



**ONEOK  
PARTNERS**

**ONEOK BAKKEN PIPELINE, L.L.C.**

**Bear Creek NGL Pipeline**

**Case No. PU-15-801**

**North Dakota Public Service Commission**

***Application for Amendment to***

***Corridor Certificate No. 184 and Route Permit No. 196***

January 2020

Prepared by:



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## ACRONYMS AND ABBREVIATIONS

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APE	Area of Potential Effect
BGEPA	Bald and Golden Eagle Protection Act
bpd	barrels per day
EI	Environmental Inspector
ICBM	Intercontinental Ballistic Missile
IPaC	Information, Planning, and Conservation System
MBTA	Migratory Bird Treaty Act
MMcf/d	million cubic feet per day
NDDA	North Dakota Department of Agriculture
NDGFD	North Dakota Game and Fish Department
NDIC	North Dakota Industrial Commission
NDPSC/Commission	North Dakota Public Service Commission
NDSHPO	North Dakota State Historic Preservation Office
NDSWC	North Dakota State Water Commission
NGL(s)	Natural Gas Liquids
NRHP	National Register of Historic Places
ONEOK	ONEOK Bakken Pipeline, L.L.C.
Pipeline	ONEOK Bear Creek NGL Pipeline
Plant	ONEOK Bear Creek Gas Plant
Project/Stations	Bear Creek NGL Pump Stations
SWPPP	Stormwater Pollution Prevention Plan
USACE	U.S. Army Corps of Engineers
USDOD	U.S. Department of Defense
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USNPS	U.S. National Park Service

## **LIST OF EXHIBITS**

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- Exhibit A:      Engineering Documents
- Exhibit B:      Project Maps
  - B.1      Project Overview Map
  - B.2      Avoidance and Exclusion Map
  - B.3      Selection Criteria Map
  - B.4      Black and White Overview Map
- Exhibit C:      Environmental Surveys
  - C.1      NDSHPO Correspondence on Cultural Resources
  - C.2      Natural Resources Report
- Exhibit D:      Agency Consultations

## **INTRODUCTION**

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ONEOK Bakken Pipeline, L.L.C. (ONEOK), a wholly owned subsidiary of ONEOK, Inc., owns and operates natural gas liquids (NGLs) assets in North Dakota. ONEOK is proposing to construct the Stony Johnny Butte and Big Gulch Pump Stations (Project/Stations), a transmission facility improvement to their existing Bear Creek NGL Pipeline (Pipeline). The proposed Stations would connect to the existing Pipeline, which originates at the ONEOK Bear Creek Gas Plant (Plant) in Dunn County, North Dakota, and extends northwest to terminate at an inter-connect with ONEOK's existing Targa Pipeline in McKenzie County, North Dakota.

On March 23, 2016, the North Dakota Public Service Commission (NDPSC or Commission) issued Findings of Fact and Conclusions of Law and Order granting Certificate of Corridor No. 184 and Route Permit No. 196 for the Pipeline Project (PU-15-801). Construction of the Pipeline was completed in 2016 and as-builts were provided to the NDPSC in the fall of 2016 following construction completion.

Since construction of the Pipeline, ONEOK has determined in accordance with its 10-Year Plan a need for additional transportation capacity of products along the Bear Creek NGL Pipeline. Portions of the proposed Station footprints fall adjacent to, but outside of the currently Certificated Corridor; therefore, ONEOK is requesting an amendment to Certificate of Corridor No. 184. ONEOK hereby submits to the NDPSC a request to amend Certificate of Corridor No. 184 and Route Permit No. 196 and documentation to support the proposed amendments in accordance with North Dakota Century Code sections 49-22.1-06 and 49-22.1-07.

ONEOK would begin construction by March 1, 2020 or upon receipt of necessary approvals. Construction would take approximately 6 months and completion of the Project is desired by third quarter of 2020.

## **1.0 DESCRIPTION OF FACILITY IMPROVEMENTS**

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ONEOK is proposing to modify the Pipeline by adding two pump station facilities which would provide a combined incremental volume of 65,000 barrels per day (bpd) additional capacity, for a total Pipeline capacity of 80,000 bpd. The Stony Johnny Butte Pump Station would consist of two (2) 2,000HP electrically driven pumps and the Big Gulch Pump Station would consist of three (3) 2000HP electrically driven pumps contained within buildings at each site (refer to Exhibit A). The two proposed pump stations would encompass a total of approximately 12 acres. The pump stations would not alter the maximum allowable operating pressure of the pipeline. ONEOK would invest approximately \$10 million per pump station in North Dakota to develop this Project.

### **1.1 PREFERRED LOCATIONS OF FACILITIES**

The proposed Stony Johnny Butte Pump Station would be located in the SW  $\frac{1}{4}$  of Section 29, Township 149 North, Range 98 West, approximately 7.5 miles south/southeast of Watford City in McKenzie County, North Dakota (refer to maps in Exhibit B). The pump station site boundary would extend approximately 200 feet outside of Certificated Corridor No. 184 and would be positioned within an approximately 5-acre parcel leased by ONEOK.

The Big Gulch Pump Station would be located in the SW  $\frac{1}{4}$  of Section 11, Township 147 North, Range 97 West, in Dunn County, North Dakota, approximately 18 miles northwest of Killdeer, North Dakota (refer to maps in Exhibit B). The pump station site boundary would extend approximately 375 feet outside of Certificated Corridor No. 184 and would be positioned within an approximately 7-acre parcel leased by ONEOK.

### **1.2 DESCRIPTION OF SITE PREPARATION, CONSTRUCTION, AND RECLAMATION PROCEDURES**

Construction techniques would be employed that would minimize the area of ground disturbance, off-site deposition of sediments, and long-term impacts to agricultural production. Construction and restoration activities will involve the following steps:

- Staking of the workspace boundaries and utilities;
- Clearing of construction area;
- Installation of temporary erosion prevention and sediment control devices;
- Grading and stump removal, if necessary;
- Segregation of topsoil, where necessary
- Materials delivery;
- Infrastructure installation;
- Backfilling excavations;
- Cleanup and final grading;
- Final restoration; and
- Removal of temporary erosion prevention and sediment control devices.

ONEOK is developing a series of plans as described in Section 6.0 to provide procedures to be followed during construction and through final stabilization of the Project sites. All construction and reclamation

efforts will occur in accordance with Order provisions. Additionally, ONEOK would comply with all applicable permit conditions and environmental, civil, or landowner agreements.

### **1.3 LANDOWNER NOTIFICATION, LAND ACQUISITION, AND COMPENSATION**

Prior to conducting field surveys, ONEOK reviewed courthouse records to identify current landowners of the proposed pump station sites. ONEOK contacted landowners to introduce the Project and to obtain permission to conduct surveys and will continue to work with the affected landowners to give the company the right to construct, operate, and maintain the pump stations within a specified portion of the landowner's property in return for monetary compensation.

## **2.0 ALTERNATIVES**

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### **2.1 ALTERNATIVES TO THE PROPOSED FACILITY**

Construction of the proposed Project would provide firm, reliable service for an additional capacity of 65,000 bpd of NGLs on the existing Pipeline. The product would be delivered along the Pipeline from the ONEOK Bear Creek Gas Plant to the ONEOK Targa Pipeline for delivery to facilities in the Mid-Continent and Gulf Coast for additional processing prior to distribution to various markets. ONEOK identified and evaluated several Project alternatives; however, none of these alternatives effectively satisfied the Project objective. These alternatives included the No-Action Alternative, the Trucking Alternative, and the Rail Alternative.

#### **2.1.1 No Action Alternative**

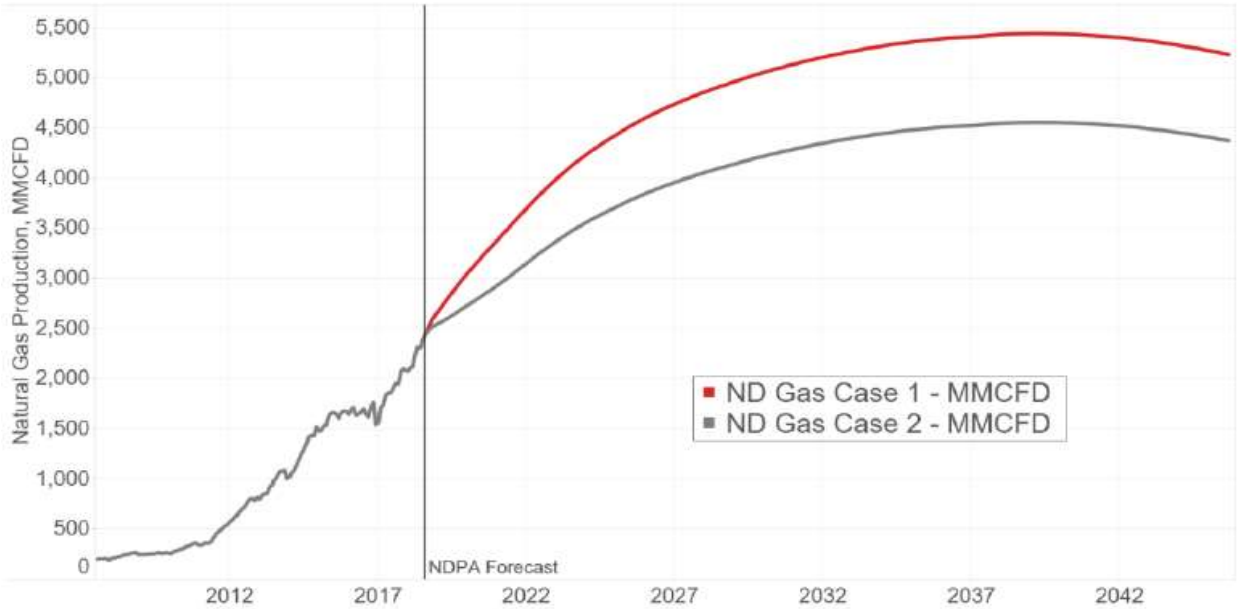
The primary objectives of the Project are to provide additional, new, firm transportation capacity to an existing NGL transmission system and to place the proposed facilities into service by third quarter 2020. Under the No-Action Alternative, the Project would not be built, and the environmental impacts associated with construction and operation of the proposed Project would not occur.

Within the region, NGL production from the Williston Basin has increased from 250 million cubic feet per day (MMcf/d) in 2011 to almost 2,500 MMcf/d presently and is projected by the North Dakota Industrial Commission (NDIC) to continue to increase through 2040 (see Figure 2.1.1-1). Thus, development of solutions for gas gathering, processing, and take-away infrastructure are needed. Historically, gathering, processing, and pipeline constraints have held back production growth in the Williston Basin region.

The state of North Dakota set a target of 74 percent gas capture in 2014 with an increased target every year since then. The next current gas capture target rate is 91 percent capture by Quarter 4 2020. The natural gas gross capture rate for Bakken production was 84 percent in June 2018. Flaring percentages from 2015 to 2018 are presented in Figure 2.1.1-2. In order for the industry to continue to meet or exceed future gas capture targets, additional investments in gas gathering, processing, and transmission will be required in the short and long term.

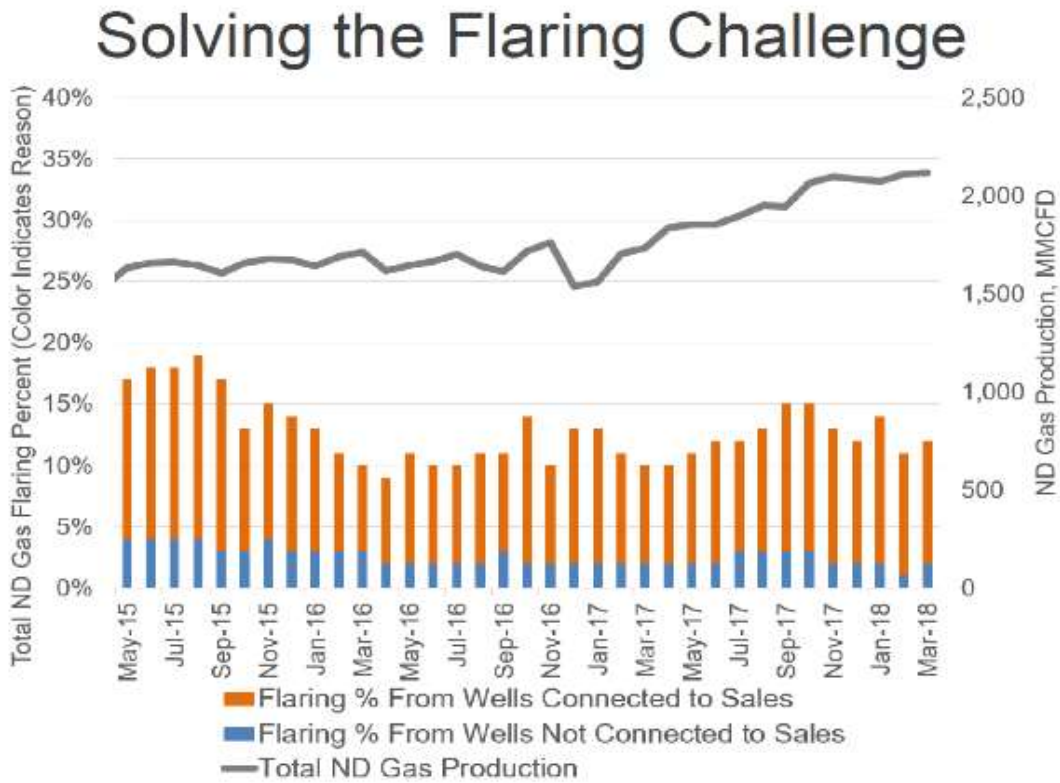
A No Action Alternative will leave the region constrained by limited transport capacity for safe and reliable transmission of NGL products to markets. The No Action Alternative does not meet the commercial needs of ONEOK and does not serve the industry and public at-large. For these reasons, ONEOK rejected the No Action Alternative.

**Figure 2.1.1-1 North Dakota NGL Production Forecast**



Source: North Dakota Industrial Commission (NDIC), 2018

**Figure 2.1.1-2 North Dakota Flaring Percentages**



Source: Kringstad, 2018

### **2.1.2 Truck Transportation Alternative**

A Trucking Alternative was reviewed and eliminated due to the volumes of NGLs to be transported. The combined incremental volume for the proposed Project will be equal to an estimated 65,000 barrels or 2.7 million gallons of NGLs. The average load for an NGL truck is approximately 10,000 gallons per truck. Thus, it would require 270 trucks per day to be loaded at various Plant locations in the region, an average of 11-12 trucks every hour for 24 hours a day. Similarly, it would require these 270 trucks per day to be unloaded (i.e., transloaded) at a railcar facility, fractionation facility for further processing, or another pipeline terminal every day.

This level of truck activity is not logistically feasible as it would cause significant amounts of heavy vehicle traffic for the area's residents, as well as additional wear and tear on infrastructure. Further, any disruption in the trucking capacity due to seasonal load restrictions on roads, inclement weather, or road repairs could result in a plant shutdown and flaring of natural gas production. The Trucking Transportation Alternative is additionally constrained by the road network in the rural area of the Project. For these reasons, ONEOK rejected the Trucking Transportation Alternative.

### **2.1.3 Rail Transportation Alternative**

A Rail Transportation Alternative would require the design and construction of railcar loading and offloading facilities, lateral service lines, and ancillary facilities necessary to support the requisite volumes of NGLs, requiring land acquisition and permanent conversion of agricultural land to industrial. Use of rail would require a completely different project design than that currently proposed for the Project. This alternative would also require a third-party rail operator.

Based on the projected initial capacity of the Project, approximately 90 railcars carrying 30,000 gallons of NGL would need to be loaded and transported via rail on a daily basis under the Rail Transportation Alternative. While rail tanker cars are a vital part of the short-haul distribution network for NGLs, pipelines are a more reliable, safe, and economical alternative for the large volumes to be transported and long distances to be covered by the Project. As such, the Rail Transportation Alternative is not considered a viable alternative and was rejected.

## **2.2 PUMP STATION SITE ALTERNATIVES**

ONEOK considered several factors in choosing the preferred Station locations. The preferred sites took into consideration landowner acceptance, exclusion and avoidance area criteria, and environmental factors. Additionally, the preferred locations meet the required engineering factors, such as hydraulic balance of the pipeline and proximity to roads and other existing facilities (i.e., pipeline valves).

### **3.0 ENVIRONMENTAL STUDIES**

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The Findings of Fact, Conclusions of Law and Order issued for the Pipeline on March 23, 2016 concluded that the location, construction, and operation of the Pipeline would produce only minimal adverse effects on the environment and were compatible with environmental preservation and the efficient use of resources. ONEOK would comply with the Commission’s Order, conditions and criteria of the Certificate of Corridor Compatibility and Route Permit and the applicable statutes, rules, regulations, standards, and permits of state or federal agencies for the construction of the pump stations. Additionally, ONEOK would comply with any additional requirements brought forth from the NDPSC upon review and approval of this amendment request.

The pump station additions fall within the one-mile wide study area analyzed in the Pipeline application. Additionally, ONEOK conducted natural resource field surveys and cultural resource investigations for each pump station site in 2019. The results of these environmental investigations are summarized below.

#### **3.1 CULTURAL RESOURCE INVENTORY**

KLJ was contracted by ONEOK to conduct a Class III Cultural Resource Inventory of the proposed Big Gulch location; this inventory was conducted on November 19, 2019. A prehistoric isolated find had been recorded in 2015 as a single Knife River flint flake along the western edge of a corn field. As an isolated find, the site was designated as Not Eligible for listing on the National Register of Historic Places (NRHP). The isolate was not relocated during this 2019 survey and no additional cultural material was observed. The isolate’s eligibility recommendation remains Not Eligible and no avoidance measures were recommended. A determination of No Effect was recommended for the proposed Big Gulch Project location (KLJ, 2019a).

A Class I Literature Review of the proposed Stony Johnny Butte location was conducted by KLJ on November 18, 2019. The Class I Review found the Area of Potential Effect (APE) for this Project has been covered by six cultural resource inventories since 2015, with multiple studies overlapping within the proposed APE. No cultural resources were located in any of these studies inside the proposed APE. A prehistoric lithic scatter site is located near the northwest tip of the APE and a prehistoric isolated find is located near the southwest corner. Neither of these two sites are located within the APE. Due to recent and adequate cultural resource inventories of the entire APE, in addition to documented disturbances unrelated to the proposed Project, the recommendation was made that a Class III Inventory would not be necessary for any portion of the Stony Johnny Butte’s APE (KLJ, 2019b).

ONEOK understands that details and locations of cultural resources are considered privileged; as such, these features are not displayed on the maps included with this application and the Class I and Class III survey reports are not included with this filing. ONEOK filed copies of the Class I and Class III reports referenced above with the North Dakota State Historic Preservation Office (NDSHPO) on December 30, 2019 and requested concurrence the Project would not have an adverse impact on cultural resources. A response is pending; however, ONEOK will file copies of correspondence with the North Dakota NDSHPO to the NDPSC to document that the Project would not adversely affect cultural resources (see Exhibit C.1).

## **3.2 NATURAL RESOURCE INVENTORY**

KLJ was contracted by ONEOK to conduct field aquatic resources delineations, biological, and threatened/endangered species surveys. Field surveys were conducted at the proposed Big Gulch Station on October 16, 2019 and November 19, 2019, and at the proposed Stony Johnny Butte Station on October 16, 2019. Results of these surveys are summarized below, and the Natural Resource Inventory Reports are included as Exhibit C.2.

The aquatic resource delineations were conducted in accordance with the 1987 United States Army Corps of Engineers (USACE) Wetland Delineation Manual and the USACE March 2010 Regional Supplement: Great Plains Region (Version 2.0). The routine approach with onsite inspection was utilized, including the standard multi-parameter approach (vegetation, hydrology, and soils) for wetland identification. An area is considered to be a wetland if hydrophytic vegetation, wetland hydrology and hydric soils are all present. No wetlands or waterbodies were found at either pump station site during these surveys (KLJ, 2019c,d).

Evaluations were also conducted to determine the potential for occurrences of federally listed threatened, endangered, and candidate species under the Endangered Species Act (16 U.S.C. 1531 et seq.). A review of the U.S. Fish and Wildlife Service (USFWS) Endangered Species Information, Planning, and Conservation System (IPaC) website (USFWS, 2019) was conducted on October 29, 2019 to determine the potential for listed species and critical habitat that may be present in McKenzie and Dunn Counties, North Dakota. This review confirmed no designated critical habitat is located near either proposed pump station location.<sup>1</sup> Based on results of the field surveys, we anticipate the Project will not have adverse impacts on federally listed species or and will have no impact on designated critical habitat. Additionally, no North Dakota Species of Conservation Priority were observed during the field surveys (KLJ, 2019c, d).

### **3.2.1 Migratory Bird Treaty Act**

Migratory birds are protected under the Migratory Bird Treaty Act (MBTA), which prohibits the taking of any migratory bird, or a part, nest, or eggs of any such bird, except under the terms of a valid permit issued pursuant to federal regulations. On December 22, 2017, the U.S. Department of the Interior’s Office of the Solicitor issued a memorandum stating that the MBTA does not prohibit incidental take of migratory birds, and the “prohibition on pursuing, hunting, taking, capturing, killing, or attempting to do the same applies only to direct and affirmative purposeful actions that reduce migratory birds, their eggs, or their nests, by killing or capturing...” (U.S. Department of the Interior, 2017). As such, activities which result in unintentional take are not in violation of the MBTA.

The Project is most likely to impact migratory birds if construction and operation activities occur during the nesting season. Within the Project areas, birds generally nest from late March to early August, with the peak nesting season for migratory birds taking place between April 15 and July 30. Vegetative clearing during the nesting season would increase the potential for the Project to result in the take of a migratory bird. Adult birds or juveniles that have fledged from the nest are mobile and typically avoid Project-related activities; as such, take is typically of eggs and nestlings due to nest destruction during ground clearing activities.

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<sup>1</sup> The nearest designated critical habitat (for piping plover) is located 21.7 miles northeast of Big Gulch Pump Station, and 21.7 miles northwest of Stony Johnny Butte Pump Station.

There were no migratory birds observed at either proposed pump station location during field surveys (KLJ, 2019c,d). ONEOK intends to complete clearing efforts and begin construction prior to the migratory bird nesting season. Should construction be delayed resulting in clearing during the nesting season, ONEOK would develop a Migratory Bird Conservation and Compliance Plan to outline measures it would implement to avoid, minimize, and reduce possible impacts on migratory birds.

### **3.2.2 Bald and Golden Eagle Protection Act**

Bald and golden eagles are protected by both the MBTA and the Bald and Golden Eagle Protection Act (BGEPA). The BGEPA prohibits the take of a bald or golden eagle adults, juveniles, or chicks including their parts, nests, or eggs without a permit. Take is defined by BGEPA as to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb. BGEPA also addresses impacts resulting from human-induced alterations occurring around previously used nesting sites.

There were no eagles or raptors observed during the fall 2019 field surveys and no bald or golden eagle nests are known to occur within one-mile of either proposed pump station (KLJ, 2019c,d). Details regarding the wildlife observed during field surveys are provided in the Natural Resources Survey Report included in Exhibit C.2. In addition, ONEOK has initiated contact with the North Dakota Game and Fish Department to inquire if they have any historical records of eagle nests within one mile of each pump station (see Section 4.0 and Exhibit D for more information).

The Commission's Conclusions for the Pipeline determined that the location, construction, and operation would produce only minimal adverse effects on the environment and are compatible with environmental preservation and the efficient use of resources. Per Order Provision Item #27, ONEOK agrees to report to the Commission, as soon as reasonably possible, the presence of any critical habitat or threatened or endangered species of which ONEOK becomes aware and which was not previously reported to the Commission.

### **3.3 TREE/SAPLING/SHRUB INVENTORY**

The 2019 Natural Resource Inventory (Exhibit C.2) confirmed that land use at both proposed pump station locations consists of farmland utilized for annual crop production and/or grazing and no trees or shrubs were documented at either location (KLJ, 2019c, d). As such, the inventory and replacement requirements designated in the tree and shrub mitigation specifications required by the Commissions' Order issued for the Pipeline Project are not applicable to this proposed Project.

### **3.4 NOXIOUS WEEDS INVENTORY**

The Federal Noxious Weed Act of 1974 established a federal program to control the spread of noxious weeds. The U.S. Secretary of Agriculture was given the authority to declare plants "Noxious Weeds" and limit the interstate spread of such plants without a permit. North Dakota law (NDCC Section 4.1-47-02) requires every person to do all things necessary and proper to control the spread of noxious weeds and makes it illegal for any person to distribute, sell, or offer a noxious weed for sale within the state.

The North Dakota Department of Agriculture (NDDA) identifies 13 species of noxious weeds and invasive species listed in the state (North Dakota Department of Agriculture, 2019). In addition to the NDDA noxious weed and invasive species list, county weed boards may develop a list of additional weeds for enforcement within their jurisdiction. McKenzie County has designated three additional species as noxious weeds and Dunn County has not designated any additional species.

The Natural Resources Inventory (Exhibit C.2) confirmed there are no noxious weeds present within the proposed Big Gulch pump station location (KLJ, 2019c); however, Canada thistle (*Cirsium arvense*) was located in patches at the proposed Stony Johnny Butte location (KLJ, 2019d).

ONEOK will utilize best management practices to minimize the potential introduction and/or spread of invasive species and noxious weeds within the Project areas during construction activities and the revegetation timeframe. ONEOK would decrease the potential for the establishment of undesirable species by minimizing the time duration between final grading and permanent seeding. ONEOK will also develop a Weed Management Plan based on county-level requirements and will comply with landowner agreements regarding noxious weeds.

## 4.0 AGENCY NOTIFICATIONS AND PERMITTING

In 2015, ONEOK consulted with several federal, state, and local agencies on a one-mile study area as part of the Pipeline project. Both pump stations described in this application fall within the original study/consultation area.

Based on a desktop review of publicly available information, there are no state- or federally-owned or managed lands or other protected resources within one mile of either pump station. As such, ONEOK did not re-consult with all of the agencies that were consulted within 2015. However, in January 2020, ONEOK did initiate consultation with state and federal agencies that manage biological resources that may change over time (e.g., unique species/habitat, eagle nests, etc.). Letters and emails were submitted with accompanying maps and shapefiles of the Project.

A summary of these consultations is provided in Table 4.1-1 and copies of the consultation letters are included as Exhibit D. Responses are pending and will be filed with the Commission upon receipt.

<b>Table 4.1-1 Summary of Agency Notifications and Approvals<sup>1</sup></b>			
<b>Agency</b>	<b>Applicable Resource/Program</b>	<b>Date Submitted</b>	<b>Response Received</b>
<i>Federal</i>			
USFWS North Dakota Ecological Services Office	Federally listed threatened and endangered species, USFWS-managed lands, MBTA consultation, and BGEPA consultation	1/6/2019	Pending
<i>State</i>			
North Dakota Game and Fish Department (NDGFD)	State Conservation Priority Species, Game Refuges, Game Management Areas and Private Land Open to Sportsmen	1/6/2019	Pending
NDGFD	Known locations of eagle nests	1/6/2019	Pending
North Dakota Parks and Recreation Department	North Dakota Natural Heritage Inventory system; State Parks, Recreation areas, and Natural areas; and Land and Water Conservation Fund projects	1/6/2019	Pending
NDSHPO	NRHP, Cultural Resources Consultation	12/30/2019	Pending
<sup>1</sup> Full copies of agency consultations are included in Exhibit D.			

In addition, ONEOK will work with the McKenzie and Dunn County Planning and Zoning Departments to secure Conditional Use and Building Permits. Copies of these permits will be filed with the Commission upon receipt.

## 5.0 CRITERIA

In accordance with North Dakota Administrative Code § 69-06-08-02, ONEOK evaluated the locations of the sites in relation to the Commission’s Exclusion Area, Avoidance Area, and Selection Criteria with regard to the addition of the proposed pump stations. No exclusion or avoidance areas are located within the proposed pump station sites.

This assessment was conducted based on available GIS data, natural resource and cultural resource investigations, and new and original Pipeline agency consultations. As discussed in Section 3, no cultural or natural resources would be impacted and the analysis with respect to the remaining selection criteria remains largely consistent with the information set forth in Section 8.3 of the original Consolidated Application for Certificate of Corridor Compatibility and Route Permit for the Pipeline, except as it relates to the conversion of approximately 17 acres of agricultural land to industrial use. Both Station locations fall entirely within the review area requested during the original Pipeline agency consultations. Further, ONEOK has concluded that the proposed adjustments do not alter the conclusion that minimal adverse impacts would result from the location, construction, and operation of the Project at the proposed locations, as set forth in Conclusions of Law Item #5 of the Commission's Conclusions of Law.

### 5.1 EXCLUSION AREAS

<b>Table 5.1-1 Exclusion Areas</b>			
<b>Exclusion Area</b>	<b>Located within the Study Areas</b>	<b>Located within the Project Sites</b>	<b>Administering Agency</b>
National Parks	No	No	National Park Service (USNPS)
National Memorial Parks	No	No	USNPS
National Historic Sites and Landmarks	No	No	USNPS
National Natural Landmarks	No	No	USNPS
National Wilderness Areas	No	No	USNPS and U.S. Forest Service (USFS)
National Monuments	No	No	USNPS and State Historical Society
State Parks	No	No	State Park Service
State Historic Sites	No	No	State Historical Board
State Monuments	No	No	State Historical Board
State Historical Markers	No	No	State Historical Society
State Archaeological Sites	No	No	State Historical Board
State Nature Preserves	No	No	State Park Service
County Parks and Recreation Areas, Municipal Parks, and Parks under other Governmental Jurisdictions	No	No	Various
Areas Critical to the Life Stages of Threatened or Endangered Animal or Plant Species	No	No	USFWS
Areas Where Animal or Plant Species Unique or Rare to the State would be Irreversibly Damaged	No	No	Various
Areas Within 1,200 Feet of an Intercontinental Ballistic Missile (ICBM) Facility	No	No	Department of Defense (USDOD)
Areas Within 30 Feet of Direct Line of ICBM Launch Facility	No	No	USDOD

## 5.2 AVOIDANCE AREAS

<b>Table 5.2-1 Avoidance Areas</b>			
<b>Avoidance Area</b>	<b>Located within the Study Areas</b>	<b>Located within the Project Sites</b>	<b>Administering Agency</b>
National Historic Districts	No	No	State Historic Society
National Wildlife Areas	No	No	USFWS
National Wild, Scenic, or Recreational Rivers	No	No	Heritage Conservation Recreation Service, State
National Wildlife Refuges	No	No	USFWS
National Grasslands	No	No	USFS
State Wild, Scenic or Recreational Rivers	No	No	State of North Dakota Legislative Assembly
State Game Refuges	No	No	NDGFD
State Game Management and Management Areas	No	No	NDGFD
State Forests	No	No	State Forest Service
State Forest Management Lands	No	No	State Forest Service
State Grasslands	No	No	State Park Service
Historical Resources which are not specifically designated as Exclusion or Avoidance Areas	No	No	State and County Historical Society
Areas which are Geologically Unstable	No	No	North Dakota State Geological Survey
Within 500 Feet of a Residence, School, or Place of Business	No	No	Landowner
Reservoirs	No	No	USACE and North Dakota State Water Commission (NDSWC)
Municipal Water Supplies	No	No	NDSWC
Water Sources for Organized Rural Water Districts	No	No	NDSWC
Irrigated Land	No	No	NDSWC
Areas of Recreational Significance but not designated exclusion areas	No	No	Various

## 5.3 SELECTION CRITERIA

<b>Table 5.3-1 Selection Criteria</b>	
<b>Selection Criteria</b>	<b>Discussion</b>
<b>Impacts on Agriculture</b>	
Agricultural production	The properties have been acquired through lease agreements negotiated by ONEOK and the landowners. Approximately 17 acres would be converted from agricultural use to an industrial use.
Family farms and ranches	The properties have been acquired through lease agreements negotiated by ONEOK and the landowners. The proposed sites would be converted from grazing/agricultural land to industrial use. The Stony Johnny Butte site is approximately 1/4 mile from the nearest farm-related structure and the Big Gulch site is approximately 0.5 mile from the nearest farm-related structure. No other impacts to family farms or ranches are anticipated.
Land which the owner demonstrates has soil, topography, drainage, and an available water supply that cause the land to be economically suitable for irrigation	ONEOK's investigation of the locations found no evidence of irrigation within the Study Areas or proposed sites.

<b>Table 5.3-1 Selection Criteria</b>	
<b>Selection Criteria</b>	<b>Discussion</b>
Surface drainage patterns and ground water flow patterns	ONEOK has studied the sites with respect to stormwater run-off management and has determined that the most effective means of controlling stormwater flows over the long-term would be to implement engineered structural control measures to manage run-off from the sites in combination with a passive system that utilizes the natural drainage of the undeveloped portions of the Station sites. This adjacent, undeveloped area would provide natural filtration of sediments and would reduce the volume and velocity of stormwater runoff.
<b>Impacts on Other Resources</b>	
Sound-sensitive land uses	There are no noise-sensitive resources located within 500 feet of the proposed sites. ONEOK did not identify any dwellings within 500 feet of the proposed sites. The sites are located in a rural setting, effectively isolating them from the majority of sensitive receptors. Local residents may experience additional motor vehicle volumes on area roadways, but noise associated with vehicles would be temporary during construction, similar to existing background levels, and occur largely during normal business hours.
The visual effect on the adjacent area	No designated Scenic Byways or Backways or federal, state, or local recreation areas are present within the study area. Oil and gas development is common in the general Project area.
Extractive and storage resources	Four types of actively extractive resources are common in the general Project area: oil and gas; sand, gravel, and scoria; lignite; and uranium. Impacts on future extractive development would not constitute a substantial loss of resource availability due to the nature of the pump station footprints relative to the expanse of areas with resource potential.
Wetlands, woodlands, and wooded areas	No wetlands, woodlands, or wooded areas would be impacted.
Radio and television reception, and other communication or electronic control facilities	Based on review of publicly available information, no radio and/or TV reception or other communication or electronic facilities are located within the Project areas. No impacts on television or radio reception or communication or electronic control facilities are anticipated to occur as a result of the Project.
Human health and safety	ONEOK promotes a safe and healthy workplace during the construction and operation of all its assets. A corporate policy that meets or exceeds federal and state laws, rules, and regulations is enforced and adhered to by all employees and contractors. ONEOK governs operations and construction activities with various safe work procedures designed to protect property and personnel and to maintain regulatory compliance.
Animal health and safety	Wildlife which could potentially enter or inhabit the Project sites are common and are generally mobile. The local wildlife inhabitants would 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 construction or operation of the station.
Plant life	The Project would result in the loss of negligible amount of agricultural land, when measured on a county- or state-wide basis. No species of special concern would be impacted by the Project.

## 5.4 POLICY CRITERIA

In accordance with North Dakota Administrative Code § 69-06-08-02(4), ONEOK has analyzed the Project site and has concluded that the proposed site would not alter any of ONEOK’s commitments with respect to Policy Criteria as set forth in the Siting Criteria outlined in the Findings of Fact of the Commission’s Order.

## 6.0 MITIGATION MEASURES

---

ONEOK is developing several Project control plans that would be utilized during construction activities to minimize and mitigate impacts to environmental resources. These plans include the following, which would be incorporated into contract documents and enforced by ONEOK:

- Stormwater Pollution Prevention Plan (SWPPP)
  - Construction stormwater management and erosion/sediment control.
- Spill Prevention, Control, and Countermeasure Plan
  - Spill prevention and best management practices, with details on spill response and notification procedures in the event of a spill.
- Unanticipated Discoveries Plan
  - Response measures to be followed in the event of a discovery of cultural resources or human remains.
- Noxious Weed Plan
  - Measures to control the spread of invasive and noxious weeds.
- Dust Control Plan
  - Control of fugitive dust caused by construction activities/soil exposure.

To further comply with permits, plans, obligations, and commitments, ONEOK would employ one or more Environmental Inspectors (EI) during construction of the Project. The EI(s) would be responsible for monitoring construction activities and would provide reports to ONEOK staff.

## 7.0 BIBLIOGRAPHY

---

- KLJ. 2019a. Big Gulch Pump Station Project: A Class III Cultural Resource Inventory in Dunn County, North Dakota. December 2019.
- KLJ. 2019b. Stony Johnny Butte Pump Station Project: A Class I Literature Review in McKenzie County, North Dakota. December 2019.
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- USFWS. 2019. Information for Planning and Conservation. USFWS website. Available online at: <https://ecos.fws.gov/ipac/>. Accessed October 29, 2019.

## 8.0 QUALIFICATIONS OF PREPARERS

---

### ***Robert Dooman***

Field Engineer  
ONEOK, Inc.

Degree: B.S. Mechanical Engineering, University of Oklahoma

Mr. Dooman is a Field Engineer with three years of industry experience. As a Field Engineer, Mr. Dooman has managed several facility projects for ONEOK's Large Projects group. He also serves as project manager for the proposed Project described in this application.

### ***Andrew L. Hackler, M.S.***

Environmental Project Manager  
ONEOK, Inc.

Degrees: M.S. Environmental Science Management, Oklahoma State University  
B.S. Journalism & Broadcasting, Oklahoma State University

Mr. Hackler is an environmental specialist with seven years of environmental planning, permitting, and inspection experience in a wide range of development projects. He has both performed and managed the assessment, siting, permitting, and construction of electrical, water, and oil and gas infrastructure projects throughout several regions and 10 states across the country. Mr. Hackler's experience includes environmental inspection; Phase I Environmental Site Assessments; project siting; environmental training; field surveys; Project Management; permitting with Federal, state, local and tribal agencies; preparation of Environmental Assessments and SWPPPs.

### ***Maddy Krumwiede, PMP***

Project Manager/Senior Environmental Analyst  
Merjent, Inc.

Degrees: M.B.A., North Dakota State University  
B.S. Civil Engineering, North Dakota State University

Ms. Krumwiede is a Project Manager and Senior Analyst with Merjent with eight years of experience in the water resources and environmental regulation fields. Her experience in the environmental field includes project management, interpretation and analysis of project-related data/maps to evaluate permit needs and form strategies during the planning stages of projects, coordinating environmental field surveys, conducting environmental training, performing compliance inspections, and EI coordination. Ms. Krumwiede has a variety of permitting experience, including preparation of federal, state, and local permit applications; National Pollutant Discharge Elimination System applications and SWPPPs; preparation of Environmental Assessments; and coordination with local, state, and federal units of government.

**Paul Hartzheim, M.S.**

Senior Environmental Analyst  
Merjent, Inc.

Degrees: M.S., Water Resources Science, University of Minnesota – Twin Cities  
B.S., Environmental Science, University of Minnesota - Twin Cities

Mr. Hartzheim is a Senior Analyst and Project Manager with 15 years of environmental consulting experience serving the pipeline and renewables industries. He has served as Project Manager, Deputy Project Manager, and resource specialist on numerous projects in over 20 states. Mr. Hartzheim's responsibilities have included preparation of federal, state, and local permit applications; State Public Utility Commission filings; construction and industrial SWPPPs; National Pollutant Discharge Elimination System applications; Soil Erosion and Sediment Control Plans; and Environmental Mitigation Plans, as well as coordination of state and federal agency consultations. Mr. Hartzheim has also assisted in data collection, interpretation and analysis, developing and conducting environmental training modules, and coordinating and managing field survey efforts and EIs.

**Lucas Bicknell, M.S.**

Environmental Analyst  
Merjent, Inc.

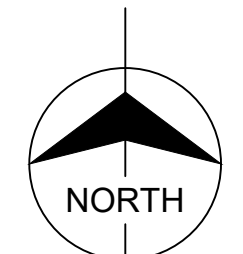
Degrees: M.S. Environmental and Conservation Science, North Dakota State University  
B.S. Zoology: Wildlife and Fisheries Management, North Dakota State University

Mr. Bicknell is an Environmental Analyst with Merjent with six years of experience in the water resources and environmental regulation fields. His experience in the environmental field includes project management, interpretation and analysis of regulations, coordinating environmental field surveys and inspections, and conducting environmental training and compliance inspections. Mr. Bicknell has permitting experience in 38 states at the federal, state, and local levels to include construction and industrial National Pollutant Discharge Elimination System applications and SWPPPs; Aboveground Storage Tank and Spill Prevention, Control, and Countermeasure regulations; preparation of Environmental Assessments and Public Service Commission applications; and coordination with local, state, and federal units of government.

**Exhibit A**  
Engineering Documents



NOTE  
 1. FIRE VALVE NOT SHOWN ON SITE LOCATION PLAN, ASSUMED TO BE OFF SITE.



0 40' 80'  
 SCALE IN FEET

**PRELIMINARY - NOT FOR CONSTRUCTION**



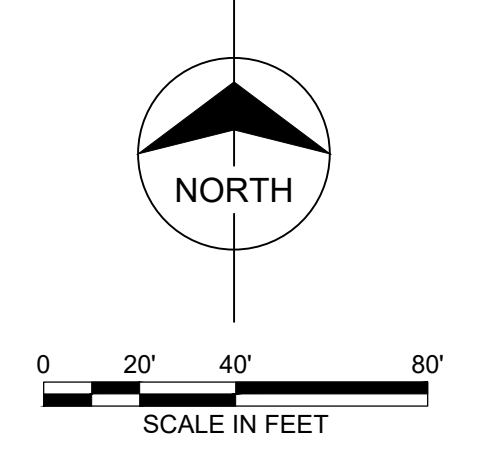
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DWG. NO.	REFERENCE DRAWINGS



BEAR CREEK PIPELINE STONY JOHNNY BUTTE - 793 PRELIMINARY LAYOUT			
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DR.: ###	REFIN. JOB#: ###	DWG. NO.:	
CH.: ###	SCALE: ###		
AP.: ###	CAD#: 793_Working_BRP	###	###



**PRELIMINARY - NOT FOR CONSTRUCTION**



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DWG. NO.	REFERENCE DRAWINGS

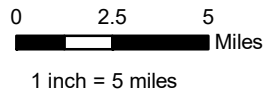
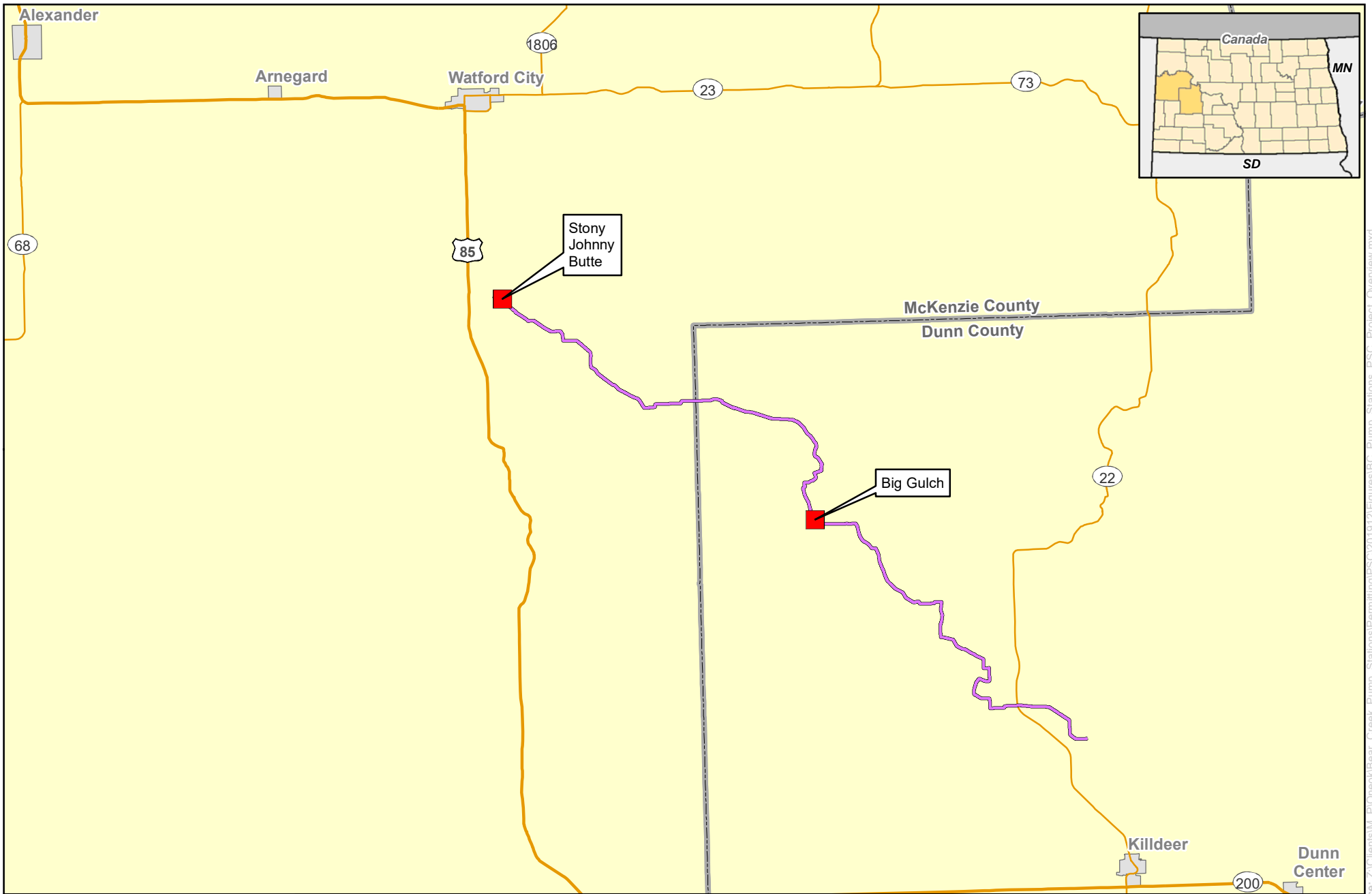


BEAR CREEK PIPELINE BIG GULCH - 794 PRELIMINARY LAYOUT			
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AP.: ###	CAD#: 794_Working	Phil Changes	###

# **Exhibit B**

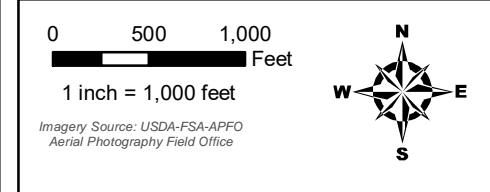
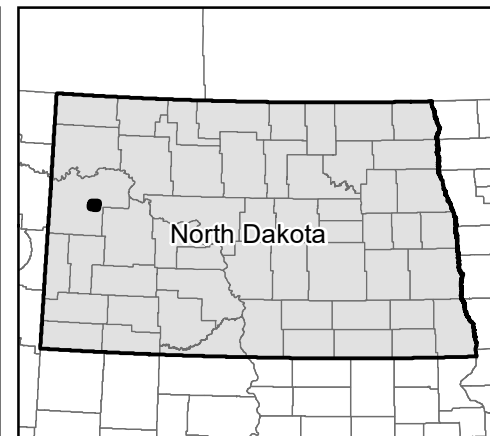
## **Project Maps**






- B.1: Project Overview Map
- B.2: Avoidance and Exclusion Map
- B.3: Selection Criteria Map
- B.4 Black and White Overview Map



**Exhibit B.1**  
**ONEOK Bakken Pipeline, L.L.C.**  
**Stony Johnny Butte and Big Gulch Pump Station**  
**Project Overview**

- Proposed Pump Station
- Existing Bear Creek NGL Pipeline



-  Pump Station Boundary
-  1-mile Study Area
-  Bear Creek NGL Pipeline
-  PSC Certificated Corridor
- Avoidance Areas**
-  Landslide Deposits

\*No exclusion areas located within map view

**Exhibit B.2**  
**ONEOK Bakken Pipeline, L.L.C.**  
**Stony Johnny Butte Pump Station**

**Avoidance and Exclusion Maps**

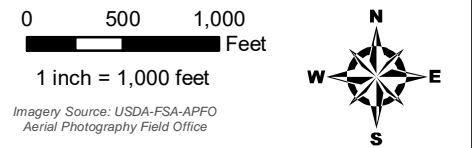
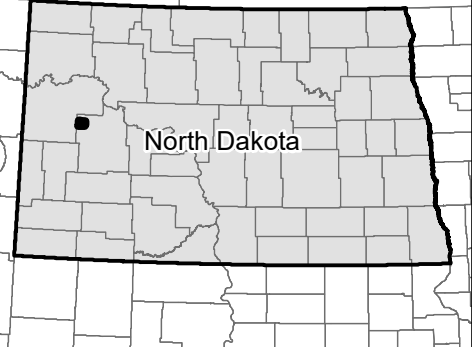
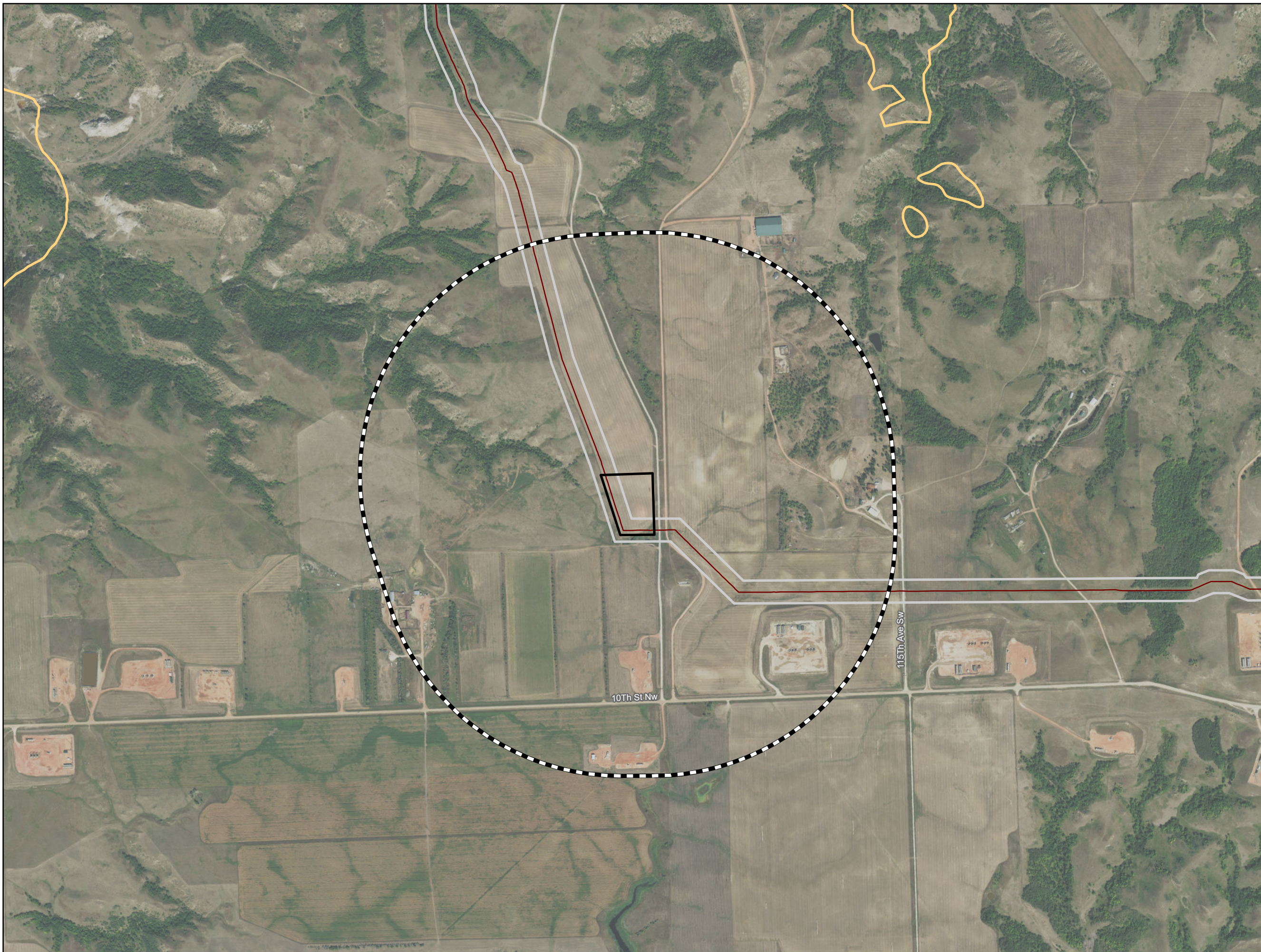
Page 1 of 2  
McKenzie County, ND








Us Hwy 85

County Route 34

Date: (12/13/2019) Source: Z:\Clients\W\ONEOK\Bakken\StonyJohnnyButte\PSC\Stations\Permitting\PSC201912\Figures\BC\_Pump\_Stations\_PSC\_Avoidance\_Exclusion\_Area\_Map\_Book.mxd



Imagery Source: USDA-FSA-APFO  
Aerial Photography Field Office

-  Pump Station Boundary
-  1-mile Study Area
-  Bear Creek NGL Pipeline
-  PSC Certificated Corridor
- Avoidance Areas**
-  Landslide Deposits

\*No exclusion areas located within map view

**Exhibit B.2**  
**ONEOK Bakken Pipeline, L.L.C.**  
**Big Gulch Pump Station**

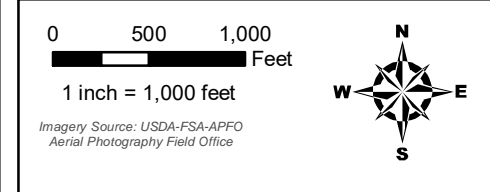
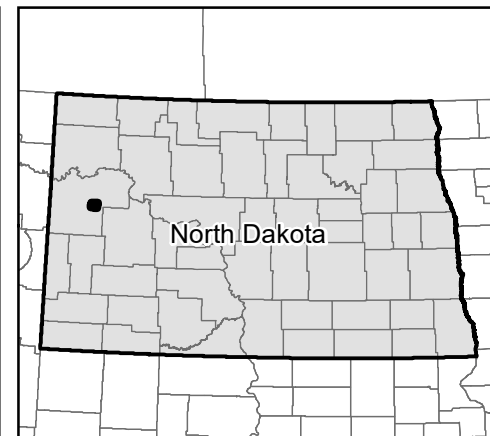
**Avoidance and Exclusion Maps**

Page 2 of 2










Dunn County, ND



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Imagery Source: USDA-FSA-APFO  
Aerial Photography Field Office

-  Pump Station Boundary
-  1-mile Study Area
-  Bear Creek NGL Pipeline
-  PSC Certificated Corridor
-  Antenna Structure
-  NHD Flowline
-  Wellhead Non-Community Protection Area
-  NWI Wetland
-  NDDTL - Mineral Trust Land

\*No exclusion areas located within map view

**Exhibit B.3**  
**ONEOK Bakken Pipeline, L.L.C.**  
**Stony Johnny Butte Pump Station**

**Selection Criteria Maps**

Page 1 of 2  
McKenzie County, ND



Us Hwy 85

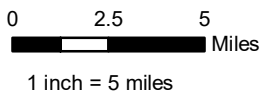
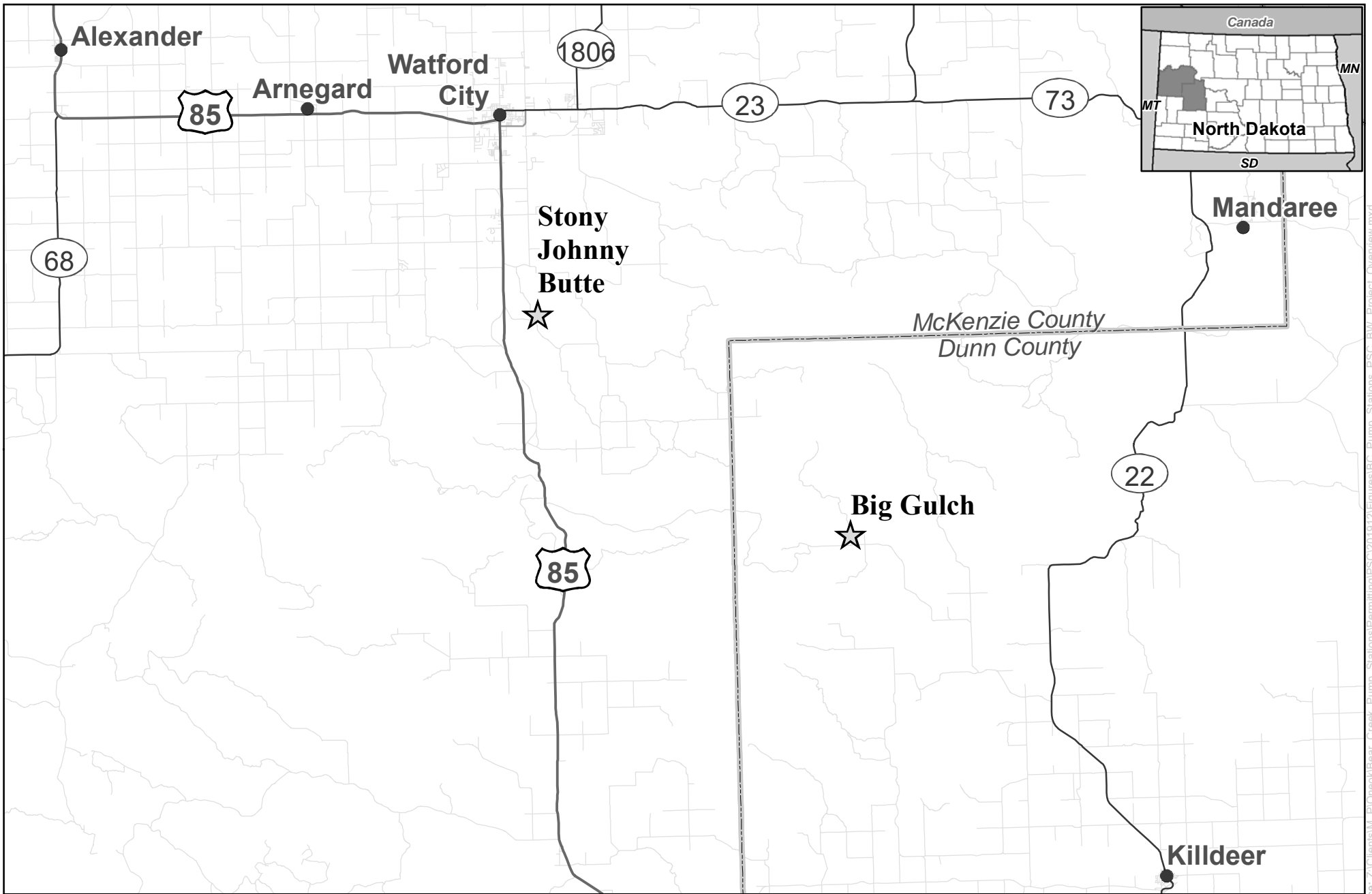
County Route 34

Spring Creek

Elk Horn Creek

Source: Z:\Clients\W\ONEOK\Bakken\_Pipeline\Stations\Permitting\PSC\2019\2\Figures\BC\_Pump\_Stations\_PSC\_Selection\_Criteria\_Map\_Book.mxd





**Exhibit B.4**  
**ONEOK Bakken Pipeline, L.L.C.**  
**Stony Johnny Butte and Big Gulch Pump Station**  
**Project Location Map**

 Pump Station Location

# **Exhibit C**

## **Environmental Surveys**

C.1: NDSHPO Correspondence on Cultural Resources

C.2: Natural Resources Reports



December 30, 2019

Ms. Claudia Berg  
State Historic Preservation Officer  
State Historical Society of North Dakota  
North Dakota Heritage Center  
612 East Boulevard Avenue  
Bismarck, ND 58505-0830

RE: ONEOK Bakken Pipeline, L.L.C.  
Stony Johnny Butte Pump Station, McKenzie County and Big Gulch Pump Station, Dunn County  
Request for Cultural Review of NDPSC-Regulated Project

Dear Ms. Berg,

ONEOK Bakken Pipeline, L.L.C. (ONEOK) plans to construct the Stony Johnny Butte and Big Gulch Pump Stations (Project/Stations), a transmission facility improvement to their existing Bear Creek NGL Pipeline (Pipeline). The proposed Stations would connect to the existing Pipeline, which originates at the ONEOK Bear Creek Gas Plant in Dunn County, North Dakota, and extends northwest to terminate at an inter-connect with ONEOK's existing Targa Pipeline in McKenzie County, North Dakota. Construction will begin as early as March 2020 and will be completed in the third quarter of 2020. The Project is regulated by the North Dakota Public Service Commission (NDPSC). ONEOK will be filing a request to modify their Certificate of Corridor No. 184 (PU-15-801) in January 2020, which would expand the Certificated Corridor to accommodate the Station footprints.

ONEOK contracted with KLJ to conduct Class I literature reviews for both Stations, and to conduct a Class III cultural resource investigation for the Big Gulch Pump Station site. The Stony Johnny Butte Pump Station Class I literature review concluded that the entire 12-acre project site had been previously surveyed by six cultural resource inventories since 2015, with multiple studies overlapping the APE. No cultural resources were located during any of the studies inside the Stony Johnny Butte Pump Station APE; therefore, no additional Class III inventory work was recommended or conducted. The 7-acre Big Gulch Pump Station site was surveyed by KLJ on November 19, 2019. A prehistoric isolated find (32Dux1420) was recorded in 2015 just inside the Big Gulch APE; however, during KLJ's 2019 inventory, the isolate was not relocated and no other cultural material was observed.

Reports documenting the Class I and Class III reviews for the Stations are enclosed. By this letter, ONEOK respectfully requests the State Historic Preservation Office review both documents and provide written concurrence that the proposed Project would not affect properties listed on, or eligible for listing on, the NRHP. A copy of your response will be submitted to the NDPSC to be added to the Project docket.

December 30, 2019  
Stony Johnny Butte and Big Gulch Pump Stations Project

We appreciate your assistance with this request and look forward to your timely review and comments on this Project. Should you have any questions or require additional information, please contact Paul Hartzheim of Merjent, Inc. (Merjent) at 612-746-1618 or [Paul.Hartzheim@merjent.com](mailto:Paul.Hartzheim@merjent.com), or myself at 918-561-5373 or [Andrew.Hackler@oneok.com](mailto:Andrew.Hackler@oneok.com).

Sincerely,

A handwritten signature in black ink, appearing to read 'Paul Hartzheim', written in a cursive style.

*Paul Hartzheim (Merjent) for*

Andrew Hackler  
Environmental Specialist  
ONEOK Bakken Pipeline, L.L.C.

Enclosures:     Stony Johnny Butte Pump Station Project: A Class I Literature Review in McKenzie  
                          County, North Dakota  
                          Big Gulch Pump Station Project: A Class III Cultural Resources Investigation in Dunn  
                          County, North Dakota

Cc:                Paul Hartzheim, Maddy Krumwiede, and Kari Krause, Merjent

Cultural Resources Class I and Class III Reports intentionally omitted due to privacy concerns. These reports were submitted to the NDSHPO as part of the December 30, 2019 consultation.

# Aquatic Resources, Biological, & Threatened and Endangered Species Surveys

Big Gulch Pump Station

Prepared for:  
ONEOK Rockies Midstream

Prepared by:  
KLJ  
Bismarck, ND

December 2019



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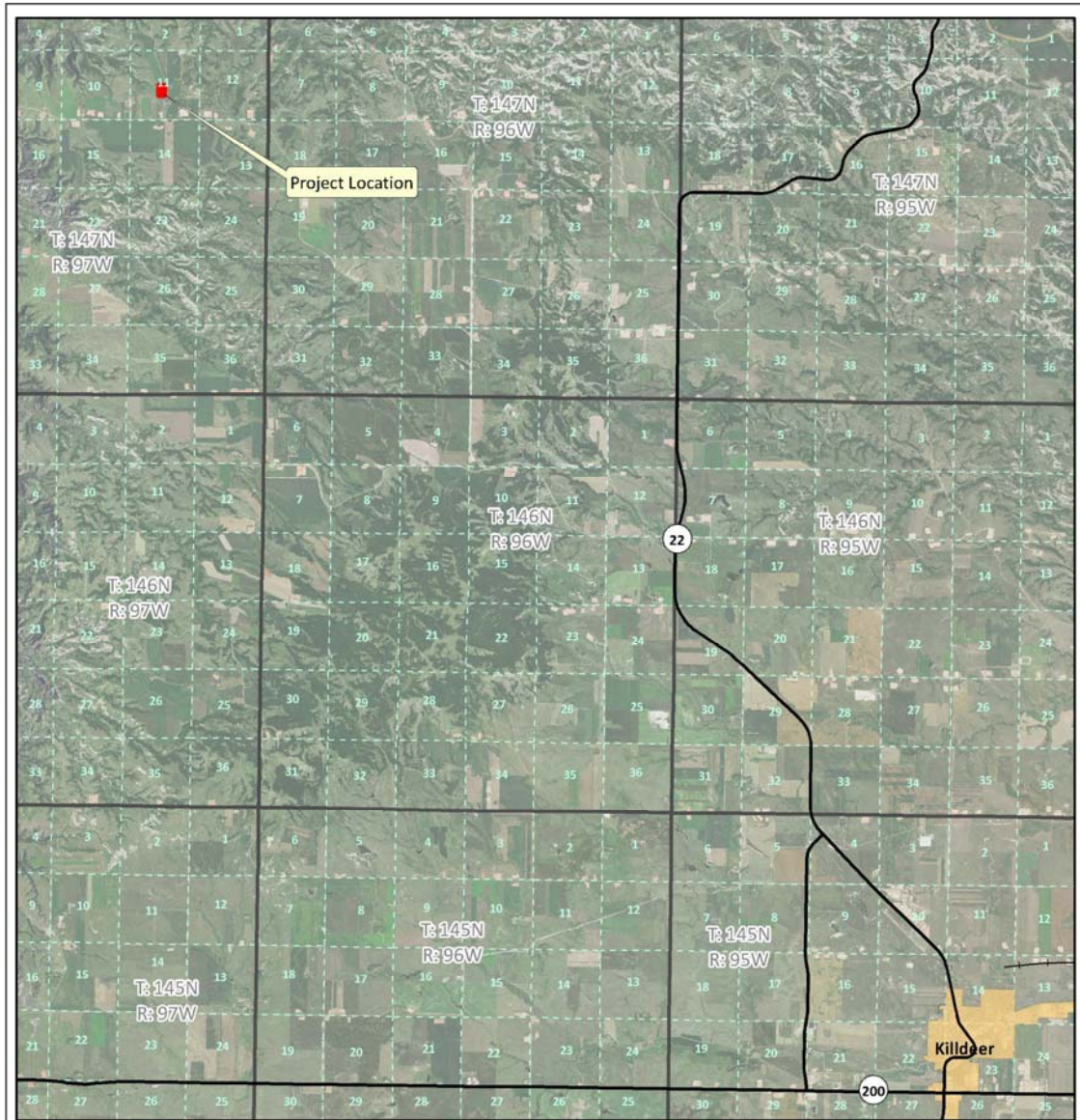


## I. INTRODUCTION

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KLJ was contracted by ONEOK Rockies Midstream (ONEOK) to conduct a field aquatic resources delineation, biological, and threatened/endangered species survey in Dunn County, North Dakota (ND). The project study area occurs in Section 11, Township 147 North, Range 97 West, approximately 17.5 miles northwest of Killdeer, ND. Please refer to **Figure 1**. The aquatic resource delineation, biological, and threatened/endangered pedestrian survey was conducted on October 16<sup>th</sup>, 2019 and November 19<sup>th</sup>, 2019 by Tom Naas of KLJ. A study area of approximately 7.2 acres was surveyed.





**Big Gulch Pump Station  
Dunn County, ND  
Project Location**

Project Location



KLJ Project Number: 1715149  
Date Created: 11/22/2019 Created By: CAS

\\bsmk-panz01\Data\IP\BSMK\Projects\OI\OneOK\1715149 ERs\PROJECTS\Big Gulch Pump Station\Wetlands TE Report\GIS\MXD\Project\_Location\_BigGulch\_20191121.mxd

**Figure 1, Project Location Map**

## II. AQUATIC RESOURCE DELINEATION

---

### A. Definitions and Methods

The aquatic resource delineation was conducted by KLJ in accordance with the 1987 United States Army Corps of Engineers (USACE) Wetland Delineation Manual and the USACE March 2010 Regional Supplement: Great Plains Region (Version 2.0). The routine approach with onsite inspection was utilized, including the standard multi-parameter approach (vegetation, hydrology, and soils) for wetland identification. An area is considered to be a wetland if hydrophytic vegetation, wetland hydrology and hydric soils are all present. Sample locations were determined using United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) maps along with visual inspection of sites that supported a hydrophytic plant community, wetland hydrology and hydric soils. Definitions and methodologies for determining each of the three hydrophytic parameters are summarized below:

#### 1. Hydrophytic Vegetation

**Definition:** The prevalence (>50%) of dominant plant species that are adapted to life in saturated soil conditions.

**Method:** To determine if vegetation was hydrophytic, the scientific name and indicator status of dominant plant species at each wetland were recorded on USACE data sheets. Dominance refers to the spatial extent of a species that is directly observed in the field. Dominance is calculated by identifying the most abundant species that individually or collectively account for more than 50 percent of the total coverage of vegetation in the stratum as well as any other species that, by itself, accounts for at least 20 percent of the total. Where 50 percent or more of all dominant species were hydrophytic, the hydrophytic vegetation parameter was met. Absolute percent cover<sup>1</sup> of dominant species within each stratum is listed on data sheets.

#### 2. Wetland Hydrology

**Definition:** Fourteen or more consecutive days of flooding, ponding, or water table within 12 inches of the surface during the growing season at a minimum frequency of 5 out of 10 years (50%).

**Method:** Wetland hydrology was determined by observing the presence of primary and/or secondary indicators listed on the USACE data sheet. If one primary indicator or two secondary indicators were present, the wetland hydrology parameter was met.

#### 3. Hydric Soils

**Definition:** Soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper 12 inches.

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<sup>1</sup> Absolute percent cover within each stratum is not required to add up to 100 percent on the data sheets.



Method: Soils from each sample location are characterized using Munsell Soil Color Charts and soil texturing. Soil samples are also compared with the USDA (United States Department of Agriculture) Soil Survey for Dunn County. If one or more of the hydric soil indicators on the USACE data sheet are identified, the soil is considered to be hydric.

Aquatic resources were analyzed to assess the presence of the three hydrophytic indicators, as well as assessing surface flow, waterbody type, ordinary high water flow marks, channel height, stream substrate, and shoreline type (when applicable).

Base field maps were developed using aerial photography in combination with information from the USFWS NWI maps, Natural Resources Conservation Service (NRCS) soil survey data from Dunn County, ND and United States Geological Service (USGS) quadrangle maps.

## B. Results and Discussion

The project study area is in the ecoregion identified by the USGS as the Northwestern Great Plains of North Dakota. The soil within this ecoregion consists primarily of Mollisols and Entisols. This area is dominated by semiarid rolling plains composed of shale, siltstone and sandstone punctuated by occasional buttes and badlands. The proposed project is in the rolling plains area and occurs in a rural setting. The area consists of farmland used for annual crop production.

No aquatic resources were identified within the study area during the field survey. A soil test pit was dug at the lowest topographical point in the project study area so that the soil could be described. This soil exhibited characteristics of an upland soil. Maps of the project study area that identify the location of the soil test pit can be found in **Appendix A, Map**. A visual overview of the tested area can be found in **Appendix B, Site Photos**. Additional information regarding vegetation dominance and hydrologic indicators can be found in **Appendix C, Data Sheets**.

## C. Conclusion

No aquatic resources were delineated within the study area.



### III. BIOLOGICAL, THREATENED AND ENDANGERED SPECIES SURVEY

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#### A. Listed Species

The project study area was evaluated to determine the potential for occurrences of federally listed threatened, endangered, and candidate species under “Endangered Species Act (16 U.S.C. 1531 et seq.) (ESA).” Section 9 of the ESA prohibits the “take” of species listed by USFWS as threatened or endangered. Take is defined as follows: “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in such conduct.” In recognition that take cannot always be avoided, Section 10(a) of the ESA includes provisions for take that is incidental to, but not the purpose of, otherwise lawful activities. Section 10(a)(1)(B) permits (Incidental Take Permits) may be issued if take is incidental and does not jeopardize the survival and recovery of the species.

According to the USFWS, an endangered species is one that is in danger of extinction throughout all or a significant portion of its range. A threatened species is one that is likely to become endangered in the foreseeable future. A candidate species is a plant or animal for which the USFWS has sufficient information on its biological status and threats to propose it as endangered or threatened under the ESA, but for which development of a proposed listing regulation is precluded by other higher priority listing activities. While candidate species are not legally protected under the ESA, it is within the spirit of the ESA to consider said species as having significant value and worth protecting.

The USFWS *North Dakota Ecological Service Office- County Listing* identifies the whooping crane, interior least tern, and pallid sturgeon, as endangered species occurring within Dunn County, and the piping plover, Dakota skipper, rufa red knot and northern long-eared bat as a threatened species occurring within Dunn County. In addition, the USFWS has identified designated critical habitat for the piping plover in Dunn County. No listed species were observed during this field survey and no designated critical habitat occur within the study area. Habitat requirements, the potential for suitable habitat within the project study area, and other information regarding these species are as follows:

#### B. Endangered Species

##### **Whooping Crane (*Grus Americana*)**

The whooping crane is the tallest bird in North America. In the United States, this species ranges through the Midwest and Rocky Mountain regions from North Dakota south to Texas and west into Colorado. Whooping cranes migrate through North Dakota along a band running through the central third of the state. They use shallow, seasonally and semi-permanently flooded palustrine (marshy) wetlands for roosting and various cropland and emergent wetlands for feeding. During migration, whooping cranes are often recorded in riverine habitats. Currently there are three wild populations of whooping cranes yielding a total species population of approximately 383 birds in the wild. Only one of the flocks is self-sustaining.

The proposed project is located within the migration corridor through which 95% of whooping cranes are known to migrate; however, the project study area is composed of annual cropland near active oil and gas infrastructure. Whooping cranes have historically been known to avoid areas with human



activity whereby reducing the habitat suitability of the project study area. In addition, there were no aquatic resources found in the project study area that would support whooping crane roosting and/or feeding habitat. Annual cropland areas may also be utilized as stopover habitat, however human activity is fairly frequent in this area. The proposed project is anticipated to have **no effect** on the Whooping Crane.

#### **Interior Least Tern (*Aterna antillarum*)**

In North Dakota, the interior least tern is known to breed on midstream sandbars along the Yellowstone and Missouri River systems between mid-May to mid-August (USFWS, 2013). Nesting adults usually forage in wetlands or riverine habitat within one mile of nest sites; however, they have been documented to travel up to three miles to forage (Carreker, 1985). Potential habitat in the form of Lake Sakakawea and its shoreline exist approximately twenty miles east of the proposed project site.

There is no existing or potential habitat within the project study area and the distance to potential breeding habitat discourages any individuals from traveling to the project study area. The proposed project is anticipated to have **no effect** on the interior least tern or its associated habitat.

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

The pallid sturgeon is known to exist in the Yellowstone, Missouri, middle and lower Mississippi and Atchafalaya Rivers, and seasonally in some tributaries. In North Dakota, the pallid sturgeon is found principally in the Missouri River and upstream of Lake Sakakawea in the Yellowstone River. Dating to prehistoric times, the pallid sturgeon has become well adapted to living close to the bottom of silty river systems. According to the USFWS, its preferred habitat includes “a diversity of water depths and velocities formed by braided river channels, sand bars, sand flats, and gravel bars” (2010, September 20). Weighing up to 80 pounds, pallid sturgeons are long lived, with individuals possibly reaching 50 years of age. The nearest suitable habitat for the pallid sturgeon is found within Lake Sakakawea, located approximately twenty miles east of the project site. The proposed project is anticipated to have **no effect** on the pallid sturgeon or its associated habitat.

### **C. Threatened Species**

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

The piping plover is a small, migratory shorebird. Historically, piping plovers could be found throughout the Atlantic Coast, Northern Great Plains and the Great Lakes. Drastically reduced, sparse populations presently occur throughout this historic range. In North Dakota, breeding and nesting sites can be found along the Missouri River. Preferred habitat for the piping plover includes riverine sandbars, gravel beaches, alkali areas of wetlands and flat, sandy beaches with little vegetation. The USFWS has identified critical habitat for the piping plover on the Missouri River system. Critical habitat includes reservoir reaches composed of sparsely vegetated shoreline beaches, peninsulas, islands composed of sand, gravel, or shale and their interface with water bodies.

Piping plover habitat does not exist within the project study area. According to USFWS data, designated critical habitat occurs throughout the entire shoreline of Lake Sakakawea, which is located



approximately twenty miles east of the project at the closest point. The proposed project is anticipated to have **no effect** on the piping plover or designated critical habitat of the species.

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

The Dakota skipper is a small butterfly with a 1-inch wing span. These butterflies historically ranged from southern Saskatchewan, across the Dakotas and Minnesota, to Iowa and Illinois. The preferred habitat for the Dakota skipper consists of flat, moist bluestem prairies and upland prairies with an abundance of wildflowers. Dakota skippers are visible in their butterfly stage from mid-June to early July.

The Dakota skipper relies on pristine native prairie to complete its life cycle. Dakota skipper larvae need mid-statured native grasses, such as prairie dropseed (*Sporobolus heterolepis*), little bluestem (*Schizachyrium scoparium*), and sideoats grama (*Bouteloua curtipendula*) for food and shelter. Introduced cool season grasses, such as Kentucky bluegrass (*Poa pratensis*) and smooth brome grass (*Bromus inermis*) are not actively growing when Dakota skipper larvae are feeding, thus a prevalence of these grasses reduces food availability for the larvae.

Onsite botany surveys were completed on October 16<sup>th</sup> and November 19<sup>th</sup>, 2019. Field investigations revealed inadequate amounts or lack of preferred species at all locations throughout the project study area. The entire project study area has been disturbed due to agricultural practices, therefore preferred plant species do not currently exist. The proposed project is anticipated to have **no effect** on the Dakota Skipper or designated critical habitat of the species.

#### **Rufa Red Knot (*Calidris canutus rufa*)**

The rufa red knot is one of the longest-distance migrants in the animal kingdom, migrating more than 9,300 miles north to south and back every year. They migrate during the spring and fall between breeding grounds in northern Canada and wintering grounds in the southeast US, the northeast Gulf of Mexico, northern Brazil, and Tierra del Fuego in South America. While a majority of red knots follow migration routes along the east and west coast of the US, small numbers of this species follow an inland migration route across the Midwest along the Great Lakes. Preferred stopover habitat in North America includes sandy or gravelly beaches, tidal mudflats, salt marshes, shallow coastal impoundments and peat banks (78 FR 189, September 30, 2013). The species requires suitable stopover habitat with a large food source, habitat and favorable weather conditions within a narrow time frame to allow for successful migration between summer and wintering grounds. Their life cycles may make them particularly susceptible to climate changes. Although no documented sightings have occurred along Lake Sakakawea or the Little Missouri River, (eBird, 2019), the shorelines of these waterbodies may provide suitable stopover habitat in the form of sandy beaches, along with the primary prey found in non-breeding habitats including snails, mollusks and insect larvae. In addition, rufa red knot have been documented foraging in cultivated fields while migrating through the inland route (Gratto-Trevor et al 2001).

The closest suitable stopover habitat for the species is largely associated with the Missouri River, Little Missouri River, Lake Sakakawea and their shorelines. The Little Missouri River shoreline is located



approximately three miles northwest of the project site and the Missouri River/Lake Sakakawea is located approximately twenty-three miles northeast of the project site. The project study area consists of a cultivated field, which may provide foraging habitat for the rufa red knot. There are multiple other cultivated fields in the immediate area that could be used as an alternative food source. Although the study area includes potential foraging habitat, the site lacks preferred stopover habitat. Due to a lack of documented sightings and preferred stopover habitat in the study area, the proposed project is anticipated to have **no effect** on the rufa red knot.

#### **Northern Long-Eared Bat (*Myotis septentrionalis*)**

The Western Population of northern long-eared bats occurs partially in North Dakota, where bats have been observed during the summer in the Turtle Mountains, Missouri River Valley and the Badlands. No hibernacula (overwintering sites such as caves, abandoned mines, or similar constructions) are known to exist in the state; however, this may be a function of lack of adequate survey data (USFWS, 2013). Suitable habitat for summer maternity/non-maternity activities, as well as spring staging/fall swarming would include forests and woodlots, as well as fencerows, riparian forests and other wooded corridors. Density and canopy cover is variable within these forested habitats, which may be interspersed with wetlands, agricultural or fallow fields, or pastures. Potential roosts sites include live trees or snags that are greater than or equal to three inches in diameter at breast height (dbh) and may include the following: exfoliating bark, cracks, crevices, or cavities. Isolated trees may be potential roost sites if they exhibit the characteristics described above and are less than 1,000 feet from the nearest roosting site or suitable forested habitat.

There are no trees that exist within the project study area. The proposed project is anticipated to have **no effect** on northern long-eared bat.

#### **D. North Dakota Species of Conservation Priority**

The North Dakota Game and Fish Department (NDGFD) has identified 115 Species of Conservation Priority within the state and has ranked those species into three levels; Level I, Level II, and Level III. Level I species are in decline and receive little or no monetary support or conservation effort. NDGFD has an obligation to use State Wildlife Grant (SWG) funding to implement conservation actions that directly benefit these Level I species. Level II species receive SWG funding to implement conservation actions that benefit these species if SWG funding for Level I species is sufficient or conservation needs have been met. Level III species receive a moderate level of conservation priority but are believed to be peripheral or nonbreeding in North Dakota (NDGFD, 2019). There were no species of conservation priority observed during the field survey. Please refer to **Table 1. List of North Dakota Species of Conservation Priority.**



Table 1, List of North Dakota Species of Conservation Priority

PRIORITY LEVEL	COMMON NAME	SCIENTIFIC NAME
Level I	Horned Grebe	<i>Podiceps auratus</i>
	American Bittern	<i>Botaurus lentiginosus</i>
	Swainson's Hawk	<i>Buteo swainsoni</i>
	Ferruginous Hawk	<i>Buteo regalis</i>
	Greater Sage Grouse	<i>Centrocercus urophasianus</i>
	Yellow Rail	<i>Coturnicops noveboracensis</i>
	Long-billed Curlew	<i>Numenius americanus</i>
	Marbled Godwit	<i>Limosa fedoa</i>
	Wilson's Phalarope	<i>Phalaropus tricolor</i>
	Franklin's Gull	<i>Leucophaeus pipixcan</i>
	Black Tern	<i>Chlidonias niger</i>
	Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>
	Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>
	Sprague's Pipit	<i>Anthus spragueii</i>
	Grasshopper Sparrow	<i>Ammodramus savannarum</i>
	Baird's Sparrow	<i>Ammodramus bairdii</i>
	Nelson's Sparrow	<i>Ammodramus nelsoni</i>
	Lark Bunting	<i>Calamospiza melanocorys</i>
	Chestnut-collared Longspur	<i>Calcarius ornatus</i>
	Canadian Toad	<i>Anaxyrus hemiophrys</i>
	Plains Spadefoot	<i>Spea bombifrons</i>
	Smooth Green Snake	<i>Opheodrys vernalis</i>
	Plains Hog-nosed Snake	<i>Heterodon nasicus</i>
	Townsend's Big-eared Bat	<i>Corynorhinus townsendii</i>
	Big Brown Bat	<i>Eptesicus fuscus</i>
	Little Brown Bat	<i>Myotis lucifugus</i>
	Northern Long-eared Bat	<i>Myotis septentrionalis</i>
	Black-tailed Prairie Dog	<i>Cynomys ludovicianus</i>
	Sturgeon Chub	<i>Marchhybopsis gelida</i>
	Sicklefin Chub	<i>Marchhybopsis meeki</i>
	Northern Pearl Dace	<i>Margariscus nachtriebi</i>
	Blue Sucker	<i>Cycleptus elongatus</i>
	Creek Heelsplitter	<i>Lasmigona compressa</i>
	Pink Papershell	<i>Potamilus ohioensis</i>
Monarch Butterfly	<i>Danaus plexippus</i>	
Regal Fritillary	<i>Speyeria idalia</i>	



PRIORITY LEVEL	COMMON NAME	SCIENTIFIC NAME
Level II	American White Pelican	<i>Pelecanus erythrorhynchos</i>
	Northern Pintail	<i>Anas acuta</i>
	Canvasback	<i>Aythya valisineria</i>
	Lesser Scaup	<i>Aythya affinis</i>
	Northern Harrier	<i>Circus cyaneus</i>
	Golden Eagle	<i>Aquila chrysaetos</i>
	Bald Eagle	<i>Haliaeetus leucocephalus</i>
	American Kestrel	<i>Falco sparverius</i>
	Prairie Falcon	<i>Falco mexicanus</i>
	Sharp-tailed Grouse	<i>Tympanuchus phasianellus</i>
	Greater Prairie Chicken	<i>Tympanuchus cupido</i>
	Piping Plover	<i>Charadrius melodus</i>
	American Avocet	<i>Recurvirostra americana</i>
	Willet	<i>Tringa semipalmatus</i>
	Upland Sandpiper	<i>Bartramia longicauda</i>
	Interior Least Tern	<i>Sterna antillarum athalassos</i>
	Short-eared Owl	<i>Asio flammeus</i>
	Burrowing Owl	<i>Athene cunicularia</i>
	Loggerhead Shrike	<i>Lanius ludovicianus</i>
	Dickcissel	<i>Dickcissel (Spiza americana)</i>
	Le Conte's Sparrow	<i>Ammodramus leconteii</i>
	Bobolink	<i>Dolichonyx oryzivorus</i>
	Western Meadowlark	<i>Sturnella neglecta</i>
	Snapping Turtle	<i>Chelydra serpentina</i>
	Short-horned Lizard	<i>Phrynosoma hernandesi</i>
	Pygmy Shrew	<i>Sorex hoyi</i>
	Richardson's Ground Squirrel	<i>Urocitellus richardsonii</i>
	Swift Fox	<i>Vulpes velox</i>
	River Otter	<i>Lontra canadensis</i>
	American Marten	<i>Martes americana</i>
	Black-footed Ferret	<i>Mustella nigripes</i>
	Paddlefish	<i>Polyodon spathula</i>
	Pallid Sturgeon	<i>Scaphirhynchus albus</i>
	Burbot	<i>Lota lota</i>
	Northern Redbelly Dace	<i>Chrosomus eos</i>
	Silver Chub	<i>Marchybopsis storeriana</i>
	Flathead Chub	<i>Platygobio gracilis</i>
Trout-perch	<i>Percopsis omiscomaycus</i>	
Threeridge	<i>Amblema plicata</i>	
Wabash Pigtoe	<i>Fusconaia flava</i>	
Black Sandshell	<i>Ligumia recta</i>	
Pink Heelsplitter	<i>Potamilus alatus</i>	



PRIORITY LEVEL	COMMON NAME	SCIENTIFIC NAME
	Dakota Skipper	<i>Hesperia dacotae</i>
	Poweshiek Skipperling	<i>Oarisma poweshiek</i>
Level III	Whooping Crane	<i>Grus americana</i>
	Rufa Red Knot	<i>Calidris canutus rufa</i>
	Peregrine Falcon	<i>Falco peregrinus</i>
	Brewer's Sparrow	<i>Spizella breweri</i>
	McCown's Longspur	<i>Calcarius mccownii</i>
	Smooth Softshell	<i>Apalone mutica</i>
	Spiny Softshell	<i>Apalone spinifera</i>
	False Map Turtle	<i>Graptemys pseudogeographica</i>
	Sagebrush Lizard	<i>Sceloporus graciosus</i>
	Northern Prairie Skink	<i>Plestiodon septentrionalis</i>
	Arctic Shrew	<i>Sorex arcticus</i>
	Merriam's Shrew	<i>Sorex merriami</i>
	Western Small-footed Bat	<i>Myotis ciliolabrum</i>
	Long-eared Bat	<i>Myotis evotis</i>
	Long-legged Bat	<i>Myotis volans</i>
	Hispid Pocket Mouse	<i>Chaetodipus hispidus</i>
	Plains Pocket Mouse	<i>Perognathus flavescens</i>
	Sagebrush Vole	<i>(Lemmiscus curtatus)</i>
	Eastern Spotted Skunk	<i>Spilogale putorius</i>
	Gray Fox	<i>Urocyon cinereoargenteus</i>
	Chestnut Lamprey	<i>Ichthyomyzon castaneus</i>
	Silver Lamprey	<i>Ichthyomyzon unicuspis</i>
	Largescale Stoneroller	<i>Campostoma oligolepis</i>
	Hornyhead Chub	<i>Nocomis biguttatus</i>
	Pugnose Shiner	<i>Notropis anogenus</i>
	Blacknose Shiner	<i>Notropis heterolepis</i>
	Carmine Shiner	<i>Notropis percobromis</i>
	Finescale Dace	<i>Phoxinus neogaeus</i>
	Yellow Bullhead	<i>Ameiurus natalia</i>
	Logperch	<i>Percina caprodes</i>
	River Darter	<i>Percina shumardi</i>
	Mapleleaf	<i>Quadrula quadrula</i>
	Fragile Papershell	<i>Leptodea fragilis</i>
Deertoe	<i>Truncilla truncate</i>	
Creeper	<i>Strophitus undulates</i>	

## E. Other Biological Species Observed

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



The project study area and the areas surrounding the project study area contains suitable habitat for mule deer (*Odocoileus hemionus*), whitetail deer (*Odocoileus virginianus*), sharp-tailed grouse (*Tympanuchus phasianellus*), ring-necked pheasant (*Phasianus colchicas*), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), wild turkey (*Meleagris gallopavo*), song birds, coyote (*Canis latrans*), red fox (*Vulpes vulpes*), Eastern cottontail rabbit (*Sylvilagus floridanus*), jackrabbit (*Lepus townsendii*), North American badger (*Taxidea taxus*) and North American porcupine (*Erethizon dorsatum*).

During the pedestrian field surveys, migratory birds, raptors, big and small game species, non-game species, and potential wildlife habitats were identified, if present. There were no migratory birds, eagles/raptors, or other wildlife species observed during the field survey; however, deer tracks and scat were observed on site. No historical eagle nests occur within one mile of the project.

Due to the presence of suitable habitat at the project site for some wildlife and avian species, ground clearing activities associated with the proposed project may impact individuals by displacing animals from suitable habitat temporarily. As a result, wildlife may be forced to utilize marginal habitats or relocate to unaffected habitats where population density and competition increase. Consequences of such displacement and competition may include lower survival, lower reproductive success, lower recruitment, and lower carrying capacity leading ultimately to population-level impacts.

## F. Vegetation

Botanical resources were evaluated using visual inspection. The project study area consisted of farmland utilized for annual crop production. There are no trees, shrubs, or noxious weeds that exist within the project study area. Please refer to **photos in Appendix B**, which shows the typical vegetation along the route.



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## V. DELINEATOR/ENVIRONMENTAL SCIENTIST'S CREDENTIALS

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TOM NAAS	
Education:	<ul style="list-style-type: none"><li>› BS Fisheries and Wildlife Biology – University of North Dakota</li></ul>
Training:	<ul style="list-style-type: none"><li>› Minnesota Wetland Delineator Certification Program: 5-Day Basic Wetland Delineation Course – University of Minnesota; Wetland Mitigation in Minnesota (June 2014)</li></ul>
Professional Memberships:	<ul style="list-style-type: none"><li>› National Association of Environmental Professionals</li><li>› The Wildlife Society – North Dakota Chapter</li></ul>

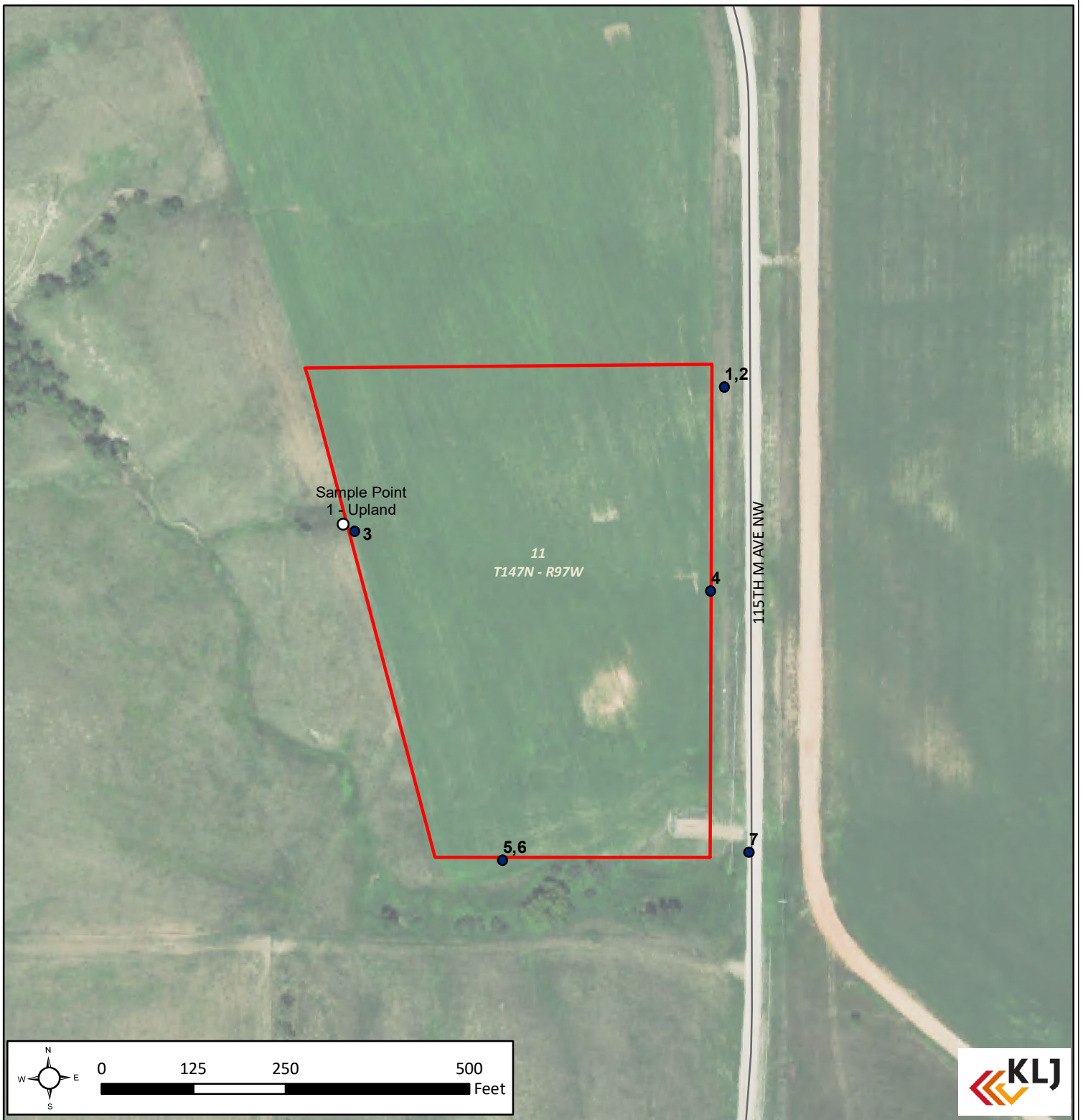




# Appendix A

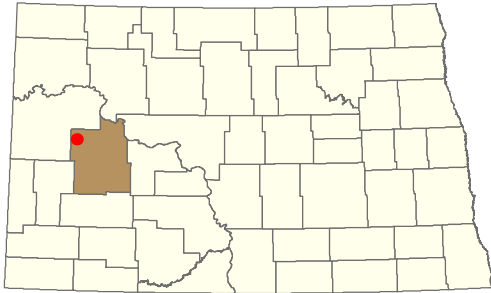
## Maps





**Big Gulch Pump Station  
McKenzie County, ND  
Project Study Area**

- Big Gulch Study Area
- Wetland Sample Point
- Photo Points



KLJ Project Number: 1715149	
Date Created: 12/3/2019	Created By: D. Bendickson



# Appendix B

## Site Photos






Photograph #1	
Date Taken:	10/16/2019
Description:	View south.




Photograph #2	
Date Taken:	10/16/2019
Description:	View west.






Photograph #3	
Date Taken:	11/19/2019
Description:	Upland 1 test hole. View northwest.




Photograph #4	
Date Taken:	11/19/2019
Description:	View west.






Photograph #5	
Date Taken:	10/16/2019
Description:	View east.



Photograph #6	
Date Taken:	10/16/2019
Description:	View north.





Photograph #7

Date Taken:	10/16/2019
Description:	View northwest.





# Appendix C

## Data Sheets



## WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: \_\_\_\_\_ City/County: \_\_\_\_\_ Sampling Date: \_\_\_\_\_  
 Applicant/Owner: \_\_\_\_\_ State: \_\_\_\_\_ Sampling Point: \_\_\_\_\_  
 Investigator(s): \_\_\_\_\_ Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): \_\_\_\_\_  
 Subregion (LRR): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No _____ Hydric Soil Present? Yes _____ No _____ Wetland Hydrology Present? Yes _____ No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No _____
Remarks: _____ _____ _____	

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____				

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): \_\_\_\_\_ (A)  
 Total Number of Dominant Species Across All Strata: \_\_\_\_\_ (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: \_\_\_\_\_ (A/B)

**Prevalence Index worksheet:**  
 Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_  
 OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_  
 FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_  
 FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_  
 FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_  
 UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_  
 Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)  
 Prevalence Index = B/A = \_\_\_\_\_

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index is ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No \_\_\_\_\_

Remarks: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



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# Aquatic Resources, Biological, & Threatened and Endangered Species Surveys

**Stony Johnny Butte Pump Station**

Prepared for:  
**ONEOK Rockies Midstream**

Prepared by:  
**KLJ  
Bismarck, ND**

**December 2019**



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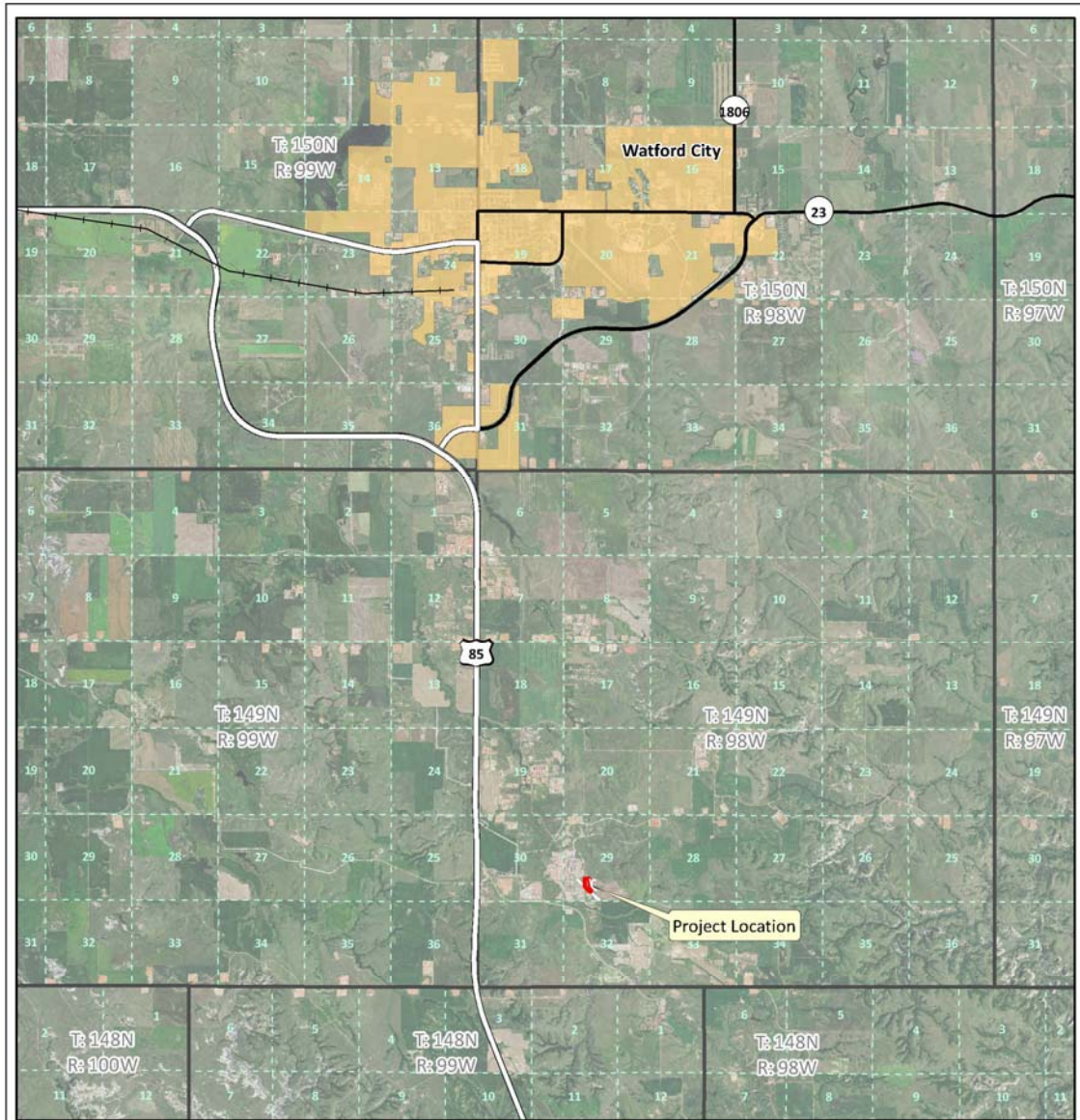


## I. INTRODUCTION

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KLJ was contracted by ONEOK Rockies Midstream (ONEOK) to conduct a field aquatic resources delineation, biological, and threatened/endangered species surveys in McKenzie County, North Dakota (ND). The project study area occurs in Section 29, Township 149 North, Range 98 West, approximately seven miles south-southeast of Watford City, ND. Please refer to **Figure 1**. The aquatic resource delineation, biological, and threatened/endangered pedestrian survey was conducted on October 16<sup>th</sup>, 2019 by Tom Naas of KLJ. A project study area of approximately 15 acres was surveyed.





**Stony Johnny Butte Pump Station  
McKenzie County, ND  
Project Location**



KLJ Project Number: 1715149  
Date Created: 11/22/2019 Created By: CAS

\\bsmk-panz01\data\p\B\B\B\Projects\OI\OneOK\1715149 ERs\PROJECTS\Stony Johnny Butte Pump Station\Wetland TE Report\GIS\MXD\Project\_Location\_StonyJohnny\_20191121.mxd

**Figure 1, Project Location Map**



## II. AQUATIC RESOURCE DELINEATION

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### A. Definitions and Methods

The aquatic resource delineation was conducted by KLJ in accordance with the 1987 United States Army Corps of Engineers (USACE) Wetland Delineation Manual and the USACE March 2010 Regional Supplement: Great Plains Region (Version 2.0). The routine approach with onsite inspection was utilized, including the standard multi-parameter approach (vegetation, hydrology, and soils) for wetland identification. An area is considered to be a wetland if hydrophytic vegetation, wetland hydrology and hydric soils are all present. Sample locations were determined using United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) maps along with visual inspection of sites that supported a hydrophytic plant community, wetland hydrology and hydric soils. Definitions and methodologies for determining each of the three hydrophytic parameters are summarized below:

#### 1. Hydrophytic Vegetation

**Definition:** The prevalence (>50%) of dominant plant species that are adapted to life in saturated soil conditions.

**Method:** To determine if vegetation was hydrophytic, the scientific name and indicator status of dominant plant species at each wetland were recorded on USACE data sheets. Dominance refers to the spatial extent of a species that is directly observed in the field. Dominance is calculated by identifying the most abundant species that individually or collectively account for more than 50 percent of the total coverage of vegetation in the stratum as well as any other species that, by itself, accounts for at least 20 percent of the total. Where 50 percent or more of all dominant species were hydrophytic, the hydrophytic vegetation parameter was met. Absolute percent cover<sup>1</sup> of dominant species within each stratum is listed on data sheets.

#### 2. Wetland Hydrology

**Definition:** Fourteen or more consecutive days of flooding, ponding, or water table within 12 inches of the surface during the growing season at a minimum frequency of 5 out of 10 years (50%).

**Method:** Wetland hydrology was determined by observing the presence of primary and/or secondary indicators listed on the USACE data sheet. If one primary indicator or two secondary indicators were present, the wetland hydrology parameter was met.

#### 3. Hydric Soils

**Definition:** Soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper 12 inches.

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<sup>1</sup> Absolute percent cover within each stratum is not required to add up to 100 percent on the data sheets.



Method: Soils from each sample location are characterized using Munsell Soil Color Charts and soil texturing. Soil samples are also compared with the USDA (United States Department of Agriculture) Soil Survey for McKenzie County. If one or more of the hydric soil indicators on the USACE data sheet are identified, the soil is considered to be hydric.

Aquatic resources were analyzed to assesses the presence of the three hydrophytic indicators, as well as assessing surface flow, waterbody type, ordinary high water flow marks, channel height, stream substrate, and shoreline type (when applicable).

Base field maps were developed using aerial photography in combination with information from the USFWS NWI maps, Natural Resources Conservation Service (NRCS) soil survey data from McKenzie County, ND and United States Geological Service (USGS) quadrangle maps.

## B. Results and Discussion

The project study area is located in the ecoregion identified by the USGS as the Northwestern Great Plains of North Dakota. The soil within this ecoregion consists primarily of Mollisols and Entisols. This area is dominated by semiarid rolling plains composed of shale, siltstone and sandstone punctuated by occasional buttes and badlands. The proposed project is in the rolling plains area and occurs in a rural setting next to developed land for oil production. The area consists of newly seeded introduced grasses and annual weed species..

No aquatic resources were identified within the study area during the field survey. Maps of the project study area can be found in **Appendix A, Map**. A visual overview of the project study area can be found in **Appendix B, Site Photos**.

## C. Conclusion

No aquatic resources were delineated within the study area.



### III. BIOLOGICAL, THREATENED AND ENDANGERED SPECIES SURVEY

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#### A. Listed Species

The project study area was evaluated to determine the potential for occurrences of federally listed threatened, endangered, and candidate species under “Endangered Species Act (16 U.S.C. 1531 et seq.) (ESA).” Section 9 of the ESA prohibits the “take” of species listed by USFWS as threatened or endangered. Take is defined as follows: “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in such conduct.” In recognition that take cannot always be avoided, Section 10(a) of the ESA includes provisions for take that is incidental to, but not the purpose of, otherwise lawful activities. Section 10(a)(1)(B) permits (Incidental Take Permits) may be issued if take is incidental and does not jeopardize the survival and recovery of the species.

According to the USFWS, an endangered species is one that is in danger of extinction throughout all or a significant portion of its range. A threatened species is one that is likely to become endangered in the foreseeable future. A candidate species is a plant or animal for which the USFWS has sufficient information on its biological status and threats to propose it as endangered or threatened under the ESA, but for which development of a proposed listing regulation is precluded by other higher priority listing activities. While candidate species are not legally protected under the ESA, it is within the spirit of the ESA to consider said species as having significant value and worth protecting.

The USFWS *North Dakota Ecological Services Field Office - County Listing* identifies whooping crane, interior least tern, and pallid sturgeon as endangered species, and piping plover, Dakota skipper, rufa red knot and northern long-eared bat as threatened species occurring within McKenzie County. In addition, the USFWS has identified designated critical habitat for the piping plover and Dakota skipper in McKenzie County. No listed species were observed during this field survey and no designated critical habitat occurs within the study area. Habitat requirements, the potential for suitable habitat within the project study area, and other information regarding these species are as follows:

#### B. Endangered Species

##### **Whooping Crane (*Grus Americana*)**

The whooping crane is the tallest bird in North America. In the United States, this species ranges through the Midwest and Rocky Mountain regions from North Dakota south to Texas and west into Colorado. Whooping cranes migrate through North Dakota along a band running through the central third of the state. They use shallow, seasonally and semi-permanently flooded palustrine (marshy) wetlands for roosting and various cropland and emergent wetlands for feeding. During migration, whooping cranes are often recorded in riverine habitats. Currently there are three wild populations of whooping cranes yielding a total species population of approximately 383 birds in the wild. Only one of the flocks is self-sustaining.

The proposed project is located within the migration corridor through which 95% of whooping cranes are known to migrate; however, the project study area is composed primarily of introduced grasses near active oil and gas infrastructure. Whooping cranes have historically been known to avoid areas



with human activity whereby reducing the habitat suitability of the project study area. In addition, there were no aquatic resources found in the project study area that would support whooping crane roosting and/or feeding habitat. The proposed project is anticipated to have **no effect** on the Whooping Crane.

#### **Interior Least Tern (*Aterna antillarum*)**

In North Dakota, the interior least tern is known to breed on midstream sandbars along the Yellowstone and Missouri River systems between mid-May to mid-August (USFWS, 2013). Nesting adults usually forage in wetlands or riverine habitat within one mile of nest sites; however, they have been documented to travel up to three miles to forage (Carreker, 1985). Potential habitat in the form of Lake Sakakawea and its shoreline exist approximately twenty-three miles north of the proposed project site.

There is no existing or potential habitat within the project study area and the distance to potential breeding habitat discourages any individuals from traveling to the project study area. The proposed project is anticipated to have **no effect** on the interior least tern or its associated habitat.

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

The pallid sturgeon is known to exist in the Yellowstone, Missouri, middle and lower Mississippi and Atchafalaya Rivers, and seasonally in some tributaries. In North Dakota, the pallid sturgeon is found principally in the Missouri River and upstream of Lake Sakakawea in the Yellowstone River. Dating to prehistoric times, the pallid sturgeon has become well adapted to living close to the bottom of silty river systems. According to the USFWS, its preferred habitat includes “a diversity of water depths and velocities formed by braided river channels, sand bars, sand flats, and gravel bars” (2010, September 20). Weighing up to 80 pounds, pallid sturgeons are long lived, with individuals possibly reaching 50 years of age. The nearest suitable habitat for the pallid sturgeon is found within Lake Sakakawea, located approximately twenty-three miles north of the project site. The proposed project is anticipated to have **no effect** on the pallid sturgeon or its associated habitat.

### **C. Threatened Species**

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

The piping plover is a small, migratory shorebird. Historically, piping plovers could be found throughout the Atlantic Coast, Northern Great Plains and the Great Lakes. Drastically reduced, sparse populations presently occur throughout this historic range. In North Dakota, breeding and nesting sites can be found along the Missouri River. Preferred habitat for the piping plover includes riverine sandbars, gravel beaches, alkali areas of wetlands and flat, sandy beaches with little vegetation. The USFWS has identified critical habitat for the piping plover on the Missouri River system. Critical habitat includes reservoir reaches composed of sparsely vegetated shoreline beaches, peninsulas, islands composed of sand, gravel, or shale and their interface with water bodies.

Piping plover habitat does not exist within the project study area. According to USFWS data, designated critical habitat occurs throughout the entire shoreline of Lake Sakakawea, which is located



approximately twenty-three miles north of the project at the closest point. The proposed project is anticipated to have **no effect** on the piping plover or designated critical habitat for the species.

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

The Dakota skipper is a small butterfly with a 1-inch wingspan. These butterflies historically ranged from southern Saskatchewan, across the Dakotas and Minnesota, to Iowa and Illinois. The preferred habitat for the Dakota skipper consists of flat, moist bluestem prairies and upland prairies with an abundance of wildflowers. Dakota skippers are visible in their butterfly stage from mid-June to early July.

The Dakota skipper relies on pristine native prairie to complete its life cycle. Dakota skipper larvae need mid-statured native grasses, such as prairie dropseed (*Sporobolus heterolepis*), little bluestem (*Schizachyrium scoparium*), and sideoats grama (*Bouteloua curtipendula*) for food and shelter. Introduced cool season grasses, such as Kentucky bluegrass (*Poa pratensis*) and smooth brome grass (*Bromus inermis*) are not actively growing when Dakota skipper larvae are feeding, thus a prevalence of these grasses reduces food availability for the larvae.

An onsite botany survey was completed on October 16<sup>th</sup>, 2019. Field investigations revealed inadequate amounts or lack of preferred species at all locations throughout the project study area. The entire project study area has been disturbed due to agricultural practices, therefore preferred plant species do not currently exist. The proposed project is anticipated to have **no effect** on the Dakota Skipper or its associated habitat.

#### **Rufa Red Knot (*Calidris canutus rufa*)**

The rufa red knot is one of the longest-distance migrants in the animal kingdom, migrating more than 9,300 miles north to south and back every year. They migrate during the spring and fall between breeding grounds in northern Canada and wintering grounds in the southeast US, the northeast Gulf of Mexico, northern Brazil, and Tierra del Fuego in South America. While a majority of red knots follow migration routes along the east and west coast of the US, small numbers of this species follow an inland migration route across the Midwest along the Great Lakes. Preferred stopover habitat in North America includes sandy or gravelly beaches, tidal mudflats, salt marshes, shallow coastal impoundments and peat banks (78 FR 189, September 30, 2013). The species requires suitable stopover habitat with a large food source, habitat and favorable weather conditions within a narrow time frame to allow for successful migration between summer and wintering grounds. Their life cycles may make them particularly susceptible to climate changes. Although no documented sightings have occurred along Lake Sakakawea or the Little Missouri River (eBird, 2019), the shorelines of these waterbodies may provide suitable stopover habitat in the form of sandy beaches, along with the primary prey found in non-breeding habitats including snails, mollusks and insect larvae.

The closest potential habitat for the species is largely associated with the Missouri River, Little Missouri River, and Lake Sakakawea and their shorelines. The Little Missouri River shoreline is located approximately six miles south of the project site and the Missouri River/Lake Sakakawea is located approximately twenty-three miles north of the project site. Rufa red knot have also been documented



foraging in cultivated fields while migrating through the inland route (Gratto-Trevor et al 2001). There are no cultivated fields or rufa red knot habitat within the project study area, therefore the proposed project is anticipated to have **no effect** on the rufa red knot.

#### **Northern Long-Eared Bat (*Myotis septentrionalis*)**

The Western Population of northern long-eared bats occurs partially in North Dakota, where bats have been observed during the summer in the Turtle Mountains, Missouri River Valley and the Badlands. No hibernacula (overwintering sites such as caves, abandoned mines, or similar constructions) are known to exist in the state; however, this may be a function of lack of adequate survey data (USFWS, 2013). Suitable habitat for summer maternity/non-maternity activities, as well as spring staging/fall swarming would include forests and woodlots, as well as fencerows, riparian forests and other wooded corridors. Density and canopy cover is variable within these forested habitats, which may be interspersed with wetlands, agricultural or fallow fields, or pastures. Potential roost sites include live trees or snags that are greater than or equal to three inches in diameter at breast height (dbh) and may include the following: exfoliating bark, cracks, crevices, or cavities. Isolated trees may be potential roost sites if they exhibit the characteristics described above and are less than 1,000 feet from the nearest roosting site or suitable forested habitat.

There are no trees that exist within the project study area. The proposed project is anticipated to have **no effect** on northern long-eared bat.

### **D. North Dakota Species of Conservation Priority**

The North Dakota Game and Fish Department (NDGFD) has identified 115 Species of Conservation Priority within the state and has ranked those species into three levels; Level I, Level II, and Level III. Level I species are in decline and receive little or no monetary support or conservation effort. NDGFD has an obligation to use State Wildlife Grant (SWG) funding to implement conservation actions that directly benefit these Level I species. Level II species receive SWG funding to implement conservation actions that benefit these species if SWG funding for Level I species is sufficient or conservation needs have been met. Level III species receive a moderate level of conservation priority but are believed to be peripheral or nonbreeding in North Dakota (NDGFD, 2019). There were no species of conservation priority observed during the field survey. Please refer to **Table 1. List of North Dakota Species of Conservation Priority.**



*Table 1, List of North Dakota Species of Conservation Priority*

PRIORITY LEVEL	COMMON NAME	SCIENTIFIC NAME
Level I	Horned Grebe	<i>Podiceps auratus</i>
	American Bittern	<i>Botaurus lentiginosus</i>
	Swainson's Hawk	<i>Buteo swainsoni</i>
	Ferruginous Hawk	<i>Buteo regalis</i>
	Greater Sage Grouse	<i>Centrocercus urophasianus</i>
	Yellow Rail	<i>Coturnicops noveboracensis</i>
	Long-billed Curlew	<i>Numenius americanus</i>
	Marbled Godwit	<i>Limosa fedoa</i>
	Wilson's Phalarope	<i>Phalaropus tricolor</i>
	Franklin's Gull	<i>Leucophaeus pipixcan</i>
	Black Tern	<i>Chlidonias niger</i>
	Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>
	Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>
	Sprague's Pipit	<i>Anthus spragueii</i>
	Grasshopper Sparrow	<i>Ammodramus savannarum</i>
	Baird's Sparrow	<i>Ammodramus bairdii</i>
	Nelson's Sparrow	<i>Ammodramus nelsoni</i>
	Lark Bunting	<i>Calamospiza melanocorys</i>
	Chestnut-collared Longspur	<i>Calcarius ornatus</i>
	Canadian Toad	<i>Anaxyrus hemiophrys</i>
	Plains Spadefoot	<i>Spea bombifrons</i>
	Smooth Green Snake	<i>Opheodrys vernalis</i>
	Plains Hog-nosed Snake	<i>Heterodon nasicus</i>
	Townsend's Big-eared Bat	<i>Corynorhinus townsendii</i>
	Big Brown Bat	<i>Eptesicus fuscus</i>
	Little Brown Bat	<i>Myotis lucifugus</i>
	Northern Long-eared Bat	<i>Myotis septentrionalis</i>
	Black-tailed Prairie Dog	<i>Cynomys ludovicianus</i>
	Sturgeon Chub	<i>Marcrybopsis gelida</i>
	Sicklefin Chub	<i>Marcrybopsis meeki</i>
	Northern Pearl Dace	<i>Margariscus nachtriebi</i>
	Blue Sucker	<i>Cycleptus elongatus</i>
	Creek Heelsplitter	<i>Lasmigona compressa</i>
Pink Papershell	<i>Potamilus ohiensis</i>	
Monarch Butterfly	<i>Danaus plexippus</i>	
Regal Fritillary	<i>Speyeria idalia</i>	



PRIORITY LEVEL	COMMON NAME	SCIENTIFIC NAME
Level II	American White Pelican	<i>Pelecanus erythrorhynchos</i>
	Northern Pintail	<i>Anas acuta</i>
	Canvasback	<i>Aythya valisineria</i>
	Lesser Scaup	<i>Aythya affinis</i>
	Northern Harrier	<i>Circus cyaneus</i>
	Golden Eagle	<i>Aquila chrysaetos</i>
	Bald Eagle	<i>Haliaeetus leucocephalus</i>
	American Kestrel	<i>Falco sparverius</i>
	Prairie Falcon	<i>Falco mexicanus</i>
	Sharp-tailed Grouse	<i>Tympanuchus phasianellus</i>
	Greater Prairie Chicken	<i>Tympanuchus cupido</i>
	Piping Plover	<i>Charadrius melodus</i>
	American Avocet	<i>Recurvirostra americana</i>
	Willet	<i>Tringa semipalmatus</i>
	Upland Sandpiper	<i>Bartramia longicauda</i>
	Interior Least Tern	<i>Sterna antillarum athalassos</i>
	Short-eared Owl	<i>Asio flammeus</i>
	Burrowing Owl	<i>Athene cunicularia</i>
	Loggerhead Shrike	<i>Lanius ludovicianus</i>
	Dickcissel	<i>Dickcissel (Spiza americana)</i>
	Le Conte's Sparrow	<i>Ammodramus leconteii</i>
	Bobolink	<i>Dolichonyx oryzivorus</i>
	Western Meadowlark	<i>Sturnella neglecta</i>
	Snapping Turtle	<i>Chelydra serpentina</i>
	Short-horned Lizard	<i>Phrynosoma hernandesi</i>
	Pygmy Shrew	<i>Sorex hoyi</i>
	Richardson's Ground Squirrel	<i>Urocitellus richardsonii</i>
	Swift Fox	<i>Vulpes velox</i>
	River Otter	<i>Lontra canadensis</i>
	American Marten	<i>Martes americana</i>
	Black-footed Ferret	<i>Mustella nigripes</i>
	Paddlefish	<i>Polyodon spathula</i>
	Pallid Sturgeon	<i>Scaphirhynchus albus</i>
	Burbot	<i>Lota lota</i>
	Northern Redbelly Dace	<i>Chrosomus eos</i>
	Silver Chub	<i>Marcrybopsis storeriana</i>
	Flathead Chub	<i>Platygobio gracilis</i>
	Trout-perch	<i>Percopsis omiscomaycus</i>
	Threeridge	<i>Amblema plicata</i>
	Wabash Pigtoe	<i>Fusconaia flava</i>
Black Sandshell	<i>Ligumia recta</i>	
Pink Heelsplitter	<i>Potamilus alatus</i>	
Dakota Skipper	<i>Hesperia dacotae</i>	
Poweshiek Skipperling	<i>Oarisma poweshiek</i>	



PRIORITY LEVEL	COMMON NAME	SCIENTIFIC NAME
Level III	Whooping Crane	<i>Grus americana</i>
	Rufa Red Knot	<i>Calidris canutus rufa</i>
	Peregrine Falcon	<i>Falco peregrinus</i>
	Brewer's Sparrow	<i>Spizella breweri</i>
	McCown's Longspur	<i>Calcarius mccownii</i>
	Smooth Softshell	<i>Apalone mutica</i>
	Spiny Softshell	<i>Apalone spinifera</i>
	False Map Turtle	<i>Graptemys pseudogeographica</i>
	Sagebrush Lizard	<i>Sceloporus graciosus</i>
	Northern Prairie Skink	<i>Plestiodon septentrionalis</i>
	Arctic Shrew	<i>Sorex arcticus</i>
	Merriam's Shrew	<i>Sorex merriami</i>
	Western Small-footed Bat	<i>Myotis ciliolabrum</i>
	Long-eared Bat	<i>Myotis evotis</i>
	Long-legged Bat	<i>Myotis volans</i>
	Hispid Pocket Mouse	<i>Chaetodipus hispidus</i>
	Plains Pocket Mouse	<i>Perognathus flavescens</i>
	Sagebrush Vole (Lemmiscus curtatus)	<i>Sagebrush Vole (Lemmiscus curtatus)</i>
	Eastern Spotted Skunk	<i>Spilogale putorius</i>
	Gray Fox	<i>Urocyon cinereoargenteus</i>
	Chestnut Lamprey	<i>Ichthyomyzon castaneus</i>
	Silver Lamprey	<i>Ichthyomyzon unicuspis</i>
	Largescale Stoneroller	<i>Campostoma oligolepis</i>
	Hornyhead Chub	<i>Nocomis biguttatus</i>
	Pugnose Shiner	<i>Notropis anogenus</i>
	Blacknose Shiner	<i>Notropis heterolepis</i>
	Carmine Shiner	<i>Notropis percobromis</i>
	Finescale Dace	<i>Phoxinus neogaeus</i>
	Yellow Bullhead	<i>Ameiurus natalia</i>
	Logperch	<i>Percina caprodes</i>
	River Darter	<i>Percina shumardi</i>
	Mapleleaf	<i>Quadrula quadrula</i>
	Fragile Papershell	<i>Leptodea fragilis</i>
	Deertoe	<i>Truncilla truncate</i>
Creepers	<i>Strophitus undulates</i>	

## E. Other Biological Species Observed

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

The project study area and the areas surrounding the project study area contains suitable habitat for mule deer (*Odocoileus hemionus*), whitetail deer (*Odocoileus virginianus*), sharp-tailed grouse (*Tympanuchus phasianellus*), ring-necked pheasant (*Phasianus colchicas*), red-tailed hawk (*Buteo*



*jamaicensis*), American kestrel (*Falco sparverius*), wild turkey (*Meleagris gallopavo*), song birds, coyote (*Canis latrans*), red fox (*Vulpes vulpes*), Eastern cottontail rabbit (*Sylvilagus floridanus*), jackrabbit (*Lepus townsendii*), North American badger (*Taxidea taxus*) and North American porcupine (*Erethizon dorsatum*).

During the pedestrian field surveys, migratory birds, raptors, big and small game species, non-game species, and potential wildlife habitats were identified, if present. There were no migratory birds, raptors/eagles, or other wildlife species observed during the field survey; however, deer tracks and scat were observed on site. No historical eagle nests occur within one mile of the project.

Due to the presence of suitable habitat at the project site for some wildlife and avian species, ground clearing activities associated with the proposed project may impact individuals by displacing animals from suitable habitat temporarily. As a result, wildlife may be forced to utilize marginal habitats or relocate to unaffected habitats where population density and competition increase. Consequences of such displacement and competition may include lower survival, lower reproductive success, lower recruitment, and lower carrying capacity leading ultimately to population-level impacts.

## F. Vegetation

Botanical resources were evaluated using visual inspection. The project study area consisted of non-native upland grasses and annual non-native weed species. Canada thistle (*Cirsium arvense*), a noxious weed in North Dakota, was located in patches throughout the project study area. Dominant grasses within the project study area consisted of crested wheatgrass (*Agropyron cristatum*), smooth brome grass (*Bromus inermis*), and intermediate wheatgrass (*Thinopyrum intermedium*). Dominant forbs consisted of yellow sweet clover (*Melilotus officinalis*). There are no trees or shrubs that exist within the project study area.

Please refer to **photos in Appendix B**, which shows the typical vegetation along the route.



## IV. REFERENCES

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## V. DELINEATOR/ENVIRONMENTAL SCIENTIST'S CREDENTIALS

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TOM NAAS	
Education:	<ul style="list-style-type: none"><li>› BS Fisheries and Wildlife Biology – University of North Dakota</li></ul>
Training:	<ul style="list-style-type: none"><li>› Minnesota Wetland Delineator Certification Program: 5-Day Basic Wetland Delineation Course – University of Minnesota; Wetland Mitigation in Minnesota (June 2014)</li></ul>
Professional Memberships:	<ul style="list-style-type: none"><li>› National Association of Environmental Professionals</li><li>› The Wildlife Society – North Dakota Chapter</li></ul>

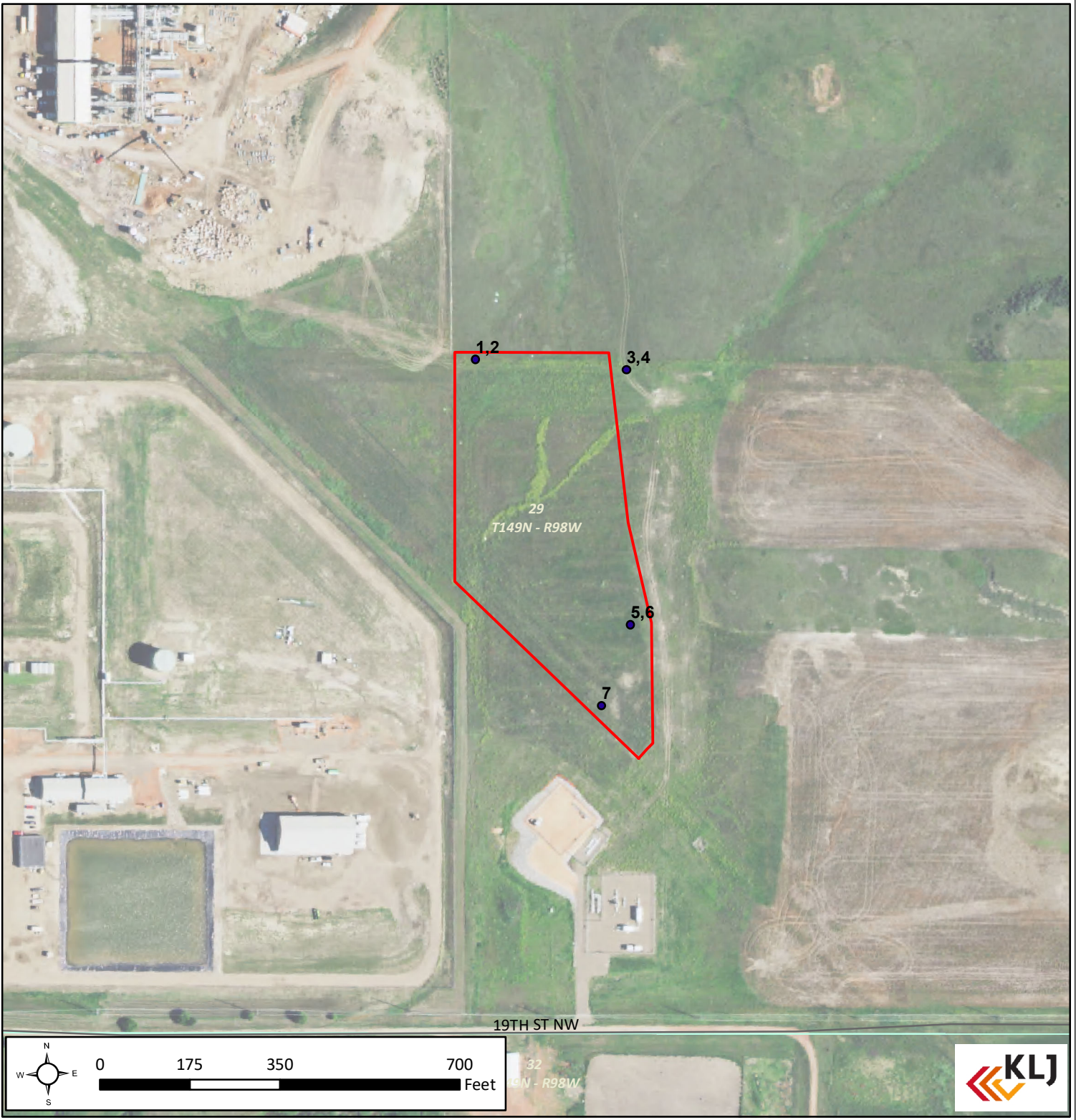




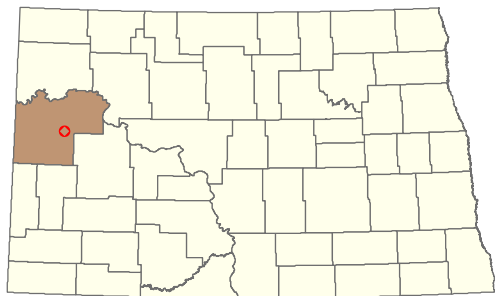
# Appendix A

## Maps





**Stony Johnny Butte Pump Station  
McKenzie County, ND  
Project Study Area**



● Photo Point

□ Stony Johnny Butte Study Area

KLJ Project Number: 1715149	
Date Created: 12/3/2019	Created By: D. Bendickson



# Appendix B

## Site Photos





Photograph #1	
Date Taken:	10/16/2019
Description:	View south




Photograph #2	
Date Taken:	10/16/2019
Description:	View east






Photograph #3	
Date Taken:	10/16/2019
Description:	View west



Photograph #4	
Date Taken:	10/16/2019
Description:	View southwest






Photograph #5	
Date Taken:	10/16/2019
Description:	View north



Photograph #6	
Date Taken:	10/16/2019
Description:	View west





Photograph #7

Date Taken:	10/16/2019
Description:	View northwest



**Exhibit D**  
**Agency Consultations**

U.S. Fish and Wildlife Service



January 6, 2020

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

RE: ONEOK Bakken Pipeline, L.L.C.  
Bear Creek NGL Pipeline Pump Stations (Stony Johnny Butte and Big Gulch)  
Project Notification and Request for Review

Dear Mr. Larson,

ONEOK Bakken Pipeline, L.L.C. (ONEOK) owns and operates natural gas liquids (NGLs) assets in North Dakota. ONEOK is proposing to construct the Stony Johnny Butte and Big Gulch Pump Stations (Project/Stations), a transmission facility improvement to their existing Bear Creek NGL Pipeline (Pipeline). The proposed Stations would connect to the existing Pipeline, which originates at the ONEOK Bear Creek Gas Plant in Dunn County, North Dakota, and extends northwest to terminate at an inter-connect with ONEOK’s existing Targa Pipeline in McKenzie County, North Dakota. Construction is scheduled to begin in March 2020 and will be completed in approximately 6 months.

The proposed Stony Johnny Butte Pump Station would be located in the SW ¼ of Section 29, Township 149 North, Range 98 West, approximately 7.5 miles south/southeast of Watford City in McKenzie County. The Big Gulch Pump Station would be located in the SW ¼ of Section 11, Township 147 North, Range 97 West, approximately 18 miles northwest of Killdeer in Dunn County. Aerial and topographic based Project overview maps are included for your reference.

This letter is intended to introduce you to the Project, request confirmation of the threatened and endangered species identified within the Project area (see Table 1), and solicit comments on the species, their habitats, or designated critical habitat areas that may occur in Dunn and McKenzie Counties. We would also appreciate your review and comments regarding migratory birds and eagles as they relate to the proposed construction activities.

Table 1 USFWS Federally Listed Threatened and Endangered Species Potentially Present in Dunn and McKenzie Counties, North Dakota		
Scientific Name	Common Name	Status
<i>Myotis septentrionalis</i>	Northern long-eared bat	Threatened
<i>Scaphirhynchus albus</i>	Pallid sturgeon	Endangered
<i>Charadrius melodus</i>	Piping plover	Threatened; Designated Critical Habitat <sup>2</sup>
<i>Sterna antillarum</i>	Least tern	Endangered
<i>Calidris canutus rufa</i>	Red knot	Threatened
<i>Grus americana</i>	Whooping crane	Endangered

ONEOK, Inc.  
100 West Fifth Street  
Tulsa, OK 74103  
www.oneok.com

January 6, 2020  
Mr. Scott Larson

<b>Table 1</b>		
<b>USFWS Federally Listed Threatened and Endangered Species Potentially Present in Dunn and McKenzie Counties, North Dakota</b>		
<b>Scientific Name</b>	<b>Common Name</b>	<b>Status</b>
<i>Hesperia dacotae</i>	Dakota skipper	Threatened; Designated Critical Habitat <sup>3</sup>

<sup>1</sup> Information for Planning and Consultation (IPaC). USFWS website. Available at <https://ecos.fws.gov/ipac/>. Accessed January 2020.  
<sup>2</sup> Critical habitat for the piping plover has been designated at the Missouri River in McKenzie County. However, the Stony Johnny Butte Project area is located approximately a minimum of 23.0 miles from the Missouri River.  
<sup>3</sup> Critical habitat for the Dakota skipper has been designated in McKenzie County. However, the Stony Johnny Butte Project area is located approximately a minimum of 30.0 miles from DS ND Unit 12.

Natural resource surveys were completed at both locations in Fall 2019. No wetlands or waterbodies were identified at either location and no unique biological resources or habitats were noted at either site. Based on the location of the Project areas and the results of the field surveys, we anticipate the Project will not have adverse impacts on federally listed species or designated critical habitat.

The Project is under the jurisdiction of the North Dakota Public Service Commission (NDPSC) and will require an amendment to ONEOK's existing Corridor Certificate for the Bear Creek NGL Pipeline (NDPSC Case No. PU-15-801). ONEOK plans to file its request for an amendment to the NDPSC in January 2020. Merjent, Inc. (Merjent) has been contracted by ONEOK to assist with the environmental review of the Project areas, completion of regulatory applications, and consultations with other agencies. Please identify any specific persons within your organization that should be contacted or included in future Project-related communications.

We appreciate your assistance with this request and look forward to your timely review and comments on this Project. Should you have any questions or require additional information, please contact Paul Hartzheim of Merjent at 612-746-1618 or [paul.hartzheim@merjent.com](mailto:paul.hartzheim@merjent.com), or myself at 918-561-5373 or [Andrew.Hackler@oneok.com](mailto:Andrew.Hackler@oneok.com).

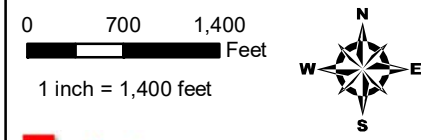
Sincerely,



Andrew Hackler  
Environmental Specialist  
ONEOK Bakken Pipeline, L.L.C.

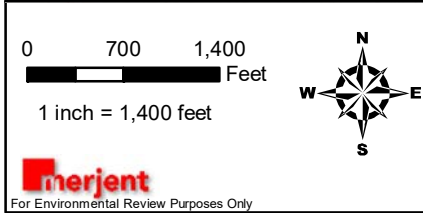
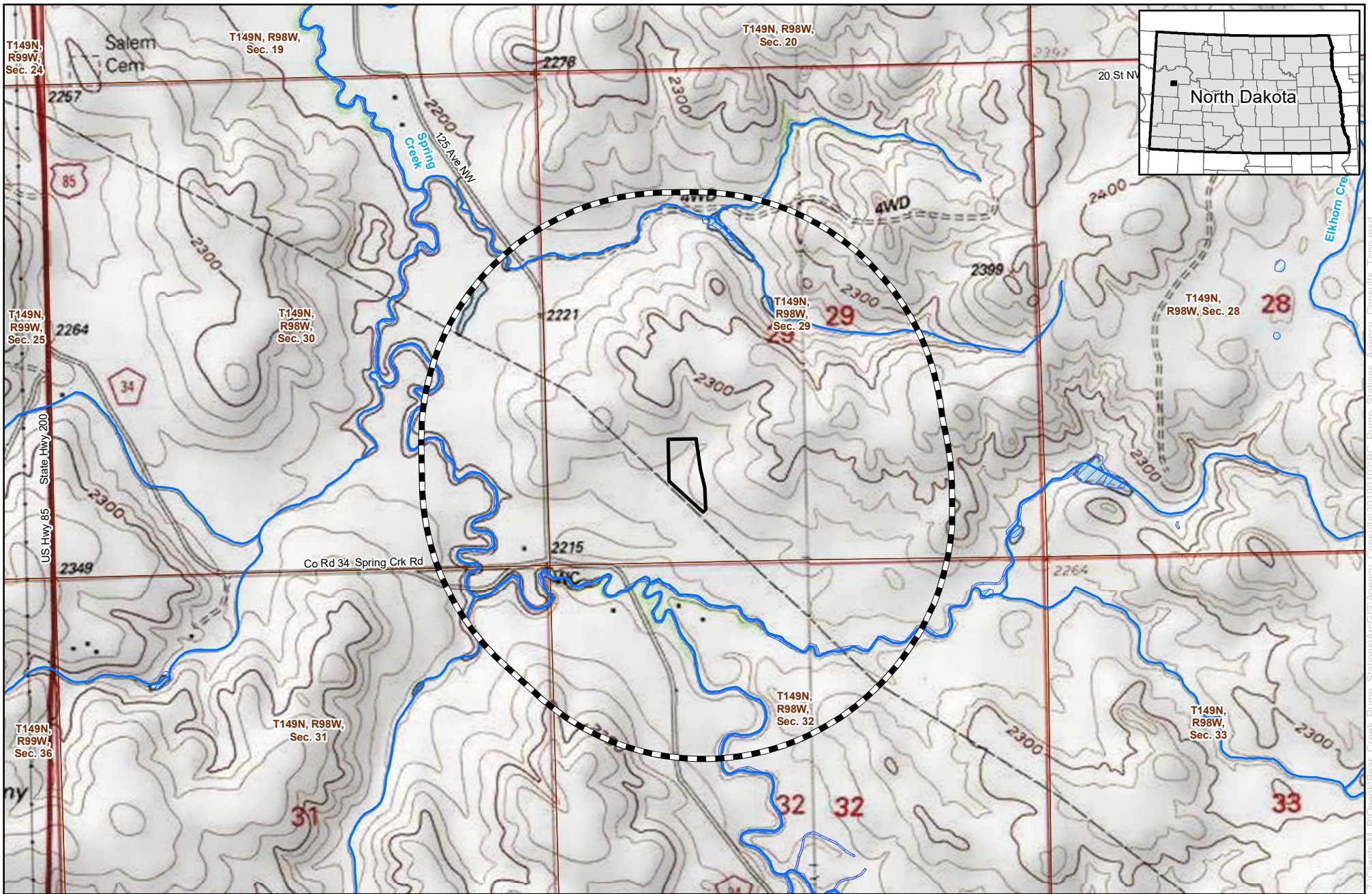
Enclosures: Project Overview Maps (aerial and topographic)  
Project Shapefiles (provided electronically)

cc: Maddy Krumwiede, Andrea Sampson, and Paul Hartzheim, Merjent  
Scott Larson, USFWS (via email at [scott\\_larson@fws.com](mailto:scott_larson@fws.com))

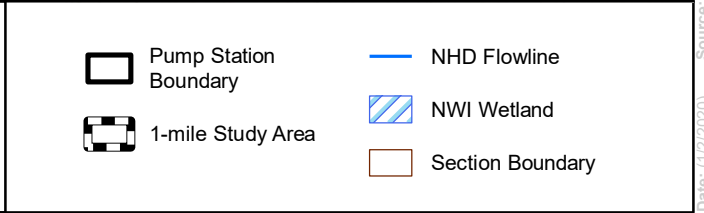


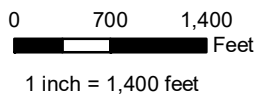
**ONEOK Bakken Pipeline, L.L.C.**  
**Stony Johnny Butte Pump Station**  
**Project Maps**  
**McKenzie County, ND**  
 Page 1 of 2

-  Pump Station Boundary
-  1-mile Study Area
-  NHD Flowline
-  NWI Wetland
-  Section Boundary








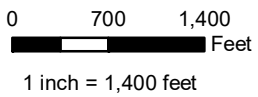
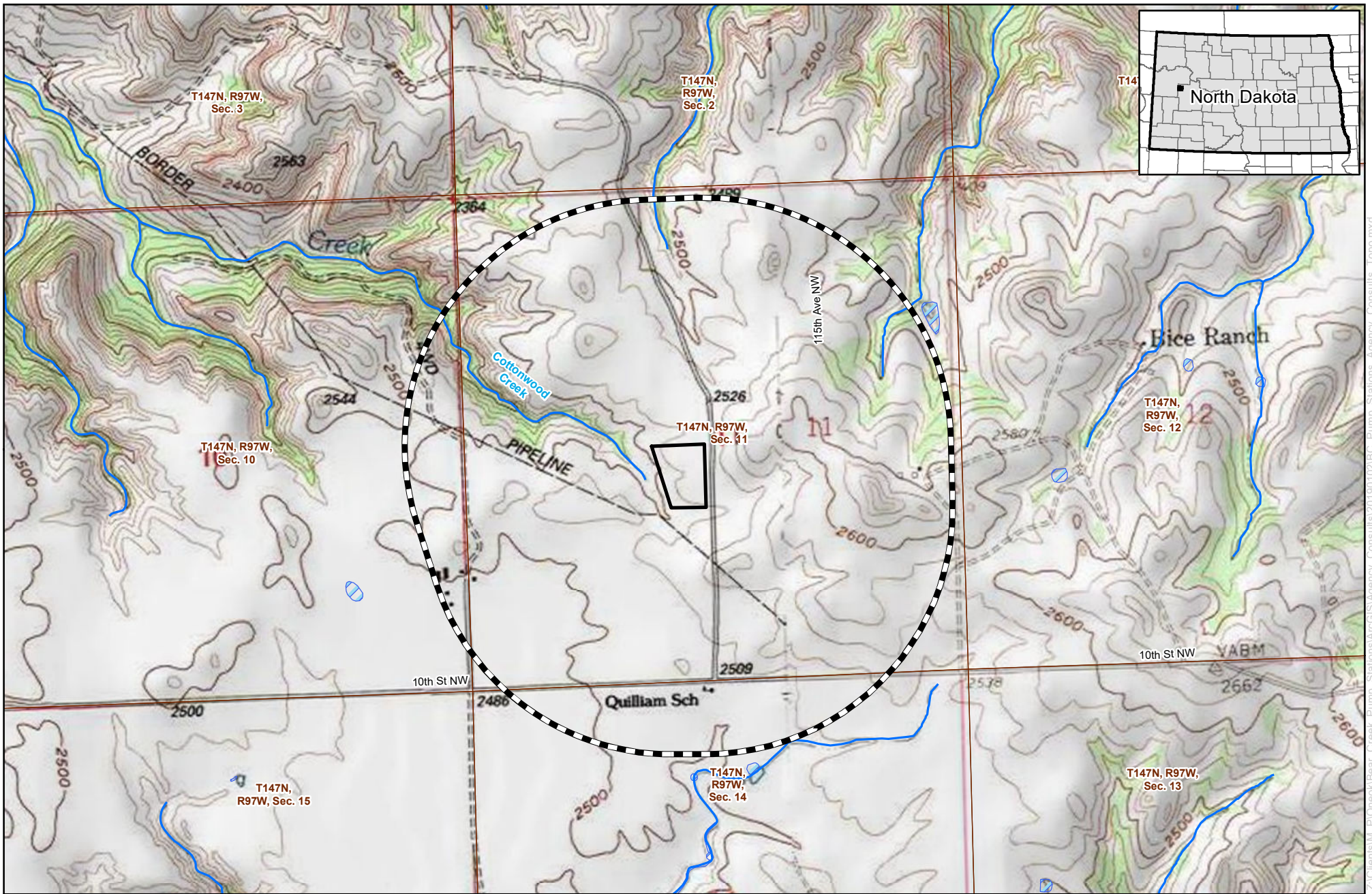
**ONEOK Bakken Pipeline, L.L.C.**  
**Stony Johnny Butte Pump Station**  
**Project Maps**  
**McKenzie County, ND**  
 Page 1 of 2









**ONEOK Bakken Pipeline, L.L.C.**  
**Big Gulch Pump Station**  
**Project Maps**  
**Dunn County, ND**  
 Page 2 of 2

-  Pump Station Boundary
-  1-mile Study Area
-  NHD Flowline
-  NWI Wetland
-  Section Boundary



**ONEOK Bakken Pipeline, L.L.C.**  
**Big Gulch Pump Station**  
**Project Maps**  
**Dunn County, ND**  
 Page 2 of 2

-  Pump Station Boundary
-  1-mile Study Area
-  NHD Flowline
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-  Section Boundary

North Dakota Game and Fish Department



January 6, 2020

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

RE: ONEOK Bakken Pipeline, L.L.C.  
Bear Creek NGL Pipeline Pump Stations (Stony Johnny Butte and Big Gulch)  
Project Notification and Request for Review

Dear Mr. Link,

ONEOK Bakken Pipeline, L.L.C. (ONEOK) owns and operates natural gas liquids (NGLs) assets in North Dakota. ONEOK is proposing to construct the Stony Johnny Butte and Big Gulch Pump Stations (Project/Stations), a transmission facility improvement to their existing Bear Creek NGL Pipeline (Pipeline). The proposed Stations would connect to the existing Pipeline, which originates at the ONEOK Bear Creek Gas Plant in Dunn County, North Dakota, and extends northwest to terminate at an inter-connect with ONEOK's existing Targa Pipeline in McKenzie County, North Dakota. Construction is scheduled to begin in March 2020 and will be completed in approximately 6 months.

The proposed Stony Johnny Butte Pump Station would be located in the SW ¼ of Section 29, Township 149 North, Range 98 West, approximately 7.5 miles south/southeast of Watford City in McKenzie County. The Big Gulch Pump Station would be located in the SW ¼ of Section 11, Township 147 North, Range 97 West, approximately 18 miles northwest of Killdeer in Dunn County. Aerial and topographic based Project overview maps are included for your reference.

Natural resource surveys were completed at both locations in Fall 2019. No wetlands or waterbodies were identified at either location and no unique biological resources or habitats were noted at either site.

ONEOK respectfully submits this request for Project review to the North Dakota Game and Fish Department (NDGFD) for presence or absence of: sensitive species; game refuge or game management lands; PLOTS lands; and projects under the direction of these programs. Based on a desktop review, there are no known NDGFD-managed lands in the vicinity of either Station. ONEOK has also sent a consultation request to Ms. Sandra Johnson of NDGFD regarding historic eagle nest data.

The Project is under the jurisdiction of the North Dakota Public Service Commission (NDPSC) and will require an amendment to ONEOK's existing Corridor Certificate for the Bear Creek NGL Pipeline (NDPSC Case No. PU-15-801). ONEOK plans to file its request for an amendment to the NDPSC in January 2020. Merjent, Inc. (Merjent) has been contracted by ONEOK to assist with the environmental review of the Project areas, completion of regulatory applications, and consultations with other agencies. Please identify any specific persons within your organization that should be contacted or included in future Project-related communications.

January 6, 2020  
Mr. Greg Link

We appreciate your assistance with this request and look forward to your timely review and comments on this Project. Should you have any questions or require additional information, please contact Paul Hartzheim of Merjent at 612-746-1618 or [paul.hartzheim@merjent.com](mailto:paul.hartzheim@merjent.com), or myself at 918-561-5373 or [Andrew.Hackler@oneok.com](mailto:Andrew.Hackler@oneok.com).

Sincerely,



Andrew Hackler  
Environmental Specialist  
ONEOK Bakken Pipeline, L.L.C.

Enclosures: Project Overview Maps (aerial and topographic)  
Project Shapefiles (provided electronically)

cc: Maddy Krumwiede, Andrea Sampson, and Paul Hartzheim, Merjent  
Greg Link, NDGF (via email at [glink@nd.gov](mailto:glink@nd.gov))



January 6, 2020

Ms. Sandra "Sandy" Johnson  
Conservation Biologist  
North Dakota Game and Fish Department  
Conservation and Communication Division  
100 North Bismarck Expressway  
Bismarck, ND 58501-5095

RE: ONEOK Bakken Pipeline, L.L.C.  
Bear Creek NGL Pipeline Pump Stations (Stony Johnny Butte and Big Gulch)  
Project Notification and Request for Review

Dear Ms. Johnson,

ONEOK Bakken Pipeline, L.L.C. (ONEOK) owns and operates natural gas liquids (NGLs) assets in North Dakota. ONEOK is proposing to construct the Stony Johnny Butte and Big Gulch Pump Stations (Project/Stations), a transmission facility improvement to their existing Bear Creek NGL Pipeline (Pipeline). The proposed Stations would connect to the existing Pipeline, which originates at the ONEOK Bear Creek Gas Plant in Dunn County, North Dakota, and extends northwest to terminate at an inter-connect with ONEOK's existing Targa Pipeline in McKenzie County, North Dakota. Construction is scheduled to begin in March 2020 and will be completed in approximately 6 months.

The proposed Stony Johnny Butte Pump Station would be located in the SW  $\frac{1}{4}$  of Section 29, Township 149 North, Range 98 West, approximately 7.5 miles south/southeast of Watford City in McKenzie County. The Big Gulch Pump Station would be located in the SW  $\frac{1}{4}$  of Section 11, Township 147 North, Range 97 West, approximately 18 miles northwest of Killdeer in Dunn County. Aerial and topographic based Project overview maps are included for your reference.

Natural resource surveys were completed at both locations in Fall 2019. No wetlands or waterbodies were identified at either location and unique biological resources or habitats were noted at either site. In addition, there are no trees at either location and no eagle or raptor nests were observed during the field survey.

ONEOK respectfully submits this new request to the North Dakota Game and Fish Department (NDGFD) for eagle nest data within a 1 mile study area of each Station. A Project notification letter was also sent to Mr. Greg Link requesting review for presence or absence of: sensitive species; game refuge or game management lands; Private Land Open to Sportsmen (PLOTS) lands; and projects under the direction of these programs.

The Project is under the jurisdiction of the North Dakota Public Service Commission (NDPSC) and will require an amendment to ONEOK's existing Corridor Certificate for the Bear Creek NGL Pipeline (NDPSC Case No. PU-15-801). ONEOK plans to file its request for an amendment to the NDPSC in January 2020. Merjent, Inc. (Merjent) has been contracted by ONEOK to assist with the environmental review of the Project areas, completion of regulatory applications, and consultations with other agencies. Please identify any specific persons within your organization that should be contacted or included in future Project-related communications.

January 6, 2020  
Ms. Sandy Johnson

We appreciate your assistance with this request and look forward to your timely review and comments on this Project. Should you have any questions or require additional information, please contact Paul Hartzheim of Merjent at 612-746-1618 or [paul.hartzheim@merjent.com](mailto:paul.hartzheim@merjent.com), or myself at 918-561-5373 or [Andrew.Hackler@oneok.com](mailto:Andrew.Hackler@oneok.com).

Sincerely,



Andrew Hackler  
Environmental Specialist  
ONEOK Bakken Pipeline, L.L.C.

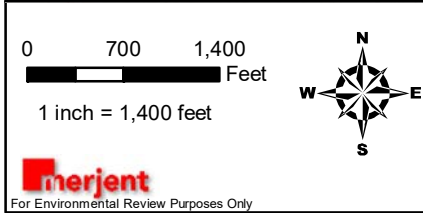
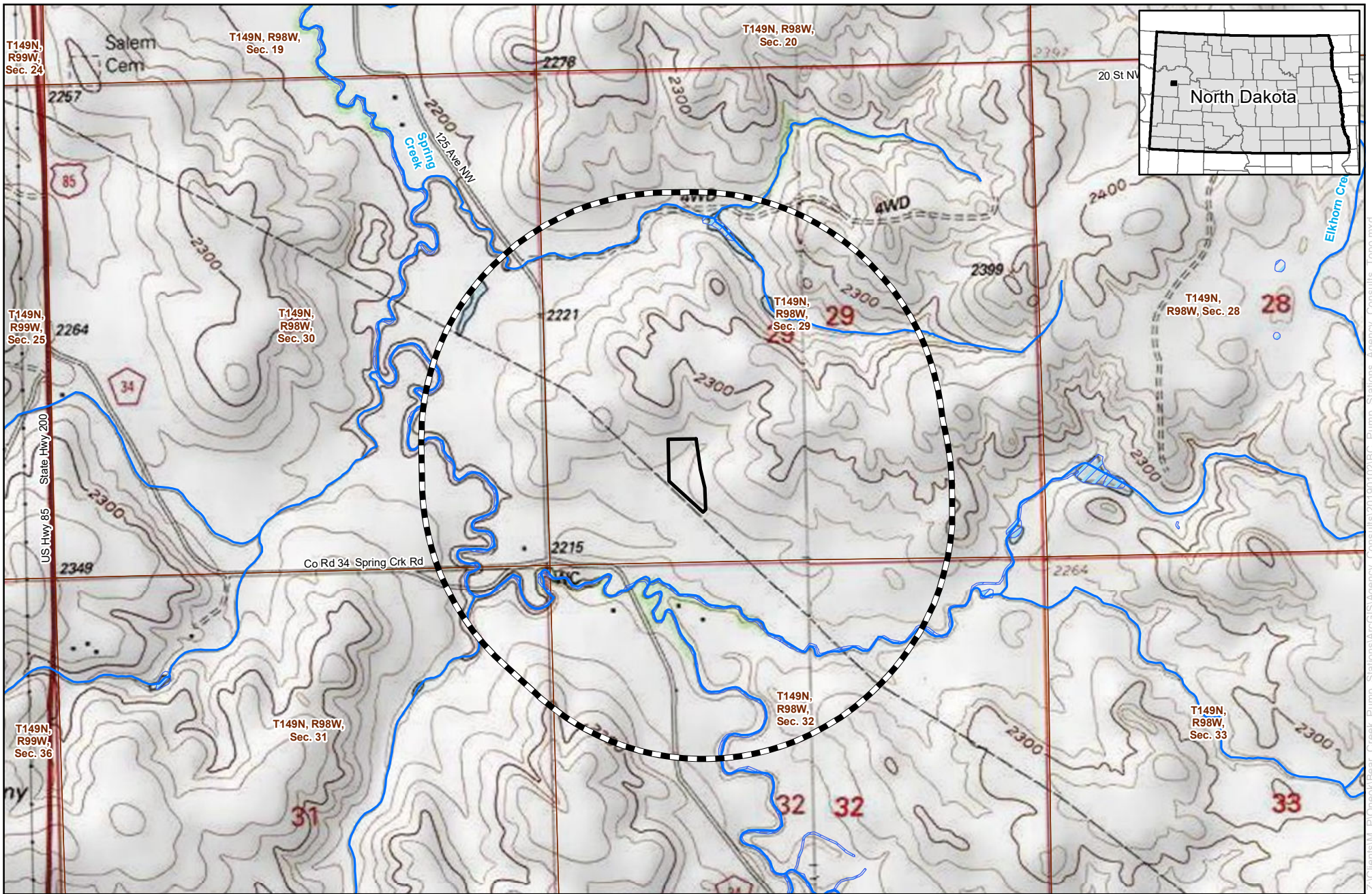
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cc: Maddy Krumwiede, Andrea Sampson, and Paul Hartzheim, Merjent  
Sandy Johnson, NDGFD (via email at [sajohnson@nd.gov](mailto:sajohnson@nd.gov))



**ONEOK Bakken Pipeline, L.L.C.**  
**Stony Johnny Butte Pump Station**  
**Project Maps**  
**McKenzie County, ND**  
 Page 1 of 2

-  Pump Station Boundary
-  1-mile Study Area
-  NHD Flowline
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**merjent**  
For Environmental Review Purposes Only

**ONEOK Bakken Pipeline, L.L.C.  
Stony Johnny Butte Pump Station  
Project Maps  
McKenzie County, ND  
Page 1 of 2**

-  Pump Station Boundary
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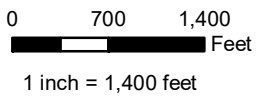
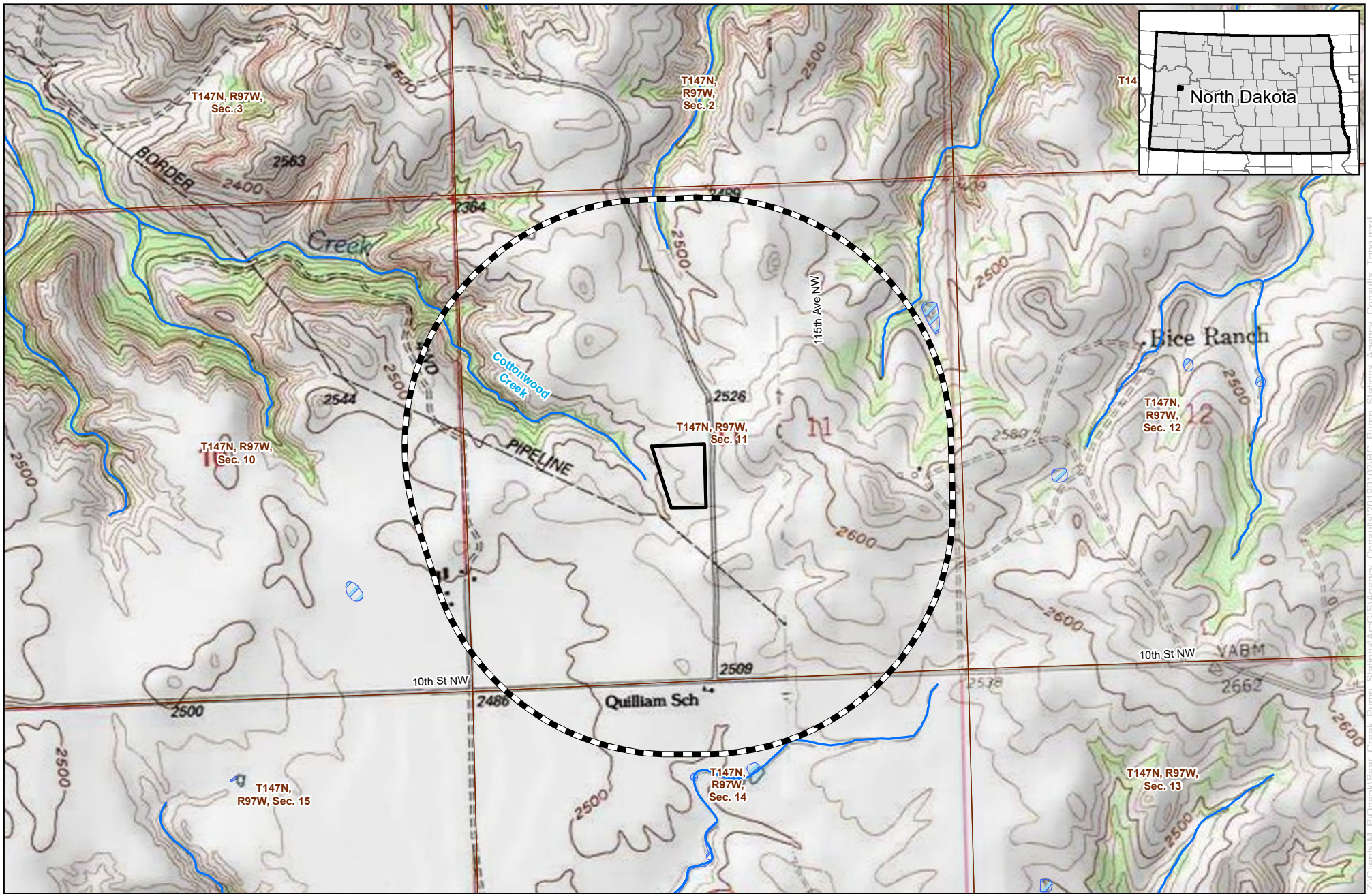


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 Feet  
 1 inch = 1,400 feet








**ONEOK Bakken Pipeline, L.L.C.**  
**Big Gulch Pump Station**  
**Project Maps**  
**Dunn County, ND**  
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-  Pump Station Boundary
-  1-mile Study Area
-  NHD Flowline
-  NWI Wetland
-  Section Boundary



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North Dakota Parks and Recreation Department



January 6, 2020

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

RE: ONEOK Bakken Pipeline, L.L.C.  
Bear Creek NGL Pipeline Pump Stations (Stony Johnny Butte and Big Gulch)  
Project Notification and Request for Review

Dear Ms. Duttonhefner,

ONEOK Bakken Pipeline, L.L.C. (ONEOK) owns and operates natural gas liquids (NGLs) assets in North Dakota. ONEOK is proposing to construct the Stony Johnny Butte and Big Gulch Pump Stations (Project/Stations), a transmission facility improvement to their existing Bear Creek NGL Pipeline (Pipeline). The proposed Stations would connect to the existing Pipeline, which originates at the ONEOK Bear Creek Gas Plant in Dunn County, North Dakota, and extends northwest to terminate at an inter-connect with ONEOK's existing Targa Pipeline in McKenzie County, North Dakota. Construction is scheduled to begin in March 2020 and will be completed in approximately 6 months.

The proposed Stony Johnny Butte Pump Station would be located in the SW ¼ of Section 29, Township 149 North, Range 98 West, approximately 7.5 miles south/southeast of Watford City in McKenzie County. The Big Gulch Pump Station would be located in the SW ¼ of Section 11, Township 147 North, Range 97 West, approximately 18 miles northwest of Killdeer in Dunn County. Aerial and topographic based Project overview maps are included for your reference.

Natural resource surveys were completed at both locations in Fall 2019. No wetlands or waterbodies were identified at either location and no unique biological resources or habitats were noted at either site.

ONEOK respectfully submits this letter requesting Project review from the North Dakota Parks and Recreation Department (NDPR) of the North Dakota Natural Heritage Inventory (NHI) system and for presence or absence of state parks, recreation areas, natural areas, and land and water conservation fund projects. Based on a desktop review of publicly available information, ONEOK is not aware of any specific NDPR interests in the vicinity of the Project. Also, we understand the fee associated with this NHI review is \$60. A check has been enclosed.

The Project is under the jurisdiction of the North Dakota Public Service Commission (NDPSC) and will require an amendment to ONEOK's existing Corridor Certificate for the Bear Creek NGL Pipeline (NDPSC Case No. PU-15-801). ONEOK plans to file its request for an amendment to the NDPSC in January 2020. Merjent, Inc. (Merjent) has been contracted by ONEOK to assist with the environmental review of the Project areas, completion of regulatory applications, and consultations with other agencies. Please identify any specific persons within your organization that should be contacted or included in future Project-related communications.

ONEOK, Inc.  
100 West Fifth Street  
Tulsa, OK 74103  
[www.oneok.com](http://www.oneok.com)

January 6, 2020  
Ms. Kathy Duttenhefner

We appreciate your assistance with this request and look forward to your timely review and comments on this Project. Should you have any questions or require additional information, please contact Paul Hartzheim of Merjent at 612-746-1618 or [paul.hartzheim@merjent.com](mailto:paul.hartzheim@merjent.com), or myself at 918-561-5373 or [Andrew.Hackler@oneok.com](mailto:Andrew.Hackler@oneok.com).

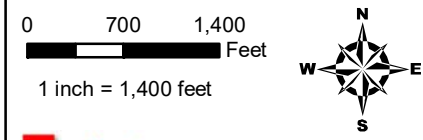
Sincerely,



Andrew Hackler  
Environmental Specialist  
ONEOK Bakken Pipeline, L.L.C.

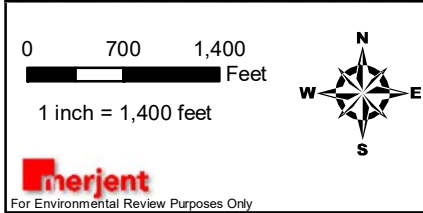
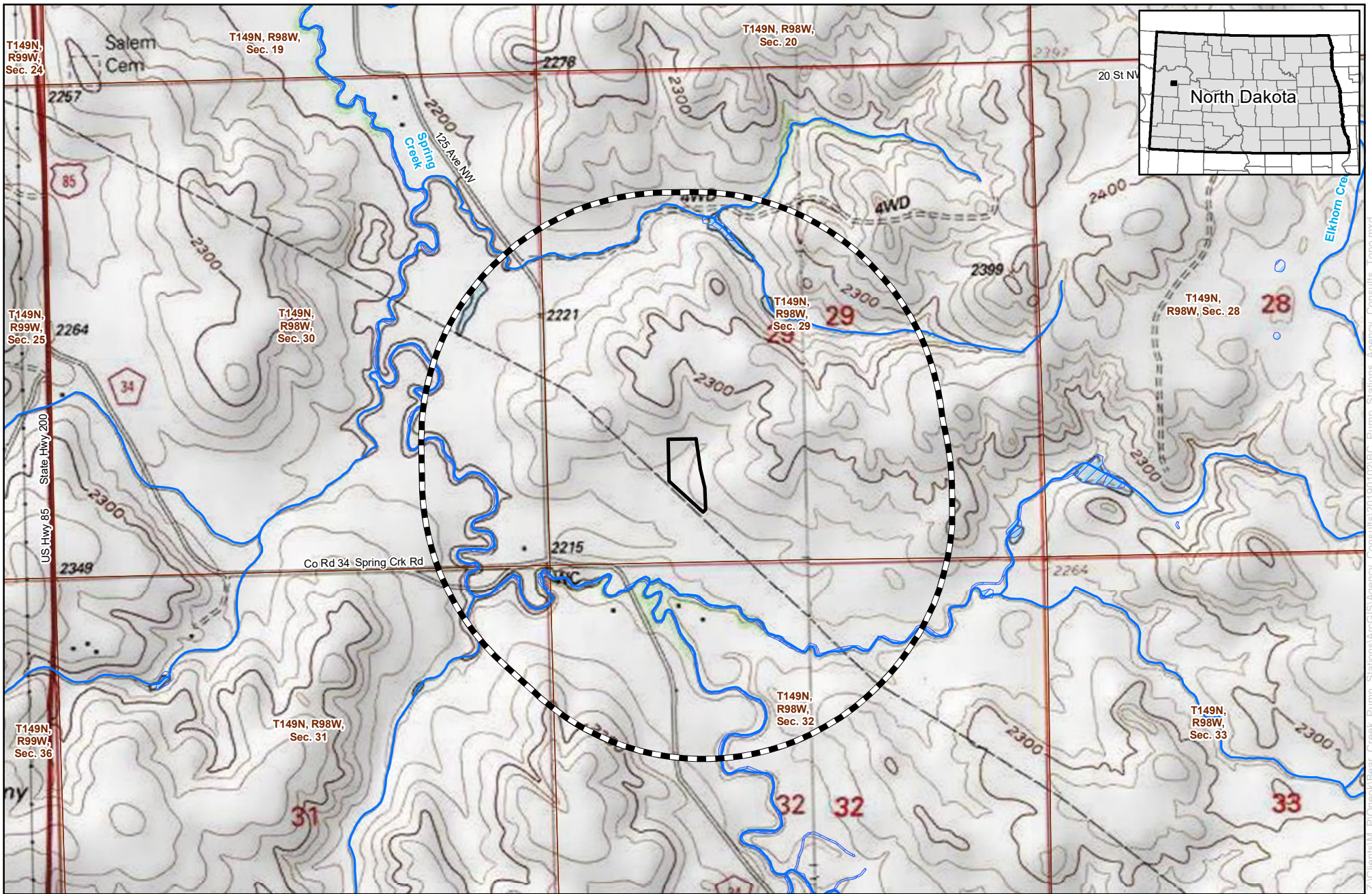
Enclosures: Project Overview Maps (aerial and topographic)  
Project Shapefiles (provided electronically)

cc: Maddy Krumwiede, Andrea Sampson, and Paul Hartzheim, Merjent  
Kathy Duttenhefner, NDPR (via email at [kgduttenhefner@nd.gov](mailto:kgduttenhefner@nd.gov))



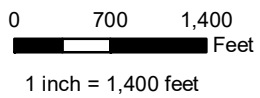
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**McKenzie County, ND**  
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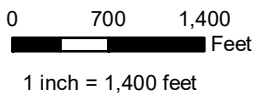
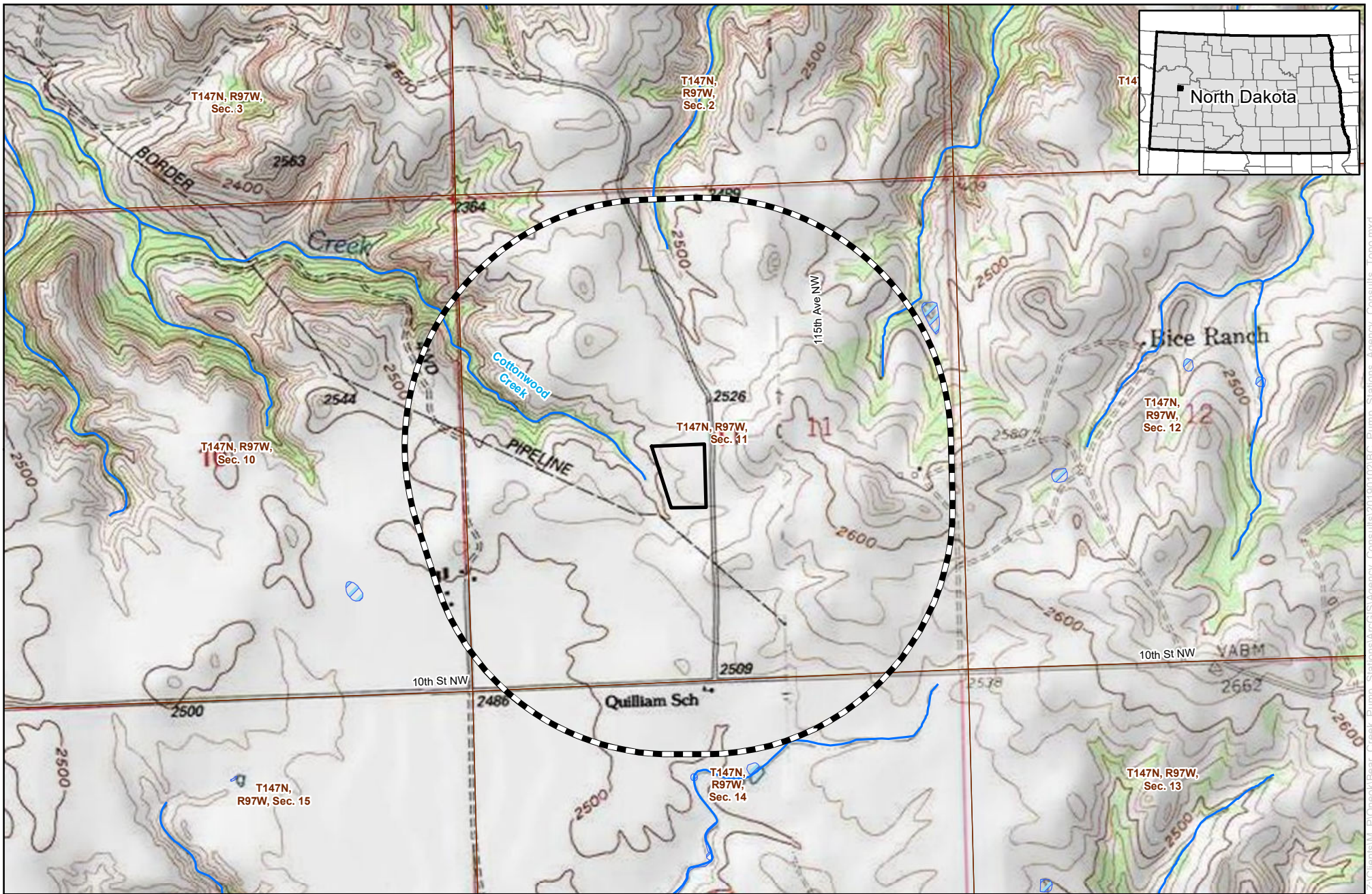
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