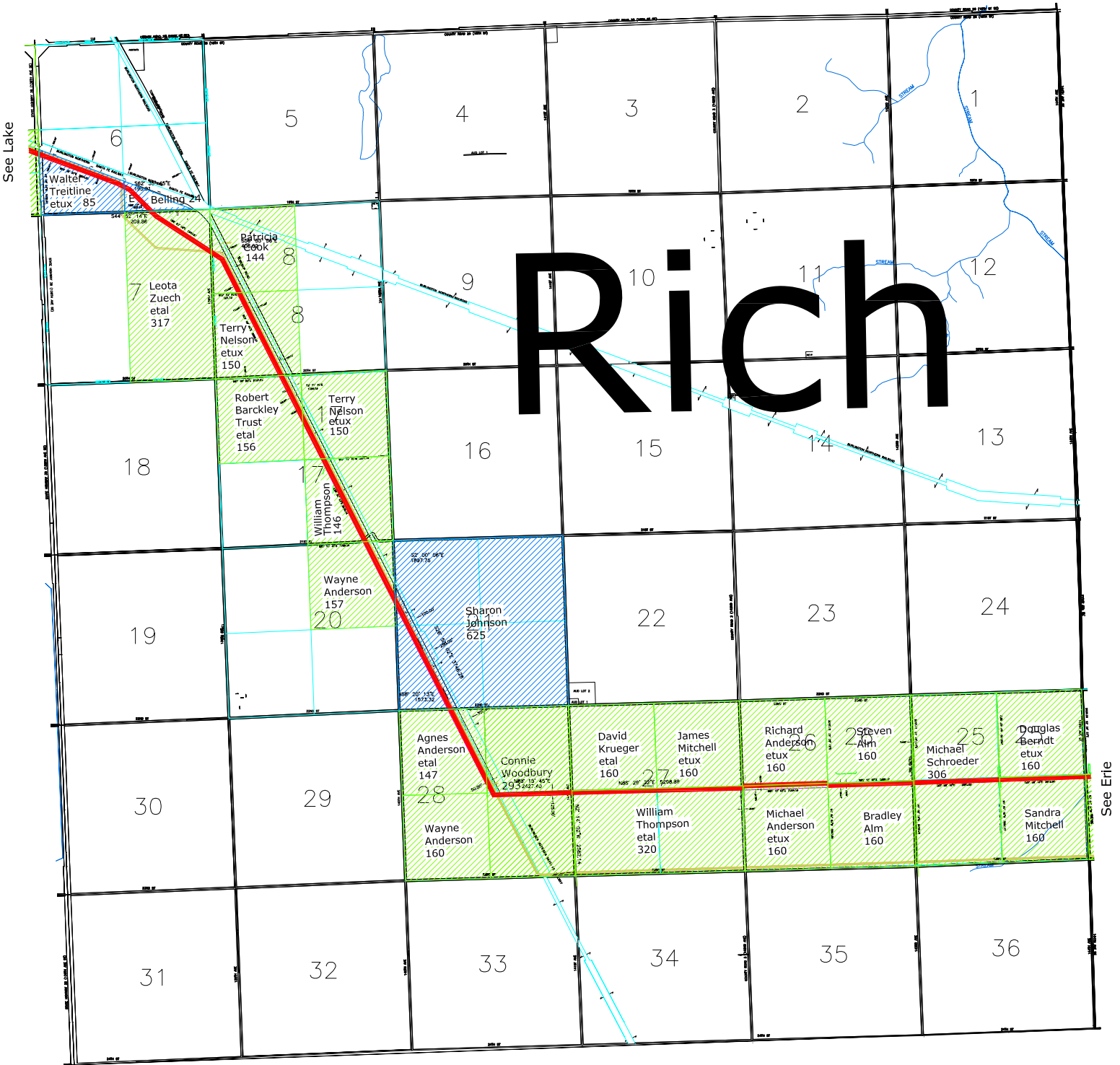
T-142-N

R-55-W



## Legend

	Need Permission
	Permission to Survey
	Option to purchase easement
	Easement agreement
	Damage settlements

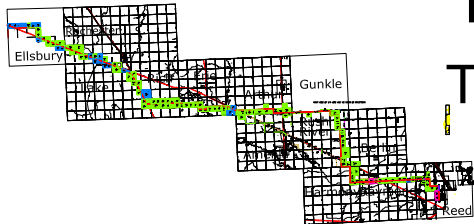


# Rich




## Rich Township

T-142-N

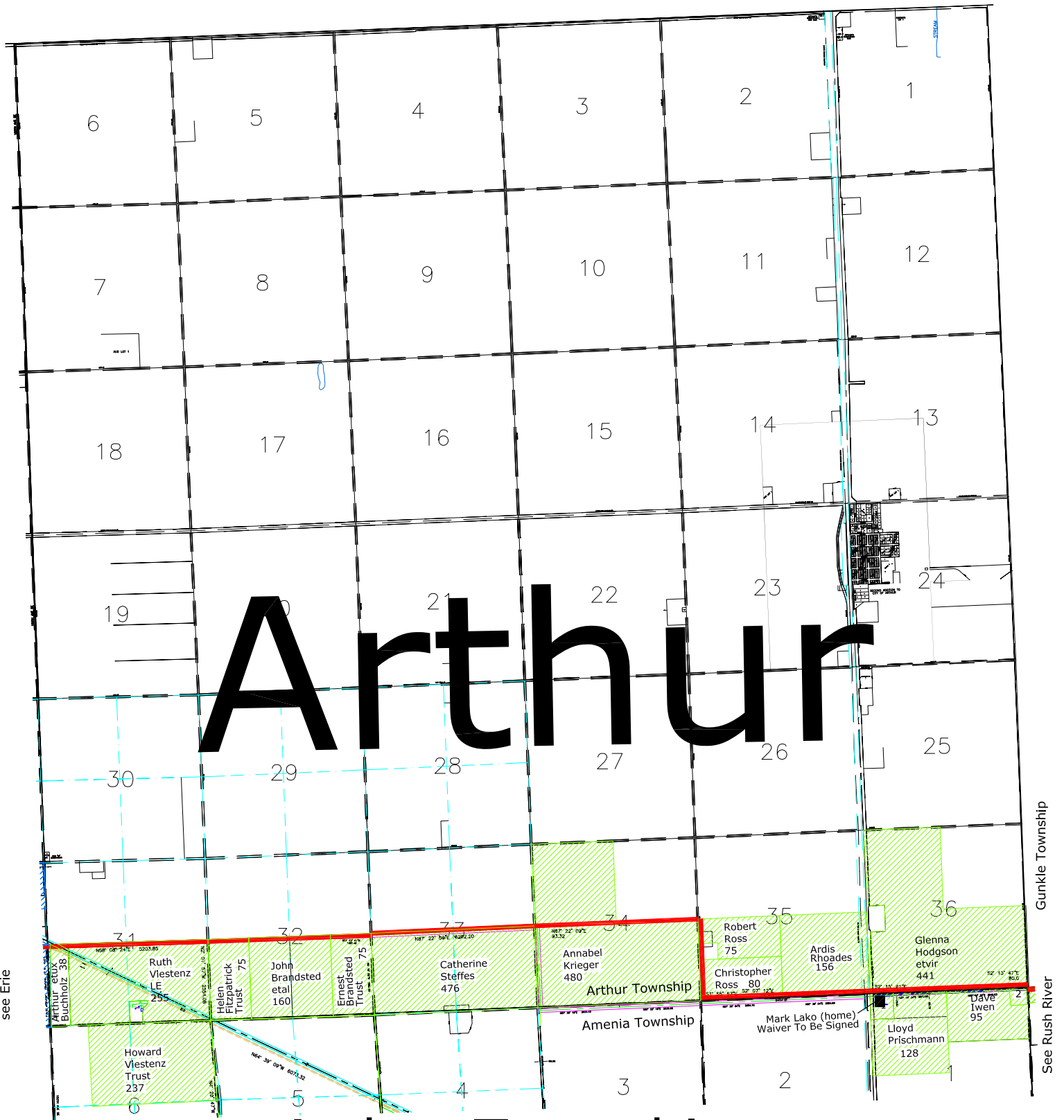
R-54-W



### Legend

	Need Permission
	Permission to Survey
	Option to purchase easement
	Easement agreement
	Damage settlements





# Arthur

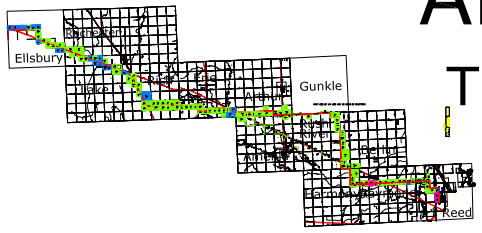
## Arthur Township

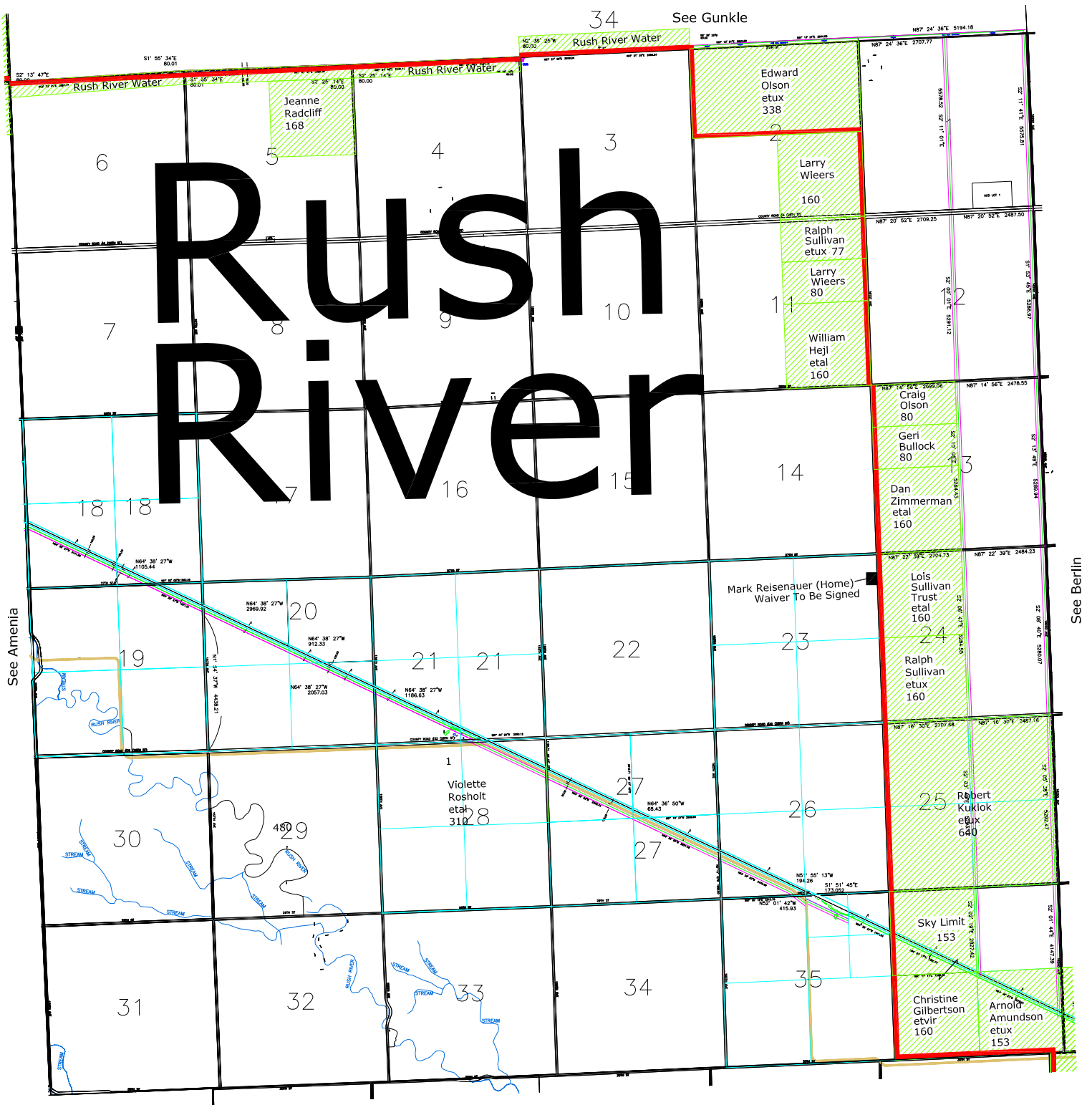
T-142-N

R-52-W

### Legend

	Need Permission
	Permission to Survey
	Option to purchase easement
	Easement agreement
	Damage settlements







# Rush River

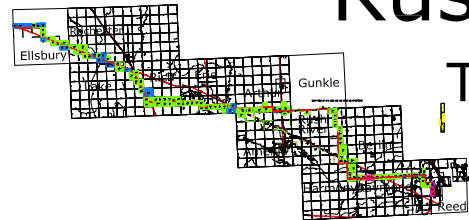
## Rush River Township

T-141-N

R-51-W

### Legend

	Need Permission
	Permission to Survey
	Option to purchase easement
	Easement agreement
	Damage settlements





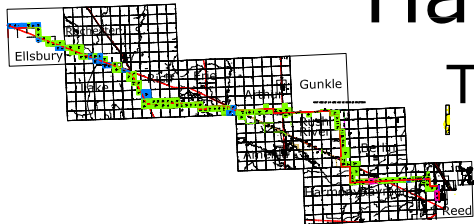
See Raymond

# Harmony




## Harmony Township

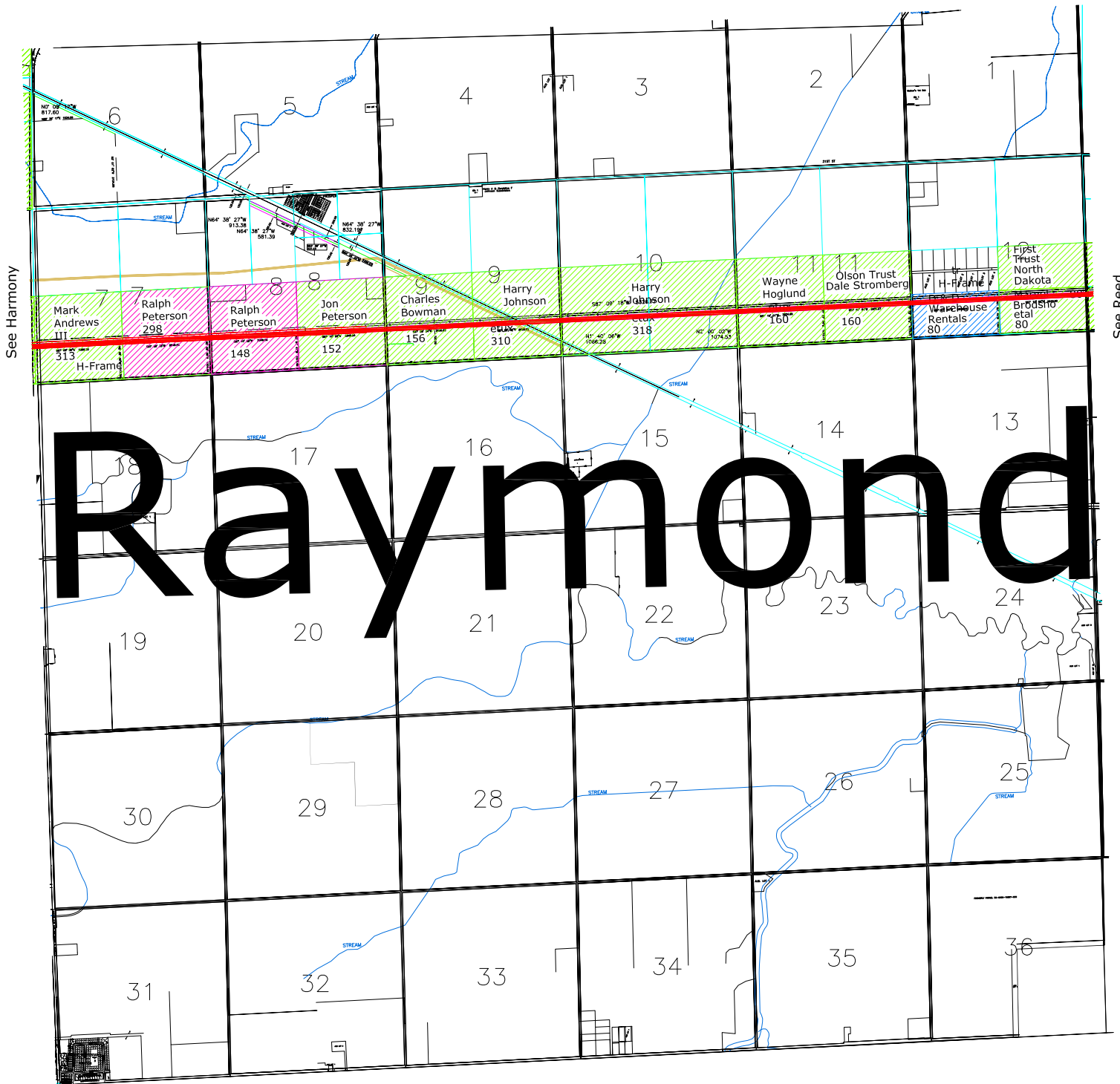
T-140-N

R-51-W



### Legend

	Need Permission
	Permission to Survey
	Option to purchase easement
	Easement agreement
	Damage settlements



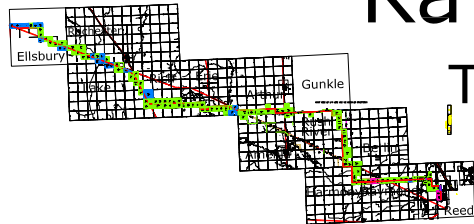
# Raymond Township

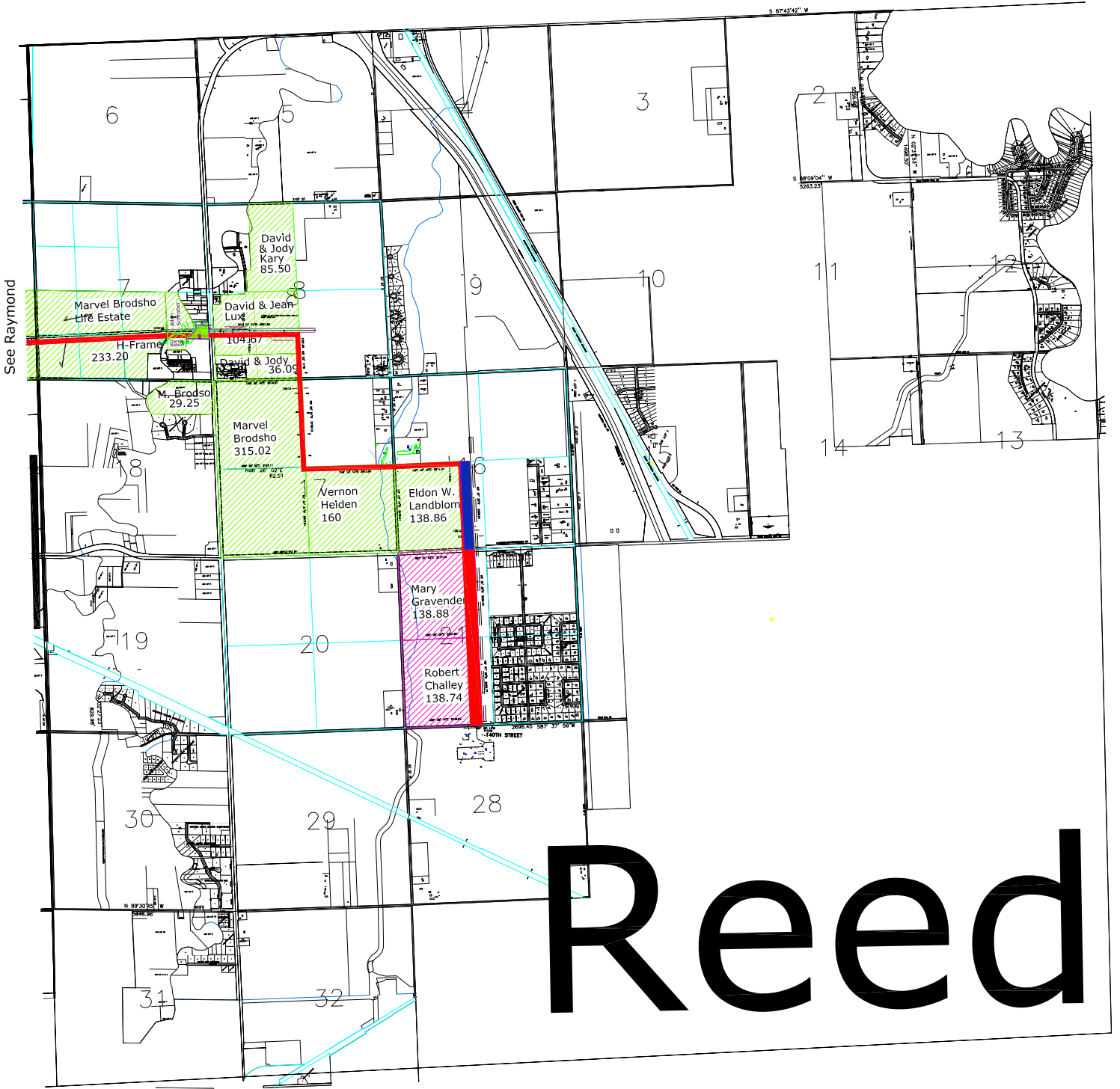
T-140-N

R-50-W

## Legend

	Need Permission
	Permission to Survey
	Option to purchase easement
	Easement agreement
	Damage settlements





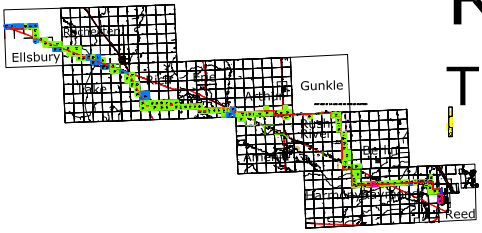
See Raymond

# Reed

## Reed Township

T-140-N

R-49-W



### Legend

	Need Permission
	Permission to Survey
	Option to purchase easement
	Easement agreement
	Damage settlements






# Rochester

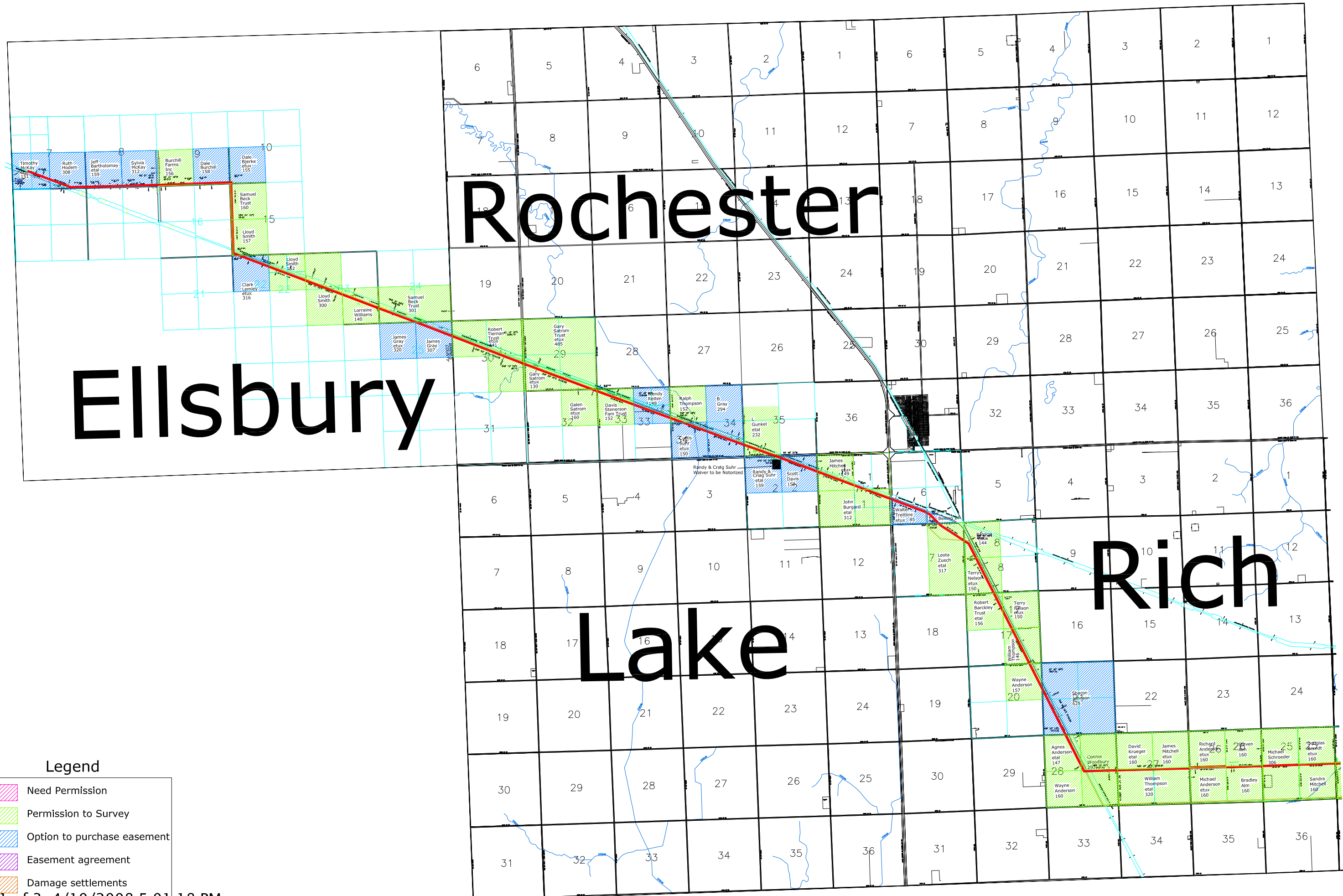
# Ellsbury

# Rich

# Lake

### Legend

-  Need Permission
-  Permission to Survey
-  Option to purchase easement
-  Easement agreement
-  Damage settlements



# Erie

TWP 142 RGE 52

# Gunkle

# Arthur






WHAT SIDE OF 1/4 LINE ARE WE USING

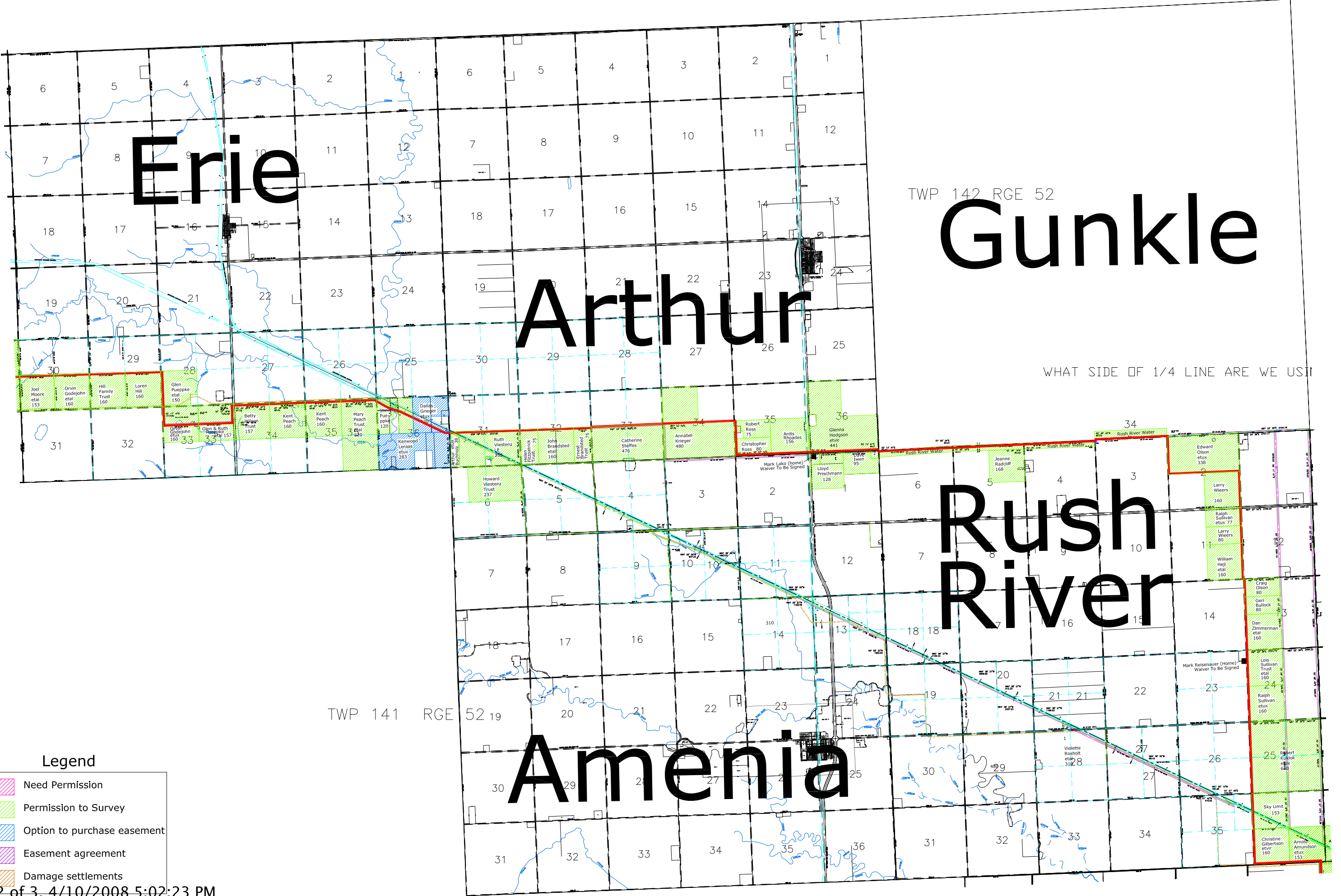
# Rush River

TWP 141 RGE 52

# Amenia

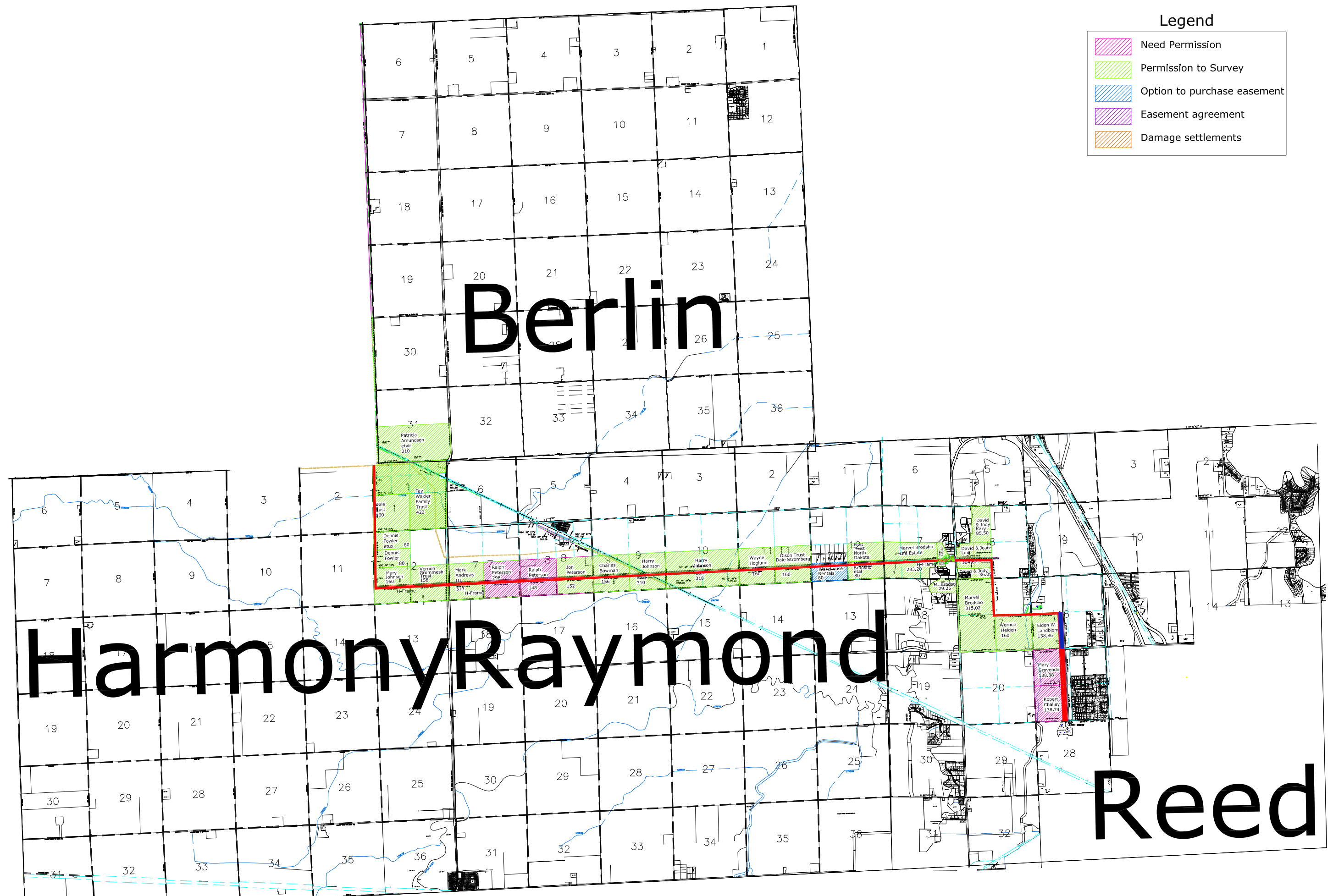
### Legend

-  Need Permission
-  Permission to Survey
-  Option to purchase easement
-  Easement agreement
-  Damage settlements



Legend

- Need Permission
- Permission to Survey
- Option to purchase easement
- Easement agreement
- Damage settlements



Berlin

Harmony Raymond

Reed

**Pillsbury - Fargo  
Generation Outlet Project**



**APPENDIX E**

**Agency Correspondence**



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

Federal Aviation Administration  
Bismarck Airports District Office  
2301 University Drive, Building 23B  
Bismarck, North Dakota 58504

April 9, 2008

Ms. Jeanne L. Radcliffe  
5423B South University Drive  
Fargo, ND 58104

Dear Ms. Radcliffe:

Turner Field  
Arthur, North Dakota  
Airport Site No. 17249.A  
Airport Abandonment

We have received your FAA Form 7480-1, Notice of Landing Area Proposal, abandoning the Turner Field, effective April 7, 2008. If not completed, we request you remove any marking which would identify the abandoned facility as a landing area.

If you have any questions, please contact our office at 701-323-7380.

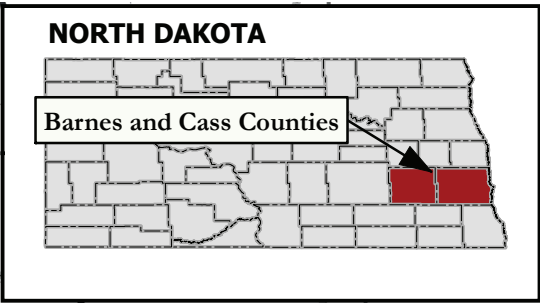
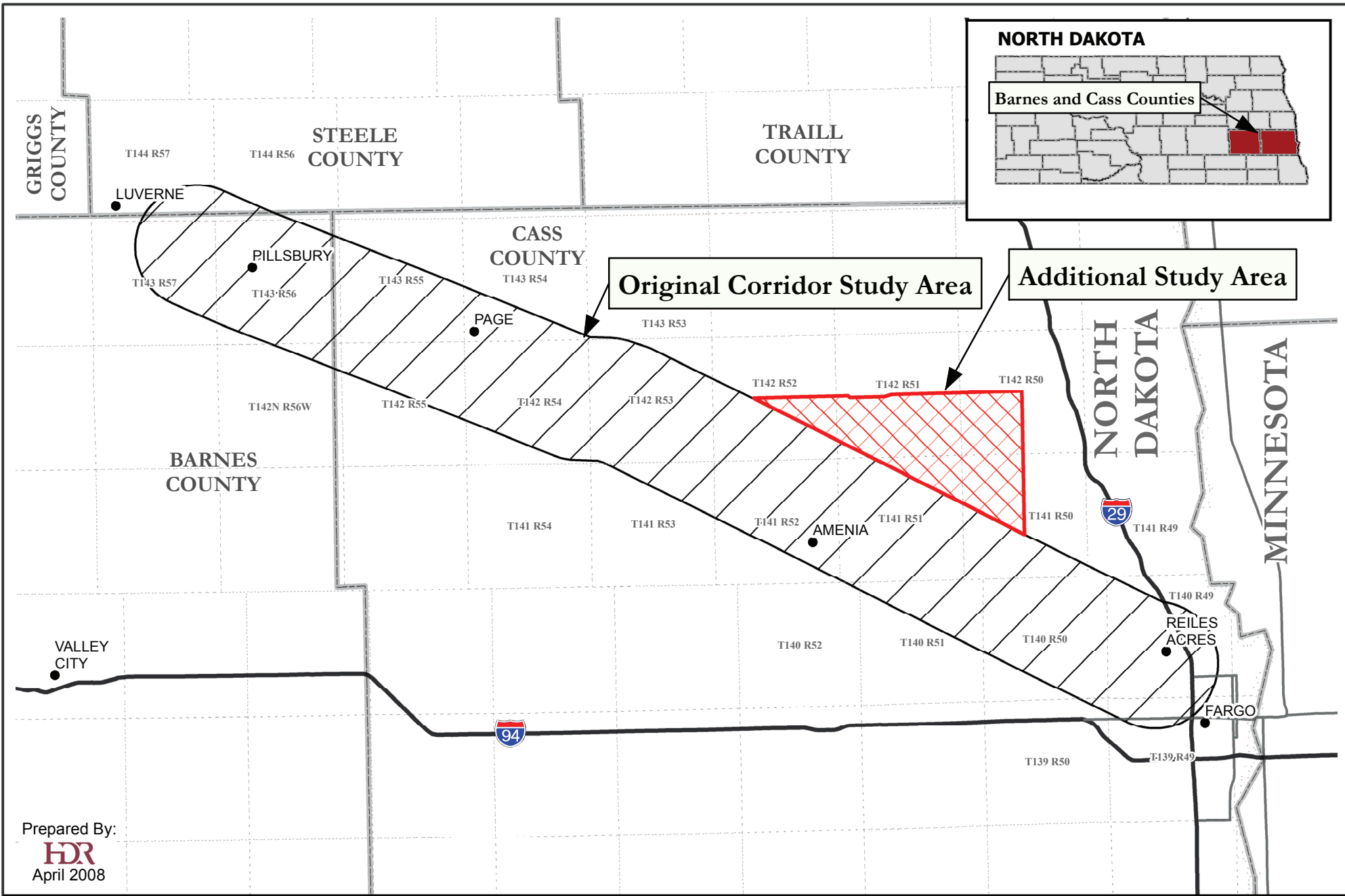
Sincerely,

**ORIGINAL SIGNED BY**  
**STEVEN J. OBENAUER**

Steven J. Obenauer, Manager  
Bismarck Airports District Office

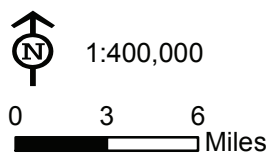
cc: North Dakota Aeronautics Commission  
Mr. Todd Langston, Otter Tail Power Company

Map Document: (N:\GIS\Proj\Ottertail\eastcentral\_ND\map\_docs\mxd\agency\_letters\Agency\_letter\_map\_040408.mxd) 4/4/2008 -- 12:44:01 PM



Prepared By:  
**HDR**  
 April 2008

- Legend**
- Original Corridor Study Area
  - Additional Study Area
  - County Boundary
  - Township Line



Project Vicinity Map  
**Pillsbury-Fargo Generation Outlet**  
 Barnes and Cass Counties, North Dakota



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

April 2, 2008

Federal Aviation Administration  
Bismarck Airports District Office  
2301 University Drive Bldg 23B  
Bismarck, North Dakota 58504

APR 04 2008

Mr. Paul Horton  
KBM Inc.  
405 Bruce Ave. Suite 200  
Grand Forks, ND 58201

Transmission Line from Page to Fargo, North Dakota  
Notification Requirements for Federal Aviation Form 7460-1

Dear Mr. Horton:

This letter is in response to your e-mail (enclosed) dated March 19, 2008 requesting clarification of the Federal Aviation Administration (FAA) notification requirements for filing FAA Form 7460-1 and private landing strips.

The requirement for notification of construction or alteration may be located in the Federal Aviation Regulations, Part 77, Objects Affecting Navigable Airspace, Paragraph 77.13. FAR Part 77. The FAA Form 7460-1 and notification requirements may be found on the web at <https://oeaaa.faa.gov>. Part 77.13 states that any person/organization who intends to sponsor any of the following construction or alterations must notify the Administrator of the FAA:

- any construction or alteration exceeding 200 ft above ground level
- any construction or alteration:
  - within 20,000 ft of a public use or military airport which exceeds a 100:1 surface from any point on the runway of each airport with at least one runway more than 3,200 ft
  - within 10,000 ft of a public use or military airport which exceeds a 50:1 surface from any point on the runway of each airport with its longest runway no more than 3,200 ft
  - within 5,000 ft of a public use heliport which exceeds a 25:1 surface
- any highway, railroad or other traverse way whose prescribed adjusted height would exceed the above noted standards
- when requested by the FAA
- any construction or alteration located on a public use airport or heliport regardless of height or location.

We request that you include the FAA Bismarck Airports District Office in your planning process for proposed transmission line from Page, North Dakota to Fargo, North Dakota for review of potential impacts to airports in North Dakota.

We request that you contact the FAA technical operations office to identify any possible impacts to aircraft navigation and/or communication equipment. The MSP TSCM for the proposed area may be contacted by phone at (952) 997-9261 or in writing. The address for the Minneapolis Technical Support Center Manager (MSP TSCM) is:

Federal Aviation Administration  
Minneapolis Technical Support Center  
Attn: MSP TSCM  
14800 Galaxie Ave, Suite 300

If not already included in your planning process, we request that the Page Regional Airport, the West Fargo Municipal Airport, and Hector International Airport be given the opportunity to provide input and comments.

If you have questions, please contact our office at (701) 323-7380.

Sincerely,



Patricia L. Dressler  
Environmental Protection Specialist  
Bismarck Airports District Office

## FSA Data Request Correspondence

**From:** Zimmerman-Lutz, Laura R.

**Sent:** Wednesday, April 02, 2008 3:18 PM

**To:** Janes, Dan - Fargo, ND; Bubach, Russell - Fargo, ND

**Cc:** Jost, Jim - Fargo, ND; Shields, Mitchell

**Subject:** Request for CRP contract locations in Cass and Barnes County

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Mr. Janes and Mr. Bubach - I had previously contacted you regarding data for the CRP contract locations in the corridor for the proposed Pillsbury to Fargo Generation Outlet. Due to some possible route changes, the corridor has been extended. I am hoping that you can provide the CRP contract data for the extended corridor. I have attached a shape file that includes the additional area that was added to the corridor. I appreciate your continued assistance.

Regards,  
Laura

**Laura Lutz-Zimmerman**  
Environmental Scientist

**HDR | ONE COMPANY | *Many Solutions***

303 E. 17th Avenue, Suite 700 | Denver | Colorado | 80203

Phone: 303.318.6344 | Fax: 303.860.7139 | Email: [laura.lutz-zimmerman@hdrinc.com](mailto:laura.lutz-zimmerman@hdrinc.com)

[www.hdrinc.com](http://www.hdrinc.com)

 Please consider your environmental responsibility before printing this email

## ND State Water Commission Data Request Correspondence

**From:** Rex Honeyman [rhoneyman@nd.gov]  
**Sent:** Thursday, April 03, 2008 8:04 AM  
**To:** Zimmerman-Lutz, Laura R.  
**Subject:** Re: Pillsbury to Fargo Generation Outlet

<All\_Irrigation\_Permits\_Statewide.shx>  
<All\_Irrigation\_Permits\_Statewide.sbx>  
<All\_Irrigation\_Permits\_Statewide.sbn>  
<All\_Irrigation\_Permits\_Statewide.prj>  
<All\_Irrigation\_Permits\_Statewide.dbf>  
<All\_Irrigation\_Permits\_Statewide.shp>

When we originally spoke, you requested information on the Eastern Dakota Irrigation District. I provided you a shape file defining the irrigation tracts that are associated with the Eastern Dakota Irrigation District. However, there are some surface water irrigation permits not associated with the Eastern Dakota Irrigation District within the corridor you defined. I am sending you a point shape file showing all approved irrigation permits statewide. Hopefully, this answers your questions.

Thanks,  
Rex

On 4/2/08 4:16 PM, "Zimmerman-Lutz, Laura R." <Laura.Lutz-Zimmerman@hdrinc.com> wrote:

Hi Rex - I had previously contacted you regarding data for the irrigation permits in the corridor for the proposed Pillsbury to Fargo Generation Outlet. Due to some possible route changes, the corridor has been extended. I am hoping that you can once again provide the irrigation permits for the extended corridor. I have attached a shape file that includes the additional area that was added to the corridor. I appreciate your continued assistance.

Regards,  
Laura

**Laura Lutz-Zimmerman**  
Environmental Scientist

**HDR | ONE COMPANY | *Many Solutions***

303 E. 17th Avenue, Suite 700 | Denver | Colorado | 80203

Phone: 303.318.6344 | Fax: 303.860.7139 | Email: laura.lutz-zimmerman@hdrinc.com

www.hdrinc.com [<http://www.hdrinc.com/>](http://www.hdrinc.com/)

**P** Please consider your environmental responsibility before printing this email



April 4, 2008

Mr. Mike McKenna  
North Dakota Game and Fish Department  
100 North Bismark Expressway  
Bismark, ND 58501-5095

RE: Revision to the proposed construction of a high-voltage transmission facility from near Pillsbury, North Dakota, to the Maple River Substation, northwest of Fargo, in Barnes and Cass Counties

Dear Mr. McKenna:

In February, HDR contacted you regarding the Pillsbury to Fargo Generation Outlet in Barnes and Cass Counties that is being planned by Otter Tail Power Company and Minnkota Power Cooperative. Per the Public Service Commission (PSC) regulations, a six-mile corridor was identified to site a route for the generation outlet, including the 230-kV transmission line. This corridor was provided to you to facilitate your review and provide comments regarding to resources under your jurisdiction and applicable permits. Since this corridor was established, constraints in the corridor have been identified and a shift in the corridor was necessary.

HDR is requesting that you review the additional corridor study area, shown in the attached map, and provide comments regarding the resources that are under the jurisdiction of your agency. The following table summarizes the townships and sections that are crossed in the additional corridor study area.

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Cass	Gardner	142	50	15-22; 27-34
Cass	Gunkel	142	51	13-30; 33-36
Cass	Arthur	142	52	7; 13-16; 23-24

We appreciate your review of this corridor and continued assistance. If you have any questions, please contact me at the address, phone number or email provided. You may also contact Otter Tail Power Company Project Manager Al Koeckeritz at 218-739-8416 or [akoeckeritz@otpc.com](mailto:akoeckeritz@otpc.com).

Sincerely,

**HDR Engineering, Inc.**



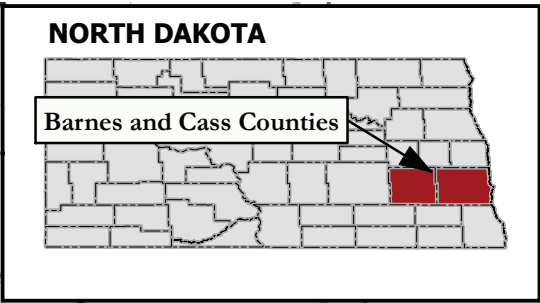
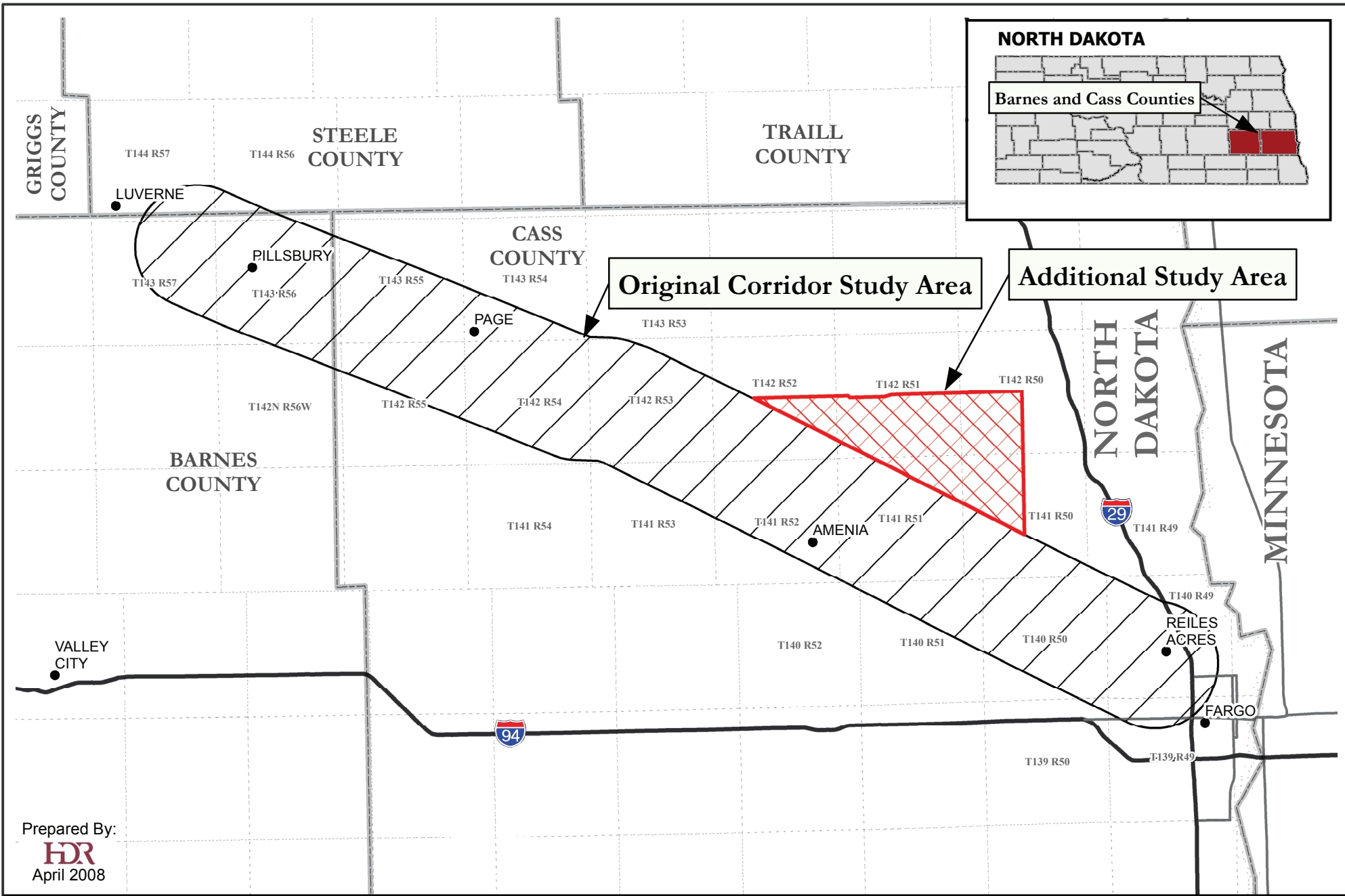
Mitchell Shields  
Project Manager  
Phone: 763-591-5427

[mitchell.shields@hdrinc.com](mailto:mitchell.shields@hdrinc.com)

Enclosures: Project Study Area Map

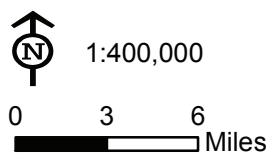
cc: Al Koeckeritz, Otter Tail Power Company

Map Document: (N:\GIS\Proj\Ottertail\eastcentral\_ND\map\_docs\mxd\agency\_letters\Agency\_letter\_map\_040408.mxd) 4/4/2008 -- 12:44:01 PM



Prepared By:  
**HDR**  
 April 2008

- Legend**
- Original Corridor Study Area
  - Additional Study Area
  - County Boundary
  - Township Line



Project Vicinity Map  
**Pillsbury-Fargo Generation Outlet**  
 Barnes and Cass Counties, North Dakota

## NDGF Data Request Correspondence

**From:** Zimmerman-Lutz, Laura R.  
**Sent:** Wednesday, April 02, 2008 3:18 PM  
**To:** Hosek, Brian M.  
**Cc:** Shields, Mitchell  
**Subject:** RE: Request for PLOTS data

<tln\_040108\_distance\_3Mile\_ver01.shx>  
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<tln\_040108\_distance\_3Mile\_ver01.shp.xml>

Hi Brian - I had previously contacted you regarding data for the PLOTS location data in the corridor for the proposed Pillsbury to Fargo Generation Outlet. Due to some possible route changes, the corridor has been extended. I am hoping that you can provide the PLOTS data for the extended corridor. I have attached a shape file that includes the additional area that was added to the corridor. I appreciate your continued assistance.

Regards,  
Laura

**Laura Lutz-Zimmerman**  
Environmental Scientist

**HDR | ONE COMPANY | *Many Solutions***

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Phone: 303.318.6344 | Fax: 303.860.7139 | Email: [laura.lutz-zimmerman@hdrinc.com](mailto:laura.lutz-zimmerman@hdrinc.com)

[www.hdrinc.com](http://www.hdrinc.com)

 Please consider your environmental responsibility before printing this email



April 4, 2008

Ms. Kathy Duttonhefner  
North Dakota Parks and Recreation Department  
1600 E. Century Avenue, Suite 3  
Bismark, ND 58503-0649

RE: Revision to the proposed construction of a high-voltage transmission facility from near Pillsbury, North Dakota, to the Maple River Substation, northwest of Fargo, in Barnes and Cass Counties

Dear Ms Duttonhefner:

In February, HDR contacted you regarding the Pillsbury to Fargo Generation Outlet in Barnes and Cass Counties that is being planned by Otter Tail Power Company and Minnkota Power Cooperative. Per the Public Service Commission (PSC) regulations, a six-mile corridor was identified to site a route for the generation outlet, including the 230-kV transmission line. This corridor was provided to you to facilitate your review and provide comments regarding to resources under your jurisdiction and applicable permits. Since this corridor was established, constraints in the corridor have been identified and a shift in the corridor was necessary.

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Sincerely,

**HDR Engineering, Inc.**



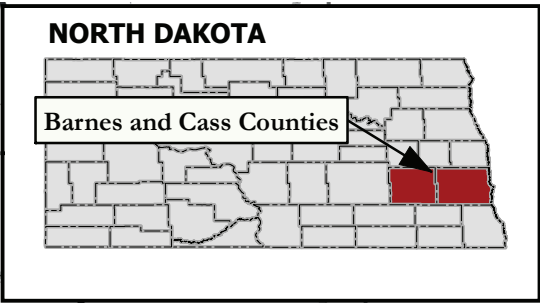
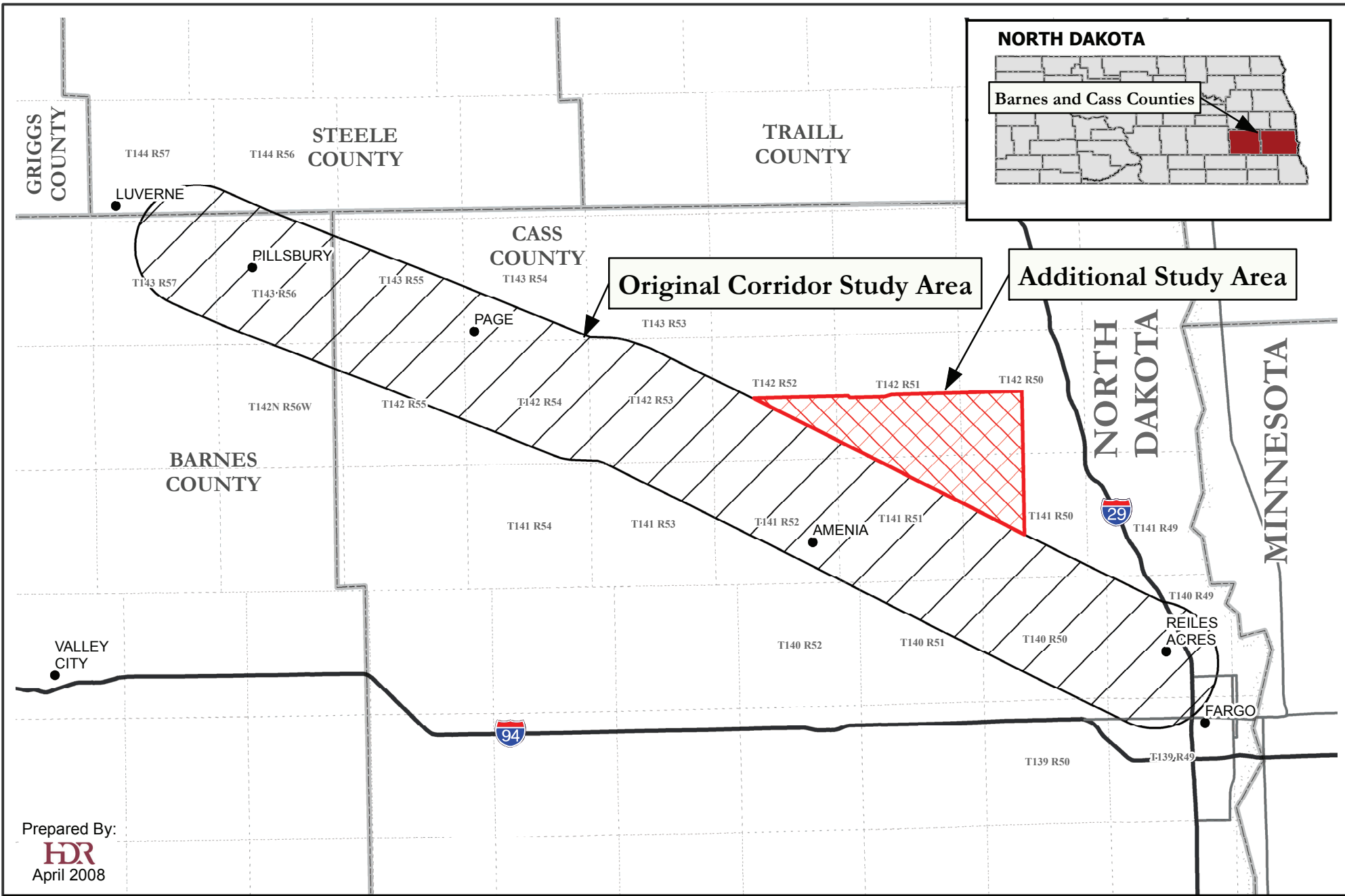
Mitchell Shields  
Project Manager  
Phone: 763-591-5427

[mitchell.shields@hdrinc.com](mailto:mitchell.shields@hdrinc.com)





Enclosures: Project Study Area Map

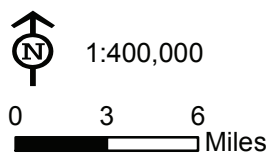
cc: Al Koeckeritz, Otter Tail Power Company

Map Document: (N:\GIS\Proj\Ottertail\eastcentral\_ND\map\_docs\mxd\agency\_letters\Agency\_letter\_map\_040408.mxd)  
4/4/2008 -- 12:44:01 PM



Prepared By:  
  
 April 2008

- Legend**
-  Original Corridor Study Area
  -  Additional Study Area
  -  County Boundary
  -  Township Line



Project Vicinity Map  
**Pillsbury-Fargo Generation Outlet**  
 Barnes and Cass Counties, North Dakota

## NDPRD Email Correspondence

**From:** Shields, Mitchell

**Sent:** Friday, April 04, 2008 3:06 PM

**To:** kgduttonhefner@nd.gov

**Cc:** Zimmerman-Lutz, Laura R.; akoeckeritz@otpc.com

**Subject:** Request for Additional Information

**Attachments:** NDPRD\_AgencyNotice040408.pdf

Dear Ms. Duttonhefner:

In early February of 2008 we requested that your agency review the study corridor for the Pillsbury to Fargo Generation Outlet Project in Barnes and Cass Counties, North Dakota, and we received a response from your office. Since then, the original study area corridor has expanded slightly to include an additional area.

Could you please provide a review of the additional study area described in the attached letter and map? A hardcopy of the letter and map is also being sent seperately via U.S. Mail.

Thank you!

**Mitchell Shields**

Senior Environmental Project Manager

**HDR | ONE COMPANY | *Many Solutions***

701 Xenia Avenue South

Minneapolis, Minnesota 55416

Phone: 763.591.5427 | Mobile 612.532.1727 | Fax: 763.591.5413

Email: [mitchell.shields@hdrinc.com](mailto:mitchell.shields@hdrinc.com)

[www.hdrinc.com](http://www.hdrinc.com)



April 4, 2008

Mr. Jeff Towner  
U.S. Fish and Wildlife Service  
North Dakota Field Office  
3425 Miriam Avenue  
Bismark, ND 58501-7926

RE: Revision to the proposed construction of a high-voltage transmission facility from near Pillsbury, North Dakota, to the Maple River Substation, northwest of Fargo, in Barnes and Cass Counties

Dear Mr. Towner:

In February, HDR contacted you regarding the Pillsbury to Fargo Generation Outlet in Barnes and Cass Counties that is being planned by Otter Tail Power Company and Minnkota Power Cooperative. Per the Public Service Commission (PSC) regulations, a six-mile corridor was identified to site a route for the generation outlet, including the 230-kV transmission line. This corridor was provided to you to facilitate your review and provide comments regarding to resources under your jurisdiction and applicable permits. Since this corridor was established, constraints in the corridor have been identified and a shift in the corridor was necessary.

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We appreciate your review of this corridor and continued assistance. If you have any questions, please contact me at the address, phone number or email provided. You may also contact Otter Tail Power Company Project Manager Al Koeckeritz at 218-739-8416 or [akoeckeritz@otpc.com](mailto:akoeckeritz@otpc.com).

Sincerely,

**HDR Engineering, Inc.**



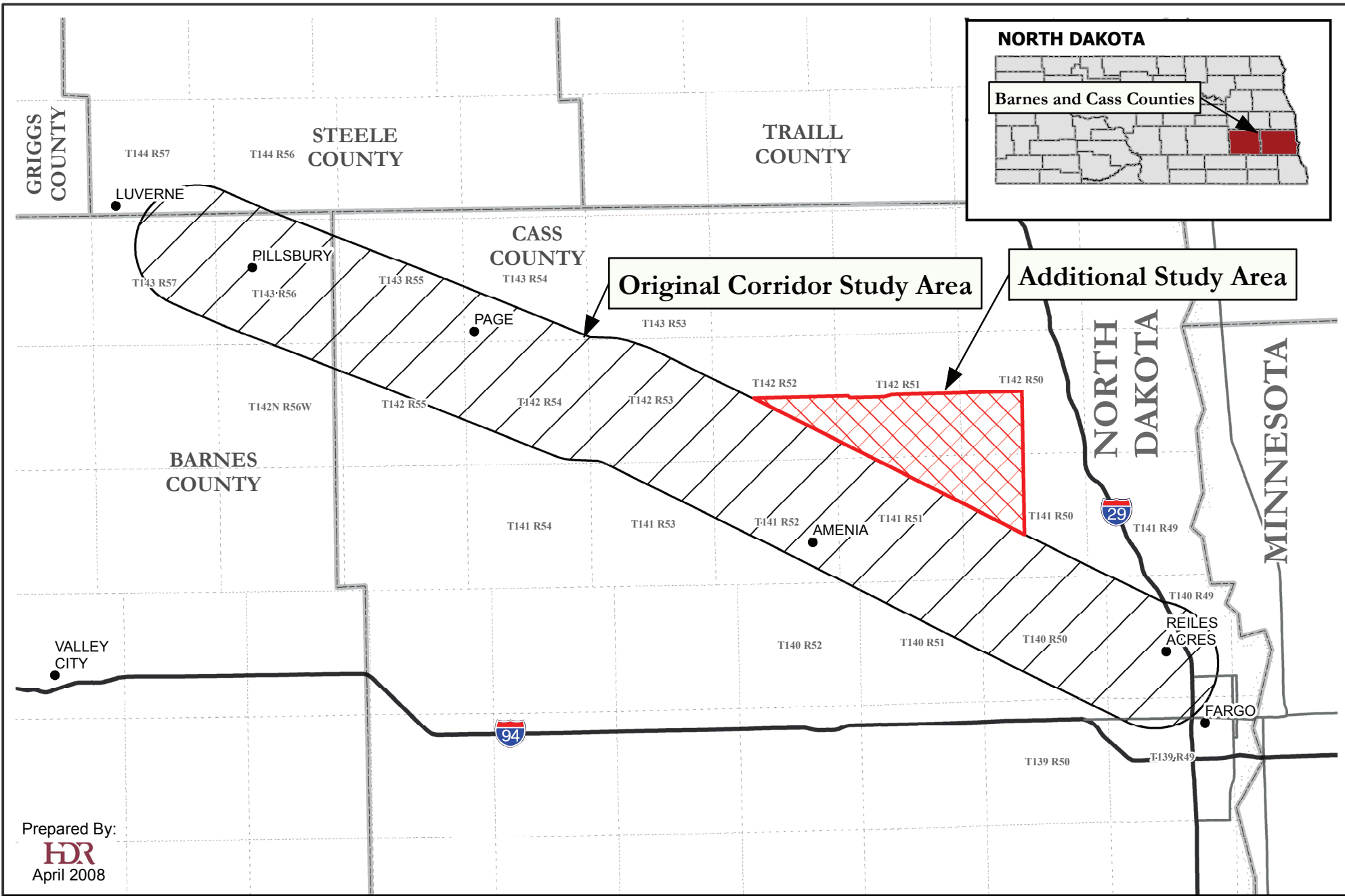
Mitchell Shields  
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Phone: 763-591-5427

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Enclosures: Project Study Area Map

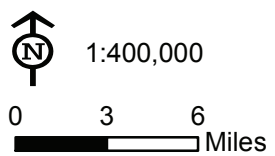
cc: Al Koeckeritz, Otter Tail Power Company

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4/4/2008 -- 12:44:01 PM



Prepared By:  
  
 April 2008

- Legend**
-  Original Corridor Study Area
  -  Additional Study Area
  -  County Boundary
  -  Township Line



Project Vicinity Map  
**Pillsbury-Fargo Generation Outlet**  
 Barnes and Cass Counties, North Dakota

## USFWS Email Correspondence

**From:** Shields, Mitchell

**Sent:** Friday, April 04, 2008 3:31 PM

**To:** carol\_aron@fws.gov; edward\_meendering@fws.gov

**Cc:** jeffrey\_towner@fws.gov; Zimmerman-Lutz, Laura R.; akoeckeritz@otpc.com

**Subject:** Request for Additional FWS Information

**Attachments:** USFWS\_AgencyNotice040408.pdf

Greetings:

In early February of 2008 we requested that your agency review a study corridor for the Pillsbury to Fargo Generation Outlet Project in Barnes and Cass Counties, North Dakota, and we received a response from your office. Since then, the original study area corridor has expanded slightly to include an additional area.

Could you please provide a review of the additional study area described in the attached letter and map? A hardcopy of the letter and map is also being sent seperately via U.S. Mail to Jeffrey Towner.

Thank you!

**Mitchell Shields**

Senior Environmental Project Manager

**HDR | ONE COMPANY | Many Solutions**

701 Xenia Avenue South

Minneapolis, Minnesota 55416

Phone: 763.591.5427 | Mobile 612.532.1727 | Fax: 763.591.5413

Email: [mitchell.shields@hdrinc.com](mailto:mitchell.shields@hdrinc.com)

[www.hdrinc.com](http://www.hdrinc.com)

## USFWS Email Correspondence #2

From: Shields, Mitchell  
Sent: Monday, April 07, 2008 8:40 AM  
To: Edward\_Meendering@fws.gov  
Cc: Zimmerman-Lutz, Laura R.  
Subject: RE: Request for Additional FWS Information

Thanks much Ed.

p.s. I also received the maps you sent last week. Thanks again! M

Mitchell Shields  
Senior Environmental Project Manager  
HDR | ONE COMPANY | Many Solutions  
701 Xenia Avenue South  
Minneapolis, Minnesota 55416  
Phone: 763.591.5427 | Mobile 612.532.1727 | Fax: 763.591.5413  
Email: mitchell.shields@hdrinc.com  
www.hdrinc.com

-----Original Message-----

From: Edward\_Meendering@fws.gov [mailto:Edward\_Meendering@fws.gov]  
Sent: Monday, April 07, 2008 9:33 AM  
To: Shields, Mitchell  
Subject: Re: Request for Additional FWS Information

Mitchell:

The Valley City Wetland Management District does not have any easements located within the additional study area. Mr. Jeffrey Towner may have additional comments regarding the area.

Thanks,  
Ed

"Shields,  
Mitchell"  
<Mitchell.Shields@hdrinc.com>  
04/04/2008 04:31

To  
<carol\_aron@fws.gov>,  
<edward\_meendering@fws.gov>  
cc

PM <jeffrey\_towner@fws.gov>,  
"Zimmerman-Lutz, Laura R."  
<Laura.Lutz-Zimmerman@hdrinc.com>,  
<akoeckeritz@otpc.com>  
Subject  
Request for Additional FWS  
Information

Greetings:

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Thank you!

Mitchell Shields

Senior Environmental Project Manager

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Email: mitchell.shields@hdrinc.com  
www.hdrinc.com[attachment "USFWS\_AgencyNotice040408.pdf" deleted by Edward Meendering/R6/FWS/DOI]