

# Consolidated Application for a Certificate of Corridor Compatibility & Route Permit



Cenex Pipeline, LLC. Liquid Petroleum Pipeline  
WILLIAMS, MOUNTRAIL, AND WARD COUNTIES, NORTH DAKOTA

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# 1. Introduction

This application is made by Cenex Pipeline, LLC. (Cenex), which is a wholly-owned subsidiary of CHS Inc. (CHS) that owns common-carrier petroleum pipelines in Montana (MT) and North Dakota (ND). CHS is a farmer-owned cooperative that provides member-owners and other customers with dependable supplies of quality refined fuels from CHS owned refineries. As the nation's largest cooperative refiner, CHS sells more than three billion gallons of refined fuels annually.

The proposed project is to construct a new ten-inch (10") pipeline from Sidney, MT to Minot, ND for the purpose of replacing a portion of an existing eight-inch (8") pipeline system, while adding throughput capacity. Cenex currently operates a pipeline that transports refined fuels from Laurel, MT to Fargo, ND. The Cenex pipeline was originally constructed in 1954 to transport petroleum fuels (including gasoline and diesel fuel) from the oil refinery in Laurel, MT to a distribution terminal in Glendive, MT. The refinery, which commenced production in 1930, was purchased by Cenex in 1943. In 1960, the pipeline was extended from Glendive to a terminal located in Minot, ND. Then in 1991, the pipeline was again extended from Minot to Fargo, ND, where it connects with other pipelines.

For nearly two decades, Cenex has methodically replaced its pipeline systems between Billings, MT and Minot, ND by completing pipeline replacement projects. With the completion of a project near Miles City, MT in 2016, the entire distance between Billings MT and Glendive MT has now been replaced in its entirety. Also in 2016, a 46-mile segment of the Cenex Pipeline was replaced from Glendive, MT to Sidney, MT.

Cenex is now proposing to replace and re-route the existing 8" Cenex Pipeline between Sidney, MT and Minot, ND. Whereas the current pipeline crosses the Yellowstone River near Sidney, running eastward to Minot, the new, 10" pipeline route would run north from Sidney until crossing the Missouri River in MT, it would then run east to Minot, passing north of Williston. This route was chosen to minimize the amount of construction taking place in sensitive areas, while also avoiding difficult river crossings and numerous other engineering and land-use challenges. For a detailed discussion of the routes considered, please refer to **SECTION 2.1.1. IDENTIFICATION OF ROUTE ON PAGE 7**. The proposed pipeline is needed to accommodate an increased demand for refined fuels in the region and to reduce the level of maintenance required to safely operate the pipeline system. Cenex is submitting this consolidated application for a Certificate of Corridor Compatibility and a Route Permit to the ND Public Service Commission (PSC) for the 149.7 miles of pipeline that would occur in ND.

This project would encompass approximately 181.5 miles of pipeline and is in rural portions of Richland and Roosevelt Counties in MT and Williams, Mountrail, and Ward Counties in ND. Of the total 181.5 miles of proposed pipe, approximately 149.75 miles would be in ND. The 149.7 miles of pipeline proposed to be constructed and operated in ND (hereafter referred to as the Project) would generally be buried a minimum of 48 inches deep and extend from just north of the pipelines crossing of the Missouri River in MT near Fort Buford, to a CHS petroleum terminal in Minot.

The potential for impacts on environmental, cultural, socioeconomic, and human-made resources are being considered through this evaluation process and are very important components of the selection of the project route. The final project design and boundaries would consider the Project's potential for impacts, while balancing the overall benefits of the Project on the local community and property owners' willingness to allow access and construction.

In accordance with Chapter 69-06-05 of the ND Century Code, the corridor for this document is analyzed three miles on each side of the proposed alternative routes and their proposed optional spurs. The route field surveyed consisted of a 200-foot corridor (study area) centered on the pipe.

Cenex has disclosed information in this application to the best of its ability in compliance with the Energy Conversion and Transmission Facility Siting Act (ND Century Code [NDCC] Chapter 49-22) and associated guidance. Exclusion and avoidance areas, along with policy criteria, were considered during the selection of the project route and are discussed further in this application. Information regarding the project design, resources, and technical information has been included in this application to allow a thorough understanding of the Project and to aid in review by the ND PSC, regulatory agencies, the public, and individuals with vested interests. The narrative developed for this application is responsive to all ND PSC instructions. Table 1 has been developed to show where responses to all application requirements are located. Key phrases and descriptions of the requirements have been included in Table 1 to reference the alpha-numerical and written descriptions of the requirements, as well as the section of the application where the response is located. Please refer to **TABLE 1. CERTIFICATE COMPLETION CHECKLIST**.

**Table 1. Certificate Completion Checklist**

STATE AUTHORITY	DESCRIPTION	SECTION
Chapter 49-22	ENERGY CONVERSION AND TRANSMISSION FACILITY SITING ACT	
49-22-04	<i>Ten-Year Plan—Contents</i>	
1.	The general location, size, and type of all facilities to be owned or operated by the utility during the ensuing 10 years.	2.1, 2.2, 2.3, 2.4, Appendix A
2.	The tentative location of all transmission facilities on which construction is intended to be commenced within the ensuing five years.	2.4, Appendix A
3.	A description of the efforts by the utility to coordinate the plan with other utilities.	5.4
4.	Efforts to involve environmental protection and land use planning agencies in the planning process, efforts to identify and minimize environmental problems at the earliest possible stage.	2.1.3, 2.5, 5.4
5.	Projected demand for the service rendered by the utility for the ensuing 10 years and the underlying assumptions for the projection.	2.1.1, 3.1, 3.2
6.	Any other relevant information as could be requested by the commission.	2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 3.1, 3.2
49-22-05.1	<i>Exclusion and Avoidance Areas—Criteria</i>	
	500 feet for inhabited rural residence	4.8.1.2, 5.2,
49-22-07	<i>Certificate of Site Compatibility or Route Permit Required</i>	
	Waiver of procedures and time schedules	2.6.1
49-22-08	<i>Application for Certificate—Notice of Filing—Amendment—Designation of a Site or Corridor</i>	
1.a	Description of size and type of facility	2.1, 2.3
1.b	Summary of environmental impacts	4.1–4.24
1.c	Need for the facility	2.1.2, 3.1
1.d	Site for energy conversion facility	N/A
1.e	Preferred transmission (pipeline) corridor	2.1.1, 2.4, 5.2

STATE AUTHORITY	DESCRIPTION	SECTION
1.f	Analysis of merits and detriments of facility location	2.4, 3.1, 4.1–4.24, 5.2
1.g	Mitigating measures	4.1–4.24
1.h	Corridor evaluation pursuant to 49-22-05.1 and 49-22-09	4.8.1.2
1.i	Other relevant information	2.1, 2.2, 2.3, 2.4, 2.6, 5.2, 5.3
<i>49-22-08.1</i>	<i>Application for a Permit—Notice of Filing—Amendment – Designation of a Route</i>	
1.a	Description of size and type of facility	2.1, 2.3
1.b	Description of the location	2.1.1, 2.4
1.c	Route evaluation relative to 49-22-05.1 and 49-22-09	4.8.1.2
1.d	Mitigating measures	4.1–4.24
1.e	Describe right-of-way (ROW) preparation, construction, and reclamation	2.6, 4.1–4.24
1.f	Statement identifying how: Landowners informed of ROW acquisition How landowners will be compensated	2.6.2, 4.1.1
1.g	Other relevant information	2.5, 2.6, 3.1, 5.1
<i>49-22-09</i>	<i>Factors to be Considered in Evaluating Corridor and Route Applications</i>	
1.	Research and investigation into effects of the project on public health, welfare, natural resources, and the environment	4.1–4.24
2.	Effects of transmission technology and design to minimize adverse effects	2.1.3, 2.5
3.	Potential beneficial uses of waste energy from energy conversion facility	N/A
4.	Unavoidable adverse direct and indirect environmental effects	4.1–4.24
5.	Corridor or route alternatives developed during the hearing that minimize adverse effects	3.2, 4.1–4.18, 5.2, 5.3
6.	Irreversible and irremediable commitments of natural resources, if designated	4.24
7.	Direct and indirect economic impacts of the facility	4.1
8.	Existing plans for other developments at or in the vicinity	4.1, 4.2
9.	Effect of project on scenic areas, historic sites and structures, and paleontological and archaeological sites	4.11, 4.12
10.	Effect of route on unique biological areas	4.22, 4.23
11.	Problems raised by federal, state, or local entities	5.4
<i>69-06-05-01</i>	<i>Application for a Transmission Facility Permit</i>	
2.a. (1)	Type of facility proposed	2.1
2.a. (2)	Purpose of facility	2.1.2, 3.1, 3.2
2.a.(3)	Technology to be deployed	2.1.3, 2.2
2.a.(4)	Type of product to be transmitted	2.2
2.a.(5)	Source of product being transmitted	2.1, 2.2, 2.3, 2.4
2.a.(6)	Final destination of product being transmitted	2.1, 2.2, 2.3, 2.4
2.a.(7)	Size and design detail	2.3
2.a.(7)(a)	The width of ROW	2.6.2

STATE AUTHORITY	DESCRIPTION	SECTION
2.a.(7)(b)	The approximate length of facility	2.3, 2.4
2.a.(7)(c)	The estimated span length for electric facilities	N/A
2.a.(7)(d)	The anticipated type of structure for electric facilities	N/A
2.a.(7)(e)	The voltage for electric facilities	N/A
2.a.(7)(f)	The requirement for, and general location of, any new associated facilities	2.4
2.a.(7)(g)	The estimated distance between pipeline surface structures	2.1.3
2.a.(7)(h)	The pipeline size	2.1.3, 2.2
2.a.(7)(i)	The maximum design for pipeline operating pressure and temperature	2.3
2.a.(7)(j)	The maximum design pipeline flow rate	2.2
2.a.(7)(k)	The number and general location of compressor or pumping stations	N/A
2.b.(1)	Obtaining the certificate of corridor compatibility	2.6.1
2.b.(2)	Obtaining the route permit	2.6.1
2.b.(3)	Completing ROW acquisition	2.6.2
2.b.(4)	Starting construction	2.6.3
2.b.(5)	Completing construction	2.6.4
2.b.(6)	Testing operations	2.6.5, 2.6.7
2.b.(7)	Commencing operations	2.6.6
2.c.	A copy of each evaluative study or assessment of the environmental impact of the proposed facility submitted to the agencies listed in Section 69-06-01-05 and each response received	5.3, 5.4, Appendix A
2.d.	Need for the facility	2.1.2, 3.1
2.e.	Description of alternatives	3.2
2.f.	Corridor width	2.6.2
2.g.	Study area to enable the ND PSC to evaluate the factors in 49-22-09	2.6.2, 4.0, Appendix A
2.h.	Discussion of factors in 49-22-09 to aid the ND PSC evaluation	2.1, 3.2, 4.1–4.24, 5.2, 5.3, 5.4
2.i.	A discussion of the applicant's policies and commitments to limit the environmental impact of its facilities, including copies of the board resolutions and management directives	5.1
2.j.	Map of criteria that led to route location	Appendix A
2.k.	Discussion of relative value of each criterion and how the location was selected; how operation will affect criteria	4.1–4.24, 5.2, 5.3
2.l.	Mitigation measures	4.1–4.24
2.m.	Qualifications of each person involved in location study	6.0
2.n.	Map identifying criteria that led to the route location and new facilities	Appendix A
2.o.	8.5- by 11-inch black and white map suitable for newspaper publication	Appendix D
2.p.	Discussion of present and future natural resources development in the area	3.1
2.q.	Map meeting ND PSC requirements	Figure 1, Appendix A

STATE AUTHORITY	DESCRIPTION	SECTION
<i>69-06-06-01</i>	<i>Application for Waiver of Procedures and Time Schedules</i>	
2.a.	Type of facility, including the purpose and technology	2.1, 2.1.1, 2.1.2, 2.1.3, 2.2, 2.3, 2.5
2.b.	Description of products transmitted in pipeline	2.2
2.c.	Capacity and design of facility	2.1, 2.1.2, 2.2, 2.3
2.d.	Map showing location of proposed pipeline	Figure 1, Appendix A
2.e.	Description of area served by facility	2.1, 2.4, 3.1
2.f.	Anticipated time schedule	2.6.1–2.6.7
2.g.	Future expansion plans	2.1
2.h.	Need for facility based on present and projected demand	2.1.2, 3.1
2.i.	Reasonable alternatives	3.2
2.j.	Deviation from ten-year plan	3.3
2.k.	Estimated cost of construction	2.1
2.l.	Specific provisions of law that the applicant requests the commission waive or modify, with separate justifications	N/A
2.m.	Factual basis demonstrating facility will produce minimal effects	4.1–4.24
2.n.	Nature of emergency justifying immediate authority	N/A
<i>69-06-08-02</i>	<i>Transmission Facility Corridor and Route Criteria</i>	
<b>Section 1</b>	<b>Exclusion Areas</b>	
1.a.	Designated or registered national: parks, memorial parks, historic sites and landmarks, monuments, and wilderness areas	4.2, 4.12, 4.13
1.b.	Designated or registered state: parks, historic sites and markers, monuments, archaeological sites, and nature preserves	4.2, 4.12, 4.13
1.c.	County parks and recreational areas, municipal parks, parks owned or administered by other governmental subdivisions	4.2, 4.12, 4.13
1.d.	Areas of Critical Habitat	4.22, 4.23
1.e.	Areas where animal or plant species that are unique or rare to the State of ND would be irreversibly damaged	4.20, 4.21, 4.22, 4.23
1.f.	Area within one thousand two hundred feet of the geographic center of an intercontinental ballistic missile (ICBM) launch or launch control facility	5.2
1.g.	Areas within thirty feet on either side of a direct line between ICBM launch or launch control facilities	5.2
<b>Section 2</b>	<b>Avoidance Areas</b>	
2.a.	Designated or registered national: historic districts; wildlife areas; wild, scenic, or recreational rivers; wildlife refuges, and grasslands	4.2, 4.12, 4.13
2.b.	Designated or registered state: wild, scenic, or recreational rivers; game refuges; game management areas; management areas; forests; forest management lands; and grasslands	4.2, 4.12, 4.13
2.c.	Historical resources that are not specifically designated as exclusion or avoidance areas	4.12
2.d.	Areas that are geologically unstable	4.15, 4.16, 5.4.15
2.e.	Within five hundred feet of a residence, school, or place of business	4.8.1.2, 5.3
2.f.	Reservoirs and municipal water supplies	4.7
2.g.	Water sources for organized rural water districts	4.7
2.h.	Irrigated land	4.2.1.2

STATE AUTHORITY	DESCRIPTION	SECTION
2.i.	Area of recreational significance that are not designated exclusion areas	4.13
<b>Section 3</b>	<b>Selection Criteria—Impact on the Following:</b>	
3.a.(1)	Agricultural production	4.14
3.a.(2)	Family farms and ranches	4.1, 4.2, 4.14
3.a.(3)	Land economically suitable for irrigation	4.2.1.2
3.a.(4)	Surface drainage patterns and ground water flow patterns	4.7, 4.16, 4.17, 4.18
3.b.(1)	Sound-sensitive land uses	4.10
3.b.(2)	Visual impact on adjacent area	4.11
3.b.(3)	Extractive and storage resources	4.8, 4.15
3.b.(4)	Wetlands, woodlands, and wooded areas	4.2, 4.17, 4.18, 4.20–4.23
3.b.(5)	Radio and television reception and other communication or electronic control facilities	4.6
3.b.(6)	Human health and safety	4.8, 4.9, 4.10
3.b.(7)	Animal health and safety	4.20–4.23
3.b.(8)	Plant life	4.19, 4.20–4.23
<b>Section 4</b>	<b>Policy Criteria</b>	
4.a.	Location and design	2.1, 2.3, 2.4
4.b.	Training and use of available in-state labor for the general and specialized skill required	4.1, 5.3.2
4.c.	Economies of construction and operation	4.1, 4.9
4.d.	Use of citizen coordinating committees	5.3.2
4.e.	Commitment of portion of transmitted product for use in state	2.2, 3.1
4.f.	Labor relations	4.1, 5.3.2
4.g.	Coordination of facilities	2.1, 5.3.2
4.h.	Monitoring of impacts	5.3.2
4.i.	Using existing and proposed rights-of-way and corridors	2.6.2
4.j.	Location and design	2.1–2.4

## 2. Project Description

### 2.1. Type of Facility

The Project includes construction and operation of a 10”-diameter pipeline that would enter ND 5.8 miles north of Fort Buford and extend to the CHS Minot Terminal (a distance of approximately 149.7 miles). Please refer to **FIGURE 1. PROJECT LOCATION MAP**. The Project would transport approximately 38,000 barrels of refined fuels per day (BPD) and would be operationally integrated into Cenex Pipeline’s existing operations. The proposed pipeline would be a common carrier pipeline owned by Cenex. No new pumping facilities would be required for the Project and none are currently planned.

The Project would comply with the design, installation, pressure testing, and operational requirements outlined by the United States (US) Department of Transportation (DOT) and Pipeline and Hazardous Materials Safety Administration (PHMSA) in Transportation of Hazardous Liquids by Pipeline guidance (49 Code of Federal Regulations [CFR] Part 195). Construction of the Project is estimated to cost approximately \$160 million.

#### 2.1.1. Identification of Route

The proposed route identified for the Project was selected based on publicly available data, data received through agency agreements, agency feedback, literature reviews, and corridor studies. The Project has been sited to provide the least amount of impacts, based on the Energy Conversion and Transmission Facility Siting Act (NDCC Chapter 49-22) and ND Administrative Code (NDAC) 69-06-08-02. With the above considerations, constructability of the pipeline and landowner willingness to enter into easements were also influential in pipeline routing. The Project was strategically sited to provide the most efficient route from Sidney to the CHS terminal in Minot with consideration placed on the above criteria.

The project route considers the natural geomorphology of the area, while avoiding sensitive environmental features, cultural resources, geotechnical constraints, and other property owners’ ROW agreements and concerns. It also represents an alignment through which property owners within the project route are willing to allow construction of the pipeline across their property.

The Project would be constructed in land use areas primarily consisting of rangeland, cultivated lands, and developed lands. The majority of the project is sited on private property apart from approximately 0.75 miles where the project would follow the existing Cenex pipeline across a United States Fish and Wildlife Service (USFWS) owned parcel. Cenex has an easement for multiple line rights through the property prior to the parcel being purchased by the USFWS, and therefore, the parcel is not being identified as an avoidance area in this analysis. Legal land descriptions of the sections the Project is sited in are detailed in **TABLE 2. PROJECT ROUTE TOWNSHIPS AND SECTIONS**. For a visual overview of the project corridor and route, refer to **FIGURE 1. PROJECT LOCATION MAP**.



**Table 2. Project Route Townships and Sections**

TOWNSHIPS	SECTION(S)
<i>North Dakota</i>	
T153N R104W	10, 11, 12, 15, 22
T153N R103W	4, 5, 6, 7, 13, 14, 15, 16, 21, 28, 33
T155N R102W	1, 2, 3, 10, 15, 16, 20, 21, 29, 32
T154N R102W	5, 6, 7, 18
T155N R102W	24, 26, 34
T155N R101W	1, 2, 3, 4, 5, 6
T156N R100W	33, 34, 35, 36
T155N R100W	4, 5, 6, 7, 8
T156N R99W	25, 26, 28, 31, 32, 33, 34, 35, 36
T156N R98W	25, 26, 31, 32, 33, 34, 35, 36
T156N R97W	25, 26, 27, 28, 29, 30
T156N R96W	31, 32, 33, 34
T155N R96W	1, 2, 3, 12
T155N R95W	7, 8, 9, 10, 11, 12, 13
T155N R94W	8, 17, 18, 20, 21, 22, 25, 26, 27, 28, 35, 36
T155N R93W	30, 31, 32, 33, 34, 35, 36
T155N R92W	25, 26, 27, 28, 29, 30
T155N R91W	25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36
T155N R90W	21, 22, 23, 25, 26, 28, 29, 30, 31
T155N R89W	25, 26, 27, 28, 29, 30
T155N R88W	29, 30, 32, 33, 34
T154N R88W	1, 2, 3
T154N R87W	1, 2, 3, 4, 5, 6
T154N R86W	6, 7, 8, 9, 10, 11, 13, 14
T154N R85W	1, 2, 8, 9, 10, 11, 17, 18
T154N R84W	5, 6, 32, 33, 34, 35, 36
T155N R83W	20, 29, 30, 31

2.1.2. Necessity

Cenex is now proposing to replace and re-route the existing 8” Cenex Pipeline between Sidney, MT and Minot, ND.

The existing 8” Cenex Pipeline has reached its capacity due to the increased volume of refined fuel demand in ND and is not currently sufficient for existing or potential future levels of demand. A larger pipeline is needed to increase the capacity Cenex’s existing system. The proposed 10” pipeline is needed to accommodate an increased demand for refined fuels in the region and to reduce the level of maintenance required to safely operate the pipeline system. The Project would provide a capacity of 38,000 BPD.

### 2.1.3. Construction and Technology

The Project would be constructed with conventional, open-cut construction practices. Contractors for construction of the proposed pipeline would be obtained from the local area to the maximum extent practicable. Additional construction contractors would be obtained outside of the local area, when needed. The initial state of construction would involve clearing of brush, trees, and vegetation from the construction ROW. After clearing, the project ROW would be graded per design specifications. This would involve leveling and smoothing the construction ROW to create an even working surface for equipment and vehicles. Prior to trench excavation, individual joints of the pipe would be strung along the project ROW and arranged to be accessible to construction personnel. Trenching in uplands would consist of excavating the trench for the pipeline with a backhoe excavator or rotary wheel ditching machine. Excavated material would be sidecast within the approved construction ROW, separate from topsoil, to prevent soil mixing during construction.

The pipeline would generally be buried a minimum of 48 inches to the top of pipe in normal working areas apart from a minimum burial depth of 48 inches in water crossing areas, or greater depending on regulatory specifications such as roadways and railroads or landowner preference. In areas with rock present, burial depth may be shallower than 48 inches. These proposed burial depths meet or exceed PHMSA standards. Backfilling would follow pipe installation and generally consists of replacing the material excavated from the trench (i.e., first the subsoil and then the topsoil). Trench breakers would be installed, as necessary in sloped areas, to protect against subsurface water flow erosion along the pipe after the trench is backfilled.

Portions of the Project would be constructed by boring under avoidance areas such as roadways, waterbodies, and other identified areas using horizontal directional drilling (HDD) technology, leaving no surface disturbance between the drill entrance and exit points. Directionally drilling the pipe under the avoidance areas would involve placing a drill unit on one side of the avoidance area. Then a small-diameter pilot hole would be drilled under the location along the prescribed profile, and barrel reams would be used to enlarge the pilot hole to accommodate the desired pipeline diameter. The pipe section would be pulled through the hole by a drilling rig and welded to the adjoining sections of the pipe on each side of the roadway, or water body.

Aboveground facilities and equipment associated with the Project would include up to 17 mainline valves (MLVs); one Pipeline Inspection Gauge (PIG) launcher located at Glendive, MT; and one PIG receiver located at Minot, North Dakota. Eight of the mainline valves would be installed such that an upstream valve and a downstream valve would be located at the Missouri River in Montana and the Little Muddy, White Earth and Little Knife Rivers in North Dakota. The remaining 9 MLVs would be located on a downhill segment of the pipe that protects against pipeline integrity emergencies. The MLVs locations were determined by analyzing operation factors, accessibility, and emergency response planning analysis. Please refer to **FIGURE A-1. PROJECT ROUTE AND CORRIDOR ON PAGE A-1** in Appendix A for an overview of the MLV locations. The MLVs would allow select segments of the pipeline to be isolated if a release from the pipeline were to occur, or for inspection and maintenance purposes. MLV sites at the river crossings would be approximately 30 x 60 feet in size (0.04 acres), and would consist of a gravel pad with a small control equipment building inside a chain link fence. The mainline valves on the upstream side of the pipe at the river crossing locations would be monitored by a Supervisory Control and Data Acquisition (SCADA) system which is used for pipeline operational control and as a pipeline emergency detection monitoring system. The communications to these sites would likely be through a satellite system requiring only a small dish installed within the fenced MLV areas, or landline telephone or internet connection could be utilized for communications to these sites. The remaining MLV locations would consist of a 20 x 30 foot (0.01 acres) graveled area inside a chain link fence. Check valves would be installed on all MLV locations not monitored by SCADA.

There would be pigging equipment utilized for cleaning and inspecting the pipeline during its' normal operation. Upon completion of construction, the proposed pipeline would be cleaned by running multiple cleaning pigs through the line. The pipeline would then be hydrostatically tested for pipeline integrity, and upon discharge of the hydrostatic test water, the pipeline would be placed into service. Then as part of the continuing operation of the pipeline, periodic inspections of the line would be performed by passing an In-Line Inspection (ILI) tool through the pipeline that would detect dents, out of roundness, and metal loss anomalies in the pipeline. Also, routinely scheduled cleaning PIGs would be run through the pipeline as part of its' normal operational maintenance. There would be pipeline markers installed at all roadway and railway crossings, all fence lines, all MLV sites, all stream crossings and at other locations to suitably identify the physical location of the pipeline.

## 2.2. Product

The proposed pipeline would transport refined fuel (gasoline and diesel) from the Laurel refinery to the Minot terminal. The line is sized to transport approximately 38,000 BPD.

## 2.3. Size and Design

The Project would consist of a 10"-diameter steel pipeline with a wall thickness of 0.307 inches. The pipe would be designed to be cleaned and inspected using ILI tools, such as cleaning PIGs and smart PIGs. The proposed pipeline would have a yield strength of 2,970 pound-force per square-inch gauge (psig), and welding procedures would be performed under the regulations referenced in Transportation of Hazardous Liquids by Pipeline guidance (49 CFR Part 195). The pipeline would have a maximum temperature rating of 100 degrees Fahrenheit and a maximum allowable operating pressure of 1440 psig. The Project would typically operate at approximately 45 degrees Fahrenheit and 1,400 psig.

The MLVs would be 10", flanged end, full-port valves manufactured in accordance with American Petroleum Institute (API) Standard 6D (API Specification for Steel, Gate, Plug, Ball, and Check Valves for Pipeline Service) (49 CFR Part 195.3).

## 2.4. Location

The Project would begin at an existing pipe located approximately three miles southwest of Sidney, MT and continue north and then east to the CHS terminal located approximately one mile west of Minot, ND. The total pipeline distance is approximately 181.5 miles of which 149.7 miles is within ND. Rangeland, cropland, wetlands, rivers, and streams are found in the study area. The large majority of the land use within and adjacent to the pipeline route is used for agriculture purposes with varying amounts of industrial and developed lands. Major water bodies crossed by the proposed project include: Missouri River, Little Muddy River, White Earth River, and Little Knife River. Other water bodies located near the pipeline include: Factory Lake and Vaux Reservoir near Sidney, Yellowstone River, Lake Trenton outside of Trenton, Epping Dam between Epping and Spring Brook, Lake Sakakawea, McLeod Lake and Kota Ray Dam near Ray and Souris River. The region from Stanley to Minot is dotted with numerous wetland basins of various sizes and water regimes including those found in Shell Lake National Wildlife Refuge.

## 2.5. Methods to Minimize Adverse Environmental Effects

Cenex would develop and maintain a Construction Environmental Program (CEP) for construction-related policies, procedures, and mitigation measures, in compliance with federal, state, and local environmental protection and erosion-control specifications and practices. Specifically, the CEP would be a combination of various plans, permits, and documents identifying construction and operation procedures that would describe general mitigation measures, including soil erosion- and sediment-control procedures to be implemented during construction; stream and river construction and crossing procedures; practices for wetland construction and crossings; highway, road, and trail crossing procedures; construction dewatering; water appropriation practices; restoration; and winter construction procedures.

A Storm Water Pollution Prevention Plan (SWPPP) would be prepared and submitted to the State Health Department. Best management practices (BMPs) (e.g., HDD, silt fences, straw wattles, earth berms, retention ponds, culverts, and rock check dams) would be included in the SWPPP and implemented during construction to avoid, minimize, or mitigate impacts. BMP's are discussed in this application, where applicable. Whenever practicable, emphasis will be placed on utilizing construction equipment which reduces potential soil compaction and impacts on vegetation. Planning, design, construction, and restoration of the Project would incorporate environmental inspection and monitoring during and upon completion of construction. Substantial effort would be placed on pipeline integrity, environmental safeguards, emergency response, and landowner relationships to reduce potential impacts from the Project. In addition, Cenex would develop and maintain an Unanticipated Discovery Plan for the discovery of unanticipated cultural resources in areas where they were not expected to occur.

Upon completion of construction, establishment of permanent vegetation in areas of rangeland and hayland would begin as soon as soil conditions permit seed bed preparation and seed germination. Extraneous material that would impede seed bed preparation would be removed from the ROW. Cropland would be restored, but would not be reseeded unless requested by the landowner. Cleanup and rough grading activities could take place simultaneously and would include removing construction debris (including municipal solid waste and excess rock), replacing fences removed during construction, restoring the disturbed areas as near as practicable to the original contours, and installing or repairing temporary erosion-control measures. Every effort would be made to begin cleanup and rough grading (including installing temporary erosion-control measures) within 24 hours after backfilling. After final grading, slopes in areas other than cropland would be stabilized with erosion-control structures (e.g., permanent berms, diversion dikes, and slope breakers).

When put into operation, the new pipeline will be operated in accordance with all pipeline safety laws and regulations. This includes manuals, plans, programs, and procedures for compliance with federal, state and local regulations. Cenex currently has Operation and Maintenance Manuals, Emergency Procedures, and Oil Spill Response Plans (EPOSRP) for their existing infrastructure. These Manuals and Plans will be revised to include the operation of the proposed project. In compliance with federal regulation and oversight, Cenex also maintains extensive Integrity Management, Damage Prevention, and Public Awareness programs which will pertain to operation of the pipeline.

## 2.6. Project Schedule

### 2.6.1. Certificate of Corridor Compatibility and Route Permit

Cenex is seeking a Certificate of Corridor Compatibility and Route Permit granted in or before the spring of 2017.

### 2.6.2. Right-of-Way Acquisition

For much of the length of the Project, the construction corridor would include a permanent 50-foot-wide ROW for the pipeline and 25-foot-wide temporary construction ROW on one side of the permanent ROW (a total of 75-foot-wide) to allow adequate space for topsoil separation, construction equipment, and pipe stringing. In areas requiring HDD, temporary ROW would likely be expanded to a 50-foot-wide (for a total of 100-foot wide) to accommodate construction activities.

The 75-foot-wide ROW for the proposed pipeline in ND would consist of approximately 1,361.79 acres and include interests of 266 private land owners, USFWS, and the ND State Land Department. Currently, permission to survey has been granted for approximately 95 percent of the pipeline. Option agreements have just started to be offered to landowners and further negotiations will continue until all parcels are secured. It is anticipated that 100 percent of the signed agreements will be obtained by June 1, 2017. Execution of ROW terms would be completed in compliance with ND State law in place at the time of the agreements.

### 2.6.3. Construction Start Date

Construction of the Project is anticipated to commence in the fall of 2017.

### 2.6.4. Construction Completion Date

Cenex anticipates that installation of the proposed pipeline would be completed in the fall of 2018.

### 2.6.5. Facility Testing

Cenex would hydrotest the proposed pipeline immediately after construction is completed and prior to commissioning.

### 2.6.6. Commercial Operation Date

The production date would follow testing and is anticipated to begin transporting refined fuel in December 2018.

### 2.6.7. General Inspection and Maintenance Duties

PHMSA continuously updates rules and regulations stipulating how pipeline owner/operators should design, construct, operate, and monitor pipelines. The Project would be in compliance with all of the design, construction, pressure testing, operation, welding, and maintenance requirements outlined by the USDOT PHMSA in Transportation of Hazardous Liquids by Pipeline regulations (49 CFR Part 195).

The proposed pipeline and associated facilities would receive routine inspections to determine that the system is operating properly. The pipeline would be patrolled at intervals not exceeding three weeks, but at least 26 times each calendar year, via aircraft, to inspect the surface conditions of the land on, or adjacent to

the pipeline ROW. In addition, the proposed pipeline would be designed to be cleaned and inspected via ILL tools (e.g., cleaning PIGs and smart PIGs) to assess pipeline conditions in order to maintain the integrity of the pipeline system. The cleaning PIGs and smart PIGs would travel through the inside of the pipeline and mechanically, ultrasonically, or magnetically examine the condition of the pipe for dents, gouges, corrosion, or cracks by on-board instrumentation. Results of the inspection would be analyzed, the pipe would be inspected to verify preliminary findings, and the pipe would be repaired, as required.

MLVs would be inspected at least two times per year to ensure proper operation. All overpressure safety devices capable of limiting, regulating, controlling, and relieving operating pressure would be inspected and tested to ensure the device is in good mechanical condition and functioning properly. Each calendar year (not to exceed a 15-month interval), the cathodic protection system would be monitored by taking pipe/structure-to-soil and line current readings, where possible. Repairs and adjustments to the cathodic protection system would be made during the annual survey or during later maintenance activities. At least six times per year, each critical cathodic protection interference bond to foreign structures would be inspected and corrective measures would be implemented, if needed. Cenex would also periodically evaluate the effectiveness of the cathodic protection system by conducting supplemental interrupted close interval surveys of the system.

The Cenex pipeline system would be controlled by Cenex at their Laurel, MT control center. The control center serves as an emergency reporting center (via publicized toll-free telephone number) and would be available to pipeline employees, the public, and public officials should they need to report unusual conditions or pipeline failures. Cenex uses SCADA systems to provide 24-hour monitoring of pipeline and pump operations (e.g., pressures, temperatures, and flow rates). Cenex would maintain an emergency response program and comprehensive preventative maintenance program for the Project that would meet, and in some cases, exceed minimum federal safety standards administered by PHMSA regulations and other industry standards. This includes oil spill response equipment, personnel, resources and frequent training and exercises.

## 3. Need for Facility

### 3.1. Needs Analysis

Cenex currently transports refined fuels from the CHS Laurel, MT refinery to the terminal in Minot, ND through an eight-inch steel pipe. The existing pipe extending from three miles southwest of Sidney, MT to the Minot terminal follows a more easterly route that crosses into ND near Sidney, MT, before crossing United States Forest Service land and the Fort Berthold Indian Reservation. The existing pipe is attached to the Four Bears Bridge near New Town. It is very unlikely that the NDDOT would grant permission for another pipeline to be attached to the bridge. Routing for the new pipeline heavily weighed on these discussions as well as the best location for crossing the Missouri River, routing a pipe through lands held by private ownership (thereby eliminating the need for periodic future re-authorizations), environmental considerations and constructability and maintenance of a pipeline.

The development of hydrocarbon production in the Bakken Formation of the Williston Basin (primarily from Sidney, MT to Stanley, ND) has increased significantly in recent years. Current ND Industrial Commission statistics show that as of November 2016, 10,863 active wells occurred in the Bakken. That constitutes significant rise from the 273 wells recorded as active with in the Bakken in November 2006. Drastic expansion of industrial and commercial growth, as well as a rapid increase in population has triggered increased demand for refined fuels in the region. The proposed project is driven by Cenex's desire to be able to continue to provide longstanding reliable refined fuels to meet the region's needs.

### 3.2. Alternatives

Two alternatives were analyzed regarding construction of the Project. Under Alternative A (No Build), the Project would not be constructed and there would be no impacts on the surrounding environment from construction. Under Alternative B (Build), the Project would be constructed and avoidance, minimization, mitigation measures and BMPs would be implemented, where applicable, to minimize impacts on the surrounding environment from construction.

#### 3.2.1. Alternative A (No Build)

Under Alternative A, the Project would not be constructed and Cenex would continue to use their existing eight-inch pipeline. CHS would continue to supply the region with refined fuels from their Laurel refinery at the rate the current pipeline allows for. Increased demand for refined product would need to be satisfied by CHS through other shipment methods such as train, truck or another supplier would need to increase capacity to meet the need. In addition, the existing pipeline, built in 1960, may begin to experience integrity issues as it ages, causing additional maintenance costs and environmental risks should it stay in operation.

#### 3.2.2. Alternative B (Build)

Under Alternative B, the Project would be constructed and operated within the proposed route. Please refer to **FIGURE A-1. PROJECT ROUTE AND CORRIDOR ON PAGE A-1** in Appendix A. The final location of all Project components under Alternative B would be selected to avoid or minimize adverse impacts associated with construction and operation of the proposed pipeline. Any adverse impacts that could not be avoided or minimized would be mitigated to the maximum extent practicable, as discussed throughout **SECTION 4** of this application.

### 3.3. Ten-Year Plan

Cenex's Ten Year Plan was filed with the ND PSC on August 17, 2016. Please refer to **APPENDIX C. TEN YEAR PLAN**.



## 4. Environmental Analysis

The primary objectives of the environmental analysis are to identify potential issues within the project route and determine the appropriate environmental protection measures necessary to minimize any adverse impacts from the Project. The exclusion and avoidance criteria outlined in the North Dakota Energy Conversion and Transmission Facility Siting Act were used as the basis for the analysis. A Geographic Information System (GIS) database has been developed for the project route to assist with the analysis. The analysis incorporated data from field surveys, literature reviews, data use agreements, and office studies. As stated previously, this application focuses only on the 149.7 miles of pipeline located in North Dakota.

Pedestrian surveys were conducted for cultural, biological, and wetland resources within a 200-foot-wide corridor (herein after referred to as the environmental study area) centered on the proposed pipeline. If the analysis distances discussed vary from the 200-foot corridor, it is stated per resource below. Cultural surveys identified historical or archeological resources that may have cultural significance. Biological surveys inventoried and recorded various biological and botanical resources including: trees; threatened and endangered species present; threatened or endangered species potential habitat present; raptor nests; general land use; and presence of noxious weeds. Field wetland delineations identified surface water resources including wetlands and other waters of the US (OWUS).

This section describes the existing conditions of resources within the environmental study area, as well as anticipated impacts on those resources identified within the environmental study area from implementation of Alternative B. Alternative A has been evaluated to provide a baseline against which to evaluate the potential impacts of the Build Alternative. Indirect and direct impacts are identified in the individual resource discussions, where appropriate. Environmental protection measures, such as BMPs, would be implemented to avoid or minimize any adverse impacts and are discussed where impacts are identified. If avoidance and minimization are not possible, mitigation strategies and commitments are discussed.

### 4.1. Demography and Economy

Communities near to and surrounding the pipeline that may be influenced demographically by the Project include: Fairview in McKenzie County; Williston, Spring Brook, Epping, Ray, and Tioga in Williams County; White Earth, Ross, Stanley, and Palermo in Mountrail County; and Berthold, Des Lacs, Burlington, Minot, and Surrey in Ward County. Please refer to **TABLE 3. DEMOGRAPHIC SUMMARY BY COUNTY**. Major employment industries within these counties include oil- and gas-related activities, agriculture, educational, health and social services, transportation and warehousing, utilities, construction, accommodation, food services, and retail trade. Thirteen of these towns have very limited infrastructure and public services. Williston and Minot provide an expanded selection of shopping, dining, advanced education and recreational opportunities.

Williston, North Dakota is the central hub for the Bakken shale development and thus has had significant growth in the last 10 years. The population in Williston grew from 14,716 in 2010 (US Census Bureau, 2010a) to 22,051 by 2015 (American Fact Finder, 2015c). Williston has eight public schools, one private school, one college, one hospital, and a regional airport. A new airport is currently being sited on the northern end of Williston. There are several industrial parks and residential developments located north of Williston. Minot also experienced population growth from 40,888 in 2010 (US Census Bureau, 2010b) to 46,194 in 2015 (American Fact Finder, 2015d). Minot has a larger population; however, it contains a very similar community structure and resources as Williston including the number of schools, hospitals, college, and airport.

**Table 3. Demographic Summary by County**

LOCATION	POPULATION (2015)	PER CAPITA INCOME (2015)	PERCENT OF INDIVIDUALS BELOW POVERTY LEVEL
Williams County	29,619	\$43,946	10.1%
Mountrail County	9,253	\$38,061	13.5%
Ward County	67,736	\$31,215	7.5%
State of North Dakota	721,640	\$32,035	11.5%

Sources: American Fact Finder, 2015a, 2015b

#### 4.1.1. Demographic and Economic Impacts/Mitigation

##### 4.1.1.1. Alternative A (No Build)

Under Alternative A, the Project would not be constructed. Landowners participating in the Project would not receive ROW payments. Temporary and permanent increases in employment associated with the construction and operation of the pipeline would not occur. Local economies of the surrounding communities would not be stimulated, as there would be no increases in the local business volume, sales receipts, or indirect purchase of goods and services due to increased employment and buying power.

##### 4.1.1.2. Alternative B (Build)

###### *Impacts*

Long- and short-term, beneficial and adverse impacts on area demographics and economics would be expected from Alternative B. Alternative B would result in an increased need for construction workers. Contractors for construction of the proposed pipeline would be obtained from the local area to the maximum extent practicable. Additional construction contractors would be obtained outside of the local area, when needed. Accordingly, the local economy would be stimulated, as there would be increases in the local business volume, sales receipts, and indirect purchase of goods and services associated with additional employees temporarily relocating to the area; however, the number of permanent jobs created by the Project is anticipated to be low. Alternative B would result in increased income to landowners receiving ROW payments from Cenex which would increase economic advantage and buying power to those landowners, who could then funnel money into the local communities' economies.

Alternative B would not alter long-term population trends within Williams, Mountrail, and Ward Counties or within surrounding cities.

###### *Mitigation*

No significant impact to local demographics are anticipated due to Alternative B; therefore, no mitigation would be required.

## 4.2. Land Use

The Project would be located in a rural setting composed primarily of grasslands, cultivated, and developed lands. The environmental study area is composed of 2,267.02 acres of cultivated lands and 1,058.72 acres of grasslands. The majority of the project route, located on state and private lands, would include a 50-foot-wide

permanent ROW for the pipeline and 25-foot-wide temporary construction easements on one side of the ROW (a total of 75-foot ROW). In some areas where construction activities would require less space (e.g., wooded draws, steep topography, or HDD locations) the construction corridor would be reduced as necessary to minimize impacts. For purposes of this analysis, to provide the most conservative assessment, potential temporary impacts from construction activities are estimated assuming the entire length of the Project would include a 75-foot-wide construction corridor. Please refer to **TABLE 4. LAND USE** and **FIGURE A-2. LAND USE ON PAGE A-2** in Appendix A.

**Table 4. Land Use**

LAND USE CLASSIFICATION	ENVIRONMENTAL STUDY AREA (ACRES)	PERCENT OF ENVIRONMENTAL STUDY AREA	TEMPORARY IMPACTS: 75-FOOT-WIDE CONSTRUCTION CORRIDOR (ACRES)
Cultivated Lands	2,267.02	63%	873.57
Developed Lands	176.85	5.0%	55.50
Shrublands	16.65	0.5%	6.84
Wetlands	44.76	1.2%	15.06
Woodlands	12.41	0.4%	4.40
Water	6.24	0.3%	2.05
Grasslands	1,058.72	29.5%	402.23
Barren	1.20	~0.00	0.47
<b>Total</b>	<b>3,583.85</b>	<b>100%</b>	<b>1,360.12</b>
LAND USE CLASSIFICATION	ENVIRONMENTAL STUDY AREA (ACRES)	PERCENT OF ENVIRONMENTAL STUDY AREA	TEMPORARY IMPACTS: 75-FOOT-WIDE CONSTRUCTION CORRIDOR (ACRES)
USFWS-Owned Lands <sup>1</sup>	12.89	0.4%	4.83
State Lands	97.32	2.7%	36.70
Private Lands	3,473.64	96.9%	1,318.59
<b>Total</b>	<b>3,583.85</b>	<b>100%</b>	<b>1,360.12</b>

<sup>1</sup> The project would follow the existing Cenex pipeline across a USFWS owned parcel. Cenex has an easement for multiple line rights through the property, which was obtained prior to the parcel being purchased by the USFWS.

In addition to general land uses, the study area also consists of formally classified lands through the USFWS, North Dakota Game and Fish Department (NDGFD), and State of North Dakota. These lands are depicted in **FIGURE A-5. LAND OWNERSHIP AND DESIGNATIONS ON PAGE A-85** in Appendix A.

The environmental study area contains approximately 324.34 acres of USFWS wetland easements. A wetland easement is a perpetual agreement entered by a landowner and the USFWS. In return for a single lump sum payment, the landowner agrees not to drain, burn, level, or fill wetlands covered by the easement. The boundaries of easement wetlands are defined by USFWS based on a high-water average using decades of aerial photographs. These lands are depicted in **FIGURE A-4. EXCLUSION AND AVOIDANCE AREAS ON PAGE A-46** in Appendix A. A grassland easement is also a perpetual agreement entered by a landowner and the USFWS but the resource being protected is upland vegetation. This means that land under a grassland easement cannot be cultivated and mowing, haying, and grass seed harvesting cannot occur until after July 15. There are no USFWS grassland easements located within the environmental study area.

USFWS also manages conservation easements. Conservation easements are permanent restrictions on land to protect its natural state. The USFWS administers the National Wildlife Refuge System, which includes National Wildlife Refuges (NWR) and Waterfowl Production Areas (WPA). NWRs serve the purpose of preserving and protecting lands for fish, wildlife, and associated habitat. WPAs are lands protected and/or restored for waterfowl production. The environmental study area does not cross any NWRs or WPAs.

Land managed by the North Dakota Game and Fish consists of Private Land Opened to Sportsmen (PLOTS). PLOTS are easements set aside to allow public hunting access and for develop of habitat. These easements are placed on private lands that provide ample habitat or to enhance wildlife habitat. PLOTS easements do not exempt the parcel from development; however, compensation paid to the landowner may need to be refunded if the agency deems construction devalues the habitat they wish to protect. The study area contains approximately 58.64 acres of PLOTS lands. The North Dakota State Land Department manage lands owned by the state; there are 36.70 acres of North Dakota State Lands Department-owned lands in the Project study area. These classified lands are depicted in **FIGURE A-5. LAND OWNERSHIP AND DESIGNATIONS ON PAGE A-85** in Appendix A.

#### 4.2.1. Land Use Impacts/Mitigation

##### 4.2.1.1. Alternative A (No Build)

No impacts on land use would occur due to Alternative A. All existing uses, private-, federal- and state-owned lands would continue to operate in their current capacity.

##### 4.2.1.2. Alternative B (Build)

###### *Impacts*

Short- term adverse impacts on land use would be expected from Alternative B. Implementation of Alternative B would result in the temporary disturbance of approximately 1,360.12 acres of land within the 75-foot-wide construction corridor. For a breakdown of impact on specific resources and ownerships, please refer to **TABLE 4. LAND USE ON PAGE 19**. Permanent land use conversion would be limited to approximately 0.34 acres of land within the environmental study area from construction of MLVs at river crossings. Please refer to **FIGURE A-1. PROJECT ROUTE AND CORRIDOR ON PAGE A-1** in Appendix A for an overview of the MLV locations. It is not anticipated that the disturbance of lands within the project route would result in a trend toward modification of existing land use patterns.

The proposed Project disturbance area (75-foot ROW) is sited through 21.99 acres of NDGFD PLOTS and 120.18 acres of USFWS wetland easements; however, permanent impacts are not anticipated.

No property owners associated with the Project have expressed concerns regarding land that is economically suitable for irrigation. Conflicts with existing state, local, and private development plans associated with the Project are not anticipated. Williams, Mountrail, and Ward Counties have zoning regulations and long-term goals outlined in Comprehensive Plans. Conditional use permits would be obtained from Mountrail and Ward Counties; Williams County does not require conditional use permits if the proposed project is overseen by the PSC. Appropriate approval documents would be provided to Williams County following PSC review and/or approval.

## Mitigation

Upon completion of construction, permanent soil erosion- and sediment-control would begin as soon as soil conditions permit seed bed preparation and seed germination. Every effort would be made to begin cleanup and rough grading (including installing temporary erosion-control measures) within 24 hours after backfilling. After final grading, slopes in areas other than cropland would be stabilized with erosion-control structures (e.g., permanent berms, diversion dikes, and slope breakers). Extraneous material that would impede seed bed preparation would be removed from the ROW. Agricultural lands would be restored, but would not be reseeded unless requested by the landowner. Cleanup and rough grading activities could take place simultaneously and would include removing construction debris (including municipal solid waste and excess rock), replacing fences removed during construction, restoring the disturbed areas to the original contours, and installing or repairing temporary erosion-control measures. Once revegetated, these areas would be available for their preconstruction land uses (e.g. grasslands/pasturelands, cultivated lands, and woodlands).

Long-term impacts on land use from installation of MLVs would be minimized by reclamation activities and implementation of BMPs. BMPs may include erosion-control measures such as installation of silt fencing, straw bales, slope breakers, trench breakers, erosion-control fabric, and mulch.

Impacts to PLOTS and USFWS easements would be avoided or minimized. Appropriate permits would be sought from the agencies and all lands would return to previous condition and uses after construction and reclamation of the Project. Any USFWS wetland easements located along the corridor would be avoided by HDD.

Impacts on large wetlands and open water would be avoided by constructing the pipeline using HDD, where possible. Trenching through wetlands may occur at the discretion of Cenex environmental inspector personal. The decision to trench or use HDD at wetland locations will be determined in the field and will be based on maintaining compliance with US Army Corps of Engineers (USACE) Nationwide Permit (NWP) 12 – Utility Line Activities, and ease of construction/reclamation. NWP 12 limits impacts to temporary fills without notification as well as requires compliance with the general condition of the permit. Any temporary fills would be removed in their entirety and the affected areas returned to pre-construction elevations.

### 4.3. Public Services–Electrical Services

There is one electrical line that traverses the environmental study area for a total of 0.45 miles. Please refer to **FIGURE A-3. PUBLIC SERVICE INFRASTRUCTURE, GEOLOGIC, GROUND WATER, DELINEATED WETLANDS AND HABITATS ON PAGE A-7** in Appendix A.

#### 4.3.1. Electrical Services Impacts/Mitigation

##### 4.3.1.1. Alternative A (No Build)

No impacts on electrical service would be expected from Alternative A.

##### 4.3.1.2. Alternative B (Build)

#### *Impacts*

No impacts to electrical services would be expected from Alternative B. Structures would be marked appropriately so that they are readily visible to equipment operators. Electricity consumed by the proposed

pipeline would be minimal and limited to infrequent valve operations. The electrical usage would not result in an adverse impact on the region's power supply.

#### *Mitigation*

Long-term, significant impacts on power lines, or interference of electrical service are not anticipated; therefore, no mitigation would be required. Prior to commencement of construction activities, Cenex would coordinate with the power line owner(s) regarding any power line that intersect the study area and would appropriately mark lines for construction staff to see. These measures are expected to entirely avoid or minimize service interruption and to ensure no long-term impacts due to construction.

### 4.4. Public Services - Local Services

The Project would pass through rural portions of North Dakota, primarily composed of grasslands, cultivated, and developed lands. There are no towns or municipalities within the environmental study area; however, there are three rural towns and two urban municipalities (i.e., Ray, Epping, Springbrook, Williston, and Minot) and two unincorporated communities (i.e., Fairview and Buford) within five miles of the project route. The unincorporated community of Buford is the nearest community to the Fort Union Trading Post National Historic Site. No services are available. Fairview is recognized by the Census and provides residents with bars, restaurants, hotels, gas stations, post office, banks, and elementary and high schools. Epping and Ray provide churches, an elementary school (Ray), post offices and a gas station (Ray). The nearest medical facilities are in Minot and Williston North Dakota. Minot and Williston provide services associated with larger urban municipalities such as Kindergarten, elementary, middle, and high schools, hospitals, fire and paramedic service, hotels, restaurants, shopping malls, airports, and recreational opportunities.

#### 4.4.1. Local Services Impacts/Mitigation

##### 4.4.1.1. Alternative A (No Build)

No impacts on local services would be expected from Alternative A.

##### 4.4.1.2. Alternative B (Build)

#### *Impacts*

Short-term impacts on local services would be expected from Alternative B. Implementation of Alternative B would result in an increased need for construction contractors. Contractors for the proposed pipeline construction would be obtained from the local area to the maximum extent practicable. Additional construction contractors would be obtained outside of the local area, when needed. Accordingly, there would be increases in demand for local services associated with the influx of employees associated with construction temporarily relocating to the area. This demand for local services during construction of the pipeline is not anticipated to be significant or exceed the existing capacities of the local services in the area.

#### *Mitigation*

Adverse impacts on local services in and around the Project are not anticipated; therefore, no mitigation would be required.

## 4.5. Public Services–Roads and Traffic

The proposed pipeline would enter North Dakota approximately 5.8 miles north of Fort Buford. The proposed pipeline would cross numerous roads and highways including: North Dakota State Highways 1804 and 8; US Highway 2, US Highway 2/US Highway 85, Williams County Roads 5, 8, 15, 21, and Palermo Road; and Ward County Roads 9 and 11. Other minor roadways within and near the Project route range from well-maintained county gravel roadways, to roadways and dirt trails that receive low-level maintenance. Please refer to **FIGURE A-3. PUBLIC SERVICE INFRASTRUCTURE, GEOLOGIC, GROUND WATER, DELINEATED WETLANDS AND HABITATS ON PAGE A-7** in Appendix A. NDDOT has recorded Average Annual Daily Traffic (AADT) volumes for major roadway including North Dakota State Highways 1804, and US Highway 2. From 2012 to 2015, NDDOT AADT volume reported for vehicles and commercial trucks near the Project crossing US Highway 2 west of Williston, decreased 36 and 135 percent respectively. In 2015, the NDDOT AADT volume for US Highway 2 was reported at 6,235 vehicles per day and 1,365 commercial trucks per day. From 2012 to 2015, NDDOT AADT volume reported for vehicles and commercial trucks near the Project crossing State Highway 1804 in Mountrail County, decreased 27 and 17 percent respectively. In 2015, the NDDOT AADT volume for this portion of Highway 1804 was reported at 1,990 vehicles and 1,055 commercial trucks per day. From 2012 to 2015, NDDOT AADT volume reported for vehicles and commercial trucks near the terminus of the project at the CHS Minot Terminal, decreased 13 and 65 percent respectively. In 2015, the NDDOT AADT volume for this portion of US Highway 2 was reported at 9,190 vehicles and 1,645 commercial trucks per day (NDDOT, 2012 and NDDOT, 2015). Please refer to **TABLE 5. NDDOT COMBINED AADT VOLUMES**. Despite the decrease in traffic volumes since 2012, volumes are much larger than local and regional roads in the study area were designed to carry.

AADT on rural, paved and non-paved roadways along the project route have not been conducted due to the limited-use of these roadways. Most of the traffic on these rural roadways consists of local agriculture traffic, local residential commuters, and oil- and gas-related activities.

**Table 5. NDDOT Combined AADT Volumes**

ROADWAY/LOCATION	YEAR	NDDOT COMBINED AADT
US Highway 2 (where Project intersects Highway 2 west of Williston)	2012	11,680
	2013	7,990
	2014	7,700
	2015	7,600
State Highway 1804 (near to where Project intersects Highway 1804 in Mountrail County)	2012	3,770
	2013	2,700
	2014	2,535
	2015	3,045
US Highway 2 (north of Project terminus in Minot)	2012	13,075
	2013	12,845
	2014	13,355
	2015	10,835

Sources: NDDOT 2012, 2013, 2014, and 2015

#### 4.5.1. Roads and Traffic Impacts/Mitigation

##### 4.5.1.1. Alternative A (No Build)

No impacts to roadways or traffic would be expected from Alternative A.

##### 4.5.1.2. Alternative B (Build)

###### *Impacts*

Short-term, adverse would be expected from Alternative B. Traffic volumes would increase slightly during construction activities; however, any increases in traffic would be temporary. Existing major and minor roadways within and near the Project study area would be used for access to the project route and could experience damage during construction activities. All construction traffic would be confined to public roads, private roads acquired for use by the contractor, or within the construction corridor. Cross-country vehicle travel outside the ROW granted for the construction corridor, or on non-approved, existing access roads would not be allowed.

Traffic associated with maintenance of the pipeline is anticipated to be minor. Any increases in traffic from construction, operation, and maintenance is not expected to be at a volume that would alter travel patterns in the area or result in significant damage to roadways.

###### *Mitigation*

Prior to commencement of construction activities, haul road permits would be obtained for the transport of large equipment from Williams, Mountrail, and Ward Counties and the NDDOT, as required. Permission would also be obtained from all owners of private roads used for accessing the Project. Temporary signs would be posted at each crossing, as appropriate, to alert motorists of construction activity. The contractor would be responsible for installing signs or other methods of identifying approved access roads in the field to ensure that access to the construction corridor is confined to only the approved roads. Where the Project intersects State and US Highways, and other well-maintained roadways, HDD would be used to construct the proposed pipeline to avoid any impacts on traffic and commerce. If temporary private access roads are constructed, they would be designed to maintain proper drainage, and BMPs would be implemented to minimize soil erosion. All roadways damaged from construction activities would be restored to preconstruction condition or as agreed between Cenex and the landowner or regulatory agency. Dust control measures (i.e., watering roadways, slow speeds, etc.) would be used by Cenex to minimize dust from trucks and equipment movement on gravel and dirt roads.

## 4.6. Public Services—Telephone, Radio, Antenna, Communication, and Microwave Structures

There are no radio structures, microwave structures, or wireless communication towers present within the ROW, environmental study area. The Project route was selected to avoid radio, antenna, communication, and microwave structures. There are several telephone lines within, and intersecting, the environmental study area. Please refer to **FIGURE A-3. PUBLIC SERVICE INFRASTRUCTURE, GEOLOGIC, GROUND WATER, DELINEATED WETLANDS AND HABITATS ON PAGE A-7** in Appendix A.

#### 4.6.1. Telephone, Radio, Antenna, Communication, and Microwave Structures Impacts/Mitigation

##### 4.6.1.1. Alternative A (No Build)

No impacts on radio, antenna, or microwave structures or wireless communication towers would be expected from Alternative A.

##### 4.6.1.2. Alternative B (Build)

###### *Impacts*

The project route was selected to avoid impacts on radio, antenna, and microwave structures and wireless communication towers. No impacts on radio, antenna, or microwave structures or wireless communication towers would be expected from Alternative B. Any telephone lines that intersect the environmental study area would not be impacted by the proposed pipeline.

###### *Mitigation*

Prior to commencement of construction, Cenex would coordinate with the telephone line owners in the vicinity of the Project to avoid or minimize interruption. Structures would be marked appropriately so that they are readily visible to equipment operators. Impacts on radio, antenna, communication and microwave structures and wireless communication structures are not anticipated; therefore, no mitigation would be required.

### 4.7. Public Services–Water Supply

Ward County water is supplied by Northwest Area Water Supply. This project consists of 45 miles of pipeline from the Missouri River to Minot, North Dakota (NDSWC 2015a). The Western Area Water Supply Authority (WAWSA) supplies water to rural areas in Mountrail and Williams Counties. The Western Area Water Supply Project utilizes a combination of Missouri River water treated at the Williston Regional Water Treatment Plant and groundwater treated by the R&T Water Supply Commerce Authority's Water Treatment Plant in Ray, North Dakota. Currently, the Authority provides water to 70,000 people and should provide up to 160,000 people by 2038 (WAWSA 2016).

There are no sole source aquifers<sup>1</sup> designated in the environmental study area or the State of North Dakota (EPA 2009). Unconsolidated aquifers within the environmental study area include the Little Knife River Valley, Little Muddy, Ray, Shell Creek East Branch, White Lake, Souris River, White Earth and Yellowstone River Channel aquifers. Unconsolidated aquifers are located between rock formations and contain the most productive aquifers in North Dakota. The aquifers are composed of loose deposits of sand and gravel through which water readily moves. Some of these deposits are tens of square miles in area and are as much as 100 feet thick (USGS, 1983). Please refer to **FIGURE A-3. PUBLIC SERVICE INFRASTRUCTURE, GEOLOGIC, GROUND WATER, DELINEATED WETLANDS AND HABITATS ON PAGE A-7** in Appendix A.

It is common for rural residences in the area to use private wells for domestic and agricultural purposes. Per North Dakota State Water Commission (NDSWC) data, there are no industrial or private wells within the environmental study area. The nearest stock well is located just outside of the environmental study area

<sup>1</sup> EPA (2009), "defines a sole source aquifer as one which supplies at least 50 percent of the drinking water consumed in the area overlying the aquifer".

(less than 1-foot) and drilled to 425 feet below ground surface (NDSWC, 2015b). All public water systems that have wells or intakes are participants in the Source Water Protection Program established by the Safe Drinking Water Act. Wellhead Protection Areas are managed by the North Dakota Department of Health (NDDH) to protect groundwater-dependent public water systems, or surface water-dependent public water systems (NDDH, 2016). There is one Wellhead Protection Area, Sundre Wellhead Protection Area (SWPA), within the environmental study area and the ROW for the proposed project. This Wellhead Protection area is groundwater dependent for the community of Minot (NDSWC, 2015b).

#### 4.7.1. Water Supply Impacts/Mitigation

##### 4.7.1.1. Alternative A (No Build)

No impacts on water supply would be expected from Alternative A.

##### 4.7.1.2. Alternative B (Build)

###### *Impacts*

No impacts on water supply are anticipated from Alternative B. Prior to commencement of construction activities, Cenex would coordinate with the NDSWC regarding the Northwest Area Water Supply, WAWSA, and private landowners regarding any water lines or wells near the proposed pipeline to avoid or minimize service disruptions.

The risk of contaminating the water supply from a potential release of refined fuel by way of pipeline integrity emergency would be minimal. If there were a pipeline integrity emergency with the pipeline during operations, short-term and long-term, adverse impacts on the water supply might occur.

###### *Mitigation*

The Project would comply with USDOT regulations, specifically the design, construction, pressure testing, operation, welding, maintenance, and emergency response requirements, as outlined in Transportation of Hazardous Liquids by Pipeline regulations (49 CFR Parts 194 and 195). Per the City of Minot, Code of Ordinances, Chapter 20.5 (Sec.20.5.3), "Activities involving any equipment for the underground storage or transmission of oil or petroleum, or hazardous material..." within the SWPA is considered a prohibited activity unless it is considered an ancillary activity or is registered as an existing activity. Ongoing coordination with the City of Minot is occurring to determine the level of action needed; if an exemption from the city engineer is needed, it will be provided to the PSC in supplemental information (City of Minot, 2016).

Cross-country vehicle travel during construction and reclamation of the pipeline, outside the ROW granted for the construction corridor, would not be allowed. Upon completion of construction and prior to commissioning, the pipeline would be hydrotested for pipeline integrity. The water from hydrotesting would be discharged in accordance with the requirements listed in the North Dakota Pollutant Discharge Elimination System (NDPDES) permit. Construction of the Project would include installation of MLVs, which would allow segments of the pipeline to be isolated if there were a pipeline integrity emergency or for inspection and maintenance purposes. During operations, SCADA system communications would be used to monitor for pipeline integrity remotely 24-7. In addition, the pipeline would receive regular inspections by on-the-ground field staff or aerial flight along the ROW for any indications of pipeline integrity occurrences.

In the event of a pipeline integrity emergency, the section of the pipeline would be isolated, repaired, and hydrotested in coordination with USDOT PHMSA prior to recommissioning. Any fuel released from a pipeline integrity emergency would be remediated in accordance with Cenex's CEP, EPOSRP, and NDDH regulations and requirements.

## 4.8. Human Health and Safety–Hazardous Materials/Hazardous Waste

Coordination with NDDH and review of US Environmental Protection Agency (EPA) hazardous materials databases (e.g. Superfund, Resource Conservation and Recovery Act [RCRA], Toxics Release Inventory [TRI], Comprehensive Environmental Response, Compensation and Liability Information System [CERCLIS]) was conducted for Williams, Mountrail and Ward Counties. There are no known hazardous waste sites within the Project environmental study area (USEPA 2016a, 2016b, 2016c, 2016d, 2016e).

Minor amounts of hazardous materials (i.e., used oils, cleaning agents, batteries) could be used during construction, maintenance, or operation activities associated with the Project. Hazardous waste would not be generated from construction, maintenance, or operation activities associated with the Project.

### 4.8.1. Hazardous Materials/Hazardous Waste Impacts/Mitigation

#### 4.8.1.1. Alternative A (No Build)

No impacts on hazardous materials or wastes sites would be expected from Alternative A.

#### 4.8.1.2. Alternative B (Build)

##### *Impacts*

Any hazardous wastes encountered or hazardous materials used during construction would be contained per the SWPPP that would be maintained by Cenex. Cenex, nor its contractors, would store hazardous materials, chemicals, fuels, lubricating oils, or perform concrete coating activities within 100 feet of streams or waterbodies.

There are seven rural residences or farmsteads and one commercial building within 500 feet of the proposed pipeline route. There would be no impact of extractive or storage resources. These sites are not required to register the location of underground storage tanks (USTs), above ground storage tanks, or landfills; however, they have the potential for localized contamination.

##### *Mitigation*

Private locations of USTs, above ground storage tanks, or landfills would be recorded during field visits to the extent practicable to avoid inadvertent impacts. In accordance with NDCC Chapter 49-22-05.1 and NDAC Section 69-06-08-02, pipeline owners would be required to obtain a Waiver of Avoidance Area from any property owners of occupied residences within 500 feet of the proposed pipeline. The final project route would take these residences into consideration. Signed waivers would be acquired for residences or businesses within 500 feet of the final project route and included in the final application. These waivers would be provided to the PSC prior to public hearing.

A SWPPP and CEP Plan would be developed and maintained for the Project. The operator of the pipeline (Cenex) would be required to write and conduct annual reviews on all operations and maintenance manuals.

The manuals would describe standard operating and maintenance procedures and include emergency procedures and contacts.

## 4.9. Human Health and Safety–Security

The Project would be in Williams, Mountrail, and Ward Counties. All access to the project route would require permission from property owners, which would minimize public access and should reduce the need for additional security during construction. Seven farmsteads and rural residences are located within 500 feet of the pipeline route in Ward County.

### 4.9.1. Security Impacts/Mitigation

#### 4.9.1.1. Alternative A (No Build)

No impacts on security would be expected from Alternative A.

#### 4.9.1.2. Alternative B (Build)

##### *Impacts*

No impacts on security would be expected from Alternative B. Since all access to the project route would require permission from property owners, public access to the project route would be minimized and the need for additional security during construction would be reduced. The security of the Project is not anticipated to be compromised during, or upon completion, of construction.

##### *Mitigation*

MLV sites would be enclosed with a chain-link fence and locked. Any communications equipment would be housed in small containment buildings inside the chain-link fence and locked. The pipeline would be monitored by SCADA systems 24-7. PIG launcher and receivers would be enclosed in chain-link fence, as well. No additional mitigation is anticipated.

## 4.10. Human Health and Safety–Noise

The Project would be in a rural setting. Existing noise contributions in the environmental study area would be from nearby farming activities and roadway traffic. Noise levels in rural settings typically range from 25 to 40 decibels (Noise Quest 2016, IAC Acoustics 2016).

### 4.10.1. Noise Impacts/Mitigation

#### 4.10.1.1. Alternative A (No Build)

No impacts on the ambient noise environment would be expected from Alternative A.

#### 4.10.1.2. Alternative B (Build)

##### *Impacts*

Short-term, adverse impacts on the ambient noise environment in the environmental study area would be expected from Alternative B. During construction, residences near to the Project would experience

short-term increases in construction-related noise. Noise emanating from construction equipment would be localized, temporary, and intermittent during machinery operations. Heavy construction equipment would be operated periodically during construction, and therefore, noise levels from the equipment would fluctuate throughout the day. Typical bulldozers, backhoes, and side booms used to install large-diameter pipelines generate between 80 and 95 decibels within 50 feet of the equipment (FHWA 2015). Increases in ambient noise levels due to heavy equipment operation would be limited to the period of construction, typically during daylight hours. Vehicles used during operation of the proposed pipeline would result in negligible increases in existing noise levels.

No additional pump stations would be constructed as part of the Project. Temporary construction impacts on sensitive noise receptors would be expected, as the nearest sensitive noise receptors are occupied farmsteads within 500 feet of the proposed pipeline centerline.

#### *Mitigation*

The contractor would take all reasonable steps to control construction-related noise near residential areas, as directed by Cenex. Control practices could include using the best available technology for construction equipment (e.g. mufflers) and limiting working hours in residential areas, as appropriate.

### 4.11. Aesthetics (Visual)

Aesthetic, or visual, analysis of the Project is concerned with how changes in the landscape (considered the resource) affects individuals or groups of peoples' views and experience within the environmental study area (Landscape Institute 2011).

The environmental study area lacks large-scale development and contains sparsely scattered farmsteads and rural residences. Much of the landscape within the environmental study area is utilized for oil and gas industry activities and facilities.

The landscape of the Project is characterized by cultivated agricultural fields, grasslands, pasturelands, oil and gas development, with occasional small creeks and drainages. The proposed pipeline would cross the Little Muddy River, Little Knife River, and White Earth River. Portions of the pipeline cross the prairie pot-hole region; an area characterized by pothole wetlands heavily interspersed within the landscape. There are no scenic byways, or wild and scenic rivers within the environmental study area.

Limited viewers are present within the environmental study area because of the rural location of the Project. Regular users of the landscape include rural and farmstead residents, oil and gas employees, and users of the roadways surrounding and within the environmental study area.

#### 4.11.1. Aesthetic (Visual) Impacts/Mitigation

##### 4.11.1.1. Alternative A (No Build)

No impacts on visual resources would be expected from Alternative A.

#### 4.11.1.2. Alternative B (Build)

##### *Impacts*

Evaluating the aesthetic qualities of an area is a subjective process, because the value that an observer places on a specific feature varies depending on their personal perspective, experiences, and preferences. Visual impacts are inherently difficult to define because of the subjectivity involved. Short-term, adverse impacts to the landscape and viewers, within the environmental study area would be expected during construction of the pipeline; however, these impacts would be temporary. Viewers would temporarily experience additions of construction equipment, vehicles, fencing, top-soil and fill stockpiles, and Cenex construction staff within the landscape.

There would be minimal permanent visual impacts within the environmental study area including the installation of 16 new MLVs (six located at river crossings) and several pipeline markers along the proposed pipeline. These permanent impacts would be minor. MLVs are small in nature (ten 20- by 30-foot [0.01 acre] pads spaced no less than 20 miles apart along the route, and six 30- by 60-foot [0.04 acres] pads located at river crossings) and pipeline markers are small signs which could only be seen at a close distance. These small structures are not anticipated to intrude on the overall aesthetic qualities of the rural landscape. Please refer to **FIGURE A-1. PROJECT ROUTE AND CORRIDOR ON PAGE A-1** in Appendix A for an overview of the MLV locations.

##### *Mitigation*

Upon completion of construction activities, the topography of the landscape within the environmental study area would be returned to its preconstruction contours. Vegetation cover would be replaced and reclaimed to landowner satisfaction and to the specification of applicable permits. Once revegetated, these areas would be available for their preconstruction use. All construction equipment and debris (including municipal solid waste and excess rock) would be removed from the Project site, and fences would be replaced. MLVs and any buildings would be painted to blend with the natural surroundings. No additional mitigation is anticipated at this time.

### 4.12. Cultural and Archaeological Resources

KLJ conducted a Class I Literature Review of the State Historical Society of North Dakota (SHSND) site and manuscript files from October 1–28, 2015. The review was for all cultural resource inventories and previously recorded cultural resources that were located within a six-mile corridor centered on the proposed pipeline. The literature review revealed that there are 859 previously recorded cultural resources and 66 previous inventories in the corridor. Results of the literature review were used as part of a pre-planning effort to avoid previously known unevaluated, significant, or eligible cultural resources.

KLJ performed a Class III cultural resource inventory on parcels that allowed survey permission along the proposed route. The initial Class III inventory was conducted between June 28 and November 22, 2016. The survey area had a minimum width of 200 feet. When a site was identified, it was recorded and mapped, even if it extended outside the 200-foot inventory corridor, unless it extended onto property where permission to access was not granted. During the survey, 39 previously undocumented cultural resources were identified. The cultural resources included 26 sites, 10 isolated finds, and 3 site leads. In addition, one previously recorded cultural resource displayed changes in recorded cultural material and boundary. Nine other previously recorded cultural resources were previously reported as inside the project and revisited, but either no

change was noted or they did not actually extend into the project area. The Class III field inventory will be completed on the remaining non-surveyed parcels in 2017 when snow cover allows. Once the entire route has been surveyed, a Class III Cultural Resources Report would be submitted to the ND PSC and SHSND. Concurrence from the SHSND regarding the determinations made in the Class III Report will be submitted to the ND PSC upon receipt.

#### 4.12.1. Cultural and Archaeological Resources Impacts/Mitigation

##### 4.12.1.1. Alternative A (No Build)

No impacts on cultural or archaeological resources would be expected from Alternative A.

##### 4.12.1.2. Alternative B (Build)

###### *Impacts*

No Impacts. The final Project corridor and route would avoid known and newly identified unevaluated, significant, or *Eligible* cultural resources by a minimum of 50 feet.

###### *Mitigation*

If previously unidentified cultural resources are discovered during the construction process, construction activities would halt until qualified cultural staff arrive to advise (in consultation with the SHSND) on proceeding with construction. An Inadvertent Discovery Plan would also be developed and submitted to the SHSND. This plan would include details regarding procedures that would be conducted in the event subsurface cultural resources, including human remains, are found during construction.

### 4.13. Recreational Resources

Rangeland, cropland, wetlands, rivers, and named streams and creeks are found in the study area. Major water bodies located within, and near to, the environmental study area, which may provide recreational opportunities, include the Yellowstone River, Missouri River, Little Muddy River, White Earth River, Little Knife River, Souris River, and Lake Sakakawea. Other water bodies of potential recreational interest near the study area include: Lake Trenton outside of Trenton, North Dakota; Epping Dam between Epping and Spring Brook, North Dakota; and McLeod Lake and Kota Ray Dam near Ray, North Dakota. These areas may be used for hunting, bird watching, photography, fishing, and general recreation.

The region from Stanley to Minot is dotted with numerous wetland basins of various sizes, many of which have been designated as Wildlife Management Areas (WMAs), WPAs, or NWRs. NDGFD has designated 58.64 acres of PLOTS land within the environmental study area. These water complexes and lands may be used for hunting, bird watching, and potentially fishing purposes; however, they are likely not utilized for boating activities (i.e., speed boat, water sports boats, etc.) other than occasional occurrences of smaller watercraft associated with hunting or fishing.

Other recreational spots near to the Project include Fort Union, Fort Buford, and the Missouri-Yellowstone Confluence Interpretive Center. Additionally, there are numerous city parks, golf courses, and museums located in the nearby rural towns and municipalities of Willison and Minot.

The following recreational resources are nearest to the proposed pipeline and include:

- ◆ Fort Union National Historic Site; 5.77 miles south of the proposed pipeline. From 1828 to 1867, Fort Union was the most important trading post on the Upper Missouri River. The Upper Missouri tribes including Assiniboine, Plains Cree, Blackfeet, and more traded furs for goods imported internationally. The Fort Union Trading Post was the most profitable and longest lasting fur trade post in the western US (NPS, 2016).
- ◆ Hofflund WMA; 6.72 miles south of the proposed pipeline. Hofflund WMA is managed by the NDGFD. It is 1,558 acres in size and overlooks Lake Sakakawea (NDGFD, 2016c).
- ◆ Shell Lake NWR; 0.48 to 1.2 miles south of the proposed pipeline. Shell Lake NWR was established to protect all species of waterfowl. The NWR provides stopover and breeding habitat and contains a 450-acre open water area. Native prairie within the NWR also provides habitat for numerous songbird species (USFWS, 2015).
- ◆ Palermo State Game Management Area; 6.5 mile north of the proposed pipeline. State Game Management areas area also managed by the NDGFD and follow similar use regulations. Palermo State Game Management Area is located along US Highway 2 and consists of 40 acres of land, largely a wetland basin (NDGFD, 2012b).
- ◆ McLeod/Ry Reservoir; 2.45 miles north of the proposed pipeline in Ray, North Dakota. This lake is 57 acres in size. It is approximately 36 feet deep at its deepest point and contains a boat ramp. Anglers can expect to catch a variety of fish including largemouth bass (*Micropterus salmoides*), northern pike (*Esox lucius*), walleye (*Sander vitreus*), and yellow perch (*Perca flavescens*) (Lake-Link, 2016).
- ◆ Ray Golf Association; 2.45 miles north of the proposed pipeline in Ray, North Dakota
- ◆ Spring Lake Park and Disc Golf Course; 4.58 miles south of the proposed pipeline in Williston, North Dakota.
- ◆ Minot Golf Course; 1.48 miles east of the proposed pipeline terminus in Minot, North Dakota.

Three river crossings (i.e., Little Muddy, Little Knife, White Earth Rivers) and PLOTS land are located directly within the environmental study area. No NWRs, WPAs, WPAs, or WMAs are located within the environmental study area.

#### 4.13.1. Recreational Resources Impacts/Mitigation

##### 4.13.1.1. Alternative A (No Build)

No impacts on recreational resources would be expected from Alternative A.

##### 4.13.1.2. Alternative B (Build)

###### *Impacts*

Three river crossings and 58.64 acres of PLOTS land are within the environmental study area. A total of 21.99 acres of PLOTS lands (75-foot ROW) would be temporarily impacted by the proposed pipeline. The three rivers would be crossed using HDD and are not anticipated to be impacted by construction of the proposed

pipeline. Surrounding recreational resources (i.e., golf courses, WPAs, NWRs, etc.) could experience indirect, temporary visual and/or noise impacts, depending on distance from the construction ROW.

#### *Mitigation*

Impacts on major water bodies, including river crossings, would be avoided by constructing the pipeline using HDD in significant open water areas. Upon completion of construction activities, the topography of the landscape within the environmental study area would be returned to its preconstruction contours and vegetation cover would be replaced and reclaimed to landowner satisfaction and to the specification of applicable permits. Once revegetated, these areas would be available for their preconstruction use. All construction equipment and debris (including municipal solid waste and excess rock) would be removed from the Project site, and fences would be replaced. The contractor would take all reasonable steps to control construction-related noise near residential and recreational areas, as directed by Cenex. Control practices could include using the best available technology for construction equipment (e.g., mufflers) and limiting working hours in residential or sensitive areas, as appropriate.

Upon completion of construction and prior to commissioning, the pipeline would be hydrotested for pipeline integrity. The water from hydrotesting would be discharged in accordance with the requirements listed in the NDPDES permit. Construction of the Project would include installation of MLVs at the three river crossings, which would allow segments of the pipeline to be isolated if there were a pipeline integrity emergency or for inspection and maintenance purposes. During operations, SCADA system communications would be used to monitor for pipeline integrity remotely 24-7. In addition, the pipeline would receive regular inspections by on-the-ground field staff or aerial flight along the ROW for any indications of pipeline integrity or other maintenance issues. In the event of a pipeline integrity emergency, the section of the pipeline would be isolated, repaired, and hydrotested in coordination with USDOT PHMSA prior to recommissioning. Any fuel released from a pipeline integrity emergency would be remediated in accordance with Cenex's CEP, EPOSRP, and NDDH regulations and requirements.

#### 4.14. Agriculture and Farmland

Much of the environmental study area consists of gently rolling topography and level cropland fields, an occasional drainage way, and plentiful wetland depressions containing very poorly drained soils. Most areas in this study are utilized for farmland. If the project possessed federal nexus, then the Farmland Protection Policy Act would apply. The Farmland Protection Policy Act of 1981 (7 U.S.C. 4201 et seq.) provides protection to prime and unique farmlands. Federal agencies are to consider alternative actions, as appropriate, that could lessen adverse effects; and to assure that such federal programs, to the extent practicable, are compatible with state, unit of local government, and private programs and policies to protect farmland. This project would not have federal nexus; however, impacts within the study area to Prime or Unique Farmland, or Farmland of State Importance were analyzed and minimized to the extent practicable.

There is a total of 4.37 acres of prime farmland and 386.64 acres of farmland of statewide importance within the environmental study area in Mountrail County; 195.87 acres of prime farmland and 138.15 acres of farmland of statewide importance within the environmental study area in Ward County; and 19.32 acres of prime farmland and 1,035.10 acres of farmland of statewide importance in Williams County. Please refer to **TABLE 6. PRIME AND UNIQUE FARMLAND OF STATEWIDE IMPORTANCE SUMMARY**.

**Table 6. Prime and Unique Farmland of Statewide Importance Summary**

COUNTY	TYPE OF FARMLAND	ACRES WITHIN ENVIRONMENTAL STUDY AREA	ACRES TEMPORARILY IMPACTED (75-FOOT ROW)
Williams	Prime Farmland	19.32	7.02
	Unique Farmland	0.00	0.00
	Farmland of Statewide Importance	1,035.10	392.41
Mountrail	Prime Farmland	4.37	1.71
	Unique Farmland	0.00	0.00
	Farmland of Statewide Importance	386.64	145.60
Ward	Prime Farmland	195.87	72.88
	Unique Farmland	0.00	0.00
	Farmland of Statewide Importance	138.15	51.15
<b>Total</b>		<b>1,779.45</b>	<b>670.77</b>

As of 2012, Williams County contained 758 farms (approximately 1 million acres) that were primarily cropland and pastureland. The market value of saleable agricultural products produced in Williams County was approximately \$178.7 million. Mountrail County contained 670 farms (approximately 963,672 acres) that were primarily cropland and pastureland. The average market value of saleable agricultural products produced in Mountrail County was approximately \$154.8 million. Ward County contained 961 farms (approximately 1,073,283 acres) that were primarily cropland. The market value of saleable agricultural products produced in Ward County was approximately \$274.5 million (USDA 2012).

#### 4.14.1. Agriculture and Farmland Impacts/Mitigation

##### 4.14.1.1. Alternative A (No Build)

No impacts on prime or unique farmlands or farmland of statewide or local importance would be expected from Alternative A. No impacts to current farming practice or economics would be expected from Alternative A.

##### 4.14.1.2. Alternative B (Build)

###### *Impacts*

Short-term adverse impacts on prime farmland and farmland of state importance would be associated with implementation of Alternative B. Construction of the Project could result in temporary disturbance to approximately 670.77 acres classified as prime farmland or farmland of statewide importance within the environmental study area. Potential agricultural losses from the temporary disturbance of prime farmland and farmland of statewide importance are anticipated to be minor or non-existent.

Installation of the MLVs associated with the Project could result in the permanent conversion of approximately 0.34 acres of prime farmland and/or farmland of statewide importance to non-agricultural uses if the MLV sites were installed in areas with soils classified as prime farmland and/or farmland of statewide importance.

Mitigation

Upon completion of construction activities, the topography of the Project route would be returned to its preconstruction contours and vegetation cover would be replaced, blended with surrounding areas, and reclaimed to landowner satisfaction, Cenex procedures and to the specification of applicable permits. After final grading, slopes in areas other than cropland would be stabilized with erosion-control structures (e.g., permanent berms, diversion dikes, and slope breakers). Once reclaimed, these areas would be available for their preconstruction use. No additional mitigation is anticipated at this time.

4.15. Soils

There are 124 soil types within the environmental study area: 51 soil types in Williams County; 40 soil types within Mountrail County; and 33 soil types in Ward County. Please refer to **TABLE 7. SOILS WITHIN ENVIRONMENTAL STUDY AREA**. Most these soil types are loamy soils, which are a broad textural class of soils that contain a mixture of sand, silt, and clay particles. The presence of clay in a soil has a greater influence on a soil than the presence of silt or sand; therefore, a soil name can include the modifier ‘clay’ with as little as 20 percent clay, while a soil must contain at least 55 percent sand or 40 percent silt to contain those respective modifiers in its name. Soils identified as sandy loams have moderately coarse textures, silt loams have medium textures, and clay loams have moderately fine textures (Schoeneberger et. al., 2012). Much of the environmental study area consists of gently rolling topography and level cropland fields, an occasional drainage way, and plentiful wetland depressions containing very poorly drained soils. Most areas in this study are utilized for farmland.

**Table 7. Soils within Environmental Study Area**

MAP UNIT SYMBOL	ECOLOGICAL SOIL TYPES	ACRES WITHIN ENVIRONMENTAL STUDY AREA	PERCENT OF ENVIRONMENTAL STUDY AREA
<i>Mountrail County</i>			
C800B	Appam sandy loam, 2 to 6 percent slopes	12.8	1.1%
E2725F	Arikara-Shambo-Cabba loams, 9 to 70 percent slopes	19.4	1.7%
C205A	Bowbells-Tonka complex, 0 to 3 percent slopes	11.6	1.0%
C201A	Bowbells loam, 0 to 3 percent slopes	4.4	0.1%
C810A	Bowdle loam, 0 to 2 percent slopes	11.6	1.0%
E3107F	Cabba-Badland complex, 6 to 70 percent slopes	2.8	0.2%
E3161F	Cherry-Cabba silt loams, 9 to 45 percent slopes	3.0	0.3%
C825A	Divide loam, 0 to 2 percent slopes	18.9	1.6%
E0701F	Dogtooth-Janesburg-Cabba complex, 6 to 35 percent slopes	2.3	0.2%
C272A	Hamerly-Tonka complex, 0 to 3 percent slopes	18.7	1.6%
C584A	Harriet loam, 0 to 2 percent slopes	5.4	0.5%
E4005A	Harriet loam, 0 to 2 percent slopes, occasionally flooded	5.3	0.5%
E4139A	Korchea-Fluvaquents complex, channeled, 0 to 2 percent slopes, frequently flooded	2.7	0.2%
E4542B	Lehr-Bowdle loams, 2 to 6 percent slopes	5.2	0.4%
C816B	Lehr loam, 2 to 6 percent slopes	9.0	0.8%
C557B	Miranda-Noonan loams, 3 to 6 percent slopes	0.03	0.0%

MAP UNIT SYMBOL	ECOLOGICAL SOIL TYPES	ACRES WITHIN ENVIRONMENTAL STUDY AREA	PERCENT OF ENVIRONMENTAL STUDY AREA
C665B	Noonan-Niobell-Williams loams, 0 to 6 percent slopes	9.1	0.8%
C424A	Nutley silty clay, low precipitation, 0 to 2 percent slopes	5.4	0.5%
C3A	Parnell silty clay loam, 0 to 1 percent slopes	13.3	1.1%
E2145B	Shambo loam, 2 to 6 percent slopes	1.3	0.1%
E2147C	Shambo loam, 6 to 9 percent slopes	3.3	0.3%
C5A	Southam silty clay loam, 0 to 1 percent slopes	3.8	0.3%
C418B	Tansem-Sakakawea loams, 2 to 6 percent slopes	17.2	1.5%
C415A	Tansem loam, 0 to 2 percent slopes	11.1	1.0%
C2A	Tonka silt loam, 0 to 1 percent slopes	6.4	0.6%
C75A	Vallers loam, moderately saline, 0 to 1 percent slopes	6.1	0.5%
C874C	Wabek-Appam complex, 6 to 9 percent slopes	15.9	1.4%
C874C	Wabek-Appam complex, 6 to 9 percent slopes	12.5	0.3%
E4583E	Wabek-Appam sandy loams, 6 to 25 percent slopes	15.6	1.4%
C870E	Wabek-Lehr-Appam complex, 9 to 25 percent slopes	29.8	2.6%
C996	Water	0.0	0.0%
C210A	Williams-Bowbells loams, 0 to 3 percent slopes	30.4	2.7%
C210B	Williams-Bowbells loams, 3 to 6 percent slopes	17.2	1.5%
C132C	Williams-Zahl-Zahill complex, 6 to 9 percent slopes	58.1	5.1%
C132B	Williams-Zahl loams, 3 to 6 percent slopes	295.8	25.8%
C155F	Zahl-Max-Arnegard loams, 15 to 60 percent slopes	17.0	1.5%
C165F	Zahl-Max-Parnell complex, 0 to 35 percent slopes	13.5	1.2%
C153E	Zahl-Max loams, 15 to 25 percent slopes	0.4	0.04%
C154C	Zahl-Williams-Bowbells loams, 3 to 9 percent slopes	158.3	13.8%
C135C	Zahl-Williams-Zahill complex, 6 to 9 percent slopes	2.0	0.2%
C135D	Zahl-Williams loams, 9 to 15 percent slopes	281.9	24.6%
<b>Subtotals</b>		<b>1,146.3</b>	<b>100%</b>
<b>Ward County</b>			
F655A	Aastad-Tonka complex, west, 0 to 3 percent slopes	10.1	1.4%
F272B	Arvilla-Sioux complex, 2 to 6 percent slopes	8.1	1.2%
C207A	Bowbells-Parnell complex, 0 to 3 percent slopes	8.4	1.2%
C205A	Bowbells-Tonka complex, 0 to 3 percent slopes	7.0	1.0%
C201B	Bowbells loam, 3 to 6 percent slopes	2.7	0.4%
F147C	Buse-Barnes-Darnen loams, 3 to 9 percent slopes	1.3	0.2%
F147D	Buse-Barnes-Darnen loams, 6 to 15 percent slopes	2.8	0.4%
F147F	Buse-Barnes-Darnen loams, 9 to 35 percent slopes	9.8	1.4%
F149F	Buse-Barnes-La Prairie, wooded, occasionally flooded loams, 6 to 35 percent slopes	8.7	1.2%
F596B	Darnen loam, 2 to 6 percent slopes	5.9	0.8%
F659A	Forman-Aastad-Tonka complex, west, 0 to 3 percent slopes	29.0	4.1%
F658A	Forman-Aastad loams, west, 0 to 3 percent slopes	148.9	21.3%
F658B	Forman-Aastad loams, west, 3 to 6 percent slopes	2.2	0.3%
F661B	Forman-Buse loams, west, 3 to 6 percent slopes	3.6	0.5%

MAP UNIT SYMBOL	ECOLOGICAL SOIL TYPES	ACRES WITHIN ENVIRONMENTAL STUDY AREA	PERCENT OF ENVIRONMENTAL STUDY AREA
F657A	Forman loam, west, 0 to 3 percent slopes	7.8	1.1%
F657B	Forman loam, west, 3 to 6 percent slopes	14.1	2.0%
C270A	Hamerly loam, 0 to 3 percent slopes	2.6	0.4%
F523A	Lowe-Fluvaquents, channeled complex, 0 to 2 percent slopes, frequently flooded	3.3	0.5%
C424A	Nutley silty clay, low precipitation, 0 to 2 percent slopes	7.0	1.0%
C3A	Parnell silty clay loam, 0 to 1 percent slopes	8.6	1.2%
C2A	Tonka silt loam, 0 to 1 percent slopes	5.7	0.8%
C75A	Vallers loam, moderately saline, 0 to 1 percent slopes	0.06	0.01%
F576A	Velva loam, moist, 0 to 2 percent slopes, occasionally flooded	4.5	0.6%
C895C	Wabek-Williams-Zahl complex, 3 to 9 percent slopes, very stony	0.5	0.1%
C419A	Wildrose silty clay, 0 to 2 percent slopes	0.3	0.1%
C419B	Wildrose silty clay, 2 to 6 percent slopes	3.0	0.4%
C210A	Williams-Bowbells loams, 0 to 3 percent slopes	7.1	1.0%
C210B	Williams-Bowbells loams, 3 to 6 percent slopes	110.2	15.8%
C132C	Williams-Zahl-Zahill complex, 6 to 9 percent slopes	108.1	15.5%
C132B	Williams-Zahl loams, 3 to 6 percent slopes	4.1	0.6%
C156F	Zahl-Max-Bowbells loams, 6 to 35 percent slopes	128.2	18.3%
C154C	Zahl-Williams-Bowbells loams, 3 to 9 percent slopes	4.0	0.6%
C135D	Zahl-Williams loams, 9 to 15 percent slopes	30.5	4.4%
<b>Subtotals</b>		<b>698.7</b>	<b>100%</b>
<b>Williams County</b>			
2338	Amor-Williams-Zahl loams, 3 to 9 percent slopes	5.7	0.3%
2339	Amor-Zahl-Cabba loams, 9 to 25 percent slopes	19.3	1.1%
C906E	Amor-Zahl-Werner loams, 9 to 25 percent slopes	19.3	1.1%
1249	Appam sandy loam, 0 to 6 percent slopes	18.0	1.0%
2340	Arnegard-Shambo loams, 2 to 6 percent slopes	6.7	0.4%
53	Arnegard loam, 0 to 2 percent slopes	11.0	0.6%
C451B	Arnegard loam, 2 to 6 percent slopes	6.8	0.4%
281	Bowdle loam, 0 to 2 percent slopes	19.1	1.1%
2342	Cabba-Amor-Zahl loams, 25 to 60 percent slopes	10.9	0.6%
2345	Daglum-Rhoades complex, 0 to 6 percent slopes	6.5	0.4%
C825A	Divide loam, 0 to 2 percent slopes	5.0	0.3%
2346	Dooley fine sandy loam, 0 to 6 percent slopes	0.5	0.02%
882	Hamerly-Tonka complex, 0 to 3 percent slopes	4.3	0.2%
C580A	Harriet-Regan-Stirum complex, 0 to 2 percent slopes, occasionally flooded	5.6	0.3%
2270	Harriet and Stirum soils, 0 to 2 percent slopes	22.0	1.3%
2348	Korchea-Divide loams, channeled 0 to 2 percent slopes	1.5	0.1%
C476A	Lawther silty clay, 0 to 2 percent slopes	2.9	0.2%
2350	Lehr-Williams loams, 0 to 6 percent slopes	42.9	2.5%

MAP UNIT SYMBOL	ECOLOGICAL SOIL TYPES	ACRES WITHIN ENVIRONMENTAL STUDY AREA	PERCENT OF ENVIRONMENTAL STUDY AREA
2351	Lehr-Williams loams, 6 to 9 percent slopes	3.5	0.2%
1128	Lehr loam, 2 to 6 percent slopes	4.0	0.2%
2353	Livona fine sandy loam, 0 to 6 percent slopes	1.9	0.1%
2356	Niobell-Williams loams, 0 to 6 percent slopes	2.2	0.1%
1427	Parnell silty clay loam, 0 to 1 percent slopes	1.5	0.1%
2357	Savage-Grail silty clay loams, 0 to 6 percent slopes	1.9	0.1%
1664	Shambo loam, 0 to 2 percent slopes	6.8	0.4%
C480B	Shambo loam, 2 to 6 percent slopes	0.0	0.0
C491A	Straw-Fluvaquents channeled, complex, 0 to 2 percent slopes, frequently flooded	1.6	0.1%
2358	Tally fine sandy loam, 0 to 6 percent slopes	1.1	0.1%
C769B	Tally fine sandy loam, 2 to 6 percent slopes	2.5	0.1%
C418B	Tansem-Sakakawea loams, 2 to 6 percent slopes	10.8	0.6%
C415A	Tansem loam, 0 to 2 percent slopes	16.0	0.9%
1835	Tonka silt loam, 0 to 1 percent slopes	2.8	0.2%
C75A	Vallers loam, moderately saline, 0 to 1 percent slopes	1.3	0.1%
1871	Vallers loam, saline, 0 to 1 percent slopes	3.2	0.2%
C874C	Wabek-Appam complex, 6 to 9 percent slopes	1.3	0.1%
C870E	Wabek-Lehr-Appam complex, 9 to 25 percent slopes	0.6	0.03
2362	Wabek sandy loam, 6 to 25 percent slopes	2.1	0.1%
C996	Water	0.3	0.01%
C908F	Werner-Amor-Zahl loams, 25 to 60 percent slopes	1.9	0.1%
2363	Wildrose silty clay, 0 to 2 percent slopes	1.5	0.1%
2014	Williams-Bowbells loams, 0 to 3 percent slopes	305.4	17.6%
2015	Williams-Bowbells loams, 3 to 6 percent slopes	611.5	35.2%
C132C	Williams-Zahl-Zahill complex, 6 to 9 percent slopes	122.6	7.0%
2031	Williams-Zahl loams, 3 to 6 percent slopes	58.9	3.4%
2032	Williams-Zahl loams, 6 to 9 percent slopes	210.1	12.1%
C155F	Zahl-Max-Arnegard loams, 15 to 60 percent slopes	62.4	3.6%
C156F	Zahl-Max-Bowbells loams, 6 to 35 percent slopes	0.7	0.04%
C153E	Zahl-Max loams, 15 to 25 percent slopes	2.0	0.1%
C135C	Zahl-Williams-Zahill complex, 6 to 9 percent slopes	23.0	1.3%
2176	Zahl-Williams loams, 15 to 60 percent slopes	2.9	0.2%
2081	Zahl-Williams loams, 9 to 15 percent slopes	62.7	3.6%
<b>Subtotals</b>		<b>1,738.9</b>	<b>100%</b>

#### 4.15.1. Soils Impacts/Mitigation

##### 4.15.1.1. Alternative A (No Build)

No impacts on soils would be expected from Alternative A.

#### 4.15.1.2. Alternative B (Build)

##### *Impacts*

Short-term, adverse impacts on soils would be expected from Alternative B. Of the total 3,583.86 acres of soil within the 200-foot survey area, approximately 1,360.12 acres would be temporarily impacted from surface disturbance and soil compaction during construction and the use of heavy machinery. Any impacts on soils from construction of the Project would be localized and would not be considered significant, as BMPs would be implemented to minimize impacts on soils.

The risk of soil contamination from a potential release of crude oil by way of a pipeline integrity emergency in the proposed pipeline would be minimal.

##### *Mitigation*

Impacts on soils would be minimized by reclamation activities and implementation of BMPs. During construction, Cenex would implement temporary and permanent erosion-control measures, as specified in the CEP and SWPPP. Temporary erosion-control measures could include installation of silt fencing, straw bales, slope breakers, trench breakers, erosion-control fabric, and mulch. To minimize potential impacts on soil productivity, topsoil would be segregated during trench excavation in agricultural land and other areas where soil productivity is an important consideration. Unless otherwise requested by the landowner, topsoil in cropland would be removed to a maximum depth of 12 inches from the trench and spoil storage area and stored separately from the trench spoil. After the trench is backfilled, topsoil would be returned to its approximate original location. Compaction of agricultural soils would be minimized by restricting construction activities during periods of prolonged rainfall. Cenex would retain environmental inspectors to monitor the contractor's compliance with the applicable requirements to protect soil resources during construction. In addition, the best available technology and management practices for construction equipment would be selected to reduce potential soil compaction.

Upon completion of construction, cultivated fields and any other severely compacted or rutted areas would be tilled with a deep tillage device or chisel plowed to loosen compacted soils. If subsequent construction and cleanup activities result in further compaction, additional measures would be undertaken to reduce soil compaction. Permanent revegetation would involve preparing the seedbed and seeding disturbed, nonagricultural areas. The ROW would be seeded as soon as possible after backfilling, weather and soil conditions permitting. Seed would be purchased, used, and planted in accordance with Cenex's CEP.

The Project would comply with USDOT regulations, specifically the design, construction, pressure testing, operation, welding, maintenance, and emergency response requirements, as outlined in Transportation of Hazardous Liquids by Pipeline regulations (49 CFR Parts 194 and 195). During operations, SCADA system communications would be used to monitor for pipeline integrity. In addition, the pipeline would receive regular inspections along the ROW for any indications of pipeline integrity emergencies and other maintenance issues.

A SWPPP, CEP, and Emergency Response Program would be developed and maintained for the Project. Planning, design, construction, and restoration of the Project would incorporate environmental inspection and monitoring during and upon completion of construction. Substantial effort would be placed on pipeline integrity, environmental safeguards, emergency response, and landowner relationships to reduce potential impacts from the Project.

## 4.16. Geologic and Groundwater Resources

The environmental study area is located primarily in an ecoregion of North Dakota known as the Northwest Glaciated Plains. This area was formed by glaciers moving across the state that became stagnant, depositing rock debris, gravel, and fine grained sediments intermixed with large ice-chunks. When buried ice-chunks melted, wetlands were created. Due to these geologic sequences, the region in which the study area is located is commonly referred to as the prairie pothole region (Bryce et. al. 1996). Geology in this ecoregion consists primarily of glacial till and outwash surface materials layered over Tertiary sandstone and shale, or Cretaceous Pierre Shale bedrock formations (Bryce et. al. 1996). The stratum, or layer of sediment deposited millions of years ago, the pipeline would be placed in consists mostly of the Coleharbor stratum (North Dakota Studies 2016). This layer was deposited by water (i.e., rivers or lakes in the region), and can be as thick as 200 feet in some areas. It is composed of sandy, silty clay with pebbles of limestone, dolomite, granite, and basalt (USGS 2016a). This layer was deposited 2.5 million years ago in the Quaternary, Pleistocene epoch (North Dakota Studies 2016).

Landslide prone areas are most commonly located along drainage features, valleys, badlands topography and regions where sediment are exposed near the surface (M.R. McDonald, Personal Communication, May 3, 2016). There is a total of 1.60 acres of landslide-prone areas within the environmental study area and 0.35 acres that would be impacted directly with the 75-foot ROW (NDGS undated).

An aquifer is an underground layer of water contained within consolidated layers (e.g., solid rock), rock fractures or unconsolidated materials (e.g., gravel, sand, or silt) from which groundwater can be extracted (USGS 2016b). Unconsolidated aquifers in the environmental study area include the Little Muddy, Little Knife River Valley, Ray, Shell Creek-East Branch, Shell Creek-White Lake, White Earth, Souris River, and the Yellowstone River Channel. Please refer to **TABLE 8. AQUIFERS IN ENVIRONMENTAL STUDY AREA**. No sole source aquifers<sup>2</sup> have been identified in the project area (EPA 2009).

It is common for rural residences in the area to use private wells for domestic and agricultural purposes. Per NDSWC data, there are no industrial or private wells within the environmental study area. The nearest stock well is located just outside of the environmental study area (less than 1-foot) and drilled to 425 feet below ground surface. Please refer to **FIGURE A-3. PUBLIC SERVICE INFRASTRUCTURE, GEOLOGIC, GROUND WATER, DELINEATED WETLANDS AND HABITATS ON PAGE A-7** in Appendix A.

**Table 8. Aquifers in Environmental Study Area**

AQUIFER NAME	ACRES IN ENVIRONMENTAL STUDY AREA	TOTAL AREA OF AQUIFER (ACRES)
Little Knife River Valley	10.91	475,390.67
Little Muddy	47.58	2,072,425.38
Ray	31.34	1,365,261.32
Shell Creek-East Branch	37.57	1,636,497.25
Shell Creek-White Lake	14.45	629,567.70
Souris River	8.43	367,127.25
White Earth	8.13	354,080.91
Yellowstone River Channel	47.58	2,072,425.38

### 4.16.1. Geologic and Groundwater Resources Impacts/Mitigation

#### 4.16.1.1. Alternative A (No Build)

No impacts on geological or groundwater resources would be expected from Alternative A.

<sup>2</sup> EPA (2009), "defines a sole source aquifer as one which supplies at least 50 percent of the drinking water consumed in the area overlying the aquifer".

#### 4.16.1.2. Alternative B (Build)

##### *Impacts*

Geotechnical investigation would occur along the pipeline route to minimize pipeline integrity emergencies from unstable soils. If there were a pipeline integrity emergency during operations, short-term or long-term, adverse impacts on groundwater might occur. Groundwater can become directly contaminated in several ways. If surface water which recharges an aquifer is polluted, this pollution will transfer to the groundwater source. Groundwater can also become contaminated when a fluid or hazardous substance leaches downward through the soil and into a groundwater source (DiGuilio et. al. 2011). No impacts on geological or groundwater resources would be expected from Alternative B. The Project is not anticipated to result in any subsidence, significantly disrupt aquifers near the project route, or modify the depositional fabric of the sediments within the project route.

The risk of contaminating groundwater from a potential release of refined fuel by way a pipeline integrity emergency would be minimal. The Project would comply with USDOT regulations, specifically the design, construction, pressure testing, operation, welding, maintenance and emergency response requirements, as outlined in Transportation of Hazardous Liquids by Pipeline regulations (49 CFR Parts 194 and 195).

##### *Mitigation*

Geotechnical investigations would occur in areas prone to landslides to minimize the risk of pipeline integrity issues. Upon completion of construction and prior to commissioning, the pipeline would be hydrotested for pipeline integrity. The water from hydrotesting would be discharged in accordance with the requirements listed in the NDPDES permit. Construction of the Project would include installation of MLVs at river crossings, which would allow segments of the pipeline to be isolated if there were a pipeline integrity emergency or for inspection and maintenance purposes. During operations, SCADA system communications would be used to monitor for pipeline integrity. In addition, the pipeline would receive regular inspections along the ROW for any indications pipeline integrity concerns and other maintenance issues. Restoration would be compatible with the safe operation, maintenance, and inspection of the pipeline. BMPs such as slope breakers, erosion-control blankets, and revegetation would be implemented to maintain the stability of the slopes along the ROW. Planning, design, construction, and restoration of the Project would incorporate environmental inspection and monitoring during and upon completion of construction. Substantial effort would be placed on pipeline integrity, environmental safeguards, emergency response, and landowner relationships to reduce potential impacts from the Project.

In the event of a pipeline integrity emergency, the section of the pipeline would be isolated, repaired, and hydrotested in coordination with USDOT PHMSA prior to recommissioning. Any fuel released from a pipeline integrity emergency would be remediated in accordance with Cenex's CEP, EPOSRP, and NDDH regulations and requirements.

### 4.17. Surface Water and Floodplain Resources

The study area occurs primarily in the Missouri and Souris River Basins. The Missouri River, Lake Sakakawea, Little Muddy River, White Earth River, Little Knife River, and Souris River as well as numerous smaller streams, wetlands and drainages occur within the study area. These water complexes could be used by wildlife and cattle; support hydrophytic vegetation and large woody vegetation; and provide crucial areas for hunting, bird watching, and fishing. Majority of the pipeline route was not mapped by the Federal

Emergency Management Agency (FEMA) for floodplains (Zone D); however, a small portion of the pipeline route located near the city of Minot was mapped. It appears that the pipeline would cross the Zone A floodplain associated with the South Branch Coulee.

#### 4.17.1. Surface Water and Floodplains Impacts/Mitigation

##### 4.17.1.1. Alternative A (No Build)

No impacts on surface water or floodplains would be expected from Alternative A.

##### 4.17.1.2. Alternative B (Build)

Long-term impacts on floodplain resources would not be expected from Alternative B. In areas of designated floodplains (Zone A), there should be no impact if the lines are buried far enough below beds of drainage-ways and streams. Any above ground construction in floodplains must be flood proofed or above the 1-percent annual change flood elevation.

#### *Mitigation*

Potential impacts on surface water would be minimized by reclamation activities and implementation of BMPs, such as silt fences, straw wattles, earth berms, retention ponds, culverts, and/or rock check dams to reduce erosion and sediment transport. In addition, measures would be implemented to avoid disruption of the natural flow of any river, creek, stream, or wetland within the Project route by ensuring the pipe is buried below the beds of drainageways, streams or rivers. In areas where the Project intersects rivers, HDD would be used to construct the crossing. Impacts on large wetlands and open water would be avoided by constructing the pipeline using HDD, where possible. Trenching through wetlands may occur at the direction of Cenex environmental inspector personal. The decision to trench or use HDD at wetland locations will be determined in the field and will be based on maintaining compliance with USACE Nationwide Permit NWP 12 – Utility Line Activities, and ease of construction/reclamation. NWP 12 limits impacts to temporary fills without notification as well as requires compliance with the general condition of the permit. Any temporary fills would be removed in their entirety and the affected areas returned to pre-construction elevations.

During construction, equipment would be refueled at least 100 feet from streams and waterbodies. No equipment would be washed, lubricated, or parked overnight within 100 feet of streams or waterbodies. Neither Cenex, nor its contractors, would store hazardous materials, chemicals, fuels, or lubricating oils, or perform concrete coating activities, within 100 feet of streams and waterbodies. Water appropriations for hydrostatic testing would be conducted in accordance with applicable permits, and Cenex would conduct trench dewatering and hydrostatic test discharges in a manner consistent with the NDPDES permit.

Upon completion of construction, berms or other sediment filter devices would be installed at the base of sloped approaches to streams greater than 5 percent, and the outlet to the berm would be directed away from the stream into a well-vegetated area. Drainage ditches and intermittent streams would be permanently restored and stabilized with erosion-control blankets, permanent seeding, and/or other appropriate measures. Upon completion of pipe installation and backfilling, the stream banks would be re-shaped to their pre-construction contours. Temporary erosion-control measures would be installed within 24 hours of backfilling the crossing. Temporary slope breakers would be installed on all sloped approaches to streams.

The Project would comply with USDOT regulations, specifically the design, construction, pressure testing, operation, welding, maintenance, and emergency response requirements, as outlined in Transportation of

Hazardous Liquids by Pipeline regulations (49 CFR Parts 194 and 195). In the event of a pipeline integrity emergency the section of the pipeline would be isolated, repaired, and hydrotested in coordination with USDOT PHMSA prior to recommissioning. Any fuel released from a pipeline integrity emergency would be remediated in accordance with Cenex’s CEP, EPOSRP, and NDDH regulations and requirements.

## 4.18. Wetlands

Wetlands are defined both in the 1977 Executive Order 11990, Protection of Wetlands, and in Section 404 of the Clean Water Act of 1986, as those areas that are inundated by surface or groundwater with a frequency to support and, under normal circumstances, do or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction.

Three parameters that define a wetland, as outlined in the Federal Manual for Delineating Jurisdictional Wetlands (USACE 1987), are hydric soils, hydrophytic vegetation, and hydrology. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands are important natural resources that often serve many functions, such as providing habitat for wildlife, storing floodwaters, recharging groundwater, and improving water quality through purification.

According to the USFWS National Wetland Inventory, numerous wetlands are located within the study area. These wetlands cover approximately 94.2 acres of the study area. Some of these wetlands may fall under the jurisdiction of the USACE. The proposed project is covered under USACE Nationwide Permit 12, Utility Line Activities; however, several conditions do exist that may still require a Section 404 permit application to be completed.

Field wetland delineations were completed by KLJ to identify wetlands so they could be avoided or impacts from construction could be minimized. Field wetland delineations were conducted for 95 percent of the project area. A total of 216 wetlands, spanning approximately 94.2 acres, and 7 Potential Other Waters of the United States (POWUS), spanning approximately 1.1 acres/1,348 linear feet in length, were delineated within the project route. Additional wetland delineations will take place in 2017. The completed report would be submitted to the ND PSC before the public hearing is held. Please refer to **FIGURE A-3. PUBLIC SERVICE INFRASTRUCTURE, GEOLOGIC, GROUND WATER, DELINEATED WETLANDS AND HABITATS ON PAGE A-7** in Appendix A.

### 4.18.1. Wetlands Impacts/Mitigation

#### 4.18.1.1. Alternative A (No Build)

No impacts on wetlands would be expected from Alternative A.

#### 4.18.1.2. Alternative B (Build)

##### *Impacts*

Temporary impacts to wetlands could be expected from construction of the pipeline. Impacts on large wetlands and open water would be avoided by constructing the pipeline using HDD. Trenching through wetlands may occur at the direction of Cenex environmental inspector personal. The decision to trench or use HDD at wetland locations will be determined in the field and will be based on maintaining compliance with USACE Nationwide Permit (NWP) 12 – Utility Line Activities, and ease of construction/reclamation. NWP 12 limits impacts to temporary fills without notification as well as requires compliance with the general

condition of the permit. Any temporary fills would be removed in their entirety and the affected areas returned to pre-construction elevations (USACE, 2017).

The Project would comply with USDOT regulations, specifically the design, construction, pressure testing, operation, welding, maintenance and emergency response requirements, as outlined in Transportation of Hazardous Liquids by Pipeline regulations (49 CFR Parts 194 and 195). Upon completion of construction and prior to commissioning, the pipeline would be hydrotested for pipeline integrity. The water from hydrotesting would be discharged in accordance with the requirements listed in the dewatering permit from the NDDH. Construction of the Project would include installation of MLVs, which would allow segments of the pipeline to be isolated for inspection and maintenance purposes or in the event of an emergency. During operations, SCADA system communications would be used to monitor for pipeline integrity. In addition, the pipeline would receive regular inspections along the ROW for any indications of pipeline integrity and other maintenance issues.

In the unlikely event of an emergency with the pipeline during operations, short-term, adverse impacts on wetlands might occur.

#### *Mitigation*

An CEP would be developed and maintained for the Project. Planning, design, construction, and restoration of the Project would incorporate environmental inspection and monitoring during and upon completion of construction. Substantial effort would be placed on pipeline integrity, environmental safeguards, emergency response, and landowner relationships to reduce potential impacts from the Project.

During HDD construction, drilling mud and slurry would be stored away from the wetland boundary in an earthen berm, a sediment-control structure, in tanks, or by other methods so that it does not flow into any wetlands or off-site. Once the pipeline is installed, excess drilling mud and slurry would be spread over an upland area approved by Cenex and the landowner or disposed of off-site at an approved location. Storage of hazardous materials, chemicals, fuels, and lubricating oils, and coating activities would not be permitted within 100 feet of any wetland.

Upon completion of construction, disturbed areas would be restored as near as possible to the original contours and temporary erosion-control measures would be installed or repaired, as necessary. Every effort would be made to begin cleanup and rough grading (including installing temporary erosion-control measures) soon after backfilling. After final grading, slopes in areas other than cropland would be stabilized with erosion-control structures (e.g., permanent berms, diversion dikes, and slope breakers).

In the unlikely event of an emergency, the section of the pipeline would be isolated, repaired, and hydrotested in coordination with USDOT PHMSA prior to recommissioning. Any fuel released from a pipeline integrity emergency would be remediated in accordance with Cenex's CEP, EPOSRP, and NDDH and EPA regulations and requirements.

### 4.19. Vegetation

The study area consists predominantly of cropland and grasslands with a mixture of native and introduced grasses, forbs, and trees. Grass species include Kentucky bluegrass (*Poa pratensis*), smooth brome (*Bromus inermis*), prairie junegrass (*Koeleria macrantha*), green needlegrass (*Nassella viridula*), needle-and-thread (*Stipa comata*), western wheatgrass (*Agropyron smithii*), Porcupine grass (*Miscanthus sinensis*), and side-oats

grama (*Bouteloua curtipendula*). Noxious weeds were also found within the study area. Much of the study area has been previously disturbed by cultivation, and development activities that have led to soil disturbance.

A variety of tree species were identified along the Project in shelterbelts and wooded draws. The tree species consisted primarily of American elm (*Ulmus americana*), green ash (*Fraxinus pennsylvanica*), bur oak (*Quercus macrocarpa*), eastern cottonwood (*Populus deltoides*), and Russian-olive (*Elaeagnus angustifolia*).

The majority of the project route would include a 50-foot-wide permanent ROW for the pipeline with an additional 25 feet wide temporary construction easements on one side of the ROW (a total of 75 feet wide); however, in some areas (i.e., wooded draws, steep topography, or sensitive habitats) the construction corridor would be reduced. For purposes of this analysis, to provide the most conservative assessment, potential temporary impacts from construction activities are estimated assuming the entire length of the Project would include a 75-foot-wide construction corridor.

#### 4.19.1. Vegetation Impacts/Mitigation

##### 4.19.1.1. Alternative A (No Build)

No impacts on vegetation or woodlands would be expected from Alternative A.

##### 4.19.1.2. Alternative B (Build)

###### *Impacts*

Short- and long-term, adverse impacts on vegetation and woodlands would be expected from Alternative B. Implementation of Alternative B would result in the temporary disturbance of approximately 1,360.12 acres of land within the 75-foot-wide construction corridor. In addition, the Project would result in the permanent disturbance of approximately 0.34 acres of land within the project route from construction of 17 MLVs (0.01 to 0.04 acres each). Please refer to **FIGURE A-1. PROJECT ROUTE AND CORRIDOR ON PAGE A-1** in Appendix A for an overview of the MLV locations. In most of the woodland areas encountered during construction, the ROW would be minimized to avoid tree removal; however, some trees may need to be removed as part of the Project. During construction, it is common for weed species to grow in disturbed areas until the desired re-vegetation of the site is complete.

The risk of contaminating vegetation from a potential release of refined fuel by way of a pipeline integrity emergency would be minimal. The Project would comply with USDOT regulations, specifically the design, construction, pressure testing, operation, welding, maintenance, and emergency response requirements, as outlined in Transportation of Hazardous Liquids by Pipeline regulations (49 CFR Parts 194 and 195). Upon completion of construction and prior to commissioning, the pipeline would be hydrotested for pipeline integrity. The water from hydrotesting would be discharged in accordance with the requirements listed in the NDPDES permit. The MLVs would allow segments of the pipeline to be isolated if there were a pipeline integrity emergency or for inspection and maintenance purposes. During operations, SCADA system communications would be used to monitor for pipeline integrity. In addition, the pipeline would receive regular inspections along the ROW for any indications of pipeline integrity and other maintenance issues.

If there were a pipeline integrity emergency during operations, short-term, adverse impacts on vegetation might occur.

## Mitigation

Long-term impacts on vegetation from installation of MLVs would be minimized by reclamation activities and implementation of BMPs. During construction, Cenex would implement temporary and permanent erosion-control measures, as specified in the CEP and SWPPP. Temporary erosion-control measures could include installation of silt fencing, straw bales, slope breakers, trench breakers, erosion-control fabric, and mulch. The ROW would be cleared to the extent necessary to ensure suitable access for construction, safe operation, and maintenance of the proposed pipeline. Cenex and the contractors would effectively control or limit the spread of invasive plant species through control treatments and avoiding existing populations, where possible.

Upon completion of construction activities, the topography of the Project route would be returned to its pre-construction contours and vegetation cover would be replaced, blended with surrounding areas. Permanent revegetation would occur and include preparing the seedbed and seeding disturbed, nonagricultural areas. Cenex would specify the appropriate seed mixes, application rates, and seeding dates, while considering recommendations from appropriate state and federal agencies and landowner requests. The ROW would be seeded as soon as possible after backfilling (weather and soil conditions permitting). Fertilizer and pH modifying agents (e.g., lime) would be applied, as specified by Cenex, in consultation with the appropriate state and federal agencies and landowners. Seed would be purchased, used, and planted in accordance with Cenex's CEP. In nonagricultural areas, vegetation cleared from extra workspace would be allowed to revegetate after construction depending on the agreements with the landowner. Cenex would take the appropriate precautions to protect livestock and crops affected by construction. If noxious weeds become an issue while the Project area is being reclaimed to preconstruction conditions, Cenex would use noxious weed management practices approved by the appropriate local weed board and coordinated with the landowner to control occurrences of noxious weeds.

Tree and Shrub Mitigation Specifications and a Tree and Shrub Inventory and Sampling Plan would be developed for the Project. All woody vegetation larger than 1-inch diameter at breast height (DBH) removed during construction, would be documented prior to removal, and replaced upon completion of construction. Trees and shrubs removed during construction would be replaced at a 2-to-1 ratio, as necessary, and would be monitored for survival for a period of three years. The locations for tree and shrub plantings would be coordinated with the impacted landowners.

In the event of a pipeline integrity emergency, the section of the pipeline would be isolated, repaired, and hydrotested in coordination with USDOT PHMSA prior to recommissioning. Any fuel released from a pipeline integrity emergency would be remediated in accordance with Cenex's CEP, EPOSRP, and NDDH regulations and requirements.

### 4.20. Wildlife – Mammals

White-tailed (*Odocoileus virginianus*) and mule deer (*Odocoileus hemionus*) flourish within, and near to, the environmental study area due to the ample forage from surrounding cropland intermingled with the native rangeland. Numerous other mammals such as Eastern cottontail rabbit (*Sylvilagus floridanus*), red fox (*Vulpes vulpes*), beaver (*Castor canadensis*), muskrats (*Ondatra zibethicus*), black-tailed prairie dog (*Cynomys ludovicianus*), and coyotes (*Canis latrans*) also inhabit this part of the state.

#### 4.20.1. Mammals Impacts/Mitigation

##### 4.20.1.1. Alternative A (No Build)

No impacts on mammals would be expected from Alternative A.

##### 4.20.1.2. Alternative B (Build)

###### *Impacts*

Short-term, adverse impacts on mammals would be expected from Alternative B. High noise events associated with construction activities could cause species to engage in escape or avoidance behaviors; however, most species would be expected to quickly return to the area once construction noise and general human disturbances ceased. Ground clearing activities associated with construction of the proposed pipeline could result in the temporary loss of wildlife habitat for ground dwelling mammals and other wildlife species. Ground dwelling mammals and other wildlife species may be forced to utilize marginal habitats or relocate to unaffected habitats where population density and competition may increase locally. Consequences of such displacement and competition may include lower survival, lower reproductive success, lower recruitment, and lower carrying capacity; however, the timeline of Project construction is not anticipated to be long enough to impact population levels. Wildlife species using the Project route for breeding and feeding are anticipated to adapt to the changing conditions and continue to thrive.

The risk of wildlife habitat contamination from a potential release of refined fuel by way of a pipeline integrity emergency would be minimal. The Project would comply with USDOT regulations, specifically the design, construction, pressure testing, operation, welding, maintenance, and emergency response requirements, as outlined in Transportation of Hazardous Liquids by Pipeline regulations (49 CFR Parts 194 and 195).

###### *Mitigation*

Impacts on large wetlands and open water would be avoided by constructing the pipeline using HDD, where possible. Trenching through wetlands may occur at the direction of Cenex environmental inspector personal. The decision to trench or use HDD at wetland locations will be determined in the field and will be based on maintaining compliance with USACE NWP 12 – Utility Line Activities, and ease of construction/reclamation. NWP 12 limits impacts to temporary fills without notification as well as requires compliance with the general condition of the permit. Any temporary fills would be removed in their entirety and the affected areas returned to pre-construction elevations.

Wind breaks and shelterbelts would be crossed by minimizing the width of the ROW to that which is necessary for the trench line and vehicle traffic. When clearing, trees would be felled onto the ROW to minimize damage to vegetation outside the ROW. Shelterbelts and trees would be protected by Cenex, to the maximum extent practicable. Trees and shrubs removed during construction would be replaced at a 2:1 ratio during reclamation and would be inspected annually for three years to ensure survival. To minimize noise disturbance, Cenex would employ the best available control technology and management practices for construction equipment (e.g., mufflers) and limit working hours, as appropriate.

Impacts on wildlife would be minimized by reclamation activities and implementation of BMPs. During construction, Cenex would implement temporary and permanent erosion-control measures, as specified in

the CEP and SWPPP. Temporary erosion-control measures could include installation of silt fencing, straw bales, slope breakers, trench breakers, erosion-control fabric, and mulch. Upon completion of construction and prior to commissioning, the pipeline would be hydrotested for pipeline integrity. The water from hydrotesting would be discharged in accordance with the requirements listed in the NDPDES permit. The MLVs would allow segments of the pipeline to be isolated if there were a pipeline integrity emergency or for inspection and maintenance purposes. During operations, SCADA system communications would be used to monitor pipeline integrity. In addition, the pipeline would receive regular inspections along the ROW for any indications of pipeline integrity and other maintenance issues.

As required by PHMSA regulations, the operator of the pipeline (Cenex) would be required to write and conduct annual reviews on all operations and maintenance manuals. The manuals would describe standard operating and maintenance procedures and include emergency procedures and contacts. Substantial effort would be placed on pipeline integrity, environmental safeguards, emergency response, and landowner relationships to reduce potential impacts from the Project. If there were a pipeline integrity emergency during operations, short-term, adverse impacts on wildlife habitat may occur. In the event of a pipeline integrity emergency, the section of the pipeline would be isolated, repaired, and hydrotested in coordination with USDOT PHMSA prior to recommissioning. Any fuel released from a pipeline integrity emergency would be remediated in accordance with Cenex's CEP, EPOSRP, and NDDH regulations and requirements.

#### 4.21. Wildlife – Avian Species

The study area lies in the prairie pothole region of North Dakota and the Central Flyway of North America. As such, this area is used as resting grounds for many birds on their spring and fall migrations, as well as nesting and breeding grounds for many waterfowl species hunted as game in the region. Many other non-game bird species are fly through and inhabit this region.

Protection for the bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*) is provided under the Bald and Golden Eagle Protection Act (BGEPA) of 1940 (16 U.S.C. 668–668d), while protection for migratory birds is provided under the Migratory Bird Treaty Act (MBTA) (916 U.S.C. 703–711). The BGEPA, as amended, was written with the intent to protect and preserve bald and golden eagles, both of which are treated as species of concern within the Department of the Interior. The BGEPA provides additional protection to all bald and golden eagles. Under the BGEPA, 'take' includes to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb, wherein 'disturb' means to agitate or bother a bald or golden eagle to the degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, causing injury, death, or nest abandonment.

The MBTA regulates impacts on migratory birds such as taking, direct mortality, habitat degradation, and/or displacement of individual birds. The MBTA defines 'taking' to include by any means or in any manner, any attempt at hunting, pursuing, wounding, killing, possessing, or transporting any migratory bird, nest, egg, or part thereof, except when specifically permitted by regulations. The MBTA, 916 U.S.C. 703-711, provides protection for 1,026 migratory bird species, 58 of which are legally hunted. The MBTA regulates impacts to these species such as direct mortality, habitat degradation, and/or displacement of individual birds.

To determine the presence of bird species that may occur within the study area, the North American Breeding Bird Survey (BBS) database was reviewed. The BBS is an annual bird survey occurring at the height of breeding season (May or June). Coordinated by the US Geological Survey (USGS) Patuxent Wildlife Research Center, Canadian Wildlife Service, and the National Wildlife Research Center, the BBS contains over 4,100

survey routes located throughout Canada and the US. The closest routes to the study area are the Stanley and Carpio Routes. These two routes recorded 63 and 44 species of birds, respectively, in 2015 (USGS 2015). Please refer to **TABLE 9. BBS RECORDED SPECIES 2005 TO 2015 (STANLEY AND CARPIO ROUTES)**. Of the 110-bird species recorded from 2006 to 2015, 25 species are designated North Dakota Species of Conservation Priority (NDGFD, 2016a).

**Table 9. BBS Recorded Species 2005 to 2015 (Stanley and Carpio Routes)**

SPECIES	ND CONSERVATION PRIORITY LEVEL	SPECIES	ND CONSERVATION PRIORITY LEVEL
Canada Goose		Green-winged Teal	
Norther Flicker		Hairy Woodpecker	
American Avocet*	II	American Bittern*	I
Sedge Wren*		Horned Grebe*	I
American Coot		Horned Lark	
American Crow		House Sparrow**	
American Goldfinch		House Wren	
American Kestrel**	II	Indigo Bunting	
American Robin		Killdeer	
American Widgeon		Lark Bunting	I
Baltimore Oriole*		Belted Kingfisher*	
Black Tern*	I	Black-crowned Night-Heron*	
Baird's Sparrow**	I	Lark Sparrow	
Bank Swallow		Lazuli Bunting**	
Barn Swallow		Least Flycatcher	
Black-billed Cuckoo	I	Mallard	
Black-billed Magpie		Marbled Godwit	I
Black-capped Chickadee**		March Wren	
Black-headed Grosbeak**		Mountain Bluebird	
Blue-winged Teal		Mourning Dove	
Bobolink	II	Nelson's Sparrow**	I
Brewer's Blackbird		Northern Harrier**	II
Brown Thrasher		Ring-necked Duck*	
Brown-headed Cowbird		Northern Pintail	II
Canvasback	II	Northern Shoveler	
Cedar Waxwing		Orchard Oriole	
Chestnut-collared Longspur	I	Ovenbird	
Clay-colored Sparrow*		Cliff Swallow*	
Chimney Swift**		Pied-billed Grebe	
Chipping Sparrow		Red-eyed Vireo	
Common Grackle		Redhead	
Common Yellowthroat		Red-tailed Hawk	
Cooper's Hawk*		Eared Grebe*	
Dickcissel**	II	Red-winged Blackbird	
Double-crested Cormorant**		Ring-billed Gull	
Eastern Bluebird		Ring-necked Pheasant	
Eastern Kingbird		Rock Pigeon	
Eastern Phoebe**		Rose-breasted Grosbeak**	
European Starling**		Ruddy Duck	
Field Sparrow**		Savannah Sparrow	

\*Species only occurred along Carpio BBS Route

\*\* Species only occurred along Stanley BBS Route

SPECIES	ND CONSERVATION PRIORITY LEVEL	SPECIES	ND CONSERVATION PRIORITY LEVEL
Franklin's Gull**	I	Say's Phoebe**	
Gadwall		Sharp-tailed Grouse	II
Gray Partridge*		Song Sparrow	
Grasshopper Sparrow	I	Sora	
Gray Catbird		Spotted Towhee**	
Gray Partridge		Sprague's Pipit**	I
Great Blue Heron		Swainson's Hawk	I
Tree Swallow		Warbling Vireo	
Turkey Vulture**		Western Kingbird	
Upland Sandpiper	II	Western Meadowlark	II
Vesper Sparrow		Wild Turkey	
Willet	II	Wood Duck**	
Willow Flycatcher**		Yellow Warbler	
Wilson's Phalarope	I	Yellow-breasted Chat**	
Wilson's Snipe		Yellow-headed Blackbird	

\*Species only occurred along Carpio BBS Route  
 \*\* Species only occurred along Stanley BBS Route

#### 4.21.1. Avian Species Impacts/Mitigation

##### 4.21.1.1. Alternative A (No Build)

No impacts on avian species would be expected from Alternative A.

##### 4.21.1.2. Alternative B (Build)

###### *Impacts*

Short-term, adverse impacts on avian species would be expected from Alternative B. Construction activities associated with the Project would include ground clearing activities that could temporarily impact suitable habitat for many avian species. High noise events associated with construction activities could cause many avian species to engage in escape or avoidance behaviors; however, most species would be expected to quickly return to the area once construction noise and general human disturbances ceased. Ground dwelling mammals and other wildlife species may be forced to utilize marginal habitats or relocate to unaffected habitats where population density and competition increase. Consequences of such displacement and increased competition may include lower survival, lower reproductive success, lower recruitment, and lower carrying capacity, leading ultimately to population-level impacts; however, the timeline of Project construction is not anticipated to be long enough to impact population levels. In most of the woodland areas encountered during construction, the ROW would be minimized to avoid tree removal; however, some trees may need to be removed as part of the Project.

There are no known active or inactive bald eagle nests and there have been no sightings of individual bald eagles within or adjacent to the environmental study area. Therefore, no impacts on bald eagles would be expected from Alternative B.

The risk of wildlife habitat contamination from a potential release of refined fuel by way of a pipeline integrity emergency would be minimal. The Project would comply with USDOT regulations, specifically the design,

construction, pressure testing, operation, welding, maintenance and emergency response requirements, as outlined in Transportation of Hazardous Liquids by Pipeline regulations (49 CFR Parts 194 and 195).

#### *Mitigation*

Impacts on large wetlands and open water would be avoided by constructing the pipeline using HDD, where possible. Trenching through wetlands may occur at the direction of the Cenex environmental inspector personal. The decision to trench or use HDD at wetland locations will be determined in the field and will be based on maintaining compliance with USACE NWP 12 – Utility Line Activities, and ease of construction/reclamation. NWP 12 limits impacts to temporary fills without notification as well as requires compliance with the general condition of the permit. Any temporary fills would be removed in their entirety and the affected areas returned to pre-construction elevations.

Wire mesh or grate covers would be placed over barrels, buckets or any containers that may contain construction waste birds may inadvertently land in. Wind breaks and shelterbelts would be crossed by minimizing the width of the ROW to that which is necessary for the trench line and vehicle traffic. When clearing, trees would be felled onto the ROW to minimize damage to vegetation outside the ROW. Trees and shrubs removed during construction would be replaced at a 2:1 ratio during reclamation and would be inspected annually for three years to ensure survival. To minimize noise disturbance, Cenex would employ the best available control technology for construction equipment (e.g., mufflers) and limit working hours, as appropriate.

Impacts on avian species would be minimized by reclamation activities and implementation of BMPs. During construction, Cenex would implement temporary and permanent erosion-control measures, as specified in the CEP and SWPPP. Temporary erosion-control measures could include installation of silt fencing, straw bales, slope breakers, trench breakers, erosion-control fabric, and mulch. Upon completion of construction and prior to commissioning, the pipeline would be hydrotested for pipeline integrity. The water from hydrotesting would be discharged in accordance with the requirements listed in the NDPDES permit. The MLVs would allow segments of the pipeline to be isolated if there were a pipeline integrity emergency or for inspection and maintenance purposes. During operations, SCADA system communications would be used to monitor for pipeline integrity. In addition, the pipeline would receive regular inspections along the ROW for any indications of pipeline integrity and other maintenance issues.

If there were a pipeline integrity emergency during operations, short-term, adverse impacts on wildlife habitat may occur. In the event of a pipeline integrity emergency, the section of the pipeline would be isolated, repaired, and hydrotested in coordination with USDOT PHMSA prior to recommissioning. Any fuel released from a pipeline integrity emergency would be remediated in accordance with Cenex's CEP, EPOSRP, and NDDH regulations and requirements..

#### **4.22. Rare and Unique Natural Resources – USFWS-Listed Threatened and Endangered Species**

The project route has been evaluated to determine the potential for occurrences of federally-listed threatened, endangered, proposed, and candidate species. In Williams, Mountrail and Ward Counties there are five endangered species (e.g., interior least tern [*Sterna antillarum*], gray wolf [*Canis lupus*], pallid sturgeon [*Scaphirhynchus albus*], black-footed ferret [*Mustela nigripes*], and whooping crane [*Grus Americana*]), and four threatened species (e.g., piping plover [*Charadrius melodusnorthern*], Dakota skipper [*Hesperia dactae*], rufa red knot [*Calidris canutus rufa*], and northern long-eared bat [*Myotis septentrionalis*]). There is

USFWS-designated critical habitat for the piping plover within all three Counties; however, no critical habitat is within the environmental study area (USFWS ECOS IPaC, 2016). Habitat requirements and other information regarding USFWS-listed species for Williams, Mountrail, and Ward Counties are discussed in the following paragraphs.

#### *Gray Wolf*

The gray wolf can thrive in a wide range of habitats (e.g., forests, mountains, and grasslands), which reflects their adaptability as a species. In addition, gray wolves are known to tolerate human disturbances (USFWS, 2006). Suitable habitat for gray wolves exists in the forested areas in north-central and northeastern North Dakota; however, they could be present in other areas of North Dakota. While the gray wolf is not common in North Dakota, occasionally individual wolves pass through the state (USFWS, 2013c). Per NDGFD records, from March 1992 to the date of this Application, one verified report of a gray wolf was recorded in Mountrail County and one in Williams County (S. Tucker, Personal communication, Dec. 22, 2016). The nearest of these sightings was approximately 3.5 miles north of the environmental study area in Mountrail County. No indications of the presence of gray wolves were observed during the field surveys.

#### *Black-footed Ferret*

According to the USFWS, the black-footed ferret could potentially still be present in North Dakota within prairie dog towns; however, the species has not been confirmed in North Dakota for more than 20 years. Black-footed ferrets rely almost exclusively on prairie dogs for food and den sites. Suitable habitat consists of large prairie dog towns (i.e., 90 acres or larger) or complexes in close proximity to each other (USFWS, 2013a; USFWS, 2013b). During the field surveys, no prairie dog towns with suitable black-footed ferret habitat were identified within the environmental study area.

#### *Whooping Crane*

Whooping cranes migrate annually through North Dakota along a band running from the south central to the northwestern part of the state where 95 percent of whooping cranes pass through. They use shallow, seasonally, and semi-permanently flooded, palustrine wetlands for roosting and various cropland and emergent wetlands for feeding. Whooping cranes have been documented using a wide range of wetland sizes for roosting, including small, natural wetlands, manmade stock ponds, large lakes, and rivers without visual obstructions (e.g., high or dense vegetation). Roosting sites are often within 0.6 miles of suitable feeding habitat (CWS and USFWS, 2005). Past migratory stopover behavior studies indicate that whooping cranes will avoid human disturbance, such as oil and gas wells, access and section roads, wind development, and structures from 0.5 miles to 0.75 miles (Austin and Richert, 2005). The Project would be located outside the whooping crane migratory corridor.

Per the USDA CropScape data (2015), approximately 2,267 acres of cultivated lands and 51 acres of open water and wetlands are present within the environmental study area; however, there are existing roadways, farmsteads, and oil and gas developments that may deter whooping cranes from the area based on their typical avoidance behavior (Austin and Richert, 2005). The nearest sighting of a whooping crane occurred in Mountrail county approximately 0.10 miles from the environmental study area (Tacha et. al., 2010).

#### *Piping Plover*

The piping plover is a small migratory shorebird. The Northern Great Plains population's majority of breeding pairs occur in the Dakotas, Nebraska, and Montana (USFWS, 2003). Breeding behavior includes

courtship, colonial nesting, egg-laying (2–3 per clutch) and incubation of eggs (20–25 days), brooding (one week), and fledging (after three weeks). Adults have been documented to travel 7.5 miles or more from their nest sites to forage in wetlands or riverine habitat (USFWS, 1994). Preferred habitat in North Dakota for the piping plover includes riverine sandbars along the Yellowstone and Missouri Rivers, gravel beaches, alkali wetlands with salt crusts, and flat, sandy beaches with sparse vegetation (USFWS, 2012).

Critical habitat is present along the Missouri River and Lake Sakakawea in Williams, Mountrail, and Ward Counties for the piping plover. In addition, several wetland basins within Mountrail and Ward Counties have been designated as critical habitat. There are also numerous wetlands and small lakes within the environmental study area that could provide suitable foraging and nesting habitat for the piping plover.

The Missouri River is located approximately 7.2 miles south of the proposed pipeline while the designated critical habitat in Mountrail and Ward County are located 1.48 and 3.40 miles from the proposed pipeline, respectively. The North Dakota Parks and Recreation Department (NDPRD) administers the Natural Heritage Inventory (NHI). North Dakota NHI data provides a comprehensive database for identifying and prioritizing ecologically significant natural features in the state. NHI emphasizes features that are exemplary, unique, or endangered on a statewide or national level. The basis for inclusion on the NHI includes species occurrence, vulnerability, types of threats, degree of protection, and taxonomy. The NDPRD noted that because their information is not based on a comprehensive survey, there may be species of concern or otherwise significant ecological communities in the area that are not represented in the database. NDPR NHI data has recorded observations of piping plovers 1.99 and 3.80 miles from the pipeline in Mountrail and Ward Counties, respectively (K. Duttenhefner, Personal Communication, December 15, 2015).

A review of the Missouri River Recovery Least Tern and Piping Plover Data Management System (2015) revealed no piping plover nests, broods, or sightings have been recorded within the environmental study area. Field surveys of the project area did not identify any occurrences of the interior least tern. The closest recorded piping plover occurrence from this dataset is approximately 5.56 miles south of the environmental study area in Mountrail County.

#### *Interior Least Tern*

The interior least tern is the smallest tern found in North America. Interior least terns construct bowl-shaped nests in sandy areas, natural or artificial gravel patches or exposed river flats (USFWS 2014a). In North Dakota, the species is known to breed on sandbars mainly on the Missouri and Yellowstone River systems north of Lake Sakakawea between mid-May and mid-August (USFWS 2013f). Nesting starts in May when river flows are high and sandbars are small; therefore, nesting locations are usually located away from the river edge. Annual population numbers and growth vary greatly based on river behavior such as flooding, and consequently, the susceptibility to nest loss due to nesting locations (USFWS 1990). Factors limiting the recovery of interior least terns include loss of riverine sandbar habitat because of channelization and impoundment of rivers, which serve to eliminate nesting habitat and the processes that create it (NDGF 2016b).

Potential suitable habitat is present along the Missouri River and Lake Sakakawea in Williams, Mountrail, and Ward Counties for the least tern. The Missouri River is located approximately 7.2 miles south of the proposed pipeline. There are also numerous wetlands and small lakes within the environmental study area that could provide suitable foraging and nesting habitat for the least tern.

A review of the Missouri River Recovery Least Tern and Piping Plover Data Management System (2015) revealed no tern nests, broods, or sightings have been recorded within the environmental study area. Field

surveys of the project area did not identify any occurrences of the interior least tern. The closest recorded least tern occurrence exists in Mountrail County by Lake Sakakawea, approximately 7.15 miles south of the analysis area. The recorded sighting includes two adults.

#### *Rufa Red Knot*

The rufa red knot is a medium-sized shorebird. Red knots make one of the longest distance migrations known, migrating up to 19,000 miles annually between breeding grounds in northern Canada or Alaska, and wintering grounds in northeast Gulf of Mexico and northern South America. While most red knots follow migration routes along the east or west coasts of North America, small numbers of this species follow an inland migration route, which may include stopovers in the Great Plains including North Dakota (USFWS, 2013e). Preferred stopover habitat includes sandy or gravelly beaches, tidal mudflats, salt marshes, shallow coastal impoundments and peat banks. Stopovers are defined as places where migrant birds stop to rest, drink, and eat during migration after long flight durations. Threats to the red knot include sea level rises and changes in migration timing due to climate change, competition for, and loss of prey sources, and human disturbance and development in their stopover, breeding and wintering grounds. There can be great individual and population-level consequences when stopover sites are lost or degraded (USFWS, 2014b).

Given that the species has been observed across North Dakota and utilizes a variety of wet habitats in coastal areas, it is reasonable to assume that waterbodies within the environmental study area may provide suitable stopover habitat for the red knot.

#### *Dakota Skipper*

The threatened Dakota skipper is a small-sized butterfly that is endemic to the northern prairies. The Dakota skipper has been rapidly disappearing from much of its historic range. This is attributed to the conversion of native prairie to cropland and overgrazing of grasslands. Dakota skippers live in two types of prairies. One type is moist bluestem prairie with three wildflower species that are usually in bloom when Dakota skippers are adults. The wildflower species include wood lily (*Lilium philadelphicum*), harebell (*Campanula rotundifolia*), and smooth camas (*Zygadenus elegans*). The type most likely to be present is harebell, which is relatively dry upland prairie with big bluestem (*Andropogon gerardii*), little bluestem (*Schizachyrium scoparium*), needlegrasses (*Hesperostipa* spp.), purple coneflower (*Echinacea angustifolia*), prairie coneflower (*Ratibida columnifera*), and blanketflower (*Gallardia aristata*) (Cochrane and Delphey, 2002).

A Dakota skipper Field Botany Survey was conducted by KLJ in accordance with the Guidance for Interagency Cooperation under Section 7(a)(2) of the Endangered Species Act. Per Section 7(a)(2) Consultation Guidelines, the first step is to delineate the action area of the proposed Project. The action area would include direct and indirect effects within a 0.6-mile radius of a proposed Project, which is the travel distance an adult Dakota skipper can fly to lay her eggs (USFWS, 2014c). A desktop analysis was conducted by KLJ on July 14, 2015, to determine the potential for adult and larval skipper habitat within the action area. The desktop analysis aids in determining locations for the botanical survey. In the areas where the desktop analysis indicated potential habitat within the 200-foot survey area for the proposed pipeline route, a field botany survey was completed.

The field surveys confirmed that the environmental study area contains 2.16 acres of suitable habitat for the Dakota skipper.

### *Pallid Sturgeon*

Pallid sturgeon are large, freshwater fish described as ‘living dinosaurs’ because of their long tails and bony plates instead of scales. These fish prefer diverse river systems as found in braided channels of large, silty rivers (NDGFD, 2012a), inhabit the bottom of the main channels and can tolerate a wide range of water depths and turbidity (USFWS, 2014d). Pallid sturgeon can weigh up to 80 pounds and can reach up to 50 years of age. Wild females reach reproductive maturity near 15 to 20 years of age; males can reproduce at approximately five years of age (USFWS, 1998). Females spawn once every two to three years between March and July, depending on water temperatures and local conditions. Fertilized eggs hatch after approximately one week, and larvae proceed to drift downstream large distances for up to two weeks (USFWS 2014d). In North Dakota, the pallid sturgeon is found primarily in the Missouri River upstream of Lake Sakakawea into Montana, and in the Yellowstone River (NDGFD, 2012a).

There is no suitable habitat for the pallid sturgeon within the environmental study area of the Project.

### *Northern Long-Eared Bat*

Suitable habitat for the northern long-eared bat in summer and spring includes forests, woodlots, fencerows, riparian forests, and other wooded corridors. Potential roosts sites for the northern long-eared bat include live trees or snags that are greater than, or equal to, 3 inches in diameter at breast height and include exfoliating bark, cracks, crevices, or cavities. Isolated trees could be potential roost sites if they exhibit the characteristics previously described and are less than 1,000 feet from the nearest roosting site or suitable forested habitat. From mid-summer to fall, bats move to hibernacula (i.e., overwintering sites such as caves, abandon mines, or similar constructions) to breed and hibernate. Currently, no hibernacula are known to exist in North Dakota (USFWS, 2015b).

The Western Population of northern long-eared bats occurs partially in North Dakota, where the bats have been observed during the summer in the Turtle Mountains, Missouri River Valley, and the Badlands. In a statewide survey of bat distribution, the northern long-eared bat was observed within Theodore Roosevelt National Park (TRNP) (North, South and Elkhorn Ranch units) and the Little Missouri National Grasslands (LMNG); however, no sampling locations were located directly within the environmental study area (Gillam and Barnhart, 2011).

Wooded draws, tree-lines, wooded fencerows, and riparian areas within the environmental study area are suitable habitat for the northern long-eared bat. Given that the northern long-eared bat uses a variety of forested and interspersed non-forested areas during the summer maternity season, the approximate 12.41 acres of woodlands within the environmental study area would be considered suitable habitat for the species.

#### 4.22.1. USFWS-Listed Threatened and Endangered Species Impacts/Mitigation

##### 4.22.1.1. Alternative A (No Build)

No impacts on USFWS-listed threatened and endangered species would be expected from Alternative A.

##### 4.22.1.2. Alternative B (Build)

#### *Impacts*

**Gray Wolf.** The proposed Project would be located far away from known populations of gray wolves. The gray wolf could pass through North Dakota; however, it is unlikely based on minimal historic recordings of the

species within the counties of the proposed project. There were no sightings or other indications of the presence of gray wolves within the environmental study area during the field surveys. Impacts from construction activities associated with the proposed project would be temporary in nature. Upon completion of the proposed project, the project area would be regraded and restored to preconstruction conditions, temporary erosion controls would be installed, and disturbed areas would be revegetated in accordance with the permit requirements and site-specific landowner requirements. Therefore, the Project would have no effect on the gray wolf.

**Black-footed Ferret.** The proposed Project is located far from known and recorded populations of black-footed ferrets. No suitable habitat exists within the environmental study area; therefore, the Project would have no impact on black-footed ferrets.

**Whooping Crane.** The study area is located within the area of the Central Flyway where 95 percent of all whooping crane sightings have occurred. In addition, various emergent wetlands for roosting and cropland for foraging occur within the environmental study area. Should construction of the Project occur during whooping crane migration (April 1<sup>st</sup> to May 15<sup>th</sup> and September 10<sup>th</sup> to October 31<sup>st</sup>) short-term or long-term, adverse impacts to whooping cranes, if present, could occur from Alternative B. Construction activities associated with the Project would include ground clearing activities that could temporarily impact suitable habitat. High noise events associated with construction activities could cause any whooping cranes present to engage in escape or avoidance behaviors. Site preparation and construction may also result in potential stressors in the form of temporary habitat degradation from additional human disturbance due to presence of workers and equipment. These stressors could result in the whooping crane temporarily avoiding habitat or behavioral effects, such as interruption of foraging and resting during migration. Loss of suitable stopover habitat could be energetically expensive for migrating cranes if flight corridors are adjusted or prolonged. Change of flight corridors and exhaustion may expose individuals to additional dangers, possibly resulting in increased mortality (USFWS, 2009).

Stormwater runoff from construction areas or releases of refined product from pipeline integrity emergencies, although unlikely, have the potential to result in water quality impacts. Water quality degradation could cause the temporary avoidance of habitat by individuals or direct injury, mortality, or impairment of bodily functions of individuals.

**Piping Plover.** No designated critical piping plover habitat occurs within the environmental study area; however, there are various emergent wetlands, streams and creeks within the environmental study area that could provide suitable habitat for the piping plover.

Should construction occur during the piping plover breeding and nesting season (February 1<sup>st</sup> to July 15<sup>th</sup>), short- and long-term impacts may occur to individuals because of Alternative B. Construction activities associated with the Project would include ground clearing activities that could temporarily impact suitable habitat. High noise events associated with construction activities could cause piping plovers to engage in escape or avoidance behaviors. Site preparation and construction may also result in potential stressors in the form of temporary habitat degradation from additional human disturbance due to presence of workers and equipment. These stressors could result in the individuals temporarily avoiding habitat or behavioral effects, such as interruption of foraging and resting during migration.

Stormwater runoff from construction areas or releases of refined fuel from pipeline integrity emergencies, although unlikely, have the potential to result in water quality impacts. Water quality degradation could

cause the temporary avoidance of habitat by individuals or direct injury, mortality, or impairment of bodily functions of individuals.

**Interior Least Tern.** There are various emergent wetlands, streams and creeks within the environmental study area that could provide suitable habitat for the least tern.

Should construction occur during the piping plover breeding and nesting season (February 1<sup>st</sup> to July 15<sup>th</sup>), short- and long-term impacts may occur to individuals because of Alternative B. Construction activities associated with the Project would include ground clearing activities that could temporarily impact suitable habitat. High noise events associated with construction activities could cause least terns to engage in escape or avoidance behaviors. Site preparation and construction may also result in potential stressors in the form of temporary habitat degradation from additional human disturbance due to presence of workers and equipment. These stressors could result in the individuals temporarily avoiding habitat or behavioral effects, such as interruption of foraging and resting during migration.

Stormwater runoff from construction areas or release of refined fuel from a pipeline integrity emergency, although unlikely, have the potential to result in water quality impacts. Water quality degradation could cause the temporary avoidance of habitat by individuals or direct injury, mortality, or impairment of bodily functions of individuals.

**Rufa Red knot.** Should construction of the Project occur during red knot migration, short-term or long-term, adverse impacts to red knots, if present, may occur to individuals because of Alternative B. Construction activities associated with the Project would include ground clearing activities that could temporarily impact suitable stopover habitat. High noise events associated with construction activities could cause any red knots present to engage in escape or avoidance behaviors. Site preparation and construction may also result in potential stressors in the form of temporary habitat degradation from additional human disturbance due to presence of workers and equipment. These stressors could result in red knots temporarily avoiding stopover habitat or behavioral effects, such as interruption of foraging and resting during migration. Loss of suitable stopover habitat could be energetically expensive for migrating red knots if flight corridors are adjusted or prolonged. Change of flight corridors and exhaustion may expose individuals to additional dangers, possibly resulting in increased mortality (USFWS 2009).

Stormwater runoff from construction areas or releases of refined fuel from pipeline integrity emergencies, although unlikely, have the potential to result in water quality impacts. Water quality degradation could cause the temporary avoidance of habitat by individuals or direct injury, mortality, or impairment of bodily functions of individuals.

**Dakota Skipper.** During field botany surveys completed by KLJ, 2.16 acres of Dakota skipper habitat were identified within the environmental study area; a portion of which (0.69 acres) is located in the 75-foot ROW.

**Pallid Sturgeon.** There is no suitable habitat for the pallid sturgeon within the environmental study area. No impacts to the pallid sturgeon are anticipated due to Alternative B.

**Northern Long-Eared Bat.** The USFWS has published the final Section 4(d) rule for the northern long-eared bat, which exempts incidental take from all lawful activities, for all areas not affected by white-nose syndrome. Areas affected by white-nose syndrome include both counties with known infected hibernacula, as well as all counties within 150 miles of known infected hibernacula. North Dakota is not within the white nose syndrome affected area (USFWS, 2016).

The proposed Project would intersect wooded draws and riparian areas, which could contain potential habitat for the northern long-eared bat. In areas where the Project intersects wooded draws and riparian areas the ROW would be minimized to avoid impacts to trees; however, in some areas, trees might need to be removed during construction. Mature trees would be left standing to the extent possible. Some trees could exhibit characteristics preferred by the northern long-eared bat and be considered suitable habitat. Shelterbelts and trees would be protected by Cenex, to the maximum extent practicable. Trees and shrubs removed during construction would be replaced at a 2- to 1-ratio during reclamation.

In addition, construction activities associated with the Project would result in increased noise and visual disturbances near the wooded draws and riparian areas. Increased noise and visual disturbances could result in short-term, adverse impacts on the northern long-eared bat, if it were present in the area.

### *Mitigation*

The Project has been sited to avoid suitable habitat for threatened, endangered, and candidate species and would not be sited within designated critical habitat for the piping plover. Cenex would implement several general commitments that would benefit multiple species. The contractor would take all reasonable steps to control construction-related noise, as directed by Cenex. Control practices could include using the best available technology for construction equipment (e.g., mufflers) and limiting working hours, as appropriate. Wire mesh or grate covers would be placed over barrels, buckets or any containers that may contain construction waste birds may inadvertently land in, or other wildlife could access. In wooded draws, windbreaks, and any other wooded areas, ROW would be minimized to 50-foot disturbance area to minimize tree removal. Mature trees would be left standing to the maximum extent able. BMPs that minimize impacts on surrounding vegetation and surface water resources would be implemented to protect exposed soil from erosion or runoff, contain temporary spoil piles, prevent weed growth, and provide for material stabilization. If noxious weeds become an issue while the Project area is being reclaimed to preconstruction conditions, Cenex would use noxious weed management practices approved by the appropriate local weed board and coordinated with the landowner.

Where the Project intersects significant streams, creeks, rivers, wetlands and riparian areas, HDD would be utilized to minimize direct, construction-related impacts on the interior least tern, whooping crane, piping plover, and rufa red knot.

Where construction activities associated with the Project would occur near potential Dakota skipper habitat, ROW would be minimized to avoid construction-related impacts on the Dakota skipper and associated habitat or the use of HDD would be used to bore under potential habitat. In addition, habitat areas may be fenced to provide additional protection and prevent accidental disturbance of potential habitat. The fencing would be removed upon completion of construction activities.

All woody vegetation larger than 1-inch DBH removed during construction, would be documented prior to removal, and replaced upon completion of construction. Trees and shrubs removed during construction would be replaced at a 2-to-1 ratio, as necessary, to minimize potential impacts to the northern long-eared bat. The locations for tree and shrub plantings would be coordinated with the impacted landowners and would be inspected annually for three years to ensure survival.

Upon completion of construction activities, the topography of the Project route would be returned to its preconstruction contours and reclaimed to landowner satisfaction and to the specification of applicable permits.

Agricultural fields would be returned to production at the landowner's discretion, which could then be used as feeding areas for the whooping crane.

In the unlikely event of a pipeline integrity emergency, the section of the pipeline would be isolated, repaired, and hydrotested prior to recommissioning. Any crude oil released from a pipeline integrity emergency would be remediated in accordance with the Emergency Response Plan and NDDH regulations and requirements. The operator of the pipeline (Cenex) would be required to write and conduct annual reviews on all operations and maintenance manuals. The manuals would describe standard operating and maintenance procedures and include emergency procedures and contacts.

#### 4.23. Rare and Unique Natural Resources–Rare and Sensitive Species

Cenex has coordinated with the USFWS, NDGFD, and NDPRD to assist with identifying sensitive species and sensitive habitat that could exist within the Project route. One-mile wide aerial surveys for raptor nests and sharp-tailed grouse leks were conducted for the entire length of the Project. The surveys were completed by KLJ staff in the spring of 2016. The aerial surveys identified one unknown nest within the environmental study area and one active, great horned owl nest within the Project ROW. Numerous sharp-tailed grouse leks were reported during the aerial survey; however, none are located within the environmental study area. The nearest lek is located 60 feet south of the environmental study area. Construction is planned to avoid conflicts with sharp-tail grouse leks. Please refer to **FIGURE A-3. PUBLIC SERVICE INFRASTRUCTURE, GEOLOGIC, GROUND WATER, DELINEATED WETLANDS AND HABITATS ON PAGE A-7** in Appendix A.

According to NDPR NHI data, no sensitive botanical or zoological species were identified within the Project route (K. Duttonhefner, Personal Communication, December 15, 2015). Please refer to **APPENDIX B. SCOPING PACKAGE**.

North Dakota has identified 100 Species of Conservation Priority within the state and has ranked those species into three levels; Level I, Level II, and Level III. Level I species are in decline and receive little or no monetary support or conservation effort. NDGFD has an obligation to use State Wildlife Grant (SWG) funding to implement conservation actions that directly benefit these Level I species. Level II species receive SWG funding to implement conservation actions to benefit these species if SWG funding for Level I species is sufficient or conservation needs have been met. Level III species receive a moderate level of conservation priority, but are believed to be peripheral or nonbreeding in North Dakota (NDGFD, 2016. Please refer to **TABLE 10. LIST OF NORTH DAKOTA SPECIES OF CONSERVATION PRIORITY**.

**Table 10. List of North Dakota Species of Conservation Priority**

PRIORITY LEVEL	COMMON NAME	SCIENTIFIC NAME
Level I	Plains Spadefoot	<i>Spea bombifrons</i>
	Canadian Toad	<i>Bufo hemiophrys</i>
	Smooth Green Snake	<i>Liochlorophis vernalis</i>
	Western Hognose Snake	<i>Heterodon nasicus</i>
	Black-tailed Prairie Dog	<i>Cynomys ludovicianus</i>
	American Bittern	<i>Botaurus lentiginosus</i>
	Swainson's Hawk	<i>Buteo swainsoni</i>
	Ferruginous Hawk	<i>Buteo regalis</i>
	Willet	<i>Catoptrophorus semipalmatus</i>
	Upland Sandpiper	<i>Bartramia longicauda</i>
	Marbled Godwit	<i>Limosa fedoa</i>
	Wilson's Phalarope	<i>Phalaropus tricolor</i>
	Sprague's Pipit	<i>Anthus spragueii</i>
	Lark Bunting	<i>Calamospiza melanocorys</i>
	Grasshopper Sparrow	<i>Ammodramus savannarum</i>
	Baird's Sparrow	<i>Ammodramus bairdii</i>
	Nelson's Sharp-tailed Sparrow	<i>Ammodramus nelsonii</i>
	Chestnut-collared Longspur	<i>Calcarius ornatus</i>
	Long-billed Curlew	<i>Numenius americanus</i>
	Horned Grebe	<i>Podiceps auritus</i>
American White Pelican	<i>Pelecanus erythrorhynchos</i>	
Yellow Rail	<i>Coturnicops noveboracensis</i>	
Franklin's Gull	<i>Larus pipixcan</i>	
Black Tern	<i>Chlidonias niger</i>	
Level II	Pygmy Shrew	<i>Sorex hoyi</i>
	Richardson's Ground Squirrel	<i>Spermophilus richardsonii</i>
	Swift Fox	<i>Vulpes velox</i>
	Black-footed Ferret	<i>Mustela nigripes</i>
	Short-horned Lizard	<i>Phrynosoma douglassi</i>
	Common Snapping Turtle	<i>Chelydra serpentina</i>
	Northern Pintail	<i>Anas acuta</i>
	Northern Harrier	<i>Circus cyaneus</i>
	Sharp-tailed Grouse	<i>Tympanuchus phasianellus</i>
	Short-eared Owl	<i>Asio flammeus</i>
	Loggerhead Shrike	<i>Lanius ludovicianus</i>
	Sedge Wren	<i>Cistothorus platensis</i>
	Le Conte's Sparrow	<i>Ammodramus leconteii</i>
	Dickcissel	<i>Spiza americana</i>
	Bobolink	<i>Dolichonyx oryzivorus</i>
	Golden Eagle	<i>Aquila chrysaetos</i>
	Prairie Falcon	<i>Falco mexicanus</i>
	Greater Sage-Grouse	<i>Centrocercus urophasianus</i>
	Burrowing Owl	<i>Athene cunicularia</i>
	Canvasback	<i>Aythya valisineria</i>
	Redhead	<i>Aythya americana</i>
	Piping Plover	<i>Charadrius melodus</i>

PRIORITY LEVEL	COMMON NAME	SCIENTIFIC NAME
Level III	Arctic Shrew	<i>Sorex arcticus</i>
	Hispid Pocket Mouse	<i>Chaetodipus hispidus</i>
	Sagebrush Vole	<i>Lemmyscus curtatus</i>
	Northern Sagebrush Lizard	<i>Sceloporus graciosus</i>
	Plains Pocket Mouse	<i>Perognathus flavescens</i>
	Brewer's Sparrow	<i>Spizella breweri</i>
	McCown's Longspur	<i>Calcarius mccownii</i>
	Whooping Crane	<i>Grus americana</i>
	American Avocet	<i>Recurvirostra americana</i>

### Communities of Ecological Importance

Ecological communities are used to address conservation and resource management issues. They are also used to provide a systematic way to describe natural vegetation pattern and processes across the landscape. The NDPRD NHI database indicated that there are six significant ecological communities within an approximate 3-mile radius of the environmental study area including *C. praegracilis* wet meadow, *Quercus macrocarpa/prunus virginiana* northern ravine woodland, permanent open water, *Stipa comata* prairie, *Distichlis spicata – hordeum jubatum/puccinellia nuttalliana* saline meadow, and *Scirpus pungens* wetland. None of these communities occur within the environmental study area. Per the NDPRD, the information in the NHI database is not based on a comprehensive survey; therefore, there could be significant ecological communities in the area that are not represented in the database (K. Duttonhefner, Personal Communication, December 15, 2015).

#### 4.23.1. Rare and Sensitive Species Impacts/Mitigation

##### 4.23.1.1. Alternative A (No Build)

No impacts on rare or sensitive species would be expected from Alternative A.

##### 4.23.1.2. Alternative B (Build)

#### Impacts

Construction activities associated with the Project would include ground clearing activities and the temporary modification of some of the woodland areas within the project route. In most of the woodland areas encountered during construction, the ROW would be minimized to avoid tree removal; however, some trees may need to be removed as part of the Project. In addition, the Project would include installation of MLVs, which would result in the permanent disturbance of approximately 0.34 acres of land within the project route. Some of the sensitive species may be forced to utilize marginal habitats or relocate to unaffected habitats where population density and competition increase. Consequences of such displacement and competition may include lower survival, lower reproductive success, lower recruitment, and lower carrying capacity, leading ultimately to population-level impacts. High noise events associated with construction activities could cause species to engage in escape or avoidance behaviors. However, most species would be expected to quickly return to the area once construction noise and disturbances ceased.

The risk of habitat contamination from a potential release of refined fuel by way of a pipeline integrity emergency would be minimal. The Project would comply with USDOT regulations, specifically the design,

construction, pressure testing, operation, welding, maintenance and emergency response requirements, as outlined in Transportation of Hazardous Liquids by Pipeline regulations (49 CFR Parts 194 and 195). Upon completion of construction and prior to commissioning, the pipeline would be hydrotested for pipeline integrity. The water from hydrotesting would be discharged in accordance with the requirements listed in the NDPDES permit. The MLVs would allow segments of the pipeline to be isolated if there were a pipeline integrity emergency or for inspection and maintenance purposes. During operations, SCADA system communications would be used to monitor for pipeline integrity. In addition, the pipeline would receive regular inspections along the ROW for any indications of pipeline integrity and other maintenance issues.

If there were a pipeline integrity emergency during operations, short-term, adverse impacts on sensitive species or their habitat might occur. In the event of a pipeline integrity emergency, the section of the pipeline would be isolated, repaired, and hydrotested in coordination with USDOT PHMSA prior to recommissioning. Any fuel released from a pipeline integrity emergency would be remediated in accordance with Cenex's CEP, EPOSRP, and NDDH regulations and requirements.

### *Mitigation*

The Project and associated structures have been sited to avoid impacts on sensitive species and sensitive habitats. Impacts on sensitive species would be minimized by reclamation activities and implementation of BMPs. Active raptor nests would be avoided during the breeding season from February 1<sup>st</sup> to July 31<sup>st</sup>. A qualified surveyor would inspect the previously identified nests before construction began to determine if the nest is active. Construction would not occur within 75-feet of the nest until the nest was determined inactive and any nestlings have fledged the nest.

Cenex would implement several general commitments that would benefit sensitive species and communities of ecological importance. The contractor would take all reasonable steps to control construction-related noise, as directed by Cenex. Control practices could include using the best available technology for construction equipment (e.g., mufflers) and limiting working hours, as appropriate. Wire mesh or grate covers would be placed over barrels, buckets or any containers that may contain construction waste birds may inadvertently land in, or other wildlife could access.

In wooded draws, windbreaks, and any other wooded areas, ROW would be minimized to 50-foot disturbance area to minimize tree removal. All mature trees would be left standing to the maximum extent able. All woody vegetation larger than 1-inch DBH removed during construction, would be documented prior to removal, and replaced upon completion of construction. Trees and shrubs removed during construction would be replaced at a 2-to-1 ratio. The locations for tree and shrub plantings would be coordinated with the impacted landowners.

Where the Project intersects streams, creeks, rivers, wetlands with open water, and riparian areas, HDD would be utilized to minimize direct, construction-related impacts on the surrounding landscape and habitat areas.

BMPs that minimize impacts on surrounding vegetation and surface water resources would be implemented to protect exposed soil from erosion or runoff, contain temporary spoil piles, prevent weed growth, and provide for material stabilization. If noxious weeds become an issue while the Project area is being reclaimed to preconstruction conditions, Cenex would use noxious weed management practices approved by the appropriate local weed board and coordinated with the landowner. Upon completion of construction activities, the topography of the Project route would be returned to its preconstruction contours and reclaimed to

landowner satisfaction and to the specification of applicable permits. Agricultural fields would be returned to production at the landowner's discretion.

In the unlikely event of a pipeline integrity emergency, the section of the pipeline would be isolated, repaired, and hydrotested prior to recommissioning. Any crude oil released from a pipeline integrity emergency would be remediated in accordance with the CEP and NDDH regulations and requirements. Cenex would be required to write and conduct annual reviews on all operations and maintenance manuals. The manuals would describe standard operating and maintenance procedures and include emergency procedures and contacts. For a summary of all impacts and mitigation measures discussed in this application, please refer to **TABLE 11. SUMMARY COMPARISON OF PROJECT ALTERNATIVES AND IMPACTS.**

#### 4.24. Irreversible and Irrecoverable Commitment of Natural Resources

An impact that falls under the category of the irreversible or irretrievable commitment of resources is the destruction of natural resources that could limit the range of potential uses of that resource. As with any construction project, certain irreversible and irretrievable commitments of natural resources, manpower, materials, and fiscal resources are required. Fossil fuels, labor, and construction materials would be expended to complete the Project. Additionally, labor and natural resources would be used in the fabrication and preparation of construction materials (e.g. concrete, aggregate, and steel). These materials are generally not retrievable; however, they are not in short supply, and their use would not have an adverse impact on the availability of these resources. Any construction would require a one-time expenditure of funds, which are not retrievable. The anticipated benefits of providing a reliable supply of refined fuels to meet consumers' needs in the region would balance the irretrievable commitment of resources caused by construction of the Project.

**Table 11. Summary Comparison of Project Alternatives and Impacts**

RESOURCE	ALTERNATIVE A	ALTERNATIVE B	PROPOSED MITIGATION
Demographics	No impacts; however, local landowners would not receive ROW payments, temporary increases in employment would not be realized, and the local communities would not receive the economic benefits from construction and operation of the Project.	Local economy would temporarily be stimulated from increased need for construction contractors; increases in local business volume, sales receipts, and indirect purchase of goods and services; and increased income to local landowners.	No mitigation would be required.
Land Use	No impacts.	Short-term adverse impacts from temporary disturbance of 1,360.12 acres of land from construction and permanent disturbance of approximately 0.34 acres from placement of MLVs.	BMPs and temporary and permanent erosion-control measures would be implemented, as specified in the CEP; Upon completion of construction, permanent soil erosion- and sediment-control would begin as soon as soil conditions permit, extraneous material would be removed from the ROW, and agricultural lands would be restored; Disturbed areas would be restored as near as practicable to the original contours; Impacts on wetlands, USFWS easements, and open water would be avoided by constructing the pipeline using HDD.
Public Services	No impacts.	No impacts on electrical service, communication towers, radio antennae, telephone or microwave structures are anticipated; short-term adverse impacts to local services, roadways, and traffic during construction activities would be expected due to increased contractor presence and increased traffic. Potential short-term, adverse impacts on water supply in the event of a pipeline integrity emergency.	Cenex would coordinate with oil and gas pipeline owners, power line owners, and telephone line owners prior to construction; Project would be constructed using HDD under roadways; Temporary private access roads would be designed to maintain proper drainage, and BMPs would be implemented; All damaged roadways would be restored, as near as possible, to preconstruction condition or as agreed between Cenex and the landowner or regulatory agencies and dust control measures would be used; An NDPDES permit, CEP, and Emergency Response Program would be developed and maintained for the Project.
Human Health and Safety: Hazardous Materials	No impacts.	No impacts to hazardous materials would be expected.	If hazardous waste sites were encountered, construction activities would be suspended and the NDDH would be contacted; Project would not be located within 500 feet of residences without a Waiver of Avoidance Area from the property owners; An NDPDES permit, CEP and Emergency Response Program would be developed and maintained for the Project.
Human Health and Safety: Safety	No impacts.	No impacts to human safety would be expected.	All access to the project route would require permission from property owners, public access to the project route would be minimized; MLV, and PIG launcher sites would be enclosed with a chain-link fence and locked; The pipeline would be monitored by SCADA systems 24/7.

RESOURCE	ALTERNATIVE A	ALTERNATIVE B	PROPOSED MITIGATION
Human Health and Safety: Noise	No impacts.	Short-term, adverse impacts from construction would be localized, temporary, and intermittent during machinery operations; Increases in ambient noise levels due to heavy equipment operation would be limited to the period of construction, typically during daylight hours. Vehicles used during operation would result in negligible increases in existing noise levels; seven residences are located within 500 feet of the pipeline and would experience temporary, adverse noise impacts	The contractor would take all reasonable steps to control construction-related noise near residential areas; Control practices could include using the best available technology for construction equipment (e.g., mufflers) and limiting working hours in residential areas.
Aesthetics	No impacts.	Short-term, adverse impacts to the landscape and viewers, within the environmental study area would be expected during construction of the pipeline; however, these impacts would be temporary; Viewers would temporarily experience additions of construction equipment, vehicles, fencing, top-soil and fill stockpiles, and Cenex construction staff within the landscape; There would be minimal permanent visual impacts within the environmental study area including the installation of 17 new MLVs.	Upon completion of construction, cleanup and rough grading activities would include removing construction debris, replacing fences removed during construction, restoring the disturbed areas as near as practicable to the original contours, and installing or repairing temporary erosion-control measures; MLVs and block valve holding buildings would be painted to blend with the natural surroundings.
Cultural and Archaeological Resources	No impacts.	No impacts; The final Project corridor and route would avoid known and newly identified <i>unevaluated</i> , significant, or <i>Eligible</i> cultural resources by a minimum of 50 feet.	If previously unidentified cultural resources are discovered during the construction process, construction activities would halt until KLJ cultural staff arrive to advise (in consultation with the SHSND) on proceeding with construction; An Inadvertent Discovery Plan would also be developed and submitted to the SHSND.
Recreation	No impacts.	Three river crossings a total of 21.99 acres of PLOTS lands would be temporarily impacted by the proposed pipeline; Surrounding recreational resources (i.e. golf courses, WPAs, NWRs, etc.) could experience indirect, temporary visual and/or noise impacts.	Upon completion of construction, cleanup and rough grading activities would include removing construction debris, replacing fences removed during construction, restoring the disturbed areas as near as practicable to the original contours, and installing or repairing temporary erosion-control measures; Impacts on major water bodies, including river crossings, would be avoided by constructing the pipeline using HDD in all open water areas; The contractor would take all reasonable steps to control construction-related noise near residential and recreational areas.
Agriculture	No impacts.	Short-term, adverse impacts from temporary disturbance to 670.77 acres classified as farmland of statewide importance or prime farmland within the ROW; Long-term, adverse impacts from permanent conversion of approximately 0.34 acres of prime farmland and/or farmland of statewide importance if the MLV sites were installed in areas with soils classified as prime farmland and/or farmland of statewide importance.	Agricultural lands would be restored, but would not be reseeded unless requested by the landowner; Cleanup and rough grading activities would include removing construction debris, replacing fences removed during construction, restoring the disturbed areas, and installing or repairing temporary erosion-control measures; After final grading, slopes in areas other than cropland would be stabilized with erosion-control structures.

RESOURCE	ALTERNATIVE A	ALTERNATIVE B	PROPOSED MITIGATION
Soils	No impacts.	Short-term, adverse impacts on 1,360.12 acres from surface disturbance and soil compaction during construction and the use of heavy machinery; Long-term, adverse impacts on 0.34 acres from installation of permanent MLVs.	BMPs and temporary and permanent erosion-control measures would be implemented, as specified in the CEP; Topsoil would be segregated during trench excavation where soil productivity is an important consideration; Cenex would retain environmental inspectors to protect soil resources during construction and the best available technology would be selected to reduce potential soil compaction; Cultivated fields and any other severely compacted or rutted areas would be tilled to loosen compacted soils; The ROW would be seeded as soon as possible after backfilling and seed would be purchased, used, and planted in accordance with Cenex's CEP; An NDPDES permit, CEP and Emergency Response Program would be developed and maintained for the Project.
Geology and Groundwater Resources	No impacts.	No impacts on geological or groundwater resources; The Project is not anticipated to result in any subsidence, significantly disrupt aquifers near the project route, or modify the depositional fabric of the sediments within the project route; Potential short-term, adverse impacts in the event of a pipeline integrity emergency.	Upon completion of construction, Cenex would restore areas disturbed areas to pre-construction contours; BMPs such as slope breakers, erosion-control blankets, and revegetation would be implemented to maintain the stability of the slopes along the ROW; An NDPDES permit, CEP and Emergency Response Program would be developed and maintained for the Project.
Surface Water Resources	No impacts.	Short-term, adverse impacts from the temporary removal of vegetation and excavation of soil; Where the Project intersects large waterbodies or rivers, HDD would be used for construction; Potential short-term, adverse impacts in the event of a pipeline integrity emergency.	BMPs and temporary and permanent erosion-control measures would be implemented; Equipment would be refueled at least 100 feet from waterbodies; no equipment would be washed, lubricated, or parked overnight within 100 feet of waterbodies; hazardous materials, chemicals, fuels, and lubricating oils would not be stored within 100 feet of waterbodies; no concrete coating activities would be performed within 100 feet of waterbodies; An NDPDES permit, CEP and Emergency Response Program would be developed and maintained for the Project.
Wetlands	No impacts.	Potential short-term, temporary impacts associated with trenching through wetlands may occur; although, HDD would be used to construct the Project through wetlands where practicable, leaving no surface disturbance between the drill entrance and exit points; Potential short- and long-term, adverse impacts in the event of a pipeline integrity emergency.	Construction of the pipeline would be in compliance with the Nationwide Permit 12 and General Conditions for the Nationwide Permits; Drilling mud and slurry would be stored away from the wetland bank in an earthen berm, a sediment-control structure, in tanks, or by other methods; Once the pipeline is installed, excess drilling mud and slurry would be spread over an upland area or disposed of off-site; Hazardous materials, chemicals, fuels, and lubricating oils storage, and coating activities would not be within 100 feet of any wetland; Upon completion of construction, disturbed areas would be restored as near as possible to the original contours and temporary erosion-control measures would be installed or repaired; An NDPDES permit, CEP, and Emergency Response Program would be developed and maintained for the Project.

RESOURCE	ALTERNATIVE A	ALTERNATIVE B	PROPOSED MITIGATION
Vegetation	No impacts.	Short-term, adverse impacts from temporary disturbance to 1,360.12 acres of land from construction activities; Long-term, adverse impacts from permanent disturbance to 0.34 acres of land from MIVs; Potential short-term, adverse impacts in the event of a pipeline integrity emergency.	BMPs and temporary and permanent erosion-control measures would be implemented, as specified in the CEP; Upon completion of construction, the ROW would be revegetated and seeded in accordance with the CEP; Monitoring and treatment of invasive plant species would be conducted on an annual basis; Shelterbelts and trees would be protected and restored, to the maximum extent practicable; An NDPDES permit, CEP and Emergency Response Program would be developed and maintained for the Project.
Mammal Species	No impacts.	Short-term, adverse impacts from high noise events and temporary loss of habitat associated with construction activities; Potential short- and long-term, adverse impacts on habitats in the event of a pipeline integrity emergency.	BMPs and temporary and permanent erosion-control measures would be implemented, as specified in the CEP; Shelterbelts and trees would be protected by avoidance or reducing ROW, to the maximum extent practicable, and setback requirements would be established and incorporated; Trees would be replaced at a 2-to 1-ratio; Upon completion of construction, disturbed areas would be restored as near as practicable to the original contours and temporary erosion-control measures would be installed or repaired, as necessary; An NDPDES permit, CEP and Emergency Response Program would be developed and maintained for the Project.
Avian Species	No impacts.	Short-term, adverse impacts from high noise events and temporary loss of habitat associated with construction activities; Potential short- and long-term, adverse impacts on habitats in the event of a pipeline integrity emergency.	BMPs and temporary and permanent erosion-control measures would be implemented, as specified in the CEP; Shelterbelts and trees would be protected by avoidance or reducing ROW, to the maximum extent practicable, and setback requirements would be established and incorporated; Trees would be replaced at a 2-to 1-ratio; Upon completion of construction, disturbed areas would be restored as near as practicable to the original contours and temporary erosion-control measures would be installed or repaired, as necessary; An NDPDES permit, CEP and Emergency Response Program would be developed and maintained for the Project.

RESOURCE	ALTERNATIVE A	ALTERNATIVE B	PROPOSED MITIGATION
Threatened and Endangered Species	No impacts.	No impacts on black-footed ferret, gray wolf, pallid sturgeon, or Dakota skipper; potential short-term, adverse impacts on northern long-eared bat from high noise events and temporary loss of habitat associated with construction activities and tree removal; Potential short- and long-term, adverse impacts on piping plover, interior least tern, whooping crane and rufa red knot; Potential short- and long-term adverse impacts on habitat in the event of a pipeline integrity emergency.	BMPs and temporary and permanent erosion-control measures would be implemented, as specified in the CEP; Shelterbelts and trees would be protected by avoidance or reducing ROW; to the maximum extent practicable, and setback requirements would be established and incorporated; Trees would be replaced at a 2-to-1 ratio; Upon completion of construction, disturbed areas would be restored as near as practicable to the original contours and temporary erosion-control measures would be installed or repaired, as necessary; An NDPDES permit, CEP and Emergency Response Program would be developed and maintained for the Project.
Rare and Sensitive Species	No impacts.	Short-term, adverse impacts from high noise events and temporary loss of habitat associated with construction activities; Potential short- and long-term, adverse impacts on habitats in the event of a pipeline integrity emergency.	BMPs and temporary and permanent erosion-control measures would be implemented, as specified in the CEP; Shelterbelts and trees would be protected by avoidance or reducing ROW; to the maximum extent practicable, and setback requirements would be established and incorporated; Trees would be replaced at a 2-to-1 ratio; Upon completion of construction, disturbed areas would be restored as near as practicable to the original contours and temporary erosion-control measures would be installed or repaired, as necessary; An NDPDES permit, CEP and Emergency Response Program would be developed and maintained for the Project.
Communities of Ecological Importance	No impacts.	No impacts.	No mitigation would be required.

*Rare and Unique Natural Resources*

## 5. Criteria for Transmission Facility Corridor and Route Selection

### 5.1. Environmental Policy Statement

Cenex has committed to protecting the environment, home to its employees and customers. Protection of the environment is an integral element in the conduct of Cenex. Environmental protection efforts will span the entire Project, from planning through construction, restoration, and into full operation.

### 5.2. Corridor and Route Siting and Evaluation Criteria

#### 5.2.1. Exclusion Areas

Per Section 69-06-08-02(1) of the NDAC, certain geographical areas shall be excluded from transmission facility siting consideration. In addition, a buffer zone shall be implemented around these areas to protect their integrity. The North Dakota PSC regulations include the following criteria as exclusion areas for transmission facility corridors and route criteria: designated or registered national: parks, memorial parks, historic sites and landmarks, natural landmarks, monuments, and wilderness areas; designated or registered state: parks, historic sites, monuments, historical markers, archeological sites, and nature preserves; county parks and recreation areas, municipal parks, and parks owned or administered by other governmental subdivisions; areas critical to the life stages of threatened or endangered animal or plant species; areas where animal or plant species that are unique or rare to this state would be irreversibly damaged; areas within 1,200 feet of the geographic center of an ICBM launch or launch control facility; areas within 30 feet on either side of a direct line between ICBM launch or launch control facilities to avoid microwave interference.

The Project was sited to avoid exclusion areas. The following resources have been identified in the study area and need to be excluded from consideration for the proposed pipeline route (exclusion areas): Fort Union, Fort Buford and the Missouri-Yellowstone Confluence Interpretive Center; Recreation areas—Yellowstone River, Missouri River, Little Muddy River, White Earth River, Little Knife River, Souris River, Lake Sakakawea, Factory Lake and Vaux Reservoir (Sidney), Lake Trenton (Trenton), Epping Dam (Epping), McLeod Lake and Kota Ray Dam (Ray); Threatened, endangered, proposed, candidate and critical habitat (whooping crane, piping plover, interior least tern and Dakota skipper and their associated critical habitat, rufa red knot, pallid sturgeon, northern long-eared bat); areas within 1,200 feet of an ICBM launch or launch control facilities. For additional information regarding avoidance and mitigation measures please refer to **TABLE 12. SUMMARY OF EXCLUSION AREAS**, **TABLE 13. SUMMARY OF AVOIDANCE AREAS** and **FIGURE A-4. EXCLUSION AND AVOIDANCE AREAS ON PAGE A-46** in Appendix A.

### 5.3. Avoidance Areas

Per Section 69-06-08-02(2) of the NDAC, certain geographical areas shall not be approved for use as transmission facilities 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 North Dakota PSC may consider the proposed management of adverse impacts, the orderly siting of facilities, system reliability and integrity, the efficient use of resources, and alternative sites. In addition, a buffer zone shall be implemented around these areas to protect their integrity. The North Dakota PSC regulations also include the following

criteria as avoidance areas for transmission facility corridors and route criteria: designated or registered national: historic districts, wildlife areas, wild, scenic, or recreational rivers, wildlife refuges, and grasslands; designated or registered state: wild, scenic, or recreational rivers, game refuges, game management areas, management areas, forests, forest management lands, and grasslands; historical resources which are not specifically designated as exclusion or avoidance areas; areas which are geologically unstable; within 500 feet of a residence, school, or place of business; reservoirs and municipal water supplies; water sources for organized rural water districts; areas of recreational significance which are not designated as exclusion areas.

Avoidance areas were avoided where possible; however, certain designated avoidance areas would be impacted as part of the proposed project. The following resources have been identified in the study area and should be avoided by the proposed pipeline route (avoidance areas): national wildlife areas (Waterfowl Production Areas); National wildlife refuges (Shell Lake National Wildlife Refuge); areas within 500 feet of a residence, school or business; historical resources which are not specifically designated as exclusion or avoidance areas. There is one waterfowl production area within the project route. For additional information regarding avoidance and mitigation measures, please refer to **TABLE 12. SUMMARY OF EXCLUSION AREAS** and **TABLE 13. SUMMARY OF AVOIDANCE AREAS** and **FIGURE A-4. EXCLUSION AND AVOIDANCE AREAS ON PAGE A-46** in Appendix A.

**Table 12. Summary of Exclusion Areas**

EXCLUSION AREA	PRESENT WITHIN PROJECT ROUTE	METHODS/ALTERNATIVES CONSIDERED FOR EXCLUSION AREA	PROPOSED MITIGATION
Designated or registered national: parks, memorial parks, historic sites and landmarks, natural landmarks, monuments, and wilderness areas.	None	N/A	N/A
Designated or registered state: parks, historic sites, monuments, historical markers, archaeological sites, and nature preserves.	None	N/A	N/A
County parks and recreation areas, municipal parks, and parks owned or administered by other governmental subdivisions.	None	N/A	N/A
Areas critical to life stages of threatened or endangered animal or plant species.	None	N/A	N/A
Areas where animal or plant species that are unique or rare to this state would be irreversibly damaged.	None	N/A	N/A
Areas within 1,200 feet of the geographic center of an ICBM launch or launch control facility.	None	N/A	N/A
Areas within 30 feet on either side of a direct line between ICBM launch or launch control facilities to avoid microwave interference.	None	N/A	N/A

**Table 13. Summary of Avoidance Areas**

AVOIDANCE AREA	PRESENT WITHIN PROJECT ROUTE	METHODS/ALTERNATIVES CONSIDERED FOR AVOIDANCE AREA	PROPOSED MITIGATION
Designated or registered national; historic districts; wildlife areas; wild, scenic, or recreational rivers; wildlife refuges and grasslands.	Haugen Waterfowl Production Area	The project route would cross through a portion (approximately 0.50 miles) of the Haugen Waterfowl Production Area. This route was the least environmental impact because of Cenex's existing ROW within this area and would cause the least disturbance to previously undisturbed areas by following the existing pipeline route to lay the proposed pipeline.	Upon completion of construction, cleanup and rough grading activities would include removing construction debris, replacing fences removed during construction, restoring the disturbed areas as near as practicable to the original contours, and installing or repairing temporary erosion-control measures. Every effort would be made to begin cleanup and rough grading (including installing temporary erosion-control measures) within 24 hours after backfilling. The project would be completed in compliance with USFWS management, Cenex policies, and all permit specifications.
Designated or registered state; wild, scenic, or recreational rivers; game refuges; game management areas; management areas; forests; forest management lands; and grasslands.	N/A	N/A	N/A
Historical resources that are not specifically designated as exclusion or avoidance areas.	None	N/A	N/A
Areas which are geologically unstable.	Yes	The pipeline was sited to provide the least damaging environmental alternative while minimizing excessive rerouting of the pipeline.	Cenex would complete geotechnical investigations along the proposed pipeline route to ensure the pipe is being installed in geologically stable areas and to minimize the potential for pipeline integrity issues.
Within 500 feet (152.4 meters) of a residence, school, or place of business.	Residences/ farmsteads, One business	A total of seven residences/farmsteads and one business would be within 500 feet of the proposed pipeline.	Cenex would obtain signed Waivers of Avoidance Area from the property owners of occupied residences. These waivers would be provided to the PSC prior to public hearing.
Reservoirs and municipal water supplies.	Sundre Wellhead Protection Area; Minot	A portion of the pipeline would be constructed within a delineated, groundwater dependent, Wellhead Protection Area associated with the City of Minot. Passing through the Wellhead Protection Area could not be avoided because the CHS Minot Terminal is located within the Wellhead Protection Area.	During operations, SCADA system communications would be used to monitor for pipeline integrity remotely 24-7. In addition, the pipeline would receive regular inspections by on-the-ground field staff or aerial flight along the ROW for any indications of pipeline integrity occurrences. In the event of a pipeline integrity emergency, the section of the pipeline would be isolated, repaired, and hydrotested in coordination with USDOT PHMSA prior to recommissioning. Any fuel released from a pipeline integrity emergency would be remediated in accordance with Cenex's CEP, EPOSRI, and NDDH regulations and requirements.
Water resources for organized rural water districts.	None	N/A	N/A
Areas of recreational significance which are not designated as exclusion areas.	None	N/A	N/A

### 5.3.1. Selection Criteria

Per Section 69-06-08-02(3) of the NDAC, a site shall be approved in an area only when it is demonstrated to the ND PSC by the applicant that any significant adverse effects resulting from the location, construction, and operation of the facility in that area, as they relate to the following, would be at an acceptable minimum, or that those effects would be managed and maintained at an acceptable minimum. Exclusion and avoidance areas, along with selection criteria, were evaluated and considered when determining the project route. Please refer to **TABLE 14. SUMMARY OF SELECTION CRITERIA.**

**Table 14. Summary of Selection Criteria**

SELECTION CRITERIA	POTENTIAL ADVERSE EFFECT FROM PROJECT
(1) Agricultural production	Approximately 402.23 acres of grasslands and 873.57 acres of potential cropland would be temporarily impacted during pipeline installation and returned to pre-existing conditions after construction.
(2) Family farms and ranches	Economic losses to producers are anticipated to be minor in comparison to additional income provided by ROW agreements. Additionally, construction and reclamation are planned to occur outside the growing season.
(3) 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 impacted property owners have expressed concerns over land that is economically suitable for irrigation. No adverse impacts are anticipated.
(4) Surface drainage patterns and groundwater flow patterns	No adverse impacts on surface drainage or groundwater flow patterns are anticipated.
(a)(1) Sound sensitive land uses	Rural residences in close proximity to the pipeline would experience short-term increases in noise during construction. Noise from construction equipment would be localized, temporary, and intermittent during machinery operations. Noise levels would fluctuate throughout the day.
(a)(2) The visual effect on the adjacent area	Temporary visual impacts during construction from the presence of construction staff and equipment, and from a trenching scar. Long-term visual impacts from MLVs and pipeline markers, which could only be seen from a close distance. Impacts would not intrude on the overall aesthetic qualities of the rural landscape.
(a)(3) Extractive and storage resources	No adverse impacts on extractive and storage resources are anticipated.
(a)(4) Wetlands, woodlands and wooded areas	Impacts on large wetlands and open water would be avoided by constructing the pipeline using HDD, where possible. Trenching through wetlands may occur at the direction of Cenex environmental inspector personal. The decision to trench or use HDD at wetland locations will be determined in the field and will be based on maintaining compliance with USACE NWP 12 – Utility Line Activities, and ease of construction/reclamation. NWP 12 limits impacts to temporary fills without notification as well as requires compliance with the general condition of the permit. Any temporary fills would be removed in their entirety and the affected areas returned to pre-construction elevations. ROW in woodland areas would be reduced to 50-foot where possible to minimize impacts to trees. Mature trees would be avoided where possible and any removed trees would be mitigated at a 2- to 1-ratio.
(a)(5) Radio and television reception and other communication or electronic control facilities	No adverse impacts on radio or television reception or other communications or electronic control facilities.
(a)(6) Human health and safety	Most of the access to the project route would require permission from property owners, which would minimize general public access and should reduce the need for additional security during construction. Hazardous waste would not be generated during construction, maintenance, or operation activities associated with the Project.
(a)(7) Animal health and safety	Construction would temporarily impact habitat, and high noise events could cause species to engage in escape or avoidance behaviors. Most species would be expected to quickly return to the area once construction ceased, and impacts would be minimized by reclamation activities and implementation of BMPs.
(a)(8) Plant life	Temporary impacts on 1,360.12 acres from construction and long-term impacts on 0.34 acres from installation of MLVs. The ROW would be minimized to avoid tree removal; however, some trees may need to be removed. Impacts would be minimized by reclamation activities and implementation of BMPs.

### 5.3.2. Policy Criteria

Per Section 69-06-08-02(4) of NDAC, the ND PSC may give preference to an applicant that would maximize benefits through the adoption of up to 10 criteria related to the applicant’s policies and practices. Please refer to **TABLE 15. SUMMARY OF POLICY CRITERIA**. In addition, the ND PSC may also give preference to an applicant that would maximize interstate benefits.

**Table 15. Summary of Policy Criteria**

POLICY CRITERIA	APPLICANT’S POLICIES AND PRACTICES
Location and Design	The pipeline has been sited and designed to minimize impacts on environmental, socioeconomic, and human-made resources.
Training and utilization of available labor in this state for the general and specialized skills required	Contractors would be obtained from the local area to the maximum extent practicable. Additional contractors would be obtained outside of the local area, when needed.
Economies of construction and operation	Local economy would be temporarily stimulated during construction from increases in local business volume, sales receipts, and indirect purchase of goods and services. Long-term increased income to local landowners receiving ROW payments. The number of permanent jobs created is anticipated to be low.
Use of citizen coordinating committees	Cenex has and will continue to work with impacted property owners throughout the Project process.
A commitment of a portion of the transmitted product for use in this state	The refined fuels that would be transported in the proposed pipeline would be available for use by consumers through distribution to gas stations out of CHS’s Minot and Fargo facilities.
Labor relations	Contractors would be obtained from the local area to the maximum extent practicable. Additional contractors would be obtained outside of the local area, when needed.
The coordination of facilities	The project route has been coordinated with property owners within the ROW. Prior to construction, CHS would coordinate with private landowners regarding any water lines or wells, and utility owners that intersects the project route.
Monitoring of impacts	BMPs would be used during the construction process. Cenex would monitor impacts during and after the construction process.
Utilization of existing and proposed ROWs and corridor	The pipeline would be buried parallel to the existing Cenex Pipeline for a portion of the route as well as utilize other established pipeline corridors where possible along the route. Acquisition of an additional ROW would be required for most areas of the project route.
Other existing or proposed transmission facilities	The pipeline would be buried parallel to the existing Cenex Pipeline for a portion of the route and integrated into CHS’s existing facilities. No new pumping facilities or other transmission facilities would be required.

### 5.4. Agency Comments

A letter soliciting the views of its recipients was distributed to local state and federal agencies and other interested parties on April 13, 2016. Comments were requested to identify interests in the project and address potential impacts as well as propose mitigation, if needed. At the end of a 30-day comment period, 20 responses were received from the 82 agencies solicited. The following is a summary of the responding agencies comments and proposed mitigation. Please refer to **APPENDIX B. SCOPING PACKAGE** for the scoping letter, list of agencies solicited, and detailed response letters. Potential impacts and items of concern identified through agency scoping were addressed in this application and avoidance, minimization, or mitigating measures were identified to address them.

#### 5.4.1. Department of the Army, USACE, Omaha District

In a letter dated April 26, 2016, the USACE Omaha District stated numerous items of note in the response letter. Plans should be coordinated with the state water quality office to ensure federal and state standards and regulations mandated by the CWA are met. They also recommended consultation with USFWS and NDDGF regarding wildlife resources; as well as the SHSND for cultural resources. In areas of floodplains, there should be no impact if the lines are buried far enough below beds of drainageways and streams. Any above ground construction in floodplains must be flood proofed or above the 1-percent annual change flood elevation.

#### 5.4.2. Department of the Army, USACE, North Dakota Regulatory Office

In a letter dated May 2, 2016, the USACE noticed that if the Project results in work over, in, or under navigable waters (Section 10 of the Rivers and Harbors Act) or there is a discharge of dredged or fill materials into waters of the United States (Section 404 Clean Water Act), a Section 10 and/or Section 404 permit may be required from the ND Regulatory Office.

#### 5.4.3. Bureau of Indian Affairs.

In a letter dated July 11, 2016, the Bureau of Indian Affairs stated that they have no environmental objections to the action as long as the project complies with all pertinent laws and regulations. They also found that the listed action will not affect cultural resources on Tribal or individual landholdings for which they are responsible. However, the tribes or tribal members may have lands in fee status near the sites of interest that would not necessarily be in their databases. The Tribes should be contacted directly to ensure all concerns are recognized.

#### 5.4.4. Bureau of Land Management

In correspondence between BLM and KLJ, dated May 11, 2016, BLM stated that they have land within the project corridor that would require an Acknowledgment of Easement crossing. No further environmental, cultural, or social economic impacts were identified with the project.

#### 5.4.5. Bureau of Reclamation

In correspondence dated may, 18, 2016 the Bureau of Reclamation Stated that they own, fund, operate and maintain six water source intakes on the Missouri River north of Oahe Dam for water distribution to the Three Affiliated Tribes and Standing Rock Sioux Tribe. Five water source intakes are located in ND and one is located in South Dakota. It appears from the general map; the proposed pipeline route would cross the Missouri river in MT upstream of the six intakes. Additionally, the Trenton Indian Service Area rural water system receives water from the city of Williston which in turn withdraws water from the Missouri River.

#### 5.4.6. Federal Aviation Administration

In a letter dated May 4, 2016, The Federal Aviation Administration (FAA) Bismarck Airports District office stated that they have no objection to the proposed project provided the FAA is notified of construction or alterations as required by FAA regulations.

#### 5.4.7. USDA Natural Resource Conservation Service

In a letter dated April 19, 2016, The Natural Resource Conservation Service (NRCS) stated that the NRCS has a major responsibility with the Farmland Protection Policy Act (FPPA) in documenting conversion of farmland to non-agriculture use. The proposed project is not supported by federal funding; therefore, FPPA does not apply and no further action is required. The agency also recommended that impacts on wetlands should be avoided. If wetland avoidance is not feasible, the following criteria should be followed:

1. Disturbance must be temporary;
2. No drainage of wetland is allowed;
3. Mechanized landscaping must be kept to a minimum and preconstruction contours must be maintained;
4. Side cast material may not disperse into wetland; and
5. All trenches must be backfilled to original bottom elevation.

#### 5.4.8. Minot Air Force Base

Initial correspondence with the Minot Air Force Base indicated that there were three locations that the Project was located in Minot Air Force Base easements. The Project was subsequently rerouted to avoid any easements, and the Minot Air Force Base stated the reroutes were satisfactory to their needs. In addition, Minot Air Force Base requested that in any locations where the pipeline crosses underground cables, that the crossings be completed at a 90-degree angle. The alignments for the crossings were sent to the Minot Air Force Base, and it was stated that the crossings were acceptable on January 27, 2017.

#### 5.4.9. Western Area Power Administration

Correspondence with the Western Area Power Administration on April 19, 2016, indicated that the proposed pipeline might cross a powerline near Willison, ND. However, more accurate maps would be needed to accurately identify the location or locations where the powerline will be crossed.

#### 5.4.10. North Dakota Department of Commerce

In a letter dated April 18, 2016, the ND Department of Commerce issued a letter of clearance in conformance with the ND Federal Program Review System. If the proposed project changes in duration, scope, description, budget, location or area of impact from the project description submitted for review, then it is necessary to submit a copy of the completed application to their office for further review.

#### 5.4.11. North Dakota Department of Health

In a letter dated April 28, 2016, the NDDH stated they believe that environmental impacts from the proposed construction would be minor and could be controlled by proper construction methods. They stated that they do not own land within or adjacent to the project route, nor do they have any projects scheduled in the area. The NDDH believes the proposed activities are consistent with the State Implementation Plan for the Control of Air Pollution for the State of ND. With respect to construction, they provided the following comments:

- ◆ All necessary measures must be taken to minimize fugitive dust emissions created during construction. Any complaints that may arise are to be dealt with in an efficient and effective manner.
- ◆ Care is to be taken during construction activity near any water of the state to minimize adverse effects on a water body. This includes minimal disturbance of stream beds and banks to prevent excess siltation and the replacement and revegetation of any disturbed area as soon as possible after work has been completed. Caution must also be taken to prevent spills of oil and grease that may reach the receiving water from equipment maintenance and/or the handling of fuels on the site.
- ◆ Projects disturbing one or more acres are required to have a permit to discharge storm water runoff until the site is stabilized by the reestablishment of vegetation or to permanent cover. Also, cities may impose additional requirements and/or specific best management practices for construction affecting their storm drainage system. Check with the local officials to be sure any local storm water management considerations are addressed.
- ◆ The construction project overlies the Shell Creek, White Earth, Little Knife River Valley and Little Muddy aquifers. Care should be taken to avoid spills of any materials that may have an adverse effect on groundwater quality, All spills must be immediately reported to the department of health and appropriate remedial actions performed. Shallow ground water may be encountered during installation. Additional precautions should be taken to prevent ground water contamination during construction.
- ◆ Noise from construction activities may have adverse effects on persons who live near the construction area. Noise levels can be minimized by ensuring that construction equipment is equipped with a recommended muffler in good working order. Noise effects can also be minimized by ensuring that construction activities are not conducted during early morning or late evening hours.
- ◆ Projects that involve construction of pipelines should select locations that minimize the potential for environmental damage during construction, and in the event of a spill, restrict fluids from reaching surface waters. Environmental damage can be reduced by developing a spill response plan that emphasizes rapid deployment of prepositioned assets necessary to contain spills and subsequent cleanup. Proper surveillance and monitoring of pipelines is necessary for the early detection of a pipeline integrity emergency.

#### 5.4.12. North Dakota Department of Transportation

In a letter dated April 25, 2016 The NDDOT stated that this project should have no adverse effect on the NDDDOT highways.

#### 5.4.13. North Dakota Department of Trust Lands

The ND Department of Trust Lands stated that the general route map provided was not detailed enough to determine if ND School Trust Lands are involved in the Project. If ND School Trust Lands are involved in the Project, they requested that KLJ submit an online application on their Website as soon as possible to allow them to determine what tracts are involved and if there is a suitable pipeline corridor on the tracts.

#### 5.4.14. North Dakota Parks and Recreation Department

The NDPRD reviewed NHI biological conservation data for the proposed pipeline. The results of their data search were provided in a letter dated December 15, 2015. They provided a recommendation regarding reclamation efforts and that any impacted areas be revegetated with species native to the project area. The NDPRD stated that the project would not impact state park lands or State Land and Water Conservation Fund project sites that the Department manages.

#### 5.4.15. North Dakota State Water Commission

The NDSWC provided the following comments:

- ◆ There are no floodplains identified and/or mapped within the project route. It is believed that the Project would not affect an identified floodplain, as identified by the National Flood Insurance Program.
- ◆ A surface drain permit will need to be obtained from the office of the State Engineer if any placement of fill material in a pond/slough/lake or wetland having a watershed area of 80 acres or more.
- ◆ It is the responsibility of the project sponsor to ensure that local, state, and federal agencies are contacted for any required approvals, permits, and easements.
- ◆ All waste material associated with the Project must be disposed of properly and not placed in identified floodway areas.
- ◆ No sole-source aquifers have been designated in ND.

#### 5.4.16. North Dakota Game and Fish Department

The NDGFD stated that a primary concern is the possible disturbance of native prairie and wooded draws associated with construction of the pipeline and access roads. They asked that work within these areas be avoided to the extent possible, every effort be made to prevent destruction of woody vegetation, and disturbed areas be reclaimed to pre-project conditions. The NDGFD noted that the Project would cross the White Earth, Little Muddy Rivers, Shell Creek, and Beaver Creek all of which are Classified fisheries. They recommended that the stream be crossed by directional boring to protect the resource. If directional boring is not feasible, construction should not take place within the waterway between April 15<sup>th</sup> through June 1<sup>st</sup> and controls should be implemented to minimize erosion and sedimentation. The NDGFD also recommended that additional precautions be implemented into the design of the pipeline crossing under the state's waterways. One means of minimizing a potentially large pipeline failure is to incorporate pressure-sensing valves on both sides of the waterway. These valves should be placed as close to the waterway as possible, while staying out of the floodplain, to reduce potential damage from ice and other floating debris. A maintenance schedule should be developed to ensure the integrity of the pipeline for the life of the Project.

The NDGFD noted that aquatic nuisance species are a major concern in ND. State law requires that the contractor, including all subcontractors involved in the Project, take appropriate precautions to prevent the introduction or movement of aquatic nuisance species within the state. The contractor should provide the NDGFD a reasonable opportunity to inspect any equipment prior to these items being launched or placed into waters of the state. The National Wetland Inventory indicates various wetlands within the project route.

Steps should be taken to protect any wetlands that cannot be avoided, no alterations should be made to existing drainage patterns, and aboveground appurtenances should not be placed in wetland areas. Unavoidable destruction or degradation of wetland acres should be mitigated in-kind. Aerial surveys should be conducted for raptor nests before construction begins. They recommended that a 0.5-mile construction buffer be implemented around active eagle nest sites (known occupied within the past five years).

#### 5.4.17. North Dakota Geological Survey

In a letter dated May 3, 2016 the ND Geological Survey has identified glacial sediments of the Coleharbor Formation to be present at the surface in the northern and eastern portions of the project area and sedimentary bedrock of the sentinel Butte Formation (Paleocene) at or near the surface in the southwestern portions. Detailed landslide mapping has been conducted for much of the proposed route.

#### 5.4.18. State Historical Society of North Dakota

The State Historical Society of ND recommended a Class I and Class III survey be conducted as there are recorded eligible sites in the general area of the project.

#### 5.4.19. Joe Barkie, Mont Township, Williams County

A Record of Conversation on June 4, 2016 indicated that Joe mentioned that road crossing permits are necessary for crossing township roadways and that HDD would be required for such crossings. Joe also discussed concerns with how the pipeline was routed on his property, which has been addressed during meetings since the time of conversation.

#### 5.4.20. Williams County Planning and Zoning Commission

The Williams County Planning and Zoning Commission stated that the general route map provided was not detailed enough to provide a response to our inquiry.

### 5.5. Potential Permits Needed from Various State and Local Agencies

Several permits would be needed for the Project from various state and local agencies. Please refer to **TABLE 16. REQUIRED PERMITS.**

**Table 16. Required Permits**

AGENCY	PERMIT	APPLICABILITY
ND PSC	Corridor Certificate and Route Permit	Construction of a transmission facility
NDDH	NDPDES General Permit	Temporary dewatering activities including hydrostatic testing and trench dewatering
NDDOT	Haul Road Permits	Transport of large and heavy equipment
USACE	Section 404 Permit	Placement of dredged or fill material into waters of the US, including wetlands
Williams, Mountrail, Ward Counties	Pipeline Permit/Conditional Use Permit	Construction and operation of a pipeline in Mountrail and Ward Counties
	Crossing/Road Use	Crossing County roads; ND Uniform County Permit System
	Haul Road Permits	Transport of large and heavy equipment; ND Uniform County Permit System
	Floodplain Permit (Ward County)	Construction of line within a FEMA Zone A floodplain area associated with the South Branch Coulee
Private Residences within 500-feet of pipeline (7 residences)	Waiver of Avoidance Areas	Placement of pipeline within 500-feet of a residence
Office of the City Engineer (Minot)*	Exemption under Section 20.1-4 or permit under Section 20.1-6	Construction of a regulated activity within a Wellhead Protection Area

\*Ongoing coordination is occurring to determine if this exemption is needed. Will be provided to the PSC as needed.

## 6. Qualification of Contributors to Siting Study

*Grady Wolf—Project Lead, Author, and Senior Review*

Grady has 15 years of experience in completing environmental surveys, planning and project management associated with land and water management issues. He leads numerous complex environmental projects requiring NEPA compliance for a variety of federal, state and local agencies. Grady has managed and authored more than 50 Environmental Assessments as well as numerous Environmental Assessment Addendums, Categorical Exclusions, Biological Assessments and Environmental Reports. His experience includes project management, conducting biological and botanical studies, authoring resource reports, impact analysis and wetland delineations, mitigation and monitoring. Grady has extensive experience in the energy and renewable energy fields. His background includes holistic management on agricultural lands including watershed planning, dealing with water quality issues, fish and wildlife concerns and botanical studies. Grady has coordinated efforts for securing funding, acquiring permits, completed mitigation plans for projects through state and federal agencies and managed the projects during implementation.

*Jessica Aasand—Author*

Jessica graduated with a Masters of Natural Resource Management and Bachelor of Science degree in Zoology from North Dakota State University. Her environmental capabilities range from field data collection to documentation and permitting. She has training and experience with field wetland delineations, wildlife acoustic data collection, asbestos inspection, renewable energy, biological/botanical field surveys, impact analysis, permitting, and the NEPA process. Her experience has included work on NDDOT, local government, USFS, private, and commercial projects across ND involving coordination with various federal, state, and local agencies. Jessica currently works at KLJ as an Environmental Planner with three years of experience.

*Dirk Peterson—GIS Analyst*

Dirk is a GIS analyst with experience in oilfield GIS services, PODS pipeline database, Spatial Data Standards for Facilities, Infrastructure and Environment (SDSFIE) and remote sensing for land use change. His GIS skills include maintaining large enterprise geodatabases and file geodatabases, coordinate system and datum transformations, data conversion including converting CAD data to GIS and vice versa, geodatabase creation from spatial and non-spatial data (such as legal documents), spatial and attribute editing, heads-up digitizing, georeferencing, cartographic design and map making for a variety of print and electronic formats, metadata creation and maintenance, spatial analysis including raster calculation and analysis, raster data download and processing, and ArcGIS server administration. Dirk has more than nine years of experience in the geospatial industry.

*Tom Naas—Field Studies*

Tom is an Environmental Planner with more than four years of experience in environmental consulting services working in North Dakota, South Dakota, Montana and Wyoming. His experience includes wetland delineations, NEPA EAs, vegetation surveys and inventories, wildlife surveys (specializing in avian identification), environmental site assessments, soil and water sampling, asbestos inspections and indoor air quality screenings. He has utilized both the Floristic Quality Assessment method, the Hydrogeomorphic (HGM) functional assessment and classification method, and the MDT Wetland assessment method to aid in the permitting of wetland impacts. His principal areas of focus include Wetland Delineations according to the USACE Manual, threatened and endangered species specializing in Piping plovers, avian identification,

and environmental monitoring with large scale developments, including transportation projects as well as oil and gas pipelines.

*Corie Ereth—Field Studies*

Corie is an environmental planner with eight years of experience in environmental conservation and five years of experience in rangeland research. She has worked in coordination with private landowners, local, state, federal and Tribal agencies. Through her past work experience and education, Corie is proficient in plant and ecological site identification and biological and botanical surveys. Corie collaborated with the BLM and the USFWS to develop a botanical survey method for identifying potential Dakota skipper habitat.

## 7. References

- American Fact Finder. (2015a). ACS Demographic and Housing Estimates 2011–2015 American Community Survey 5-Year Estimates. US Census Bureau. Data retrieved for McKenzie, Mountrail, Ward, Williams County and North Dakota. Retrieved on 15 December 2016 from <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>
- American Fact Finder. (2015b). Selected Economic Characteristics 2011-2015 American Community Survey 5-Year Estimates. US Census Bureau. Data retrieved for McKenzie, Mountrail, Ward, Williams County and North Dakota. Retrieved on 15 December 2016 from <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>
- American Fact Finder. (2015c). ACS Demographic and Housing Estimates 2011-2015 American Community Survey 5-year Estimates for Williston, North Dakota. Retrieved 23 December 2016 from <https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF>
- American Fact Finder. (2015d). ACS Demographic and Housing Estimates 2011-2015 American Community Survey 5-year Estimates for Minot, North Dakota. Retrieved 23 December 2016 from <https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF>
- Arroyo-Cabrales, J., & de Grammont, P.C. (2008). *Myotis thysanodes*. The IUCN Red List of Threatened Species 2008. Retrieved on 8 February 2016 from [www.iucnredlist.org/details/14206/0](http://www.iucnredlist.org/details/14206/0)
- Austin, J., & Richert, A. (2005). Patterns of habitat use by whooping cranes during migration: Summary from 1977–1999 Site Evaluation Data. USGS Northern Prairie Wildlife Research Center. Paper 6. Retrieved 22 December 2016 from [digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1008&context=usgsnpwrc](http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1008&context=usgsnpwrc)
- Canadian Wildlife Service (CWS) and USFWS. (2005). International recovery plan for the whooping crane. Ottawa: Recovery of Nationally Endangered Wildlife (RENEW), and U.S. Fish and Wildlife Service, Albuquerque, New Mexico. 162 pp. Retrieved 22 December 2016 from [http://www.fws.gov/southwest/es/Documents/R2ES/Whooping\\_Crane\\_Recovery\\_Plan\\_FINAL\\_21-July-2006.pdf](http://www.fws.gov/southwest/es/Documents/R2ES/Whooping_Crane_Recovery_Plan_FINAL_21-July-2006.pdf)
- City of Minot. (2016). Zoning Supplement to the City of Minot; Code of Ordinances. City Planning and Zoning Municipal Code. Chapter 20.1; 135-148. Retrieved 3 January 2017 from <http://www.minotnd.org/documentcenter/view/2186>
- Cochrane, J. F. and P. Delphey. 2002. Status assessment and conservation guidelines: Dakota skipper (*Hesperia dactylata* [Skinner]), (*Lepidoptera: Hesperidae*): Iowa, Minnesota, North Dakota, South Dakota, Manitoba, and Saskatchewan. U.S. Fish and Wildlife Service, Bloomington, MN. Retrieved on 22 December 2016 from <https://www.fws.gov/Midwest/endangered/insects/pdf/dask-status.pdf>
- Dechant, J.A., Sondreal, M.L., Igl, L.D., Goldade, C.M., & Zimmerman, A.L. (2002). Effects of Management Practices on Grassland Birds: Ferruginous Hawk. Northern Prairie Wildlife Research Center, Jamestown, ND. Retrieved on 8 February 2016 from <http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1134&context=usgsnpwrc&ei-redir=1&referer=http%3A%2F%2Fwww.bing.com%2Fsearch%3Fq%3Ddechant%2BEffects%2Bof%2Bmanagement%2Bpractices%2Bon%2Bgrassland%2Bbirds%253A%2BFerruginous%2BHawk.%26form%3DIE11TR%26src%3DIE11TR%26pc%3DDCJB>
- DiGiulio, D.C., R.T. Wilkin, C. Miller. (2011). Investigation of ground water contamination near Pavillion, Wyoming [draft]. Ada, OK: Environmental Protection Agency, Office of Research and Development, National Risk Management Research Laboratory.
- Duttenhefner, K. (2015). North Dakota Parks and Recreation Department. Kathy Duttenhefner, Coordinator Natural Resources Division. Personal letter to Jennifer Davis; KLJ. December 15, 2015.

- Environmental Protection Agency (EPA). (2009). Sole Source Aquifer Program. Region 8. Retrieved 21 December 2016 from [https://www.hudexchange.info/resource/reportmanagement/published/ESD\\_900000010013889\\_09142017\\_900000010031726\\_1473844800924.pdf](https://www.hudexchange.info/resource/reportmanagement/published/ESD_900000010013889_09142017_900000010031726_1473844800924.pdf)
- Federal Highway Administration (FHWA). (2015). Highway Traffic Noise; Construction Noise Handbook. Retrieved 20 December 2016 from [http://www.fhwa.dot.gov/environment/noise/construction\\_noise/handbook/handbook09.cfm](http://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/handbook09.cfm)
- Gillam, E., & Barnhart, P. (2011). Distribution and Habitat Use of the Bats of North Dakota.
- Hagen, S.K., Isakson, P.T., & Dyke, S. (2005). North Dakota Comprehensive Wildlife Conservation Strategy. North Dakota Game and Fish Department. Bismarck, ND. Retrieved on 5 February 2016, from <http://gf.nd.gov/gnf/conservation/docs/North-Dakota-Wildlife-Action-Plan.pdf>
- IAC Acoustics. (2016). Comparative Examples of Noise Levels. Retrieved 20 December 2016 from <http://www.industrial-noisecontrol.com/comparative-noise-examples.htm>
- Johnson, J.R., & Larson, G.E. (2007). Grassland Plants of South Dakota and the Northern Great Plains. South Dakota State University. Brookings, South Dakota.
- Kolar, J. (2015). Audubon and Cornell Lab of Ornithology. eBird Checklist: online database of bird distribution and abundance. Retrieved on 5 February 2016 from [http://ebird.org/ebird/view/checklist?subID=\\$24242407](http://ebird.org/ebird/view/checklist?subID=$24242407)
- Lake-Link. (2016). McLeod (Ray) Reservoir; Williams County, North Dakota. Retrieved 28 December 2016 from <https://www.lake-link.com/north-dakota-lakes/williams-county/mcleod-ray-reservoir/6141/?CFID=30137025&CFTOKEN=b57026f8027f34a2-C2526663-E497-C789-17961B18EA716AF0>
- Landscape Institute. (2011). Guidelines for Landscape and Visual Impact Assessment; 3<sup>rd</sup> Edition. Consultant Draft. Retrieved 20 December 2016 from <https://www.landscapeinstitute.org/PDF/Contribute/GLVIA3consultationdraftformembers.pdf>
- Larson, G.E., & Johnson, J.R. (2007). Plants of the Black Hills and Bear Lodge Mountains; Second Edition. South Dakota State University. Brookings, South Dakota.
- Lawrence, A.O. (1981). U.S. Geological Survey. Groundwater Resources of Billings, Golden Valley, and Slope Counties, North Dakota. County Groundwater Studies 29 – Part III, Bulletin 76 – Part III.
- Lawrence, A.O., Pollastro, R., & Gaswirth, S.B. (2013, November). Williston Basin Province – Stratigraphic and Structural Framework to a Geologic Assessment of Undiscovered Oil and Gas Resources. Chapter 2, Version 1.1: U.S. Geological Survey Digital Data Series 69–W, 17 p.
- Maah Daah Hey Trail Association (MDHTA). (Undated a). The Maah Daah Hey Trail System. Retrieved on 30 December 2015 from <http://mdhta.com/wp-content/themes/mdhta/dist/images/MaahDaahHeyTrailSystemMap.pdf>
- MDHTA (Undated b). The Maah Daah Hey Trail System, Trail, The Deuce. Retrieved on 30 December 2015 from [http://mdhta.com/trail-guide/#the\\_deuce\\_trail](http://mdhta.com/trail-guide/#the_deuce_trail)
- MDHTA. (Undated c). About the Trail. Retrieved on 30 December 2015 from <http://mdhta.com/about/>
- MDHTA. (Undated d). Coal Creek Campground. Retrieved on 7 January 2016 from [http://mdhta.com/trail-guide/#coal\\_creek\\_campground](http://mdhta.com/trail-guide/#coal_creek_campground)
- McDonald, M.R. (2016). North Dakota Geological Service. Mark. R. McDonald. Geologist. Personal letter to Grady Wolf; KLJ. May 3, 2016.

- McGregor, R.L., Barkley, T.M., Brooks, R.E., & Schofield, E.K. (1986). *Flora of the Great Plains; The Great Plains Flora Association*. University Press of Kansas. Kansas City, Kansas.
- Missouri River Recovery Program. (2015). Missouri River Recovery Least Tern and Piping Plover Data Management System. US Army Corps of Engineers. Retrieved January 11 2017 from <http://moriverrecovery.usace.army.mil/mrrp/f?p=136:80:0::NO::>
- Montana Natural Heritage Program (MNHP) and Montana Fish, Wildlife, and Parks (MFWP). (2015a). Montana Field Guide. Great Plains Toad (*Anaxyrus cognatus*). Retrieved on 8 February 2016 from <http://FieldGuide.mt.gov/speciesDetail.aspx?elcode=AAABB01050>
- MNHP and MFWP. (2015b). Montana Field Guide. Visher's Buckwheat (*Eriogonum visheri*). Retrieved on 9 February 2016 from <http://FieldGuide.mt.gov/speciesDetail.aspx?elcode=PDPGN086A0>
- National Park Service (NSP). (2016). Fort Union Trading Post; History & Culture. Retrieved 29 December 2016 from <https://www.nps.gov/fous/learn/historyculture/index.htm>
- Noise Quest. (2016) Noise Basics and Metrics. The Pennsylvania State University. Retrieved 20 December 2016 from <http://www.noisequest.psu.edu/index.html>
- NDDH. (Undated). Environmental Incident Reports. Retrieved 2 February 2016 from <http://www.ndhealth.gov/ehs/spills/>
- NDDH. (2016). North Dakota Source Water Protection Program. NDDH Ground Water. Retrieved 30 December 2016 from <http://www.ndhealth.gov/wq/gw/sourcewater.htm>
- North Dakota Department of Mineral Resources (NDDMR). (2014). North Dakota Drilling and Production Statistics: Annual Production Reports for 2009-2014. Retrieved on 18 December 2015 from <https://www.dmr.nd.gov/oil-gas/stats/statisticsvw.asp>
- North Dakota Department of Transportation (NDDOT). (2012). County Urban & Traffic Information Maps; Historical State Traffic Counts. Retrieved on 18 December 2016 from [https://www.dot.nd.gov/docs/maps/traffic/traffic-state\\_2012.pdf](https://www.dot.nd.gov/docs/maps/traffic/traffic-state_2012.pdf)
- NDDOT. (2013). County Urban & Traffic Information Maps; Historical State Traffic Counts. Retrieved on 18 December 2016 from [https://www.dot.nd.gov/docs/maps/traffic/trafficstate\\_2013.pdf](https://www.dot.nd.gov/docs/maps/traffic/trafficstate_2013.pdf)
- NDDOT. (2014). County Urban & Traffic Information Maps; Historical State Traffic Counts. Retrieved on 18 December 2016 from [https://www.dot.nd.gov/docs/maps/traffic/trafficstate\\_2014.pdf](https://www.dot.nd.gov/docs/maps/traffic/trafficstate_2014.pdf)
- NDDOT. (2015). County Urban & Traffic Information Maps; Historical State Traffic Counts. Retrieved on 18 December 2016 from [https://www.dot.nd.gov/docs/maps/traffic/trafficstate\\_2015.pdf](https://www.dot.nd.gov/docs/maps/traffic/trafficstate_2015.pdf)
- North Dakota Geological Service. (undated). North Dakota Landslide Maps; 100K. Retrieved on 25 January 2017 from <https://www.dmr.nd.gov/ndgs/landslides/>
- North Dakota Game and Fish (NDGFD). (2012a). Pallid Sturgeon. Retrieved on 24 February 2016 from <http://gf.nd.gov/wildlife/fish-wildlife/id/fish/pallid-sturgeon>
- NDGFD. (2012b). PLOTS Guide. Public Use Regulations for State Wildlife Management Areas. Retrieved 28 December 2016 from <https://gf.nd.gov/gnf/maps/hunting/plots-maps/wmas.pdf>
- NDGFD. (2016a). Species of Conservation Priority. Retrieved 21 December 2016 from <https://gf.nd.gov/wildlife/scp>

- NDGFD. (2016b). Least Tern Fact Sheet. Retrieved on 22 December 2016 from <https://gf.nd.gov/wildlife/id/shorebirds/least-tern>
- NDGFD. (2016c). Wildlife Management Areas – Listing. Retrieved 28 December 2016 from <https://gf.nd.gov/wma-listing>
- NDSWC. (2014). North Dakota Fresh Water Depots. Edited on 13 February 2014. Retrieved 3 February 2016 from [https://www.google.com/fusiontables/data?docid=1odoq7oBXHBJoVl-7UujNkhlo\\_1dqt3G-U\\_bDDWg#rows:id=1](https://www.google.com/fusiontables/data?docid=1odoq7oBXHBJoVl-7UujNkhlo_1dqt3G-U_bDDWg#rows:id=1)
- NDSWC. (2015a). Northwest Area Water Supply. Retrieved 19 December 2016 from [http://www.swc.nd.gov/project\\_development/naws.html](http://www.swc.nd.gov/project_development/naws.html)
- NDSWC. (2015b). General Water Resources MapService. State Water Commission and Office of the State Engineer. Retrieved 21 December 2016 from <http://mapservice.swc.nd.gov/>
- North Dakota Studies. (2016). Lesson 1: Changing Landscapes; Topic 2: Geology; Section 1: Formations; Easy as Cake!. State Historical Society of North Dakota. Retrieved 21 December 2016 from <http://ndstudies.gov/gr8/content/unit-i-paleocene-1200-ad/lesson-1-changing-landscapes/topic-2-geology/section-1-formations-easy-cake>
- Bryce, S.A., Omernik, J.M., Pater, D.A., Ulmer, M., Schaar, J., Freeouf, J., Johnson, R., Kuck, P., and Azevedo, S.H., (1996). Ecoregions of North Dakota and South Dakota, (color poster with map, descriptive text, summary tables, and photographs): Reston, Virginia, US Geological Survey (map scale 1:1,500,000). Retrieved 21 December 2016 from <https://www.epa.gov/eco-research/ecoregion-download-files-state-region-8#pane-32>
- Schoeneberger, P.J., D.A. Wysocki, E.C. Benham, and Soil Survey Staff. (2012). Field book for describing and sampling soils, Version 3.0. Natural Resources Conservation Service, National Soil Survey Center, Lincoln, NE.
- Smith, B.E., & Keinath, D.A. (2007). Northern leopard frog (*Rana pipiens*); A Technical Conservation Assessment. USDA Forest Service, Rocky Mountain Region, Species Conservation Project. Retrieved on 8 February 2016, [http://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5182078.pdf](http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5182078.pdf)
- Southwest Water Authority (SWA). (2014). Southwest Pipeline Project. 2014 Annual Operating Report. Retrieved on 3 February 2016 from <http://swwater.com/wp-content/uploads/2014-Annual-Report.pdf>
- Sullivan, J. (2009). *Corynorhinus townsendii* (Online), Animal Diversity Web; University of Michigan Museum of Zoology. Retrieved on 8 February 2016 from [http://animaldiversity.org/accounts/Corynorhinus\\_townsendii/](http://animaldiversity.org/accounts/Corynorhinus_townsendii/)
- Tahca, M., A. Bishop, J. Brei. (2010). Development of the Whooping Crane Tracking Project Geographic Information System.
- Tucker, Stephanie. (2016). Stephanie Tucker, NDGFD, Furbearer Biologist, Personal email communication with Jessica Aasand, KLJ, Environmental Planner. NDGF Recorded gray wolf sightings within Stark, Billings, Mountrail, and McKenzie Counties. 22 December 2016.
- USACE. (2017). Summary of the 2017 Nationwide Permits. 2017 Nationwide Permit Information. Retrieved 11 January 2017 from [http://www.usace.army.mil/Portals/2/docs/civilworks/nwp/2017/nwp2017\\_sumtable\\_Jan2017.pdf?ver=2017-01-06-091151-173](http://www.usace.army.mil/Portals/2/docs/civilworks/nwp/2017/nwp2017_sumtable_Jan2017.pdf?ver=2017-01-06-091151-173)
- US Census Bureau. (2010a). 2010 Demographic Profile Williston City, North Dakota. American Fact Finder. Retrieved 23 December 2016 from [https://factfinder.census.gov/faces/nav/jsf/pages/community\\_facts.xhtml](https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml)
- US Census Bureau. (2010b). 2010 Demographic Profile Minot City, North Dakota. American Fact Finder. Retrieved 23 December 2016 from [https://factfinder.census.gov/faces/nav/jsf/pages/community\\_facts.xhtml](https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml)

- US Department of Agriculture (USDA). (2012). 2012 Census Volume 1, Chapter 2: County Level Data. County Summary Highlights: 2012. USDA National Agricultural Statistics Service. Retrieved 21 December 2016 from [https://www.agcensus.usda.gov/Publications/2012/Full\\_Report/Volume\\_1,\\_Chapter\\_2\\_County\\_Level/North\\_Dakota/](https://www.agcensus.usda.gov/Publications/2012/Full_Report/Volume_1,_Chapter_2_County_Level/North_Dakota/)
- USDA. (2014). CropScape – Cropland Data Layer. USDA National Agricultural Statistics Service. Retrieved on 11 January 2016 from <http://nassgeodata.gmu.edu/CropScape/>
- US Environmental Protection Agency (USEPA). (2016a). Search for Superfund Sites Where You Live. National Priorities List (NPL) Sites. Last updated 1 February 2016. Retrieved on 22 December 2016 from <http://www.epa.gov/superfund/search-superfund-sites-where-you-live>
- USEPA. (2016b). TRI Program. Last updated 21 January 2016. Retrieved 22 December 2016 from <http://www2.epa.gov/toxics-release-inventory-tri-program>
- USEPA. (2016c). Resource Conservation and Recovery Act Information (RCRAInfo) database in Envirofacts: RCRAInfo Search. Last updated 19 January 2016. Retrieved on 22 December 2016 from <http://www.epa.gov/enviro/facts/rcrainfo/search.html>
- USEPA. (2016d). Resource Conservation and Recovery Act Information (RCRAInfo) database in Envirofacts: RCRAInfo Search: Chesapeake Federal 1-17 Oil Lease Site. Last updated 1 February 2016. Retrieved on 22 December 2016 from [http://oaspub.epa.gov/enviro/rcrainfoquery\\_3.facility\\_information?pgm\\_sys\\_id=NDR00000](http://oaspub.epa.gov/enviro/rcrainfoquery_3.facility_information?pgm_sys_id=NDR00000)
- USEPA. (2016e). Resource Conservation and Recovery Act Information (RCRA Info) database in Envirofacts: RCRAInfo Search: Tesoro High Planes Pipeline Company LLC – Fryburg Tank Site. Last updated 22 December 2016. Retrieved on 4 February 2016 from [http://oaspub.epa.gov/enviro/rcrainfoquery\\_3.facility\\_information?pgm\\_sys\\_id=NDR000009316](http://oaspub.epa.gov/enviro/rcrainfoquery_3.facility_information?pgm_sys_id=NDR000009316)
- USFWS. (1990). Recovery Plan for the Interior Population of the Least Tern (*Sterna antillarum*). Retrieved on 17 February 2016 from [http://ecos.fws.gov/docs/recovery\\_plan/900919a.pdf](http://ecos.fws.gov/docs/recovery_plan/900919a.pdf)
- USFWS. (1994). Guidelines for Managing Recreation Activities in Piping Plover Breeding Habitat on the US Atlantic Coast. USFWS Northeast Region. Retrieved on 11 March 2016 from [www.fws.gov/northeast/pipingplover/pdf/recguide.pdf](http://www.fws.gov/northeast/pipingplover/pdf/recguide.pdf)
- USFWS. (1998). Pallid Sturgeon Fact Sheet. Retrieved on 4 February 2016 from [http://www.fws.gov/midwest/endangered/fishes/PallidSturgeon/palld\\_fc.html](http://www.fws.gov/midwest/endangered/fishes/PallidSturgeon/palld_fc.html)
- UFWS. (2003). Federal Register, 50 CFR Part 17, Approved Recovery Plan for the Great Lakes Piping Plover. Vol. 68; No 179 pp. 54241 Retrieved on 17 February 2016 from [http://ecos.fws.gov/docs/federal\\_register/fr4176.pdf](http://ecos.fws.gov/docs/federal_register/fr4176.pdf)
- USFWS. (2006). Gray Wolf Biology Questions and Answers. Retrieved on 22 December 2016 from <http://www.fws.gov/home/feature/2007/qandasgraywolfbiology.pdf>
- USFWS. (2012). Piping Plover. USFWS Endangered Species; Mountain-Prairie Region. Retrieved on 17 February 2016 from <http://www.fws.gov/mountain-prairie/species/birds/pipingplover/>
- USFWS. (2009). Whooping Cranes and Wind Development – An Issue Paper. USFWS Mountain Prairie Region and Southwest Region. Retrieved 22 December 2016 from [https://www.fws.gov/southwest/es/oklahoma/documents/te\\_species/wind%20power/whooping%20crane%20and%20wind%20development%20fws%20issue%20paper%20-%20final%20%20april%202009.pdf](https://www.fws.gov/southwest/es/oklahoma/documents/te_species/wind%20power/whooping%20crane%20and%20wind%20development%20fws%20issue%20paper%20-%20final%20%20april%202009.pdf)
- USFWS. (2013a). Black-footed Ferret Fact Sheet. Mountain Prairie Region, North Dakota Field Office. Retrieved on 5 February 2016 from <http://www.fws.gov/mountain-prairie/factsheets/Black-Footed-Ferret.pdf>

- USFWS. (2013b). Recovery plan for the black-footed ferret (*Mustela nigripes*). US Fish and Wildlife Service, Denver, Colorado. 157 pp. Retrieved on 5 February 2016 from <http://www.fws.gov/mountain-prairie/species/mammals/blackfootedferret/2013NovRevisedRecoveryPlan.pdf>
- USFWS. (2013c). North Dakota Field Office; Mountain Prairie Region. Gray Wolf (*Canis lupus*). Retrieved on 5 February 2016 from [http://www.fws.gov/northdakotafieldoffice/endspecies/species/gray\\_wolf.htm](http://www.fws.gov/northdakotafieldoffice/endspecies/species/gray_wolf.htm)
- USFWS. (2013d). Endangered Species Act Success Story: Peregrine Falcon (*Falco peregrinus*). US Fish and Wildlife Service, North Dakota Field Office; Mountain-Prairie Region. Retrieved on 8 February 2016 from [www.fws.gov/northdakotafieldoffice/endspecies/endangered\\_species\\_act\\_success\\_s.htm](http://www.fws.gov/northdakotafieldoffice/endspecies/endangered_species_act_success_s.htm)
- USFWS. (2013e). Federal Register, 50 CFR Part 17, Endangered and Threatened Wildlife and Plants; Proposed Threatened Status for the Rufa Red Knot (*Calidris canutus rufa*); Proposed Rule. Retrieved on 22 December 2016 from [www.fws.gov/northeast/redknot/pdf/ProposedRule\\_2013\\_22700.pdf](http://www.fws.gov/northeast/redknot/pdf/ProposedRule_2013_22700.pdf)
- USFWS. (2013f). Least Tern (*Sterna antillarum*). USFWS North Dakota Field Office; Mountain-Prairie Region. Retrieved on 22 December 2016 from [http://www.fws.gov/northdakotafieldoffice/endspecies/species/least\\_tern.htm](http://www.fws.gov/northdakotafieldoffice/endspecies/species/least_tern.htm)
- USFWS. (2014). Federal Register, 50 CFR Part 17, Endangered and Threatened Wildlife and Plants; Threatened Species Status for the Rufa Red Knot; Final Rule. Retrieved 22 December 2016 from <https://www.gpo.gov/fdsys/pkg/FR-2014-12-11/pdf/2014-28338.pdf>
- USFWS. (2014a). Interior Least Tern (*Sterna antillarum*). USFWS Endangered Species Midwest Region. PDF. Retrieved 22 December 2016 from <http://www.fws.gov/midwest/endangered/birds/leasttern/pdf/InteriorLeastTernFactSheetMarch2014.pdf>
- USFWS. (2014b). Federal Register, 50 CFR Part 17, Endangered and Threatened Wildlife and Plants; Threatened Species Status for the Rufa Red Knot; Final Rule. Retrieved on 22 December 2016 from <https://www.gpo.gov/fdsys/pkg/FR-2014-12-11/pdf/2014-28338.pdf>
- USFWS. (2014c). Federal Register, 50 CFR Part 17, Endangered and Threatened Wildlife and Plants; Threatened Species Status for Dakota Skipper and Endangered Species Status for Poweshiek Skipperling; Final Rule. Retrieved on 22 December 2016 from <https://www.gpo.gov/fdsys/pkg/FR-2014-10-24/pdf/2014-25190.pdf>
- USFWS. (2014d). USFWS Revised Recovery Plan for the Pallid Sturgeon (*Scaphirhynchus albus*): Original plan approved November 1993. Retrieved on 24 February 2016 from [http://ecos.fws.gov/docs/recovery\\_plan/Pallid%20Sturgeon%20Recovery%20Plan%20First%20Revision%20signed%20version%20012914\\_3.pdf](http://ecos.fws.gov/docs/recovery_plan/Pallid%20Sturgeon%20Recovery%20Plan%20First%20Revision%20signed%20version%20012914_3.pdf)
- USFWS. (2015a). Whooping Crane Survey Results: Winter 2014-2015. Retrieved on 5 February 2016 from [http://www.fws.gov/uploadedFiles/Region\\_2/NWRS/Zone\\_1/Aransas-Matagorda\\_Island\\_Complex/Aransas/Sections/What\\_We\\_Do/Science/Whooping\\_Crane\\_Updates\\_2013/WHCR\\_Update\\_Winter\\_2014-2015.pdf](http://www.fws.gov/uploadedFiles/Region_2/NWRS/Zone_1/Aransas-Matagorda_Island_Complex/Aransas/Sections/What_We_Do/Science/Whooping_Crane_Updates_2013/WHCR_Update_Winter_2014-2015.pdf)
- USFWS. (2015b). Federal Register, 50 CFR Part 17, Endangered and Threatened Wildlife and Plants; Threatened Species Status for the Northern Long-Eared Bat with 4(d) Rule; Final Rule and Interim Rule. Retrieved on 5 February 2016 from <https://www.gpo.gov/fdsys/pkg/FR-2015-04-02/pdf/2015-07069.pdf>
- USFWS. (2015c). Shell Lake National Wildlife Refuge – North Dakota. Refuge Facts. Retrieved 28 December 2016 from [https://www.fws.gov/refuge/shell\\_lake/](https://www.fws.gov/refuge/shell_lake/)
- USFWS. (2016). Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-eared Bat and Activities Excepted from Take Prohibitions. USFWS Regions 2, 3, 4, 5, and 6. Retrieved 22 December 2016 from <https://www.fws.gov/midwest/endangered/mammals/nleb/pdf/BOOnlebFinal4d.pdf>

- USFWS Environmental Conservation Online System (ECOS) Information for Planning and Conservation (IPaC). (2016). Information requests for Williams, Mountrail and Ward Counties. Retrieved 22 December 2016 from <https://ecos.fws.gov/ipac/>
- USGS. (1983). Guide to North Dakota's Ground Water Resources. USGS Water Supply Paper 2236 by Q.F. Paulson. Retrieved 28 December 2016 from <https://pubs.usgs.gov/wsp/2236/report.pdf>
- USGS. (2013). National Assessment of Oil and Gas Fact Sheet: Assessment of Undiscovered Oil Resources in the Bakken and Three Forks Formations, Williston Basin Province, Montana, North Dakota, and South Dakota, 2013. Retrieved on 18 December 2015 from <http://pubs.usgs.gov/fs/2013/3013/fs2013-3013.pdf>USGS.
- USGS. (2015). North American Breeding Bird Survey Results and Analysis; Stanley and Carpio Routes. Archived 2005–2015. Patuxent Wildlife Research Center. Retrieved 21 December 2016 from <https://www.pwrc.usgs.gov/bbs/RouteMap/Map.cfm#>
- USGS. (2016a). Mineral Resources On-Line Spatial Data. Coleharbor Formation-Offshore Sediment-Eroded Lake Sediment. Retrieved 21 December 2016 from <https://mrddata.usgs.gov/geology/state/sgmc-unit.php?unit=NDQcoe%3B0>
- USGS. (2016b). USGS FAQs: What is the difference between consolidated and unconsolidated sediments? Retrieved 21 December 2016 from <https://www2.usgs.gov/faq/node/2777>

## 8. Acronyms/Abbreviations List

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### A

AADT (Average Annual Daily Traffic) 23  
API (American Petroleum Institute) 11

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### B

BBS (Breeding Bird Survey) 49  
BGEPA (Bald and Golden Eagle Protection Act) 48  
BMPs (Best management practices) 12  
BPD (barrels of refined fuels per day) 7

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### C

Cenex (Cenex Pipeline, LLC.) 1  
CEP (Construction Environmental Program) 12  
CERCLIS (Comprehensive Environmental Response, Compensation and Liability Information System) 27  
CFR (Code of Federal Regulations) 7  
CWS (Canadian Wildlife Service) 82

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### D

DBH (diameter at breast height) 46  
DOT (Department of Transportation) 7

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### E

ECOS (Environmental Conservation Online System) 88  
EPA (Environmental Protection Agency) 27  
EPOSRP (Emergency Procedures, and Oil Spill Response Plans) 12

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### F

FAA (Federal Aviation Administration) 74  
FEMA (Federal Emergency Management Agency) 42  
FPPA (Farmland Projection Policy Act) 75

---

### G

GIS (Geographic Information System) 17

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### H

HDD (horizontal directional drilling) 10  
HGM (Hydrogeomorphic) 80

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### I

ICBM (intercontinental ballistic missile) 5  
ILI (In-Line Inspection) 11  
IPaC (Information for Planning and Conservation) 88

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### L

LMNG (Little Missouri National Grasslands) 55

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### M

MBTA (Migratory Bird Treaty Act) 48  
MDHTA (Maah Daah Hey Trail Association) 83  
MFWP (Montana Fish, Wildlife, and Parks) 84  
MLVs (mainline valves) 10  
MNHP (Montana Natural Heritage Program) 84  
MT (Montana) 1

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### N

NDAC (ND Administrative Code) 7  
NDCC (ND Century Code) 2  
NDDH (North Dakota Department of Health) 26  
NDDMR (North Dakota Department of Mineral Resources) 84  
NDDOT (North Dakota Department of Transportation) 84  
NDGFD (North Dakota Game and Fish) 84  
NDGFD (North Dakota Game and Fish Department) 19  
ND (North Dakota) 1  
NDPDES (North Dakota Pollutant Discharge Elimination System) 26  
NDPRD (North Dakota Parks and Recreation Department) 53  
NDSWC (North Dakota State Water Commission) 25  
NHI (Natural Heritage Inventory) 53  
NPL (National Priorities List) 86  
NRCS (Natural Resource Conservation Service) 75  
NSP (National Park Service) 84  
NWP (Nationwide Permit) 21  
NWR (National Wildlife Refuges) 20

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### O

OWUS (other waters of the US) 17

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**P**

PHMSA (Pipeline and Hazardous Materials Safety Administration) 7  
PIG (Pipeline Inspection Gauge) 10  
PLOTS (Private Land Opened to Sportsmen) 20  
POWUS (Potential Other Waters of the United States) 43  
PSC (Public Service Commission) 1  
psig (per square-inch gauge) 11

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**R**

RCRAInfo (Resource Conservation and Recovery Act Information) 86  
RCRA (Resource Conservation and Recovery Act) 27  
RENEW (Recovery of Nationally Endangered Wildlife) 82  
ROW (right-of-way) 3

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**S**

SCADA (Supervisory Control and Data Acquisition) 10  
SDSFIE (Spatial Data Standards for Facilities, Infrastructure and Environment) 80  
SHSND (State Historical Society of North Dakota) 30

SWA (Southwest Water Authority) 85  
SWG (State Wildlife Grant) 59  
SWPA (Sundre Wellhead Protection Area) 26  
SWPPP (Storm Water Pollution Prevention Plan) 12

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**T**

TRI (Toxics Release Inventory) 27  
TRNP (Theodore Roosevelt National Park) 55

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**U**

USACE (US Army Corps of Engineers) 21  
USDA (US Department of Agriculture) 86  
USEPA (US Environmental Protection Agency) 86  
USFWS (United States Fish and Wildlife Service) 7  
USGS (US Geological Survey) 49  
USTs (underground storage tanks) 27  
US (United States) 7

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**W**

WAWSA (Western Area Water Supply Authority) 25  
WMAs (Wildlife Management Areas) 31  
WPA (Waterfowl Production Areas) 20

# Appendix A. Figures

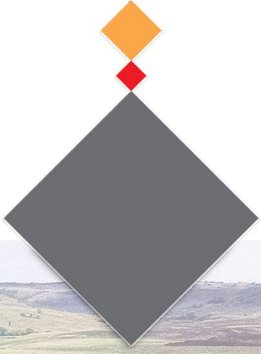




Figure A-1. Project Route and Corridor

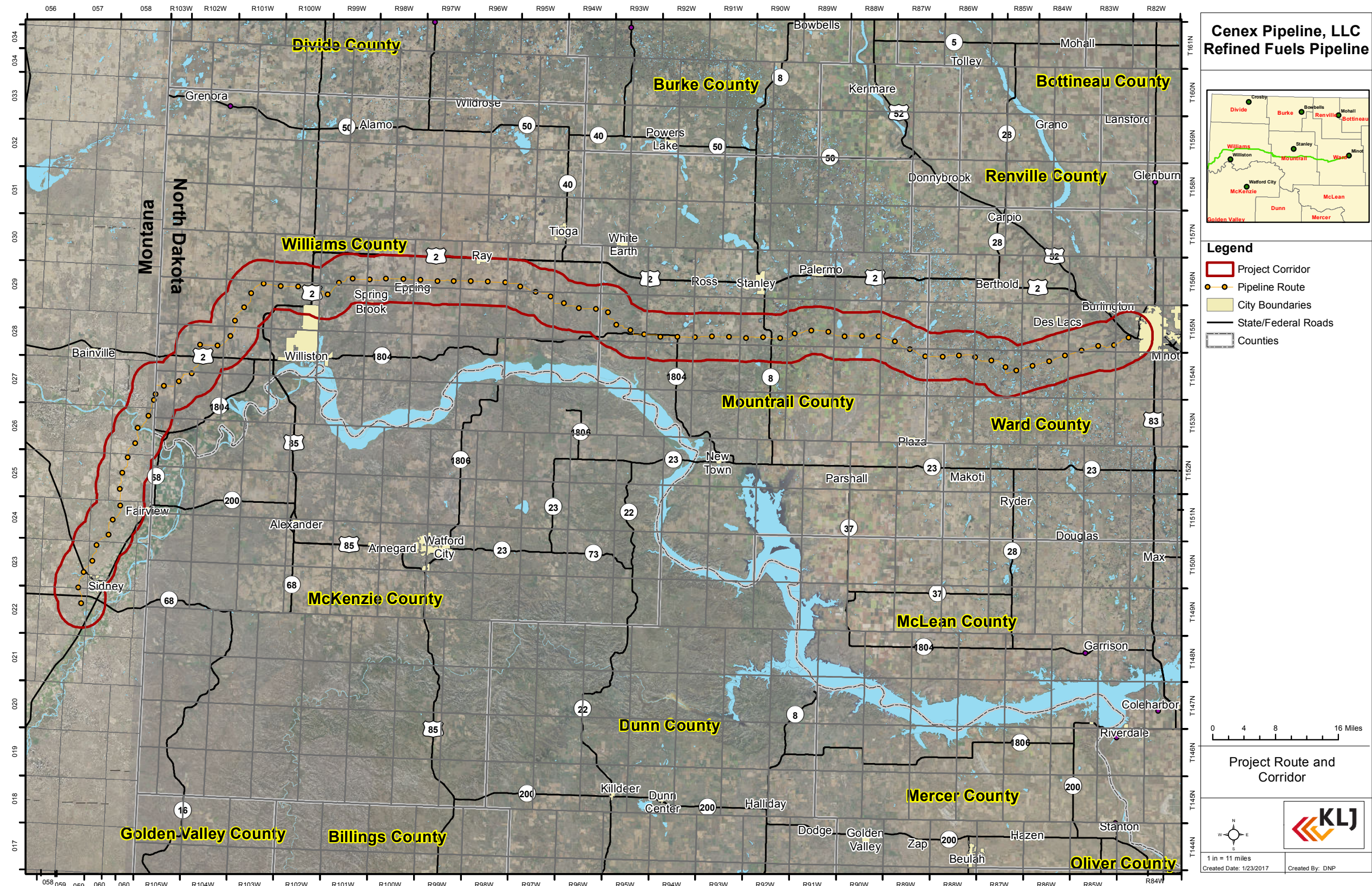
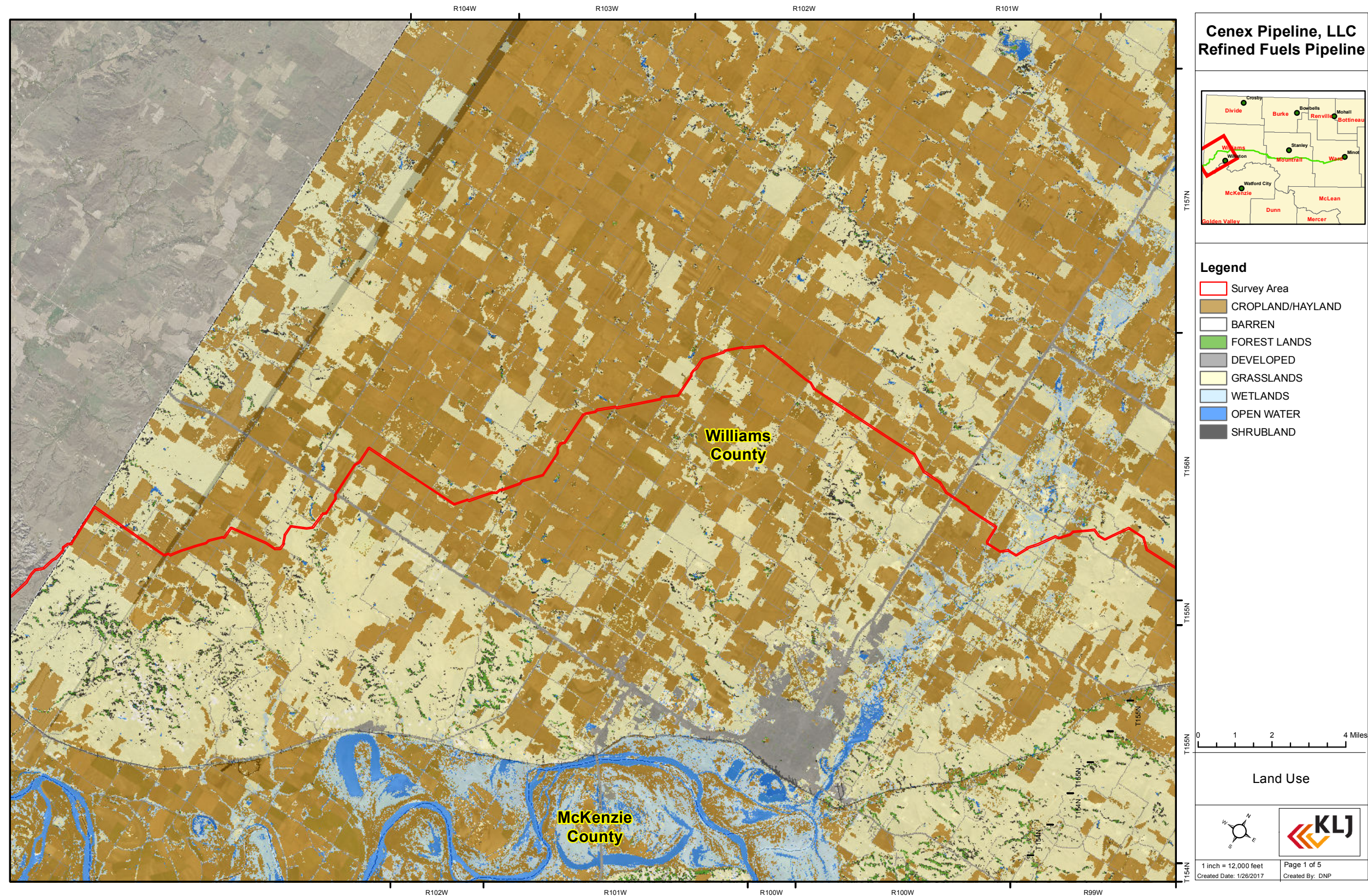
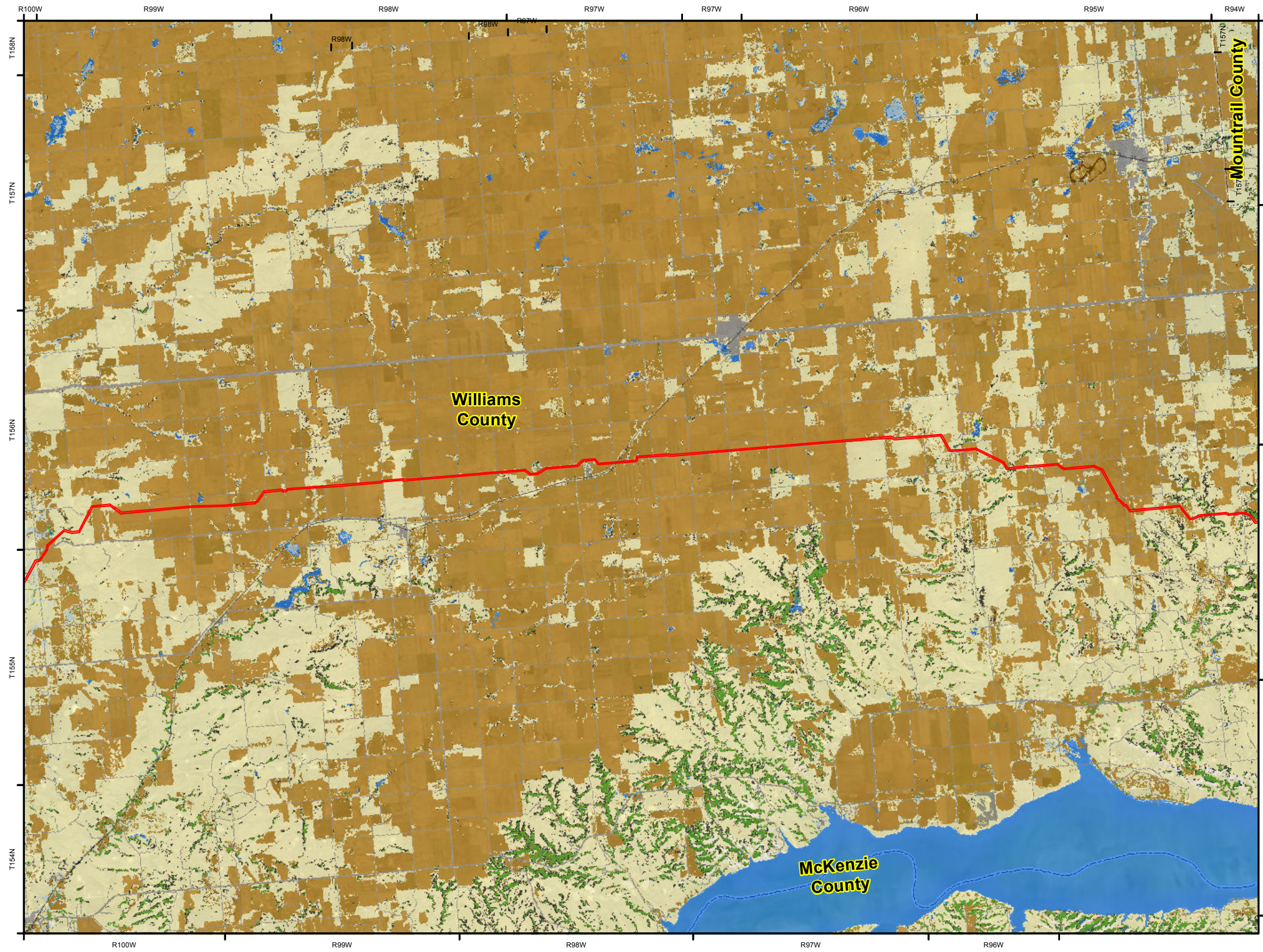
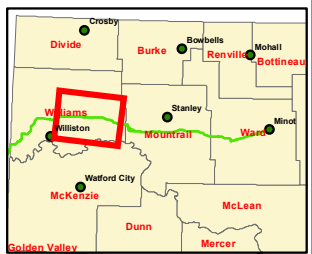


Figure A-2. Land Use



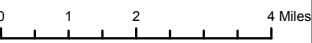


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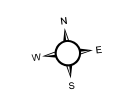


#### Legend

- Survey Area
- CROPLAND/HAYLAND
- BARREN
- FOREST LANDS
- DEVELOPED
- GRASSLANDS
- WETLANDS
- OPEN WATER
- SHRUBLAND

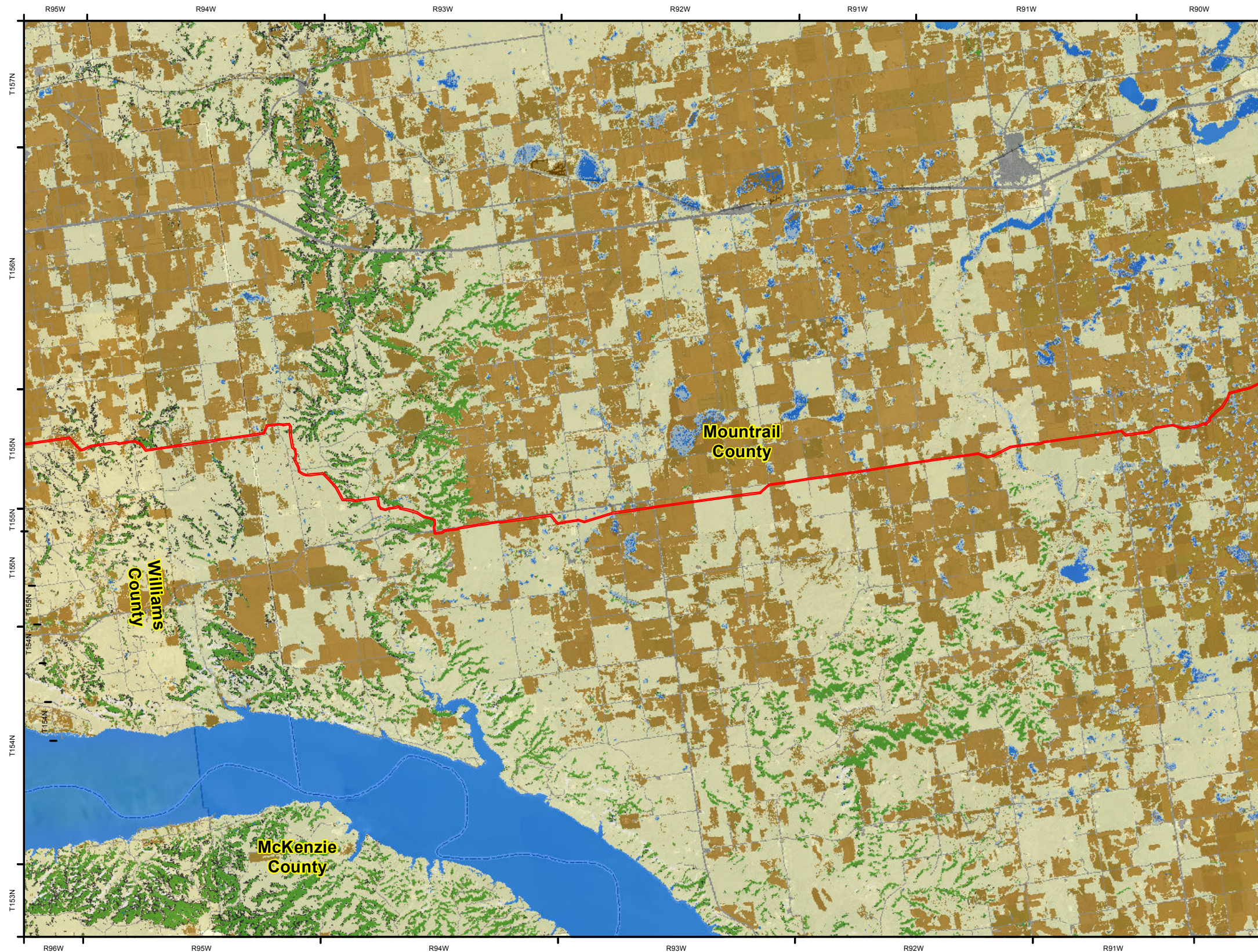


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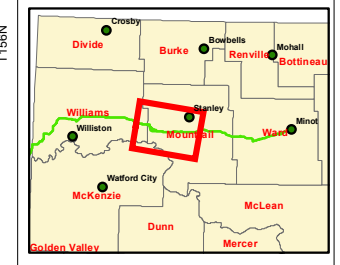


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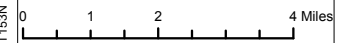


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Refined Fuels Pipeline**



**Legend**

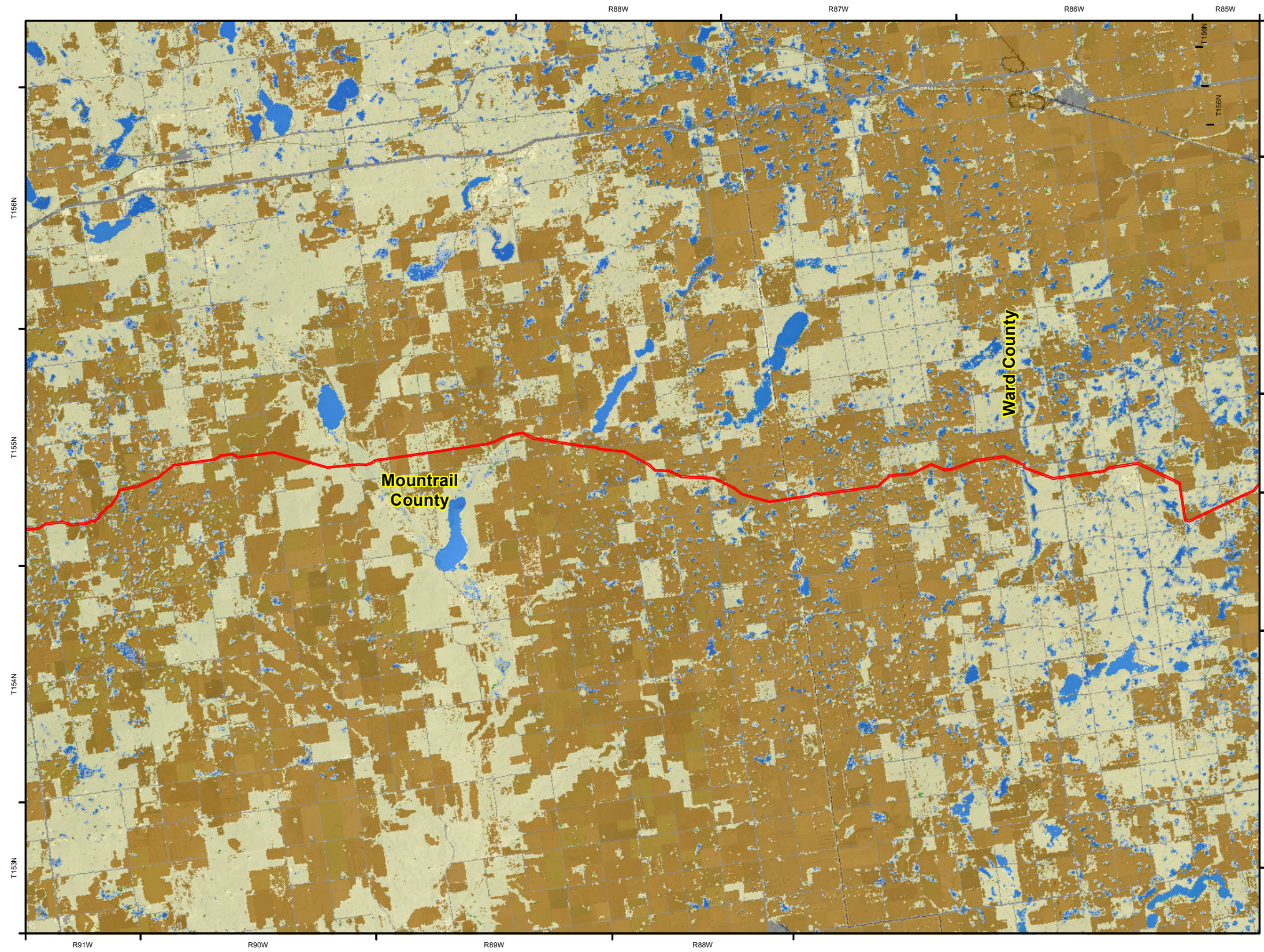
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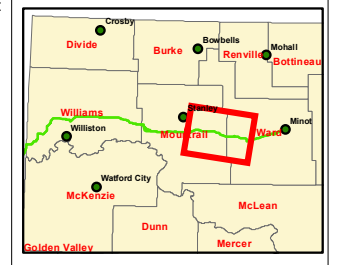
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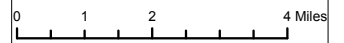
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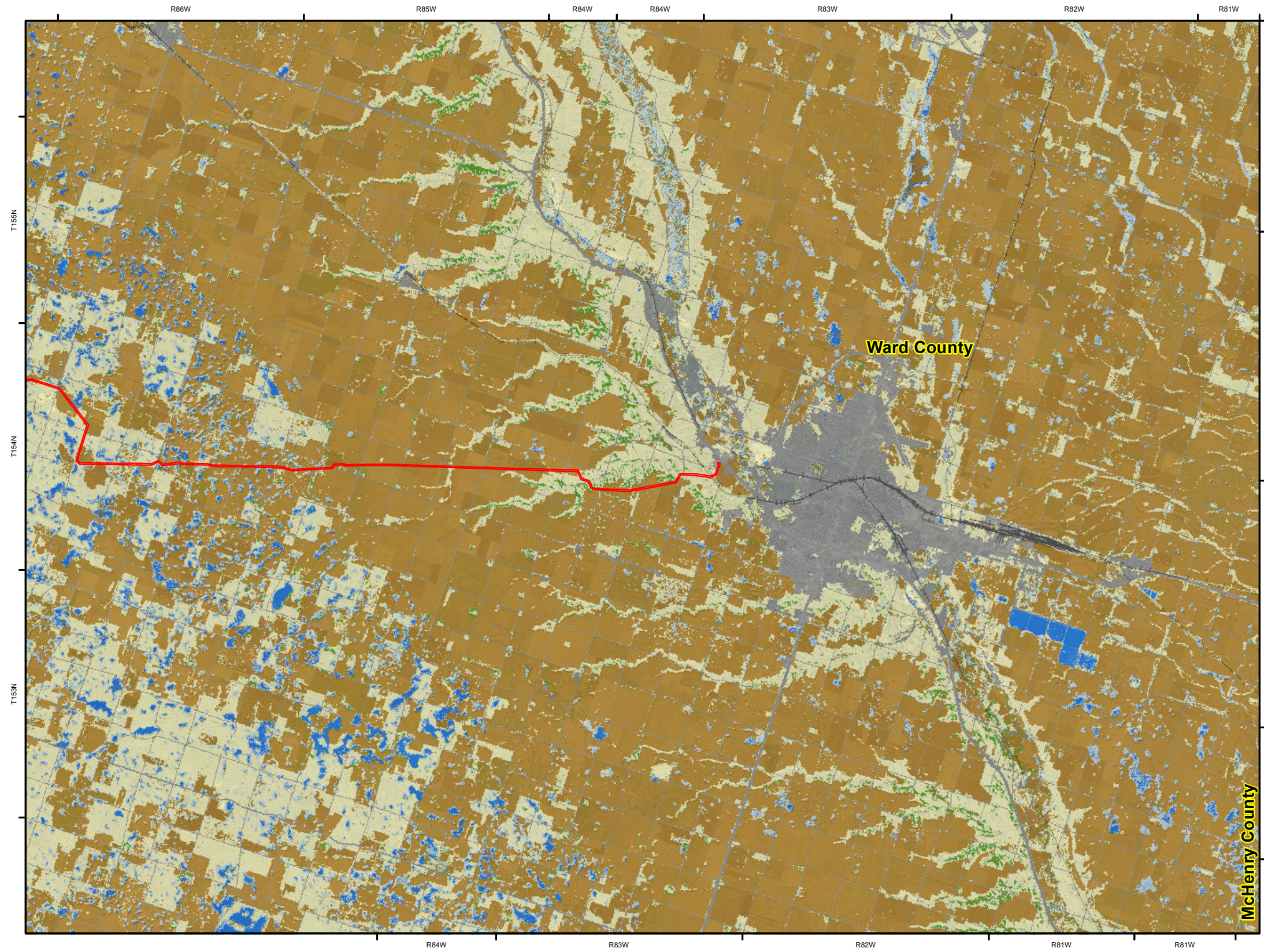
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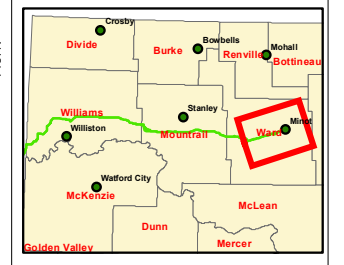
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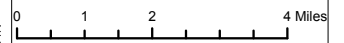


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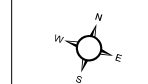


**Legend**

- Survey Area
- CROPLAND/HAYLAND
- BARREN
- FOREST LANDS
- DEVELOPED
- GRASSLANDS
- WETLANDS
- OPEN WATER
- SHRUBLAND



**Land Use**



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Figure A-3. Public Service Infrastructure, Geologic, Ground Water, Delineated Wetlands and Habitats

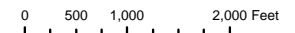




**Cenex Pipeline, LLC  
Refined Fuels Pipeline**



- Legend**
- Raptor Nest
  - Sharp-tailed Grouse Lek
  - Inactive Raptor Nest
  - Domestic, Stock wells
  - Observation Well
  - Surface Water Monitoring Site
  - Oil/Gas Pipeline
  - Utility/Fiber Optic Line
  - POWUS
  - Delineated Wetlands
  - Aquifers
  - Surface Geology
  - Potential Dakota Skipper Habitat
  - Survey Area
  - ND State Trust Lands
  - Bureau of Land Management



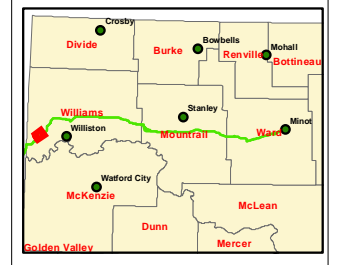
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Geologic, Ground Water,  
Delineated Wetlands &  
Habitats**



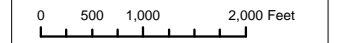
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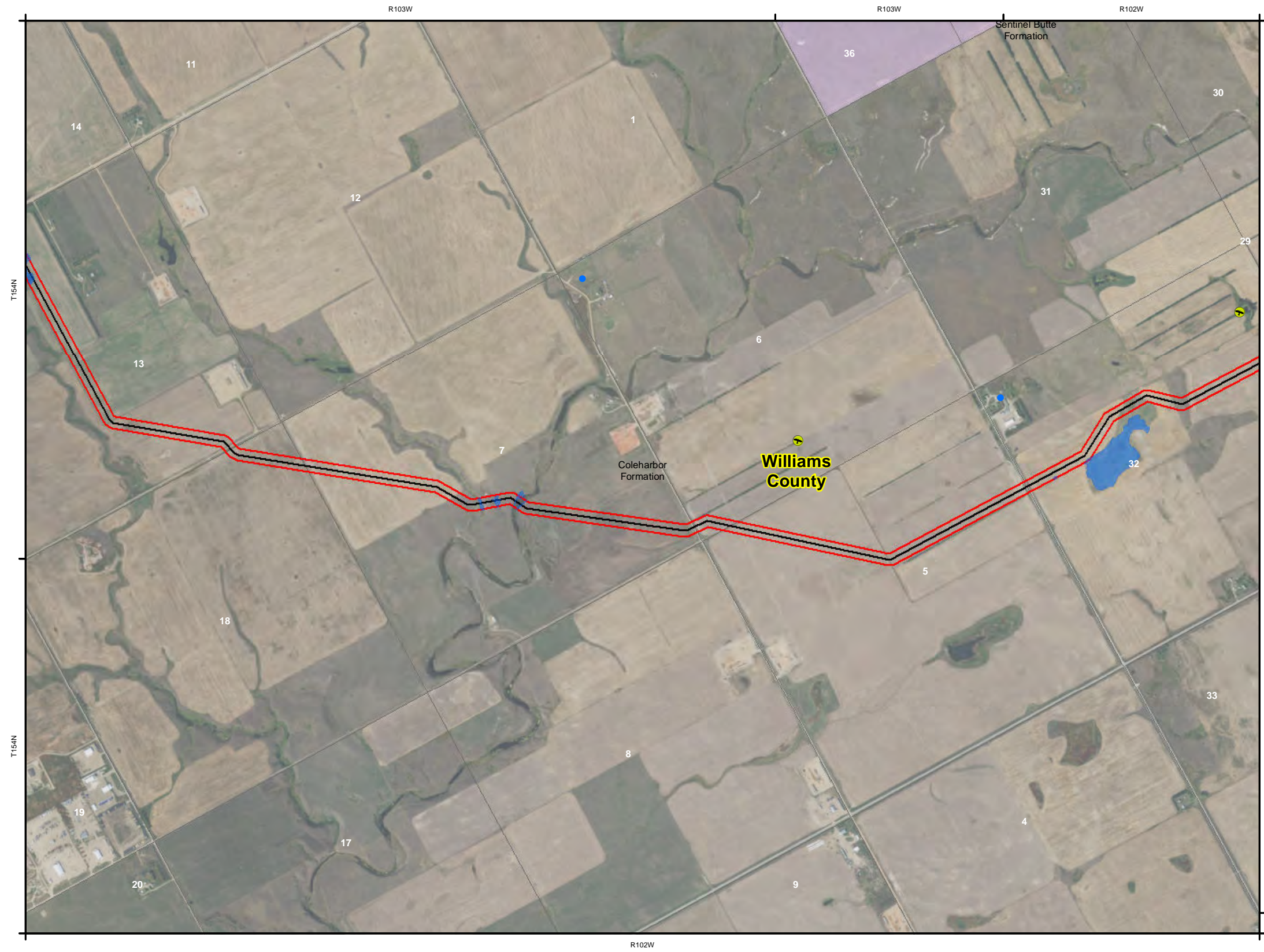
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  - Sharp-tailed Grouse Lek
  - Inactive Raptor Nest
  - Domestic, Stock wells
  - Observation Well
  - Surface Water Monitoring Site
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  - Utility/Fiber Optic Line
  - POWUS
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  - Aquifers
  - Surface Geology
  - Potential Dakota Skipper Habitat
  - Survey Area
  - ND State Trust Lands
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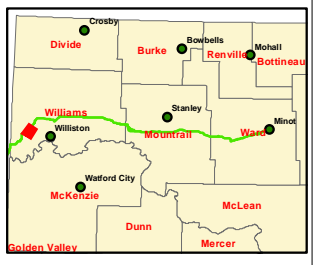
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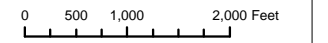
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**Cenex Pipeline, LLC  
Refined Fuels Pipeline**



- Legend**
- Raptor Nest
  - Sharp-tailed Grouse Lek
  - Inactive Raptor Nest
  - Domestic, Stock wells
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  - Potential Dakota Skipper Habitat
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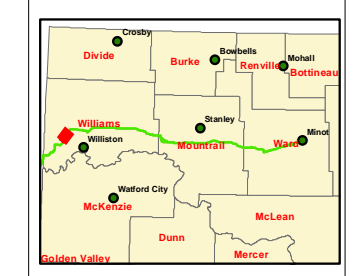
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Habitats



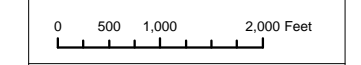
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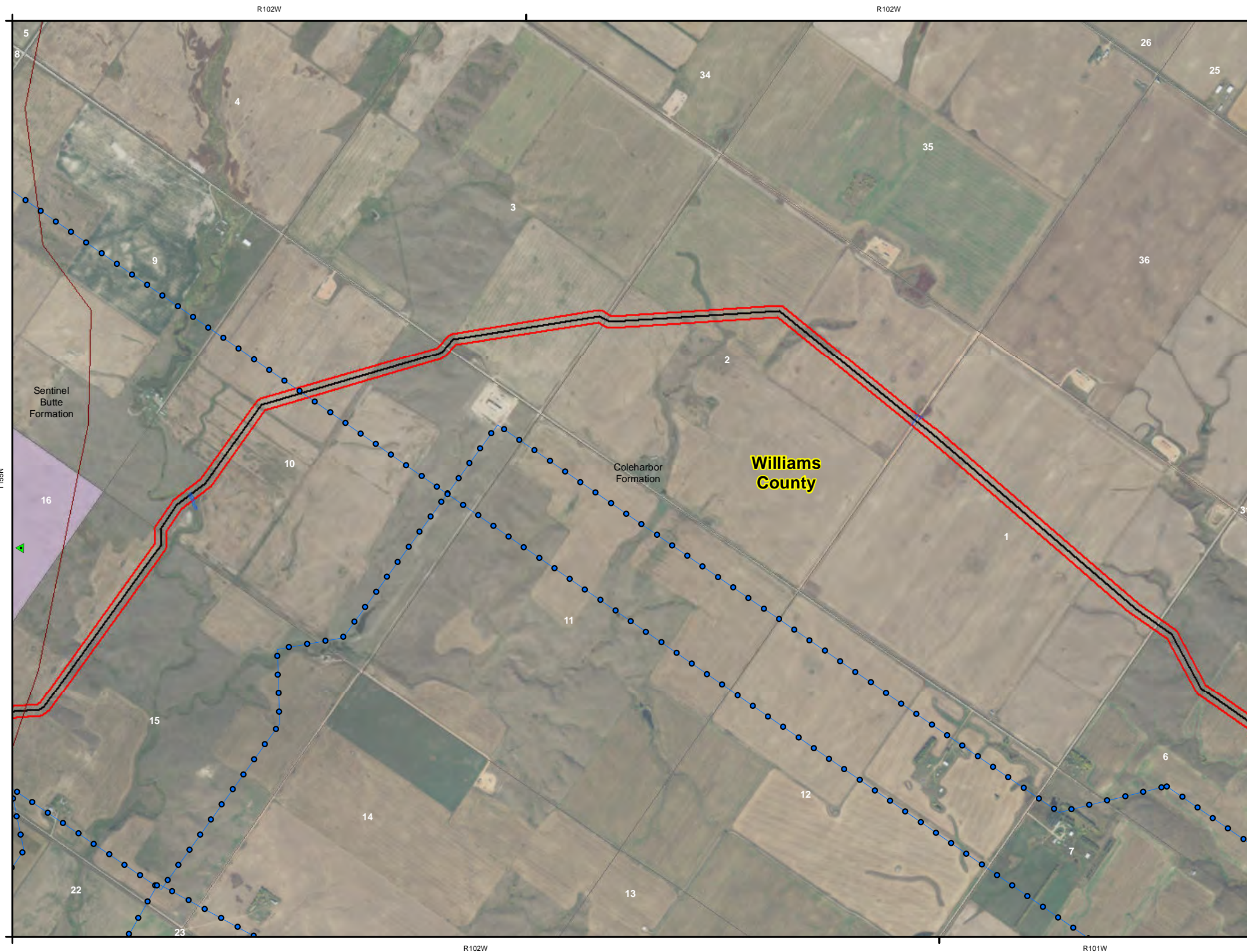
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  - Sharp-tailed Grouse Lek
  - Inactive Raptor Nest
  - Domestic, Stock wells
  - Observation Well
  - Surface Water Monitoring Site
  - Oil/Gas Pipeline
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Public Service Infrastructure,  
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Delineated Wetlands &  
Habitats



1 inch = 1,500 feet  
Created Date: 2/28/2017  
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Created By: DNP



### Cenex Pipeline, LLC Refined Fuels Pipeline

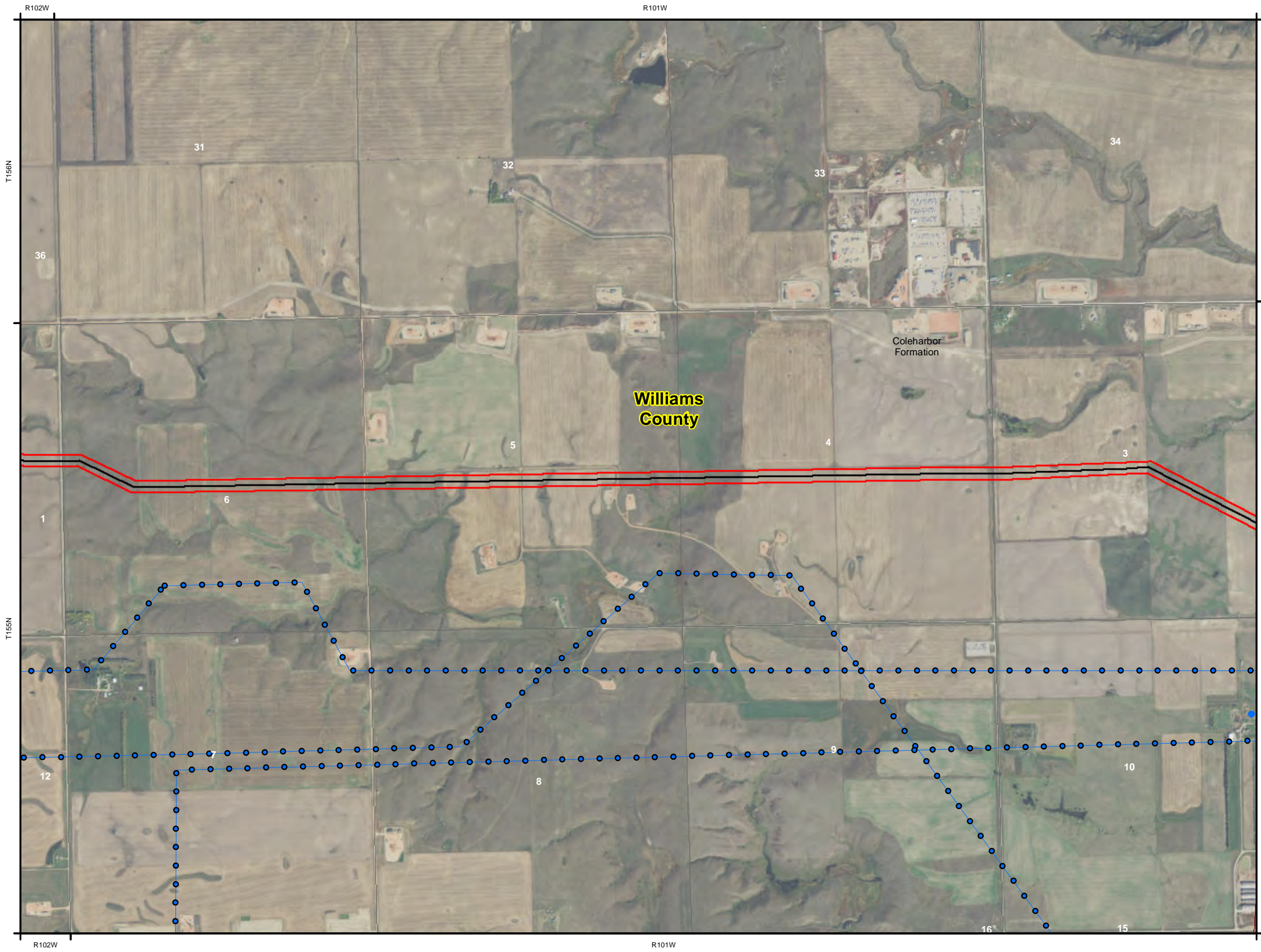
**Legend**

- Raptor Nest
- Sharp-tailed Grouse Lek
- Inactive Raptor Nest
- Domestic, Stock wells
- Observation Well
- Surface Water Monitoring Site
- Oil/Gas Pipeline
- Utility/Fiber Optic Line
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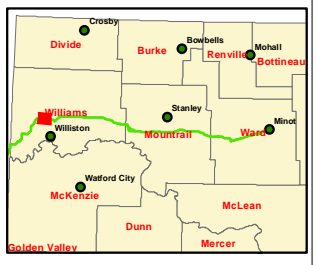
0 500 1,000 2,000 Feet

Public Service Infrastructure, Geologic, Ground Water, Delineated Wetlands & Habitats

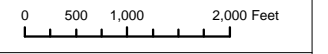
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Created Date: 2/28/2017  
Page 6 of 39  
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### Cenex Pipeline, LLC Refined Fuels Pipeline



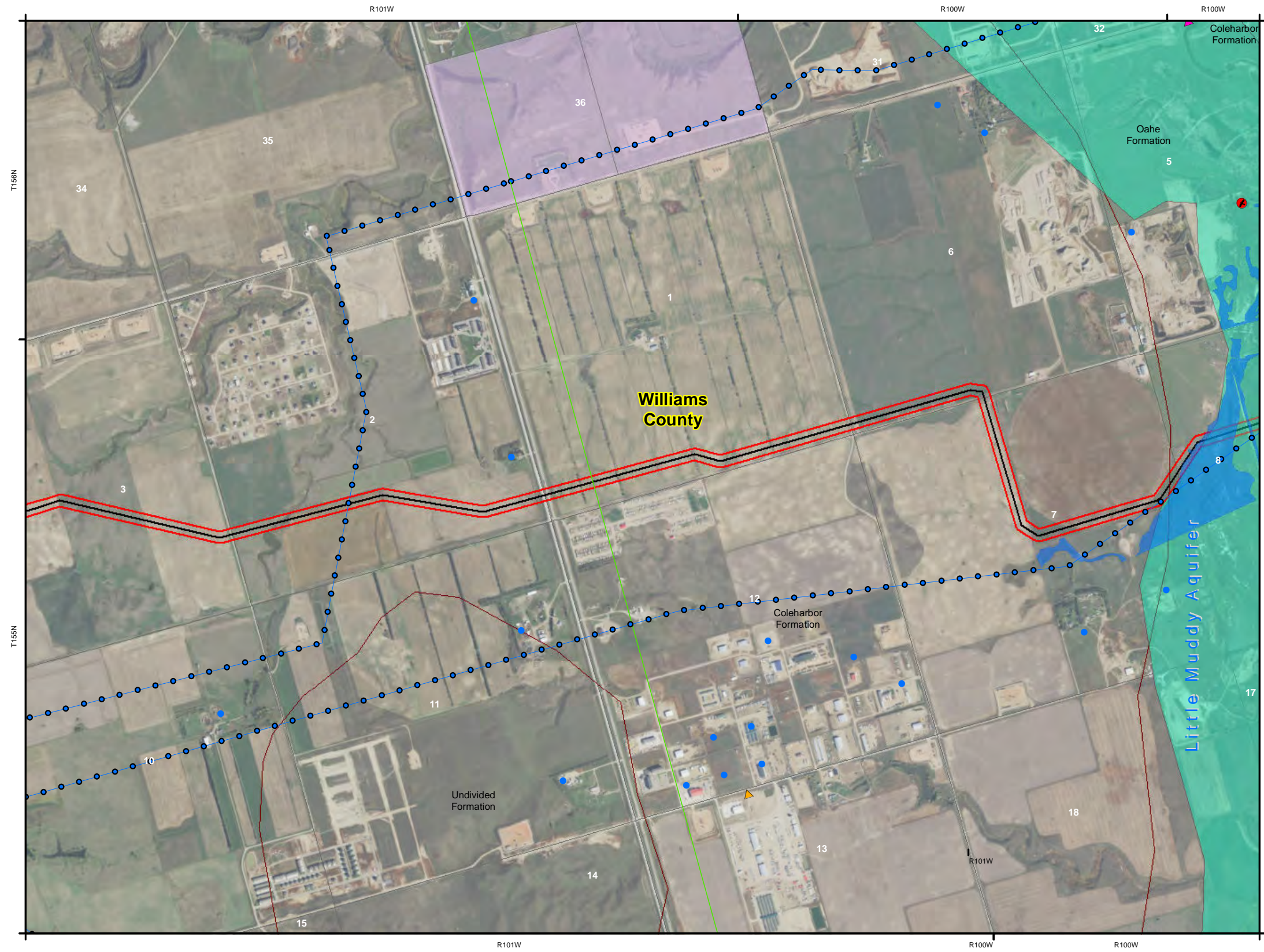
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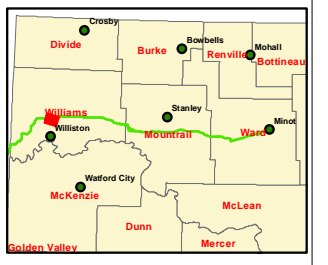
Public Service Infrastructure,  
Geologic, Ground Water,  
Delineated Wetlands &  
Habitats



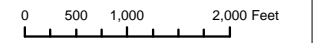
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Page 7 of 39  
Created By: DNP



### Cenex Pipeline, LLC Refined Fuels Pipeline



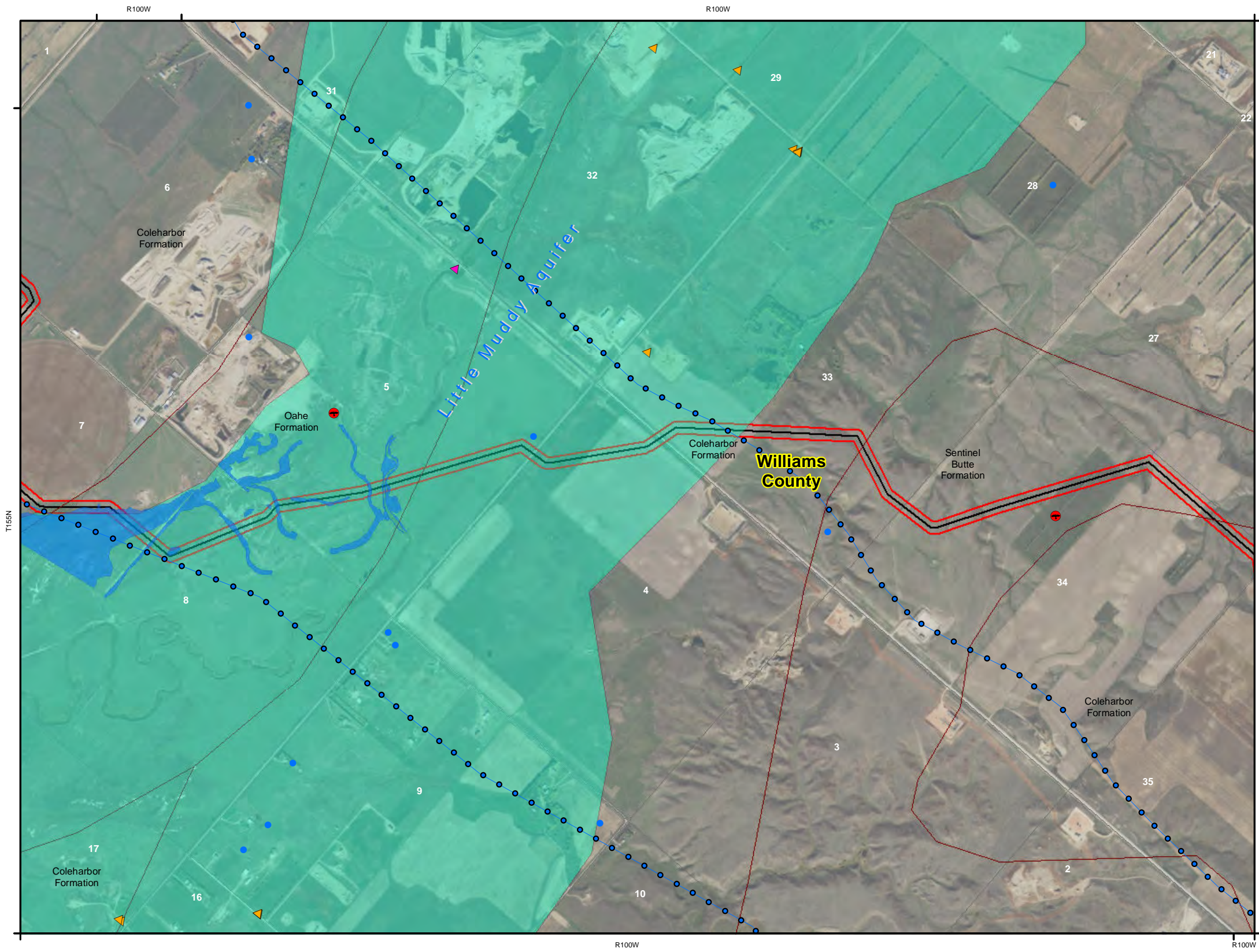
- Legend**
- Raptor Nest
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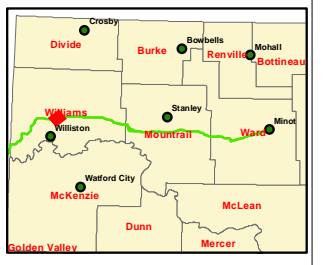
Public Service Infrastructure,  
Geologic, Ground Water,  
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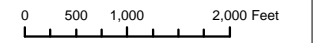
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Created By: DNP



**Cenex Pipeline, LLC  
Refined Fuels Pipeline**



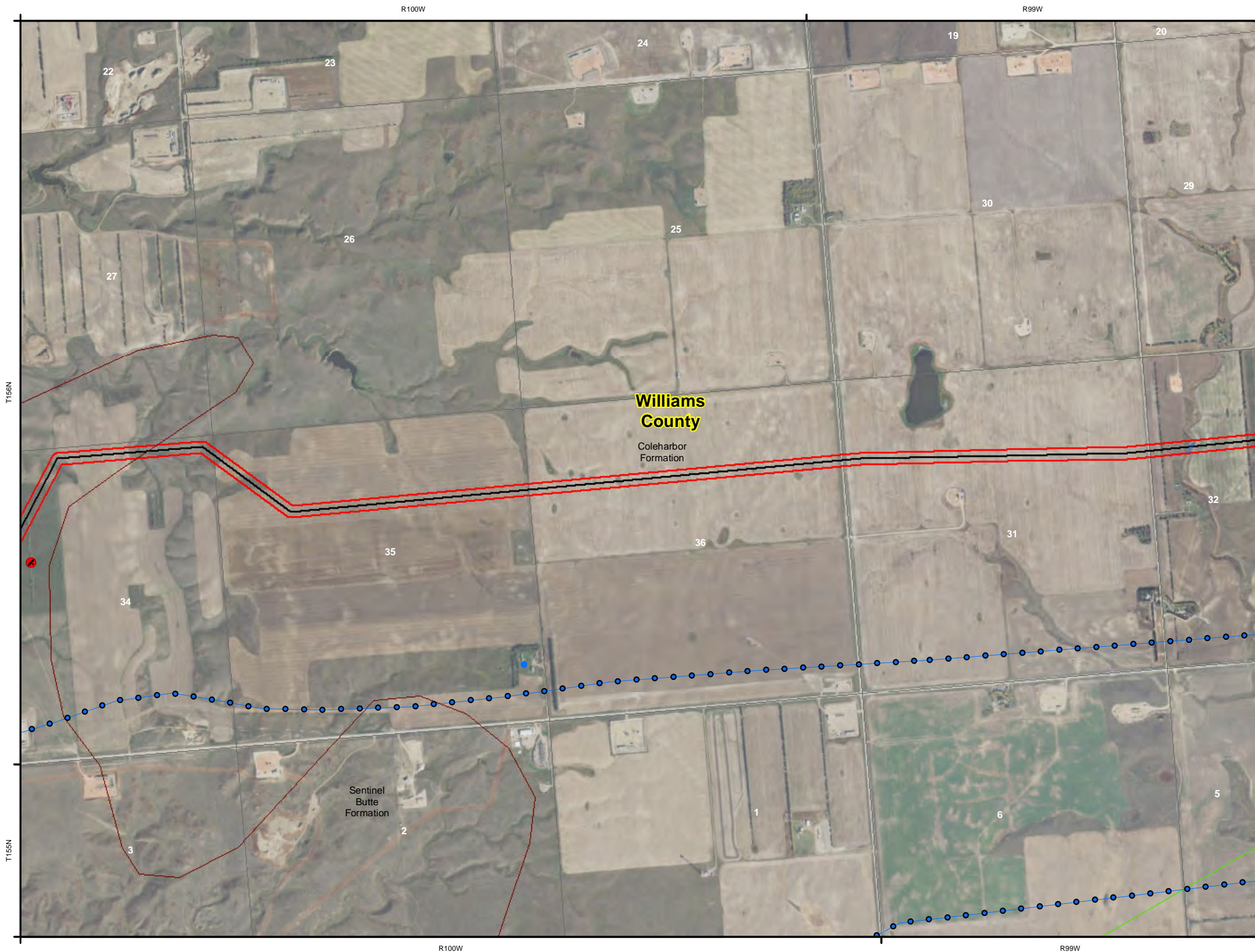
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Public Service Infrastructure,  
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### Cenex Pipeline, LLC Refined Fuels Pipeline

**Legend**

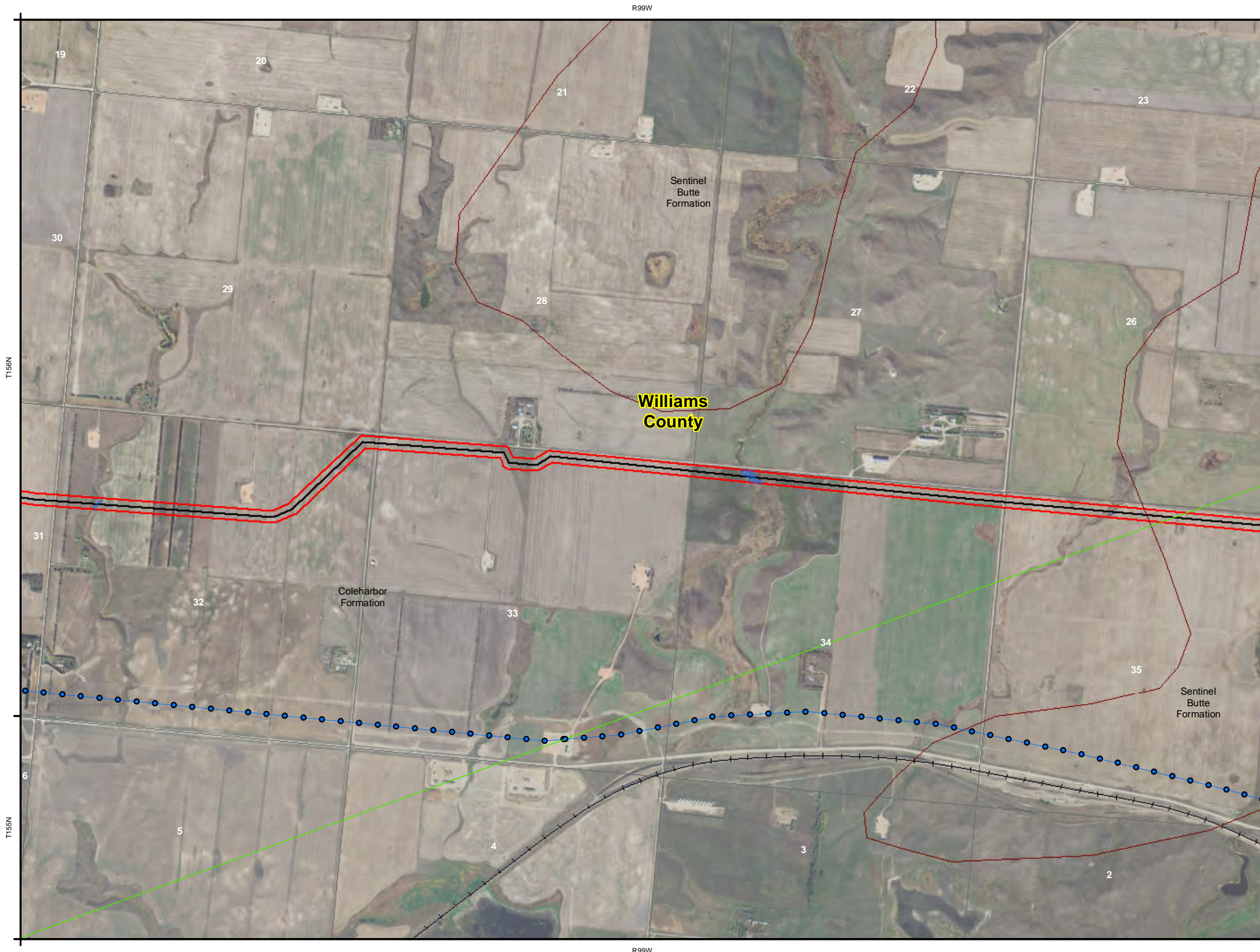
- Raptor Nest
- ▲ Sharp-tailed Grouse Lek
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- Domestic, Stock wells
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0 500 1,000 2,000 Feet

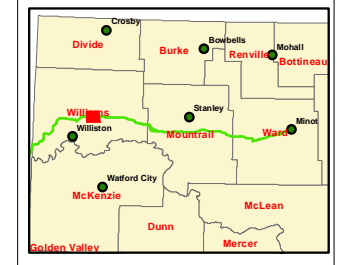
Public Service Infrastructure,  
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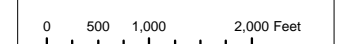
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### Cenex Pipeline, LLC Refined Fuels Pipeline



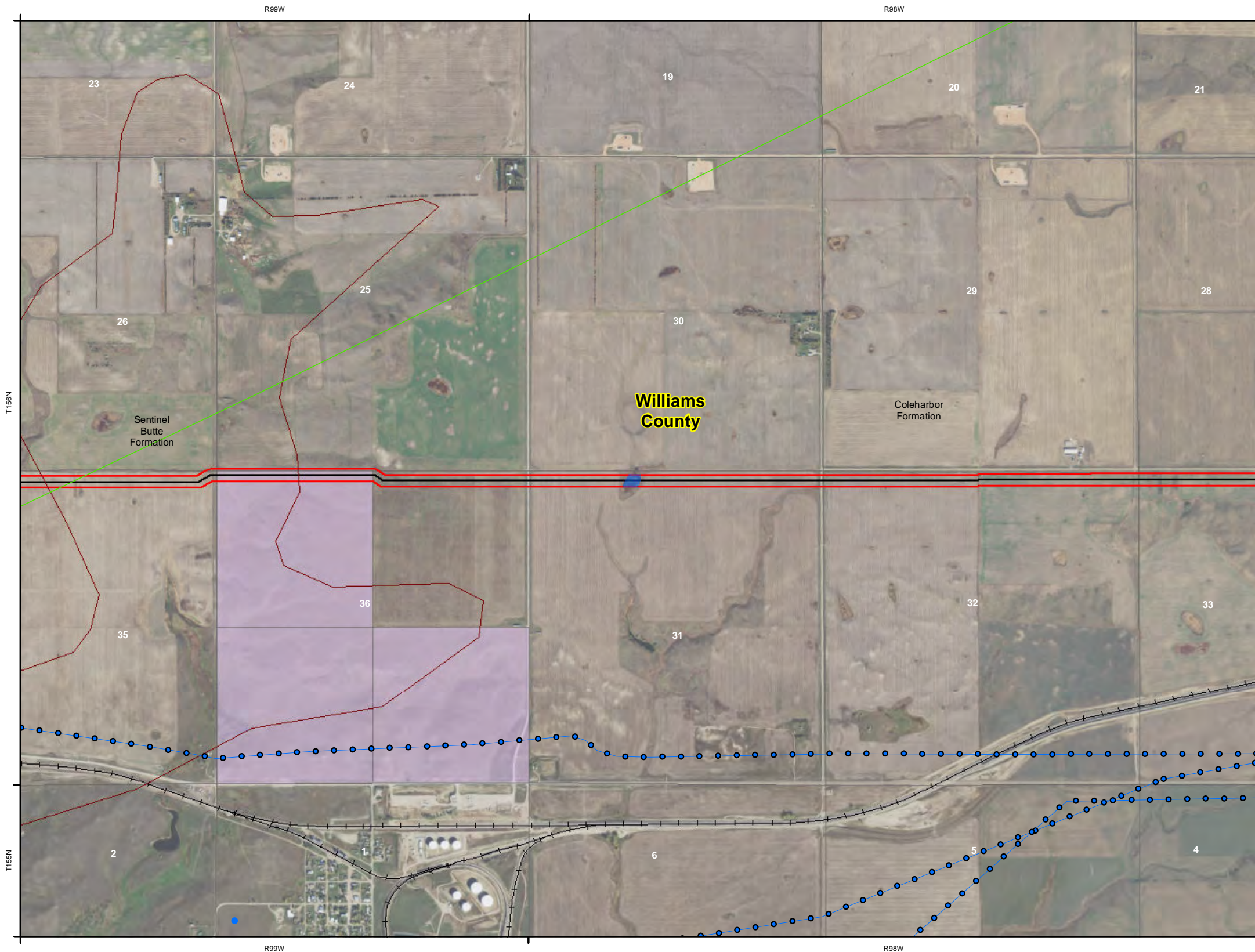
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#### Public Service Infrastructure, Geologic, Ground Water, Delineated Wetlands & Habitats



1 inch = 1,500 feet  
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### Cenex Pipeline, LLC Refined Fuels Pipeline

**Legend**

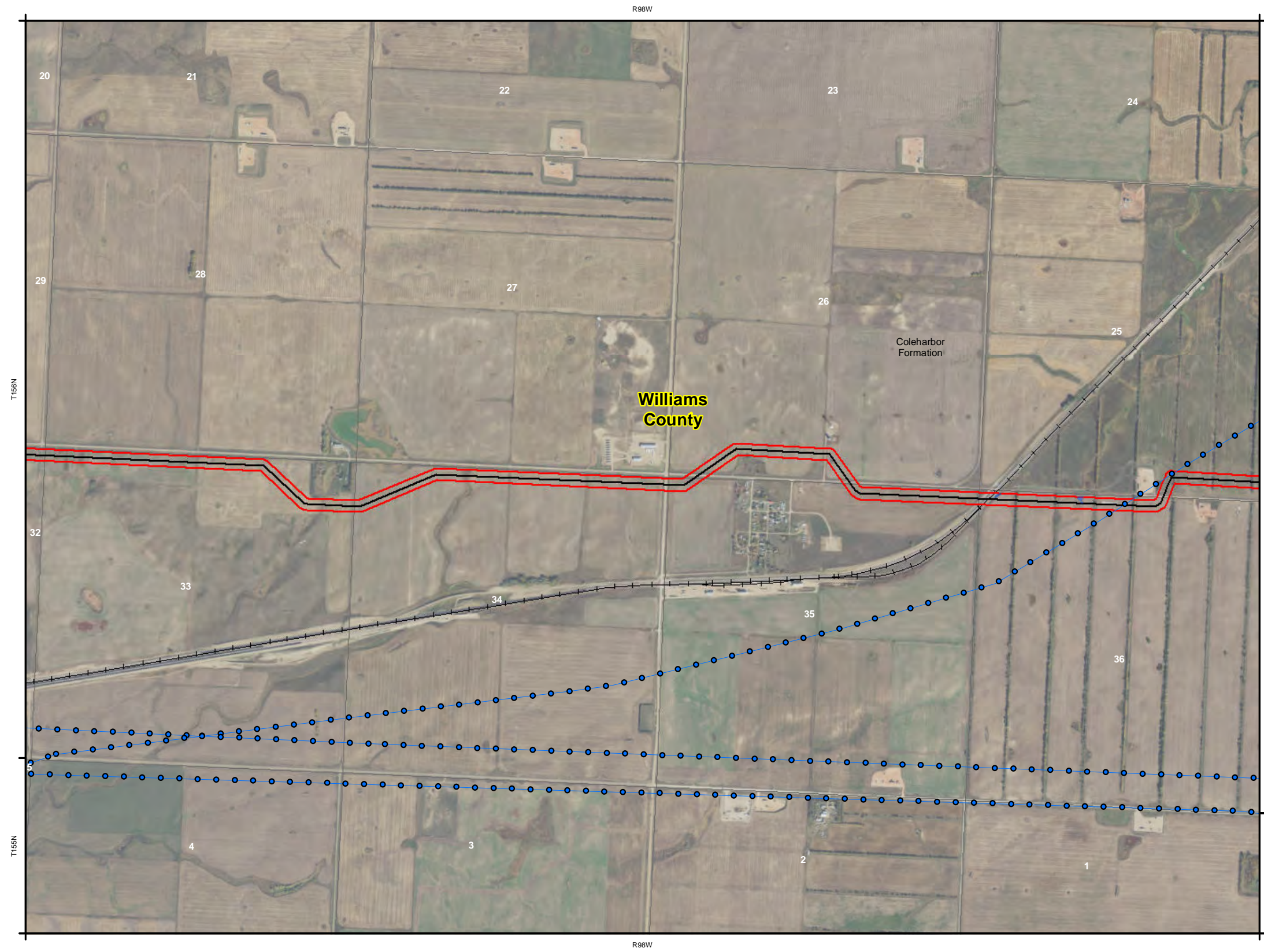
- Raptor Nest
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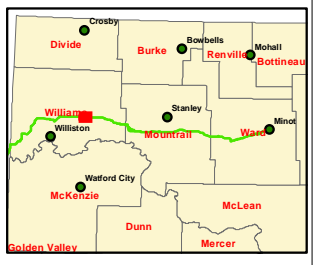
Public Service Infrastructure,  
Geologic, Ground Water,  
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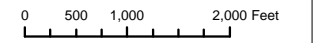
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**Cenex Pipeline, LLC  
Refined Fuels Pipeline**



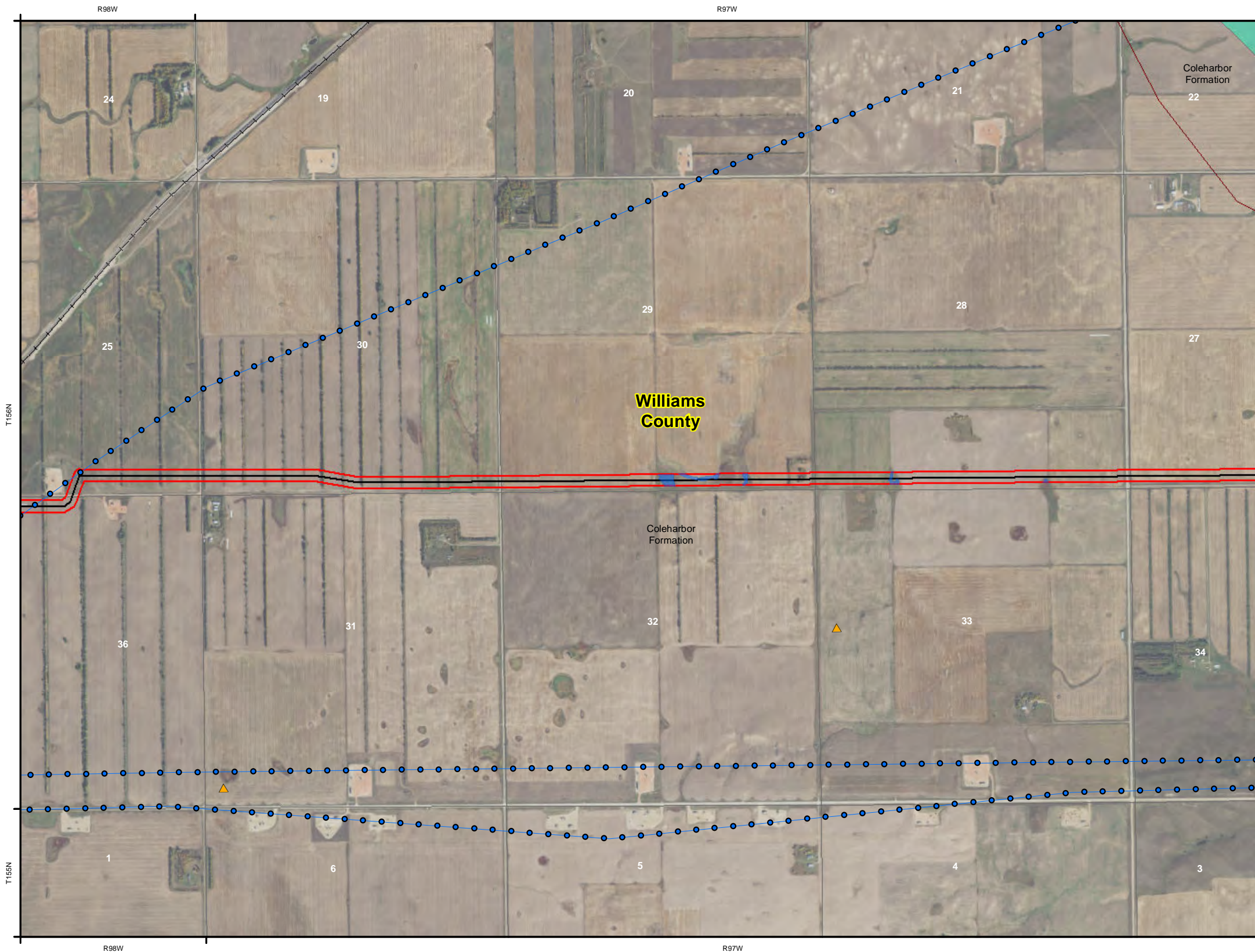
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Public Service Infrastructure,  
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1 inch = 1,500 feet  
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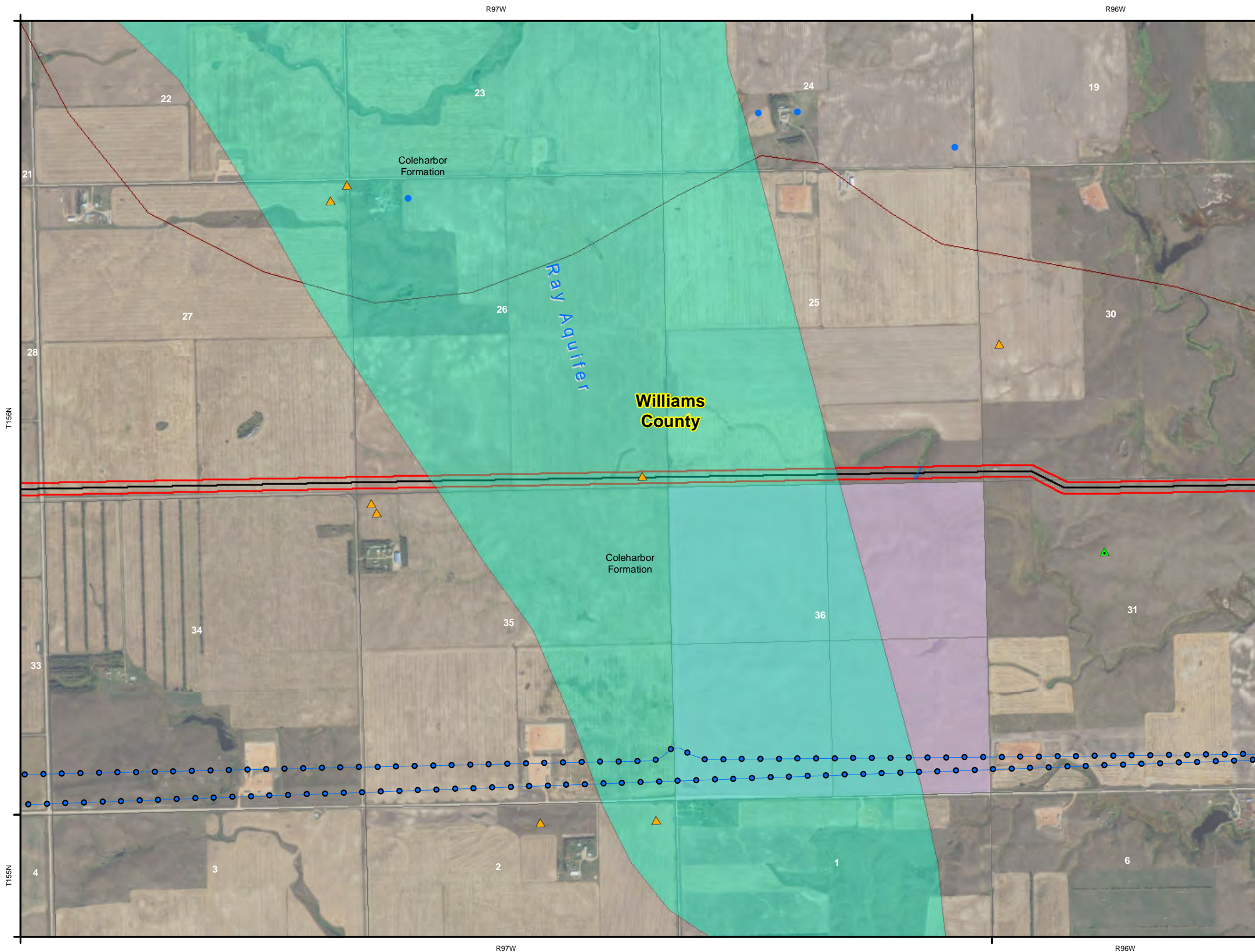
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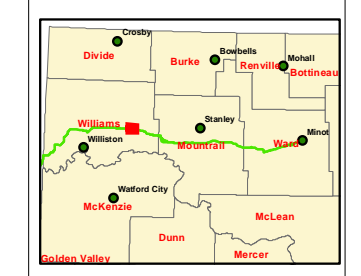
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Public Service Infrastructure, Geologic, Ground Water, Delineated Wetlands & Habitats

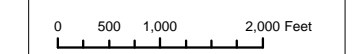
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**Cenex Pipeline, LLC  
Refined Fuels Pipeline**



- Legend**
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**Public Service Infrastructure,  
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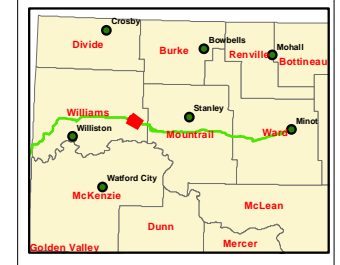
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Geologic, Ground Water,  
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Habitats**

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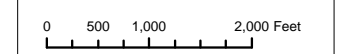
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### Cenex Pipeline, LLC Refined Fuels Pipeline



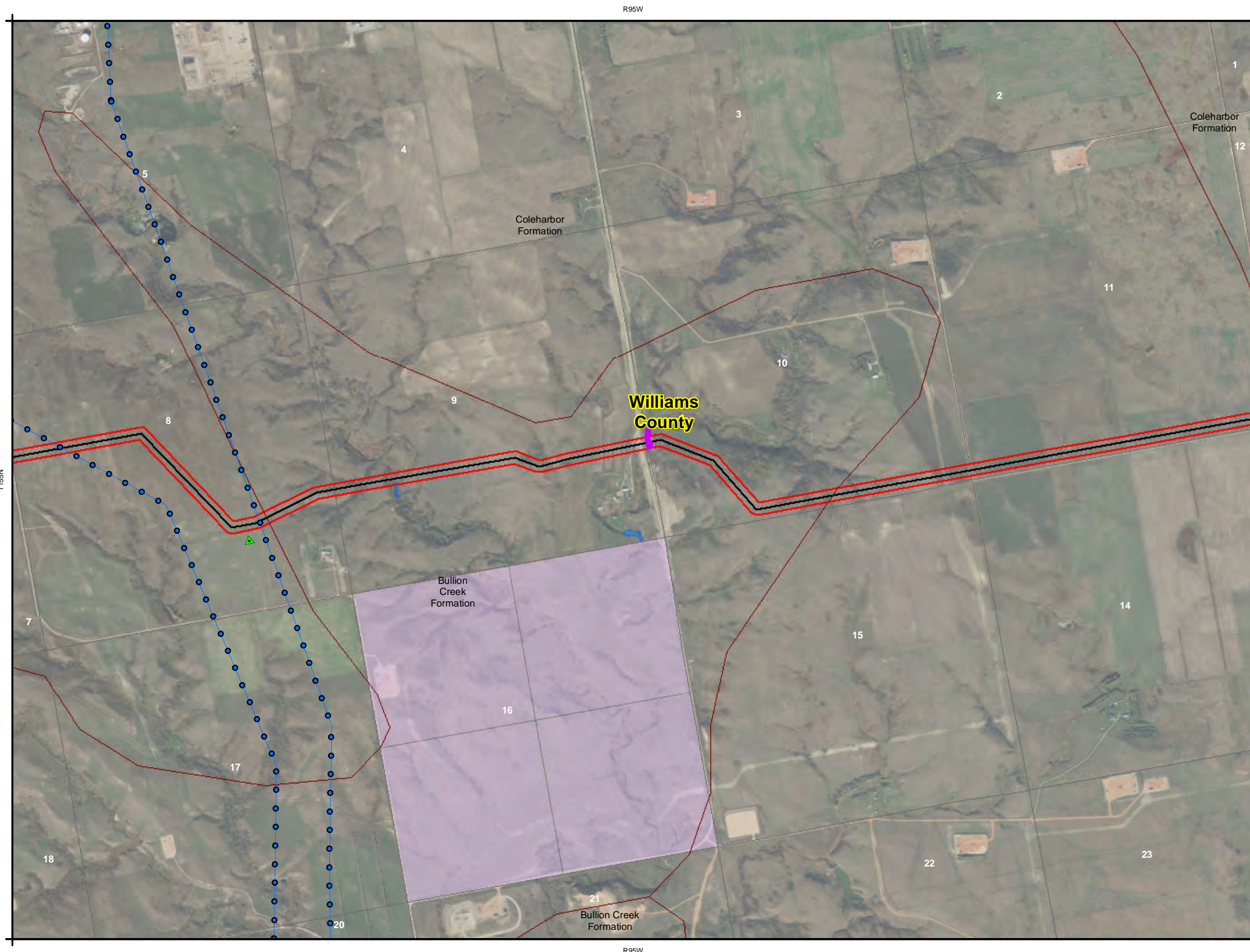
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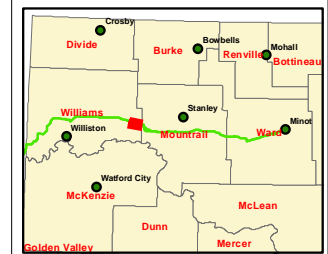
Public Service Infrastructure,  
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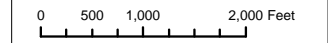


**Cenex Pipeline, LLC  
Refined Fuels Pipeline**



**Legend**

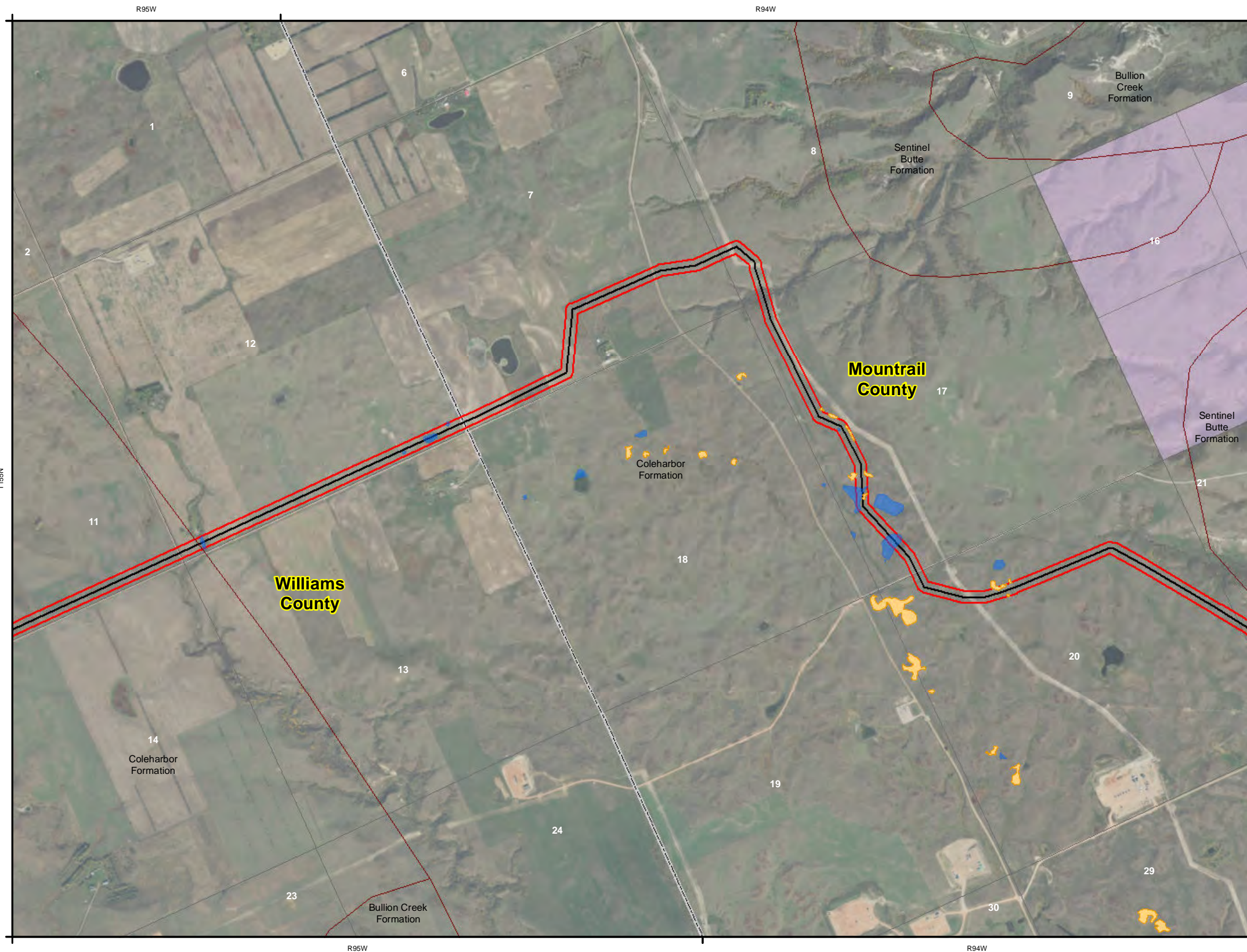
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Public Service Infrastructure,  
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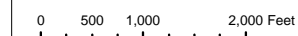


**Cenex Pipeline, LLC  
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**Legend**

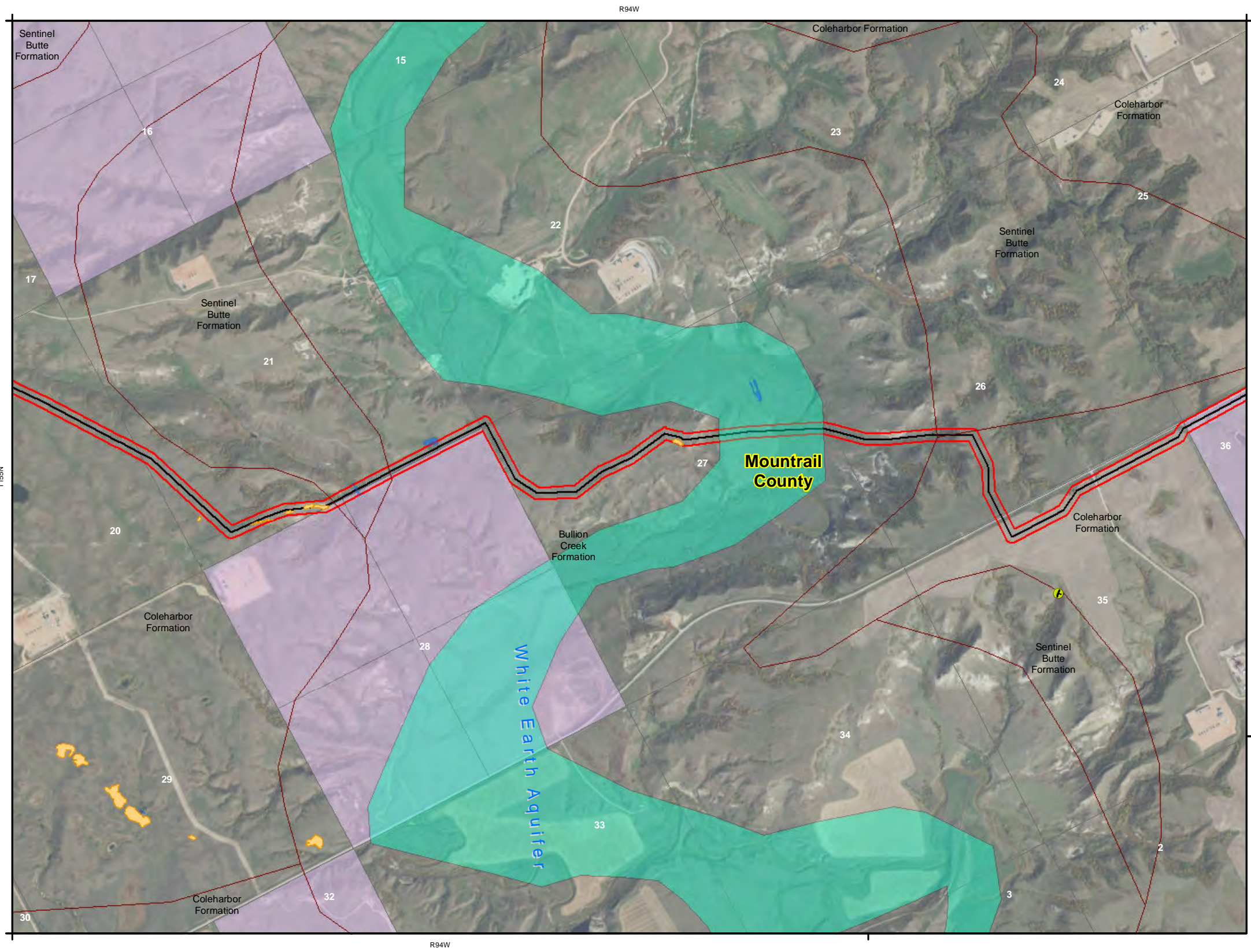
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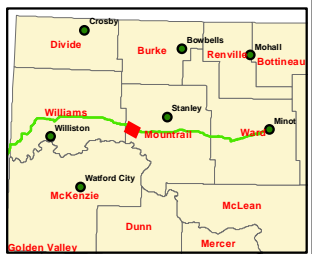
Public Service Infrastructure,  
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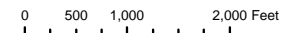


**Cenex Pipeline, LLC  
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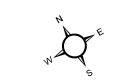


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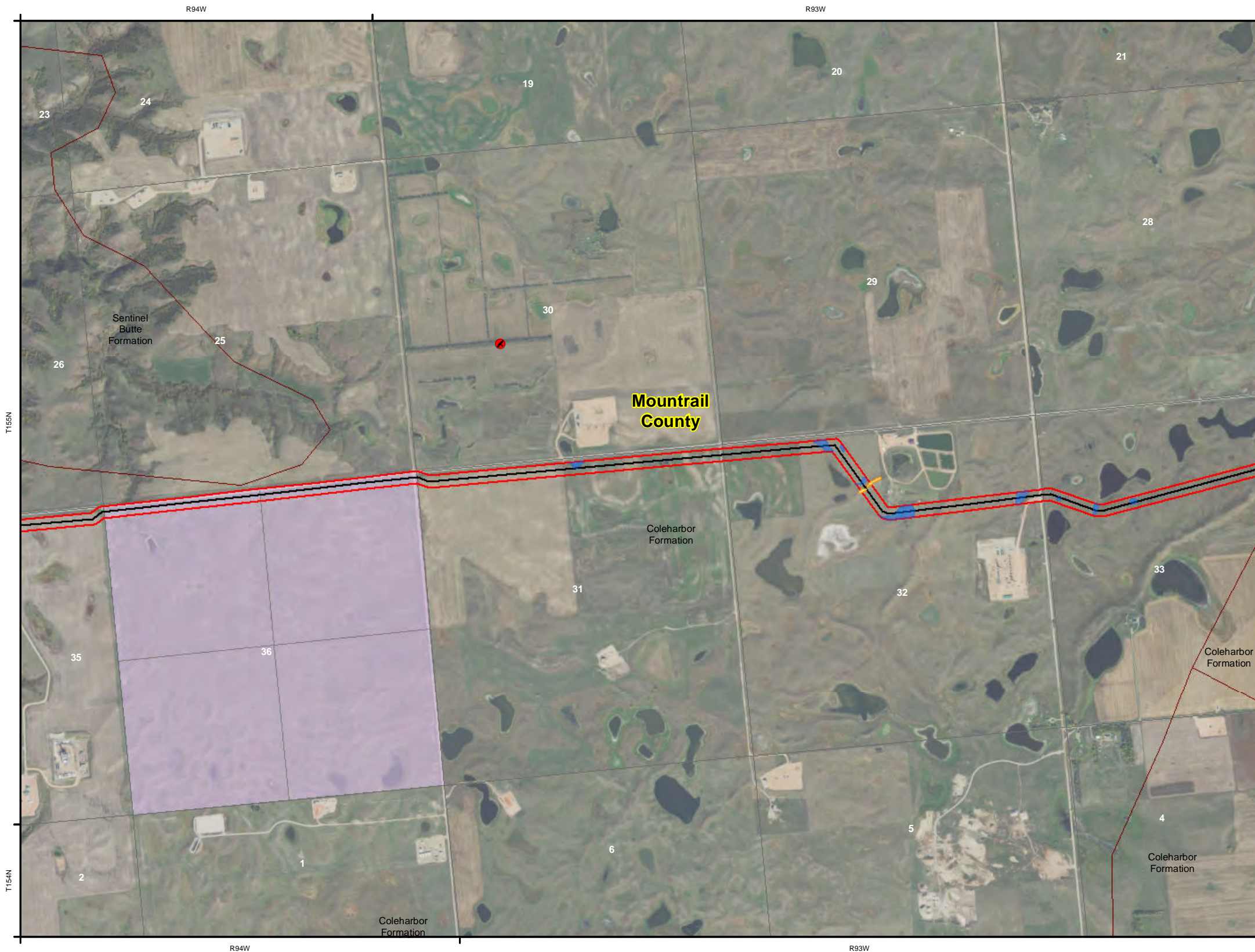


Public Service Infrastructure,  
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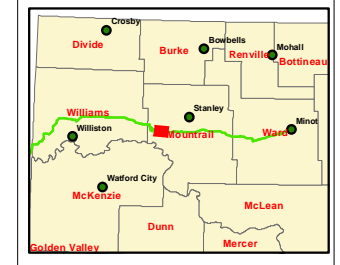


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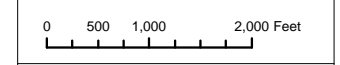
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### Cenex Pipeline, LLC Refined Fuels Pipeline

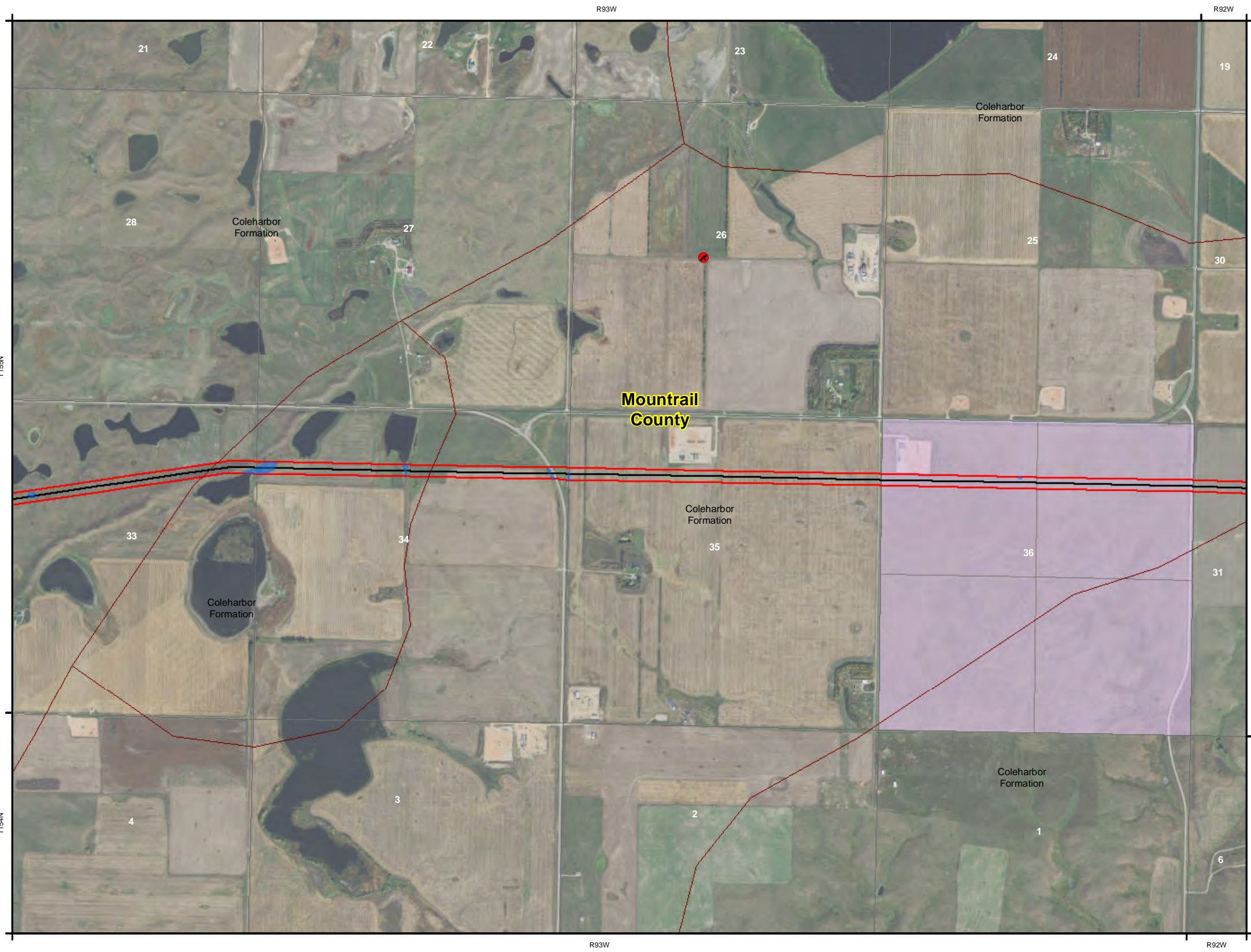


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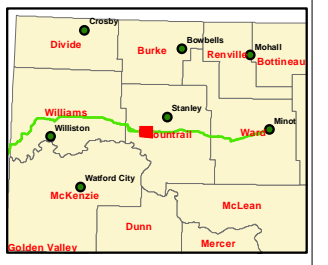


#### Public Service Infrastructure, Geologic, Ground Water, Delineated Wetlands & Habitats

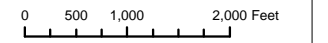
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### Cenex Pipeline, LLC Refined Fuels Pipeline



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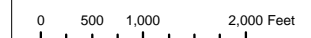


**Cenex Pipeline, LLC  
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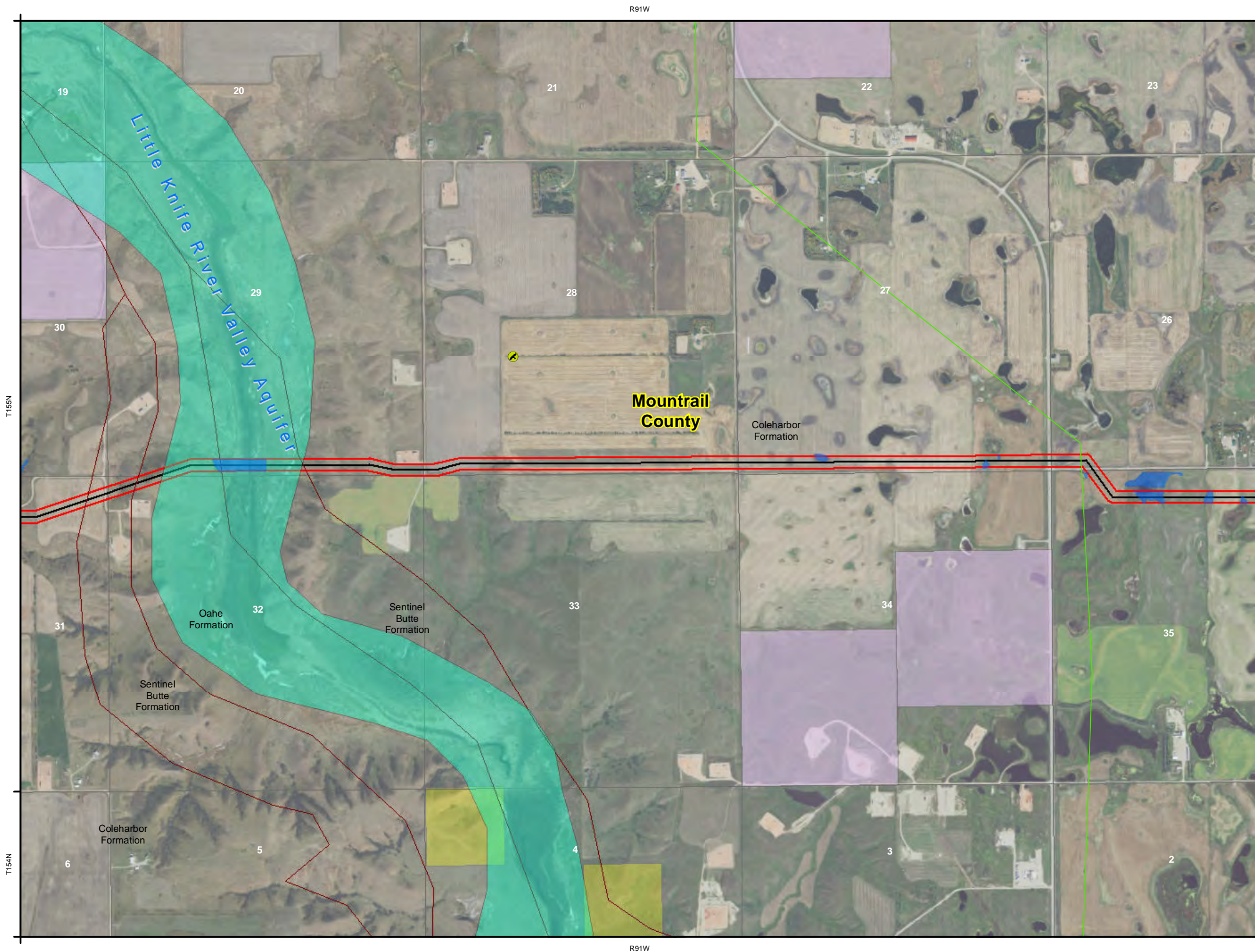
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**Public Service Infrastructure,  
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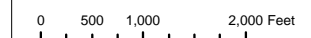


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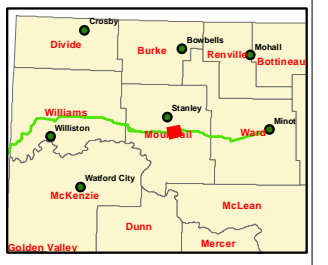
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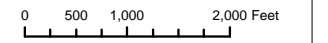
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**Cenex Pipeline, LLC  
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  - Delineated Wetlands
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  - Survey Area
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  - Bureau of Land Management



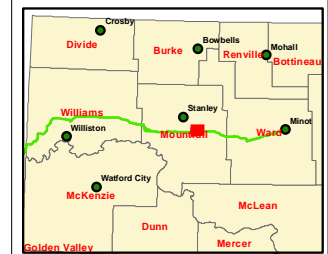
Public Service Infrastructure,  
Geologic, Ground Water,  
Delineated Wetlands &  
Habitats



1 inch = 1,500 feet  
Created Date: 2/28/2017  
Page 26 of 39  
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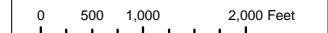


**Cenex Pipeline, LLC  
Refined Fuels Pipeline**

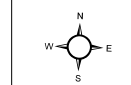


**Legend**

- Raptor Nest
- Sharp-tailed Grouse Lek
- Inactive Raptor Nest
- Domestic, Stock wells
- Observation Well
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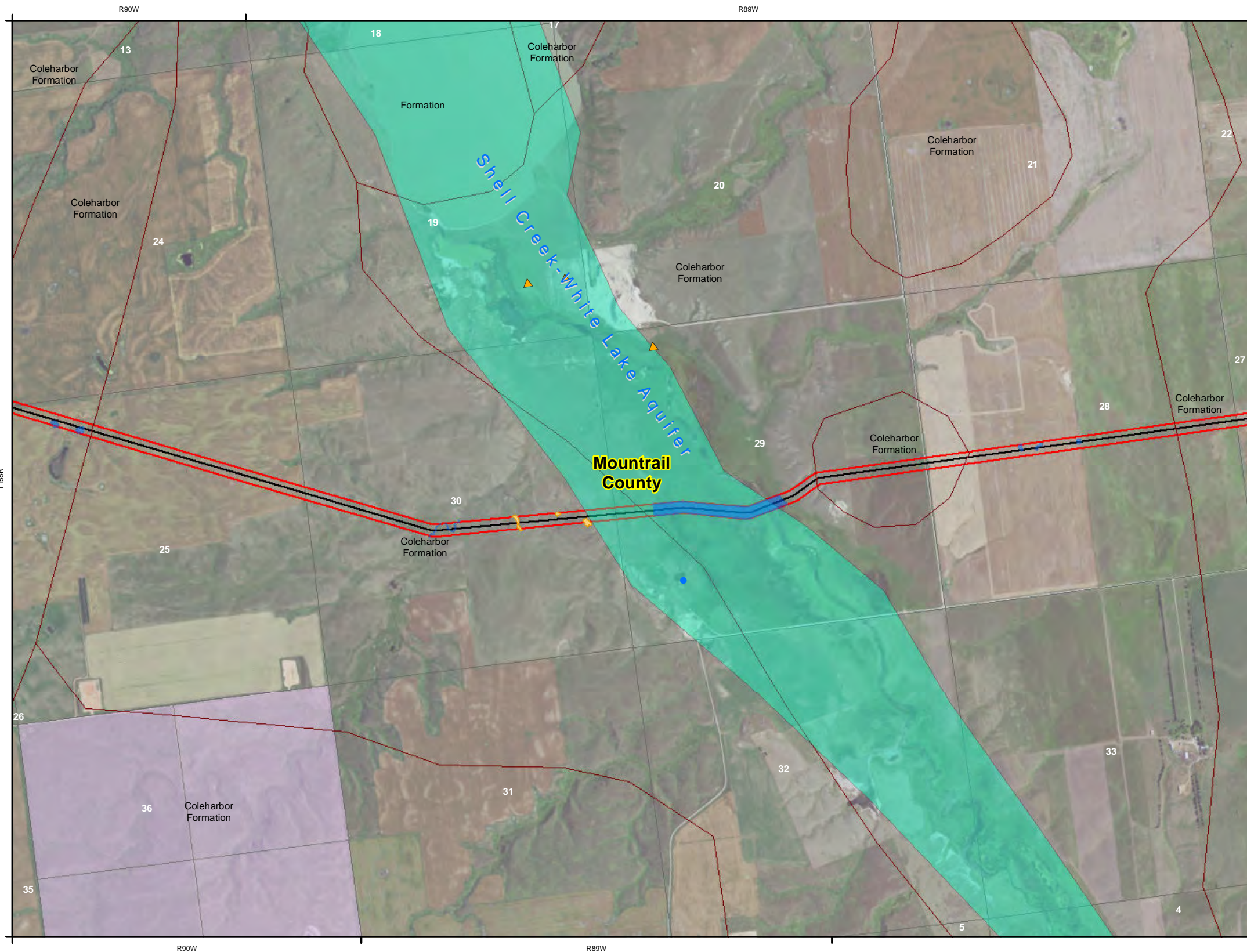


Public Service Infrastructure,  
Geologic, Ground Water,  
Delineated Wetlands &  
Habitats



1 inch = 1,500 feet  
Created Date: 2/28/2017

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### Cenex Pipeline, LLC Refined Fuels Pipeline

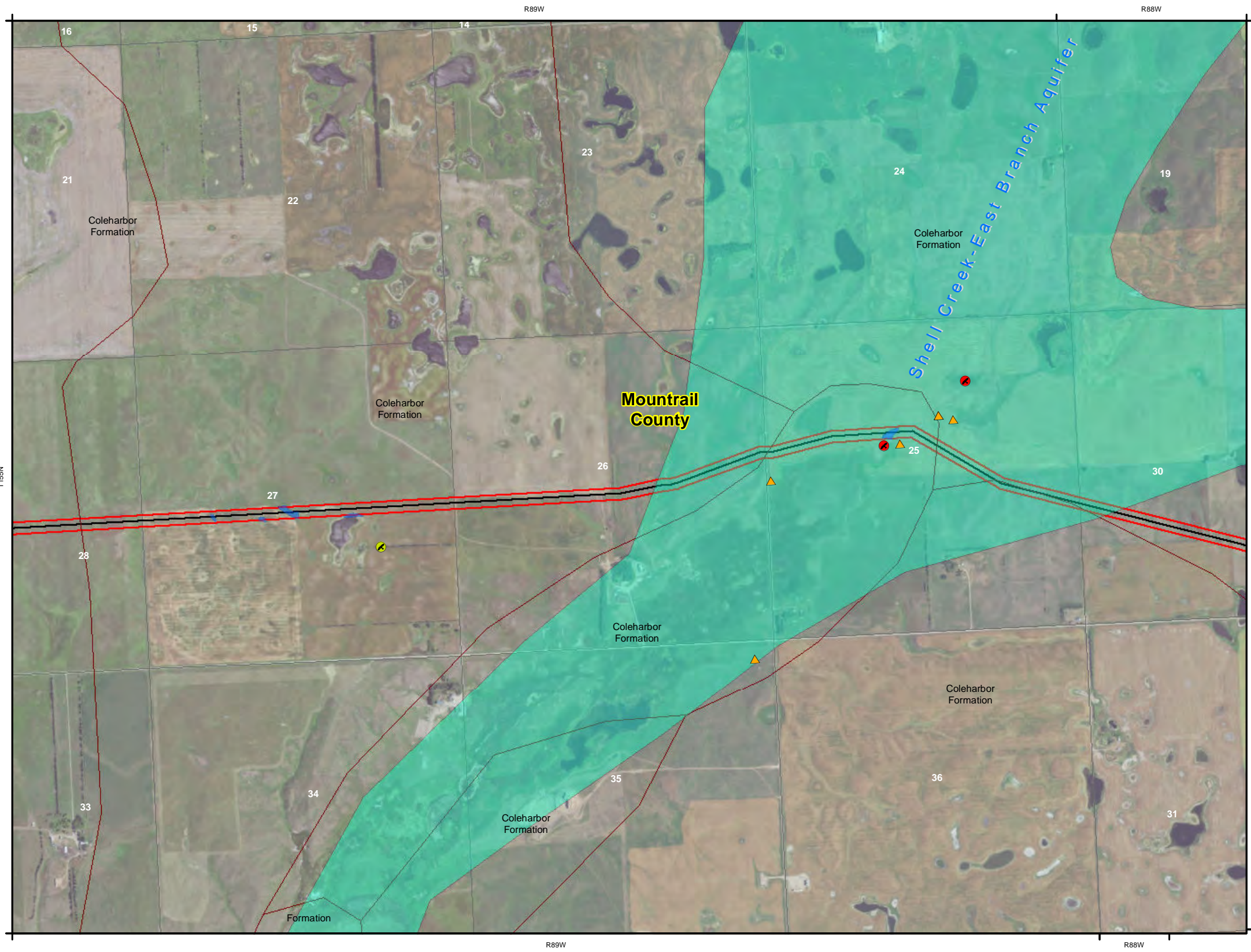
**Legend**

- Raptor Nest
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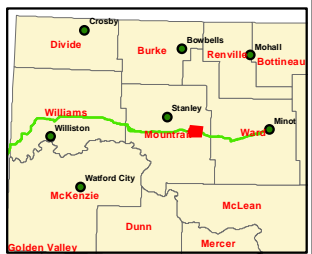
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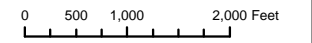
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**Cenex Pipeline, LLC  
Refined Fuels Pipeline**



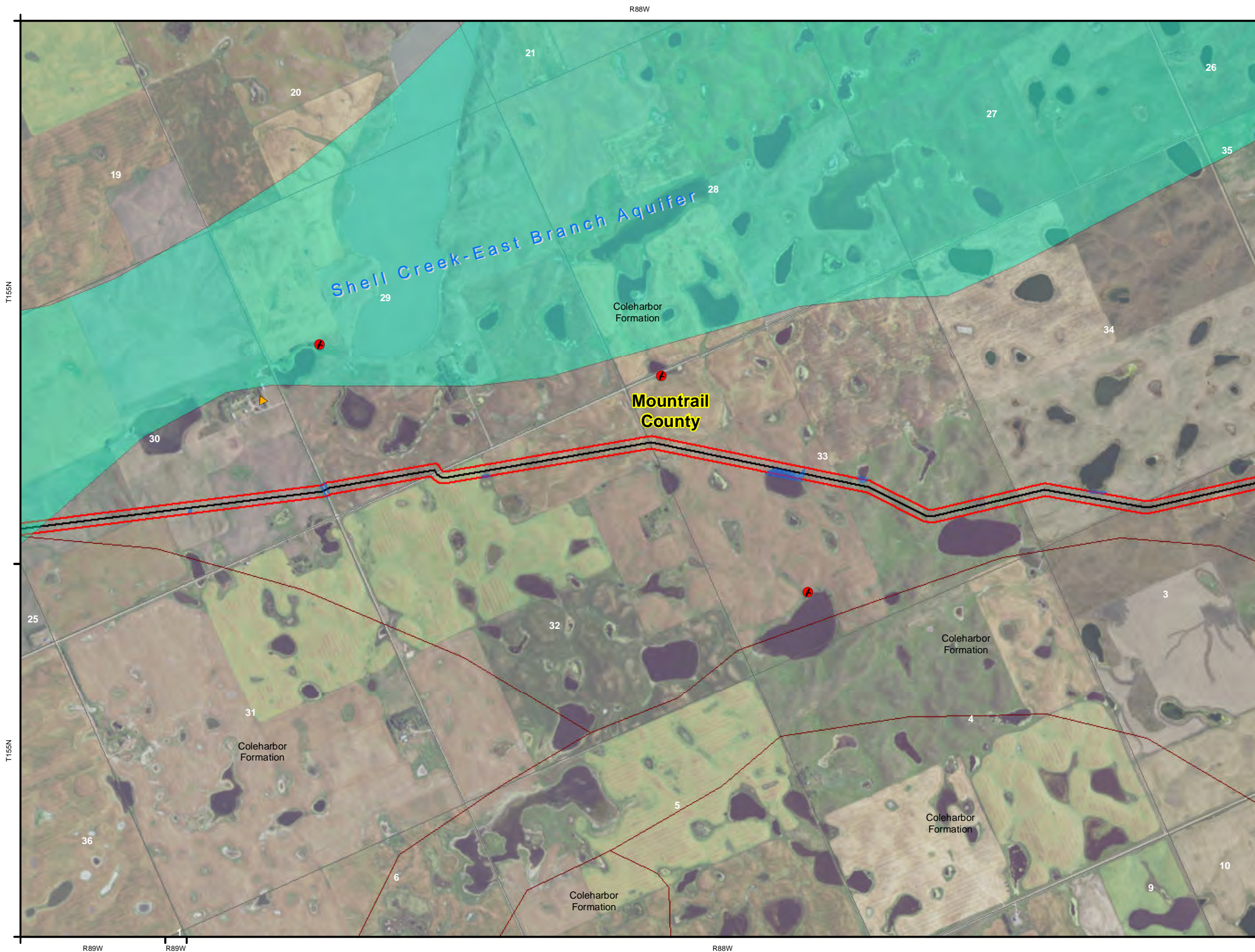
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1 inch = 1,500 feet  
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### Cenex Pipeline, LLC Refined Fuels Pipeline

**Legend**

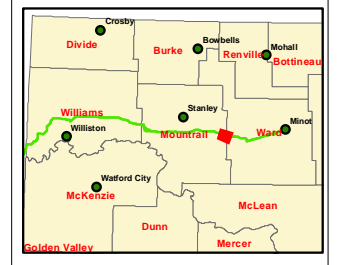
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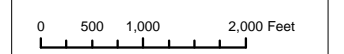
1 inch = 1,500 feet      Page 30 of 39  
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**Cenex Pipeline, LLC  
Refined Fuels Pipeline**



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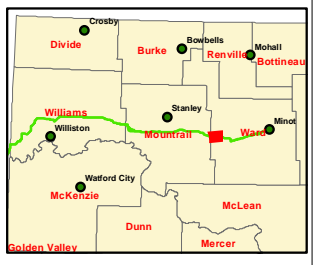
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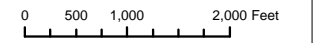
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**Cenex Pipeline, LLC  
Refined Fuels Pipeline**



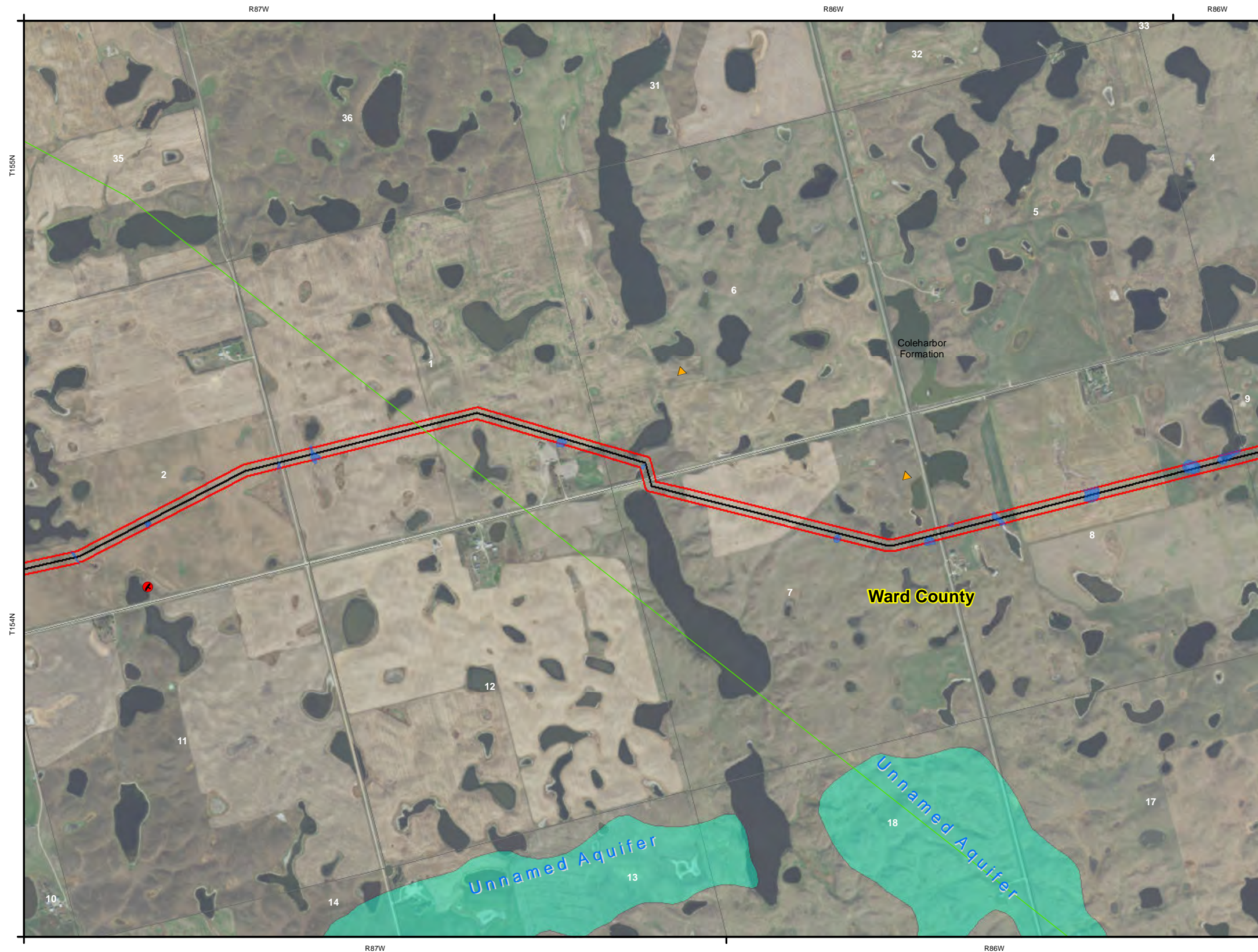
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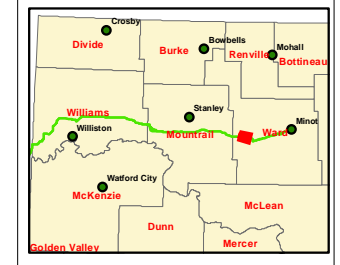
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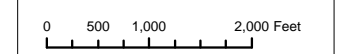
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### Cenex Pipeline, LLC Refined Fuels Pipeline



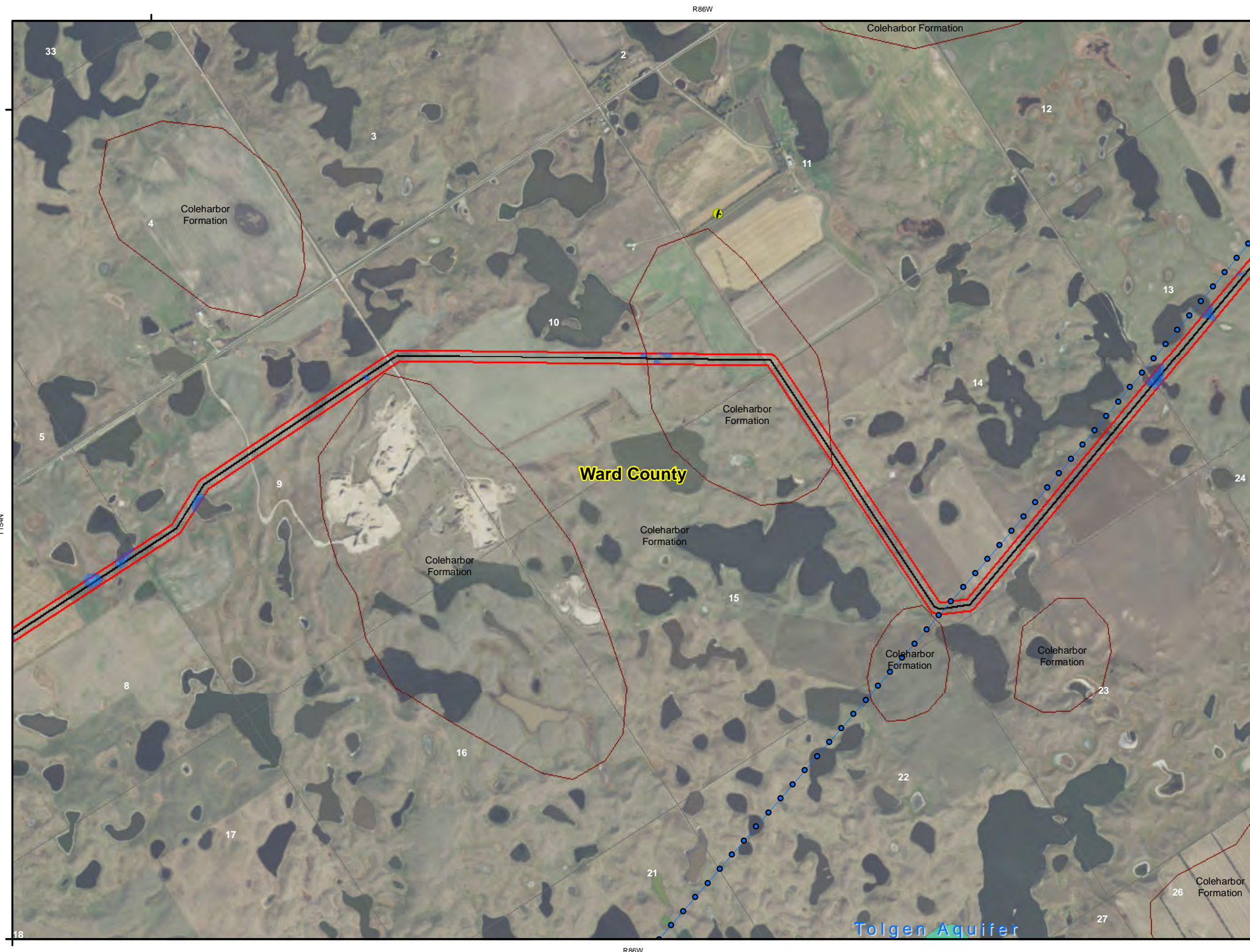
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1 inch = 1,500 feet  
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### Cenex Pipeline, LLC Refined Fuels Pipeline

**Legend**

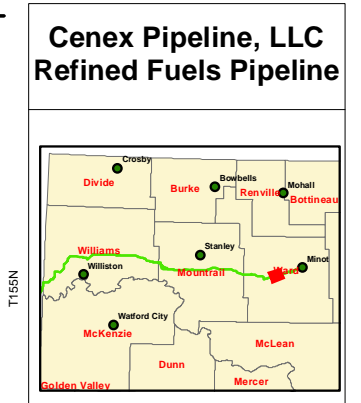
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**Public Service Infrastructure,  
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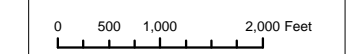
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Created Date: 2/28/2017

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- #### Legend
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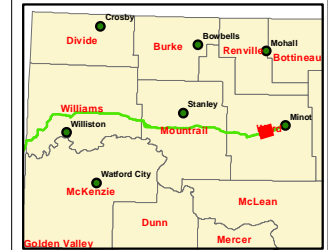
Public Service Infrastructure,  
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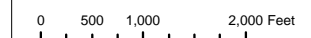


**Cenex Pipeline, LLC  
Refined Fuels Pipeline**



**Legend**

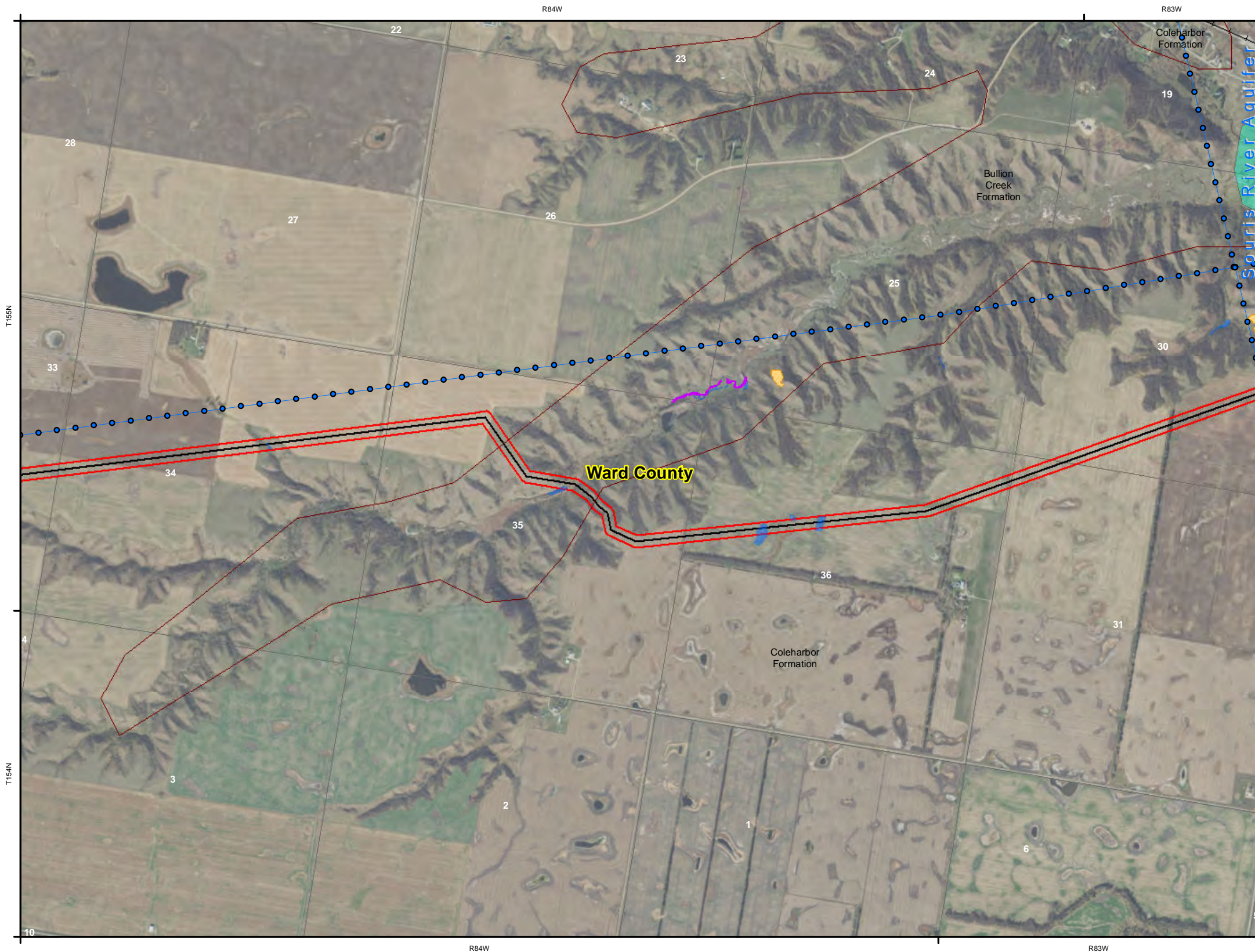
- Raptor Nest
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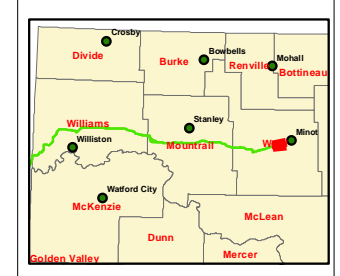
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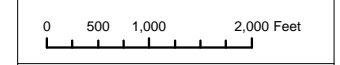
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### Cenex Pipeline, LLC Refined Fuels Pipeline



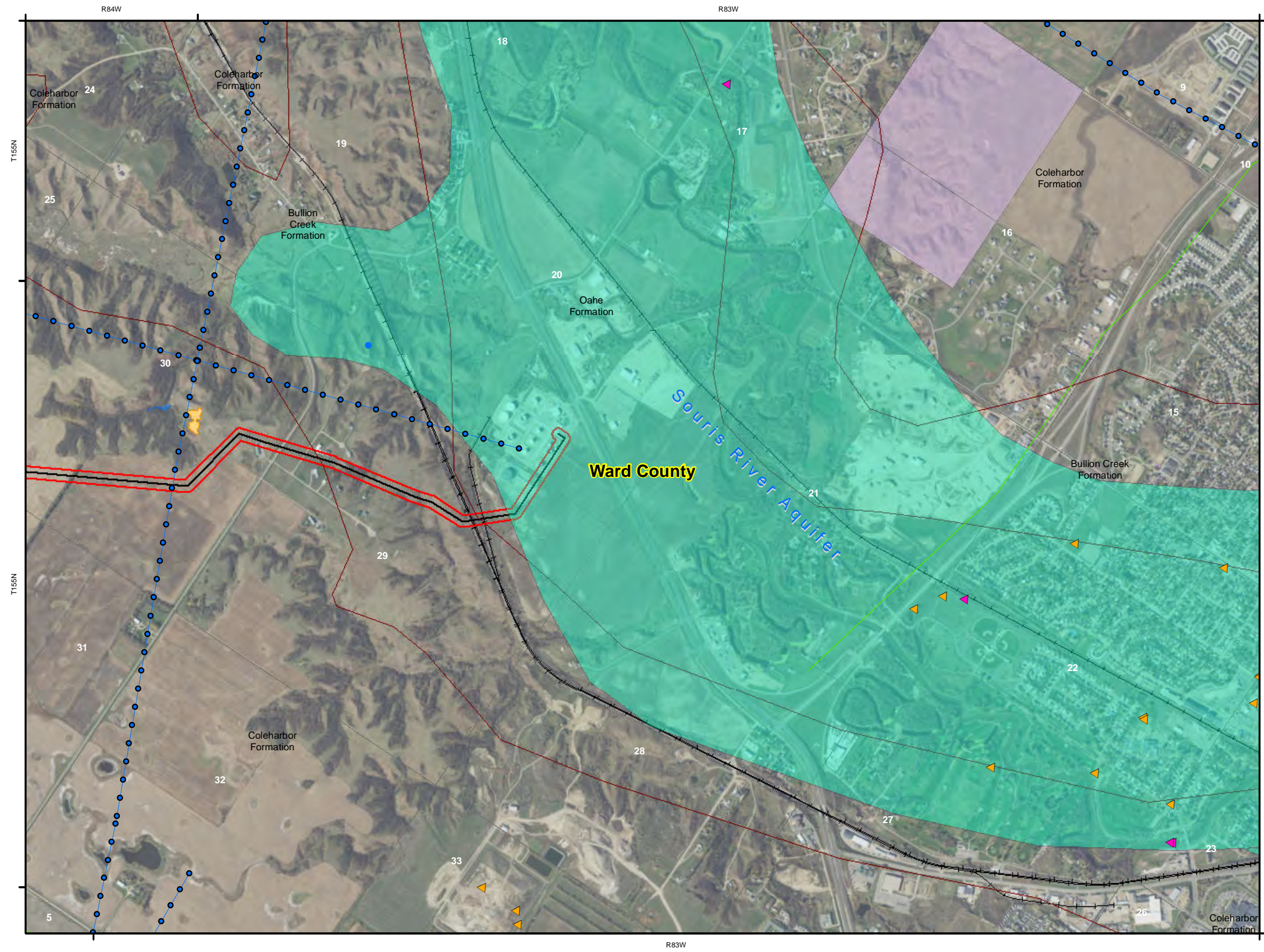
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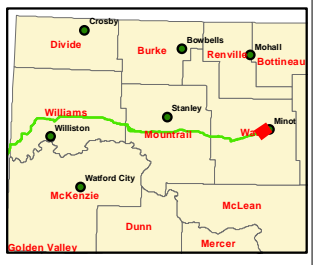
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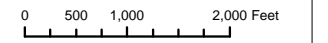
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### Cenex Pipeline, LLC Refined Fuels Pipeline



- Legend**
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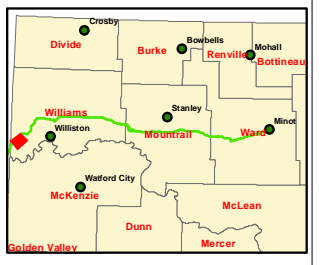
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Figure A-4. Exclusion and Avoidance Areas

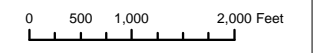




**Cenex Pipeline, LLC  
Refined Fuels Pipeline**



- Legend**
- Schools - 500' Avoidance
  - Missile Site - 1200' Exclusion
  - Residential/Commercial Building - 500' Avoidance
  - Study Area
  - Potential Dakota Skipper Habitat
  - Historic Landslide Areas



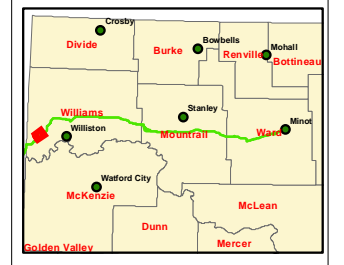
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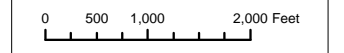
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Refined Fuels Pipeline**



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**Exclusion & Avoidance**

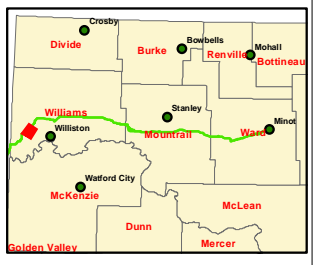


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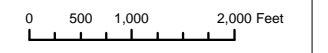
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**Cenex Pipeline, LLC  
Refined Fuels Pipeline**



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**Exclusion & Avoidance**



1 inch = 1,500 feet  
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### Cenex Pipeline, LLC Refined Fuels Pipeline

**Legend**

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0 500 1,000 2,000 Feet

**Exclusion & Avoidance**

1 inch = 1,500 feet  
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### Cenex Pipeline, LLC Refined Fuels Pipeline

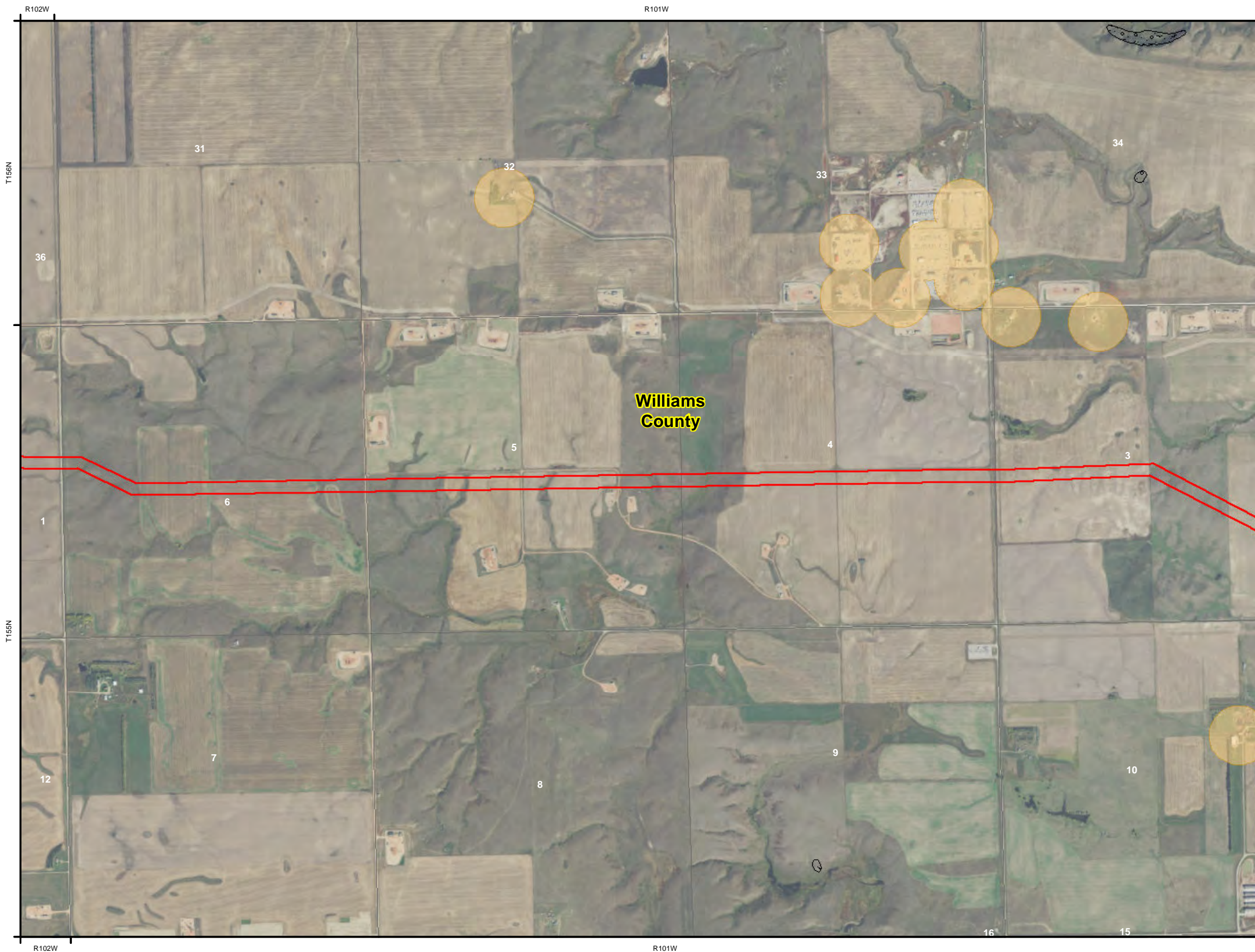
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**Exclusion & Avoidance**

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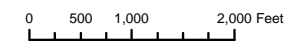


**Cenex Pipeline, LLC  
Refined Fuels Pipeline**



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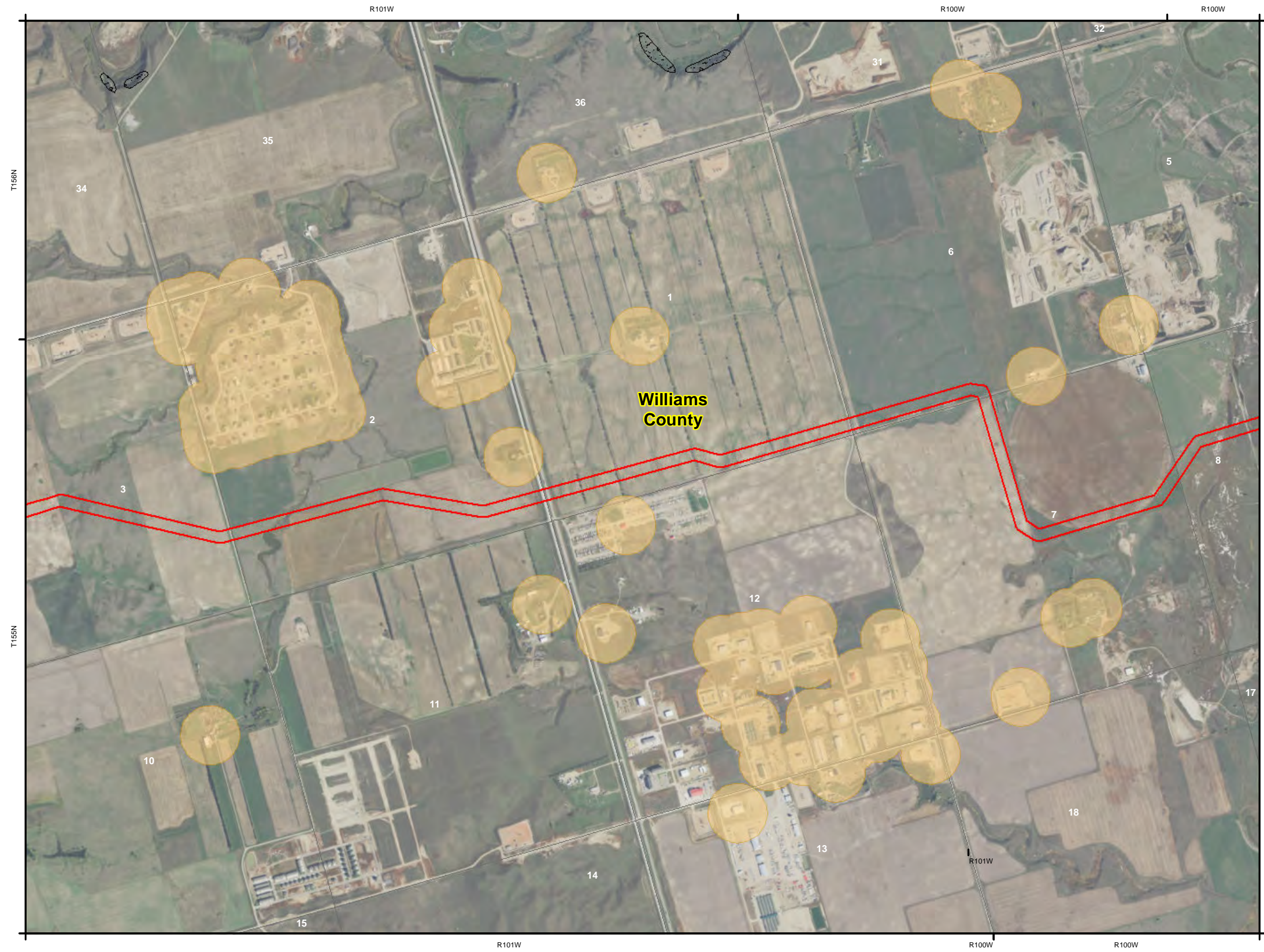


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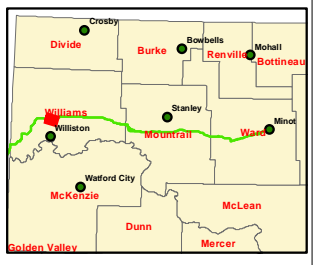


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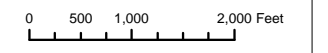
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**Cenex Pipeline, LLC  
Refined Fuels Pipeline**



- Legend**
- Schools - 500' Avoidance
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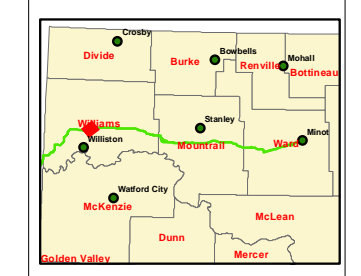
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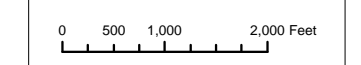
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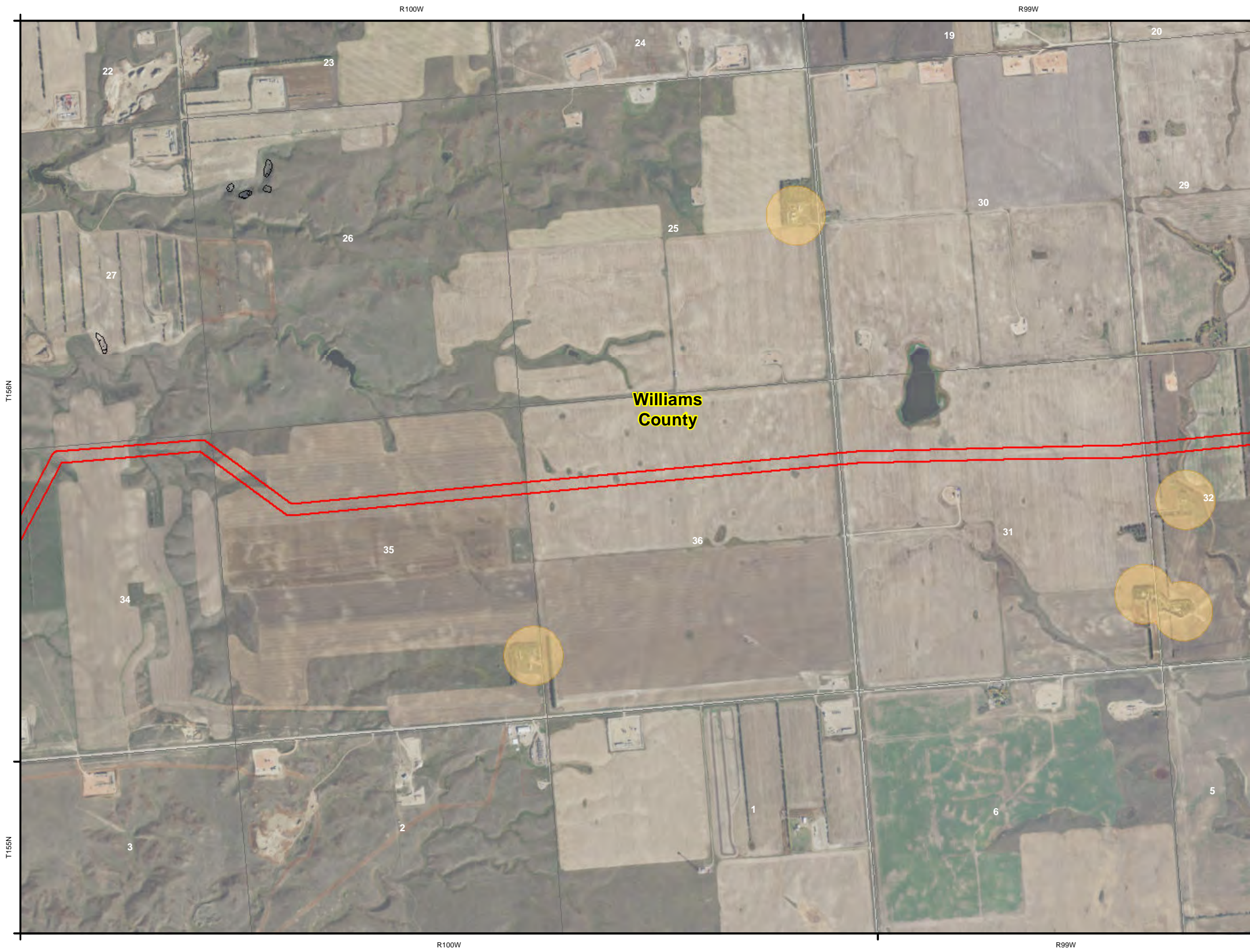
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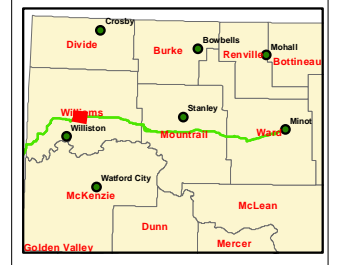
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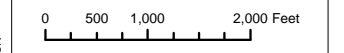
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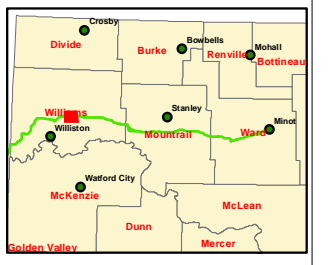
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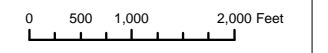
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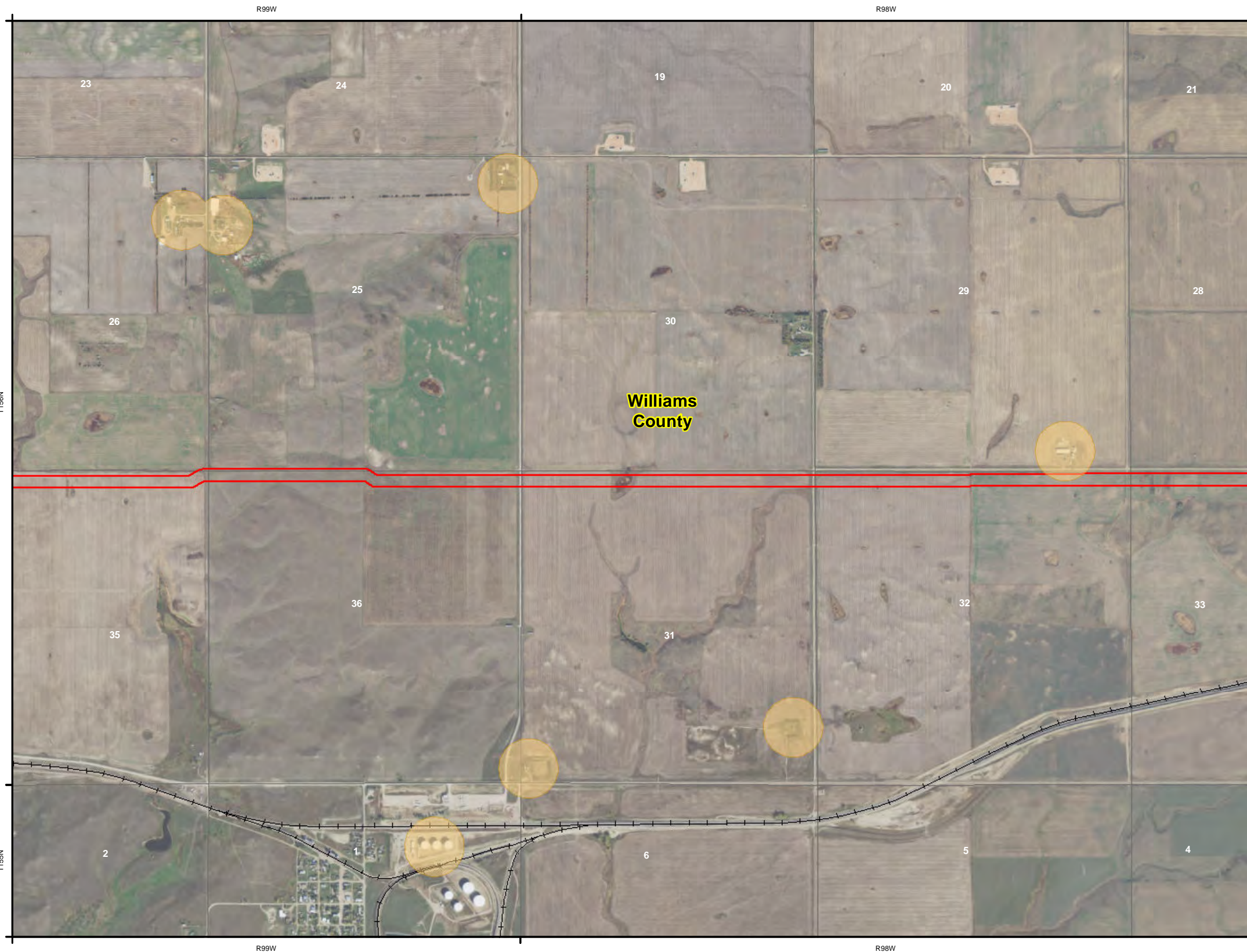
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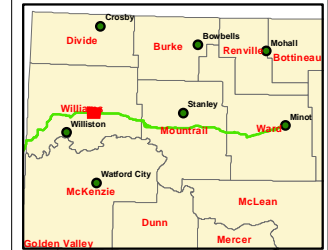
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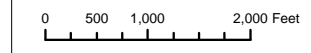


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- Potential Dakota Skipper Habitat
- Historic Landslide Areas



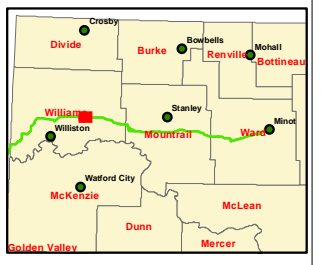
#### Exclusion & Avoidance



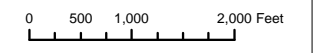
1 inch = 1,500 feet  
Created Date: 2/28/2017  
Page 12 of 39  
Created By: DNP



**Cenex Pipeline, LLC  
Refined Fuels Pipeline**



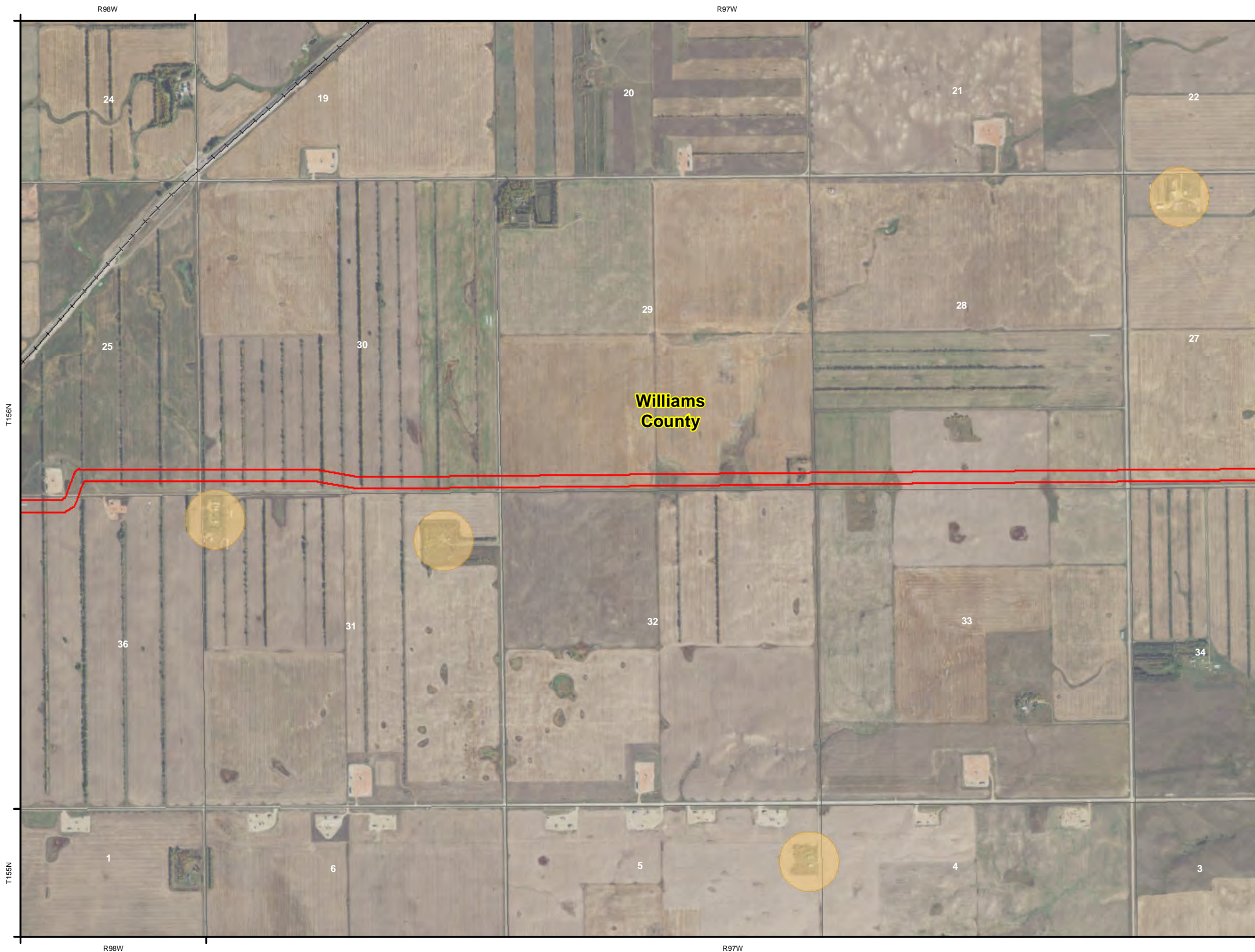
- Legend**
- Schools - 500' Avoidance
  - Missile Site - 1200' Exclusion
  - Residential/Commercial Building - 500' Avoidance
  - Study Area
  - Potential Dakota Skipper Habitat
  - Historic Landslide Areas



**Exclusion & Avoidance**

1 inch = 1,500 feet  
Created Date: 2/28/2017

Page 13 of 39  
Created By: DNP



### Cenex Pipeline, LLC Refined Fuels Pipeline

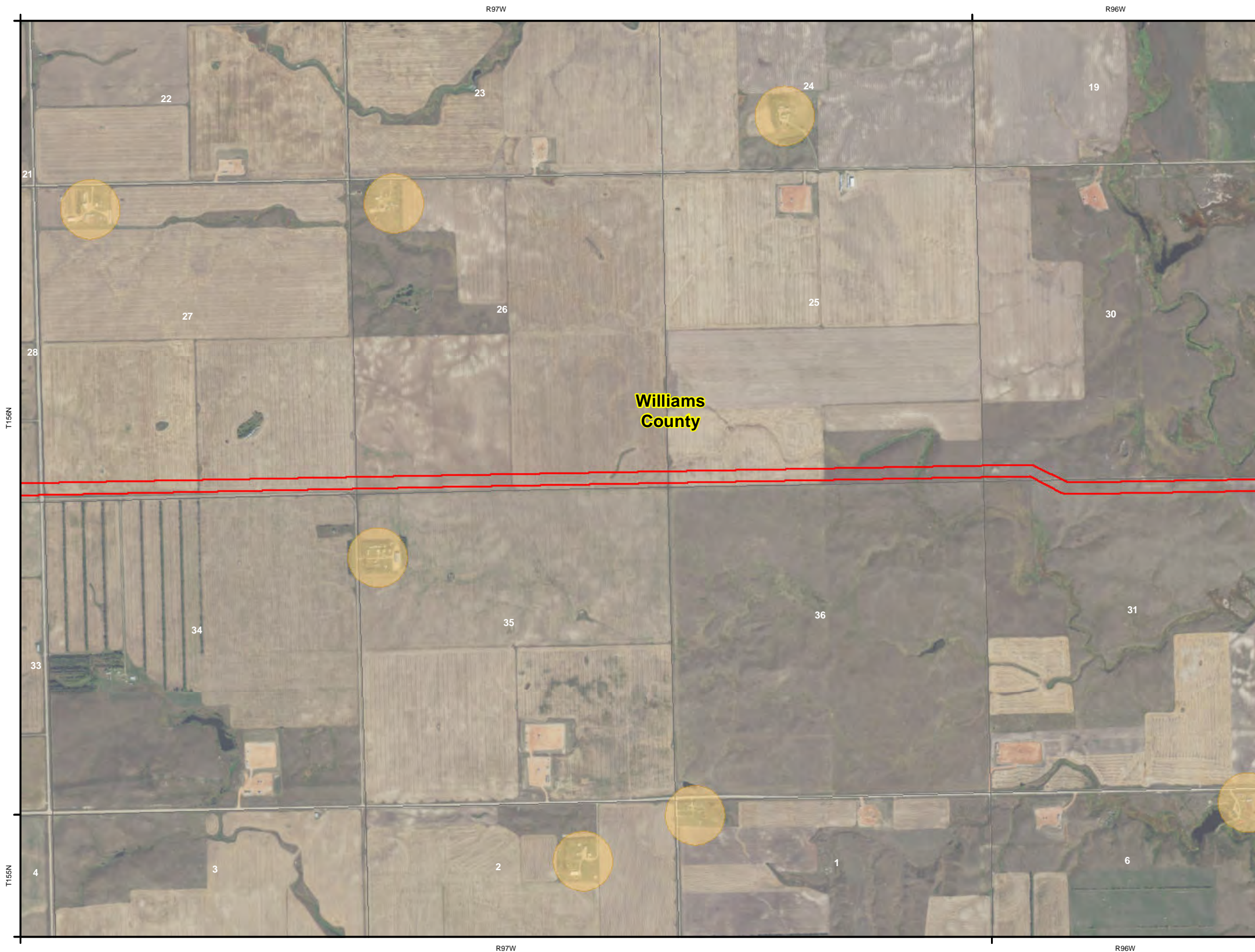
**Legend**

- Schools - 500' Avoidance
- Missile Site - 1200' Exclusion
- Residential/Commercial Building - 500' Avoidance
- Study Area
- Potential Dakota Skipper Habitat
- Historic Landslide Areas

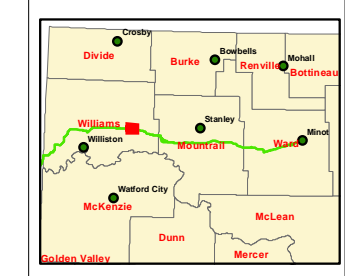
**Exclusion & Avoidance**

1 inch = 1,500 feet  
Created Date: 2/28/2017

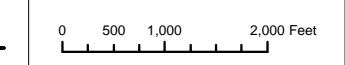
Page 14 of 39  
Created By: DNP



**Cenex Pipeline, LLC  
Refined Fuels Pipeline**



- Legend**
- Schools - 500' Avoidance
  - Missile Site - 1200' Exclusion
  - Residential/Commercial Building - 500' Avoidance
  - Study Area
  - Potential Dakota Skipper Habitat
  - Historic Landslide Areas



**Exclusion & Avoidance**

1 inch = 1,500 feet  
Created Date: 2/28/2017

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Created By: DNP



### Cenex Pipeline, LLC Refined Fuels Pipeline

**Legend**

- Schools - 500' Avoidance
- Missile Site - 1200' Exclusion
- Residential/Commercial Building - 500' Avoidance
- Study Area
- Potential Dakota Skipper Habitat
- Historic Landslide Areas

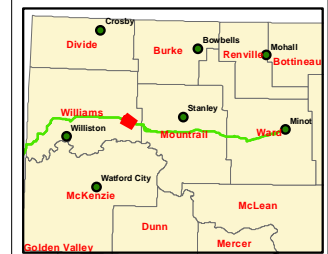
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1 inch = 1,500 feet  
Created Date: 2/28/2017

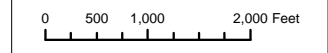
Page 16 of 39  
Created By: DNP



### Cenex Pipeline, LLC Refined Fuels Pipeline



- Legend**
- Schools - 500' Avoidance
  - Missile Site - 1200' Exclusion
  - Residential/Commercial Building - 500' Avoidance
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  - Potential Dakota Skipper Habitat
  - Historic Landslide Areas



### Exclusion & Avoidance



1 inch = 1,500 feet  
Created Date: 2/28/2017

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Created By: DNP

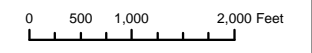


**Cenex Pipeline, LLC  
Refined Fuels Pipeline**



**Legend**

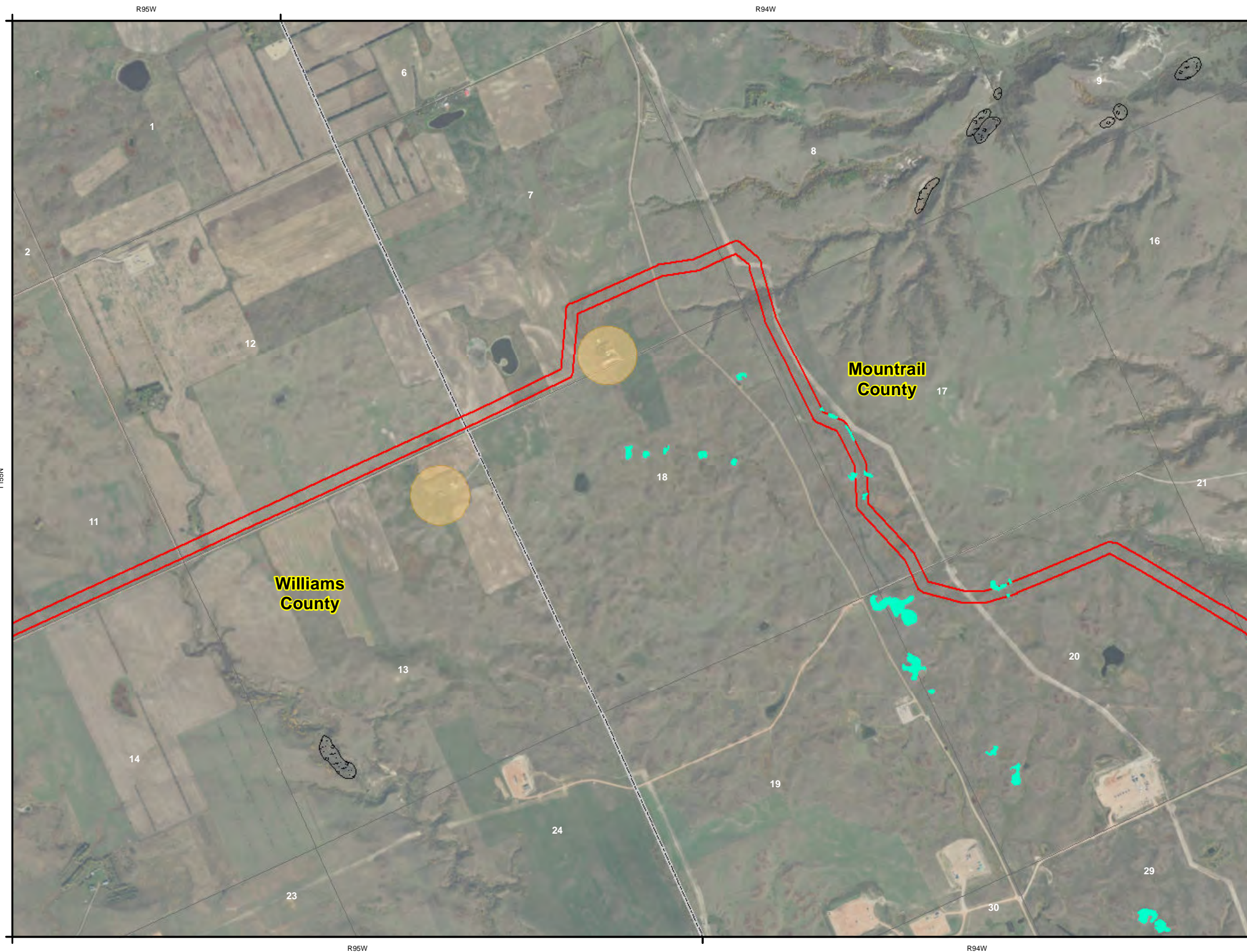
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- Missile Site - 1200' Exclusion
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- Potential Dakota Skipper Habitat
- Historic Landslide Areas



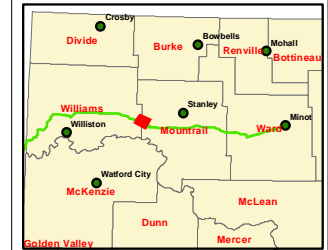
**Exclusion & Avoidance**



1 inch = 1,500 feet  
Created Date: 2/28/2017  
Page 18 of 39  
Created By: DNP

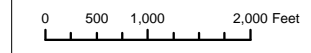


**Cenex Pipeline, LLC  
Refined Fuels Pipeline**

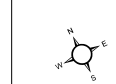


**Legend**

- Schools - 500' Avoidance
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- Potential Dakota Skipper Habitat
- Historic Landslide Areas



**Exclusion & Avoidance**



1 inch = 1,500 feet  
Created Date: 2/28/2017

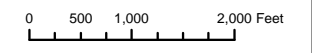
Page 19 of 39  
Created By: DNP



**Cenex Pipeline, LLC  
Refined Fuels Pipeline**



- Legend**
- Schools - 500' Avoidance
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  - Historic Landslide Areas



**Exclusion & Avoidance**



1 inch = 1,500 feet  
Created Date: 2/28/2017  
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Created By: DNP

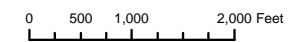


**Cenex Pipeline, LLC  
Refined Fuels Pipeline**

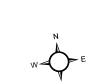


**Legend**

- Schools - 500' Avoidance
- Missile Site - 1200' Exclusion
- Residential/Commercial Building - 500' Avoidance
- Study Area
- Potential Dakota Skipper Habitat
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**Exclusion & Avoidance**

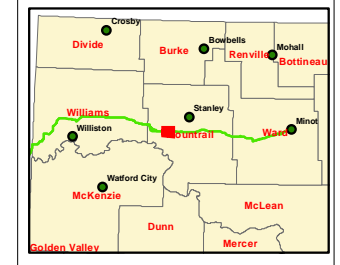


1 inch = 1,500 feet  
Created Date: 2/28/2017

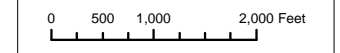
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Created By: DNP



### Cenex Pipeline, LLC Refined Fuels Pipeline



- Legend**
- Schools - 500' Avoidance
  - Missile Site - 1200' Exclusion
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  - Potential Dakota Skipper Habitat
  - Historic Landslide Areas



### Exclusion & Avoidance

1 inch = 1,500 feet  
Created Date: 2/28/2017







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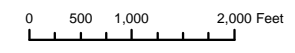


**Cenex Pipeline, LLC  
Refined Fuels Pipeline**



**Legend**

-  Schools - 500' Avoidance
-  Missile Site - 1200' Exclusion
-  Residential/Commercial Building - 500' Avoidance
-  Study Area
-  Potential Dakota Skipper Habitat
-  Historic Landslide Areas



**Exclusion & Avoidance**



1 inch = 1,500 feet  
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Created By: DNP



### Cenex Pipeline, LLC Refined Fuels Pipeline

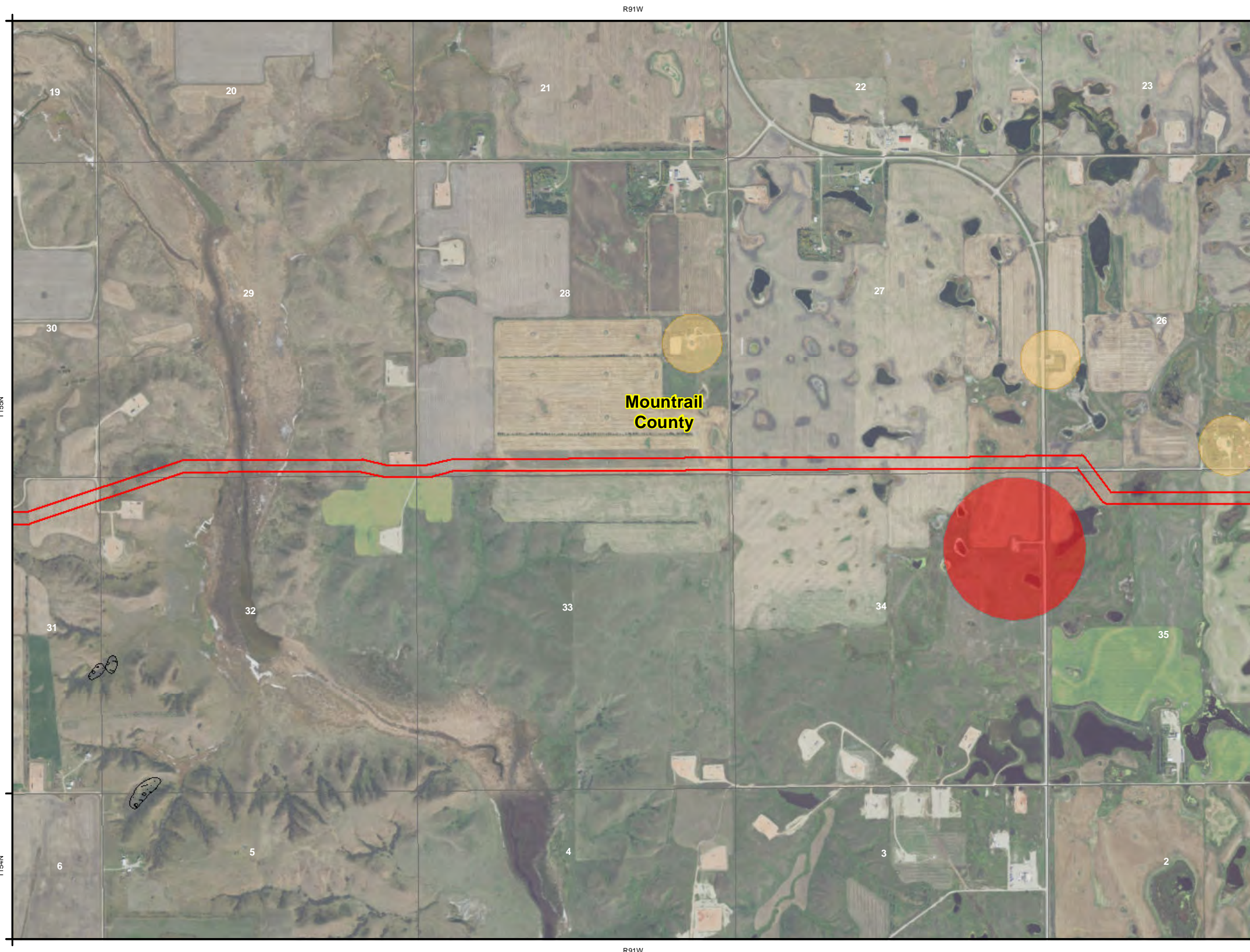
**Legend**

- Schools - 500' Avoidance
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- Study Area
- Potential Dakota Skipper Habitat
- Historic Landslide Areas

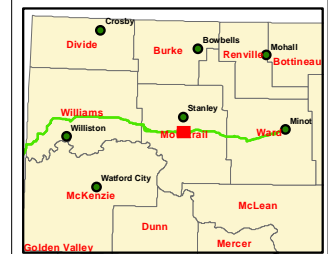
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1 inch = 1,500 feet  
 Created Date: 2/28/2017

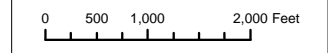
Page 24 of 39  
 Created By: DNP



**Cenex Pipeline, LLC  
Refined Fuels Pipeline**



- Legend**
- Schools - 500' Avoidance
  - Missile Site - 1200' Exclusion
  - Residential/Commercial Building - 500' Avoidance
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  - Potential Dakota Skipper Habitat
  - Historic Landslide Areas



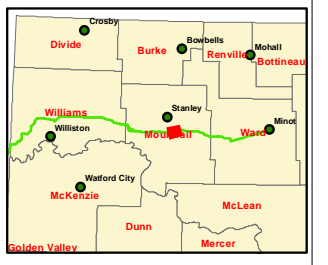
**Exclusion & Avoidance**

1 inch = 1,500 feet  
Created Date: 2/28/2017

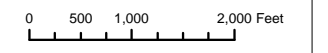
Page 25 of 39  
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**Cenex Pipeline, LLC  
Refined Fuels Pipeline**



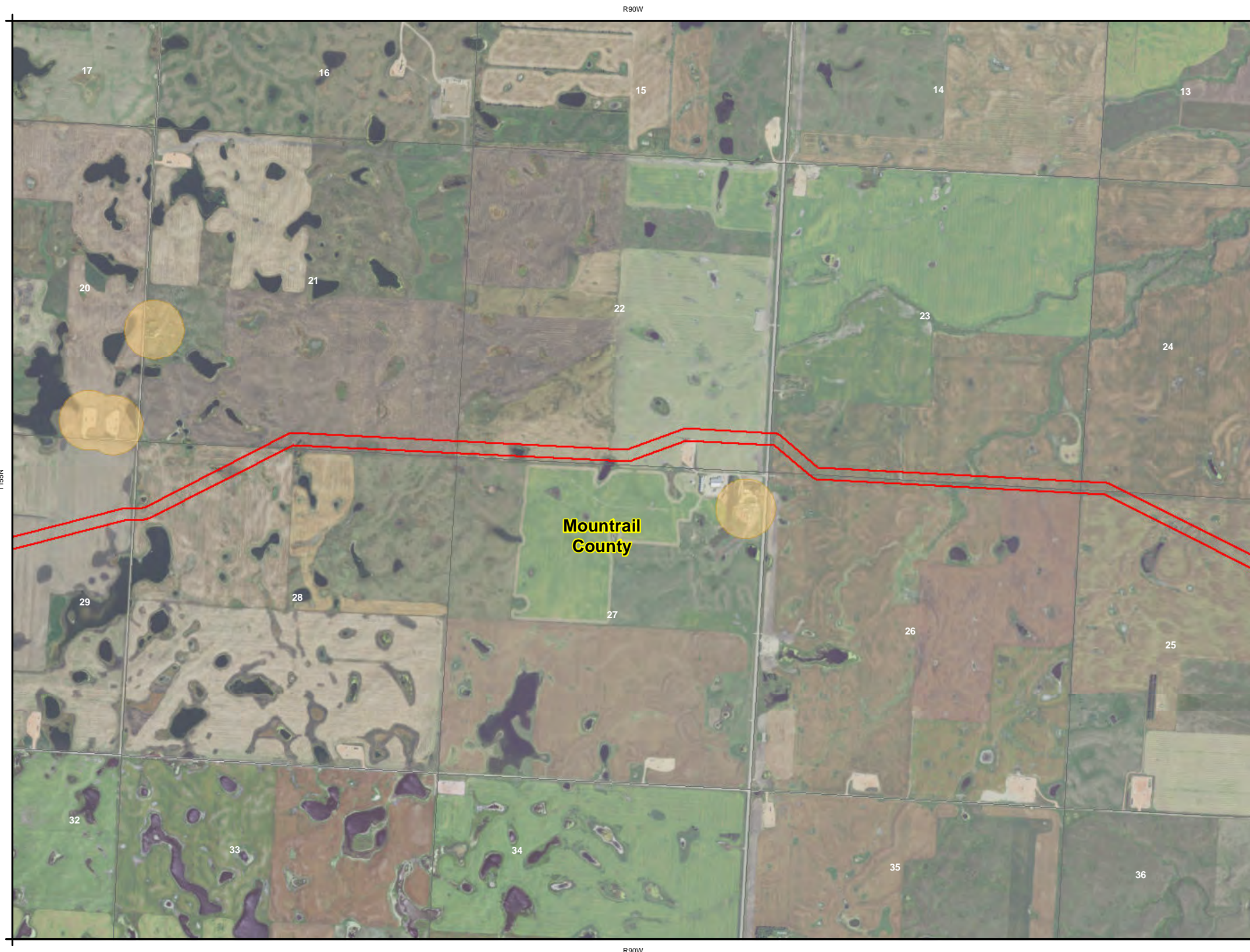
- Legend**
- Schools - 500' Avoidance
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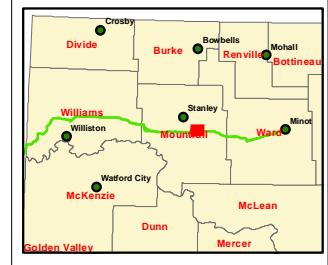
**Exclusion & Avoidance**



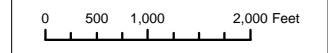
1 inch = 1,500 feet  
Created Date: 2/28/2017  
Page 26 of 39  
Created By: DNP



**Cenex Pipeline, LLC  
Refined Fuels Pipeline**



- Legend**
- Schools - 500' Avoidance
  - Missile Site - 1200' Exclusion
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  - Historic Landslide Areas



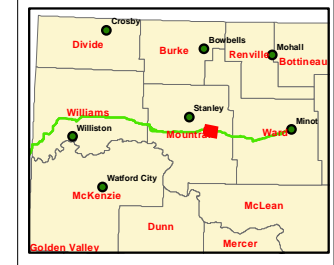
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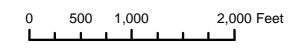
1 inch = 1,500 feet  
Created Date: 2/28/2017  
Page 27 of 39  
Created By: DNP



**Cenex Pipeline, LLC  
Refined Fuels Pipeline**



- Legend**
- Schools - 500' Avoidance
  - Missile Site - 1200' Exclusion
  - Residential/Commercial Building - 500' Avoidance
  - Study Area
  - Potential Dakota Skipper Habitat
  - Historic Landslide Areas

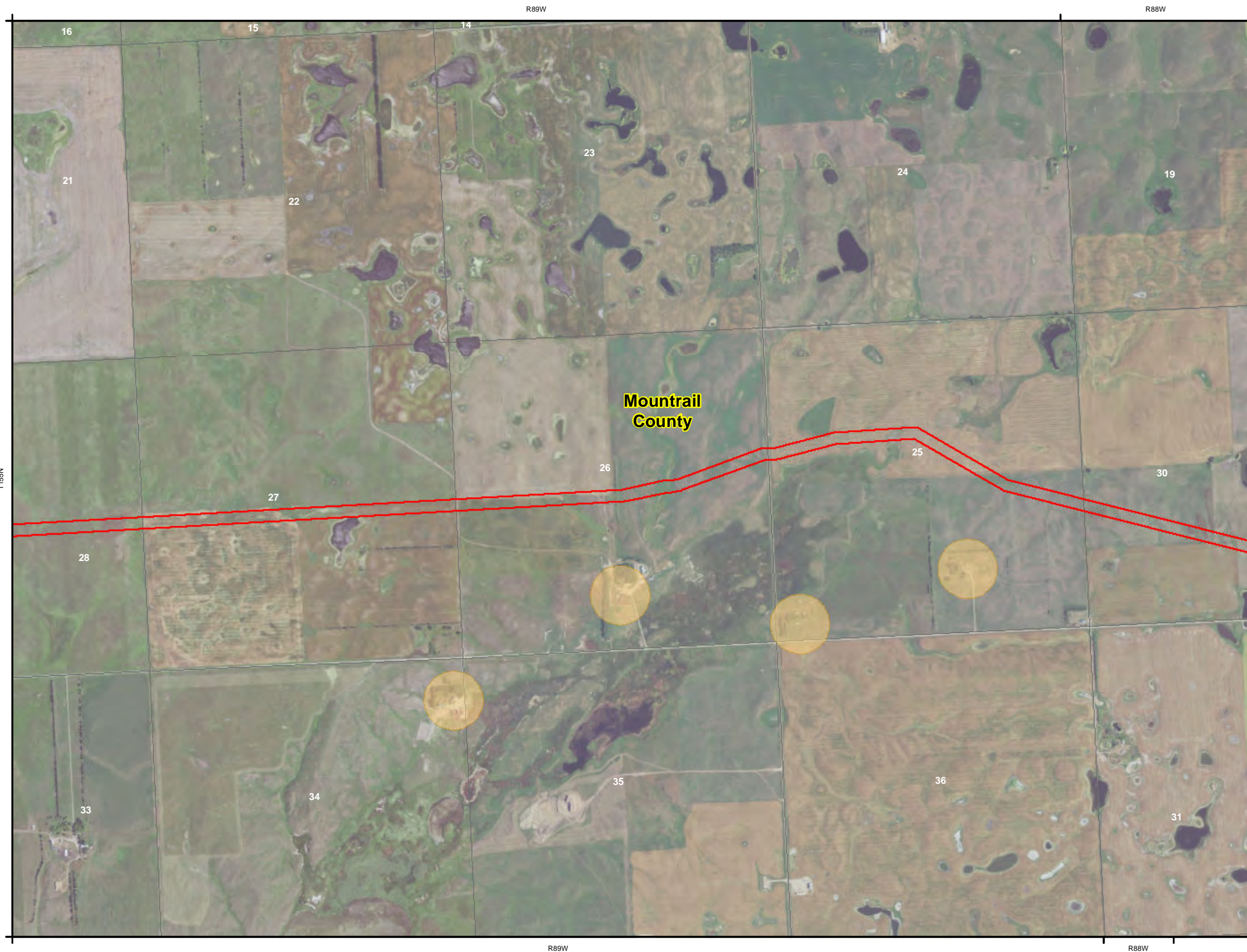


**Exclusion & Avoidance**



1 inch = 1,500 feet  
Created Date: 2/28/2017

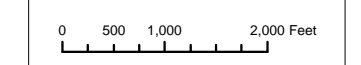
Page 28 of 39  
Created By: DNP



### Cenex Pipeline, LLC Refined Fuels Pipeline

#### Legend

- Schools - 500' Avoidance
- Missile Site - 1200' Exclusion
- Residential/Commercial Building - 500' Avoidance
- Study Area
- Potential Dakota Skipper Habitat
- Historic Landslide Areas



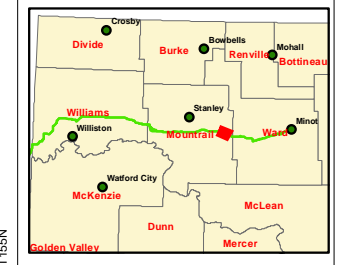
#### Exclusion & Avoidance

1 inch = 1,500 feet  
Created Date: 2/28/2017

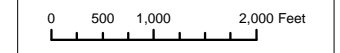
Page 29 of 39  
Created By: DNP



**Cenex Pipeline, LLC  
Refined Fuels Pipeline**



- Legend**
- Schools - 500' Avoidance
  - Missile Site - 1200' Exclusion
  - Residential/Commercial Building - 500' Avoidance
  - Study Area
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**Exclusion & Avoidance**

1 inch = 1,500 feet  
Created Date: 2/28/2017

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Created By: DNP



**Cenex Pipeline, LLC  
Refined Fuels Pipeline**

**Legend**

- Schools - 500' Avoidance
- Missile Site - 1200' Exclusion
- Residential/Commercial Building - 500' Avoidance
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- Potential Dakota Skipper Habitat
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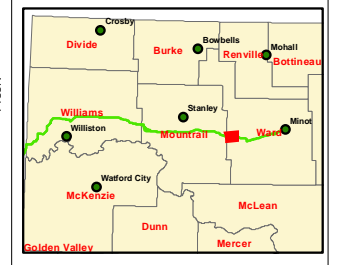
**Exclusion & Avoidance**

1 inch = 1,500 feet  
Created Date: 2/28/2017

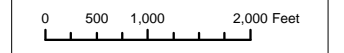
Page 31 of 39  
Created By: DNP



**Cenex Pipeline, LLC  
Refined Fuels Pipeline**



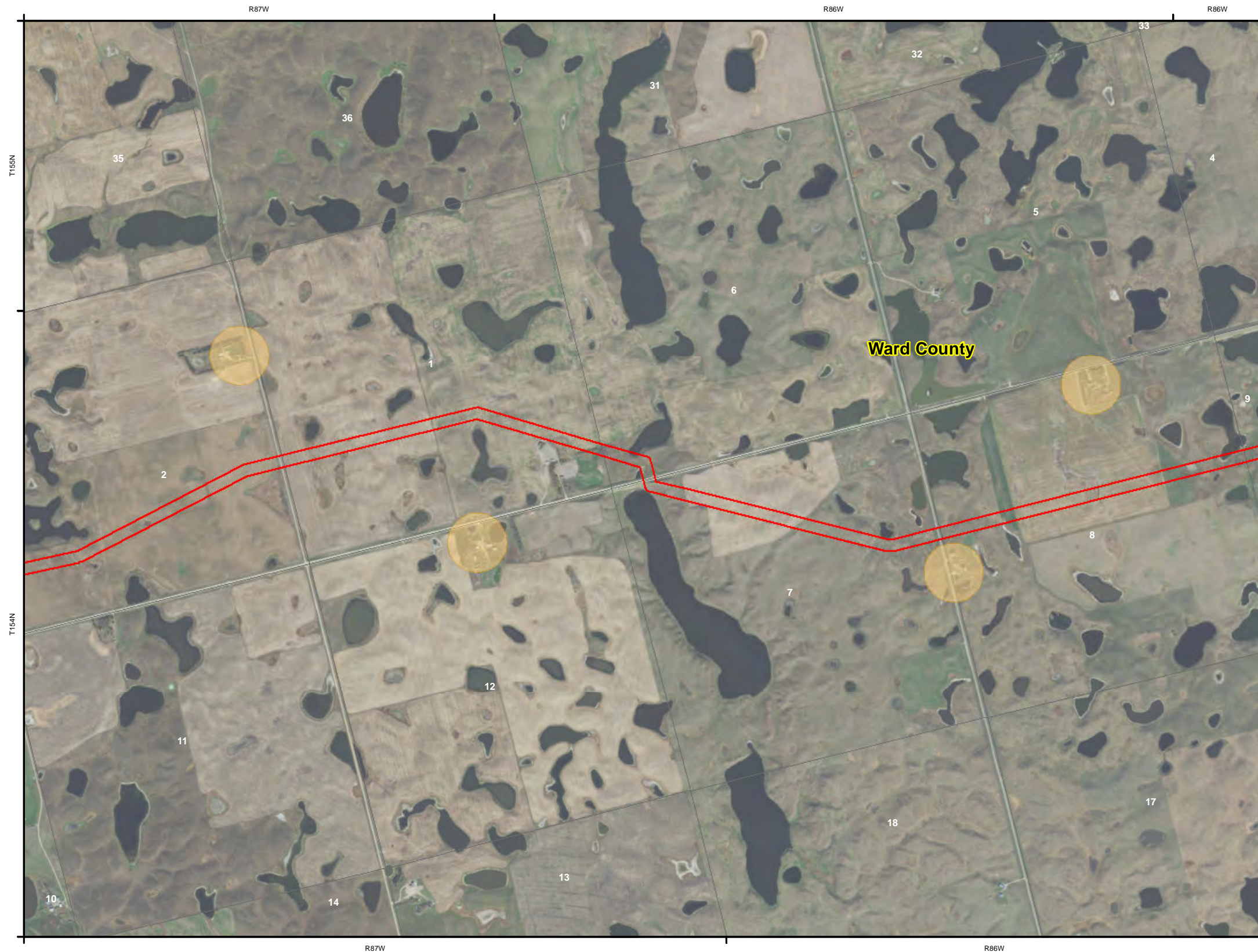
- Legend**
- Schools - 500' Avoidance
  - Missile Site - 1200' Exclusion
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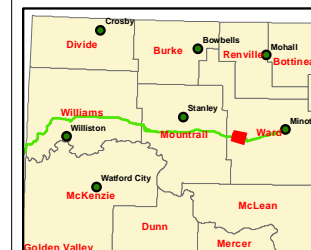
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1 inch = 1,500 feet  
Created Date: 2/28/2017  
Page 32 of 39  
Created By: DNP

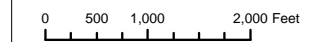


**Cenex Pipeline, LLC  
Refined Fuels Pipeline**



**Legend**

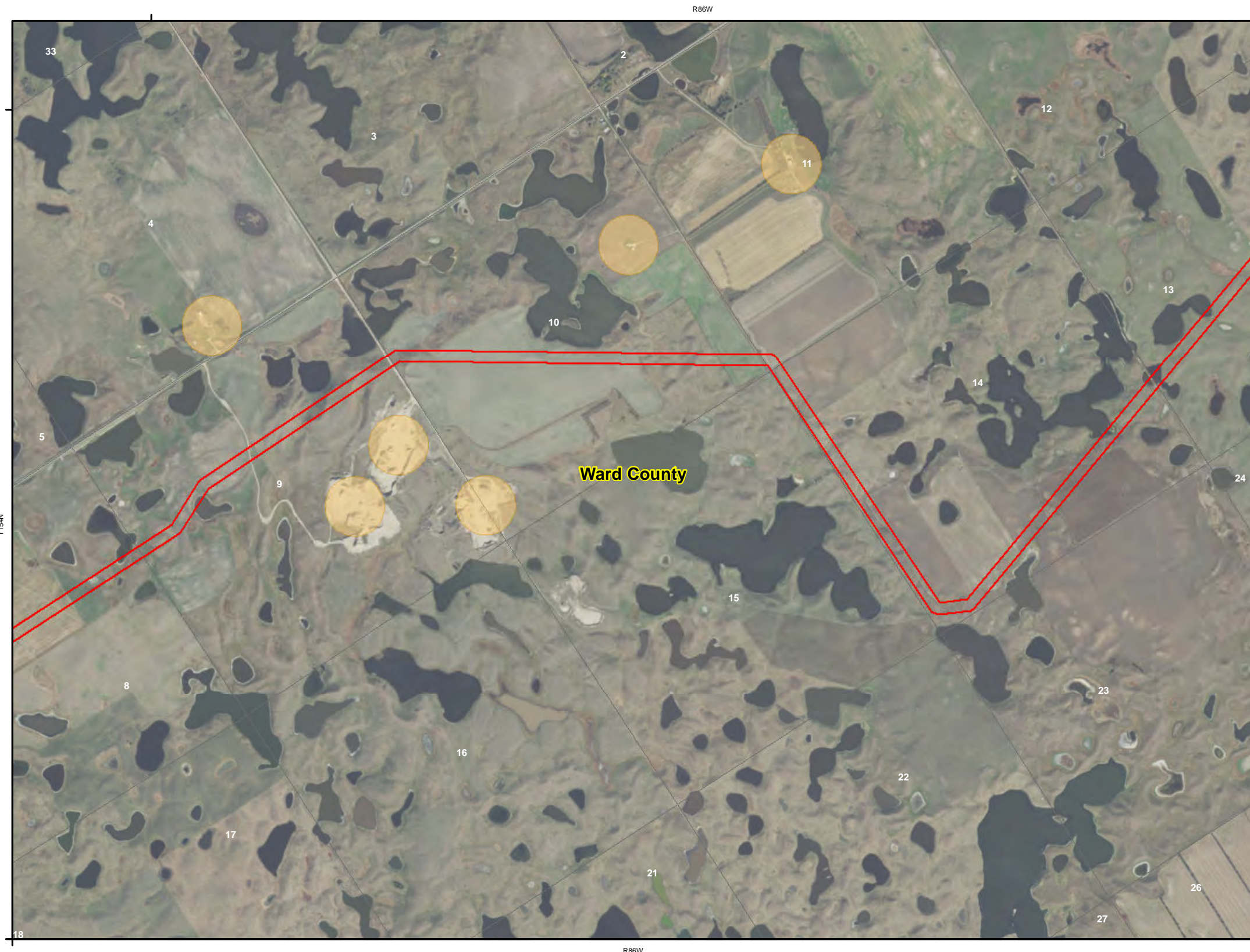
- Schools - 500' Avoidance
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- Study Area
- Potential Dakota Skipper Habitat
- Historic Landslide Areas



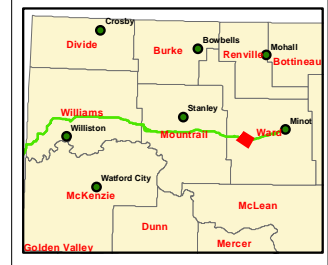
**Exclusion & Avoidance**



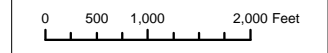
1 inch = 1,500 feet  
Created Date: 2/28/2017  
Page 33 of 39  
Created By: DNP



### Cenex Pipeline, LLC Refined Fuels Pipeline



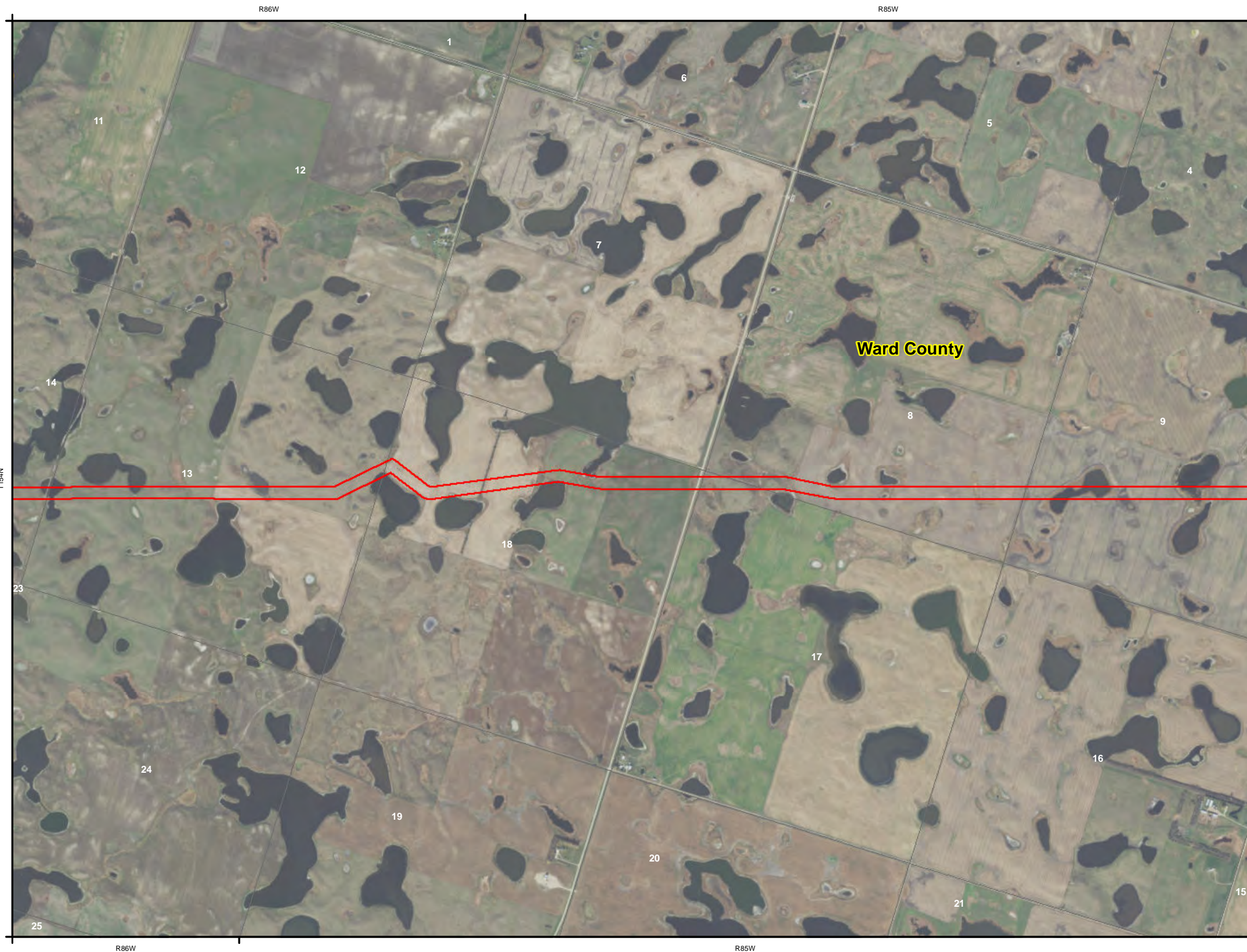
- Legend**
- Schools - 500' Avoidance
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#### Exclusion & Avoidance



1 inch = 1,500 feet  
Created Date: 2/28/2017  
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Created By: DNP



### Cenex Pipeline, LLC Refined Fuels Pipeline

**Legend**

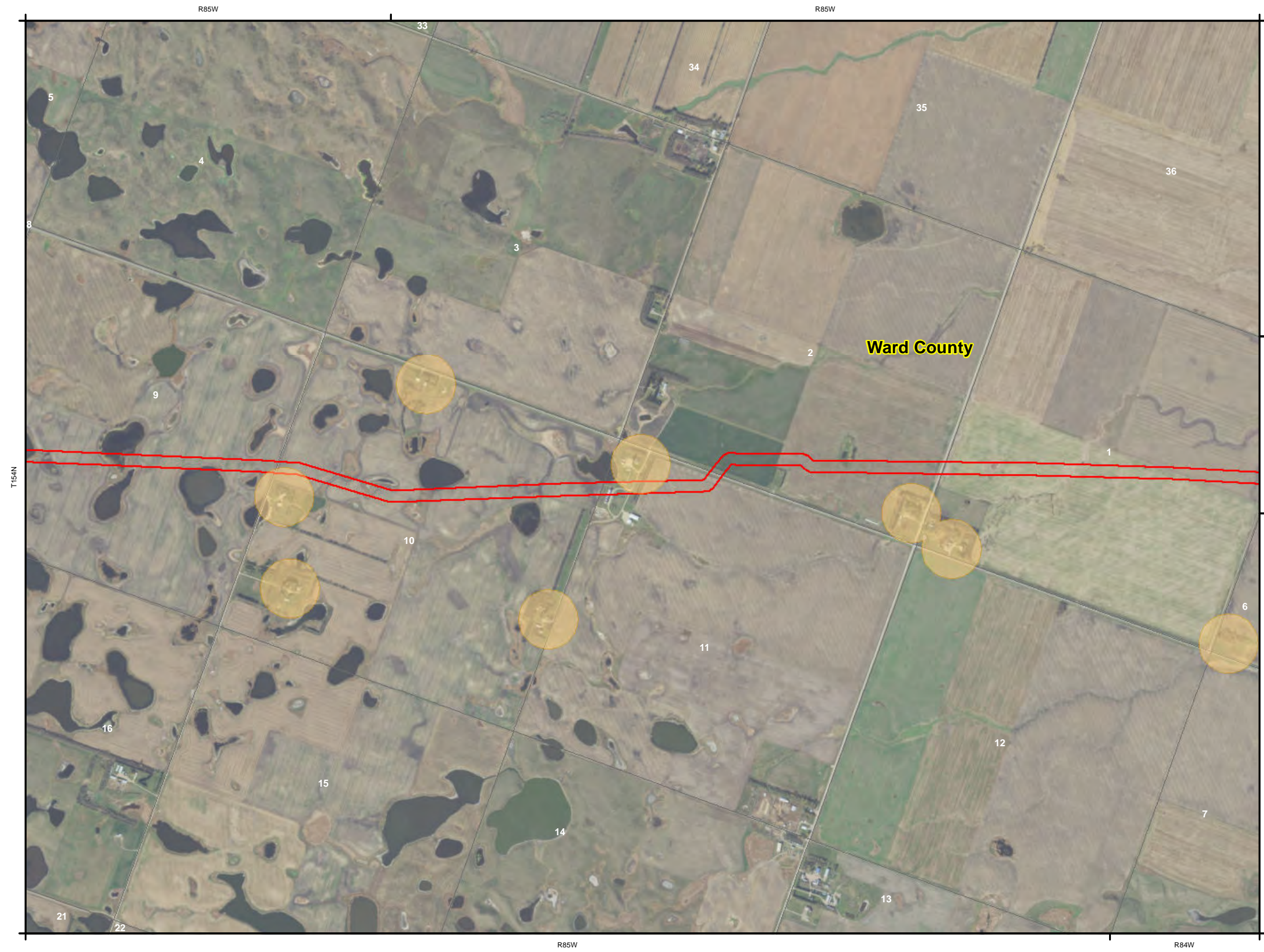
- Schools - 500' Avoidance
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- Residential/Commercial Building - 500' Avoidance
- Study Area
- Potential Dakota Skipper Habitat
- Historic Landslide Areas

0 500 1,000 2,000 Feet

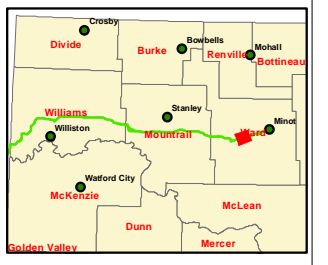
**Exclusion & Avoidance**

1 inch = 1,500 feet  
Created Date: 2/28/2017

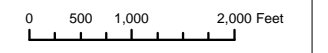
Page 35 of 39  
Created By: DNP



**Cenex Pipeline, LLC  
Refined Fuels Pipeline**



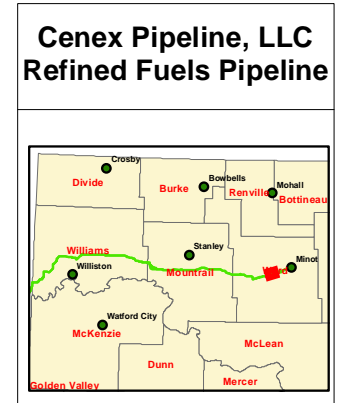
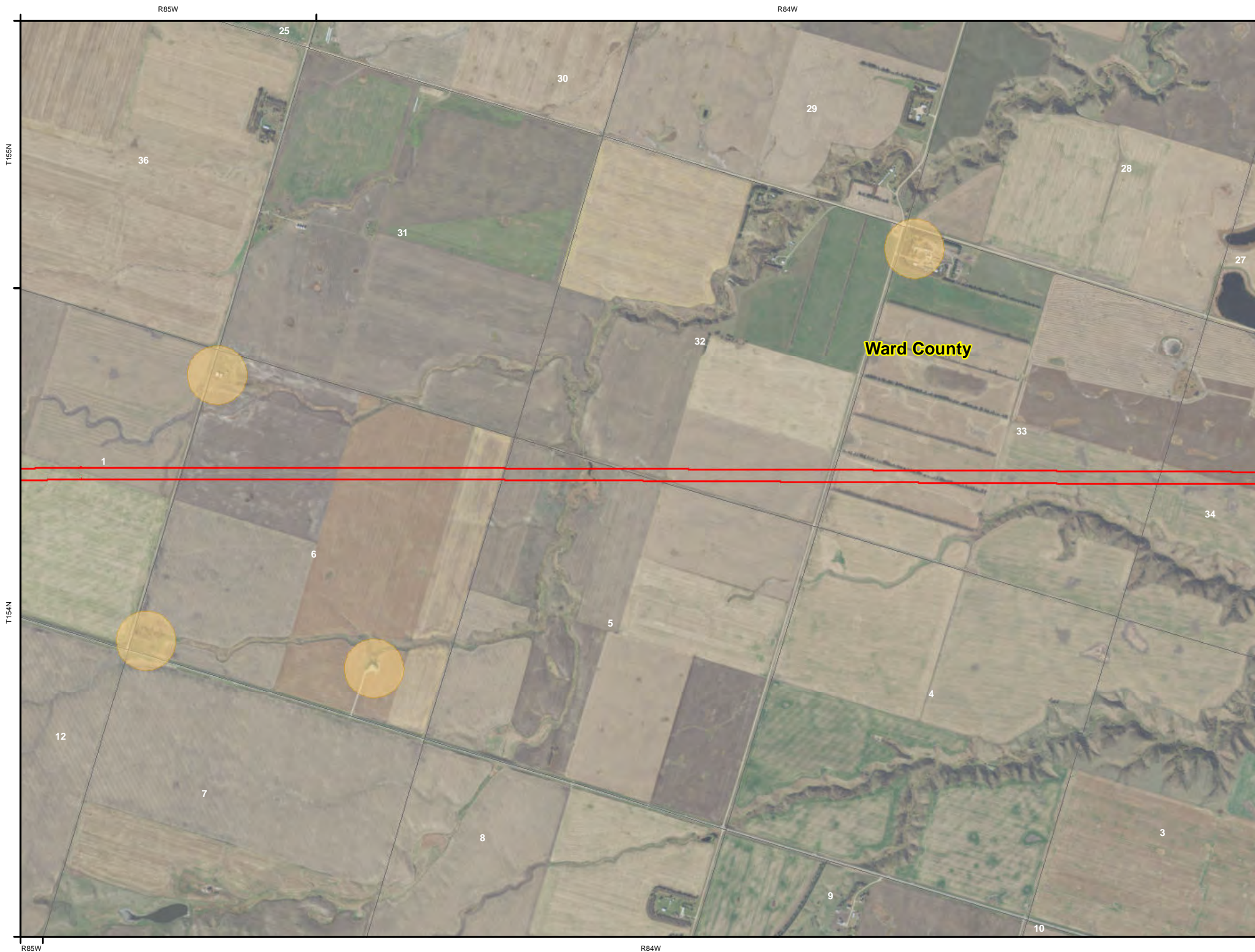
- Legend**
- Schools - 500' Avoidance
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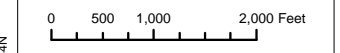
**Exclusion & Avoidance**



1 inch = 1,500 feet  
Created Date: 2/28/2017  
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Created By: DNP



- #### Legend
- Schools - 500' Avoidance
  - Missile Site - 1200' Exclusion
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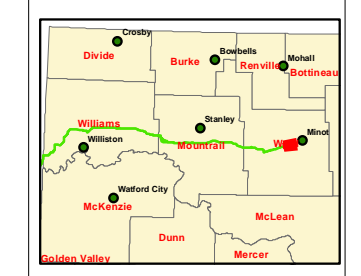
#### Exclusion & Avoidance



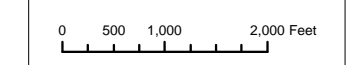
1 inch = 1,500 feet  
Created Date: 2/28/2017  
Page 37 of 39  
Created By: DNP



### Cenex Pipeline, LLC Refined Fuels Pipeline



- Legend**
- Schools - 500' Avoidance
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  - Historic Landslide Areas



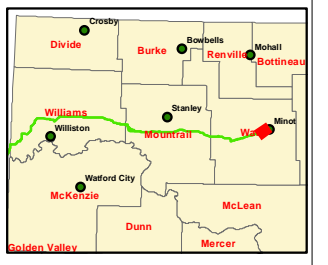
#### Exclusion & Avoidance

1 inch = 1,500 feet  
Created Date: 2/28/2017

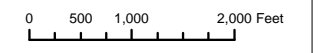
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Created By: DNP



**Cenex Pipeline, LLC  
Refined Fuels Pipeline**



- Legend**
- Schools - 500' Avoidance
  - Missile Site - 1200' Exclusion
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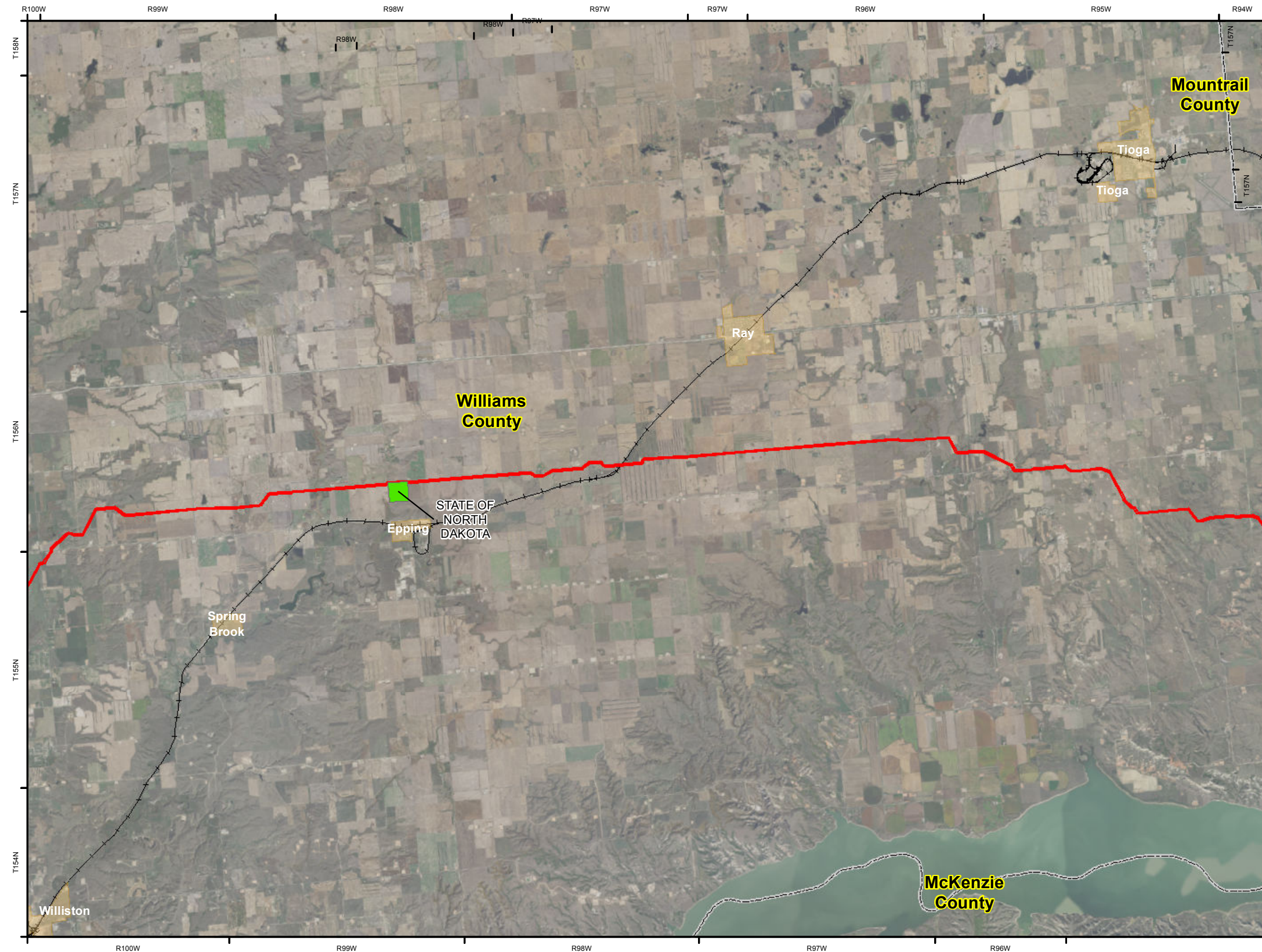
**Exclusion & Avoidance**



1 inch = 1,500 feet  
Created Date: 2/28/2017  
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Created By: DNP

Figure A-5. Land Ownership and Designations





### Cenex Pipeline, LLC Refined Fuels Pipeline

**Legend**

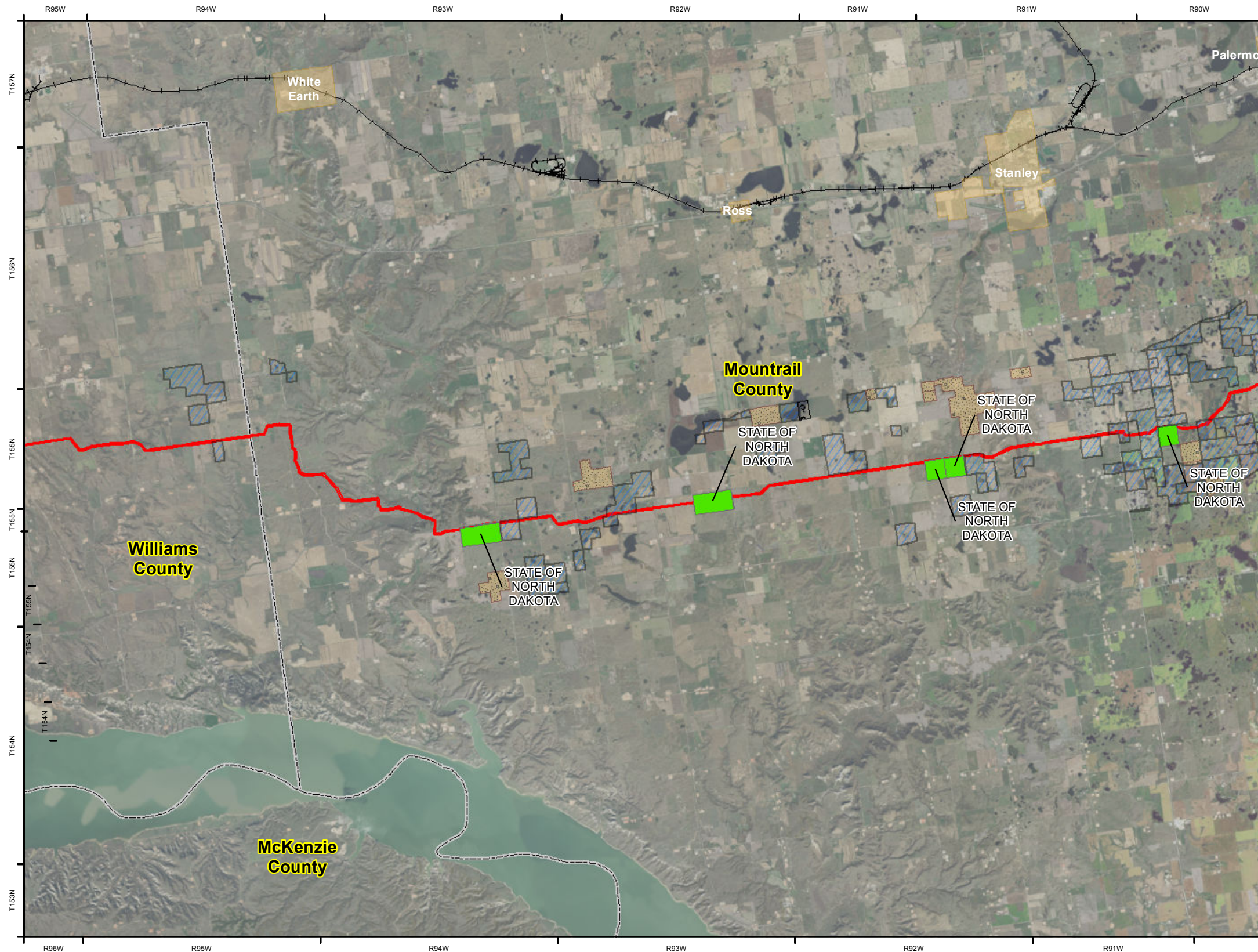
- National Wildlife Refuge
- Waterfowl Production Area
- USFWS Grassland Easement
- USFWS Wetland Easement
- USFWS - OWNED
- STATE OF NORTH DAKOTA
- Survey Area

0 1 2 4 Miles

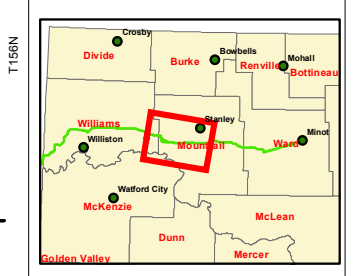
**Land Ownership & Designations**

1 inch = 12,000 feet  
Created Date: 2/22/2017

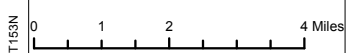
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### Cenex Pipeline, LLC Refined Fuels Pipeline



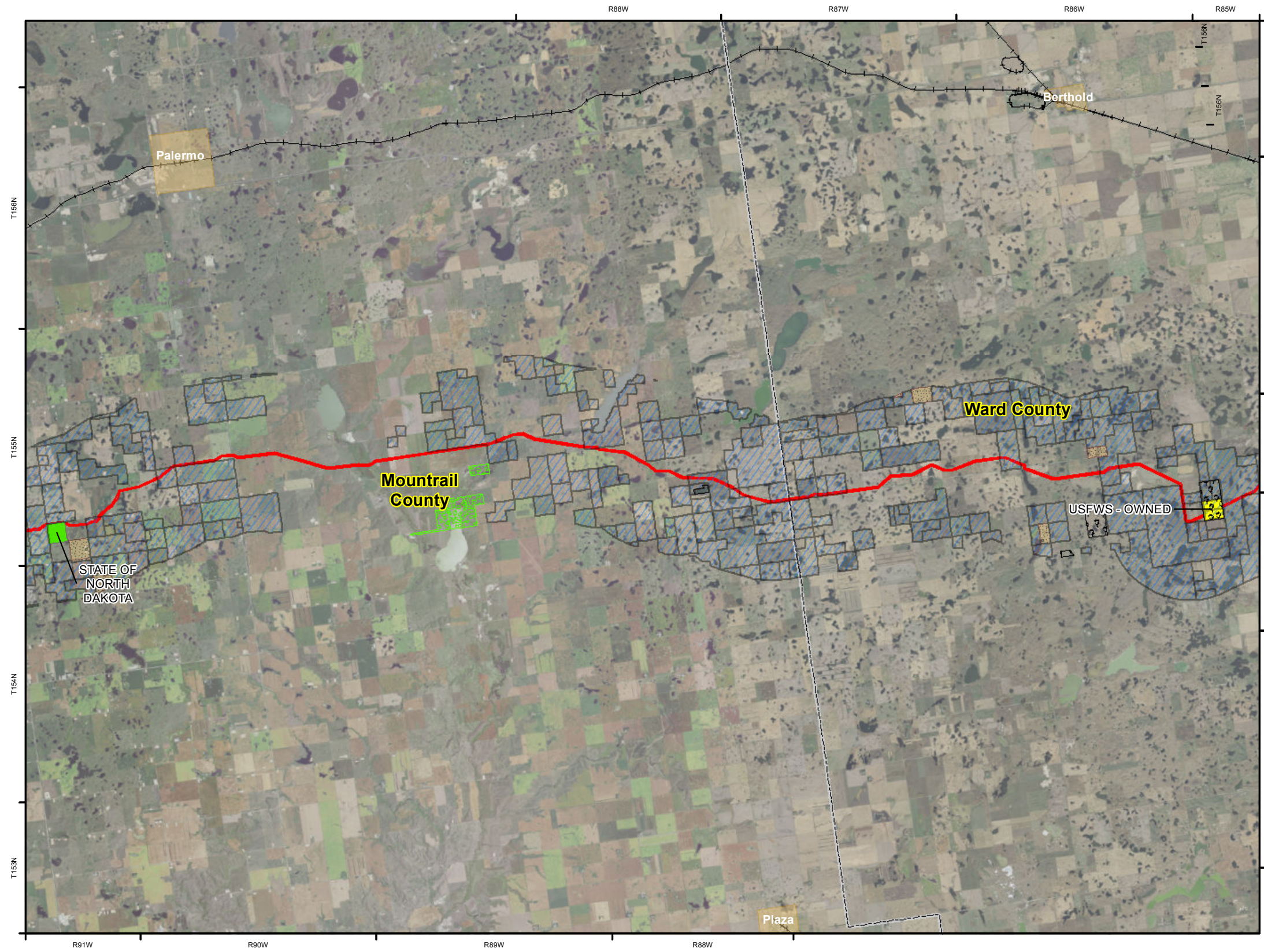
- Legend**
- National Wildlife Refuge
  - Waterfowl Production Area
  - USFWS Grassland Easement
  - USFWS Wetland Easement
  - USFWS - OWNED
  - STATE OF NORTH DAKOTA
  - Survey Area



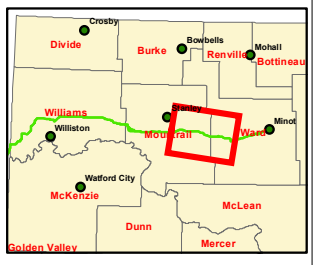
#### Land Ownership & Designations

1 inch = 12,000 feet  
Created Date: 2/22/2017

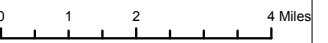
Page 3 of 5  
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**Cenex Pipeline, LLC  
Refined Fuels Pipeline**



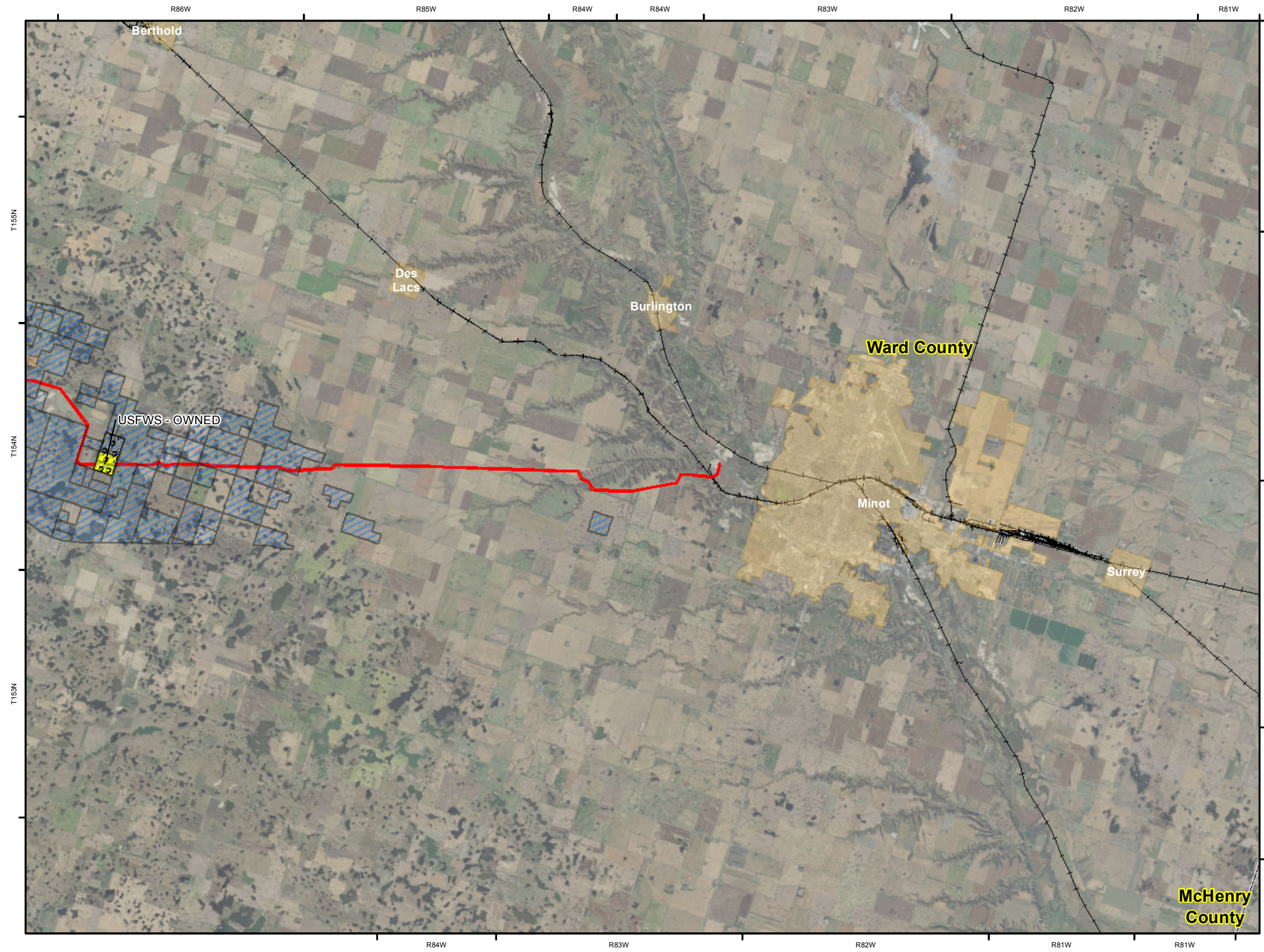
- Legend**
- National Wildlife Refuge
  - Waterfowl Production Area
  - USFWS Grassland Easement
  - USFWS Wetland Easement
  - USFWS - OWNED
  - STATE OF NORTH DAKOTA
  - Survey Area



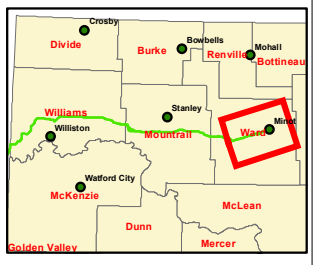
**Land Ownership & Designations**



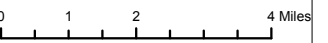
1 inch = 12,000 feet  
Created Date: 2/22/2017  
Page 4 of 5  
Created By: DNP



**Cenex Pipeline, LLC  
Refined Fuels Pipeline**



- Legend**
- National Wildlife Refuge
  - Waterfowl Production Area
  - USFWS Grassland Easement
  - USFWS Wetland Easement
  - USFWS - OWNED
  - STATE OF NORTH DAKOTA
  - Survey Area



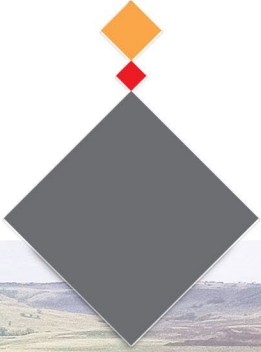
**Land Ownership & Designations**



1 inch = 12,000 feet  
Created Date: 2/22/2017  
Page 5 of 5  
Created By: DNP



# Appendix B. Scoping Package





4585 Coleman Street  
PO Box 1157  
Bismarck, ND 58502-1157  
701 355 8400  
kljeng.com



May 26, 2016

«CTitle» «First» «Last»  
«Title»  
«Department»  
«Agency»  
«Address»  
«City», «State» «Zip»

Re: Cenex Pipeline, LLC  
Refined Fuels Pipeline  
Richland and Roosevelt Counties, Montana, and Williams, Mountrail, and Ward Counties,  
North Dakota

«GreetingLine»

On behalf of Cenex Pipeline, LLC (Cenex), KLJ is preparing an application in response to requirements of the North Dakota Energy Conversion and Transmission Facility Siting Act for the North Dakota Public Service Commission. The application is for the development of a refined fuels pipeline to be located in Richland and Roosevelt counties, Montana, and Williams, Mountrail, and Ward counties, North Dakota. ***Please refer to the enclosed Project Location Map.***

The proposed project consists of constructing an approximate 170-mile-long, 10-inch-diameter refined fuels pipeline from Sidney, Montana, to Minot, North Dakota. The pipeline would connect to an existing Cenex pipeline located southwest of Sidney and extend to the Cenex tank farm located west of Minot. The proposed pipeline would increase the current available capacity for transporting refined fuels and aid in meeting increased demand in western North Dakota.

Construction and commercial operation is anticipated to commence in 2017. No federal funding is anticipated for the proposed project.

To ensure impacts on environmental, cultural, socioeconomic, and human-made resources are considered in the development of the project, we are soliciting your views and comments on the proposed project. We are particularly interested in any property your department may own or have an interest in within the project area. We would also appreciate being notified of any proposed development your department may be contemplating in the project area. Any information that might help us in our study would be appreciated.



It is requested that any comments or information be forwarded to KLJ on or before June 27, 2016. If you have any questions or need further information related to the project, please contact me at (701) 355-8726 or [grady.wolf@kljeng.com](mailto:grady.wolf@kljeng.com).

Thank you for your time and cooperation.

Sincerely,

KLJ

Grady Wolf  
Environmental Scientist

Enclosure(s): Project Location Map

\*\*Save as new file for each project and edit accordingly with project specific contacts\*\*

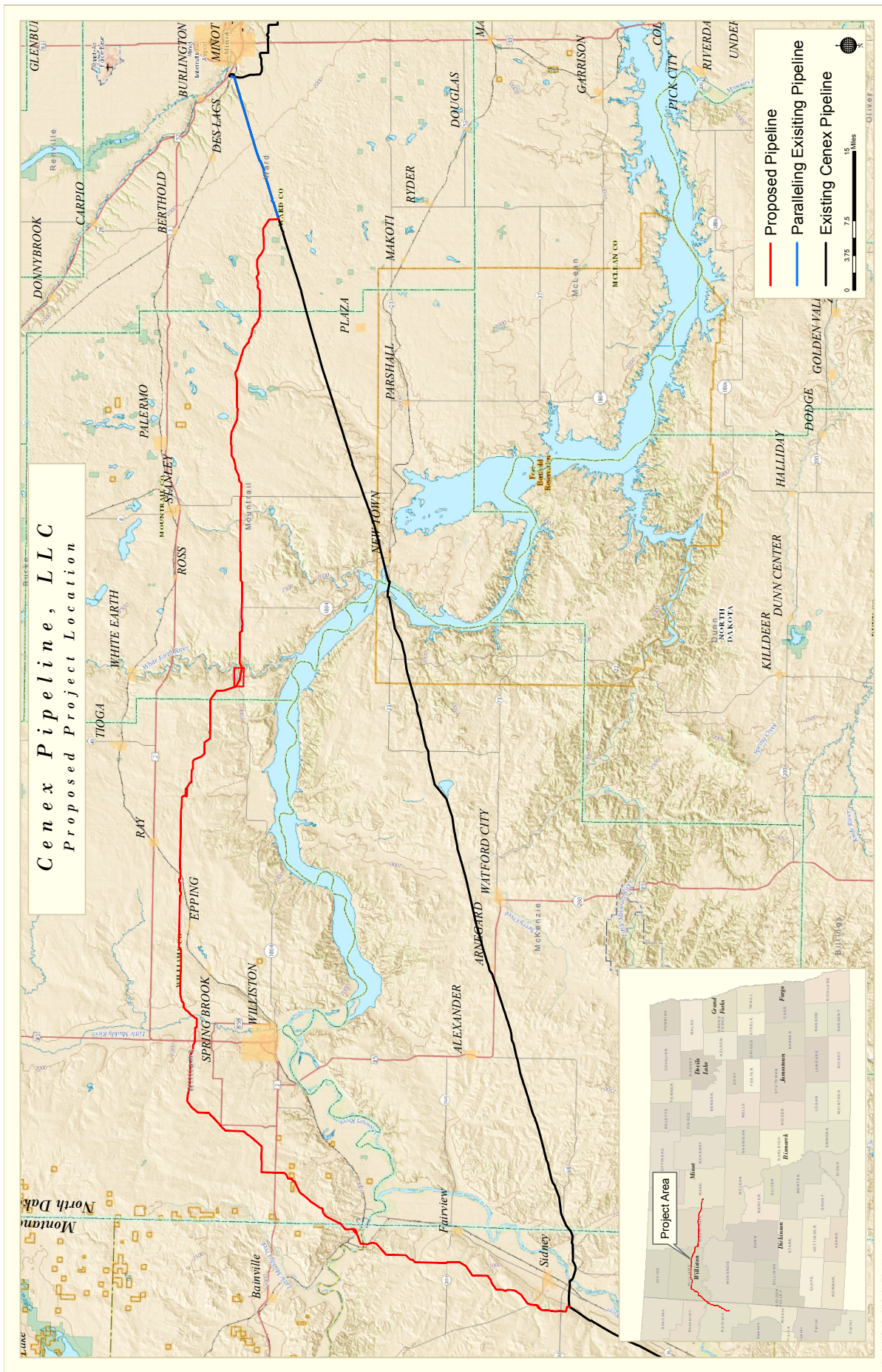
[Project Name] SOV LIST

Type	CTitle	First	Last	Title	Department	Agency	Address	City	State	Zip	Phone	Fax	Response Recd	Date Edited
FEDERAL	Mr	Eric	Wiche	Director	Water Resources Division	US Geological Survey	821 E Interstate Avenue	Bismarck	ND	58505-1159	701-250-7401	701-250-7492		06/04/15
FEDERAL	Mr	Greg	Schmitt, P. E.	Chief Missile Engineering	Missile	Missouri Air Force Base	3201 Paragalegar Place	Bismarck	ND	58705				09/03/13
FEDERAL	Mr	Cy	Munoz	Cable Affairs Office		Missouri Air Force Base	300 Minuteman Drive	Bismarck	ND	58705				06/04/15
FEDERAL	Mr	Bill	Davis	Rural Development		US Department of Agriculture	P.O. Box 1737	Bismarck	ND	58501-1737	701-530-2037	701-530-2111		06/04/15
FEDERAL	Mr	Kevin	Shelley	Field Supervisor		US Fish & Wildlife Service	3425 Miriam Avenue	Bismarck	ND	58501-1726	701-530-4481	701-535-5613		06/04/15
FEDERAL	Mrs	Patricia	Mouquey	Manager	ND Regulatory Office	US Army Corps of Engineers	1513 S 12th Street	Bismarck	ND	58504	701-235-0015			06/04/15
FEDERAL	Mr	Ted	Shedokus	Chief of Programs and Project Management	Omnika District	US Army Corps of Engineers	1616 Capital Avenue	Omnika	NE	68102-4901	402-995-2417		06/26/16	03/15/16
FEDERAL	Ms	Lynette	LaPointe	Missouri	Bismarck Omnika District Office	Federal Aviation Administration	2201 University Drive, Bldg. 23B	Bismarck	ND	58504	701-323-7381	701-323-7359		10/02/12
FEDERAL	Mr	Timothy	LaPointe	Regional Director	Great Plains Area Office	Bureau of Reclamation	1154th Avenue, SE, Suite 400	Bismarck	SD	57401	605-226-1343	605-226-7446		06/04/15
FEDERAL	Mr	David	Rosenkrantz	Manager	Dakotas Area Office	Bureau of Reclamation	304 E Broadway Avenue	Bismarck	ND	58501	701-250-2422		06/11/16	06/04/15
FEDERAL	Ms	Mary	Podol	State Conservationist	Railroad Policy and Development	Federal Railroad Administration	1200 New Jersey Avenue SE	Washington	DC	20590				06/04/15
FEDERAL	Mr	Gerald	Paulson	Director, Transmission Lines and Substations	Western Area Power Admin.	US Department of Energy	707 N Bismarck Expressway	Bismarck	ND	58501	701-221-4500			06/04/15
FEDERAL	Mr	Heidi	Heikamp	Senator	U.S. Senate	U.S. Senate	220 E Rosser Avenue 238	Bismarck	ND	58501	701-238-6488	701-254-1254		02/11/13
FEDERAL	Senator	John	Hoveen	Congressman	U.S. Senate	U.S. Senate	220 E Rosser Avenue 312	Bismarck	ND	58501	701-250-4618	701-250-4484		02/11/13
FEDERAL	Congressman	Kevin	Cramer	Congressman	U.S. House of Representatives	U.S. House of Representatives	220 E Rosser Avenue 328	Bismarck	ND	58501	701-224-0355	701-224-0031		02/11/13
STATE	Mr	Kyle	Warner	Director		ND Aeronautics Commission	P.O. Box 5020	Bismarck	ND	58505-5020	701-328-2110			06/04/15
STATE	Mr	Wayne	Shenham	Atorney General		Office of Attorney General	600 E Boulevard Avenue, Dept. 125	Bismarck	ND	58505	701-328-2110			06/04/15
STATE	Mr	Doug	Goehring	Agriculture Commissioner		ND Department of Agriculture	600 E Boulevard Avenue, Dept. 602	Bismarck	ND	58505-0020	701-328-1754	701-328-4567		06/04/15
STATE	Mr	Dave	Gleit	Chief	Environmental Health Section	ND Department of Health	916 E Divide Avenue	Bismarck	ND	58501-1947	701-328-5151	701-328-5020		06/04/15
STATE	Ms	Maggie	Anderson	Executive Director		Department of Human Services	600 E Boulevard Avenue, Dept. 395	Bismarck	ND	58505-0590	701-328-2310	701-328-2265		06/04/15
STATE	Mr	Troy	Shelby	Commissioner of Labor		Department of Labor	600 E Boulevard Avenue, Dept. 405	Bismarck	ND	58505-0590	701-328-2800			06/04/15
STATE	Mr	Scott	of Madison			Career and Technical Education	600 E Boulevard Avenue, 15th Floor, Dept. 700	Bismarck	ND	58505-0510	701-328-3180			06/04/15
STATE	Mr	Phyl	LUCY	Director	Department of Vocational Education		1600 E Century Avenue, Suite 2	Bismarck	ND	58503	701-328-3388			06/04/15
STATE	Mr	Lance	Gaube	Director	Economic Development and Finance Commission		P.O. Box 5523	Bismarck	ND	58505-5523	701-328-3650			06/04/15
STATE	Mr	Steve	Dye	Supervisor	Conservation Section	ND Game & Fish Department	100 N Bismarck Expressway	Bismarck	ND	58501-5095	701-328-6347	701-328-6352		06/27/11
STATE	Mr	Jack	Daymyle	Governor		Office of the Governor	600 E Boulevard Avenue	Bismarck	ND	58505-0100	701-328-2200	701-328-2205		06/04/15
STATE	Mr	Joel	WIR	District Engineer	Williston District	ND Department of Transportation	605 E Boulevard Avenue	Bismarck	ND	58505-0700	701-328-2500			06/04/15
STATE	Mr	Jim	Reading	District Engineer	Minot District	ND Department of Transportation	1305 Highway 2 Bypass East	Minot	ND	58701-7922				06/04/15
STATE	Ms	Claudia	Berg	Director	ND State Historical Society	ND State Historical Society	617 E Boulevard Avenue	Bismarck	ND	58505	701-328-2666	701-328-3710		06/04/15
STATE	Mr	Scott	Davis	Executive Director		Indian Affairs Commission	600 E Boulevard Avenue, 1st Floor, P.O. Box 550	Bismarck	ND	58505-0500	701-328-2428	701-328-1537		01/19/11
STATE	Mr	Scott	Davis	Executive Director		Indian Affairs Commission	600 E Boulevard Avenue, 1st Floor, P.O. Box 550	Bismarck	ND	58505-0500	701-328-2428	701-328-1537		01/19/11
STATE	Mr	Scott	Davis	Executive Director		Indian Affairs Commission	600 E Boulevard Avenue, 1st Floor, P.O. Box 550	Bismarck	ND	58505-0500	701-328-2428	701-328-1537		01/19/11
STATE	Mr	Scott	Davis	Executive Director		Indian Affairs Commission	600 E Boulevard Avenue, 1st Floor, P.O. Box 550	Bismarck	ND	58505-0500	701-328-2428	701-328-1537		01/19/11
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STATE	Mr	Scott	Davis	Executive Director		Indian Affairs Commission	600 E Boulevard Avenue, 1st Floor, P.O. Box 550	Bismarck	ND	58505-0500	701-328-2428	701-328-1537		01/19/11
STATE	Mr	Scott	Davis	Executive Director		Indian Affairs Commission	600 E Boulevard Avenue, 1st Floor, P.O. Box 550	Bismarck	ND	58505-0500	701-328-2428			

\*\*Save as new file for each project and edit accordingly with project specific contacts\*\*

[Project Name] SOV LIST

Type	CTitle	First	Last	Title	Department	Agency	Address	City	State	Zip	Phone	Fax	Response Rec'd	Date Edited
Township	Mr	Joe	Tompow	Supervisor CH	Pierin Township	Williams County	5451 134th Ave NW	Williston	ND	58801	701-572-0661			
Township	Mr	Robert	Heide	Supervisor CH	Springbrook Township	Williams County	12405 55th St NW	Williston	ND	58801	701-859-5171			
Township	Mr	Keith	Johnson	Supervisor CH	Brooklyn Township	Williams County	5883 120th Ave NW	Williston	ND	58801	701-859-3501			
Township	Mr	Marty	Leiser	Supervisor CH	View Township	Williams County	5889 112th Ave NW	Williston	ND	58801	701-568-3882			
Township	Mr	Paul	Anderson	Supervisor CH	Farmale Township	Williams County	10565 56th St NW	Williston	ND	58801	701-664-2737			
Township	Mr	Darryl	Bengstrom	Supervisor CH	Dry Fork Township	Williams County	5972 102c Ave NW	Williston	ND	58801	701-664-3484			
Township	Mr	Rick	Stensson	Supervisor CH	East Fork Township	Williams County	5923 Spruce Creek Dr	Williston	ND	58801	701-672-7881			
Township	Mr	Tom	Wagner	Supervisor CH	Ward County	Williams County	6449 120th Ave NW	Williston	ND	58801	701-568-5666			
Township	Mr	Tom	Davies	Supervisor CH	Wheatland Township	Williams County	11382 26th St NW	Williston	ND	58801	701-568-2468			
Township	Mr	Phil	Weyrauch	Supervisor CH	West Bank Township	Williams County	11024 60th St NW	Williston	ND	58801	701-568-3889			
Township	Mr	Robert	Sheldon	Supervisor CH	West Bank Township	Williams County	11024 60th St NW	Williston	ND	58801	701-568-3889			
Township	Mr	John	Hessel	Supervisor CH	Prassart Valley Township	Williams County	6522 102c Ave NW	Williston	ND	58801	701-664-3502			
Township	Mr	Tom	Littelfield	Chairman	Howell Township	Mountrail County	8649 34th Street NW	New Town	ND	58763	701-627-4381			
Township	Mr	Judy	Snyder	Chairman	Van Hook Township	Mountrail County	4096 81st Avenue NW	New Town	ND	58770	701-627-4351			
Township	Mr	Rodney	Frink	Chairman	Steel Township	Mountrail County	4340 70th Avenue NW	Prasahl	ND	58770	701-862-3636			
Township	Mr	Kevin	Timm	Supervisor	Afton Township	Ward County	225 Third Street SE	Minto	ND	58702	701-866-7859			
Township	Mr	Dirk	Mikelson	Supervisor	Burl Township	Ward County	225 Third Street SE	Minto	ND	58702	701-722-3307			
Township	Mr	Brian	Bahr	Supervisor	Olgen Township	Ward County	225 Third Street SE	Minto	ND	58702	701-722-3307			
Township	Mr	Robert	Wagner	Supervisor	Sheep Township	Ward County	225 Third Street SE	Minto	ND	58702	701-722-3307			
Township	Mr	Mike	Shay	Supervisor	Sheep Township	CHS-Cenex Pipeline, LLC	881 Higgins 212 South	Central	MT	59044	701-497-5810			





Jack Dalrymple, Governor  
Mark A. Zimmerman, Director

1600 East Century Avenue, Suite 3  
Bismarck, ND 58503-0649  
Phone 701-328-5357  
Fax 701-328-5363  
E-mail [parkrec@nd.gov](mailto:parkrec@nd.gov)  
[www.parkrec.nd.gov](http://www.parkrec.nd.gov)

December 15, 2015

Ms Jennifer Davis  
Kadmas Lee & Jackson  
2969 Airport Road, Suite 1B  
Helena, MT 59624-1567

Re: CHS Pipeline Route

Dear Ms. Davis:

The North Dakota Parks and Recreation Department has reviewed the above referenced CHS Pipeline Route in North Dakota

Our agency scope of authority and expertise covers recreation and biological resources (in particular rare plants and ecological communities). The project as defined does not affect state park lands that we manage but or affect state Land and Water Conservation Fund (LWCF) project sites that we manage.

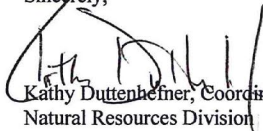
The North Dakota Natural Heritage biological conservation database has been reviewed to determine if any plant or animal species of concern or other significant ecological communities are known to occur within an approximate one-mile radius of the project area. Based on this review, we several species of concern documented within sections and in adjacent sections to project area. Please see the attached spreadsheet and map for more information on these occurrences.

Because this information is not based on a comprehensive inventory, there may be species of concern or otherwise significant ecological communities in the area that are not represented in the database. The lack of data for any project area cannot be construed to mean that no significant features are present. The absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks natural heritage resources.

Regarding any reclamation efforts, we recommend that any impacted areas be revegetated with species native to the project area.

We appreciate your commitment to rare plant, animal and ecological community conservation, management and inter-agency cooperation to date. For additional information please contact me at (701-328-5370 or [kgduttonhefner@nd.gov](mailto:kgduttonhefner@nd.gov)). Thank you for the opportunity to comment on this proposed project.

Sincerely,

  
Kathy Duttonhefner, Coordinator  
Natural Resources Division

R.USNDNHI\*2015\_120KD12/15/2015DL12.15.2015

.....  
*Play in our backyard!*



North Dakota Natural Heritage Inventory  
Rare Animal and Plant Species and Significant Ecological Communities

State Scientific Name	State Common Name	State Rank	Global Rank	Federal Status	Township Range Section	County	Last Observation	Estimated Representation Accuracy	Precision
<i>Astragalus drummondii</i>	Drummond's Milkvetch	S1	G5		153N104W - 25; 153N103W - 31; 153N103W - 30; 153N104W - 26; 153N103W - 19; 153N104W - 24; 153N104W - 36; 153N103W - 32; 153N104W - 35; 153N103W - 29; 153N104W - 23	Williams	1982-06-16		M
<i>Calamagrostis stricta</i> - <i>carex sartwellii</i> - <i>c. praegracilis</i> wet meadow	Brackish Wet Meadow	S2S3	GNR		155N094W - 25 155N095W - 30; 155N095W - 31; 154N095W - 09; 154N095W - 06; 156N096W - 26; 155N095W - 15; 156N096W - 25; 156N095W - 34; 156N096W - 24; 154N095W - 05; 156N096W - 34; 155N096W - 09; 154N095W - 02; 155N095W - 18; 156N095W - 32; 155N096W - 08; 155N095W - 02	Mountrail	1987-07-02		S
<i>Carex athrostachya</i>	Jointed-spike Sedge	S3	G5			Williams	1970-07-30		G
<i>Charadrius melodus</i>	Piping Plover	S1S2	G3	LE,LT	155N088W - 25	Mountrail	1996-06-07	Medium	S
<i>Charadrius melodus</i>	Piping Plover	S1S2	G3	LE,LT	156N090W - 20	Mountrail	1996-06-10	Medium	S
<i>Distichlis spicata</i> - <i>hordeum jubatum</i> /puccinellia nuttalliana saline meadow	Saltgrass Saline Meadow	S2S3	GNR		154N089W - 04; 155N089W - 20; 155N089W - 31; 154N089W - 22; 155N090W - 25; 155N089W - 10; 154N089W - 05; 154N089W - 12; 154N089W - 23; 154N089W - 28; 155N090W - 24; 155N090W - 35; 155N088W - 31; 155N089W - 21; 154N089W - 33; 155N089W - 34; 154N089W - 15	Mountrail	1991-07-11		G
<i>Macrhybopsis meeki</i>	Sicklefin Chub	S2	G3		152N104W - 07	McKenzie, Williams	1994-08-04		S
					154N089W - 03; 155N089W - 24; 154N089W - 18; 155N089W - 35; 155N090W - 36; 155N089W - 14; 154N088W - 05; 155N089W - 25; 154N089W - 19; 154N088W - 29; 155N089W - 15; 154N089W - 09; 155N089W - 22; 154N089W - 16; 155N089W - 33; 155N089W - 12; 154N088W - 09				
<i>Pascopyrum smithii</i> - <i>stipa comata</i> prairie	Central Mixed Grass Prairie	S2	GNR		154N089W - 03; 155N089W - 34; 154N089W - 11; 154N088W - 08; 155N089W - 18; 155N089W - 36; 154N089W - 28; 155N089W - 25; 154N089W - 24; 155N090W - 36; 155N089W - 13; 154N090W - 12; 154N088W - 29; 154N090W - 23; 155N088W - 19; 154N088W - 07; 154N089W - 08	Mountrail	1991-07-11		G
Permanent open water	Tawny Crescent	S2	GNR			Mountrail	1991-07-11		G
<i>Phyciodes batesii</i>	Tawny Crescent	S3	G4		155N084W - 24; 155N084W - 25	Ward	1991-06-22		S
<i>Platygobio gracilis</i>	Flathead Chub	SNR	G5		152N104W - 07	McKenzie, Williams	1994-07-07		S
<i>Quercus macrocarpa/prunus virginiana</i> northern ravine woodland	Bur Oak Upland Woodland	S3	GNR		155N094W - 24; 155N094W - 25	Mountrail	1987-09-02		S

North Dakota Natural Heritage Inventory  
Rare Animal and Plant Species and Significant Ecological Communities

State Scientific Name	State Common Name	State Rank	Global Rank	Federal Status	Township Range Section	County	Last Observation	Estimated Representation Accuracy	Precision
River-creek		S1	GNR		154N089W - 10; 155N089W - 24; 154N089W - 18; 155N089W - 35; 155N090W - 36; 153N089W - 01; 154N089W - 23; 154N089W - 08; 154N088W - 16; 155N089W - 32; 154N089W - 26; 154N088W - 06; 154N089W - 09; 154N090W - 01; 154N088W - 19; 154N089W - 27; 154N088W - 09;	Mountrail	1991-07-11		G
Scirpus pungens wetland	Western Three-square Meadow	S1	GNR		155N094W - 26	Mountrail	1987-09-02		S
Wolffia columbiana	Southern Watermeal	S2	G5		154N085W - 10; 154N085W - 14; 154N085W - 01; 154N085W - 11; 155N085W - 35; 154N085W - 02; 154N085W - 12; 154N085W - 04; 154N085W - 09; 154N085W - 15; 154N085W - 03; 155N085W - 34	Ward	1975-11-07		M

### North Dakota Natural Heritage Inventory Biological and Conservation Data Disclaimer

The quantity and quality of data collected by the North Dakota Natural Heritage Inventory are dependent on the research and observations of many individuals and organizations. In most cases, this information is not the result of comprehensive or site-specific field surveys; many natural areas in North Dakota have never been thoroughly surveyed, and new species are still being discovered. For these reasons, the Natural Heritage Inventory cannot provide a definite statement on the presence, absence, or condition of biological elements in any part of North Dakota. Natural Heritage data summarize the existing information known at the time of the request. Our data are continually upgraded and information is continually being added to the database. This data should never be regarded as final statements on the elements or areas that are being considered, nor should they be substituted for on-site surveys.

#### Estimated Representation Accuracy

Value that indicates the approximate percentage of the Element Occurrence Representation (EO Rep) that was observed to be occupied by the species or community (versus buffer area added for locational uncertainty). Use of estimated representation accuracy provides a common index for the consistent comparison of EO reps, thus helping to ensure that aggregated data are correctly analyzed and interpreted.

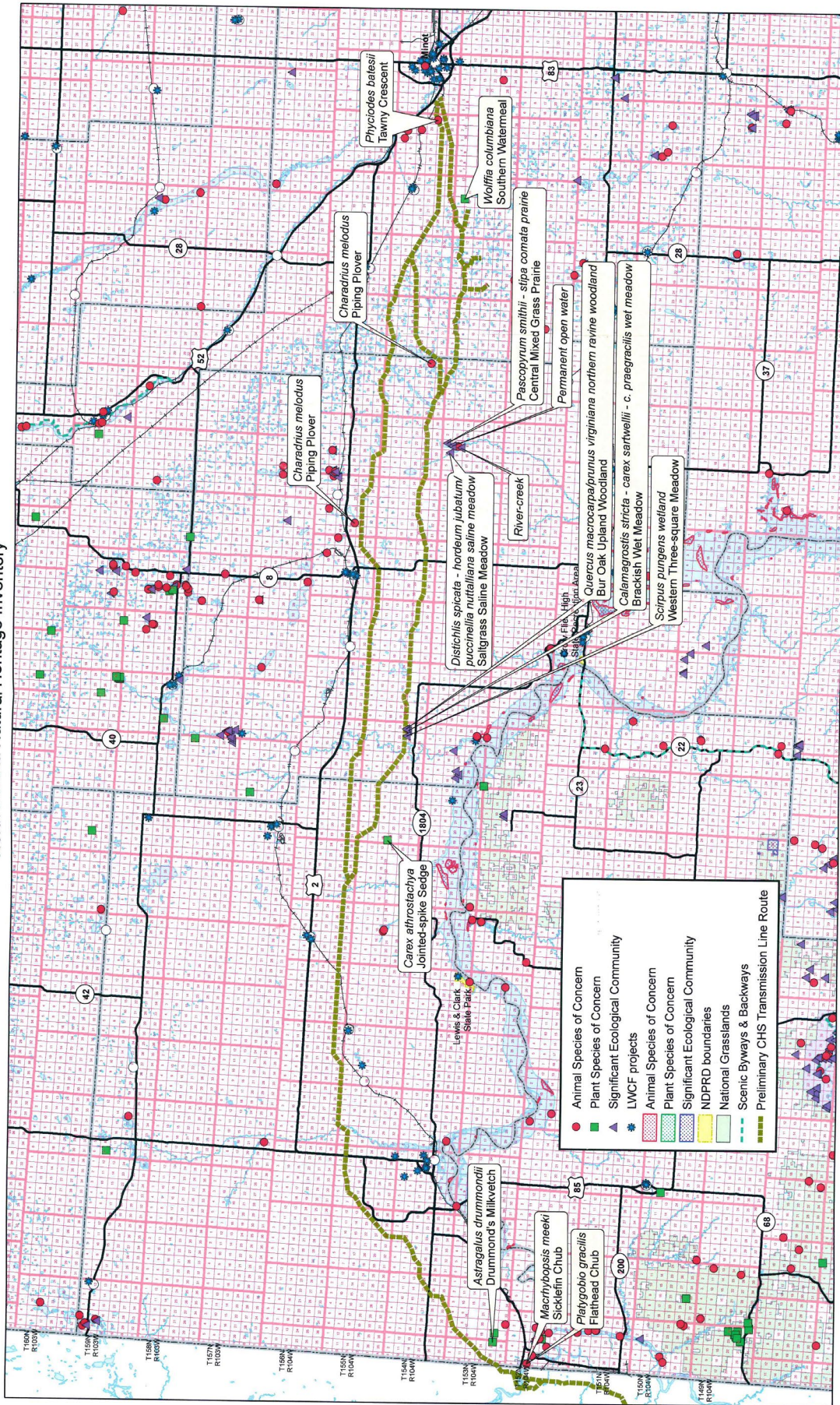
Very high (>95%)  
High (>80%, <= 95%)  
Medium (>20%, <= 80%)  
Low (>0%, <= 20%)  
Unknown  
(null) - Not assessed

#### Precision

A single-letter code for the precision used to map the Element Occurrence (EO) on a U.S. Geological Survey (USGS) 7.5' (or 15') topographic quadrangle map, based on the previous Heritage methodology in which EOs were located on paper maps using dots.

S - Seconds: accuracy of locality mappable within a three-second radius; 100 meters from the centerpoint  
M - Minute: accuracy of locality mappable within a one-minute radius; 2 km from the centerpoint  
G - General: accuracy of locality mappable to map or place name precision only; 8 km from centerpoint  
U - Unmappable

North Dakota Parks and Recreation Department  
North Dakota Natural Heritage Inventory



November 2015



## United States Department of the Interior

BUREAU OF INDIAN AFFAIRS  
Great Plains Regional Office  
115 Fourth Avenue S.E., Suite 400  
Aberdeen, South Dakota 57401

RECEIVED

JUL 18 2016

IN REPLY REFER TO:  
DECRM  
MC-208

JUL 11 2016

Grady Wolf, Environmental Scientist  
KLJ  
Post Office Box 1157  
Bismarck, North Dakota 58502-1157

Dear Mr. Wolf:

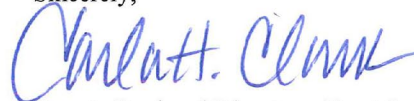
We received your letter regarding the proposed project listed below. We have considered the potential for both environmental damage and impacts to archaeological and Native American religious sites on lands held in trust by the Bureau of Indian Affairs, Great Plains Region. You should be aware; however, that Tribes or Tribal members may have lands in fee status near the sites of interest. These lands would not necessarily be in our databases, and the Tribes should be contacted directly to ensure all concerns are recognized. The action considered has the following notification date and project location:

- April 18, 2016 North Dakota Energy Conversion and Transmission Facility Siting Act for the North Dakota Public Service Commission Richland, Roosevelt, Montana, and Williams, Mountrail, and Ward Counties, North Dakota

We have no environmental objections to the action as long as the project complies with all pertinent laws and regulations. Questions regarding environmental opinions and conditions can be addressed to Kodi Augare-Estey, Environmental Protection Specialist, at (605) 226-7656.

We also find that the listed action will not affect cultural resources on Tribal or individual landholdings for which we are responsible. Methodologies for the treatment of cultural resources now known or yet to be discovered – particularly human remains – must nevertheless utilize the best available science in accordance with provisions of the Native American Graves Protection and Repatriation Act, the Archaeological Resources Protection Act of 1979 (as amended), and all other pertinent legislation and implementing regulations. Archaeological concerns can be addressed to Dr. Carson N. Murdy, Regional Archaeologist, at (605) 226-7656.

Sincerely,



Deputy Regional Director – Trust Services

**From:** [Grady Wolf](#)  
**To:** [Ashley Ross](#)  
**Subject:** FW: Proposed Cenex Pipeline  
**Date:** Wednesday, May 11, 2016 4:21:57 PM  
**Attachments:** [Canal\\_Crossing\\_Guidance.pdf](#)

---

See correspondence from BLM below and attached.

Grady Wolf  
701-355-8726

**From:** Baumberger, Jeffrey [mailto:jbaumberger@usbr.gov]  
**Sent:** Wednesday, May 11, 2016 3:45 PM  
**To:** Grady Wolf <Grady.Wolf@kljeng.com>  
**Subject:** Re: Proposed Cenex Pipeline

Grady - the maps you provided are good and give me a better understanding where the proposed pipeline will be located. As suspected, I have verified that the land near the canal outfall is not Reclamation land and we only have an easement. So, we will need to issue Cenex Pipeline an Acknowledgement of Easement crossing. Further, I don't envision any environmental, cultural, or socioeconomic impacts associated with the crossing (boring) of our facilities.

I don't know if now is the appropriate time, but I have attached our crossing guidelines.

Please keep me apprised of the progress on this project and when would be the appropriate time to issue an AEC. As none of your proposed pipeline in ND affects Reclamation facilities there, so I will be your primary contact and my contact information is below

Regards,

Jeff Baumberger  
Bureau of Reclamation  
PO Box 30137  
Billings, MT 59107-0137

On Tue, May 10, 2016 at 3:47 PM, Grady Wolf <[Grady.Wolf@kljeng.com](mailto:Grady.Wolf@kljeng.com)> wrote:

Jeff,

Hopefully the attached maps give you a better indication of where the project is routed around the river crossing. If you have further questions, feel free to give me a call.

Thanks

Grady Wolf  
701-355-8726

**From:** Baumberger, Jeffrey [mailto:[jbaumberger@usbr.gov](mailto:jbaumberger@usbr.gov)]

**Sent:** Wednesday, April 20, 2016 9:19 AM

**To:** Grady Wolf <[Grady.Wolf@kljeng.com](mailto:Grady.Wolf@kljeng.com)>

**Subject:** Proposed Cenex Pipeline

Mr. Wolf -

Please see the attached letter that you sent to David Rosenkrance of the Bureau of Reclamation in Bismarck. As stated in your letter, Cenex's proposed pipeline begins near Sidney, MT and ends near Minot. Reclamation's has irrigation facilities in the Sidney area and those facilities are under the jurisdiction of Reclamation's Billings office. That is why I am emailing you.

The map provided in the letter is not detailed enough to determine what impacts (if any) Cenex's proposed pipeline would have on the Lower Yellowstone Irrigation Project. Can you please provide me a better, more detailed map(s) of the proposed pipeline route in MT and Western ND up to where it crosses Hwy 2? This will help me determine how to proceed with your request.

Regards,  
-Jeff Baumberger

[jbaumberger@usbr.gov](mailto:jbaumberger@usbr.gov)

(406) 247-7314



REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
CORPS OF ENGINEERS, OMAHA DISTRICT  
1616 CAPITOL AVENUE  
OMAHA NE 68102-4901

RECEIVED

MAY - 3 2016

April 26, 2016

Planning, Programs, and Project Management Division

Mr. Grady Wolf, Environmental Scientist  
KLJ  
4585 Coleman Street  
P.O. Box 1157  
Bismarck, North Dakota 58502

Dear Mr. Wolf:

The U.S. Army Corps of Engineers, Omaha District (Corps) has reviewed your letter dated April 13, 2016 (received April 22, 2016) regarding the environmental review of the proposed construction of an approximate 170-mile-long, ten-inch diameter refined fuels pipeline from Sidney, Montana to Minot, North Dakota. It is understood that the proposed pipeline would connect to an existing Cenex pipeline located in southwest Sidney and extend to the Cenex tank farm located west of Minot. We offer the following comments for your consideration:

Your plans should be coordinated with the state water quality office that has jurisdiction within the area where the project is located to ensure compliance with federal and state water quality standards and regulations mandated by the Clean Water Act and administered by the U.S. Environmental Protection Agency. Please coordinate with the North Dakota Department of Health and the Montana Department of Environmental Quality concerning state water quality programs.

If you have not already done so, it is recommended you consult with the U.S. Fish and Wildlife Service, the Montana Department of Fish Wildlife and Parks, and the North Dakota Game and Fish Department regarding fish and wildlife resources. In addition, the Montana and North Dakota State Historic Preservation Offices should be contacted for information and recommendations on potential cultural resources in the project area.

If the proposed pipeline construction crosses the floodplains of small drainageways and streams, flood-related problems should not occur if the lines are buried far enough below the beds of drainageways and streams to prevent exposure due to streambed erosion during periods of high floodflows. Any aboveground construction subject to flood damage, such as tanks, should either be placed above, or flood proofed to, a level above the one percent annual chance flood elevation.

Since the proposed project does not appear to be located within Corps owned or operated lands, your plans should be submitted to the local floodplain administrator for review and approval prior to construction. It should be ensured that the proposed project is in compliance with the floodplain management criteria of Richland and Roosevelt counties and the State of Montana as well as Williams, Mountrail, and Ward counties and the State

of North Dakota. In addition, please coordinate with the following floodplain management offices:

Montana  
Floodplain Management DNRC Water Resources  
Attention: Mr. Steve Story  
P.O. Box 201601  
1424 9th Avenue  
Helena, Montana 59620-1601  
Telephone: 406.444.6664  
Fax: 406.444.0533

North Dakota  
North Dakota State Water Commission  
Attention: Mr. Jeff Klein  
900 East Boulevard Avenue  
Bismarck, North Dakota 58505  
Telephone: 701.328.4898  
Fax: 701.328.3747  
Email: [jjklein@nd.gov](mailto:jjklein@nd.gov)

Any proposed placement of dredged or fill material into waters of the United States (including jurisdictional wetlands) requires Department of the Army authorization under Section 404 of the Clean Water Act. You can visit the Omaha District's Regulatory website for permit applications and related information. Please review the information on the provided website (<http://www.nwo.usace.army.mil/Missions/RegulatoryProgram.aspx>) to determine if this project requires a 404 permit. For a detailed review of the permit requirements, preliminary and final project plans should be sent to:

Montana  
U.S. Army Corps of Engineers  
Helena Regulatory Office  
Attention: Mr. Todd Tillinger, CENWO-OD-R-MT  
10 West 15<sup>th</sup> Street, Suite 2200  
Helena, Montana 59626

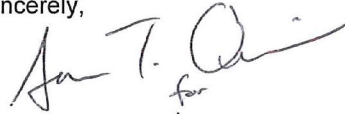
North Dakota  
U.S. Army Corps of Engineers  
Bismarck Regulatory Office  
Attention: Ms. Patricia McQueary, CENWO-OD-R-ND  
1513 South 12<sup>th</sup> Street  
Bismarck, North Dakota 58504

In addition, please update your records with our current mailing address:

U.S. Army Corps of Engineers, Omaha District  
Planning Branch  
Attention: Mr. Eric Laux, CENWO-PM-AC  
1616 Capitol Ave.  
Omaha, Nebraska 68102-4901

If you have any questions, please contact Mr. Matthew Vandenberg of my staff at (402) 995-2694 or [matthew.d.vandenberg@usace.army.mil](mailto:matthew.d.vandenberg@usace.army.mil) and reference PD# 6866 in the subject line.

Sincerely,

A handwritten signature in black ink, appearing to read "Eric A. Laux". The signature is stylized and includes a large initial "E".

Eric A. Laux  
Chief, Environmental Resources and Missouri River  
Recovery Program Plan Formulation Section

4585 Coleman Street  
PO Box 1157  
Bismarck, ND 58502-1157  
701 355 8400  
kljeng.com

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MAY - 9 2016



April 13, 2016

Ms. Laurie Suttmeier  
Manager  
Bismarck Airports District Office  
Federal Aviation Administration  
2301 University Drive, Bldg 23B  
Bismarck, ND 58504



Date: 5/4/16

No objection provided the Federal Aviation is notified of construction or alterations as required by Federal Aviation Regulations, Part 77, Objects Affecting Navigable Airspace, Paragraph 77.9. Notice may be filed on-line at <https://oeaaa.faa.gov>.

Don Phillips, Program Manager   
FAA/Dakota-Minnesota Airports District Office, Bismarck Office  
2301 University Drive, Building 23B  
Bismarck, ND 58504

Re: Cenex Pipeline, LLC  
Refined Fuels Pipeline  
Richland and Roosevelt Counties, Montana, and Williams, Mountrail, and Ward Counties,  
North Dakota

Dear Ms. Suttmeier,

On behalf of Cenex Pipeline, LLC (Cenex), KLJ is preparing an application in response to requirements of the North Dakota Energy Conversion and Transmission Facility Siting Act for the North Dakota Public Service Commission. The application is for the development of a refined fuels pipeline to be located in Richland and Roosevelt counties, Montana, and Williams, Mountrail, and Ward counties, North Dakota. ***Please refer to the enclosed Project Location Map.***

The proposed project consists of constructing an approximate 170-mile-long, 10-inch-diameter refined fuels pipeline from Sidney, Montana, to Minot, North Dakota. The pipeline would connect to an existing Cenex pipeline located southwest of Sidney and extend to the Cenex tank farm located west of Minot. The proposed pipeline would increase the current available capacity for transporting refined fuels and aid in meeting increased demand in western North Dakota.

Construction and commercial operation is anticipated to commence in 2017. No federal funding is anticipated for the proposed project.

To ensure impacts on environmental, cultural, socioeconomic, and human-made resources are considered in the development of the project, we are soliciting your views and comments on the proposed project. We are particularly interested in any property your department may own or have an interest in within the project area. We would also appreciate being notified of any proposed development your department may be contemplating in the project area. Any information that might help us in our study would be appreciated.



April 28, 2016

Mr. Grady Wolf  
Environmental Planner  
KLJ  
P.O. Box 1157  
Bismarck, ND 58502-1157

RECEIVED  
MAY - 3 2016

Re: Cenex Pipeline, LLC – Refined Fuels Pipeline – Sidney, MT to Minot, ND  
Williams, Mountrail & Ward Counties in North Dakota

Dear Mr. Wolf:

This department has reviewed the information concerning the above-referenced project submitted under date of April 13, 2016, with respect to possible environmental impacts.

This department believes that environmental impacts from the proposed construction will be minor and can be controlled by proper construction methods. With respect to construction, we have the following comments:

1. All necessary measures must be taken to minimize fugitive dust emissions created during construction activities. Any complaints that may arise are to be dealt within an efficient and effective manner.
2. Care is to be taken during construction activity near any water of the state to minimize adverse effects on a water body. This includes minimal disturbance of stream beds and banks to prevent excess siltation, and the replacement and revegetation of any disturbed area as soon as possible after work has been completed. Caution must also be taken to prevent spills of oil and grease that may reach the receiving water from equipment maintenance, and/or the handling of fuels on the site. Guidelines for minimizing degradation to waterways during construction are attached.
3. Projects disturbing one or more acres are required to have a permit to discharge storm water runoff until the site is stabilized by the reestablishment of vegetation or other permanent cover. Further information on the storm water permit may be obtained from the Department's website or by calling the Division of Water Quality (701-328-5210). Also, cities may impose additional requirements and/or specific best management practices for construction affecting their storm drainage system. Check with the local officials to be sure any local storm water management considerations are addressed.
4. The construction project overlies the Shell Creek, White Earth, Little Knife River Valley and Little Muddy aquifers. Care should be taken to avoid spills of any materials that may have an adverse

Environmental Health  
Section Chief's Office  
701.328.5150

Division of  
Air Quality  
701.328.5188

Division of  
Municipal Facilities  
701.328.5211

Division of  
Waste Management  
701.328.5166

Division of  
Water Quality  
701.328.5210

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Mr. Grady Wolf

2.

April 28, 2016

effect on groundwater quality. All spills must be immediately reported to this Department and appropriate remedial actions performed. Shallow ground water may be encountered during installation. Additional precautions should be taken to prevent ground water contamination during construction.

5. Noise from construction activities may have adverse effects on persons who live near the construction area. Noise levels can be minimized by ensuring that construction equipment is equipped with a recommended muffler in good working order. Noise effects can also be minimized by ensuring that construction activities are not conducted during early morning or late evening hours.
6. Projects that involve construction of pipelines should select locations that minimize the potential for impacts to surface and ground water during construction, and in the event of a spill, have containment and safeguards built into the construction process to prevent harmful or hazardous materials from reaching ground or surface waters. Pipelines that intersect, cross, or lie within the flood plain of I, IA, II and III class streams or rivers and classified lakes and reservoirs should use horizontal directional drilling to bore under at a depth greater than any potential erosion or scour. Projects that involve the construction of pipelines should also have: (1) a spill response plan that emphasizes rapid deployment of prepositioned assets necessary to contain spills and subsequent cleanup; (2) surveillance and monitoring equipment for early detection of leaks; and (3) strategically located shutdown valves to prevent a release of harmful or hazardous materials to surface or ground waters.

The department owns no land in or adjacent to the proposed improvements, nor does it have any projects scheduled in the area. In addition, we believe the proposed activities are consistent with the State Implementation Plan for the Control of Air Pollution for the State of North Dakota.

These comments are based on the information provided about the project in the above-referenced submittal. The U.S. Army Corps of Engineers may require a water quality certification from this department for the project if the project is subject to their Section 404 permitting process. Any additional information which may be required by the U.S. Army Corps of Engineers under the process will be considered by this department in our determination regarding the issuance of such a certification.

If you have any questions regarding our comments, please feel free to contact this office.

Sincerely,



L. David Glatt, P.E., Chief  
Environmental Health Section

LDG:cc  
Attach.



**Construction and Environmental Disturbance Requirements**

These represent the minimum requirements of the North Dakota Department of Health. They ensure that minimal environmental degradation occurs as a result of construction or related work which has the potential to affect the waters of the State of North Dakota. All projects will be designed and implemented to restrict the losses or disturbances of soil, vegetative cover, and pollutants (chemical or biological) from a site.

**Soils**

Prevent the erosion of exposed soil surfaces and trapping sediments being transported. Examples include, but are not restricted to, sediment dams or berms, diversion dikes, hay bales as erosion checks, riprap, mesh or burlap blankets to hold soil during construction, and immediately establishing vegetative cover on disturbed areas after construction is completed. Fragile and sensitive areas such as wetlands, riparian zones, delicate flora, or land resources will be protected against compaction, vegetation loss, and unnecessary damage.

**Surface Waters**

All construction which directly or indirectly impacts aquatic systems will be managed to minimize impacts. All attempts will be made to prevent the contamination of water at construction sites from fuel spillage, lubricants, and chemicals, by following safe storage and handling procedures. Stream bank and stream bed disturbances will be controlled to minimize and/or prevent silt movement, nutrient upsurges, plant dislocation, and any physical, chemical, or biological disruption. The use of pesticides or herbicides in or near these systems is forbidden without approval from this Department.

**Fill Material**

Any fill material placed below the high water mark must be free of top soils, decomposable materials, and persistent synthetic organic compounds (in toxic concentrations). This includes, but is not limited to, asphalt, tires, treated lumber, and construction debris. The Department may require testing of fill materials. All temporary fills must be removed. Debris and solid wastes will be removed from the site and the impacted areas restored as nearly as possible to the original condition.

Environmental Health  
Section Chief's Office  
701.328.5150

Division of  
Air Quality  
701.328.5188

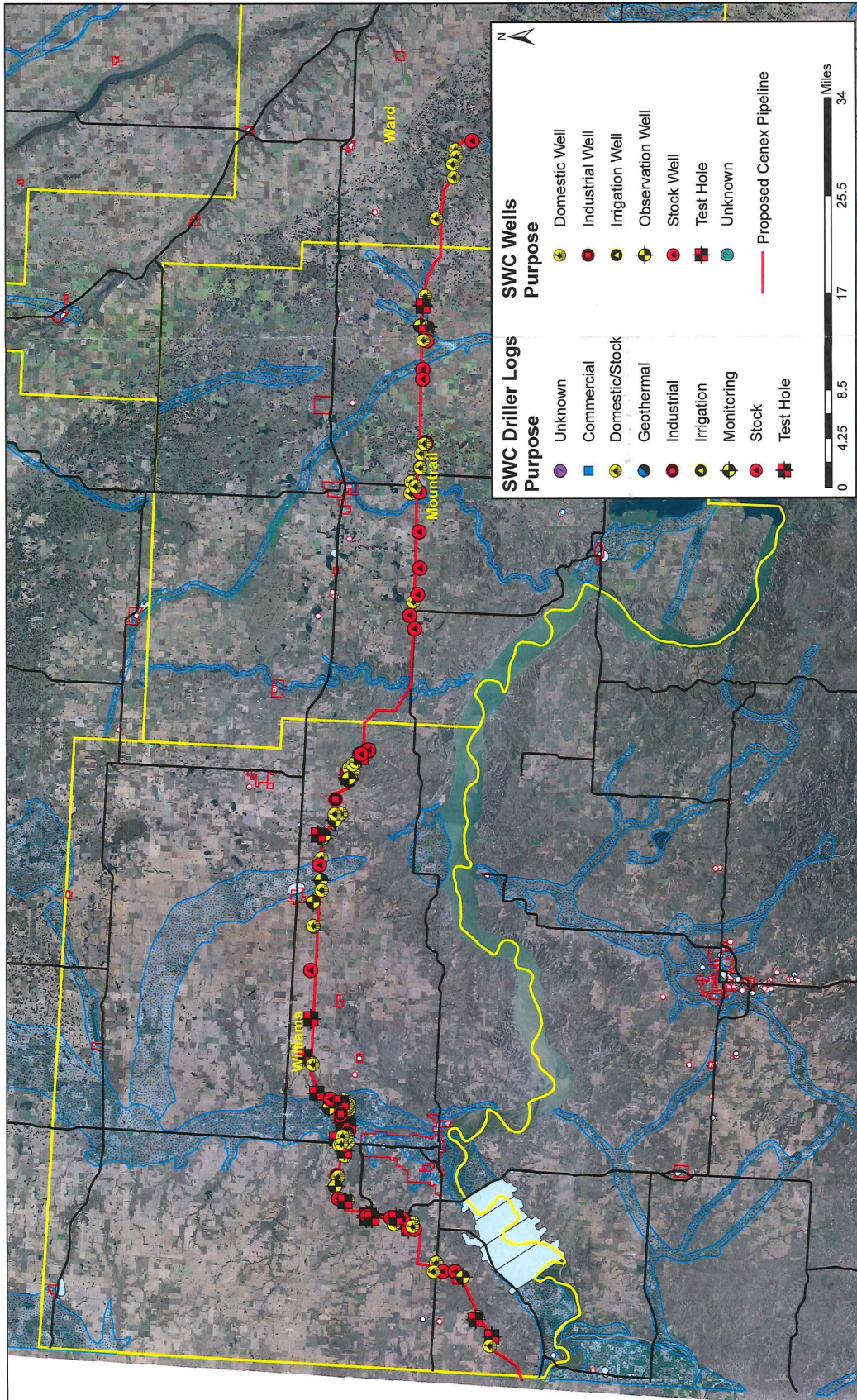
Division of  
Municipal Facilities  
701.328.5211

Division of  
Waste Management  
701.328.5166

Division of  
Water Quality  
701.328.5210

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Proposed Cenex Pipeline Path (Approximate)



## Tyler Conley

---

**From:** Haupt, Michael L. <mhaupt@nd.gov>  
**Sent:** Friday, April 15, 2016 2:08 PM  
**To:** Grady Wolf  
**Subject:** Proposed Cenex Pipeline refined fuels pipeline - Williams, Mountrail, Ward Counties

Grady,

Good afternoon! The map enclosed with the proposed Cenex pipeline did not contain enough detail to determine if there was any ND School Trust land to be crossed. If School Trust land is involved in the proposed project please submit an online application on our web site at <https://land.nd.gov/surface/Right-of-Way.aspx>. Let me know if you have questions. Thanks.

*Michael L. Haupt*

Land Management Professional, CPRM  
North Dakota Department of Trust lands  
1707 Nth 9th Street  
Bismarck ND 58506-5523  
701-328-1916  
[mhaupt@nd.gov](mailto:mhaupt@nd.gov)

Note: You can track the real time status of your right-of-way application 24/7 at <http://www.land.nd.gov/surface/right-of-way.aspx> using either the ROW number or by entering at least the first three letters of the company name. By checking this site you can find the name, telephone number and email address of the person working on the application as well as its current status in real time.



RECEIVED  
APR 20 2016

April 18, 2016

Grady Wolf  
KLJ Engineering  
4585 Coleman Street  
PO Box 1157  
Bismarck, ND 58502-1157

"Letter of Clearance" In Conformance with the North Dakota Federal Program Review System -  
State Application Identifier No.: ND160418-0493

Dear Mr. Wolf:

SUBJECT: Cenex Pipeline, LLC; Refined Fuels Pipeline

The above referenced notice has been reviewed through the North Dakota Federal Program Review Process. As a result of the review, clearance is given to the project only with respect to this consultation process.

If the proposed project changes in duration, scope, description, budget, location or area of impact, from the project description submitted for review, then it is necessary to submit a copy of the completed application to this office for further review.

We also request the opportunity for complete review of applications for renewal or continuation grants within one year after the date of this letter.

Please use the above SAI number for reference to the above project with this office. Your continued cooperation in the review process is much appreciated.

Sincerely,

Rikki Roehrich  
Program Specialist  
Division of Community Services

cmh

RECEIVED

APR 28 2016



## North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850  
701-328-2750 • TDD 701-328-2750 • FAX 701-328-3696 • INTERNET: <http://swc.nd.gov>

April 27, 2016

Grady Wolf  
KLJ  
PO Box 1157  
Bismarck, ND 58502-1157

Dear Mr. Wolf:

This is in response to your request for review of environmental impacts associated with the Refined Fuels Pipeline project located in Richland and Roosevelt counties, Montana, and Williams, Mountrail, and Ward counties, ND.

The proposed project has been reviewed by State Water Commission staff and the following comments are provided:

- There are no floodplains identified and/or mapped where this proposed project is to take place. The project takes place in unmapped counties, and Zone D. No floodplain permits are necessary from Mountrail, Ward, or Williams County relative to the National Flood Insurance Program.
- A Surface Drain Permit will need to be obtained from the Office of the State Engineer if any placement of fill material in a pond/slough/lake/or wetland having a watershed area of 80 acres or more. Please contact Graham Hart at 701-328-3095 concerning permit requirements.
- The ND State Water Commission (Commission) maintains a network of observation/monitor water wells and the location of gaging stations throughout the state, and many are located close to public right-of-ways. The location information can be obtained from the Commission's website at: <http://swc.nd.gov>; then click on "Information and Education"; then click on "Maps/GIS and Data," then click on "Map Services;" then click on the "Ground and Surface Water Information" map. Please inform the Water Appropriations Division of the Commission at 701-328-2754, if gaging stations or water wells may be affected by the project or accidently damaged.
- Please contact the Western Area Water Supply Authority (WAWSA) at 701-774-6605 regarding WAWSA infrastructure in the project area.
- It is the responsibility of the project sponsor to ensure that local, state and federal agencies are contacted for any required approvals, permits, and easements.
- All waste material associated with the project must be disposed of properly and not placed in identified floodway areas.

Thank you for the opportunity to provide review comments. If you have any questions, please call me at 701-328-4967.

Sincerely,

Linda Weispfenning  
Water Resource Planner

LW:dm/1570

JACK DALRYMPLE, GOVERNOR  
CHAIRMAN

TODD SANDO, P.E.  
SECRETARY AND STATE ENGINEER



# North Dakota Department of Transportation

Grant Levi, P.E.  
Director

Jack Dalrymple  
Governor

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APR 29 2016

April 25, 2016

Grady Wolf  
Environmental Scientist  
Kadmas Lee Jackson, Inc.  
P.O. Box 1157  
Bismarck, ND 58502-1157

DEVELOPMENT OF A REFINED FUEL PIPELINE, MOUNTRAIL & WARD COUNTIES,  
NORTH DAKOTA

We have reviewed your April 13, 2016, letter.

This project should have no adverse effect on the North Dakota Department of Transportation (NDDOT) highways.

However, if because of this project any work needs to be done on highway right of way, appropriate permits and risk management documents will need to be obtained from the Department of Transportation District Engineer, Jim Redding, Minot at 701-837-7625.

ROBERT A. FODE, P.E., DIRECTOR – OFFICE OF PROJECT DEVELOPMENT

57rafjs

c: Jim Redding, Minot District Engineer

608 East Boulevard Avenue • Bismarck, North Dakota 58505-0700  
Information: 1-855-NDROADS (1-855-637-6237) • FAX: (701) 328-0310 • TTY: 711 • [www.dot.nd.gov](http://www.dot.nd.gov)



"VARIETY IN HUNTING AND FISHING"

## NORTH DAKOTA GAME AND FISH DEPARTMENT

100 NORTH BISMARCK EXPRESSWAY BISMARCK, NORTH DAKOTA 58501-5095 PHONE 701-328-6300 FAX 701-328-6352

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MAY 31 2016

May 20, 2016

Grady Wolf  
Environmental Scientist  
KLJ  
PO Box 1157  
Bismarck, ND 58502-1157

Dear Mr. Wolf:

RE: Refined Fuels Pipeline Project

Cenex Pipeline, LLC is proposing to construct an approximately 170-mile-long, 10-inch diameter refined fuels pipeline from Sidney, Montana, to Minot, North Dakota. The North Dakota Game and Fish Department has reviewed this project for wildlife concerns.

A primary concern is the possible disturbance of native prairie and wooded draws associated with construction of the pipeline and access roads. We ask that work within these areas be avoided to the extent possible, every effort be made to prevent destruction of woody vegetation, and disturbed areas be reclaimed to pre-project conditions.

The pipeline route will cross several Classified fisheries including the White Earth and Little Muddy Rivers as well as Shell and Beaver Creeks. We recommend that these streams be crossed by directional boring to protect the resource. If this method is not feasible, construction should not take place within the waterways between April 15 and June 1, and controls should be implemented to minimize erosion and sedimentation.

The department also recommends that additional precautions be implemented into the design of pipes crossing under the State's waterways. One means of minimizing a potentially large pipeline failure is to incorporate pressure sensing valves on both sides of the waterway. These valves should be placed as close to the waterway as possible while staying out of the floodplain to reduce potential damage from ice and other floating debris. A maintenance schedule should be developed to insure the integrity of the pipe for the life of the project.

Aquatic nuisance species (ANS) are a major concern in North Dakota. State law requires that the contractor, including any and all subcontractors involved in this project, take appropriate

precautions to prevent the introduction or movement of ANS within the state. The contractor should provide the department a reasonable opportunity to inspect any equipment prior to these items being launched or placed into waters of the state. The department's Aquatic Nuisance Species Coordinator, Ms. Jessica Howell, can be contacted at 701-368-8368 for equipment inspections or additional information regarding ANS prevention protocols.

The National Wetland Inventory indicates various wetlands within the proposed project corridor. Steps should be taken to protect any wetlands that cannot be avoided, no alterations should be made to existing drainage patterns, and above-ground appurtenances should not be placed in wetland areas. Unavoidable destruction or degradation of wetland acres should be mitigated in kind.

Aerial surveys should be conducted for raptor nests before construction begins. We recommend that a ½-mile construction buffer be implemented around active eagle nest sites (known occupied within the past 5 years). Ms. Sandra Johnson, Conservation Biologist, may be contacted at 701-328-6327 for additional information on bald and golden eagle nest sites in the state.

Sincerely,



Greg Link  
Chief  
Conservation & Communication Division

js





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MAY - 9 2016

## North Dakota Geological Survey

Edward C. Murphy – State Geologist

Department of Mineral Resources

Lynn D. Helms – Director

North Dakota Industrial Commission

[www.state.nd.us/ndgs](http://www.state.nd.us/ndgs)

May 3, 2016

KLJ

Attn: Grady Wolf  
4585 Coleman Street  
PO Box 1157  
Bismarck, ND 58502-1157

Re: Proposed Refined Fuels Pipeline  
Cenex Pipeline, LLC  
Richland and Roosevelt Counties, Montana and Williams, Mountrail and Ward Counties, North Dakota

Dear Mr. Wolf,

Thank you for allowing us the opportunity to review and comment on the above project. The project consists of constructing an approximate 170-mile long, 10-inch diameter refined fuels pipeline that begins at Sidney, Montana and extends to Minot, North Dakota.

Previous county scale geologic mapping (1:125,000) and driller's logs have identified glacial sediments of the Coleharbor Formation to be present at the surface in the northern and eastern portions of the project area and sedimentary bedrock of the Sentinel Butte Formation (Paleocene) at or near the surface in the southwestern portions. The Sentinel Butte Formation also underlies the glacial sediments located to the north and east. To date, the NDGS has not completed detailed (1:24,000 scale) geologic mapping for the entire area. However, detailed landslide mapping has been conducted for much of the proposed route. Landslide prone areas occur principally along drainage features, valleys, areas of badlands topography and regions where nonglacial sediment such as the Sentinel Butte and Bullion Creek Formations are exposed near or at the surface. Landslide maps can be accessed at <https://www.dmr.nd.gov/ndgs/landslides/>.

Sincerely,

Mark R. McDonald, P.E., Ph.D.  
Geologist

Cc: Ed Murphy, State Geologist

600 E. Boulevard Ave. – Dept 405, Bismarck, North Dakota 58505-0840 Phone (701) 328-8000 Fax (701) 328-8010

**Kadrmass, Lee & Jackson**

**Record of Conversation**

**Grady Wolf**

TALKED WITH: Joe Barkie, Mont Township, Williams County

RECORDED BY: Grady Wolf

PROJECT: CHS Refined Fuels Pipeline

SUBJECT: Scoping letter responses

DATE: 6/4/16

DISCUSSION ITEMS:

Joe mentioned that his comment in regards to the township are that road crossing permits are necessary for crossing township roadways. They will require that the roadways are bored underneath. Joe also discussed concerns with how the pipeline was routed on his property, which was also addressed with the land men during their meeting the prior day.



**STATE  
HISTORICAL  
SOCIETY  
OF NORTH DAKOTA**

RECEIVED  
APR 20 2016

Jack Dalrymple  
Governor of North Dakota

April 18, 2016

North Dakota  
State Historical Board

Mr Grady Wolf  
Environmental Scientist  
KLJ  
4585 Coleman Street  
PO Box 1157  
Bismarck ND 58502-1157

Margaret Puetz  
Bismarck - President

Gereld Gerntholz  
Valley City - Vice President

Albert I. Berger  
Grand Forks - Secretary

ND SHPO REF.: 16-0917 PSC Cenex Pipeline, LLC 170 miles long refined fuels pipeline from Sidney, Montana to Minot, through Williams, Mountrail, and Ward Counties, North Dakota

Calvin Grinnell  
New Town

Diane K. Larson  
Bismarck

Dear Mr. Wolf:

Chester E. Nelson, Jr.  
Bismarck

We reviewed your preliminary letter regarding ND SHPO REF.: 16-0917 PSC Cenex Pipeline, LLC 170 miles long refined fuels pipeline from Sidney, Montana to Minot, through Williams, Mountrail, and Ward Counties, North Dakota. We recommend a Class I (records search) and Class III (pedestrian) cultural resources survey of the entire project area as there are recorded eligible sites in the general area of the project.

A. Ruric Todd III  
Jamestown

Sara Otte Coleman  
Director  
Tourism Division

Thank you for the opportunity to review the project to date. We look forward to review of the Class III report prior to any earth work. If you have questions, please contact Susan Quinnell at (701) 328-3576 or [squinnell@nd.gov](mailto:squinnell@nd.gov)

Kelly Schmidt  
State Treasurer

Alvin A. Jaeger  
Secretary of State

Mark Zimmerman  
Director  
Parks and Recreation  
Department

Sincerely,

Grant Levi  
Director  
Department of Transportation

Claudia J. Berg  
Director, State Historical Society of North Dakota

Claudia J. Berg  
Director

Accredited by the  
American Alliance  
of Museums since 1986



REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
CORPS OF ENGINEERS, OMAHA DISTRICT  
NORTH DAKOTA REGULATORY OFFICE  
1513 SOUTH 12TH STREET  
BISMARCK ND 58504-6640

RECEIVED  
MAY - 9 2016

May 2, 2016

North Dakota Regulatory Office

[NWO-2016-0837-BIS]

Mr. Grady Wolf  
KLJ  
4585 Coleman Street  
Bismarck, North Dakota 58502-1157

Dear Mr. Wolf:

This is in response to your letter dated April 13, 2016, on behalf of Cenex Pipeline, LLC, requesting US Army Corps of Engineers (Corps) comments concerning the proposed Cenex Refined Fuels Pipeline. The project includes construction of an approximately 170-mile long 10-inch diameter refined fuels pipeline from Sidney, Montana, to Minot, North Dakota.

The Cenex Refined Fuels Pipeline is located in Williams, Mountrail, and Ward counties of North Dakota. The project has an approximate center point of Latitude 48.24822°, Longitude -103.17841°.

Based on the information contained within your letter, it appears a Department of the Army permit may be required for your proposed project. In order for us to fully evaluate your project, please complete and submit the Corps permit application found using the website address below. Be sure to accurately describe all proposed work and construction methodology. Once the application is complete, mail it to the letterhead address.

Corps Regulatory Offices administer Section 10 of the Rivers and Harbors Act (Section 10) and Section 404 of the Clean Water Act (Section 404). Section 10 regulates work impacting navigable waters. **This includes work over, through, or under Section 10 waters.** Section 10 waters in North Dakota are the Missouri River (including Lake Sakakawea and Lake Oahe), Yellowstone River, James River south of the railroad tracks in Jamestown, North Dakota, Bois de Sioux River, Red River of the North, and the Upper Des Lacs Lake. Section 404 regulates the discharge of dredge or fill material (temporarily or permanently) in waters of the United States. Waters of the United States may include, but are not limited to, rivers, streams, ditches, coulees, lakes, ponds, and their adjacent wetlands. Fill material includes, but is not limited to, rock, sand, soil, clay, plastics, construction debris, wood chips, overburden from mines or other excavation activities and materials used to create any structure or infrastructure in waters of the United States.

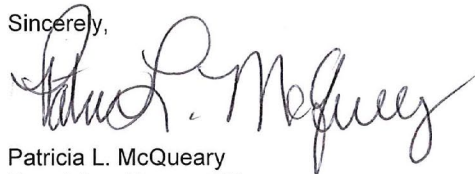
If the project requires a Section 10/404 permit, a permit application and instructions for completion may be found at <http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/ObtainPermit.aspx>. If you do not have access to a computer, you may call this office and request a copy of the permit application and instructions be sent to you.

Printed on  Recycled Paper

A copy of this letter is being sent to Mr. Jim Berkley, US Environmental Protection Agency, Region VIII, 1596 Wynkoop Street, Denver, Colorado, 80202-1129.

If we can be of further assistance or should you have any questions regarding our program, please do not hesitate to contact this office by letter or phone at (701) 255-0015, extension [2006].

Sincerely,



Patricia L. McQueary  
Regulatory Program Manager  
North Dakota

**Jessica Aasand**

---

**From:** MUNOS, CY I GS-11 USAF AFGSC 91 MMXS/MMXSFK <cy.munos@us.af.mil>  
**Sent:** Friday, January 27, 2017 12:41 PM  
**To:** Grady Wolf  
**Subject:** RE: Pipeline

Grady,

The reroutes will work. Thanks.

Cy Munos  
Cable Affairs Officer  
91 MMXS/MMXSFK  
Minot AFB, ND  
W. 701-723-6053  
C. 701-720-8274

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

From: Grady Wolf [mailto:Grady.Wolf@kljeng.com]  
Sent: Friday, January 27, 2017 11:59 AM  
To: MUNOS, CY I GS-11 USAF AFGSC 91 MMXS/MMXSFK <cy.munos@us.af.mil>  
Subject: RE: Pipeline

Cy,

I have attached two maps that show reroutes to cross your cables at a more perpendicular angle. Can you let me know if these crossings are going to be acceptable?

Thanks

Grady Wolf  
701-355-8726

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

From: MUNOS, CY I GS-11 USAF AFGSC 91 MMXS/MMXSFK [mailto:cy.munos@us.af.mil]  
Sent: Thursday, January 26, 2017 10:24 AM  
To: Grady Wolf <Grady.Wolf@kljeng.com>  
Subject: RE: Pipeline

Grady,

These attached maps contain the other two crossing that we request cross us at a closer to 90 degree angle. Please let me know what you could do. Thanks.

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

From: Grady Wolf [mailto:Grady.Wolf@kljeng.com]  
Sent: Tuesday, January 24, 2017 4:44 PM  
To: WARREN, SAMUELE M CIV USAF AFGSC 5 CES/CENM <samuele.warren.1@us.af.mil>  
Cc: MUNOS, CY I GS-11 USAF AFGSC 91 MMXS/MMXSFK <cy.munos@us.af.mil>; SPECHT, JOEY R GS-12 USAF AFGSC 5 CES/CENP <joeyspecht@us.af.mil>  
Subject: RE: Pipeline

All,

We have rerouted the proposed CHS pipeline in hopes that the current alignment is acceptable to the MAFB. Can you please review the proposed alignment and let me know if it is outside your 1200 foot-easement as well as crossing your HICS cable in an acceptable alignment?

The projection is ND State Plane North, International Feet.

If you have any further questions, please send me an email or give me a call.

Thanks

Grady Wolf  
701-355-8726

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

From: WARREN, SAMUELE M CIV USAF AFGSC 5 CES/CENP [mailto:samuele.warren.1@us.af.mil]  
Sent: Thursday, August 27, 2015 9:43 AM  
To: Grady Wolf <Grady.Wolf@kljeng.com>  
Cc: MUNOS, CY I GS-11 USAF AFGSC 91 MMXS/MMXSFK <cy.munos@us.af.mil>; SPECHT, JOEY R GS-12 USAF AFGSC 5 CES/CENP <joeyspecht@us.af.mil>  
Subject: RE: Pipeline

Mr. Wolf,

These are three locations that Minot AFB would have issues with as the oil pipeline is inside the 1200' easement and we would like it so it is outside of this area if possible. I've included Mr. Munos on this e-mail as has knowledge of the HICS cable which I'm sure the pipeline will cross over several times. I forwarded the shapefiles over to him already. Thanks

sam

Sam Warren, CIV, DAF  
Minot AFB, Community Planner  
DSN: 453-6947  
Comm: 701-723-6947

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

From: Grady Wolf [mailto:Grady.Wolf@kljeng.com]  
Sent: Wednesday, August 26, 2015 3:00 PM  
To: WARREN, SAMUELE M CIV USAF AFGSC 5 CES/CENP  
Subject: RE: Pipeline

Samuele,

Attached is the GIS shapefile for the proposed CHS alignment. Please let me know if the base has any interests in the area of the proposed route. If you have any questions let me know.

Thanks for your help.

Grady Wolf  
701-355-8726

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

From: WARREN, SAMUELE M CIV USAF AFGSC 5 CES/CENP [mailto:samuele.warren.1@us.af.mil]  
Sent: Wednesday, August 26, 2015 1:01 PM  
To: Grady Wolf <Grady.Wolf@kljeng.com>  
Subject: RE: Pipeline

Should be able to receive shapefiles.

sam

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

From: Grady Wolf [mailto:Grady.Wolf@kljeng.com]  
Sent: Wednesday, August 26, 2015 11:37 AM  
To: WARREN, SAMUELE M CIV USAF AFGSC 5 CES/CENP  
Subject: RE: Pipeline

Are you able to get KMZ files (google earth) or a GIS shapefile of the route or would you just prefer to get a PDF map(s)?

Grady Wolf  
701-355-8726

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

From: WARREN, SAMUELE M CIV USAF AFGSC 5 CES/CENP [mailto:samuele.warren.1@us.af.mil]  
Sent: Wednesday, August 26, 2015 11:02 AM  
To: Grady Wolf <Grady.Wolf@kljeng.com>  
Subject: FW: Pipeline

Mr. Wolf,

I'm the community planner for the base and can help you with your request. Unfortunately the file that you sent did not come through our servers.

<https://safe.amrdec.army.mil/SAFE/>

I'm hoping you can use the SAFE AMRDEC site to send me your information so we can take a look at it.

sam

Sam Warren, CIV, DAF  
Minot AFB, Community Planner  
DSN: 453-6947  
Comm: 701-723-6947

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

From: SPECHT, JOEY R GS-12 USAF AFGSC 5 CES/CENP  
Sent: Wednesday, August 26, 2015 10:54 AM  
To: WARREN, SAMUELE M CIV USAF AFGSC 5 CES/CENP  
Subject: FW: Pipeline

FYA

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

From: Grady Wolf [mailto:Grady.Wolf@kljeng.com]  
Sent: Wednesday, August 26, 2015 10:47 AM  
To: FONTE, BENJAMIN R 1st Lt USAF AFGSC 5 CES/CEN; SPECHT, JOEY R GS-12 USAF AFGSC 5 CES/CENP  
Subject: Pipeline

Ben/Joey,

We are working on identifying potential issues with a new pipeline that will run from Sydney, MT to Minot, ND for CHS. At this time, this information is not public information so I would ask that you do not distribute to anyone. I have attached a kmz file showing the potential alignments of the pipeline. Can you let me know if you have any interests that may be impacted by the potential alignments? When the project moves forward, a formal scoping letter will be sent to you requesting comment on the proposed project.

Thanks for your help.

Grady Wolf  
<http://kljeng.com/wp-content/themes/klj/assets/images/logos/signature.jpg>  
701-355-8726 Direct  
701-595-2881 Cell  
4585 Coleman Street  
Bismarck, ND 58501-3310  
kljeng.com <<http://www.kljeng.com>>

**Grady Wolf**

---

**From:** MUNOS, CY I GS-11 USAF AFGSC 91 MMXS/MMXSFK <cy.munos@us.af.mil>  
**Sent:** Wednesday, April 20, 2016 3:18 PM  
**To:** Grady Wolf  
**Subject:** Cenex Pipeline

Grady,

I received your letter today for the Cenex proposed pipeline project. The Air force will be a factor in multiple locations. Do you have a shape file for this project so we can determine areas of conflict?

Thanks,

Cy Munos  
Cable Affairs Officer  
91 MMXS/MMXSFK  
Minot AFB, ND  
W. 701-723-6053  
C. 701-720-8274



United States Department of Agriculture

RECEIVED  
APR 25 2016

Natural Resources  
Conservation Service

April 19, 2016

Bismarck State Office  
PO Box 1458  
Bismarck, ND  
58502-1458

Mr. Grady Wolf, Environmental Scientist  
KLJ  
4585 Coleman Street  
PO Box 1157  
Bismarck, ND 58502-1157

Voice 701.530.2000  
Fax 855-813-7556

RE: Proposed project, Cenex Pipeline, LLC, Refined Fuels Pipeline, Richland and Roosevelt Counties, Montana, and Williams, Mountrail, and Ward Counties, North Dakota.

Dear Mr. Wolf:

The Natural Resources Conservation Service (NRCS) has reviewed your letter dated April 13, 2016, concerning the above mentioned proposed project

#### Farmland Protection Policy Act

NRCS has a major responsibility with the Farmland Protection Policy Act (FPPA) in documenting conversion of farmland (i.e., prime, statewide importance and local importance) to non-agriculture use. It appears your proposed project is not supported by federal funding; therefore, FPPA does not apply and no further action is needed.

#### Wetlands

The Wetland Conservation Provisions of the 1985 Food Security Act, as amended, provide that if a USDA participant converts a wetland for the purpose or to have the effect of making agricultural production possible, loss of USDA benefits could occur. The NRCS has developed the following guidelines for the installation of permanent structures where wetlands occur. If these guidelines are followed the impacts to the wetland will be considered minimal allowing USDA participants to continue to receive USDA benefits. Following are the requirements:

- Disturbance to the wetland must be temporary.
- No drainage of wetland is allowed (temporary or permanent).
- Mechanized landscaping necessary for installation is kept to a minimum and preconstruction contours are maintained.
- Temporary side cast material must be placed in such a manner not to be dispersed in the wetland.
- All trenches must be backfilled to the original wetland bottom elevation.

NRCS recommends that impacts to wetlands be avoided.

(MORE)

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An Equal Opportunity Provider, Employer, and Lender

Mr. Wolf  
Page 2

If you have additional questions pertaining to FPPA, please contact Steve Sieler, Liaison Soil Scientist, NRCS, Bismarck, ND, at 701-530-2019.

Sincerely,



WADE D. BOTT  
State Soil Scientist



## Grady Wolf

---

**From:** Barnett, Russell <Rbarnett@WAPA.GOV>  
**Sent:** Tuesday, April 19, 2016 6:28 PM  
**To:** Grady Wolf  
**Cc:** Graham, Cami; Phillips, Jon; Diede, Randy  
**Subject:** proposed Cenex pipeline

Hi Grady,

I understand that Cami Graham, our Montana real estate specialist, visited with you . It sounds like you have no real mapping done as of yet and are in the preliminary stages of your project? While we here at Western have no issue with your crossing(s) our biggest concern is space, if your crossings can get anywhere close to mid-span on our power lines that is a perfect scenario. I am not opposed to them being closer to our structures but under no circumstances do we want them closer than 50' to our structures. Again, the farther away from the actual structures that we can be, the better off we are. (This is in the event that we need to move a structure during a storm, etc.) Once you have the actual mapping done we would like a copy with the exact coordinates that you will be crossing us. When we have that information we will review it and then get you a license agreement, assuming that everything is agreed upon.

Just for your planning purposes, I have two different lines in the area between Sidney, MT and Williston, ND. At first glance without more specifics it looks as though there is a possibility that your line will cross the one coming out of Sidney in several places but until the mapping gets closer that is a guessing game. You will for sure cross under both of them at least once but again, until we have more detailed maps we won't know.

Please feel free to contact myself at (406) 526-8508 or Cami Graham at (406) 526-8528 anytime.

Thanks  
Russ Barnett  
Western Area Power Administration  
MMO T-lines Director  
Office #(406) 526-8508  
Fort Peck, MT



RECEIVED  
APR 29 2016

April 26, 2016

Mr. Grady Wolf  
Environmental Scientist  
KLJ  
4585 Coleman Street  
PO Box 1157  
Bismarck, ND 58502-1157

Re: Your Correspondence Dtd: 4/13/16 Cenex Pipeline, LLC (attached)

Dear Mr. Wolf,

It is impossible from the extremely limited GIS information you have provided (Lindahl Wind Map 11-13-14) to provide a response to your inquiry.

The Williams County Web Site provides numerous user friendly maps for public use that will help you provide the specific information required for us to respond appropriately to your request.

Regards;

Michael D. Sizemore  
Director of Development Services  
Williams County North Dakota

Cc: Katie Lima, Assistant Director DS

**Development Services**

PO Box 2047 | 220 2<sup>nd</sup> Ave. E. | Williston, ND 58802-2047 | Phone 701.577.4567 | [www.williamsnd.com](http://www.williamsnd.com)

Page 1 of 1

4585 Coleman Street  
PO Box 1157  
Bismarck, ND 58502-1157  
701 355 8400  
kljeng.com



RECEIVED

APR 18 2016

WILLIAMS COUNTY  
DEVELOPMENT SERVICES

April 13, 2016

Mr. Mike Sizemore  
Development Services Director  
Planning/Zoning Commission  
Williams County  
205 E Broadway, P.O. Box 2047  
Williston, ND 58801

Re: Cenex Pipeline, LLC  
Refined Fuels Pipeline  
Richland and Roosevelt Counties, Montana, and Williams, Mountrail, and Ward Counties,  
North Dakota

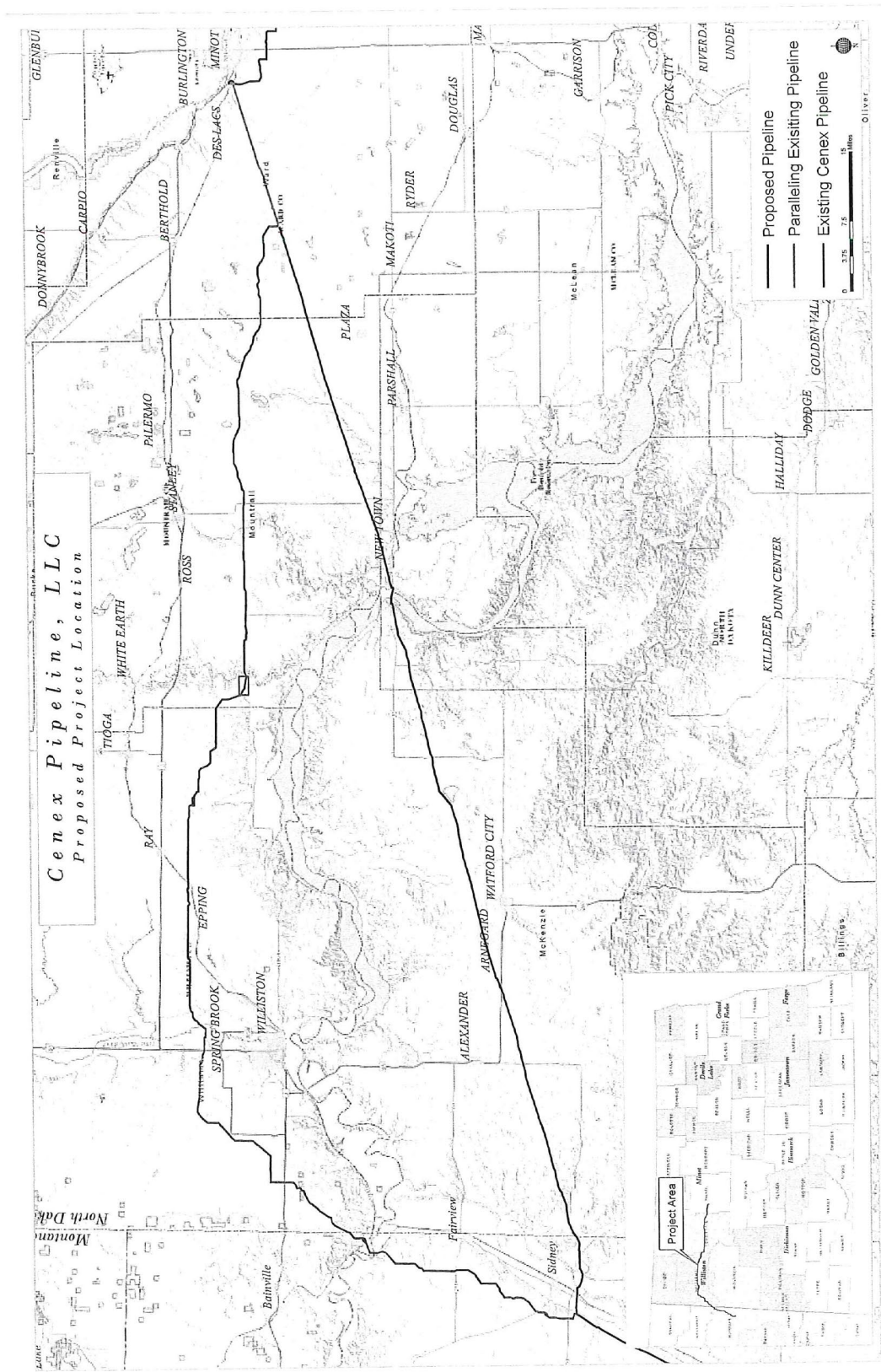
Dear Mr. Sizemore,

On behalf of Cenex Pipeline, LLC (Cenex), KLJ is preparing an application in response to requirements of the North Dakota Energy Conversion and Transmission Facility Siting Act for the North Dakota Public Service Commission. The application is for the development of a refined fuels pipeline to be located in Richland and Roosevelt counties, Montana, and Williams, Mountrail, and Ward counties, North Dakota. ***Please refer to the enclosed Project Location Map.***

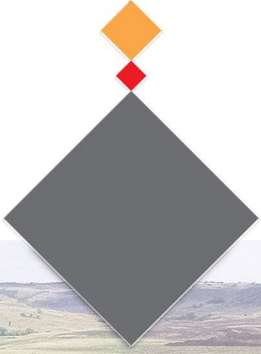
The proposed project consists of constructing an approximate 170-mile-long, 10-inch-diameter refined fuels pipeline from Sidney, Montana, to Minot, North Dakota. The pipeline would connect to an existing Cenex pipeline located southwest of Sidney and extend to the Cenex tank farm located west of Minot. The proposed pipeline would increase the current available capacity for transporting refined fuels and aid in meeting increased demand in western North Dakota.

Construction and commercial operation is anticipated to commence in 2017. No federal funding is anticipated for the proposed project.

To ensure impacts on environmental, cultural, socioeconomic, and human-made resources are considered in the development of the project, we are soliciting your views and comments on the proposed project. We are particularly interested in any property your department may own or have an interest in within the project area. We would also appreciate being notified of any proposed development your department may be contemplating in the project area. Any information that might help us in our study would be appreciated.



# Appendix C. Ten Year Plan





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ATTORNEYS

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August 17, 2016

Mr. Darrell Nitschke  
Executive Director  
PUBLIC SERVICE COMMISSION  
12th Floor, State Capitol  
600 E. Boulevard Ave.  
Bismarck, ND 58505-0480



Dear Mr. Nitschke:

In re: Cenex Pipeline LLC 2016 Ten-Year Plan  
Our File No. 20-640-001

On behalf of Cenex Pipeline LLC ("Cenex"), we hereby submit Cenex's Ten-Year Plan pursuant to North Dakota Century Code § 49-22-04 and North Dakota Administrative Code Chapter 69-06-02.

SECTION A: Existing Energy Conversion Facilities.

Cenex has no existing energy conversion facilities as defined in North Dakota Century Code § 49-22-03(5).

SECTION B: Energy Conversion Facilities Under Construction.

Cenex has no energy conversion facilities under construction.

SECTION C: Proposed Energy Conversion Facilities on Which Construction is Intended Within the Ensuing Five Years.

Cenex has no proposed energy conversion facilities on which construction is intended within the ensuing five years.

BILLINGS BISMARCK BOZEMAN BUTTE CASPER CHEYENNE HELE

C R O W L E Y F L E C K . C O M

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**2016 Ten Year Plan**

Cenex Pipeline, LLC  
Brian Bjella, Crowley Fleck, PLLP

SECTION D: Proposed Energy Conversion Facilities During the Next Ten-Year Time.

Cenex has no proposed energy conversion facilities during the next ten-year time period.

SECTION E: Existing Transmission Facilities (Electric).

Cenex has no existing electrical transmission facilities.

SECTION F: Existing Transmission Facilities (Pipeline).

Part I

1. **Location:** In 1991 Cenex constructed an eight-inch pipeline extending from Minot to West Fargo, North Dakota, pursuant to Certificate of Site Compatibility for Transmission Facility Corridor No. 61 and Permit for the Construction of a Transmission Facility No. 70, each dated May 21, 1991, as issued in Case No. PU-126-90-625. A system map showing the location of the pipeline is enclosed herewith as Exhibit A.
2. **Type and Capacity:** The design specifications for the facility are as follows:
  - (a) Product Type - liquid petroleum products
  - (b) Length of Facility in Miles - 255
  - (c) Pipe Size - eight inches
  - (d) Maximum Design Operating Pressure - 1440 psi
  - (e) Maximum Design Flow Rate - 850 barrels per hour initially
  - (f) Compressor or pumping station specifications, including type, horse power, output pressure, and capacity, - A pump station was constructed at Cenex's Minot terminal. This station utilizes two centrifugal pumps coupled to two 400 horse power electric motors. Total horse power utilized at the station is 800 horse power. Output pressure is 1440 psi and potential capacity is up to 1,000 barrels per hour.
  - (g) Minimum cover over pipe - 42 inches, except when located between 120 feet and 150 feet of the center of the Burlington Northern Railroad track at which locations minimum cover over pipe is 48 inches.
3. The in-service date for the pipeline was November 8, 1991.

4. There is no projected retirement date during the next ten-year period for this pipeline extension.

Part II

1. **Location:** In 1960 Cenex constructed an eight-inch pipeline extending from Glendive, Montana, to Minot, North Dakota. A system map showing the location of this nonjurisdictional pipeline is enclosed herewith as Exhibit B.
2. **Type and Capacity:** The design specifications for the facility are as follows:
  - (a) Product Type - liquid petroleum products
  - (b) Length of Facility in Miles - 188
  - (c) Pipe Size - eight inches
  - (d) Maximum Design Operating Pressure - 1,200 psi
  - (e) Maximum Design Flow Rate - 1,400 barrels per hour
  - (f) Compressor or pumping station specifications, including type, horse power, output pressure, and capacity - Pumping stations exist in Glendive, Montana, and Arnegard, North Dakota. The pump units at Glendive consist of three centrifugal pumps coupled to a 500 hp electric motor, a second 500 hp electric motor, and a 700 hp electric motor. The pump station in Arnegard consists of one centrifugal pump coupled to a 700 hp electric motor. A total of 1700 horse power is available at Glendive Station and 700 horse power is available at Arnegard Station. Maximum design discharge pressure at each station is 1,200 psi.
  - (g) Minimum cover over pipe - 30 inches
3. The in-service date for this pipeline was December 1960.
4. There is no projected retirement date during the next ten year period for this pipeline.

SECTION G: Proposed Transmission Facilities on Which Construction is Intended Within the Ensuing Five Years (Electric).

Cenex has no proposed electric transmission facilities on which construction is intended within the ensuing five years.

SECTION H: Proposed Transmission Facilities on Which Construction is Intended Within the Ensuing Five Years (Pipeline).

Cenex is currently working with NuStar Pipeline to create a connection between their two pipelines in the Mapleton, North Dakota area. Cenex is also considering the feasibility of constructing a petroleum products storage terminal at a location near Mapleton that would allow for better staging of products during the off season that would provide more ready availability during high useage times.

Cenex continues to evaluate a project to construct a truck loading terminal for refined petroleum products along the pipeline route between Sidney, MT and Minot, ND. An exact location for this terminal would be determined as part of the project evaluation.

Cenex is currently evaluating the feasibility of constructing a pipeline from Sidney, Montana, to its existing Minot, North Dakota, terminal for the transportation of refined petroleum products from its Laurel, Montana, refinery.

SECTION I: Proposed Transmission Facilities During the Next Ten-Year Time Period (Electric and Pipeline).

Cenex has no additional electric or pipeline transmission facilities proposed during the next ten-year time period. However, additional thruput capacity for the Minot to West Fargo segment may be required within the next ten years. In this event, an additional 800 horse power pump station near New Rockford, North Dakota, would be constructed to increase the average design flow rate from 1,000 barrels per hour to as much as 2,000 barrels per hour in this segment of the line.

SECTION J: Regional Coordination.

The Minot-West Fargo segment ties in with the facilities of Magellan Pipe Line Company, L.P. at its terminal in West Fargo, North Dakota. Through Magellan's system the petroleum products are distributed to agricultural consumers in the Red River Valley area of North Dakota and Minnesota. Cenex submits that this demonstrates its efforts at regional coordination. However, Cenex's pipeline is not part of a single regional plan.

SECTION K: Environmental Information.

Although not required by state or federal law, Cenex utilizes a Supervisory Control and Data Acquisition (SCADA) system to monitor the operation of the pipeline on a 24-hour a day basis, which allows Cenex on almost a moment's notice to close selected valves and stop pumping units should any leaks be detected.

In addition, a cathodic protection system is installed on the pipeline in compliance with Department of Transportation regulations as found at 49 CFR Part 195. The purpose of this system is to inhibit corrosion by placement of an electrical charge to the pipeline.

As an interstate transporter of liquid petroleum products, Cenex is also subject to the requirements of the Hazardous Liquid Pipeline Safety Act codified at 49 App. U.S.C. § 2001, et seq., and the regulations promulgated thereunder. Cenex is required to prepare and maintain a written plan for inspection and maintenance of their facilities.

SECTION L: Projected Demand for Service.

The construction of the Minot to West Fargo segment in 1991 was the result of a historical growth pattern of over ten years of operation of the original Laurel, Montana, to Minot segment. Cenex believes that projected future growth for the next 10 year time period will be at the rate of 2% to 3% per year. The underlying assumption for the projected demand is increased utilization by agricultural consumers in the Red River Valley area of North Dakota and Minnesota.

Respectfully submitted the day and year set forth above.

CROWLEY FLECK PLLP  
Attorneys for Cenex Pipeline LLC  
100 West Broadway, Suite 250  
Post Office Box 2798  
Bismarck, North Dakota 58502

By Beth Wald for  
BRIAN R. BJELLA

bw  
Enc.  
Ten-Year Plan to:  
County Auditors:  
Ward, McHenry Pierce, Wells, Eddy, Foster,  
Griggs, Steele, Barnes & Cass Counties  
Michael A. Gee  
Notice to:  
State Agencies and Officers designated in  
§ 69-06-01-05, N.D. Adm. Code.

Exhibit A

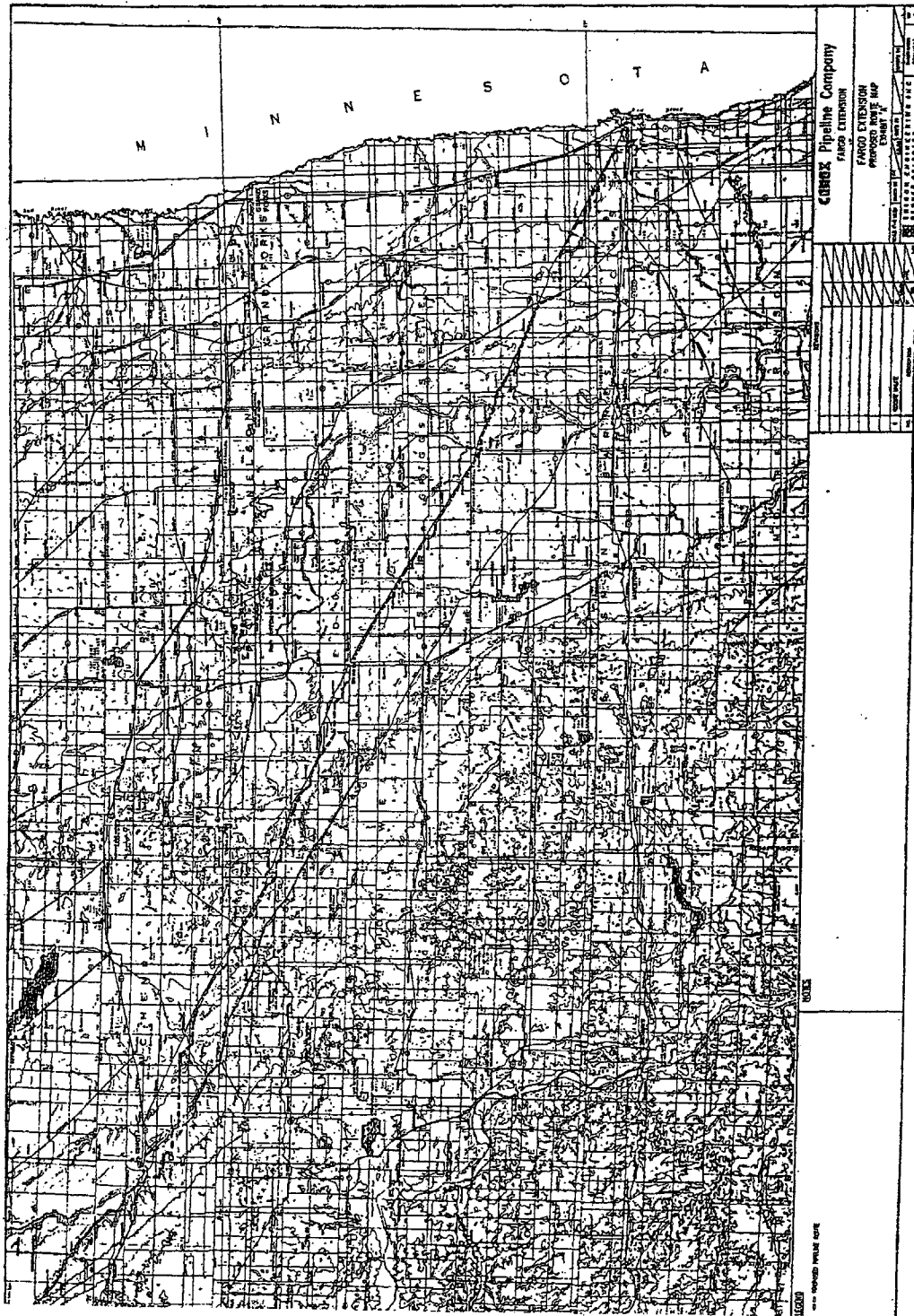
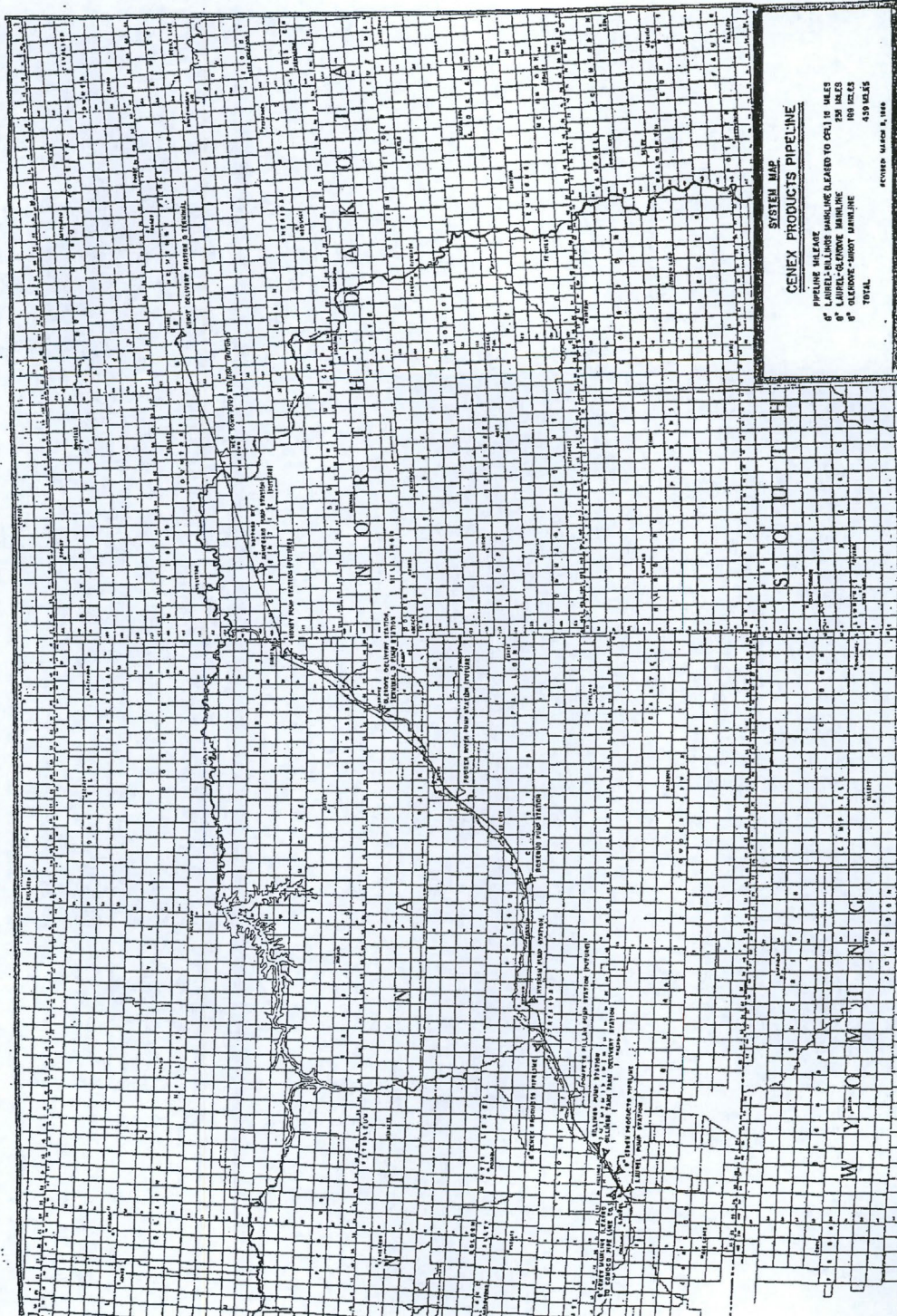


Exhibit B





Appendix D. 8½ × 11 Black and White Project Route

