

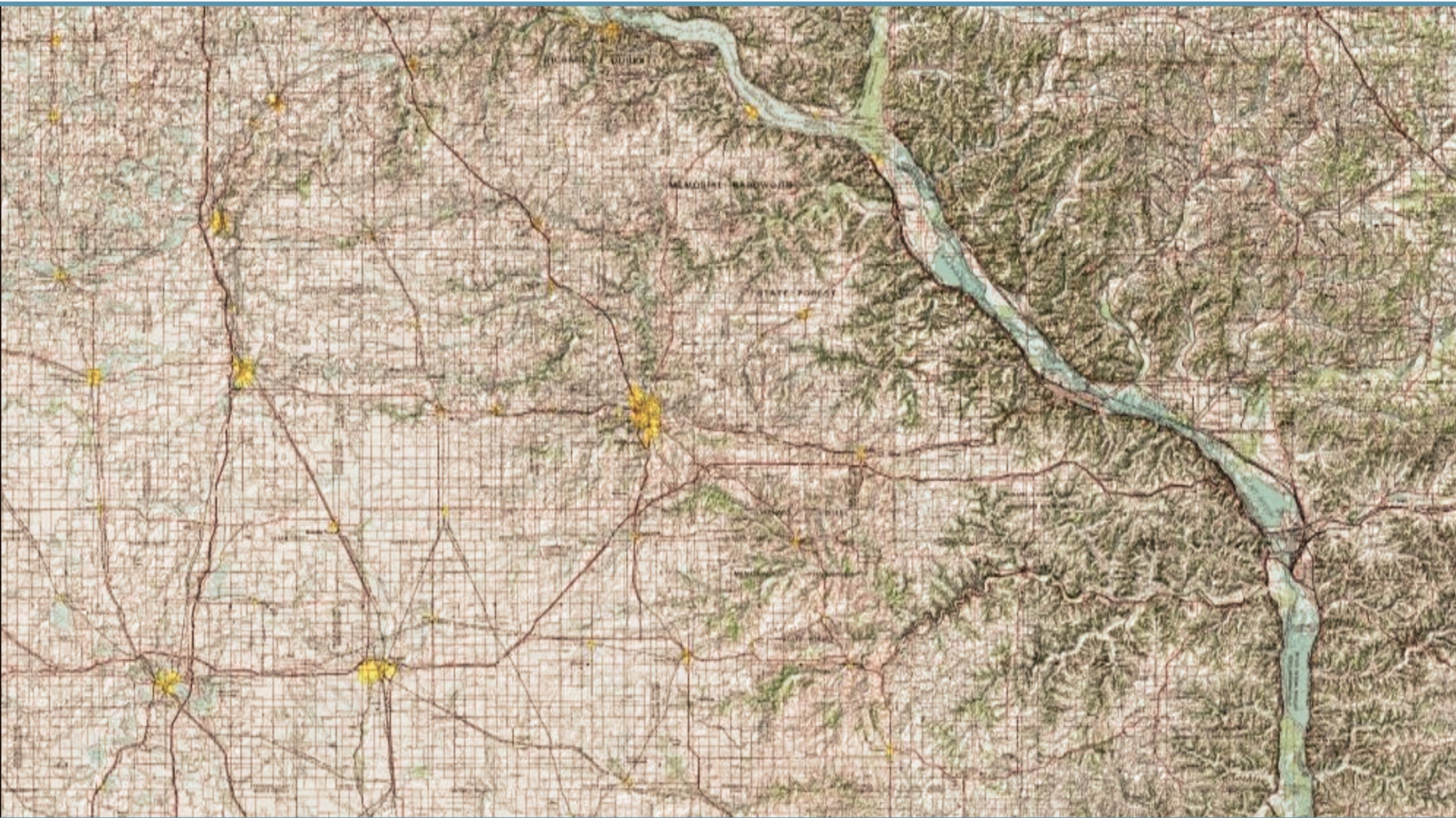
# North Dakota Public Service Commission

## Application for Certificate of Site Compatibility

**Hiland Partners Holdings LLC**

**Roosevelt Gas Plant Expansion Project**

**July 2018**



**E3 ENVIRONMENTAL™**  
*Enhancing Execution with Experience™*



Hiland Partners  
Holdings LLC  
a Kinder Morgan company



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Prepared by:

**E3 Environmental, LLC**

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- Appendix A: Engineering Documents
- Appendix B: Project Maps
- Appendix C: Consultations
- Appendix D: Natural Resource Report
- Appendix E: Cultural Resource Report

## **ACRONYMS**

BMP	Best Management Practice
DSU	Drilling Spacing Unit
E3	E3 Environmental, LLC
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
HILAND	Hiland Partners Holdings LLC
ICBM	Intercontinental Ballistic Missile
IPaC	Information for Planning and Consultation
MBTA	Migratory Bird Treaty Act
MCWCB	McKenzie County Weed Control Board
MCWRD	McKenzie County Water Resource District
MMSCFD	Million Standard Cubic Feet per Day
ND Admin.C.	North Dakota Administrative Code
ND C.C.	North Dakota Century Code
NDDoH	North Dakota Department of Health
NDDTL	North Dakota Department of Trust Lands
NDGFD	North Dakota Game and Fish Department
NDPDES	North Dakota Pollution Discharge Elimination System
NDPRD	North Dakota Park and Recreation Department
NDSWC	North Dakota State Water Commission
NGL	Natural Gas Liquid
NLEB	Northern Long-eared Bat
NRHP	National Register of Historic Places
NWI	National Wetland Inventory
Plant	Roosevelt Gas Plant
Project	Roosevelt Gas Plant Expansion
PSC	North Dakota Public Service Commission
SHPO	North Dakota State Historic Preservation Office
Site	30-acre Project Site
Study Area	1-mile area, centered upon Project
Survey Area	Project Site
USFWS	U.S. Fish and Wildlife Service
AWASA	Western Area Water Supply Authority

## **INTRODUCTION**

Kinder Morgan, via its wholly owned subsidiary, Hiland Partners Holdings LLC (HILAND), owns and operates natural gas gathering, processing and fractionation facilities in the Williston Basin area of North Dakota. Following gathering and processing of wellhead gas, HILAND's facilities connect to interstate natural gas pipeline systems, which serve markets in the Rocky Mountains and Midwest.

Stronger commodity prices have driven an increase in the crude and associated gas production in the basin and in particular on wells and acreage dedicated to the HILAND Gathering System. Due to this increase, and in anticipation of future volume growth, the need has arisen for additional natural gas processing capacity on HILAND's system. HILAND plans to address this need by expansion of the existing Roosevelt Gas Plant.

The existing Roosevelt Gas Plant is located approximately 7.5 miles south of Watford City in McKenzie County. Construction was initiated on June 1, 2015 and the Plant was placed into service on March 1, 2016. The facility currently has a nominal inlet gas capacity of 50 million standard cubic feet per day (MMSCFD).

As part of the Roosevelt Gas Plant Expansion Project (Project), HILAND plans to increase the nominal inlet gas capacity of the total plant to 200 MMSCFD. All work associated with this Project will occur within the previously developed facility footprint located on HILAND fee property. Construction is planned to begin in late 2018 with operations beginning in November of 2019, pending all regulatory approvals.

HILAND submits to the North Dakota Public Service Commission (PSC) an application for a Certificate of Site Compatibility for its Roosevelt Gas Plant Expansion Project.

The application provides the requisite information as stipulated by:

- North Dakota Century Code Chapter 49-22.1, Energy Conversion and Transmission Facilities
- North Dakota Administrative Code Chapter 69-06-04, Certificate of Site Compatibility
- North Dakota Administrative Code Chapter 69-06-08, Criteria

## **SECTION 1: DESCRIPTION**

### **1.1 TYPE OF ENERGY CONVERSION FACILITY**

HILAND's proposed Roosevelt Gas Plant Expansion Project (Project) will be located approximately 7.5-miles south of Watford City, in McKenzie County. The expansion will include the addition and operation of a permanent 150 MMSCFD (nominal inlet capacity) processing train which will have the ability to operate independently of the existing facilities. Expansion activities will include the addition of inlet gas slug catchers, produced concentrate handling, filtration and stabilization, mole sieve dehydration, cryogenic gas cooling for Natural Gas Liquid (NGL) extraction, residue gas compression, NGL pipeline pumps, a flare system and ancillary systems including control, electrical, air and heat transfer systems. A simplified block flow diagram depicting the facility's process and an overview plot plan drawing showing the layout of the proposed expansion activities are included in Appendix A.

The Plant processes wellhead natural gas gathered from crude oil production wells dedicated to HILAND's gathering system. Once processed, the NGL product extracted from the gas is transferred to the ONEOK pipeline system. Residue gas, largely methane and ethane, will be transferred to the Northern Border pipeline system.

The gas processing expansion activities would occur to the east of the existing Plant; all activities will occur within the current Plant fence line as depicted in the map in Appendix B.

### **1.2 GROSS DESIGN CAPACITY**

The current Plant has a nameplate or gross capacity of 60 MMSCFD, expansion activities include an additional train with a nameplate capacity of 200 MMSCFD, as such, the Project would result in a Gas Processing Facility designed with a gross capacity of 260 MMSCFD. Appendix A includes Plant Design Data, which discusses the Plant nameplate capacity in more detail.

### **1.3 NET DESIGN CAPACITY**

Due to the higher percentage of heavy hydrocarbons in the Bakken gas, the current Plant operates at a net capacity of 50 MMSCFD. The additional train will operate at a net capacity of 150 MMSCFD, resulting in a total facility net capacity of 200 MMSCFD.

### **1.4 ESTIMATED THERMAL EFFICIENCY OF THE ENERGY CONVERSION PROCESS AND THE ASSUMPTIONS UPON WHICH THE ESTIMATE IS BASED**

This is not applicable to this Project.

### **1.5 ACRES OF OCCUPANCY**

Once the expansion is complete, the Plant and associated facilities will occupy approximately 30 of the 38-acre parcel.

## **1.6 ANTICIPATED SCHEDULE**

### **1.6.1 OBTAINING CERTIFICATE OF SITE COMPATIBILITY**

HILAND would like to obtain a certificate of site compatibility by September 1, 2018.

### **1.6.2 COMPLETING LAND ACQUISITION**

Land acquisition is complete; HILAND owns the entire 38-acre parcel where the current Plant and expansion activities will occur.

### **1.6.3 STARTING CONSTRUCTION**

Construction will commence immediately following the issuance of the Certificate of Site Compatibility.

### **1.6.4 COMPLETING CONSTRUCTION**

Plant construction would require approximately 13-15 months to complete.

### **1.6.5 TESTING OPERATIONS**

Testing and/or commissioning operations would follow the completion of construction and are anticipated to last for approximately 30-days.

### **1.6.6 COMMENCING COMMERCIAL PRODUCTION**

The new Plant would go into production by November of 2019. It is estimated that in the first year of operation the Plant will operate at 75 MMSCFD with production meeting net capacity by the end of year four.

### **1.6.7 EXPANSIONS OR ADDITIONS**

HILAND is not aware of additional plans to begin other expansions at the Plant.

### **1.6.8 ESTIMATED TOTAL COST OF CONSTRUCTION**

The construction of the Plant expansion is estimated to cost \$150,000,000. The cost of the existing Plant's construction was approximately \$84,000,000.

## **SECTION 2: STUDIES**

### **2.1 STUDY AREA**

The Study Area utilized is a 1-mile diameter area centered upon the existing Plant property (Project Area or Site). The Project and Study Areas are depicted on the maps found in Appendix B.

### **2.2 SITE**

The Project Area or Site is a 30-acre parcel as depicted in the maps found in Appendix B. Natural resource and cultural resource field surveys were conducted that encompassed the undeveloped portions of the Site (Survey Area).

E3 Environment, LLC (E3) on behalf of HILAND initiated consultations with the federal and state agencies identified below for the purpose of environmental resource assessment relative to the potential impacts associated with the siting and construction of the proposed Project. Please refer to Appendix C for copies of these consultations.

- U.S. Fish and Wildlife Service (USFWS);
- North Dakota Game and Fish Department (NDGFD);
- North Dakota Parks and Recreation Department (NDPRD);
- North Dakota State Historic Preservation Office (SHPO);
- North Dakota Department of Trust Lands (NDDTL);
- North Dakota State Water commission (NDSWC);
- Western Area Water Supply Authority; (WAWSA)
- McKenzie County Water Resource District (MCWRD); and
- McKenzie County Weed Control Board (MCWCB).

Consultations and field studies are summarized as follows:

### **2.3 ENVIRONMENTAL ANALYSIS**

#### **2.3.1 NATURAL RESOURCE INVENTORY**

E3 completed a natural resource survey of the Survey Area on June 6, 2018. The survey included an inventory of the presence or absence of wetlands, waterbodies, tree/shrub, noxious weeds, protected species and critical habitat. A copy of the survey report can be found in Appendix D.

##### **2.3.1.1 TREE/SAPLING/SHRUB INVENTORY**

The Site is occupied by the existing Plant and its associated aboveground appurtenances. No trees, saplings, shrubs or woody vegetation were observed within the Survey Area.

### **2.3.1.2 WETLAND AND WATERBODIES INVENTORY**

National Wetland Inventory (NWI) mapping for the area does not indicate the presence of wetlands or waterbodies within the Site. Field inventory did not identify areas within the Survey Area with wetland indicators: presence of hydrophytic vegetation, wetland hydrology or hydric soils. As such, it was determined that no wetlands or waterbodies are present within the Survey Area. The results of the field studies including wetland and waterbodies survey can be found in its entirety in Appendix D.

### **2.3.1.3 WILDLIFE INVENTORY**

Wildlife observed on the Site are species commonly associated with agricultural communities. No Federal or state species of concern were observed on the Site.

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

#### **2.3.2.1 FEDERALLY PROTECTED SPECIES REVIEW**

Under authority of the Endangered Species Act (ESA), the USFWS and the Fisheries Service division of the National Oceanic and Atmospheric Administration have identified and maintained a list of species and critical habitats that have been afforded protection under the ESA. The ESA also provides a program for the conservation of threatened and endangered plants and animals and the habitats in which they live.

E3 accessed the USFWS' Information for Planning and Consultation (IPaC) system on June 1, 2018 and completed their online consultation process. The following listed species were identified by IPaC as having the potential to occur within the Study Area:

- Gray wolf (*Canis lupus*) – endangered
- Northern long-eared bat (*Myotis septentrionalis*) – threatened
- Interior least tern (*Sternula antillarum*) – endangered
- Piping plover (*Charadrius melodus*) – threatened, and designated critical habitat
- Rufa red knot (*Calidris canutus rufa*) –threatened
- Whooping crane (*Grus americana*) – endangered
- Pallid sturgeon (*Scaphirhynchus albus*) – endangered
- Dakota skipper (*Hesperia dacotae*) –threatened, and designated critical habitat

On June 5, 2018, Project specific consultations were initiated with the Bismarck, North Dakota office of the USFWS. On June 19, 2018, an email from the USFWS was received stating that a formal response would not be provided. See Appendix C for a copy of the correspondence.

E3 has reviewed the available data describing the life history, critical habitat, and conservation measures associated with each species as well as completed field studies

to evaluate the potential effects of the Project on these resources, the results of these efforts are as follows. Appendix D contains the Natural Resource Survey Report.

**Gray wolf:** The gray wolf is a large carnivore that through conservation measures has experienced strong population recovery, particularly in the Great Lakes states of the upper Midwest. As populations rebound, individuals may break from packs to explore opportunities to establish packs in unoccupied territory. Roaming individuals can cover great distances without establishing viable breeding populations in previously unoccupied habitat(s). This species is not tolerant of human disturbance and will tend to avoid interaction with humans. The activities associated with this Project and the current Plant operation are likely serve as a deterrent to this species, impacts are not anticipated.

**Northern long-eared bat:** The northern long-eared bat (NLEB) roosts underneath bark, in cavities, or in crevices of both live and dead trees. Populations have also been found in cool environments such as caves and mines, and prefer to spend winter hibernating in locations with high humidity and no air currents. The Final 4(d) rule exempts incidental take of the NLEB from all activities occurring in areas that have not been affected by white-nose syndrome. The Project occurs outside of the USFWS white-nose syndrome buffer zone; as such, there are no restrictions for Project activities. Additionally, no potential habitat will be impacted by the project thus; the Project will not impact this species.

**Interior least tern:** The interior populations of the Least tern have historically been associated with large river systems for breeding and migratory habitats. Breeding birds are known to congregate in colonies, utilizing sandbar habitat common to larger rivers. The Missouri River is located approximately 24-miles north of the Project. The Least tern is found in North Dakota during the late spring and summer breeding season (mid-May through late August, with the peak of the nesting season occurring from mid-June to mid-July). Desktop analyses supported with field studies have concluded that no suitable habitat is present within the Project Area; therefore, impacts to the Least tern are not anticipated.

**Piping plover:** The Piping plover is associated with shorelines along small alkaline lakes, large reservoir beaches, and river islands and adjacent sand pits. Breeding birds select wide beaches with highly clumped vegetation covering less than 25 percent of the area. Breeding season in North Dakota occurs mid-April through August. Desktop analyses supported with field studies have concluded that no suitable habitat is present within the Project Area; therefore, impacts to the Piping plover or its designated critical habitat are not anticipated.

**Rufa red knot:** The Rufa red knot migrates between breeding grounds in Canada and wintering grounds in South America. A significant factor threatening the Rufa red knot is destruction and modification of its habitat due to beach erosion and shoreline

protection and stabilization projects. Migratory behavior and habitat requirements of this species are poorly understood particularly for those populations occupying the midcontinent flyways. Inland stopovers include the Mississippi Valley, Great Lakes and Great Plains. Desktop analyses supported with field studies have concluded that no suitable habitat is present within the Project Area; therefore, impacts to the Rufa red knot are not anticipated.

**Whooping crane:** The whooping crane is a large bodied marsh species that breeds primarily in Canada and winters in the Gulf of Mexico. This species has been closely studied and monitored in recent years due to its small population. North Dakota provides migratory habitat for the species, providing roosting and feeding opportunities during migration. This species prefers larger wetland complexes for roosting habitat, typically using adjacent uplands for foraging opportunities. The Project is located within the fenced perimeter of an existing facility, a prominent feature within the existing landscape, which would serve as a deterrent to migrating cranes arriving in the vicinity of the Project. As such, impacts to the whooping crane are not anticipated.

**Pallid sturgeon:** The pallid sturgeon's preferred habitat includes the benthic environment associated with swift waters of large turbid, free-flowing rivers with braided channels, dynamic flow patterns, periodic flooding of terrestrial habitats and requiring extensive microhabitat diversity. In North Dakota, reaches of the Missouri River have been cited as providing suitable habitat for the pallid sturgeon. The Missouri River is located approximately 24-miles to the north and does not cross the Project Area, as such, impacts to the pallid sturgeon are not anticipated.

**Dakota skipper:** Dakota skippers require untilled, high-quality prairie. Habitat preferred by the skipper is wet-mesic prairie with little topographic relief on near-shore glacial lake deposits and in rolling native-prairie terrain over gravelly glacial moraine deposits. The closest designated critical habitat is located approximately 30-miles to the northeast of the Project. Larvae feed on grasses, favoring little bluestem (*Schizachyrium scoparium*). Adults commonly feed on nectar of flowering native forbs such as harebell (*Campanula rotundifolia*), wood lily (*Lilium philadelphicum*), and purple coneflower (*Echinacea angustifolia*). This species is not known to disperse widely and has low mobility, dispersing a maximum of 0.6-mile. The proposed Project site has primarily been used as cultivated cropland and has been managed as such for several years. Desktop analysis supported by field studies show that no suitable habitat is present within the Project Area; therefore, impacts to the Dakota skipper are not anticipated.

### **2.3.2.2 U.S. FISH AND WILDLIFE SERVICE MIGRATORY BIRD TREATY ACT CONSULTATION**

USFWS is responsible for the protection of migratory birds via the Migratory Bird Treaty Act (MBTA); management of this responsibility has largely focused on protection of the birds while on their breeding grounds during the breeding season. It is generally

understood that the USFWS defines the breeding season in this region as typically occurring annually from March 15 through July 15.

On June 5, 2018, Project specific consultations were initiated with the Bismarck, North Dakota office of the USFWS. On June 19, 2018, an email from the USFWS was received stating that a formal response would not be provided. See Appendix C for a copy of the correspondence.

### **2.3.2.3 U.S. FISH AND WILDLIFE SERVICE MANAGED LANDS**

Conservation programs such as Waterfowl Production Areas, wetland and grassland easements represent an important tool used by the USFWS to identify and manage high quality wildlife habitat. A review of public records failed to identify any of these USFWS managed lands in the Study Area.

On June 5, 2018, Project specific consultations were initiated with the Bismarck, North Dakota office of the USFWS. On June 19, 2018, an email from the USFWS was received stating that a formal response would not be provided. See Appendix C for a copy of the correspondence.

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

The NDGFD have oversight of the state's game and protected species. On June 5, 2018, Project specific consultations were initiated with the NDGFD. A response from the agency was received on June 29, 2018; no concerns were raised. See Appendix C for a copy of the correspondence.

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

The NDPRD maintains a database comprised of the location and recorded occurrences of plant and animal species of special concern.

On June 5, 2018, a consultation letter was sent to the NDPRD requesting a Natural Heritage Inventory review of the Site seeking to confirm the absence of state species of special concern, or state park lands within the Study Area. See Appendix C for a copy of the correspondence. A response from the agency is pending.

### **2.3.5 NORTH DAKOTA STATE HISTORIC PRESERVATION OFFICE**

The SHPO is responsible for managing the historic and archaeological resources of the state. On May 31, 2018, a Class I Cultural Resources Literature Search of SHPO records to identify previously completed cultural resource investigations and previously recorded cultural resources within 1 mile of the Project Site. Thirty-four (34) previous inventories and 15 previously recorded cultural resources were documented within the Study Area. Refer to Appendix E for the complete Cultural Resource Report.

On June 6, 2018, a Class III Cultural Resource inventory of the Site was completed. Archaeologists completed a pedestrian survey of the Site. The Site is generally described

as developed agricultural land. No cultural resources were identified by the Class III survey. The Cultural Resources Report recommending a finding of *No Historic Properties Affected* was submitted to the SHPO on June 15, 2018; SHPO concurrence was provided on June 19, 2018. Refer to Appendix C and E for records of this communication.

### **2.3.6 NORTH DAKOTA DEPARTMENT OF HEALTH**

The NDDoH administers regulatory programs governing the state's interest in air quality and water discharges. HILAND is currently engaged with the North Dakota Department of Health (NDDoH) in the permitting process with respect to air emissions and water discharges.

#### **2.3.6.1 NORTH DAKOTA DEPARTMENT OF HEALTH AIR QUALITY**

The NDDoH administers the state's air quality protection programs. HILAND obtained the appropriate air permits for the existing Plant; this permit will be modified to include the expansion activities.

HILAND is applying for the required permits for construction and operation of new emission sources. Equipment such as gas-driven compressors, heaters, storage tanks, flares, and other ancillary equipment could be regulated emission sources and will be included in the permit application required by NDDoH for the construction and operation of air emission sources.

#### **2.3.6.2 NORTH DAKOTA DEPARTMENT OF HEALTH POLLUTION DISCHARGE ELIMINATION SYSTEM**

The North Dakota Pollution Discharge Elimination System (NDPDES) is regulatory program that regulates water discharges. HILAND will procure the appropriate NDPDES permits from the NDDoH for regulated discharges associated with the construction and operation of the Plant.

**Construction Stormwater:** HILAND will implement best management practices (BMPs) and existing stormwater management systems to manage run-off in a manner that will minimize exposure to chemicals, waste, or petroleum products as well as describing to minimize off-site transfer of sediments. HILAND plans to seek coverage under NDR10-0000 *Authorization to Discharge Under the North Dakota Pollutant Discharge Elimination System* general permit for construction activities

**Construction site dewatering:** HILAND will be seeking coverage under NDG07-0000 *Authorization to Discharge Under the North Dakota Pollutant Discharge Elimination* a general permit for various temporary discharges including both construction site dewatering and hydrostatic test water discharges. Site dewatering is required when groundwater infiltrated excavations (e.g., foundations and trenches) must be removed. Discharges are managed to minimize scouring and off-site transfer of sediments. Discharges are monitored and water quality samples will be collected, analyzed and reported as stipulated by the general permit.

**Industrial Discharges:** HILAND understands that the plant will be exempt from a requirement to obtain an industrial discharge permit of stormwater. The facility SIC code is 1321, which is exempt from industrial stormwater permit requirements. Additionally, HILAND has developed a no-contact facility, which is also eligible for exempt status, but requires an NDDoH review of the facility and stormwater control measures.

### **2.3.7 NORTH DAKOTA DEPARTMENT OF TRUST LANDS**

The NDDTL is responsible for managing surface acres and mineral interests held in trust for various schools and institutions. On June 5, 2018, E3 sent a Project consultation letter to the NDDTL allowing the agency the opportunity to review the Project Area and confirm the presence or absence of school or mineral trust lands located within the Study Area or Project Site. A response from the mineral trust group was received on June 8, 2018 indicating that they have fifty-percent interest in two tracts of land located within the Study Area however; neither of these tracts intersect with the Site. A response from the school trust group is pending; refer to Appendix C for a complete record of this communication.

### **2.3.8 NORTH DAKOTA STATE WATER COMMISSION**

The NDSWC administers water appropriation, drainage and sovereign lands permit programs and may have relevant information regarding rural water supply systems.

On June 5, 2018, E3 on behalf of HILAND initiated consultations with the NDSWC requesting comments regarding the presence or absence of sovereign lands and/or rural water systems within the Study Area and seeking agency guidance regarding any potential required permits. The NDSWC responded in a letter dated June 27, 2018. The NDSWC identified three activities that may require a permit/authorization from the NDSWC; 1) the diversion of surface or ground water, 2) development within a floodplain, and 3) impacts to surface water resources. The Project will not require the diversion of surface or ground water, is not located in a floodplain and will not impact surface water resources.

### **2.3.9 WESTERN AREA WATER SUPPLY AUTHORITY**

The WAWSA has jurisdiction over a five county region, which includes Burke, Divide, McKenzie, Mountrail and Williams. WAWSA utilizes a combination of Missouri River treated at the Williston Regional Water Treatment and ground water treated by the R&T Water Supply Commerce Authority's Water Treatment Plant in Ray to supply and meet the needs of municipal, rural and industrial water users in the five county area. On June 5, 2018, E3 on behalf of HILAND initiated consultation with the WAWSA requesting comments regarding the presence of reservoirs or municipal water supplies within the Study Area. A response is pending.

**2.3.10 MCKENZIE COUNTY WATER RESOURCE DISTRICT**

The MCWRD is responsible for managing drains, ditches and or other water and or drainage systems regulated by the county. On June 5, 2018, E3 on behalf of HILAND initiated consultations with the MCWRD requesting comments regarding the presence or absence of MCWRD assets within the Study Area. Agency response is pending.

**2.3.11 MCKENZIE COUNTY WEED CONTROL BOARD**

The MCWCB maintains records for the location and species of noxious weeds within the county. On June 5, 2018, E3 on behalf of HILAND initiated consultations with the MCWCB. The MCWCB response is pending. Refer to Appendix C for a record of this correspondence and Weed Control Plan.

### **SECTION 3: NEED FOR FACILITY**

#### **3.1 ANALYSIS OF NEED BASED ON PRESENT AND PROJECTED DEMAND, INCLUDING SYSTEM STUDIES**

Due to continued strength in the crude oil market, production of crude and the associated wellhead gas is expected to increase in the Williston Basin. In particular, production dedicated to HILAND's gathering system in McKenzie County, southern Williams County and the surrounding areas is projected to increase significantly, beyond existing levels in the near future. This results in the need to install additional processing capacity on HILAND's system to capture the increased supply and reduce flaring.

The NDIC reported in April of 2018 that oil and gas production had increased from February to March. Additionally the NDIC reports that drilling rig count is slowly rising and operators are shifting from running a minimum number of rigs with incremental increases throughout 2018. HILAND estimates that the reservoir of gas in its dedicated area to be 200-450 MMSCFD. Additional rigs, drilling spacing unit (DSU) development, and HILAND's growing gathering infrastructure is expected to increase oil and gas production for HILAND and potential third party operators wishing to tie into HILAND's gathering system. The proposed Project would provide additional processing capacity, and further reduce trucking and flaring at production facilities across the region.

#### **3.2 DESCRIPTION OF FEASIBLE ALTERNATIVE METHODS OF SERVING THE NEED**

A thorough analysis of all reasonable alternatives was conducted. Various factors were considered by HILAND, including engineering, economic and environmental factors in multidisciplinary and iterative fashion. This process identified the following alternatives.

**No Action Alternative:** Regional production would continue to be constrained by gas processing, resulting in continued flaring at the wellhead and processing plants and the loss of natural resources as well as increased truck traffic. This alternative is not desirable.

**New Plant Siting:** Siting a new plant was considered; however, it was found to have greater indirect impacts to area resources as each alternative site considered would require installation of additional infrastructure (e.g.; access roads, utilities, and delivery pipelines) and potentially increase the distance from HILAND's existing gas and oil gathering system which currently delivers product to the Plant. This alternative is not desirable.

## **SECTION 4: LOCATION**

### **4.1 SIZE OF STUDY AREA**

HILAND’s Study Area was a 1-mile area centered upon the Project Site as depicted on the maps in Appendix B. E3 completed a resource inventory of the Study Area that included agency consultations, GIS mapping, internet based research and desktop analysis. These efforts were augmented with natural and cultural resource surveys of the Site.

### **4.2 MAPS IDENTIFYING CRITERIA**

The information presented in this section was developed to demonstrate conformation with the Commission’s siting criteria for Energy Conversion Facilities. HILAND has conducted a thorough inventory of the Study Area and Project Site and evaluated the resources that occur within each to assess the compatibility of the Plant with the state’s siting criteria. The following sections identify and discuss the presence or absence of siting criteria within the Study Area or Site. Where siting criteria is identified, its location is shown on the maps in Appendix B.

### **4.3 EXCLUSION AREA INVENTORY AND ANALYSIS (SECTION 69-06-08-01(1), N.D. ADMIN. CODE)**

Exclusion areas are geographic areas that should be excluded from consideration when siting an energy conversion facility. The following table and text identify and discuss exclusion areas identified within the Study Area or Site.

**Table 1: Exclusion Areas**

<b>Exclusion Area</b>		<b>Project Site</b>	<b>Within Study Area</b>
<b>Federal</b>			
	National Parks or Memorial Parks	No	No
	Historic Sites, Districts, or Landmarks	No	No
	Natural Landmarks or Monuments	No	No
	Wilderness Areas or Wildlife Areas	No	No
	Wild, Scenic or Recreational Rivers	No	No
	Wildlife Refuges or Grasslands	No	No
<b>State</b>			
	Parks, Forest or Forest Management Lands	No	No
	Historic Sites, Monuments, or Historical Markers	No	No
	Archaeological Sites	No	Yes
	Grasslands	No	No
	Wild, Scenic or Recreational Rivers	No	No

<b>Exclusion Area</b>		<b>Project Site</b>	<b>Within Study Area</b>
	Game Refuges or Game Management Areas	No	No
	Management Areas	No	No
	Nature Preserves	No	No
<b>County</b>			
	Parks	No	No
	Recreation Areas	No	No
	Municipal Parks	No	No
	Parks Administered by other Governmental Subdivisions	No	No
<b>Other</b>			
	Prime Farmland	No	No
	Irrigated Farmland	No	No
	Critical habitat for protected species	No	No
	Areas within one 1,200 feet of the geographic center of an ICBM launch or launch control facility.	No	No

#### **4.3.1 FEDERAL RESOURCE REVIEW**

Based upon a review of publicly available information, HILAND has concluded that there are no national parks, memorial parks, historic sites and landmarks, monuments, or wilderness areas within the Project Area or Site.

#### **4.3.2 STATE RESOURCE REVIEW**

Based upon a review of field surveys and publicly available information, HILAND has concluded that there are no state parks, monuments, historical markers, or nature preserves within the Study Area or Site.

The Class I literature review identified two archaeological sites within the Study Area. No historic or archaeological sites were identified within the Site. Refer to Appendix E for additional information.

#### **4.3.3 COUNTY RESOURCE REVIEW**

Based upon a review of publicly available information HILAND has concluded that there are no county parks, recreation areas, municipal parks or parks owned by other subdivisions of government bodies within the Study Area or Site.

#### **4.3.4 PRIME FARMLAND**

HILAND conducted a review of the U.S. Department of Agriculture Natural Resources Conservation Service Web Soil Survey. No prime farmland was found within the Study Area or Site.

#### 4.3.5 IRRIGATED FARMLAND

HILAND’s investigation found no evidence of irrigation within the Study Area or Site.

#### 4.3.6 PROTECTED SPECIES RESOURCE REVIEW

HILAND has conducted field surveys of the Site and reviewed published information. Based upon this effort it has been determined that there are no areas critical to the life stages of threatened or endangered animal or plant species within the Study Area or Site. HILAND has initiated consultations with agencies to confirm this conclusion. Refer to Appendix C for a record of these consultations.

#### 4.3.7 CRITICAL HABITAT FOR PROTECTED SPECIES

Based upon consultations with agencies and surveys of the Site, HILAND has confirmed the absence of critical habitat within the Study Area and Site. Refer to Appendix C for a record of agency correspondence.

#### 4.3.8 AREAS WITHIN 1,200 FEET OF ICBM LAUNCH OR LAUNCH CONTROL FACILITY

Upon review of tabular location data and aerial imagery compiled by the University of Wyoming, there are no areas within 1,200 feet of the geographic center of an Intercontinental Ballistic Missile (ICBM) launch or launch control facility located within the Study Area or Site.

#### 4.4 AVOIDANCE AREA INVENTORY AND ANALYSIS (SECTION 69-06-08-01(3), N.D. ADMIN. CODE)

Avoidance areas are geographical areas, which may not be approved as a site for an energy conversion facility unless the applicant shows that under the circumstances there is no reasonable alternative.

**Table 2: Avoidance Areas**

Avoidance Area		Project Site	Within Study Area
<b>Other</b>			
	Other Historic Resources not meeting Exclusion Areas criteria	No	No
	Areas within City Limits or Military Installation Boundaries	No	No
	Areas within Known 100-Year Floodplains	No	No
	Areas of Known Geologic Instability	No	No
	Woodlands and Wetlands	No	Yes
	Areas of Recreational Significance not categorized as Exclusion Areas	No	No

#### **4.4.1 OTHER HISTORICAL RESOURCES NOT MEETING EXCLUSION AREA CRITERIA**

HILAND conducted a Class I literature review identified 13 previously recorded resources within the Study Area that have been determined to be not eligible for the National Register of Historic Places (NRHP). No historical resources not meeting the exclusion area criteria were identified within the Site. Refer to Appendix E for additional information regarding the not eligible cultural resource sites.

#### **4.4.2 AREAS WITHIN CITY LIMITS OR MILITARY INSTALLATION BOUNDARIES**

HILAND has confirmed that the Study Area and Site are not located within city limits or within the boundaries of military installations.

#### **4.4.3 AREAS WITHIN KNOWN 100-YEAR FLOODPLAINS**

E3 accessed the FEMA flood map service tool on June 9, 2018 and there are no special flood hazard areas mapped within the Study Area or Site, as such, no areas of the Project are within a known 100-year floodplain.

#### **4.4.4 AREAS OF KNOWN GEOLOGIC INSTABILITY**

There are no known areas of geological instability within the Study Area or Site.

#### **4.4.5 WOODLANDS AND WETLANDS**

Natural resource studies of the Site augmented GIS analysis were utilized to determine the presence/absence of wetland and woodland resources of the Study Area. No wetlands were identified within the Site; however, they do occur in the Study Area. Woodlands associated with waterways and property/section lines occur within the Study Area but none were found within the Site.

#### **4.4.6 AREAS OF RECREATIONAL SIGNIFICANCE NOT CATEGORIZED AS EXCLUSION AREAS**

No areas of recreational significance occur within the Study Area or Site.

#### **4.5 SELECTION CRITERIA (SECTION 69-06-08-01(5), N.D. ADMIN. CODE)**

The selection criteria require a study of environmental impacts and changes in land use that may result from the siting of the proposed facility. Through this process, HILAND proposes that it has successfully avoided or minimized these effects to the maximum extent practicable, for Commission review and approval.

##### **4.5.1 AGRICULTURAL IMPACT ASSESSMENT**

**Agricultural Production:** The Project will not remove any tillable land from agricultural production, as the proposed expansion activities will occur within the existing Plant property.

**Family Farms and Ranches:** The property has been owned and operated by HILAND since 2015. The Site is just over a half of a mile from the nearest occupied farm residence. No impacts to family farms or ranches are anticipated.

**Lands Suitable for Irrigation:** The Project will not impact irrigated lands.

**Surface Drainage:** The nearest surface water drainage is Spring Creek, which is approximately 200-feet east of the site. Spring Creek flows approximately 6.1 miles into Cherry Creek. Uncontrolled stormwater runoff has the potential to flow into either of the two forks of Spring Creek located along the east and west sides of the site. Structural controls (e.g., diversion ditches) are used to prevent and minimize water flowing onto the site; similar controls including the detention pond are used to manage surface water runoff and discharges from the site.

**Ground Water:** The aquifers that underlay North Dakota are typically associated with two types of geologic formations, specifically bedrock and glacial drift. Bedrock aquifers in the area are known to occur from 3,000 to 5,000 feet below the surface while glacial drift aquifers are known to occur at depths of from a few feet to up to 500 feet below the surface. Ground excavation associated with the Project will generally be limited to depths no greater than 8 feet; as such, it is unlikely that the Project would have significant or permanent impact on groundwater resources.

**Agricultural Quality of the Cropland:** No agricultural land will be acquired for the Plant. No land will be permanently removed from agricultural production. No other impact to agricultural lands is anticipated.

**Impact Upon the Availability and Adequacy of Local Public Services:** The potential impacts to local public services including law enforcement, fire department, health care, public schools and recreational facilities are anticipated to be temporary in duration and minimal in their overall effect to existing programs and systems.

Construction activities are anticipated to occur over a 13-15 month period. During this period, there will be an influx of employees ranging from laborers, skilled trades, technicians, engineering and environmental professionals. In total approximately 250 laborers will be utilized to complete the Project.

Area resources may experience increased demand on services with the addition of construction workers temporarily residing in the area. The peak demands will likely occur in late spring through the summer of 2019. The most noticeable impact may be due to an increase in vehicle traffic associated with the plant expansion activities.

#### **4.5.2 THE IMPACTS UPON**

**Local Institutions:** Due to its proximity to the Project Site, Watford City may see the greatest impact from the Project. These impacts from facility expansion construction will be temporary, as the majority of the construction will be completed in 2019. Once

expansion activities are complete, HILAND will continue to utilize their existing employees to operate the facility. Generally, the impacts will be beneficial to the local economy during construction due to the addition of revenues from outside of the community being spent on goods and services locally.

**Noise-Sensitive Land Uses:** The Project has been sited approximately 7.5 miles from Watford City in a rural setting, effectively isolating the Project from the majority of sensitive receptors. Local residents may experience additional motor vehicle volumes on area roadways, but the noise associated with vehicles will be similar to existing background levels and occur largely during normal business hours.

**Rural Residences and Businesses:** The Project is located approximately 7.5 miles from Watford City. Residents may experience additional traffic congestion and an increase in commerce in response to the influx of temporary workers purchasing goods and services. The Plant will likely benefit the local economy for both the near and long term.

**Aquifers:** Water demands during and after construction are anticipated to be minimal and unchanged from current Plant operation.

**Human Health and Safety:** HILAND promotes a safe and healthy workplace during construction and operations of all its assets. HILAND implements a corporate policy that meets or exceeds federal and state laws, rules and regulations applicable to health, safety, and the environment. Their policy is enforced and adhered to by all regular and contract employees. HILAND governs operations and construction activities with various safe work procedures designed to protect property and personnel and maintaining regulatory compliance.

**Animal Health and Safety:** The wildlife currently inhabiting the Project Area are common and are generally mobile. The local wildlife inhabitants will be displaced by the Project without a measurable impact to the viability of these populations. No species of special concern are anticipated to experience direct impacts due to expansion activities or operation of the Plant.

**Plant Life:** The expansion activities will occur entirely within the existing Plant property. No loss of natural vegetation will occur as a result of the Project. No species of special concern will be impacted by the Project.

**Temporary and Permanent Housing:** The region has experienced decreased demand for permanent and temporary housing, resulting from the downturn in oil and gas development. The Project will introduce temporary workers to the area, and as a result, will have a positive effect on the temporary and permanent housing economy.

**Temporary and Permanent Skilled and Unskilled Labor:** Construction of the Project will require a work force of approximately 225 temporary employees. The workforce will be comprised of both skilled and unskilled personnel. Skilled labor will include craft

workers such as operating engineers, ironworkers, welders, electricians, carpenters and boilermakers. The unskilled workforce will be comprised of common laborers who work closely with the skilled trades.

Once the Project is complete and operational, it will utilize work force currently employed at the Plant. These personnel will be responsible for day-to-day operations, maintenance and support of local gathering assets that supply the Plant.

#### **4.6 CUMULATIVE EFFECTS OF THE LOCATION OF THE FACILITY IN RELATION TO EXISTING AND PLANNED FACILITIES AND OTHER INDUSTRIAL DEVELOPMENT**

HILAND is not aware of any new planned facilities or industrial developments in the area. As a result, of new processing capacity, there may be development of additional take-away capacity to bring the product to market at some point in the future.

#### **4.7 POLICY CRITERIA (SECTION 69-06-08-01(6), N.D. ADMIN. CODE)**

The Commission may give preference to an applicant that will maximize benefits that result from the adoption of the following policies and practices, and in proper case may require the adoption of such policies and practices. The Commission may also give preference to an applicant that will maximize interstate benefits.

##### **4.7.1 RECYCLING OF THE CONVERSION BYPRODUCTS AND EFFLUENTS**

Not applicable to this type of project.

##### **4.7.2 ENERGY CONSERVATION THROUGH LOCATION, PROCESS AND DESIGN**

The siting of the Plant in close proximity to wellhead and gathering systems reduces emissions associated with shipping raw feed gas over greater distances. The Project will increase the capacity at the existing location thus there is no increase in shipping distance of the raw gas.

##### **4.7.3 TRAINING AND UTILIZATION OF AVAILABLE LABOR IN THIS STATE FOR THE GENERAL AND SPECIALIZED SKILLS REQUIRED**

Gas plant construction is a specialized niche construction market and the labor force needed to construct the Project will be primarily comprised of a non-local workforce. The primary contractor will be a non-local contractor, supplying specialized skilled labor. HILAND will draw upon the local labor force to supply general laborers. The workforce is anticipated to reach a peak of approximately 225 personnel of which up to 10 percent could be drawn upon locally.

#### **4.7.4 USE OF A PRIMARY ENERGY SOURCE OR RAW MATERIAL LOCATED WITHIN THE STATE**

The raw feed gas supplying the proposed Plant will be produced and processed entirely in State. The Plant products will be shipped to delivery points in State and transported out of state.

#### **4.7.5 RELOCATION OF RESIDENTS**

As this Project is the expansion of an existing Plant, no residences shall be displaced or require relocation due to the Project.

#### **4.7.6 THE DEDICATION OF AN AREA ADJACENT TO THE FACILITY TO LAND USES SUCH AS RECREATION, AGRICULTURE, OR WILDLIFE MANAGEMENT**

HILAND does not own property adjacent to the Site suitable for recreation, agricultural, or wildlife management purposes. The current land use of properties adjacent to the Project is rangeland, agricultural as well as industrial with the Targa Little Missouri Gas Plant located to the northeast, and truck yards and tank farms located to the east and west (see aerial map in Appendix B).

#### **4.7.7 ECONOMICS OF CONSTRUCTION AND OPERATION**

HILAND has designed the current Plant and expansion activities to take advantage of the Site's proximity to existing electrical supply and gathering system piping for its location. The Plant will use an existing gathering line system to deliver raw feedstock to the Plant from the gathering fields and generate new delivery points for processed natural gas, NGLs and its constituents. The Plant's location and design are clear examples of creating an economy of scale Project concept, achieving additional production capacity in the most minimally intrusive and most efficient way possible, in terms of new infrastructure development.

#### **4.7.8 SECONDARY USES OF APPROPRIATE ASSOCIATED FACILITIES FOR RECREATION AND THE ENHANCEMENT OF WILDLIFE**

Construction of the Project will result in the development of an industrial facility and a setting not typically suitable for recreational or wildlife application.

#### **4.7.9 USE OF CITIZEN COORDINATING COMMITTEES**

HILAND has established and maintains a good relationship with the local residents. Through these relationships, HILAND has maintained several grass roots communication channels to inform local residents regarding the developments associated with the Plant.

**4.7.10 A COMMITMENT OF A PORTION OF THE TRANSMITTED PRODUCT FOR USE IN THIS STATE**

The raw feed gas supplying the proposed Plant will be supplied and processed entirely in state. The products of the Plant will be transported to delivery or transfer points located both in and out of state.

**4.7.11 LABOR RELATIONS**

HILAND does not anticipate encountering any adverse labor relations on this Project. The labor market in the Project area is supportive of the oil and gas industry.

**4.7.12 THE COORDINATION OF FACILITIES**

HILAND owns and operates the Roosevelt Gas Plant, all Project activities will occur on property owned by HILAND and the Plant currently processes gas that is delivered via HILAND's gas gathering system.

**4.7.13 MONITORING OF IMPACTS**

HILAND will coordinate with its primary contractor regarding the oversight responsibilities for construction activities at the Site. Environmental responsibilities shall be coordinated in the same manner. HILAND will monitor community concerns and will respond to all reasonable concerns brought to attention by community leaders.

**4.7.14 PROBLEMS RAISED BY FEDERAL AGENCIES, OTHER STATE AGENCIES, AND LOCAL ENTITIES**

HILAND has initiated consultations with federal, state and local authorities who may have an interest in the Project. The purpose of these consultations is the identification of potential resource issues related to the Project. To date not agency concerns have been raised.

**SECTION 5: FACTORS TO BE CONSIDERED IN EVALUATING APPLICATIONS AND DESIGNATION OF SITES, CORRIDORS AND ROUTES (SECTION 49-22.1-09, N.D.C.C. AND SECTIONS 69-04-01(2)(F) AND (M), N.D. ADMIN. CODE)**

**5.1 AVAILABLE RESEARCH AND INVESTIGATIONS RELATING TO THE EFFECTS ON THE LOCATION, CONSTRUCTION AND OPERATION OF THE PROPOSED FACILITY ON PUBLIC HEALTH AND WELFARE, NATURAL RESOURCES AND THE ENVIRONMENT**

The potential effects of the Project on the public health and welfare, natural resources and the environment are discussed in Sections 2 and 4 of this application.

**5.2 THE EFFECTS OF NEW GAS OR LIQUID ENERGY CONVERSION AND GAS OR LIQUID TECHNOLOGIES AND SYSTEMS DESIGNED TO MINIMIZE ADVERSE ENVIRONMENTAL EFFECTS**

Not applicable to this Project.

**5.3 THE POTENTIAL FOR BENEFICIAL USES OF WASTE ENERGY FROM A PROPOSED GAS OR LIQUID ENERGY CONVERSION FACILITY**

Not applicable to this Project.

**5.4 ADVERSE DIRECT AND INDIRECT ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED SHOULD THE PROPOSED SITE OR ROUTE BE DESIGNATED**

Project impacts to the environment as described in Sections 2 and 4 are expected to be minimal as all expansion activities will occur within the existing, previously disturbed area of the existing Plant.

**5.5 ALTERNATIVES TO THE PROPOSED SITE, CORRIDOR OR ROUTE THAT ARE DEVELOPED DURING THE HEARING PROCESS AND WHICH MINIMIZE ADVERSE EFFECTS**

To minimize adverse effects HILAND chose to locate the Project at the site of the existing Roosevelt Gas Plant. Alternatives are discussed in Section 3 of this application.

**5.6 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF NATURAL RESOURCES SHOULD THE PROPOSED SITE, CORRIDOR OR ROUTE BE DESIGNATED**

The Project will result in the processing, sale and beneficial use of gas that may be flared due to a lack of processing capacity within the basin. No other natural resources would be significantly affected, as the Project will occur at an existing facility.

#### **5.7 THE DIRECT AND INDIRECT ECONOMIC IMPACTS OF THE PROPOSED FACILITY**

Refer to Section 4 for a review and discussion regarding the potential direct and indirect economic impacts of the proposed Project.

#### **5.8 EXISTING PLANS OF THE STATE, LOCAL GOVERNMENT AND/OR PRIVATE ENTITIES FOR OTHER DEVELOPMENT AT OR IN THE VICINITY OF THE PROPOSED SITE, CORRIDOR OR ROUTE**

At the time of this application, HILAND is not aware of other plans or projects for development at or in the vicinity of the proposed site.

#### **5.9 THE EFFECT OF THE PROPOSED SITE OR ROUTE ON EXISTING SCENIC AREAS, HISTORIC SITES AND STRUCTURES AND PALEONTOLOGICAL OR ARCHAEOLOGICAL SITES**

Refer to Sections 2 and 4 for discussion regarding the Project's potential impacts to scenic areas, historic sites and/or structures and paleontological or archaeological sites.

#### **5.10 THE EFFECT OF THE PROPOSED SITE OR ROUTE ON AREAS THAT ARE UNIQUE BECAUSE OF BIOLOGICAL WEALTH OR BECAUSE THE SITE OR ROUTE IS HABITAT FOR RARE AND ENDANGERED SPECIES**

Refer to Sections 2 and 4 for discussion regarding the Project's potential impacts on areas of unique biological wealth and/or areas of habitat for rare and endangered species.

#### **5.11 PROBLEMS RAISED BY FEDERAL AGENCIES, OTHER STATE AGENCIES AND LOCAL ENTITIES**

Project specific Project consultation letters were provided to various federal, state and local agencies; refer to Section 2 and Appendix C of this application for a complete discussion.

#### **5.12 UTILITY'S POLICIES AND COMMITMENTS TO LIMIT THE ENVIRONMENTAL IMPACT OF ITS FACILITIES**

HILAND is committed to being a good corporate citizen and conducting themselves in an ethical and responsible manner. HILAND is committed to integrity management and maintenance programs to ensure HILAND assets are operated safely and in a manner that protects the public, employees, contractors and the environment.

#### **5.13 PRESENT AND FUTURE NATURAL RESOURCE DEVELOPMENT IN THE AREA**

Refer to Introduction and Section 3 of this application for a discussion of present and future natural resource development in the area.

## **SECTION 6: MITIGATIVE MEASURES**

HILAND's commitment to minimize environmental impacts and to comply with permits and associated permit conditions/stipulations are key mitigation elements. The utilization of an existing facility through the redesign of existing equipment and the addition of key pieces of equipment all within an existing developed facility will maximize efficiencies while minimizing impacts to the environment. This combination of actions effectively mitigates the impacts of the Project.

## **SECTION 7: LIST OF PREPARERS**

### **Andrew McCraw**

Director of Project Management  
Kinder Morgan, 2 North Nevada Avenue, Colorado Springs, CO 80903

B.S. Mechanical Engineering, Texas Tech University

Mr. McCraw has 16 years of experience with Kinder Morgan in various positions. Currently Mr. McCraw is the Director of the Project Management Group, which is responsible for the installation of facilities within Kinder Morgan's assets.

### **William McCarthy, C.W.B.**

Senior Environmental Compliance Analyst  
E3 Environmental, LLC, 871 Jefferson Avenue, St. Paul, MN 55102

M.S. Wildlife Biology, University of Minnesota – Twin Cities; and B.S. Wildlife Biology, Michigan State University. Mr. McCarthy is an environmental compliance analyst with over 20 years of environmental consulting experience working with various energy assets and regulatory agencies. As a compliance analyst, he has managed the environmental requirements for facility siting, pipeline routing, federal licensing and various federal, state and local permits. Mr. McCarthy is a certified wildlife biologist, and in this role conducts and coordinates field studies, agency consultations, mitigation and avoidance plans.

### **Katie Schmidt, EIT**

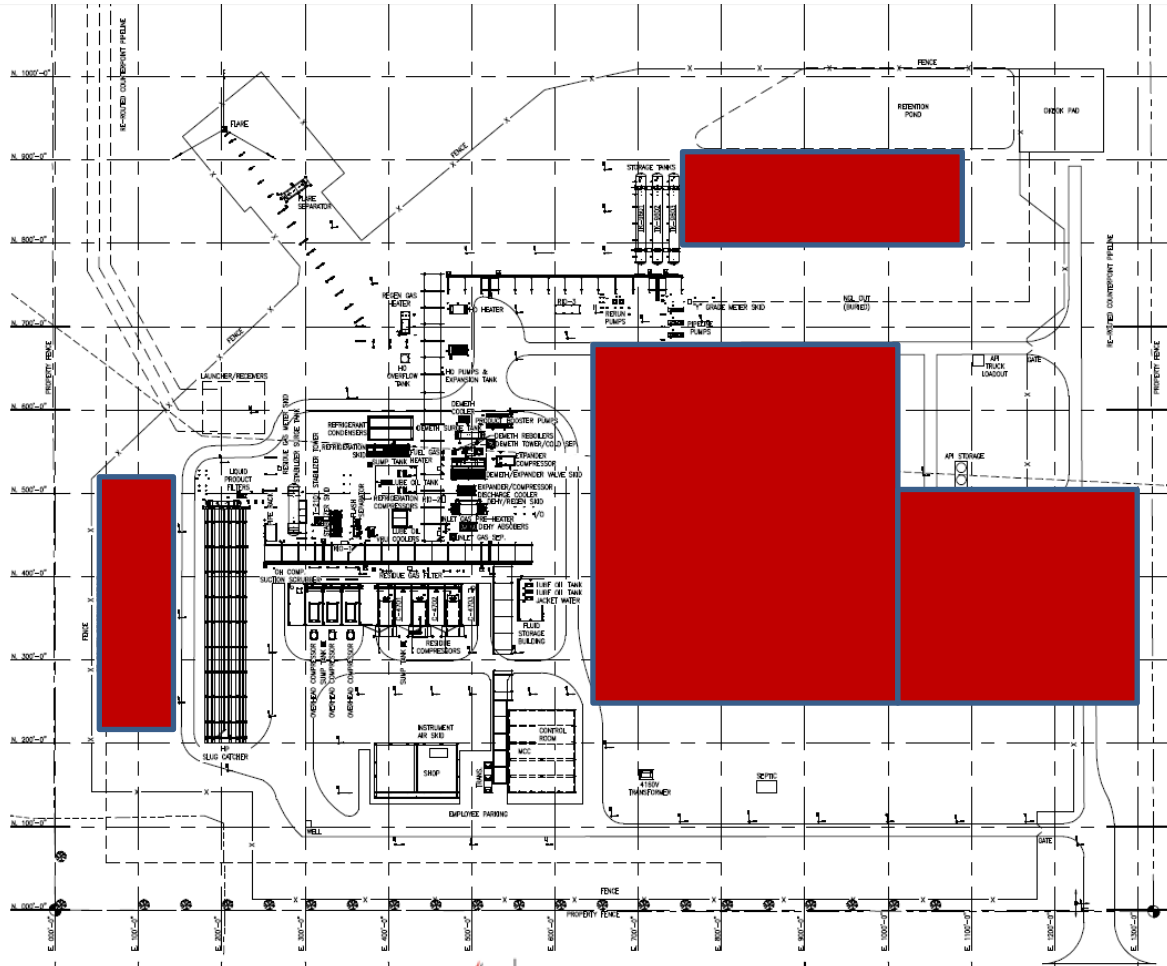
Environmental Engineer and Senior Consultant  
E3 Environmental, LLC, 871 West Jefferson Avenue, St. Paul, MN 55102

B.S. Civil Engineering with an emphasis in Environmental Engineering-Iowa State University. Ms. Schmidt is a Senior Environmental Consultant with 12 years of experience working with various energy assets and regulatory agencies. As a consultant, she has managed multiple pipeline projects supporting clients through the construction permitting and siting processes, which included coordination with various federal, state and local agencies.

# **Appendix A**

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## Engineering Documents



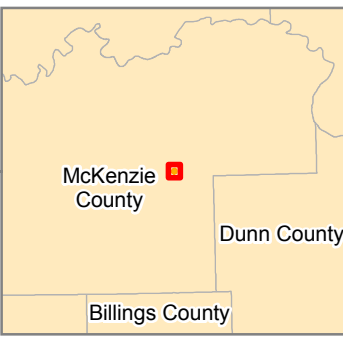
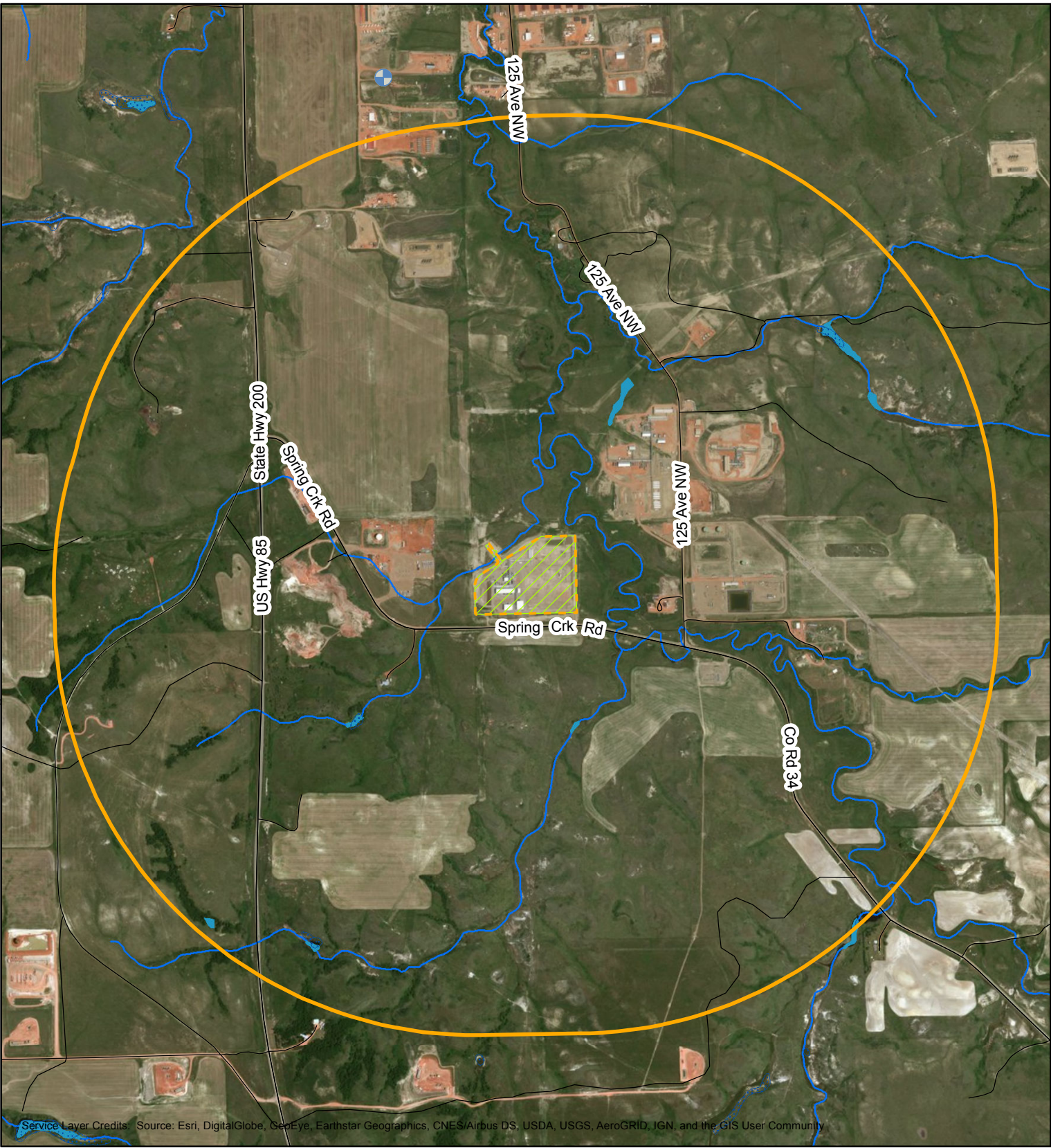
400 JIRA 1738 12-21-2017 400 JIRA 1738 12-22-2017 08-21-2015	NOTES:   		<b>Hiland Partners          Holdings LLC</b> a Kinder Morgan company	Reference Drawings	PLOT PLAN UNDERGROUND PIPING
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## **Appendix B**

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### Project Maps



	Water Well		NWI Wetland
	Abandoned Mine		NHD Waterbody
	Project Area		NHD Flowline
	One Mile Buffer		
	Survey Area		
	Road		

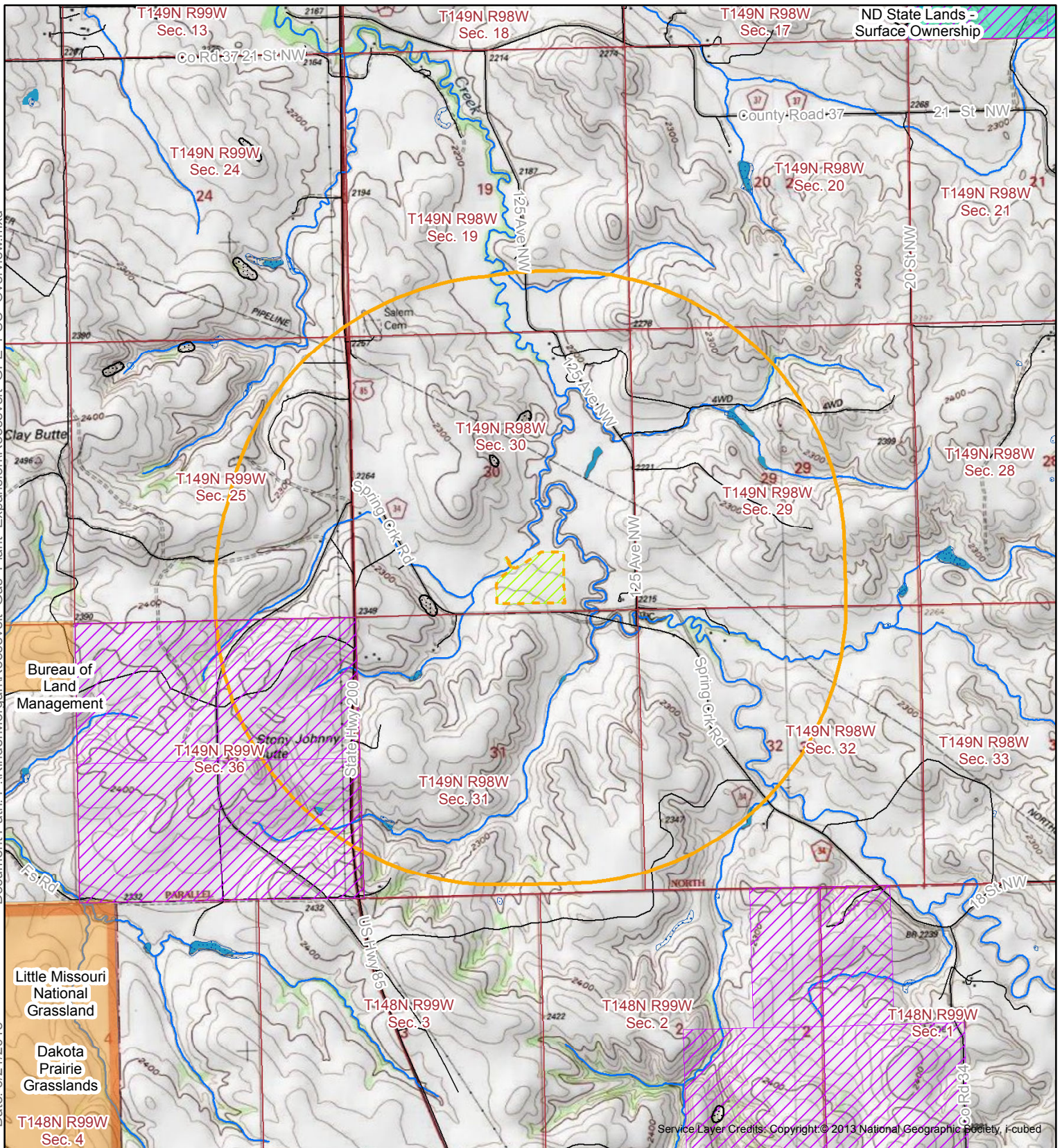
1:20,000

0 750 1,500 Feet

\*Refer to Natural Resource Report for detailed maps and tables.



**Roosevelt Gas Plant Expansion**  
**Siting Criteria**  
**Natural Resources -**  
**Aerial Map**  
**McKenzie County, ND**



Landslide Deposits	NWI Wetland	<b>Land Ownership</b>	N
Mineral Trust Lands	NHD Waterbody	Federal	E3 ENVIRONMENTAL Elevating Execution with Experience
Project Area	NHD Flowline	State	
One Mile Buffer			
Survey Area			
Section			
Road			

1:30,000

0 1,000 2,000 Feet

\*Refer to Natural Resource Report for detailed maps and tables.

## Roosevelt Gas Plant Expansion Overview Map

McKenzie County, ND

## **Appendix C**

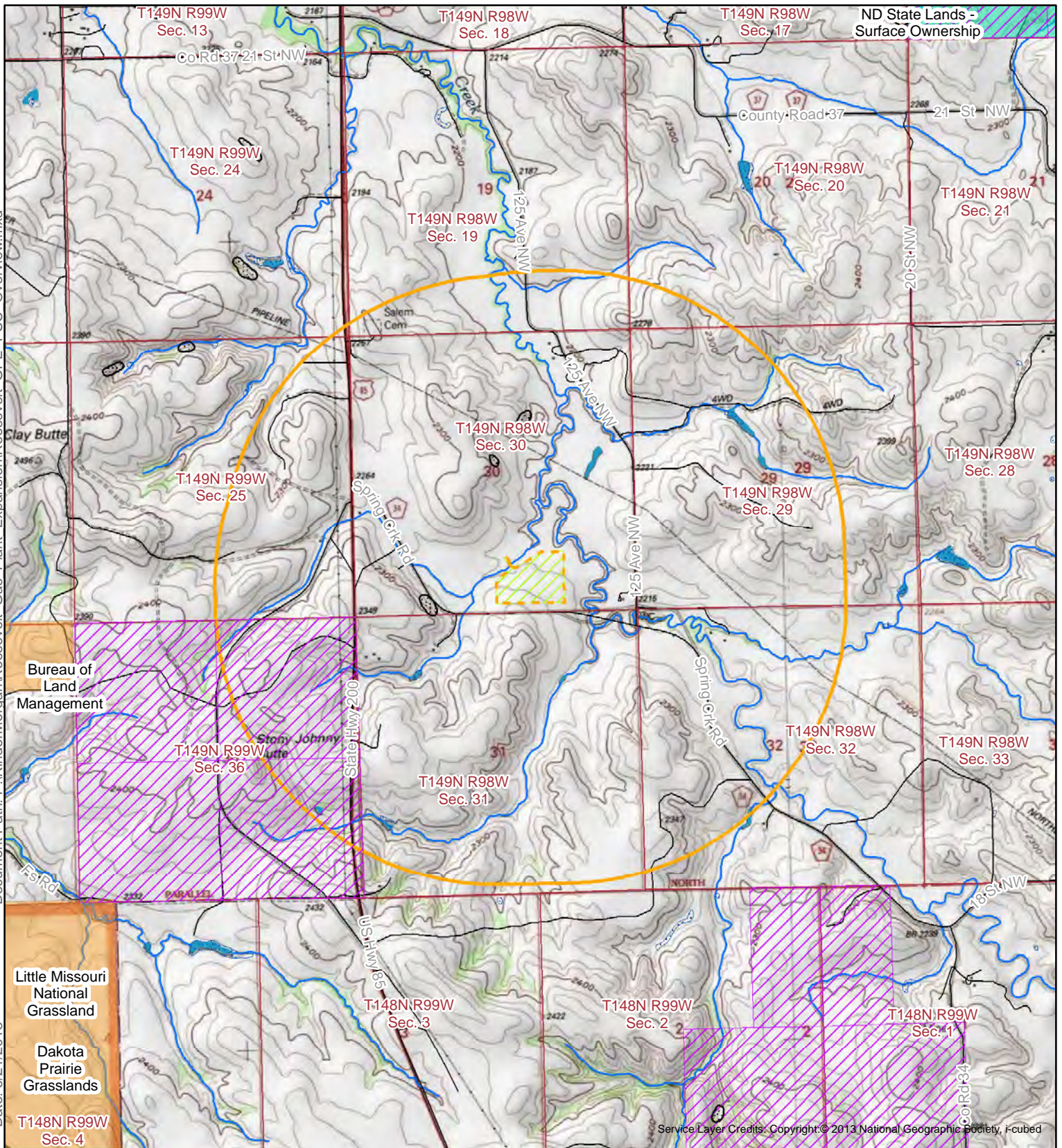
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### Agency Consultations

# Consultation Maps

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Maps utilized for all Agency Consultations



Landslide Deposits	NWI Wetland	<b>Land Ownership</b>	N
Mineral Trust Lands	NHD Waterbody	Federal	
Project Area	NHD Flowline	State	
One Mile Buffer			
Survey Area			
Section			
Road			

1:30,000

0 1,000 2,000 Feet

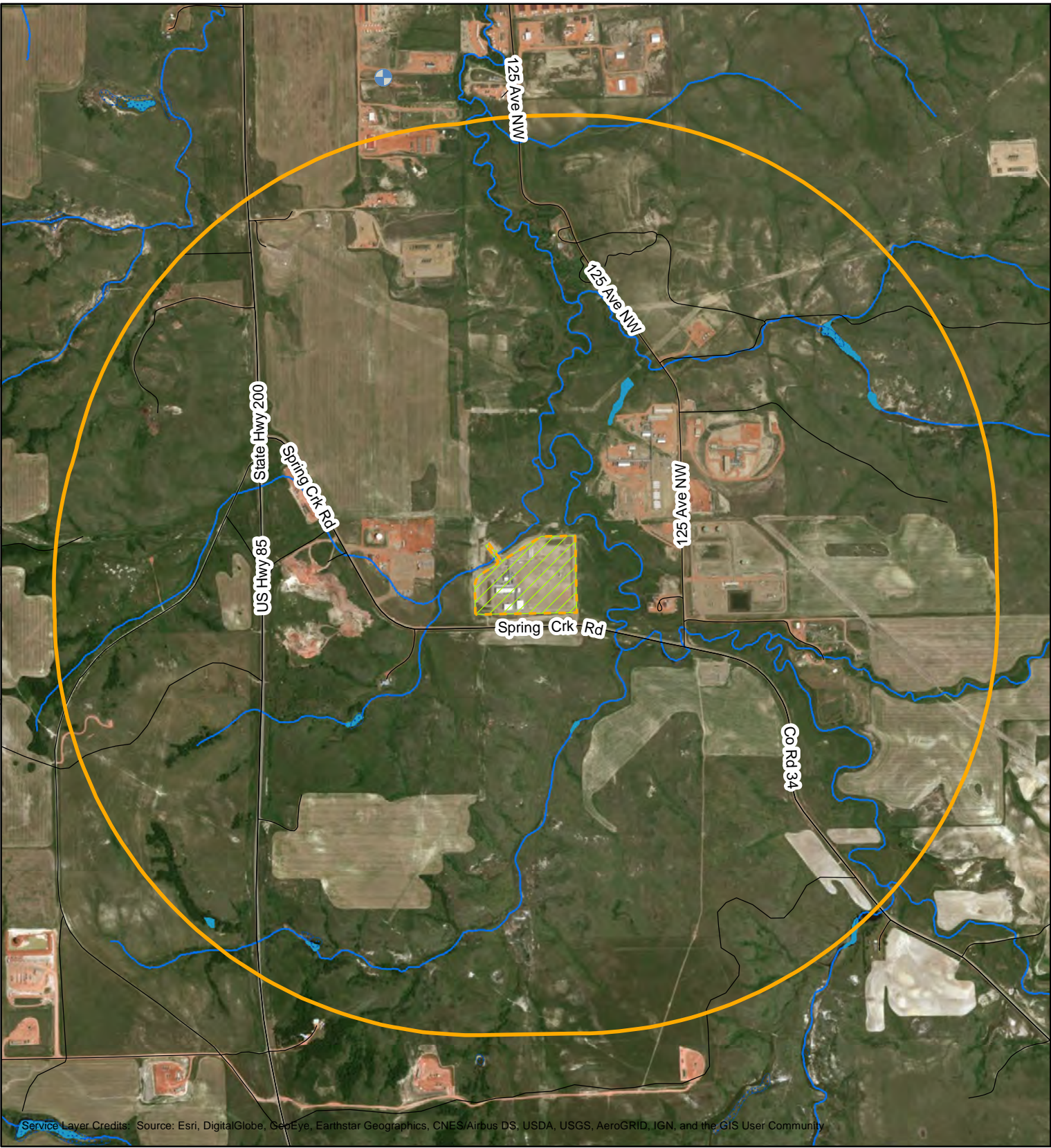
\*Refer to Natural Resource Report for detailed maps and tables.

**KINDER MORGAN**  
E3 ENVIRONMENTAL  
Elevating Execution with Experience

**Kinder Morgan**

Roosevelt Gas Plant  
Expansion  
Overview Map

McKenzie County, ND



Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



	Water Well		NWI Wetland
	Abandoned Mine		NHD Waterbody
	Project Area		NHD Flowline
	One Mile Buffer		
	Survey Area		
	Road		

1:20,000

0 750 1,500  
Feet

\*Refer to Natural Resource Report for detailed maps and tables.



**Kinder Morgan**  
 Roosevelt Gas Plant  
 Expansion  
 Siting Criteria  
 Natural Resources -  
 Aerial Map  
 McKenzie County, ND

U.S. Fish and Wildlife Service  
Consultation

**From:** Jessica Johnson  
**To:** [Katie Schmidt](#)  
**Subject:** RE: [EXTERNAL] RE: Roosevelt Gas Plant Expansion  
**Date:** Tuesday, June 19, 2018 11:22:22 AM  
**Attachments:** [image001.png](#)

---

Thank you,

That answers my questions. We do not plan to comment on the Roosevelt Gas Plant Expansion.  
-Jessica

Jessica Johnson  
Environmental Contaminants Specialist  
U.S. Fish and Wildlife Service  
3425 Miriam Avenue  
Bismarck, ND 58501  
Phone: 701-355-8507  
Cell: 720-626-5250

---

**From:** Katie Schmidt [mailto:[KSchmidt@go2e3.com](mailto:KSchmidt@go2e3.com)]  
**Sent:** Tuesday, June 19, 2018 11:18 AM  
**To:** Jessica Johnson  
**Subject:** [EXTERNAL] RE: Roosevelt Gas Plant Expansion

Jessica,

Yes all expansion activities will occur within the existing facility fence line which has been previously disturbed. No new disturbance is anticipated. Let me know if you have any additional questions.

Thanks-Katie

**Katie Schmidt, EIT**  
**Senior Consultant**  
E3 Environmental, LLC  
[kschmidt@go2e3.com](mailto:kschmidt@go2e3.com)  
O: 651.282.0652  
M: 651.216.6881



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message and deleting it from your computer.

---

**From:** Jessica Johnson [mailto:[jessica\\_n\\_johnson@fws.gov](mailto:jessica_n_johnson@fws.gov)]

**Sent:** Tuesday, June 19, 2018 10:45 AM

**To:** Katie Schmidt <[KSchmidt@go2e3.com](mailto:KSchmidt@go2e3.com)>

**Subject:** Roosevelt Gas Plant Expansion

Hello Katie,

Could you please provide a more complete description of the expansion project. For example, is the entire project being done on the existing site pad? If not, how many acres of new disturbance and where.

Thank you,

Jessica Johnson

Jessica Johnson

Environmental Contaminants Specialist

U.S. Fish and Wildlife Service

3425 Miriam Avenue

Bismarck, ND 58501

Phone: 701-355-8507

Cell: 720-626-5250



June 5, 2018

Mr. Scott Larson, Field Supervisor  
U.S. Fish and Wildlife Service  
North Dakota Field Office  
3425 Miriam Avenue  
Bismarck, ND 58501-7926

**Kinder Morgan-Roosevelt Gas Plant Expansion Project  
Federally Listed Species, USFWS Managed Lands, and Migratory Bird Consultation**

Kinder Morgan (KM) under its wholly owned subsidiary Hiland Partners Holdings is planning the Roosevelt Gas Plant Expansion Project (Project). The Project will result in the expansion of the existing gas processing plant. The Project will be located within McKenzie County North Dakota in the southwest quarter of the southeast quarter of Section 30, Township 149N and Range 98W. The total operating capacity of the Plant after the planned expansion will exceed the North Dakota Public Service Commission's (Commission's) siting threshold. As a result the Project will fall under the Commission's jurisdiction. Expansion activities are scheduled to begin in late 2018 with Plant commissioning to be complete before November 2019. The Project site and a 1-mile wide corridor (Study Area) are depicted on the attached maps.

The purpose of this request is to provide the U.S. Fish and Wildlife Service (USFWS) with notification of the proposed Project and to share KM's analysis of the environmental topics relevant to the North Dakota Public Service Commission's siting requirements. On June 1, 2018, E3 Environmental, LLC (E3) conducted a web-based consultation using USFWS's IPaC system. This analysis is based upon results of the project specific query of the IPaC system.

**Federally Listed Species Analysis:**

The results of the search of the USFWS's IPaC system on June 1, 2018 found the following:

- Gray wolf (*Canis lupus*) – endangered
- Northern long-eared bat (*Myotis septentrionalis*) – threatened
- Least tern (*Sternula antillarum*) – endangered
- Piping plover (*Charadrius melodus*) – threatened, and designated critical habitat
- Rufa red knot (*Calidris canutus rufa*) –threatened
- Whooping crane (*Grus americana*) – endangered
- Pallid sturgeon (*Scaphirhynchus albus*) – endangered
- Dakota skipper (*Hesperia dacotae*) –threatened, and designated critical habitat

**Gray wolf**

The gray wolf is a large carnivore that through conservation measures has experienced strong population recovery, particularly in the Great Lakes states of the upper Midwest. As populations rebound, individuals may break from packs to explore opportunities to establish packs in unoccupied territory. Roaming individuals can cover great distances without establishing viable breeding populations in previously unoccupied habitat(s). This species is not tolerant of human disturbance and will tend to avoid interaction with humans. The activities associated with construction and later plant operations would likely serve as a deterrent to this species. Therefore, this Project will have no effect on the gray wolf.

Northern long-eared bat:

The northern long-eared bat (NLEB) roosts underneath bark, in cavities, or in crevices of both live and dead trees. Populations have also been found in cool environments such as caves and mines, and prefer to spend winter hibernating in locations with high humidity and no air currents. Breeding occurs in late summer or early fall in maternity colonies where females give birth around the same time, which may occur anywhere from late May to late July. The Final 4(d) rule exempts incidental take of the NLEB from all activities occurring in areas that have not been affected by white-nose syndrome. The Study Area occurs outside of the USFWS white-nose syndrome buffer zone; as such, there are no restrictions for Project activities.

Least Tern

The interior populations of the Least Tern have historically been associated with large river systems for breeding and migratory habitats. Breeding birds are known to congregate in colonies, utilizing sandbar habitat common to larger rivers. The Least Tern is found in North Dakota during the late spring and summer breeding season (mid-May through late August, with the peak of the nesting season occurring from mid-June to mid-July). Desktop analysis supported with field studies have concluded that no suitable habitat is present within the Project area; therefore, impacts to the Least Tern are not anticipated.

Piping plover

The Piping plover is associated with shorelines along small alkaline lakes, large reservoir beaches, and river islands and adjacent sand pits. Breeding birds select wide beaches with highly clumped vegetation covering less than 25 percent of the area. Breeding season in North Dakota occurs mid-April through August. The Missouri River and Lake Sakakawea, approximately 13 miles north of the site at its nearest point, are the closest designated critical habitats for the Piping plover. Desktop analysis supported with field studies have concluded that no suitable habitat is present within the Project area; therefore, impacts to the Piping plover or its designated critical habitat are not anticipated.

Rufa red knot

The Rufa red knot migrates between breeding grounds in Canada and wintering grounds in South America. A significant factor threatening the Rufa red knot is destruction and modification of its habitat due to beach erosion and shoreline protection and stabilization projects. Migratory behavior and habitat requirements of this species are poorly understood particularly for those populations occupying the midcontinent flyways. Inland stopovers include the Mississippi Valley, Great Lakes, and Great Plains. Desktop analysis supported with field studies have concluded that no suitable habitat is present within the Project area; therefore impacts to the Rufa red knot are not anticipated.

Whooping crane

The whooping crane is a large bodied marsh species that breeds primarily in Canada and winters in the Gulf of Mexico. This species has been closely studied and monitored in recent years due to its small population. North Dakota provides migratory habitat for the species, providing roosting and feeding opportunities during migration. This species prefers larger wetland complexes for roosting habitat, typically using adjacent uplands for foraging opportunities.

Precautionary measures will be implemented if whooping cranes are sighted in or near the Project area. KM will voluntarily suspend all heavy equipment operation activities and notify the USFWS should a whooping crane be spotted within 0.5 mile of the Project area. Heavy equipment activities will resume upon the departure of the individual(s). The Project under consideration

will not result in a loss of crane habitat. Construction activities would likely serve as a deterrent and once constructed the proposed facility would present a fairly prominent feature to be avoided relative to its surrounding landscape.

#### Pallid Sturgeon

The pallid sturgeon's preferred habitat includes the benthic environment associated with swift waters of large turbid, free-flowing rivers with braided channels, dynamic flow patterns, periodic flooding of terrestrial habitats, and requiring extensive micro habitat diversity. The species inhabits the Missouri and Mississippi Rivers from Montana to Louisiana. In North Dakota, reaches of the Missouri River have been cited as providing suitable habitat for the pallid sturgeon. However, there is no suitable sturgeon habitat in the Project area as the Missouri River does not intersect the project area; as such, impacts to the pallid sturgeon are not anticipated.

#### Dakota skipper

Dakota skippers require untilled, high-quality prairie. Habitat preferred by the skipper is wet-mesic prairie with little topographic relief on near-shore glacial lake deposits and in rolling native-prairie terrain over gravelly glacial moraine deposits. Larvae feed on grasses, favoring little bluestem (*Schizachyrium scoparium*). Adults commonly feed on nectar of flowering native forbs such as harebell (*Campanula rotundifolia*), wood lily (*Lilium philadelphicum*), and purple coneflower (*Echinacea angustifolia*). This species is not known to disperse widely and has low mobility, dispersing a maximum of 0.6-mile. The species is threatened by conversion of native prairie to cultivated agriculture or shrublands, over-grazing, invasive species, gravel mining, and inbreeding. Desktop analysis supported that no suitable habitat is present within the Project area; therefore, impacts to the Dakota skipper are not anticipated.

#### **USFWS Managed Lands:**

Conservation programs such as Waterfowl Production Areas and wetland and grassland easements represent an important tool used by USFWS to identify and manage high quality wildlife habitat. A review of public records failed to identify any of these USFWS managed lands in the Project study area. KM requests that USFWS notify KM of any USFWS managed lands located within the proposed study area.

#### **Migratory Bird Consultation:**

USFWS administers various wildlife related mandates of national concern including the Migratory Bird Treaty Act (MBTA). KM understands that unlike the Endangered Species Act, the MBTA has no provisions for the allowance of a take and therefore compliance may best be achieved by avoiding or minimizing the potential to interact with migratory species during the active breeding season. KM also understands that in North Dakota, the breeding season is typically defined as occurring annually from February 1 through July 15.

In recognition of these facts, KM has proposed to initiate construction in late 2018 and continuing these activities into the fourth quarter of 2019, maintaining an active construction site for the approximately 12 month duration. The proposed schedule would mitigate impacts by initiating ground disturbing activities in advance of the breeding season. Furthermore, construction activities would serve as an effective deterrent for breeding birds.

Kinder Morgan  
Roosevelt Plant Expansion  
June 5, 2018



We appreciate your assistance with this request and look forward to your timely review and comments on this Project. E3 has been retained by KM to provide environmental consulting support for this Project. Should you have any questions or require additional information, please contact me at 651-282-0652 or [kschmidt@go2e3.com](mailto:kschmidt@go2e3.com).

Sincerely,

A handwritten signature in cursive script that reads 'Katie Schmidt'.

Katie Schmidt, Senior Consultant  
E3 Environmental, LLC

Attachment: Project Map

Cc: KM Project Files

North Dakota Game and Fish Department

---

Consultation

## **Katie Schmidt**

---

**From:** Schumacher, John D. <jdschumacher@nd.gov>  
**Sent:** Friday, June 29, 2018 11:07 AM  
**To:** Katie Schmidt  
**Subject:** Kinder Morgan – Roosevelt Gas Plant Expansion Project

Ms. Schmidt,

The North Dakota Game and Fish Department has reviewed this project for wildlife concerns. We do not believe it will have significant adverse effects on wildlife or wildlife habitat, including species of conservation priority, based on the information provided.

**JOHN SCHUMACHER  
RESOURCE BIOLOGIST  
ND GAME AND FISH DEPT  
701.328.6321**



June 5, 2018

Mr. Greg Link, Chief  
Conservation and Communication Division  
North Dakota Game and Fish Department  
100 N. Bismarck Expressway  
Bismarck, ND 58501-5095

**Kinder Morgan-Roosevelt Gas Plant Expansion Project  
State Conservation Priority Species Consultation**

Kinder Morgan (KM) under its wholly owned subsidiary Hiland Partners Holdings, is planning the Roosevelt Gas Plant Expansion Project (Project). The Project will result in the expansion of the existing gas processing plant. The Project will be located within McKenzie County North Dakota in the southwest quarter of the southeast quarter of Section 30, Township 149N and Range 98W. The total operating capacity of the Plant after the planned expansion will exceed the North Dakota Public Service Commission's (Commission's) siting threshold. As a result, the Project is jurisdictional to the Commission. Expansion activities are scheduled to begin in late 2018 with Plant commissioning to be complete before November of 2019. The Project site and a 1-mile wide corridor (Study Area) are depicted on the attached maps.

The purpose of this correspondence is to afford the North Dakota Game and Fish Department the opportunity to assess the Project site and associated Study Area for the presence or absence of State Conservation Priority Species.

We appreciate your assistance with this request and look forward to your timely review and comments regarding this Project. E3 has been retained by KM to provide environmental consulting support for this Project. Should you have any questions or require additional information, please contact me at 651-282-0652 or [kschmidt@go2e3.com](mailto:kschmidt@go2e3.com).

Sincerely,

Katie Schmidt, Senior Consultant  
E3 Environmental, LLC

Attachment: Project Maps

Cc: KM Project Files

North Dakota Parks and Recreation Department  

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Consultation



June 5, 2018

Kathy Duttonhefner, Coordinator  
Natural Resources Division  
North Dakota Department of Parks and Recreation  
1600 East Century Avenue, Suite 3  
Bismarck, ND 58503-0649

**Kinder Morgan-Roosevelt Gas Plant Expansion Project  
Natural Heritage Inventory Review Request**

Kinder Morgan (KM) under its wholly owned subsidiary Hiland Partners Holdings, is planning the Roosevelt Gas Plant Expansion Project (Project). The Project will result in the expansion of the existing gas processing plant. The Project will be located within McKenzie County North Dakota in the southwest quarter of the southeast quarter of Section 30, Township 149N and Range 98W. The total operating capacity of the Plant after the planned expansion will exceed the North Dakota Public Service Commission's (Commission's) siting threshold. As a result, the Project will fall under the Commission's jurisdiction. Expansion activities are scheduled to begin in late 2018 with Plant commissioning to be complete before November of 2019. The Project site and a 1-mile wide corridor (Study Area) are depicted on the attached maps.

The purpose of this request is to provide the North Dakota Parks and Recreation Department's (Department) notice of the Project such that the environmental topics that fall under the purview of the Department that are also relevant to the North Dakota Public Service Commission's siting requirements. It is our understanding that the Department administers the following state programs:

- State Park Lands
- Land and Water Conservation Fund
- Natural Heritage Inventory

We appreciate your assistance with this request and look forward to your timely review and comments on this Project. E3 has been retained by KM to provide environmental consulting support for this Project. Should you have any questions or require additional information, please contact me at 651-282-0652 or [kschmidt@go2e3.com](mailto:kschmidt@go2e3.com).

Sincerely,

Katie Schmidt, Senior Consultant  
E3 Environmental, LLC

Attachment: Project Maps

Cc: KM Project Files

North Dakota State Historic Preservation Office

---

Consultation



**STATE  
HISTORICAL  
SOCIETY**  
OF NORTH DAKOTA

June 19, 2018

Doug Burgum  
*Governor of North Dakota*

**North Dakota  
State Historical Board**

Terrance Rockstad  
*Bismarck - President*

Gereld Gerntholz  
*Valley City - Vice President*

H. Patrick Weir  
*Medora - Secretary*

Albert I. Berger  
*Grand Forks*

Calvin Grinnell  
*New Town*

Steve C. Martens  
*Fargo*

Daniel Stenberg  
*Watford City*

Sara Otte Coleman  
*Director  
Tourism Division*

Kelly Schmidt  
*State Treasurer*

Alvin A. Jaeger  
*Secretary of State*

Melissa Baker  
*Director  
Parks and Recreation  
Department*

Thomas Sorel  
*Director  
Department of  
Transportation*

Claudia J. Berg  
*Director*

*Accredited by the  
American Alliance  
of Museums since 1986*

Craig Picka  
In Situ Archaeological Consulting  
695 Dresden Drive  
Chaska, MN 55318

ND SHPO Ref: 18-1030 PSC Kinder Morgan Roosevelt Gas Plant Expansion  
Project: A Class I and Class III Cultural Resource Investigation in McKenzie  
County, North Dakota  
[T149N R98W Section 30, SW-SE]

Dear Craig:

We have received and reviewed: 18-1030 PSC documentation for: "Kinder  
Morgan Roosevelt Gas Plant Expansion Project: A Class I and Class III Cultural  
Resource Investigation in McKenzie County, North Dakota," by Abraham  
Ledezma, Craig Picka, and Daniel Salas (In Situ Archaeological Consulting, June  
2018) and find it acceptable.

We concur with a "*No Significant Sites Affected*" determination provided the  
project is of the nature stated and it takes place in the plotted location provided in  
the project documentation.

Thank you for the opportunity to review this project. Please include the ND  
SHPO reference number listed above in any further correspondence for this  
specific project. If you have any questions, please contact either Paul Picha at (701)  
328-3574 or [ppicha@nd.gov](mailto:ppicha@nd.gov) or Susan Quinnell at (701) 328-3576 or  
[squinnell@nd.gov](mailto:squinnell@nd.gov).

Sincerely,

Claudia J. Berg  
State Historic Preservation Officer (North Dakota)  
and  
Director, State Historical Society of North Dakota



2225 Manuela Drive  
Chaska, MN 55318  
Ph: 952-658-8891  
Web: [www.insitucrm.com](http://www.insitucrm.com)

June 14, 2018

Paul Picha  
Chief Archaeologist  
State Historical Society of North Dakota  
Archeology & Historic Preservation Division  
North Dakota Heritage Center  
612 East Boulevard Avenue  
Bismarck, ND 58505-0830

**Subject: A cultural resource report on behalf of E3 Environmental, LLC.**

Dear Mr. Picha:

I have attached to this letter one (1) copy of a negative cultural resources report prepared by In Situ Archaeological Consulting, LLC on behalf of E3 Environmental, LLC. The report, *Kinder Morgan Roosevelt Gas Plant Expansion Project: A Class I and Class III Cultural Resource Investigation in McKenzie County, North Dakota*, documents the results of a gas plant expansion Class I and Class III inventory performed in McKenzie County in 2018. The North Dakota Public Service Commission is the lead agency for this undertaking and the cultural resource inventory of these lands will be reviewed by the NDPSC and North Dakota State Historic Preservation Office.

The proposed project is located approximately 7.5 miles south of Watford City in McKenzie County, North Dakota. The proposed project is for the expansion of the Roosevelt Gas Plant. As proposed, the expansion will be entirely within the 26.21-acre inventoried area.

No cultural resources were observed during this inventory of the proposed project. Therefore, In Situ Archaeological Consulting, LLC recommends a finding of *No Historic Properties Affected*, and no further cultural resource work is considered to be necessary.

Please let me know if you have any questions regarding the attached report.

Sincerely,

A handwritten signature in black ink, appearing to read "Craig Picha", with a long horizontal flourish extending to the right.

Craig Picha, M.S., RPA  
Principal Investigator, Archaeology

Enclosure: 1

North Dakota Department of Trust Lands – Minerals Management

---

Consultation

## Katie Schmidt

---

**From:** Bement, Allisen C. <abement@nd.gov>  
**Sent:** Friday, June 8, 2018 1:51 PM  
**To:** Katie Schmidt  
**Subject:** RE: Kinder Morgan Roosevelt Gas Plant Expansion-Agency Notification Letter

Katie,

We agree that the data provided represents the approximate location of the Morgan-Roosevelt Gas Plant Expansion Project and that the North Dakota Department of Trust manages an undivided 50% mineral interest in 149-99-36: N2, SE located in the one mile buffer of the proposed project. Please let us know if this satisfies your requirements for use in a filing with the PSC in the state of North Dakota.

Respectfully,

*Allisen Bement, RPL*

Land Professional  
ND Department of Trust Lands  
701.328.1952  
[abement@nd.gov](mailto:abement@nd.gov)

---

**From:** Katie Schmidt [mailto:KSchmidt@go2e3.com]  
**Sent:** Tuesday, June 5, 2018 11:34 AM  
**To:** Bement, Allisen C. <abement@nd.gov>  
**Subject:** Kinder Morgan Roosevelt Gas Plant Expansion-Agency Notification Letter

An attachment has been removed from this message in accordance with the State of North Dakota Information Technology Department's Email Service Level Agreement (<https://www.nd.gov/itd/services/email/email-service-level-agreement>). The attachment is NOT recoverable.

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Allisen,

On behalf of Kinder Morgan E3 is requesting review and comment from your agency regarding the proposed gas plant expansion activities for the existing Roosevelt Gas Plant in McKenzie County, ND. The proposed expansion activities will increase the processing capacity of the Plant exceeding the PSC's siting threshold. Attached you will find a consultation letter with maps and associated shapefiles. Should you have any questions feel free to contact me.

Thanks-Katie

**Katie Schmidt, EIT**

**Senior Consultant**

E3 Environmental, LLC

kschmidt@go2e3.com

O: 651.282.0652

M: 651.216.6881

871 Jefferson Avenue

St. Paul, MN 55102

www.go2e3.com



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June 5, 2018

Ms. Allisen Bement, Land Professional  
North Dakota Department of Trust Lands  
Mineral Management Division  
1707 North 9<sup>th</sup> Street, P.O. Box 5523  
Bismarck, ND 58506-5523

**Kinder Morgan-Roosevelt Gas Plant Expansion Project  
State Mineral Trust Lands Consultation**

Kinder Morgan (KM) under its wholly owned subsidiary Hiland Partners Holdings is planning the Roosevelt Gas Plant Expansion Project (Project). The Project will result in the expansion of the existing gas processing plant. The Project will be located within McKenzie County North Dakota in the southwest quarter of the southeast quarter of Section 30, Township 149N and Range 98W. The total operating capacity of the Plant after the planned expansion will exceed the North Dakota Public Service Commission's (Commission's) siting threshold. As a result fact, the Project falls under the Commission's jurisdiction. Expansion activities are scheduled to begin in late 2018 with Plant commissioning to be complete before November 2019. The Project site and a 1-mile wide corridor (Study Area) are depicted on the attached maps and shapefiles. To satisfy the Commission's siting requirements, KM is providing this project notification for your consideration and to provide your agency an opportunity to comment on the presence or absence of State Mineral Trust Lands within the project area.

We appreciate your assistance with this request and look forward to your timely review and comments regarding this Project. E3 has been retained by KM to provide environmental consulting support for this Project. Should you have any questions or require additional information, please contact me at 651-282-0652 or [kschmidt@go2e3.com](mailto:kschmidt@go2e3.com).

Sincerely,

Katie Schmidt, Senior Consultant  
E3 Environmental, LLC

Attachment: Project Maps

Cc: KM Project Files

North Dakota Department of Trust Lands – School Trust

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Consultation



June 5, 2018

Mr. Joseph Stegmiller, Natural Resources Professional  
North Dakota Department of Trust Lands  
Surface Management Division  
1707 North 9<sup>th</sup> Street, P.O. Box 5523  
Bismarck, ND 58506-5523

**Kinder Morgan-Roosevelt Gas Plant Expansion Project  
School Trust Lands Consultation**

Kinder Morgan (KM) under its wholly owned subsidiary Hiland Partners Holdings is planning the Roosevelt Gas Plant Expansion Project (Project). The Project will result in the expansion of the existing gas processing plant. The Project will be located within McKenzie County North Dakota in the southwest quarter of the southeast quarter of Section 30, Township 149N and Range 98W. The total operating capacity of the Plant after the planned expansion will exceed the North Dakota Public Service Commission's (Commission's) siting threshold. As a result, the Project will fall under the Commission's jurisdiction. Expansion activities are scheduled to begin in late 2018 with Plant commissioning to be complete before November of 2019. The Project site and a 1-mile wide corridor (Study Area) are depicted on the attached maps.

The purpose of this correspondence is to request a review of the Project and associated Study Area (see attached) for the presence or absence of State School Trust Lands. This information will be included in a North Dakota Public Service Commission application for the Project.

We appreciate your assistance with this request and look forward to your timely review and comments on this Project. E3 has been retained by KM to provide environmental consulting support for this Project. Should you have any questions or require additional information, please contact me at 651-282-0652 or [kschmidt@go2e3.com](mailto:kschmidt@go2e3.com).

Sincerely,

Katie Schmidt, Senior Consultant  
E3 Environmental, LLC

Attachment: Project Maps

Cc: KM Project Files

North Dakota State Water Commission  
Consultation

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# North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850  
(701) 328-2750 • TTY 1-800-366-6888 or 711 • FAX (701) 328-3696 • <http://swc.nd.gov>

June 27, 2018

Katie Schmidt  
E3 Environmental  
871 Jefferson Avenue  
St. Paul, MN 55102

Dear Ms. Schmidt:

This is in response to your request for a review of the environmental impacts associated with Kinder Morgan-Roosevelt Gas Plan Expansion Project located in McKenzie County, ND.

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

- If surface water or groundwater will be diverted for construction or operation of the project, a water permit is required per North Dakota Century Code § 61-04-02. Permits for temporary surface water diversions within the Little Missouri River Basin, if issued, have additional conditions per an Interim Policy signed by the State Engineer on June 22, 2017. Please consult with the Water Appropriations Division of the Office of the State Engineer (OSE) at (701) 328-2754 or [waterpermits@nd.gov](mailto:waterpermits@nd.gov) if you have questions regarding this comment.
- There are no floodplains currently identified and/or mapped where this proposed project is to take place. A floodplain development permit would not be required relative to the minimum standards of the National Flood Insurance Program.
- The OSE Engineering and Permitting Section reviewed the project location and determined that the project will be constructed near surface water resources. The OSE requests to be notified regarding the proposed project's impacts, if any, to water resources such as watercourses (i.e. streams or rivers), agricultural drains, and wetlands (i.e. ponds, sloughs, lakes, or any series thereof) as any alterations, modifications, improvements, or impacts to those water resources may require a drainage permit(s) or a construction permit(s) from the OSE. For further information on the OSE's permitting requirements, please visit the Regulation & Appropriation tab on the OSE's website ([swc.nd.gov](http://swc.nd.gov)). If you have any questions regarding this comment, please contact Jordan Woroniecki of the OSE Engineering and Permitting Section at 701-328-4898.

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

Sincerely,

Jared Huibregtse  
Water Resource Planner IV

JH:dm/1570



June 5, 2018

Mr. Todd Sando, State Engineer  
North Dakota State Water Commission  
900 East Boulevard Avenue, Dept. 770  
Bismarck, ND 58505-0850

**Kinder Morgan-Roosevelt Gas Plant Expansion Project  
Project Notification and Request for Review**

Kinder Morgan (KM) under its wholly owned subsidiary Hiland Partners Holdings is planning the Roosevelt Gas Plant Expansion Project (Project). The Project will result in the expansion of the existing gas processing plant. The Project will be located within McKenzie County North Dakota in the southwest quarter of the southeast quarter of Section 30, Township 149N and Range 98W. The total operating capacity of the Plant after the planned expansion will exceed the North Dakota Public Service Commission's (Commission's) siting threshold. As a result, the Project will be under the Commission's jurisdiction. Expansion activities are scheduled to begin in late 2018 with Plant commissioning to be complete before November of 2019. The Project site and a 1-mile wide corridor (Study Area) are depicted on the attached maps.

The purpose of this correspondence is to provide notification of the Project and to provide the North Dakota State Water Commission (NDSWC) the opportunity to comment on the Project. It is our understanding that the NDSWC administers water appropriation and sovereign lands permit programs, and may also have relevant information regarding rural water supply systems and projects. Copies of correspondence received in response to this letter will be included in the application to be filed with the Commission.

We appreciate your assistance with this request and look forward to your timely review and comments regarding this Project. E3 has been retained by KM to provide environmental consulting support for this Project. Should you have any questions or require additional information, please contact me at 651-282-0652 or [kschmidt@go2e3.com](mailto:kschmidt@go2e3.com).

Sincerely,

Katie Schmidt, Senior Consultant  
E3 Environmental, LLC

Attachment: Project Maps

Cc: KM Project Files

Western Area Water Supply Authority  
Consultation

---



June 5, 2018

Mr. Jacob Monson  
Western Area Water Supply Authority  
820 E Broadway, Suite 101  
PO Box 2343  
Williston, ND 58802

**Kinder Morgan-Roosevelt Gas Plant Expansion Project  
Project Notification and Request for Review**

Kinder Morgan (KM) under its wholly owned subsidiary Hiland Partners Holdings is planning the Roosevelt Gas Plant Expansion Project (Project). The Project will result in the expansion of the existing gas processing plant. The Project will be located within McKenzie County North Dakota in the southwest quarter of the southeast quarter of Section 30, Township 149N and Range 98W. The total operating capacity of the Plant after the planned expansion will exceed the North Dakota Public Service Commission's (Commission's) siting threshold. As a result, the Project is under the Commission's jurisdiction. Expansion activities are scheduled to begin in late 2018 with Plant commissioning to be complete before November of 2019. The Project site and a 1-mile wide corridor (Study Area) are depicted on the attached maps.

The purpose of this correspondence is to afford the Western Area Water Supply Authority (WAWSA) the opportunity to review the Project and provide comment as appropriate.

We appreciate your assistance with this request and look forward to your timely review and comments on this Project. E3 has been retained by KM to provide environmental consulting support for this Project. Should you have any questions or require additional information, please contact me at 651-282-0652 or [kschmidt@go2e3.com](mailto:kschmidt@go2e3.com). Per previous communication, E3 understands that no response from your agency indicates that the WAWSA has no concerns with the project.

Sincerely,

A handwritten signature in black ink that reads "Katie Schmidt".

Katie Schmidt, Senior Consultant  
E3 Environmental, LLC

Attachment: Project Maps

Cc: KM Project Files

McKenzie County Water Resource Board  
Consultation

---



June 5, 2018

Mr. Jeff Shaffer, Director  
McKenzie County Water Resource District  
201 5<sup>th</sup> Street Northwest, Suite 1456  
Watford City, ND 58854

**Kinder Morgan-Roosevelt Gas Plant Expansion Project  
Project Notification and Request for Review**

Kinder Morgan (KM) under its wholly owned subsidiary Hiland Partners Holdings is planning the Roosevelt Gas Plant Expansion Project (Project). The Project will result in the expansion of the existing gas processing plant. The Project will be located within McKenzie County North Dakota in the southwest quarter of the southeast quarter of Section 30, Township 149N and Range 98W. The total operating capacity of the Plant after the planned expansion will exceed the North Dakota Public Service Commission's (Commission's) siting threshold. As a result, the Project falls under the Commission's jurisdiction. Project activities are scheduled to begin in late 2018 with Plant commissioning to be complete before November of 2019. The Project site and a 1-mile wide corridor (Study Area) are depicted on the attached maps.

The purpose of this correspondence is to provide notification of the Project and to solicit comments that will assist in the regulatory process. To facilitate our review, we are requesting the following information be provided:

- Locations of any county-regulated drains, ditches, and/or other drainage features;
- Any special requirements, restrictions, or specifications regarding conducting expansion activities across or near county regulated drainage features;
- Any local ordinances related to drainage; and
- Any permits issued through your office, which may be applicable to the Project and a summary of the permit process and anticipated timeframes.

We appreciate your assistance with this request and look forward to your timely review and comments on this Project. E3 has been retained by KM to provide environmental consulting support for this Project. Should you have any questions or require additional information, please contact me at 651-282-0652 or [kschmidt@go2e3.com](mailto:kschmidt@go2e3.com).

Sincerely,

Katie Schmidt, Senior Consultant  
E3 Environmental, LLC

Attachment: Project Maps

Cc: KM Project File

McKenzie County Weed Control Board  
Consultation

---



June 5, 2018

Ms. Amber Higgins, Weed Control Officer  
McKenzie County Weed Control Board  
PO Box 930  
Watford City, ND 58854

**Kinder Morgan-Roosevelt Gas Plant Expansion Project  
Project Notification and Request for Review**

Kinder Morgan (KM, under its wholly owned subsidiary Hiland Partners Holdings, is planning the Roosevelt Gas Plant Expansion Project (Project). The Project will result in the expansion of the existing gas processing plant. The Project will be located within McKenzie County North Dakota in the southwest quarter of the southeast quarter of Section 30, Township 149N, and Range 98W. The total operating capacity of the Plant after the planned expansion will exceed the North Dakota Public Service Commission's (Commission's) siting threshold. As a result, the Project will fall under the Commission's jurisdictional. Expansion activities are scheduled to begin in the end of 2018 with Plant commissioning to be complete before November of 2019. The Project site and a 1-mile wide corridor (Study Area) are depicted on the attached maps.

Based on a review of the North Dakota Century Code 4.1-47-02, ND Administrative Code 7-06-01-02, North Dakota Department of Agriculture (NDDA) guidance documents, and McKenzie County website, the following noxious weeds are currently listed:

- Absinth wormwood (*Artemisia absinthium*)\*
- Black henbane (*Hyoscyamus niger*)
- Canadian thistle (*Cirsium arvense*)\*
- Common burdock (*Arctium*)
- Dalmatian toadflax (*Linaria dalmatica*)\*
- Diffuse knapweed (*Centaurea diffusa*)\*
- Field bindweed (*Convolvulus arvensis*)
- Houndstongue (*Cynoglossum officinale*)
- Leafy spurge (*Euphorbia esula*)\*
- Musk thistle (*Carduus nutans*)\*
- Purple loosestrife (*Lythrum salicaria*)\*
- Russian knapweed (*Acroptilon repens*)\*
- Saltcedar (*Tamarix ramosissima*)\*
- Spotted knapweed (*Centaurea masculosa*)\*
- Yellow starthistle (*Centaurea solstitialis*)
- Yellow toadflax (*Linaria vulgaris*)\*

\*State and County listed noxious weeds.

To facilitate our environmental review, we are requesting the following information for areas crossed that are within the 1-mile wide Study Area associated with the Project:

- Confirmation that the list of noxious weeds above is correct and current;
- Known locations of noxious and/or invasive weed species along the proposed route; and
- Guidance and/or recommendations for weed control, pesticide use, and non-chemical treatment options.

We ask that your office provide the location, size, and extent of noxious/invasive weeds as a GIS shapefile (if possible), geographic coordinates (e.g., latitude/longitude), Public Land Survey System Section(s), or marked on a map. The information that your office provides will assist us in project planning and execution. Copies of correspondence received in response to this letter will be included in application to be filed with the PSC.

We appreciate your assistance with this request and look forward to your timely review and comments on this Project. E3 has been retained by KM to provide environmental consulting support for this Project. Should you have any questions or require additional information, please contact me at 651-282-0652 or [kschmidt@go2e3.com](mailto:kschmidt@go2e3.com).

Sincerely,



Katie Schmidt, Senior Consultant  
E3 Environmental, LLC

Attachment: Project Maps

Cc: KM Project File

## **Appendix D**

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### Natural Resources Report

# NATURAL RESOURCES AND WETLAND DELINEATION REPORT

Roosevelt Gas Plant Expansion  
McKenzie County, North Dakota  
*Carlson McCain Project #7519*

*Prepared for:*

E3 Environmental, LLC  
871 Jefferson Avenue  
St. Paul, MN 55102  
(651) 282-0653

*June 12, 2018*



600 South 2<sup>nd</sup> Street, Suite 105

Bismarck, ND 58504

Tel 701-255-1475

Fax 701-255-1477

ENVIRONMENTAL • ENGINEERING • LAND SURVEYING

# Roosevelt Gas Plant Expansion McKenzie County, North Dakota

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## **1.0 INTRODUCTION**

### **1.1 Background**

Kinder Morgan is proposing to expand its Roosevelt Gas Plant, located approximately 7.5 miles south of Watford City in McKenzie County, North Dakota. The plant receives and processes natural gas from surrounding petroleum wells and compresses it for transport. The existing plant occupies approximately the western half of a 23.4-acre property in the southwest quarter of the southeast quarter of section 30, Township 149 N, Range 98 W (Project Area).

A Carlson McCain, Inc. (Carlson McCain) biologist performed field surveys to determine the presence or absence of federally protected species and their habitats and to define the boundaries of wetlands/waterbodies, state and county listed noxious weeds, and wooded areas within the Project Area. The field survey occurred on June 6, 2018. Appendix A contains Figures showing the Project Area.

The results and methodology of the field surveys are contained within this report comply with regulations set by the North Dakota Public Service Commission (NDPSC) and United States Army Corps of Engineers (USACOE).

### **1.2 Regulatory Background**

#### **1.2.1 Clean Water Act, Section 404**

Section 404 of the Clean Water Act prohibits the discharge of dredge or fill materials into waters that are under the jurisdiction of the USACOE (waters of the U.S.) without a permit.

## **2.0 METHODS**

### **2.1 Survey Area**

The Project Area is located within the Great Plains (Level I) ecoregion, the West-Central Semi-Arid Prairies (Level II) ecoregion, the Northwestern Great Plains (Level III) ecoregion, and the Missouri Plateau (Level IV) ecoregion.

The Northwestern Great Plains (Level III) ecoregion encompasses the Missouri Plateau section of the Great Plains. It is a semiarid rolling plain of shale, siltstone, and sandstone punctuated by occasional buttes and badlands. Native grasslands persist in areas of steep or broken topography, but they have been largely replaced by spring wheat and alfalfa over most of the ecoregion. Agriculture is limited by erratic precipitation patterns and limited opportunities for irrigation (Bryce et al. 1998). The Missouri Plateau (Level IV) ecoregion was largely unaffected by glaciation and retains its original soils and complex stream drainage patterns (Bryce et al. 1998).

The Project Area consists of land that has already been partially developed as a natural gas plant. The remaining portion of the Project Area has been filled with a clay and scoria mix which was graded level. A fence has been constructed surrounding the entire Project Area, with controlled-gate access.

### **2.2 Wetland/Waterbody Determination**

Prior to field work, existing resource information was used to aid in identifying and delineating wetlands and drainage features within the Project Area. These resources included: McKenzie County National Agriculture Imagery Program (NAIP) aerial photographs; U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (USFWS 2014a); USDA digital Web Soil Survey (USDA, NRCS 2017) of the Project county; and the U.S. Geological Survey National Hydrography Dataset (NHD) (USGS 2017).

### **2.3 Tree/Shrub Survey**

The Project Area was surveyed for trees and shrub in accordance with NDPSC regulations.

### **2.4 Noxious Weed Survey**

North Dakota Century Code Chapter 63-01.1 and the North Dakota Department of Agriculture recognize 11 species as noxious weeds. McKenzie County lists five additional species. Table 1 identifies the state and county noxious weeds applicable to the Project Area.

**Table 1. State and County Noxious Weeds**

North Dakota		McKenzie County
Absinth wormwood ( <i>Artemisia absinthium</i> )	Purple loosestrife ( <i>Lythrum salicaria</i> )	Black henbane ( <i>Hyoscyamus niger</i> )
Canada thistle ( <i>Cirsium arvense</i> )	Russian knapweed ( <i>Acroptilon repens</i> )	Common burdock ( <i>Arctium minus</i> )
Dalmatian toadflax ( <i>Linaria genistifolia</i> )	Saltcedar ( <i>Tamarisk spp.</i> )	Houndstongue ( <i>Cynoglossum officinale</i> )
Diffuse knapweed ( <i>Centaurea diffusa</i> )	Spotted knapweed ( <i>Centaurea maculosa</i> )	Halogeton ( <i>Halogeton glomeratus</i> )
Leafy spurge ( <i>Euphorbia esula</i> )	Yellow toadflax ( <i>Linaria vulgaris</i> )	Baby's breath ( <i>Gypsophila paniculata</i> )
Musk thistle ( <i>Carduus nutans</i> )		

## 2.5 Threatened and Endangered Species

USFWS and North Dakota Game and Fish Department (NDGF) databases containing habitat, known range, and species sighting data for federally listed species were consulted prior to the field surveys. Species specific surveys were not conducted; however, the Survey Area was observed to determine if potential habitat for threatened and endangered species was present.

### 3.0 RESULTS

#### 3.1 Vegetation

There was no native vegetation identified within the Project Area. Alfalfa, smooth brome, and crested wheatgrass were observed growing around the fence on the boundary of the Project Area. The interior was developed with buildings comprising a natural gas plant on the western side and a vacant area on the eastern side containing no vegetation.

#### 3.2 Hydrology

Prior to the field surveys, precipitation data from the North Dakota Agricultural Weather Network (NDAWN) was reviewed. This data was used to determine moisture levels of current conditions versus historic averages. Data from the NDAWN Watford City 2E Station, located approximately 8.5 miles northeast of the Project Area, was reviewed. The precipitation data covered April and May, 2018. Table 2 summarizes the data. Overall field conditions are drier than normal with the Watford City 2E Station receiving -1.38" of precipitation less than normal in the preceding two months (NDAWN 2018).

**Table 2. NDAWN Precipitation Data**

	Watford City 2E Station		
	2018 Monthly Totals	Normal Monthly Average	Departure from Normal
April	0.46"	0.85"	-0.39"
May	1.21"	2.20"	-0.99"
<b>Totals</b>	<b>1.67"</b>	<b>3.05"</b>	<b>-1.38"</b>

Source: NDAWN 2018

#### 3.3 Soils

The USDA Natural Resources Conservation Service's Web Soil Survey lists four Soil Map Units occurring natively within the Project Area. Due to previous disturbance and construction, these native soils are likely buried below the clay and scoria mixed fill that is currently present at the ground surface. Table 3 contains the acreages of each Soil Map Unit. The most common soil components are discussed below. A figure showing Soil Map Units in the Project Area is included in Appendix A.

**Table 3. NRCS Soil Map Units**

Soil Map Unit	Map Unit Symbol	Acreage by Map Unit
Daglum-Belfield complex, 0 to 6 % slopes	E2741D	19.79
Rhoades-Daglum complex, 0 to 6 % slopes	E0727B	2.38
Zahl-Williams-Cabba complex, 6 to 9 % slopes	E2985A	1.12
Dogtooth-Janesburg-Cabba complex, 6 to 35 % slopes	E1635C	0.13

Source: USDA 2107

#### **Belfield**

The Belfield series consists of deep and very deep, well or moderately well drained slowly permeable soils formed in alkaline, calcareous residuum or alluvium on uplands, flats, terraces and in swales. Mean annual air temperature is 43 degrees F, and mean annual precipitation is 15 inches. The mollic

epipedon ranges from 7 to 30 inches in thickness and in many pedons includes all or part of the Btn horizon. The depth to carbonates ranges from 15 to 55 inches. The substratum, below depths of 36 inches, typically is alkaline local alluvium or partially weathered soft siltstone, shale or sandstone. Saline phases are recognized. Belfield soils are on level and nearly level terraces, flats and upland swales and on nearly level to moderately sloping uplands. Slopes from 1 to 4 percent are most common, but slope ranges from 0 to 9 percent. Most areas are cropped to small grains. Some are used for hay or pasture. Native vegetation is mid and short prairie grasses such as western wheatgrass (*Pascopyrum smithii*), blue grama (*Bouteloua gracilis*), and green needlegrass (*Nassella viridula*) (USDA 2017).

### **Daglum**

The Daglum series consists of deep and very deep, moderately well and well drained soils formed in clayey alluvium or residuum on foot slopes and swales on terraces and uplands. These soils have slow or very slow permeability. Mean annual air temperature is about 42 degrees F, and the mean annual precipitation is about 16 inches. Soft sedimentary beds of shale, siltstone or fine-grained sandstone are below depths of 40 inches. Daglum soils are on level and nearly level terraces and on level to moderately steep uplands. They are on foot slopes and swales. Slope gradients range from 0 to 25 percent. Used for range, pasture and small grains. Native vegetation is western wheatgrass, blue grama, green needlegrass, needleleaf sedge (*Carex duriuscula*) and forbs (USDA 2017).

### **Rhoades**

The Rhoades series consists of deep and very deep, well or moderately well drained, very slowly permeable soils formed in stratified loamy and clayey materials derived from soft shale, siltstone or mudstone. Mean annual air temperature is 42 degrees F, and mean annual precipitation is 16 inches. Depth to soft shale, siltstone or mudstone is more than 40 inches. Rhoades soils are on level to steep concave swales on uplands and terraces. Slope gradients commonly are 1 to 9 percent but range from 0 to 25 percent. Mostly in grassland used for range and pasture. Native vegetation is short- and mid-prairie grasses such as western wheatgrass, blue grama, sedges and also some legumes, prickly pear and clubmoss. Some areas are cultivated mostly to small grains (USDA 2017).

## **3.4 Wetlands**

No wetlands were identified during the field survey.

## **3.5 Waterbodies**

No waterbodies were identified during the field survey.

## **3.6 Trees and Shrubs**

No trees or shrubs were identified during the field survey.

## **3.7 Noxious Weeds**

No noxious weeds were identified during the field survey.

## **3.8 Threatened and Endangered Species**

Assessments for federally listed threatened and endangered species were conducted by evaluating historic and present occurrences and by determining if potential habitat exists within the Project Area.

Threatened and endangered species that have been documented and/or have the potential to occur in McKenzie County are listed in Table 4.

**Table 4. Federally Threatened and Endangered Species**

Species	Status
Whooping Crane	Endangered
Gray Wolf	Endangered
Dakota Skipper and designated critical habitat	Threatened
Northern Long-eared Bat	Threatened
Red knot	Threatened
Piping plover and critical habitat	Threatened
Pallid sturgeon	Endangered
Least tern	Endangered

Source: USFWS 2018

### 3.9 Whooping Crane (*Grus americana*)

**Federal Status:** Endangered

**Affect Determination:** May affect, is not likely to adversely affect

The primary nesting area for the whooping crane is in Canada's Wood Buffalo National Park. Aransas National Wildlife Refuge in Texas is the primary wintering area for whooping cranes. In the spring and fall, the cranes migrate primarily along the Central Flyway. During the migration, cranes make numerous stops, roosting in large shallow marshes and feeding and loafing in harvested grain fields. The primary threats to whooping cranes are power lines, illegal hunting, and habitat loss (Texas Parks and Wildlife 2006).

Approximately 75% of the whooping crane sightings in North Dakota occur within a 90-mile corridor that includes the Project Area. There are eight confirmed whooping crane sightings in McKenzie County according to the USFWS Database (USFWS 2015a). The nearest sighting to the Project Area took place in 2006, and is approximately 12.66 miles west in Section 24, Township (T) 149 North (N), Range (R) 101 West (W) of McKenzie County. Noise and vehicle activity during construction activities may cause migratory cranes to divert from the area but is unlikely to contribute to any additional indirect or direct effect that will result in an increase of fatalities and therefore is considered insignificant. The Project construction will be within an area previously disturbed by construction. It is not anticipated that any cranes would feed or land in the Project Area due to previous construction activities.

If a crane was to be sighted within one mile of the Project, construction would cease and would be immediately reported to the USFWS and NDGFD. In coordination with the USFWS, construction would resume once the bird(s) have left the area. Following these guidelines, it is reasonable to expect that the Project **may affect, is not likely to adversely affect** whooping cranes.

### 3.10 Gray Wolf (*Canis lupus*)

**Federal Status:** Endangered

**Affect Determination:** No effect

Rural areas throughout the state of North Dakota function as dispersal corridors for gray wolves representing the Western Great Lakes (east of the Missouri River and US Highway 83) and Wyoming portion of the Northern Rocky Mountain distinct population segments (DPS). However, gray wolves representing either DPS could disperse through North Dakota at any time of the year. Wolf habitat within North Dakota occurs statewide and is considered dispersal habitat. Dispersal habitat may be important for maintaining gene flow between DPSs but is not thought to be a limiting factor for the recovery of the species.

To reflect this possibility, the USFWS has classified gray wolves dispersing through North Dakota as endangered. There have been two verified sightings in McKenzie County. The nearest sighting is approximately 19.95 miles southwest of the Project Area in Section 25, T147N, R102W of McKenzie County. Verified sighting data of gray wolves in North Dakota was obtained from the North Dakota Game and Fish Department (NDGF 2017).

Construction of the Project is unlikely to hinder potential gray wolf dispersal. In addition, no rendezvous sites, den sites, or pack activity is known to occur within the listed portion of the gray wolf range or non-listed portion in North Dakota. Therefore, this Project is expected to have **no effect** on the gray wolf species.

### 3.11 Dakota Skipper (*Hesperia dacotae*)

**Federal Status:** Threatened

**Affect Determination:** No effect

Dakota skippers are found in untilled high quality native prairie containing a high diversity of wildflowers. Habitat includes two prairie types: 1) high quality, low (wet-mesic) prairie with little topographic relief dominated by little bluestem grass, wood lily (*Lilium philadelphicum*), bluebell bell flower (*Campanula rotundifolia*), and smooth camas (*Zigadenus elegans*); and 2) rolling native-prairie terrain over gravelly glacial moraine deposits dominated by bluestem grasses and needlegrass (e.g. *Hesperostipa spartea*) with bluebell bell flower, wood lily, purple coneflower (*Echinacea angustifolia*) upright prairie coneflower (*Ratibida columnifera*) and common gaillardia (*Gaillardia aristata*). Dakota skipper populations have declined historically due to widespread conversion of native prairie (Dana 1991).

There is no suitable Dakota skipper habitat within the Project Area. The full extent of the Project Area has already been disturbed. It is determined that this Project will have **no effect** to the Dakota skipper.

### 3.12 Dakota Skipper Critical Habitat

**Federal Status:** Designated

**Affect Determination:** Not likely to destroy or adversely modify

The USFWS has designated 16 units of Dakota skipper critical habitat in North Dakota (USFWS 2015b). McKenzie County has two areas designated as critical habitat; however, the closest point to the Project is over 30 miles to the northeast of the Project. The Project will have **not likely to destroy or adversely modify** on Dakota Skipper critical habitat.

### 3.13 Northern Long-eared Bat (*Myotis septentrionalis*)

**Federal Status:** Threatened

**Affect Determination:** No effect

The northern long-eared bat is a forest dwelling bat. The home range of the northern long-eared bat is approximately 150 acres (60.7 ha) including a summer and winter habitat. In the summer, northern long-eared bats roost under bark or in crevices of trees, preferring to roost in tall trees and under the exfoliating bark of dead or dying trees. In the winter, northern long-eared bats hibernate in caves and mines. The northern long-eared bat prefers foraging in edge habitats and forests comprised of trees with a diversity of life stages. The primary threats to the northern long-eared bat are white-nose syndrome (WNS), alteration/loss of habitat, and wind energy.

The USFWS has announced that starting May 4, 2015, the northern long-eared bat will be listed as threatened and a Final 4(d) ruling was declared on January 14, 2016 (FR 2016). WNS is the predominant threat to the northern long-eared bat at this time. WNS has not been documented in North Dakota; however, it has been detected in in northwestern Minnesota. McKenzie County lies outside the 150-mile WNS buffer but is located within the northern long-eared bat range (USFWS 2014b).

There is no existing forest habitat adjacent to or within the Project Area. Based on the analysis of the Project, it is determined that construction of the Project will have **no effect** on may affect, is not likely to adversely affect the northern long-eared bat

### 3.14 Red Knot (*Calidris canutus*)

**Federal Status:** Threatened

**Affect Determination:** No effect

The red knot is a shorebird that breeds in the central Canadian Arctic, with primary breeding grounds in Nunavut Territory, with some potential breeding habitat extending into the Northwest Territories (FR 2013). The red knot winters along the Atlantic coasts of Argentina and Chile (particularly the island of Tierra del Fuego), the north coast of Brazil, and further north into Mexico and the southeast United States (USFWS 2014a). During migration, the red knot primarily follows the Atlantic coastline to and from breeding and wintering grounds. However, geolocator results from red knots wintering in Texas showed that some birds migrate using a central flyway across the Midwestern U.S. and may have a northern Great Plains stopover (FR 2013). Red knots spend 2 to 3 months at breeding sites in northern Canada.

Red knots are specialized molluscivores, feeding primarily on hard-shelled mollusks in soft wet sand/sediment (USFWS 2014c). In addition to mollusks, red knots may feed upon shrimp, crabs, marine worms, and horseshoe crab eggs and other similar invertebrates. On the breeding ground, red knots feed mostly on terrestrial invertebrates and grass shoots/seeds (FR 2013).

The shoreline of the Missouri River provides stopover habitat for the red knot. Although some individuals may stopover in North Dakota during annual migrations, the species is rare and is not reported in North Dakota every year. Reported historical sightings since 1900 (Igl 2015), are primarily one or a few birds; however, larger flocks have been reported. The majority of these sightings have been made in the prairie pothole region during the spring migration in late April through May. There have been no sightings reported in McKenzie County. However, Patterson Lake, located in Stark County, had two confirmed individuals sighted in 2009 which is about 60 miles southeast of the Project Area (Igl 2015). An increase in future sightings may result from an increase in public awareness.

The red knot migrates annually from its breeding grounds in the Arctic to wintering habitat in southern climates. It does not nest in North Dakota but may use areas along the Missouri River as stopover habitat. The Project is approximately 22.2 miles from the closest point of the Missouri River/Lake Sakakawea. It is determined that construction of the Project will have **no effect** on this species.

### 3.15 Piping Plover (*Charadrius melodus*)

**Federal Status:** Threatened

**Affect Determination:** May affect, is not likely to adversely affect

The piping plover is a migratory shorebird that breeds in North Dakota. Suitable nesting habitat for piping plovers in the Missouri River system is characterized as sparsely vegetated channel sandbars, sand and gravel beaches on islands, temporary pools on sandbars and islands, and island margins that interface with the river channel. The piping plover feeds on worms, insects, and mollusk. Degradation of habitat related to the channelization river systems, nest predation, and human disturbance has led to the decline of piping plover populations.

No piping plovers or piping plover habitat was observed during the field surveys. The Project is approximately 22.2 miles from the closest point of the Missouri River/Lake Sakakawea and critical habitat (USFWS 2015b). Plovers that will migrate and forage away from the designated critical habitat area could possibly visit wetlands near the Project Area. However, due to the lack of alkaline wetlands, previous and proposed disturbance within the Project Area, nesting would be unlikely. It is reasonable to expect that the Project **may affect, is not likely to adversely affect** this species.

### 3.16 Piping Plover Critical Habitat

**Federal Status:** Designated

**Affect Determination:** Not likely to destroy or adversely modify

The Project will not modify, alter, disturb, or affect the shoreline of the Missouri River/Lake Sakakawea or any of its tributary streams. Therefore, it is reasonable to believe that the completion of the Project is **not likely to destroy or adversely modify** designated critical habitat for the piping plover.

### 3.17 Pallid Sturgeon (*Scaphirhynchus albus*)

**Federal Status:** Endangered

**Affect Determination:** No effect

Pallid sturgeon are found in the Mississippi, Missouri, and Yellowstone River systems and are adapted for living close to the bottom of large, shallow rivers with sand and gravel bars. Pallid sturgeon populations in North Dakota have decreased since the 1960s (Grondahl and Martin, no date). Weighing up to 85 pounds, pallid sturgeons are long lived with individuals possibly reaching 50 years of age.

A known pallid sturgeon population occurs from the Missouri River below Fort Peck Dam to the headwaters of Lake Sakakawea and the Lower Yellowstone River up the confluence of the Tongue River, Montana (USFWS 2007). Factors leading to the decline of the pallid sturgeon and a listing as an endangered species by the USFWS in 1990 include the alteration of habitat through river channelization; creation of impoundments; and alteration of water flow regimes (USFWS 1990). The effect from these alterations within the Missouri River have reduced food sources by lowering

productivity, destroying spawning habitat, altered flow conditions which can delay spawning cues, and blocked movements to spawning, feeding, and rearing areas (USFWS 2007).

The Project is approximately 22.2 miles from the Missouri River/Lake Sakakawea. Due to the nature of the Project, no impacts to the Missouri River/Lake Sakakawea are anticipated during construction and/or operation. Therefore, it is reasonable to expect that the activities associated with the Project will have **no effect** on this species.

### 3.18 Interior Least Tern (*Sterna antillarum*)

**Federal Status:** Endangered

**Affect Determination:** May affect, is not likely to adversely affect

The interior least tern, a shorebird, is known to nest on midstream sandbars along the Yellowstone and Missouri River systems in North Dakota. The species constructs bowl-shaped depression nests on sparsely vegetated sandbars and sandy beaches during the nesting period, which occurs between mid-May and mid-August. Nesting adults have been documented to travel 7.5 miles or more from their nest sites to forage in wetlands or riverine habitat (Thompson et al. 1997). Habitat loss due to man-made changes to watersheds and river systems along with low nesting success from predation and human disturbance has caused a decline in least tern populations.

No individuals were observed in the area during the field surveys. The Project is approximately 22.2 miles from the closest point of the Missouri River/Lake Sakakawea. Migrating and foraging least terns could visit wetlands near the Project Area; however, due to the lack of suitable nesting habitat, previous and proposed disturbance within the Project Area, the interior least tern would likely not utilize such conditions. Therefore, it is reasonable to expect that the Project **may affect, is not likely to adversely affect** this species.

### 3.19 Bald and Golden Eagles

**Status:** Not listed. Protected under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act

**Affect Determination:** No adverse effects anticipated

Proposed development may affect Bald and Golden Eagles through direct mortality, habitat degradation, and/or displacement of individual birds. These impacts are regulated in part through the *Migratory Bird Treaty Act* (916 USC 703-711) and the *Bald and Golden Eagle Protection Act* (16 USC 668–668c).

The buttes and badlands around the Project Area make for suitable foraging and nesting habitat for both golden and bald eagles. A review of the North Dakota Game and Fish eagle nest database revealed no eagle nests within 1-mile of the Project (NDGF 2015) and a line-of-sight survey did not identify any nests. The closest known eagle nest location is a golden eagle cliff nest that is located approximately 4.6 miles southwest of the Project Area (NDGFD 2015). Golden and bald eagles do have the potential to pass through the project area; however, the distances from the nearest recorded nesting locations should provide adequate buffers to any possible disturbance to nesting bald or golden eagles.

The Project complies with the conservation measure that known nests be avoided by greater than one-half mile. If any new nest were discovered prior to construction, the USFWS would be consulted

for additional information on how to proceed. Recommended mitigation measures would be implemented to avoid disturbance of bald and golden eagle nesting sites.

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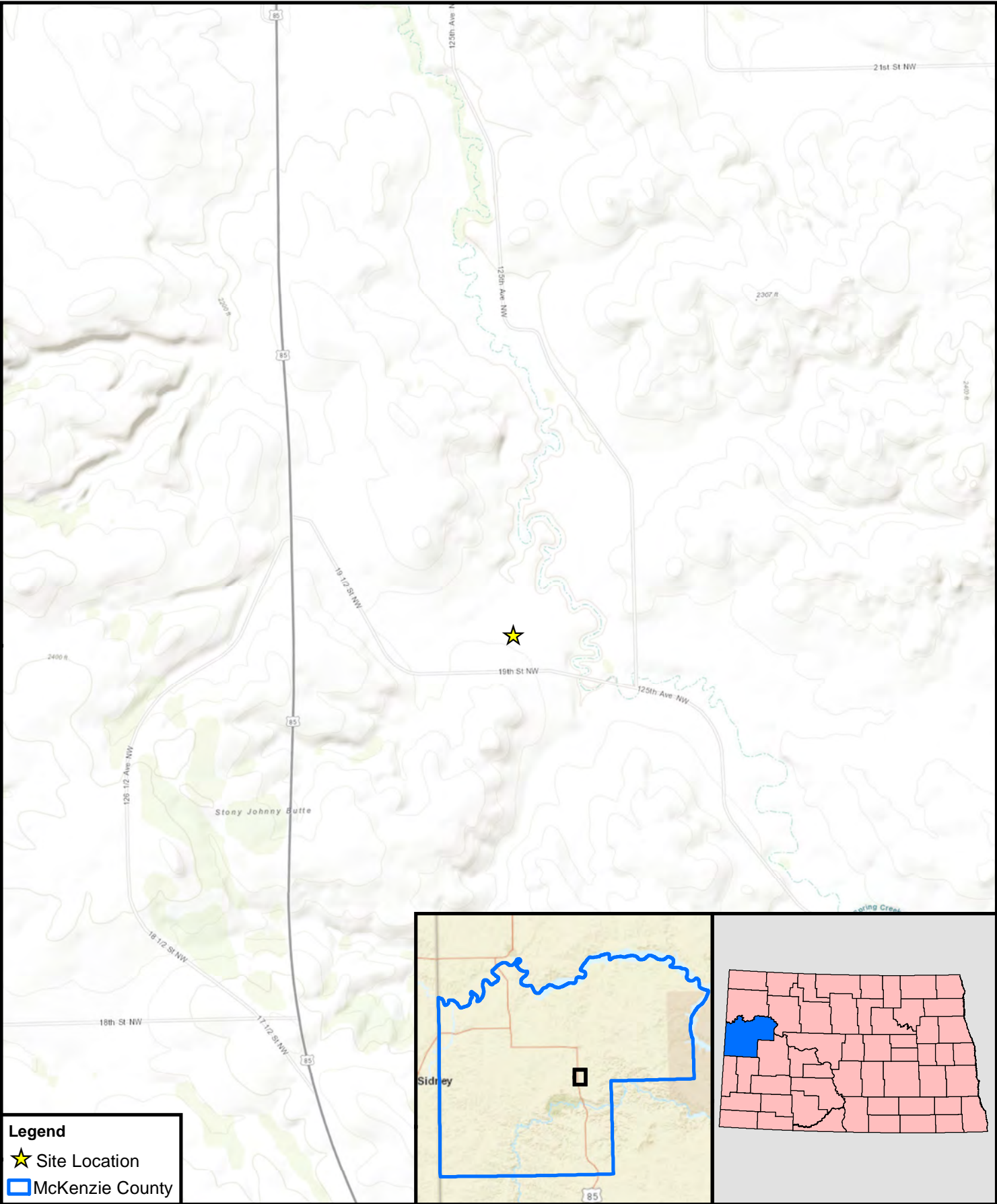
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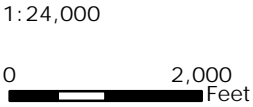
## ***Appendix A***

### *Figures*



**Legend**

- ★ Site Location
- McKenzie County

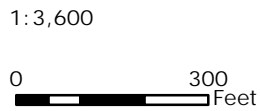


Basemap: USGS 7.5 Min Quadrangle

Figure 1  
Site Location Map  
Kinder Morgan  
Roosevelt Gas Plant



**Legend**  
Project Area



Basemap: Google Maps, 2018.

Figure 2  
Aerial View  
Kinder Morgan  
Roosevelt Gas Plant

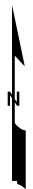


Figure 3  
 Native Soil Map  
 Kinder Morgan  
 Roosevelt Gas Plant

***Appendix B***

*Project Photographs*



**Photograph 1. View of the southern edge of the Project Area, facing west.**



**Photograph 2. View of the southern edge of the Project Area, facing east.**



**Photograph 3. View of the plant, located on the western half of the Project Area.**



**Photograph 4. View of the storm water pond located on the northeast corner of the Project Area.**



**Photograph 5. View of the undeveloped eastern half of the Project Area, looking west.**



**Photograph 6. View of the undeveloped eastern half of the Project Area, looking southwest.**

# **Appendix E**

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## Cultural Resources Report



**STATE  
HISTORICAL  
SOCIETY**  
OF NORTH DAKOTA

June 19, 2018

Doug Burgum  
*Governor of North Dakota*

**North Dakota  
State Historical Board**

Terrance Rockstad  
*Bismarck - President*

Gereld Gerntholz  
*Valley City - Vice President*

H. Patrick Weir  
*Medora - Secretary*

Albert I. Berger  
*Grand Forks*

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Steve C. Martens  
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Daniel Stenberg  
*Watford City*

Sara Otte Coleman  
*Director  
Tourism Division*

Kelly Schmidt  
*State Treasurer*

Alvin A. Jaeger  
*Secretary of State*

Melissa Baker  
*Director  
Parks and Recreation  
Department*

Thomas Sorel  
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Transportation*

Claudia J. Berg  
*Director*

*Accredited by the  
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Craig Picka  
In Situ Archaeological Consulting  
695 Dresden Drive  
Chaska, MN 55318

**ND SHPO Ref: 18-1030 PSC** Kinder Morgan Roosevelt Gas Plant Expansion  
Project: A Class I and Class III Cultural Resource Investigation in McKenzie  
County, North Dakota  
[T149N R98W Section 30, SW-SE]

Dear Craig:

We have received and reviewed: **18-1030 PSC** documentation for: "Kinder Morgan Roosevelt Gas Plant Expansion Project: A Class I and Class III Cultural Resource Investigation in McKenzie County, North Dakota," by Abraham Ledezma, Craig Picka, and Daniel Salas (In Situ Archaeological Consulting, June 2018) and find it acceptable.

We concur with a "**No Significant Sites Affected**" determination provided the project is of the nature stated and it takes place in the plotted location provided in the project documentation.

Thank you for the opportunity to review this project. Please include the ND SHPO reference number listed above in any further correspondence for this specific project. If you have any questions, please contact either Paul Picha at (701) 328-3574 or [ppicha@nd.gov](mailto:ppicha@nd.gov) or Susan Quinnell at (701) 328-3576 or [squinnell@nd.gov](mailto:squinnell@nd.gov).

Sincerely,

Claudia J. Berg  
State Historic Preservation Officer (North Dakota)  
and  
Director, State Historical Society of North Dakota

Privileged and Confidential: CR Report has been Redacted.