



United States Department of the Interior

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




IN REPLY REFER TO:
DESCRM
MC-208

OCT 04 2011

MEMORANDUM

TO: Superintendent, Fort Berthold Agency

FROM: ^{Acting} Regional Director, Great Plains Region 

SUBJECT: Environmental Assessment and Finding of No Significant Impact

In compliance with the regulations of the National Environmental Policy Act (NEPA) of 1969, as amended, an Environmental Assessment has been completed and a Finding of No Significant Impact (FONSI) has been issued. The environmental assessment authorizes land use for the Badgun-Moccasin Creek Pipeline by Saddle Butte Pipeline, LLC, on the Fort Berthold Indian Reservation.

All the necessary requirements of the National Environmental Policy Act have been completed. Attached for your files are copies of the EA Addendum, FONSI and Notice of Availability. The Council on Environmental Quality (CEQ) regulations require that there be a public notice of availability of the FONSI (40 C.F.R. Part 1506.6(b)). Please post the attached notice of availability at the Agency and Tribal buildings for 30 days.

If you have any questions, please call Marilyn Bercier, Regional Environmental Scientist, Division of Environment, Safety and Cultural Resources Management, at (605) 226-7656.

Attachment

cc: Tex Hall, Chairman, Three Affiliated Tribes (with attachment)
Elgin Crows Breast, Tribal Historic Preservation Officer (with attachment)
Derek Enderud, BLM, Bureau of Land Management (with attachment)
Grady Wolf, KLJ (with attachment)
Jonathon Shelman, Corps of Engineer
Jeff Hunt, Fort Berthold Agency

Finding of No Significant Impact

Saddle Butte Pipeline, LLC (Saddle Butte Pipeline)

Environmental Assessment for Badgun-Moccasin Creek Oil and Gas Pipeline

Fort Berthold Indian Reservation Dunn County, North Dakota

The U.S. Bureau of Indian Affairs (BIA) has received a proposal to construct four pipelines, 14,300 feet long, located as follows:

- T147N, R93W, N½ of Sections 16 and 15, NW¼ of Section 14 and SW¼ of Section 11 (Dunn County).

The potential of the proposed action to impact the human environment is analyzed in the following Environmental Assessment (EA), as required by the National Environmental Policy Act. Based on the EA, I have determined that the proposed project will not significantly affect the quality of the human or natural environment. No Environmental Impact Statement is required for any portion of the proposed activities.

This determination is based on the following factors:

1. Agency and public involvement solicited for the preceding NEPA document was sufficient to ascertain potential environmental concerns associated with the currently proposed project.
2. Protective and prudent measures were designed to minimize impacts to air, water, soil, vegetation, wetlands, wildlife, public safety, water resources, and cultural resources. The remaining potential for impacts was disclosed for both the proposed action and the No Action alternatives.
3. Guidance from the U.S. Fish and Wildlife Service has been fully considered regarding wildlife impacts, particularly in regard to threatened or endangered species. This guidance includes the Migratory Bird Treaty Act (16 U.S.C. 703 et seq.) (MBTA), the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.) (NEPA), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d, 54 Stat. 250) (BGEPA), Executive Order 13186 "Responsibilities of Federal Agencies to Protect Migratory Birds", and the Endangered Species Act (16 U.S.C. 1531 et seq.) (ESA).

4. The proposed action is designed to avoid adverse effects to historic, archaeological, cultural and traditional properties, sites and practices. Compliance with the procedures of the National Historic Preservation Act is complete.
5. Environmental justice was fully considered.
6. Cumulative effects to the environment are either mitigated or minimal.
7. No regulatory requirements have been waived or require compensatory mitigation measures.
8. The proposed project will improve the socio-economic condition of the affected Indian community.



Acting Regional Director



Date

Notice of Availability and Appeal Rights

Saddle Butte Pipeline: Badgun-Moccasin Creek Pipeline

The Bureau of Indian Affairs (BIA) is planning to issue administrative approvals related to an Environmental Assessment to Authorize Land Use for the Badgun-Moccasin Creek Pipeline on the Fort Berthold Reservation as shown on the attached map. Construction by Saddle Butte Pipeline, LLC is expected to begin in 2011.

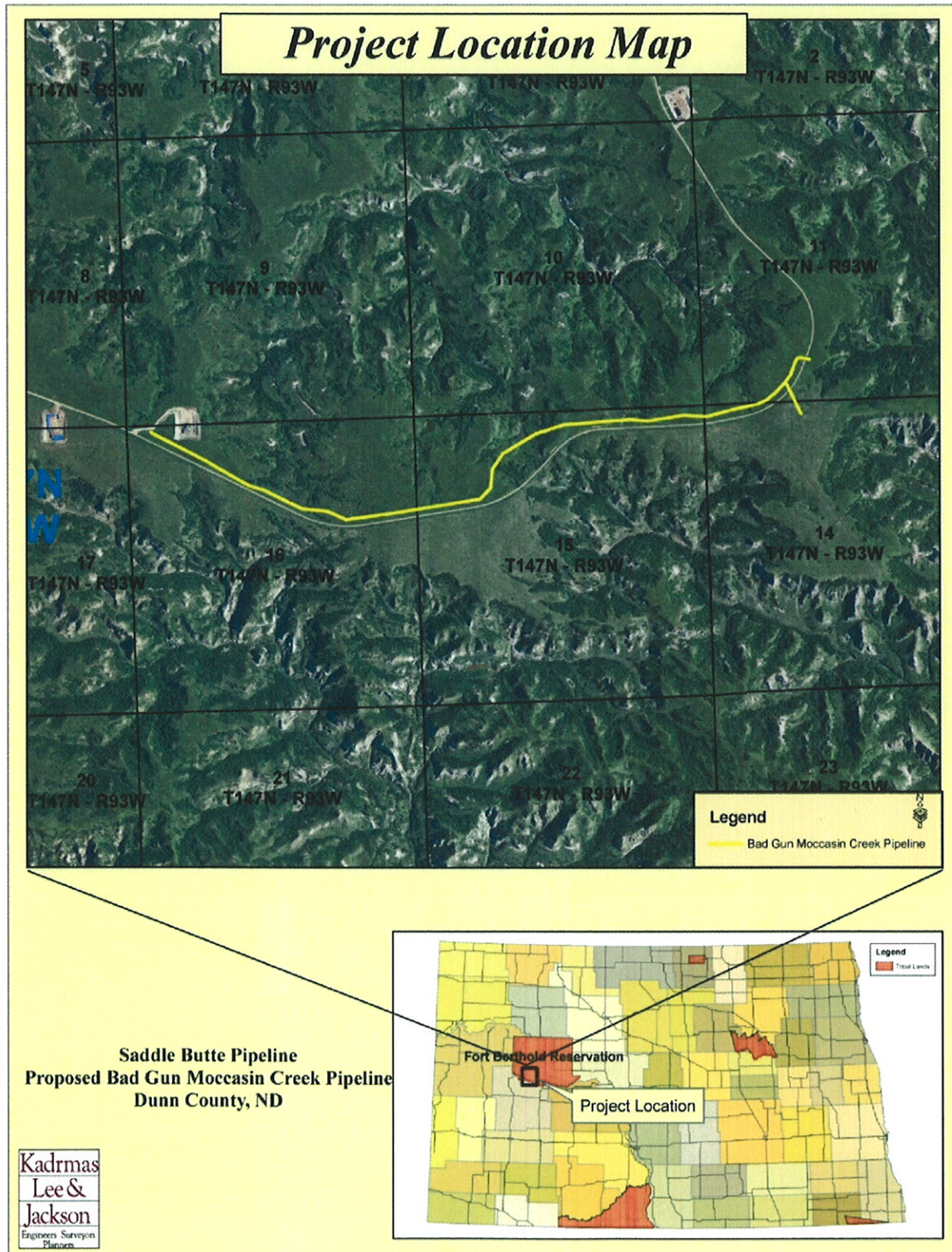
An environmental assessment (EA) determined that proposed activities will not cause significant impacts to the human environment. An environmental impact statement is not required. Contact Earl Silk, Superintendent at 701-627-4707 for more information and/or copies of the EA and the Finding of No Significant Impact (FONSI).

The FONSI is only a finding on environmental impacts – it is not a decision to proceed with an action and *cannot* be appealed. BIA’s decision to proceed with administrative actions *can* be appealed until November 2, 2011, by contacting:

**United States Department of the Interior
Office of Hearings and Appeals
Interior Board of Indian Appeals
801 N. Quincy Street, Suite 300, Arlington, Va 22203.**

Procedural details are available from the BIA Fort Berthold Agency at 701-627-4707.

Project locations



ENVIRONMENTAL ASSESSMENT

United States Bureau of Indian Affairs

**Great Plains Regional Office
Aberdeen, South Dakota**



Saddle Butte Pipeline, LLC

**Badgun-Moccasin Creek Pipeline
Fort Berthold Indian Reservation
October 2011**

For information contact:

Bureau of Indian Affairs, Great Plains Regional Office
Division of Environment, Safety and Cultural Resources
115 4th Avenue SE
Aberdeen, South Dakota 57401
605-226-7656

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Chapter 1

1.1 Introduction

This Environmental Assessment (EA) was prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended, and the regulations of the Council on Environmental Quality (CEQ), 40 CFR parts 1500 through 1508. An EA is an informational document intended for use by both decision-makers and the public. It discloses relevant environmental information concerning the proposed action and the no action alternative.

1.2 Description of the Proposed Action

The Fort Berthold Reservation encompasses 988,000 acres, 457,837 of which are in tribal and individual Indian ownership by the Three Affiliated Tribes (Mandan, Hidatsa, and Arikara) and its members. The reservation is located in west central North Dakota and is split into three areas by Lake Sakakawea, which traverses the center of the reservation. It occupies sections of six counties: Dunn, McKenzie, McLean, Mercer, Mountrail, and Ward.

The Fort Berthold Reservation lies atop the Bakken Formation¹, a geologic formation rich in oil and gas deposits that extends approximately 25,000 square miles beneath North Dakota and Montana, United States and Saskatchewan and Manitoba, Canada. Approximately two-thirds of the Bakken Formation is beneath North Dakota. The Three Forks Formation lies beneath the Bakken. The North Dakota Department of Mineral Resources estimates that there are approximately two billion barrels of recoverable oil in each of these formations. The Department's director estimates that there are 30 to 40 remaining years of production, or more if technology improves.

The proposed action includes approval by the Bureau of Indian Affairs (BIA) for the construction of up to four pipelines located within a 100-foot right-of-way (ROW) on the Fort Berthold Reservation. The pipelines are proposed to be positioned in the following locations: T147N, R93W, N ½ of Section 16, N ½ of Section 15, NW1/4 of Section 14, and SW ¼ of Section 11. Please refer to **Figure 1-1 Project Location Map**.

¹ The Bakken contains about 169 billion barrels of oil and the Three Forks contains about 20 billion barrels; however, most of this is not expected to be developed.

The proposed pipeline construction would consist of up to four gas, oil and/or water lines, with each line being up to 12-inches in diameter. Total length of each pipeline would be approximately 14,300-feet. The proposed action would provide infrastructure to collect oil, gas and water from multiple wells operated by various production companies.

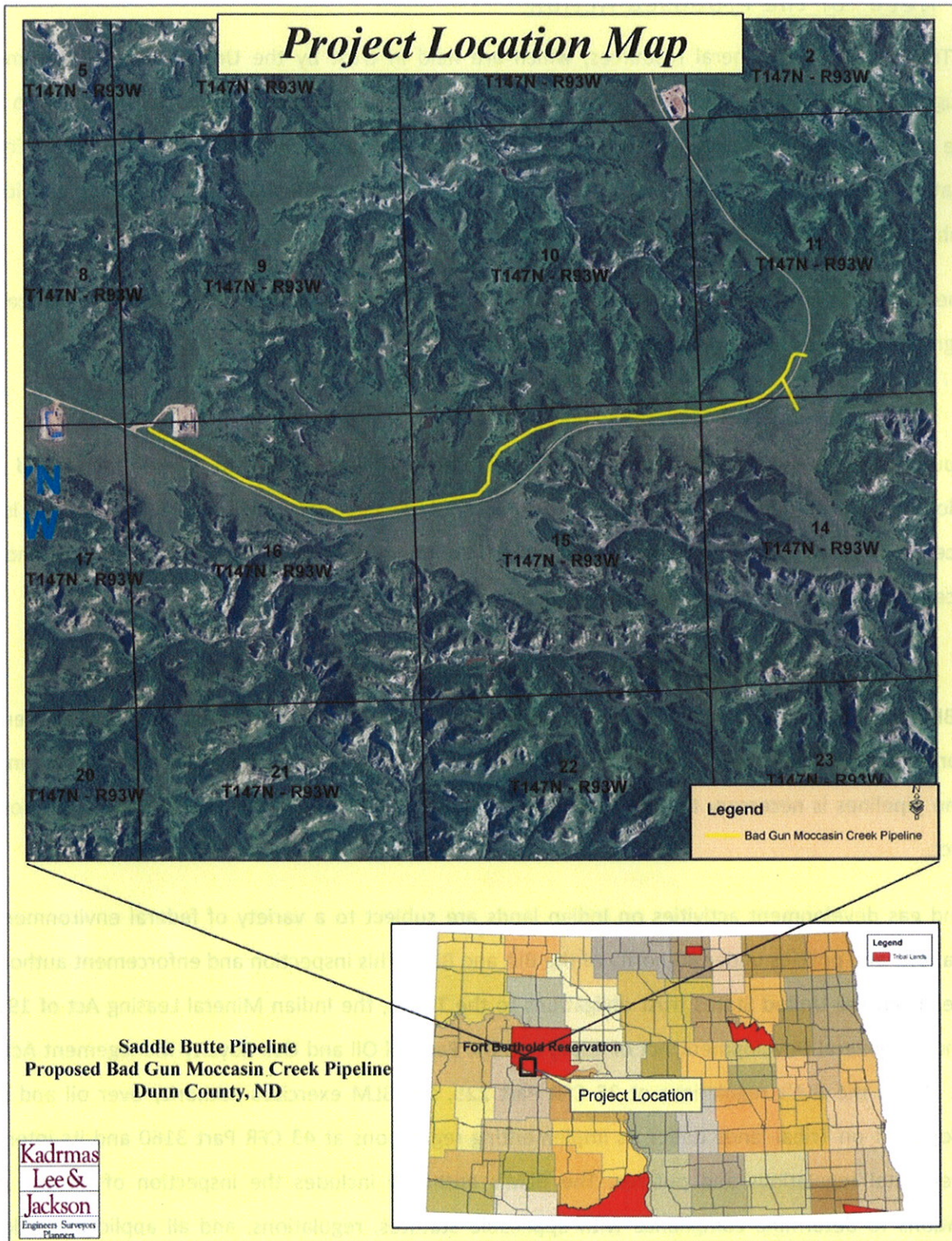


FIGURE 1-1 PROJECT LOCATION MAP

1.3 Need for the Proposed Action

The Tribes own their mineral resources, which are held in trust by the United States government through the BIA. The BIA's approval of the proposed pipelines would provide important benefits to the Three Affiliated Tribes, including revenue that could contribute to the Tribal budgets, satisfy Tribal obligations, and fund land purchase programs to stabilize its land base. It would also provide individual members of the Tribes with needed employment and income.

Furthermore, the proposed action gives the United States an opportunity to reduce its dependence on foreign oil and gas by aiding production from domestic sources of oil and gas.

1.4 Purpose of the Proposed Action

The purpose of the proposed action is to allow the Three Affiliated Tribes to provide for oil and gas development on the identified lands on the Fort Berthold Reservation. Additionally, the purpose is to reduce waste of valuable resources associated with continued flaring of produced natural gas and to reduce environmental and public health and safety concerns.

1.5 Regulations that Apply to Oil and Gas Development Activities

The BIA must comply with NEPA before it issues a determination of effect regarding environmental resources and provides a recommendation to the BLM regarding the proposed project. Therefore, an EA for the pipelines is necessary to analyze the direct, indirect, and cumulative impacts of the proposed project.

Oil and gas development activities on Indian lands are subject to a variety of federal environmental regulations and policies under authority of the BIA and BLM. This inspection and enforcement authority derives from the United States trust obligations to the Tribes, the Indian Mineral Leasing Act of 1938, the Indian Mineral Development Act of 1982, and the Federal Oil and Gas Royalty Management Act of 1982. Under the BIA's regulations at 25 CFR Part 225, the BLM exercises authority over oil and gas development on Tribal lands under its implementing regulations at 43 CFR Part 3160 and its internal supplemental regulations and policies. The BLM's authority includes the inspection of oil and gas operations to determine compliance with applicable statutes, regulations, and all applicable orders. These include, but are not limited to, conducting operations in a manner which ensures the proper

handling, measurement, disposition, and site security of leasehold production; and protecting other natural resources, environmental quality, life, and property.

Chapter 2

2.1 Introduction

This chapter provides information on the development and evaluation of project alternatives. The development of alternatives is directly related to the purpose and need for the project. Two alternatives are being considered for this project: a no action alternative and a proposed action alternative.

2.2 Alternative A: No Action

Under the no action alternative (Alternative A), the BIA would not approve the proposed ROW acquisition and construction of the proposed pipelines. The flaring of gas would continue at the oil and gas well pads intended to connect to the proposed pipelines, with greater environmental impact (air emissions) than if the heavy hydrocarbons were recovered. Valuable natural resources would continue to be lost through flaring rather than being brought to market, and corresponding royalty payments would be lost. In addition natural resources would continue to be used to haul oil and water from the site.

2.3 Alternative B: Proposed Action

The proposed action (Alternative B) includes authorization by the BIA to install up to four pipelines and gathering system to move produced gas and liquids to a suitable processing location.

The proposed pipelines include approval by the BIA for the development of up to four oil, gas and/or water pipelines, as well as above or below ground apparatuses such as installation of valve sets, launchers, receivers and cathodic protection equipment. The proposed project would also required approval for the associated ROW acquisition.

An intensive, pedestrian resource survey of the proposed pipeline corridor was conducted on June 28, 2011 by Kadrmas, Lee & Jackson (KL&J). The purpose of this survey was to gather site-specific data and photos with regards to botanical, biological, threatened and endangered species, biological, eagle, and water resources. A 200-foot wide pipeline corridor was evaluated for the site. In addition, a 0.50 mile wide buffer around all areas of project disturbance was used to evaluate the presence of eagles and eagle nests. Resources were evaluated using visual inspection and pedestrian transects across the site.

A BIA-facilitated EA on-site assessment of the pipeline corridor was also conducted on June 28, 2011. The BIA Environmental Protection Specialist, as well as representatives from the Tribal Historic Preservation Office (THPO), Saddle Butte Pipeline, and KL&J were present. During the assessment, construction suitability with respect to topography, stockpiling, drainage, erosion control, and other surface issues were considered. Those present at the on-site assessment agreed that the chosen location is positioned to minimize impacts to sensitive wildlife and botanical resources and that the environmental commitments Saddle Butte Pipeline has made would further minimize harm to the environment. In addition, comments received from the United States Fish and Wildlife Service (USFWS) have been considered in the development of this project.

2.4 Construction and Plan Specifications

Construction of the proposed pipelines is expected to take approximately 90 days and would be confined within a 100-foot wide ROW, including temporary easements, adjacent to the proposed line as shown previously in Figure 1-1, Project Location Map. Pipeline materials would be staged at existing well pads or trucked directly to the temporary ROW corridor on existing federal, state, county, Tribal, and private roads. Access to the ROW would be made at well pads and existing roadway crossing points only. Traffic at access points is expected to be heavy during brief periods at the beginning and end of shift and heavy at various times during the day when equipment and materials are delivered to the site. Traffic would be confined to the marked pipeline ROW corridor. Vehicle and personal travel off the pipeline ROW would be strictly prohibited at all times. Signs would be installed at access points to remind operators that access or travel off the pipeline ROW is not permitted.

Installation of the pipelines may require clearing and grading of 100-foot wide sections at locations within the ROW along the entire pipeline corridor. Every effort would be made to minimize surface disturbance during the construction process. Topsoil would be separated and stockpiled along either side of any disturbed cross section to be used for prompt reseeding and reclamation of the disturbed area. Continued use of pasture and livestock grazing areas would be maintained during construction via use of temporary fencing or cattle guards when crossing land with livestock present. Trenches would be excavated to a depth sufficient to maintain a minimum of 48 inches of ground coverage over the pipelines. Typical ROW Cross Section is as shown in **Figure 2-1**.

The eastern end of the proposed pipeline corridor crosses BIA Road 17 in two locations. In accordance with BIA recommendations, Saddle Butte Pipeline has agreed to complete these crossings using horizontal boring. Horizontal boring results in a smaller surface footprint than trenching, and allows the road to remain open to vehicle traffic during the construction phase. Saddle Butte Pipeline would be required to obtain a BIA road crossing permit prior to any roadway groundwork. In addition, the proposed pipeline may cross telephone, cable or other utility lines. Any line crossing conflicts would be worked out individually at each location with the respective utility.

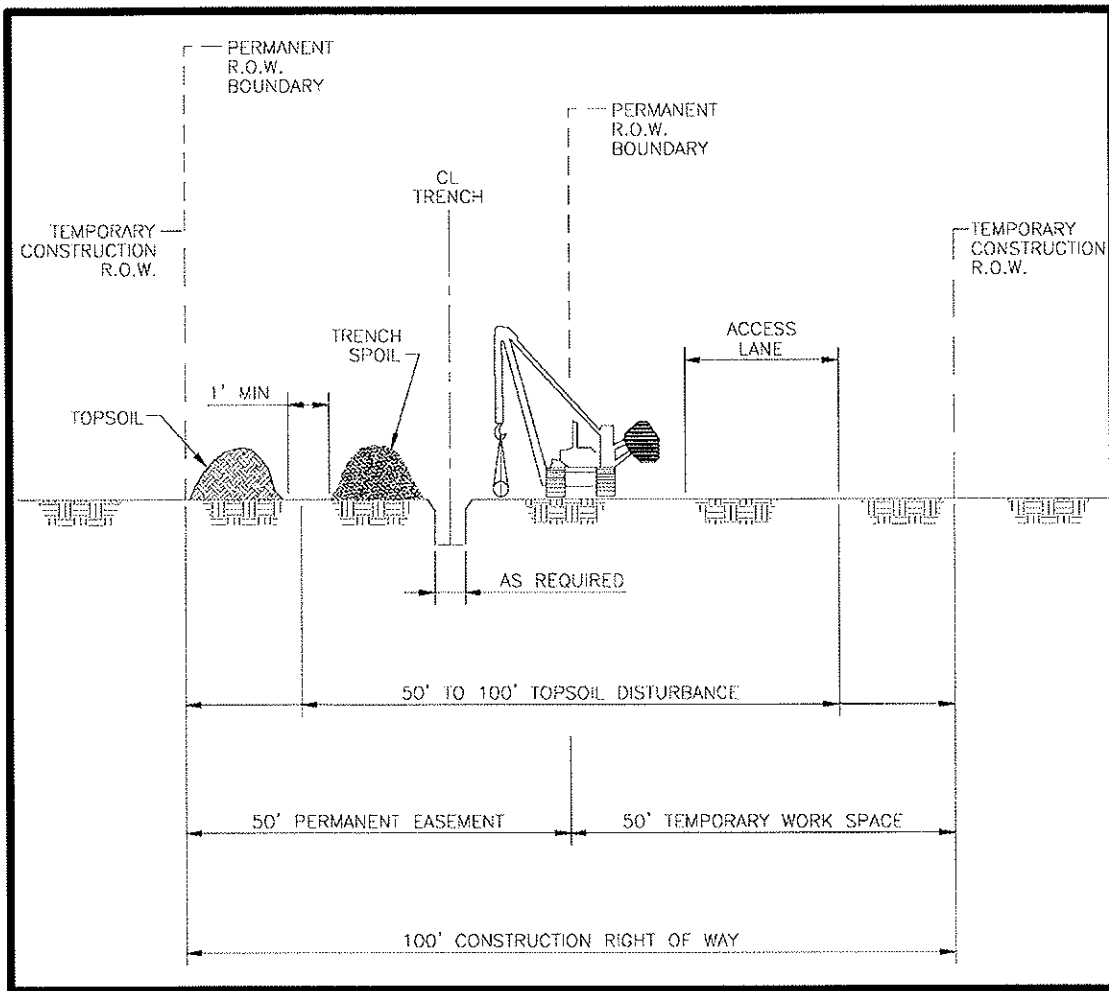


FIGURE 2-1 TYPICAL ROW CROSS SECTION

During construction, the entire distance of trench could be open for several days during excavation, stringing, bending and installation of the pipelines. Crossings would be created at access locations and driveways. Pipe would be strung along the trench as bending, welding and other installation preparations were completed. After the pipelines were lowered into the trench they would be hydro-tested with water acquired from a local approved source. Water used for hydro-testing would be removed from the site and/or disposed of at a permitted location or in an acceptable manner.

After the trench is backfilled, disturbed areas would be re-graded to original contours, stockpiled topsoil re-spread over the ROW, pipeline marking signs would be installed and reclamation would be finalized.

2.5 Reclamation

All reclamation is the responsibility of Saddle Butte Pipeline as the ROW permit holder. Reclamation shall be required after initial construction, after additional lines are installed, after any maintenance activity, and after final abandonment of a decommissioned line.

Regrading, contouring, and reseeding of disturbed areas would occur as soon as practical after construction but no later than the next appropriate planting season. The ROW would be reseeded with certified seed mixtures approved by the BIA. All reseeding and planting would comply with BIA directions to ensure successful reclamation. Further, the ROW would be monitored for areas of excessive erosion and subsidence. Periodic monitoring would be performed and repeated reclamation efforts would be undertaken in problem areas until the ROW is certified as reclaimed.

Decommissioning of pipelines would result in mandatory final reclamation of the corridor. All surface facilities would be removed. Compacted areas would be scarified, ripped, and re-contoured. All areas would be re-contoured to match topography of the original landscape as closely as possible and re-seeded with vegetation consistent with surrounding native species to ensure a healthy and diverse mix free of noxious weeds. Stockpiled topsoil would be redistributed and re-vegetated. Long-term monitoring would be required to ensure successful reclamation and implementation of any necessary remedial efforts. The pipelines would be purged with water to remove hydrocarbons, capped, and abandoned in place.

2.6 Operation and Maintenance

After construction is complete, pipeline maintenance activities would be restricted to the 50-foot ROW width. Access to this section of the line would be confined to existing roadways and as permitted by landowners. Excessive rutting or other surface disturbances, such as installing additional lines, would be immediately repaired and reclaimed under guidelines from the previous section. If any surface damage occurs that affects crops or other surface activities, repairs would be made immediately. Landowners would be compensated for damages accordingly.

Repair, replacement, inspection or additional lines that require extensive excavation may require ROW increased to 100 feet on a temporary basis. In that event, the BIA would be notified immediately. In the case of an emergency, the BIA may be notified during or after repairs have begun. In all cases, BIA would be consulted as soon as possible. All applicable regulations and best management practices would be followed.

2.7 Preferred Alternative

The preferred alternative is to complete all administrative actions and approvals necessary to authorize or facilitate the installation of the pipelines in order to protect the environment, reduce public hazards, and increase economic gain associated with production of oil and gas.

Chapter 3

3.1 Introduction

This chapter describes the existing conditions within the study area. The existing conditions, or affected environment, are the baseline conditions that may be affected by the proposed action. This chapter also summarizes the positive and negative direct environmental impacts of the project alternatives, as well as cumulative impacts. Indirect impacts are discussed in impact categories where relevant. Information regarding the existing environment, potential effects to the environment resulting from the proposed alternatives, and avoidance, minimization, and/or mitigation measures for adverse impacts is included.

3.2 Climate, Geologic Setting, and Land Use

Located in west-central North Dakota, the Fort Berthold Indian Reservation is home of the Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara nations. With the completion of the Garrison Dam in 1945 and the subsequent creation of Lake Sakakawea, the Reservation was separated into three sections. Today, the Reservation occupies sections of six counties (Dunn, McKenzie, McLean, Mercer, Mountrail, and Ward) and encompasses approximately 988,000 acres. About half of the Reservation land is held in trust by the United States for the Three Affiliated Tribes or individual allottees.

The proposed pipelines is situated geologically within the Williston basin, where the shallow stratigraphy consists of sandstones, silts and shales dating to the Tertiary Period (65 to 2 million years ago), including the Sentinel Butte and Golden Valley Formations. The underlying Bakken and Three Forks Formations are a well-known source of hydrocarbons. Although earlier oil and gas exploration activity within the Fort Berthold Reservation was limited and commercially unproductive, recent advances in drilling technologies, including horizontal drilling techniques, now make accessing oil in the Bakken and Three Forks Formations feasible.

According to Great Plains Regional Climate Center data collected at the Dunn Center weather station from 1971–2000, temperatures in excess of 80 degrees Fahrenheit are common in summer months. The area receives approximately 14.0 inches of rain annually, predominantly during spring and summer. Winters in this region are cold, with temperatures often falling near zero degrees Fahrenheit. Snow

generally remains on the ground from November to March, and about 38 inches of snow are received annually.

The topography within the project area is primarily identified as part of the Northwestern Great Plains, River Breaks Ecoregion, which consists of broken terraces and upland areas that descend to the Missouri River and its major tributaries. They have formed particularly in soft, easily erodible strata of the Bullion Creek, Sentinel Butte, and Golden Valley formations.

The western and southern portions of the Fort Berthold Reservation consist of prairie grasslands and buttes. The northern and eastern areas of the Reservation provide fertile farmland. The proposed project area is located within a predominately rural area. According to National Agricultural Statistics Services (NASS) data, land within the proposed project area is a mixture of predominately grassland and wooded draws. Please refer to **Figure 3-1 Land Use**.



FIGURE 3-1 LAND USE

3.2.1 Climate, Geologic Setting and Land Use Impacts/Mitigation

Alternative A (No Action)—Alternative A would not impact land use, climatic conditions, or geological setting.

Alternative B (Proposed Action)—Alternative B would result in the conversion of approximately 32.83 acres of land from its present use into a pipeline corridor. The pipelines would be buried underground and the majority of land uses would be able to resume following construction and reclamation activities. Some activities, such as those associated with developed lands, may be restricted within the 50-foot right-of-way. Impacts to the geological setting and paleontological resources are not anticipated.

3.3 Soils

The Natural Resources Conservation Service (NRCS) Soil Survey of Dunn County dates from 1982, with updated information available online through the NRCS Web Soil Survey. There are 16 soil types identified within the project impact area. Location and characteristics of these soils are identified in **Table 3-1 Soils**.

TABLE 3-1 SOILS

Map Unit Symbol	Soil Name	Percent Slope	Composition (in upper 60 inches)			Erosion Factor ²		Hydrologic Soil Group ³
			% sand	% silt	% clay	T	Kf	
9D	Amor-Cabba Loam	9 to 15	39.9	38.5	21.6	3	.24	B
9E	Cabba Loam	15 to 45	40.5	39.5	20.0	2	.32	D
32C	Flaxton-Williams Complex	6 to 9	47.4	28.2	24.5	5	.28	B
52B	Morton-Dogtooth Silt Loam	0 to 6	18.5	58.1	23.3	3	.28	B
52C	Morton-Dogtooth Silt Loam	6 to 9	18.5	58.1	23.3	3	.28	B
62B	Rhoades Silt Loam	0 to 6	11.0	50.8	38.2	2	.32	D
62D	Dogtooth-Cabba Complex	9 to 15	5.1	46.6	48.3	2	.32	D
88B	Williams Loam	3 to 6	34.8	35.2	30.0	5	.28	B
88C	Williams Loam	6 to 9	34.8	35.2	30.0	5	.28	B
90C	Williams Extremely Stony Loam	0 to 9	34.8	35.2	30.0	5	.28	B
91B	Williams-Noonan Loam	3 to 6	34.8	35.2	30.0	5	.28	B
91C	Williams-Noonan Loam	6 to 9	34.8	35.2	30.0	5	.28	B
93D	Zahl-Williams Loam	9 to 15	35.0	35.2	30.6	5	.28	B
101B	Amor-Shambo Loam	3 to 6	39.9	38.5	21.6	3	.24	B
106B	Daglum Silt Loam	0 to 6	27.3	34.6	38.1	2	.32	D
211F	Badland-Cabba-Arikara Complex	25 to 70	17.8	65.0	20.5	5	.32	D

² Erosion Factors indicate susceptibility of a soil to sheet and rill erosion by water. Kf indicates the erodibility of material less than two millimeters in size. Values of K range from 0.02 to 0.69. Higher values indicate greater susceptibility. T Factors estimate maximum average annual rates of erosion by wind and water that will not affect crop productivity. Tons/acre/year range from 1 for shallow soils to 5 for very deep soils. Soils with higher T values can tolerate higher rates of erosion without loss of productivity.

³ Hydrologic Soil Groups (A, B, C, and D) are based on estimates of runoff potential according to the rate of water infiltration under the following conditions: soils are not protected by vegetation, soils are thoroughly wet, and soils receive precipitation from long-duration storms. The rate of infiltration decreases from Group A (high infiltration, low runoff) to D (low infiltration, high runoff).

All of the soils listed have moderate susceptibility to sheet and rill erosion. These soils are all well drained with the exception of Rhoades Silt Loam and Daglum Silt Loam, both of which are moderately well drained. Infiltration rates range from moderate to very slow; however, none of these soils are susceptible to ponding or flooding.

3.3.1 Soil Impacts/Mitigation

Alternative A (No Action)—Alternative A would not impact soils.

Alternative B (Proposed Action)—Construction of the proposed pipelines would disturb subsoil and topsoil within the project area. Soil impacts would be localized, and BMPs would be implemented to minimize these impacts. Surface disturbance caused by pipeline construction would result in the removal of vegetation from the soil surface. This can damage soil crusts and destabilize the soil. As a result, the soil surface could become more prone to accelerated erosion by wind and water. BMPs used at the site to reduce these impacts would include erosion and sediment control measures during and after construction, segregating topsoil from subsurface material for future reclamation, chipping any woody vegetation that is removed on-site and incorporating it into topsoil stockpiles or disposing of material in an acceptable manner, re-seeding of disturbed areas immediately after construction activities are completed, the use of construction equipment appropriately sized to the scope and scale of the project, and maintaining proper drainage. According to discussions at the field on-site assessment and standard industry practices, BMPs identified in the BLM Gold Book shall be utilized, to further minimize site erosion.

Another soil resources issue is soil compaction, which can occur by use of heavy equipment. When soil is compacted, it decreases permeability and increases surface runoff. This is especially evident in silt and clay soils. In addition, soils may be impacted by mixing of soil horizons. Soil compaction and mixing of soil horizons would be minimized by the previously discussed topsoil segregation. Disturbed areas would be reseeded following construction. No mitigation for soil impacts is anticipated.

Contamination of soils from various chemicals and other pollutants used during oil development activities is not anticipated. In the rare event that such contamination may occur, the event shall be immediately reported to the BIA, the NDIC, and where appropriate, the North Dakota Department of Health (NDDH). The procedures of the surface management agency shall be followed to contain spills and leaks.

3.4 Water Resources

The Federal Water Pollution Control Act of 1972, as amended by the Clean Water Act of 1977, provides the authority to the Environmental Protection Agency (EPA) and the United States Army Corps of Engineers (USACE) to establish water quality standards, control discharges into surface and ground waters, develop waste treatment management plans and practices, and issue permits for discharges (Section 402) and for dredged or fill material (Section 404). Within the Fort Berthold Reservation, the Missouri River and Lake Sakakawea are both considered navigable waters and are therefore subject to Section 10 of the Rivers and Harbors Act of 1899.

The EPA also has the authority to protect the quality of drinking water under the Safe Drinking Water Act (SDWA) of 1974. As amended in 1986 and 1996, the SDWA requires many actions to protect drinking water and its sources: rivers, lakes reservoirs, springs, and ground water wells⁴.

3.4.1 *Surface Water*

The project area is situated in the Great Plains region of North Dakota that borders the Badlands to the west. This is an arid area with few isolated surface water basins. The majority of the surface waters in the region are associated with the Missouri River, Lake Sakakawea, and tributaries to these water bodies. Surface water generally flows overland until draining into these systems.

The proposed pipeline is located in the Lake Sakakawea basin, meaning surface waters within this basin drain to Lake Sakakawea. Runoff throughout the project area is by sheet flow until collected by ephemeral and perennial streams draining to Lake Sakakawea. The proposed project area lies within two separate Sub-Watersheds. The majority of the proposed project area, with the exclusion of the far eastern leg, lies within the Lower Moccasin Creek Sub-Watershed. Runoff in this area flows initially north before turning east and emptying into Lake Sakakawea. The total drainage pattern is approximately 4.9 miles. The very eastern portion of the proposed project area is located within the Charging Eagle Bay Sub-Watershed. Runoff in this portion of the project area flows approximately 1.5 miles east before emptying into Lake Sakakawea. The entire project area is located within the Waterchief Bay Watershed. Please refer to **Figure 3-2 Surface Water Resources**.

⁴ The SDWA does not regulate private wells that serve fewer than 25 individuals.

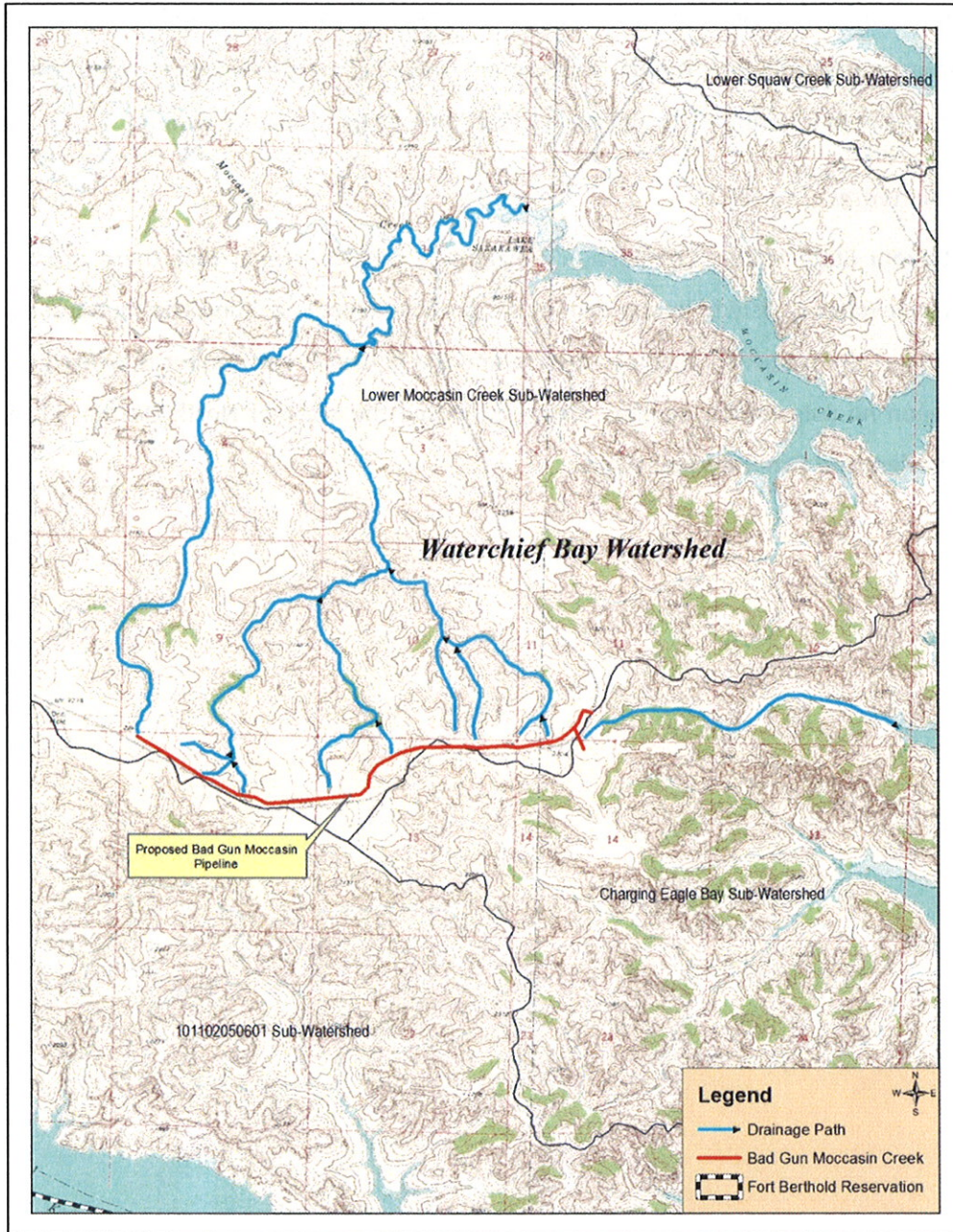


FIGURE 3-2 SURFACE WATER RESOURCES

3.4.1.1 Surface Water Impacts/Mitigation

Alternative A (No Action)—Alternative A would not impact surface water.

Alternative B (Proposed Action)—No significant impacts to surface water are expected to result from Alternative B. The proposed project has been sited to avoid direct impacts to surface waters and to

minimize the disruption of drainage patterns across the landscape. The implementation of BMPs to control erosion would mitigate runoff of sediment downhill or downstream. Alternative B is not anticipated to result in measurable increases in runoff or impacts to surface waters.

3.4.2 *Ground Water*

The North Dakota State Water Commission's electronic records reveal that there are no active or permitted groundwater wells within one-mile of the proposed pipeline. The Little Missouri River Aquifer is located south of the proposed pipeline corridor and the Squaw Creek Aquifer is located to the north. There have been no sole source aquifers identified within the state of North Dakota. Please refer to **Figure 3-3 Aquifers and Groundwater Wells**.

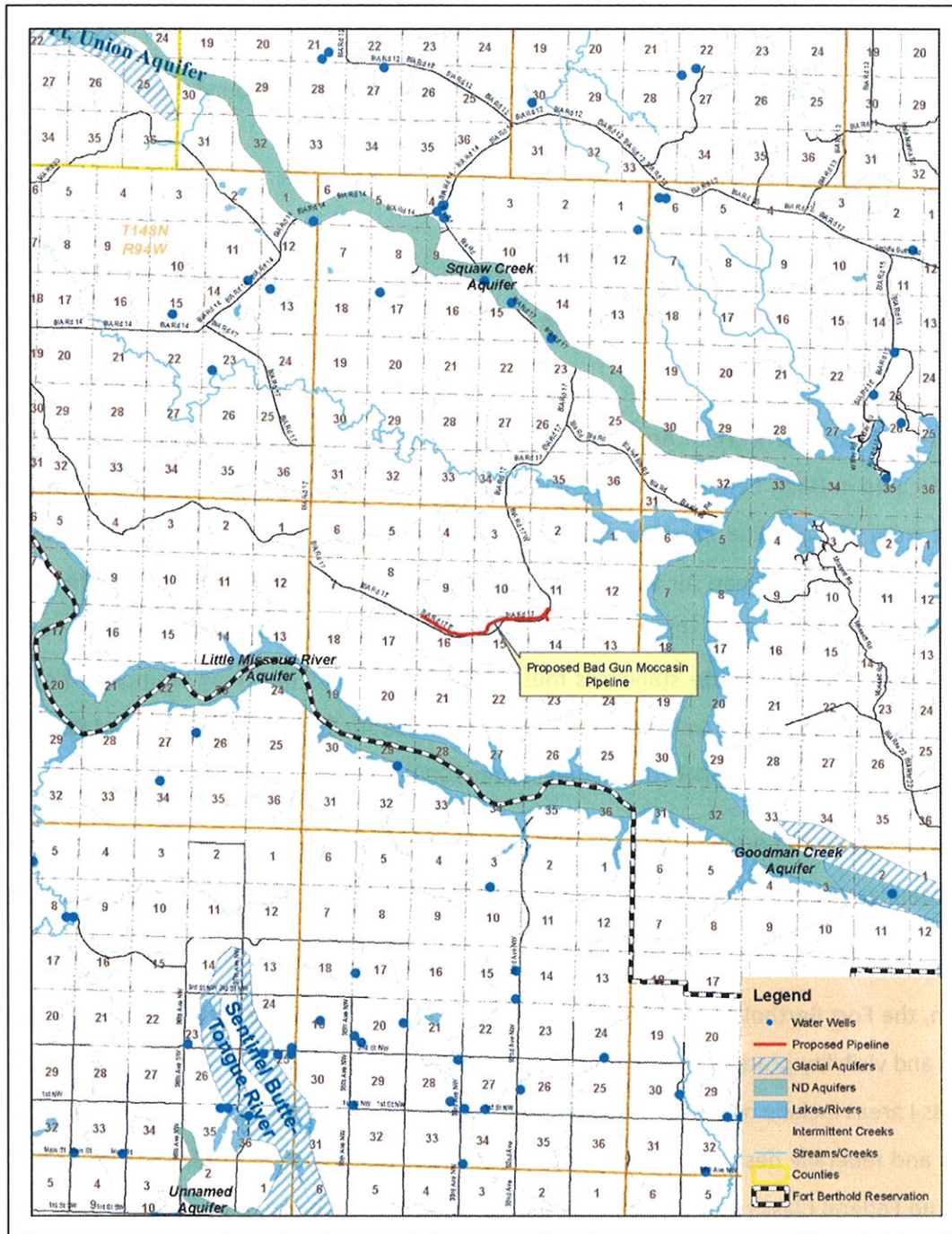


FIGURE 3-3 AQUIFERS AND GROUNDWATER WELLS

3.4.2.1 Ground water Impacts/Mitigation

Alternative A (No Action)—Alternative A would not impact groundwater.

Alternative B (Proposed Action)—No impacts to groundwater, including groundwater wells and aquifers, are expected to result from Alternative B.

3.5 Air Quality

The Clean Air Act, as amended, requires the EPA to establish air quality standards for pollutants considered harmful to public health and the environment by setting limits on emission levels and various types of air pollutants.

The NDDH operates a network of Ambient Air Quality Monitoring (AAQM) stations. The nearest AAQM station is located in Dunn Center in Dunn County, North Dakota; located approximately 15 miles south-southwest from the pipeline corridor. Criteria pollutants tracked under EPA's National Ambient Air Quality Standards in the Clean Air Act include sulfur dioxide (SO₂), particulate matter (PM), nitrogen dioxide (NO₂), ozone (O₃), lead (Pb) and carbon monoxide (CO). In addition, the NDDH has established state air quality standards. State standards must be as stringent as (but may be more stringent than) federal standards. Please refer to **Table 3-2 Federal and State Air Quality Standards and Reported Data for Dunn Center** (EPA 2006, NDDH 2009, Dunn Center 2009).

North Dakota was one of thirteen states in 2009 that met standards for all criteria pollutants. The state also met standards for fine particulates and the eight-hour ozone standards established by the EPA (NDDH, 2009).

In addition, the Fort Berthold Reservation complies with the North Dakota National Ambient Air Quality Standards and visibility protection. The Clean Air Act affords additional air quality protection near Class I areas. Class I areas include national parks greater than 6,000 acres in size, national monuments, national seashores and federally designated wilderness areas larger than 5,000 acres designated prior to 1977. There are no Federal Class I areas⁵ within the project area. The Theodore Roosevelt National Park is the nearest Class I area, located approximately 33 miles west of the project area.

⁵ Federal Class I areas are generally national parks and wilderness areas.

TABLE 3-2 FEDERAL AND STATE AIR QUALITY STANDARDS AND REPORTED DATA FOR DUNN CENTER

Pollutant	Averaging Period	EPA Air Quality Standard		NDDH Air Quality Standard		Dunn Center 2009 Reported Data	
		µg/m ³	parts per million	µg/m ³	parts per million	µg/m ³	parts per million
SO ₂	24-Hour	365	0.14	260	0.099	--	0.0060
	Annual Mean	80	0.030	60	0.023	--	0.0005
PM ₁₀ ⁶	24-Hour	150	--	150	--	54.0	--
	Annual Mean	50	--	50	--	11.3	--
PM _{2.5} ⁷	24-Hour	35	--	35	--	15.0	--
	Weighted Annual Mean	15	--	15	--	3.4	--
NO ₂	Annual Mean	100	0.053	100	0.053	--	0.0015
CO	1-Hour	40,000	35	40,000	35	--	--
	8-Hour	10,000	9	10,000	9	--	--
Pb	3-Month	1.5	--	1.5	--	--	--
O ₃	1-Hour	240	0.12	235	0.12	--	0.067
	8-Hour	--	0.08	--	0.08	--	0.057

3.5.1 Air Quality Impacts/Mitigation

Alternative A (No Action)—Alternative A would not impact air quality.

Alternative B (Proposed Action)—The Fort Berthold Reservation complies with North Dakota National Ambient Air Quality Standards and visibility protection. In addition, the Dunn Center AAQM station reported air quality data is well below the state and federal standards. Alternative B would not include any major sources of air pollutants. Construction activities would temporarily generate minor amounts of dust and gaseous emissions of PM, SO₂, NO₂, CO, and volatile organic compounds. Emissions would be limited to immediate project areas and are not anticipated to cause or contribute to a violation of National Ambient Air Quality Standards. No detectable or long-term impacts to air quality or visibility are expected within the airsheds of the Fort Berthold Reservation, state, or Theodore Roosevelt National Park.

The proposed project is anticipated to have a long-term benefit to air quality in the project area because it would reduce emissions associated with gas flaring. In addition, it would reduce truck traffic by moving the oil and gas through the lateral lines and into the main pipelines. In the long-term, this may

⁶ PM₁₀ refers to particulates 10 micrometers (µ) or less in size.

⁷ PM_{2.5} refers to particulates 2.5 micrometers (µ) or less in size.

improve air quality in the area by reducing mobile source air pollutants associated with trucking operations. No mitigation or monitoring measures are recommended.

3.6 Threatened, Endangered, and Candidate Species

In accordance with Section 7 of the Endangered Species Act (ESA) of 1973, 50 CFR Part 402, as amended, each federal agency is required to ensure the following two criteria. First, any action funded or carried out by such agency must not be likely to jeopardize the continued existence of any federally-listed endangered or threatened species or species proposed to be listed. Second, no such action can result in the destruction or adverse modification of habitat of such species that is determined to be critical by the Secretary. A threatened species is one that is likely to become endangered in the foreseeable future. An endangered species is in danger of extinction throughout all or a significant portion of its range. 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 threatened or endangered 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 these species as having significant value and worth protecting.

The proposed action area was evaluated to determine the potential for occurrences of federally-listed threatened, endangered, and candidate species. The USFWS (September 2010) identified the piping plover as a threatened species for Dunn County. The black-footed ferret, gray wolf, interior least tern, pallid sturgeon, and whooping crane are listed as endangered species that may be found within Dunn County. The Dakota Skipper and Sprague's pipit are listed as candidate species. In addition, Dunn County contains designated critical habitat for the piping plover adjacent to Lake Sakakawea. None of these species were observed in the field on the day of the survey. Habitat requirements, the potential for suitable habitat within the project areas, and other information regarding listed species for Dunn County are included in the following section.

3.6.1 *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.

There is no existing or potential habitat within the project area. According to USFWS data, designated critical habitat occurs through the entire shoreline of Lake Sakakawea. Lake Sakakawea is located approximately 1.5 miles southeast of the proposed pipeline corridor at the nearest point.

3.6.1.1 Threatened Species Impacts/Mitigation

Alternative A (No Action)—Alternative A would have no effect on the piping plover and would not destroy or adversely modify designated piping plover critical habitat.

Alternative B (Proposed Action)—Suitable habitat for the piping plover is largely associated with Lake Sakakawea and its shoreline. Potential habitat for the piping plover exists approximately 1.5 miles southeast of the proposed pipeline corridor at its nearest point. The pipeline is located on the upland bluffs and grassland, with Lake Sakakawea located below the bluffs. The topographic features of the area and distance from the shoreline would assist in providing sight and sound buffers for shoreline-nesting birds. Due to the proximity of the proposed project to Lake Sakakawea, it is anticipated that the proposed action may affect, but is not likely to adversely affect the piping plover or its associated critical habitat.

3.6.2 *Endangered Species*

Black-footed Ferret (*Mustela nigripes*)

The black-footed ferret historically could be found throughout the Rocky Mountains and Great Plains. In North Dakota, the black-footed ferret may potentially be present within prairie dog towns. However, this species has not been confirmed in North Dakota for nearly 30 years and is presumed to be extirpated. Its preferred habitat includes areas around prairie dog towns, as it relies on prairie dogs for food and lives in prairie dog burrows. Black-footed ferrets require at least an 80-acre prairie dog town to survive.

No prairie dog towns were observed within the proposed project area to provide suitable black-footed ferret habitat.

Gray Wolf (*Canis Lupis*)

The gray wolf is the largest wild canine species in North America. It is found throughout northern Canada, Alaska, and the forested areas of Northern Michigan, Minnesota, and Wisconsin and has been re-introduced to Yellowstone National Park in Wyoming. While the gray wolf is not common in North Dakota, occasionally individual wolves do pass through the state. Historically, its preferred habitat includes biomes such as boreal forest, temperate deciduous forest, and temperate grasslands. Gray wolves live in packs of up to 21 members, although some individuals will roam alone. The proposed project area is located far from other known wolf populations.

Interior Least Tern (*Aterna antillarum*)

The interior least tern nests along inland rivers. The interior least tern is found in isolated areas along the Missouri, Mississippi, Ohio, Red, and Rio Grande Rivers. In North Dakota, it is sighted along the Missouri River during the summer breeding and nesting season. The interior least tern nests on sand bars or barren beaches, preferably in the middle of a river for increased safety while nesting. These birds nest close together, using safety in numbers to minimize predation.

There is no existing or potential habitat within the project area. Potential habitat in the form of sandy/gravelly Lake Sakakawea shoreline may exist approximately 1.5 miles southeast of the project area.

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.

Potential habitat for pallid sturgeon can be found in Lake Sakakawea approximately 1.5 miles southeast of the proposed pipeline location.

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 Mountains regions from North Dakota south to Texas and east into Colorado. Whooping cranes migrate through North Dakota along a band running from the south central to the northwest parts 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, including the Missouri River. Currently there are three wild populations of whooping cranes, yielding a total species population of about 383. Of these flocks, only one is self-sustaining.

According to the USFWS data, the proposed project is located in the Central Flyway where 95 percent of confirmed whooping crane sightings have occurred. The proposed pipeline location does not contain shallow, emergent wetlands or cropland food sources, but Lake Sakakawea is located approximately 1.5 miles southeast and does provide potential stopover habitat.

3.6.2.1 Endangered Species Impacts/Mitigation

Alternative A (No Action)—Alternative A would have no effect to the gray wolf, black-footed ferret, interior least tern, pallid sturgeon, or whooping crane.

Alternative B (Proposed Action)—Due to a lack of preferred habitat characteristics and/or known populations, the proposed project is anticipated to have no effect on the black-footed ferret or the gray wolf.

Suitable habitat for the interior least tern and pallid sturgeon are largely associated with Lake Sakakawea. The lake's shoreline also provides suitable habitat for the interior least tern. Potential habitat for these species exists approximately 1.5 miles southwest of the proposed pipeline corridor at its nearest point. The pipeline corridor is located on the upland bluffs and grasslands, with small bays of

Lake Sakakawea and its shoreline located below (approximately 360 feet). The topographic features of the area and distance from the shoreline should assist in providing sight and sound buffers for shoreline-nesting birds. Therefore, the proposed project may affect but is not likely to adversely affect the interior least tern or pallid sturgeon.

A series of low lying drainages occurred throughout the length of the pipeline corridor, but they did not contain suitable whooping crane habitat. In addition, the pipeline corridor also lacked nearby cropland food sources. However, the proposed project is located within the central flyway where 95 percent of confirmed whooping crane sightings have occurred. Whooping cranes traveling through the area may alter their flight and landing patterns to avoid disturbances related to oil and gas developments. It is believed that there are still large, undeveloped areas on the Fort Berthold Reservation in which migrating cranes would land to rest while migrating. Therefore, the proposed project may affect but is not likely to adversely affect to the whooping crane. The proposed project is not likely to impact potential habitat. If a whooping crane is sighted within one-mile of the proposed pipeline corridor while under construction, then all work would cease and the USFWS would be contacted immediately for advice on how to proceed.

3.6.3 Candidate Species

Dakota Skipper (*Hesperia dacotae*)

The Dakota skipper is a small butterfly with a one-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 proposed pipeline corridor is located on upland mixed grass prairie with an abundance of wildflowers which may provide potential habitat for the Dakota skipper. No Dakota skippers were observed during the field survey.

Sprague's pipit (*Anthus spragueii*)

The Sprague's pipit is a small songbird found in prairie areas throughout the Northern Great Plains. Preferred habitat includes rolling, upland mixed-grass prairie habitat with high plant species diversity. The Sprague's pipit breeds in habitat with minimal human disturbance.

The proposed pipeline corridor is situated on upland mixed grass prairie with high plant species diversity, which may provide suitable habitat to the Sprague's pipit. No Sprague's pipits were observed during the field survey.

3.6.3.1 Candidate Species Impacts/Mitigation

Alternative A (No Action)—Alternative A would not impact the Dakota Skipper or Sprague's pipit.

Alternative B (Proposed Action)—The proposed pipeline corridor contains suitable habitat for both the Dakota skipper and Sprague's pipit. Due to the presence of potential habitat for the Dakota skipper and Sprague's pipit within the corridor, the proposed project may impact individuals or habitat through earthwork associated with construction activities, habitat conversion, and /or fragmentation. An "effect determination" under Section 7 of the Endangered Species Act has not been made due to the current unlisted status of the species.

3.7 Eagles

Protection is provided for the bald and golden eagle through the Bald and Golden Eagle Protection Act (BGEPA). The BGEPA of 1940, 16 U.S.C. 668-668d, as amended, was written with the intent to protect and preserve bald and golden eagles, both of which are treated as species of concern within the Department of the Interior. The BGEPA prohibits, except under certain specified conditions, the taking, possession, or commerce of bald and golden eagles. Under the BGEPA, to "take" includes to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb, wherein "disturb" means to agitate or bother a bald or golden eagle to the degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, causing injury, death, or nest abandonment.

The bald eagle (*Haliaeetus leucocephalus*) is sighted in North Dakota along the Missouri River during spring and fall migration periods and periodically in other places in the state such as the Devils Lake and Red River areas. In 2009, the ND Game and Fish Department estimated that 66 nests were occupied by bald eagles, though not all eagle nests were visited and verified (February 2010). Preferred habitat for

the bald eagle includes open areas, forests, rivers, and large lakes. Bald eagles tend to use the same nest year after year, building atop the previous year's nest.

The golden eagle (*Aquila chrysaetos*) can be spotted in North Dakota throughout the badlands and along the upper reaches of the Missouri River in the western part of the state. Golden eagle pairs maintain territories that can be as large as 60 square miles and nest in high places including cliffs, trees, and human-made structures. They perch on ledges and rocky outcrops and use soaring to search for prey. Golden eagle preferred habitat includes open prairie, plains, and forested areas.

An intensive, pedestrian resource survey of the proposed pipeline corridor was conducted on June 28, 2011 by Kadrmas, Lee & Jackson (KL&J) environmental specialists. In addition, a survey for eagles and eagle nests was conducted. This survey consisted of pedestrian transects focusing specifically on potential nesting sites within 0.5 miles of all project disturbance areas including cliffs and wooded draws. Wooded draws were observed both from the upland areas overlooking the draws and from bottomlands within the actual draws.

No bald eagles or golden eagles were observed within 0.5 miles of the proposed project disturbance area during the field survey.

The USGS Northern Prairie Wildlife Research Center maintains information on bald eagle and golden eagle habitat within the state of North Dakota. According to the USGS data, the 0.5-mile buffered survey area for the proposed pipeline does contain recorded habitat for both the bald eagle and the golden eagle. In addition, Dr. Anne Marguerite Coyle of Dickinson State University has completed focused research on golden eagles and maintains a database of golden eagle nest sightings. According to Dr. Coyle's information, the closest recorded golden eagle nest is located approximately 2.0 miles south of the proposed pipeline location. Please refer to **Figure 3-4 Bald and Golden Eagle Habitat and Nest Sightings**.

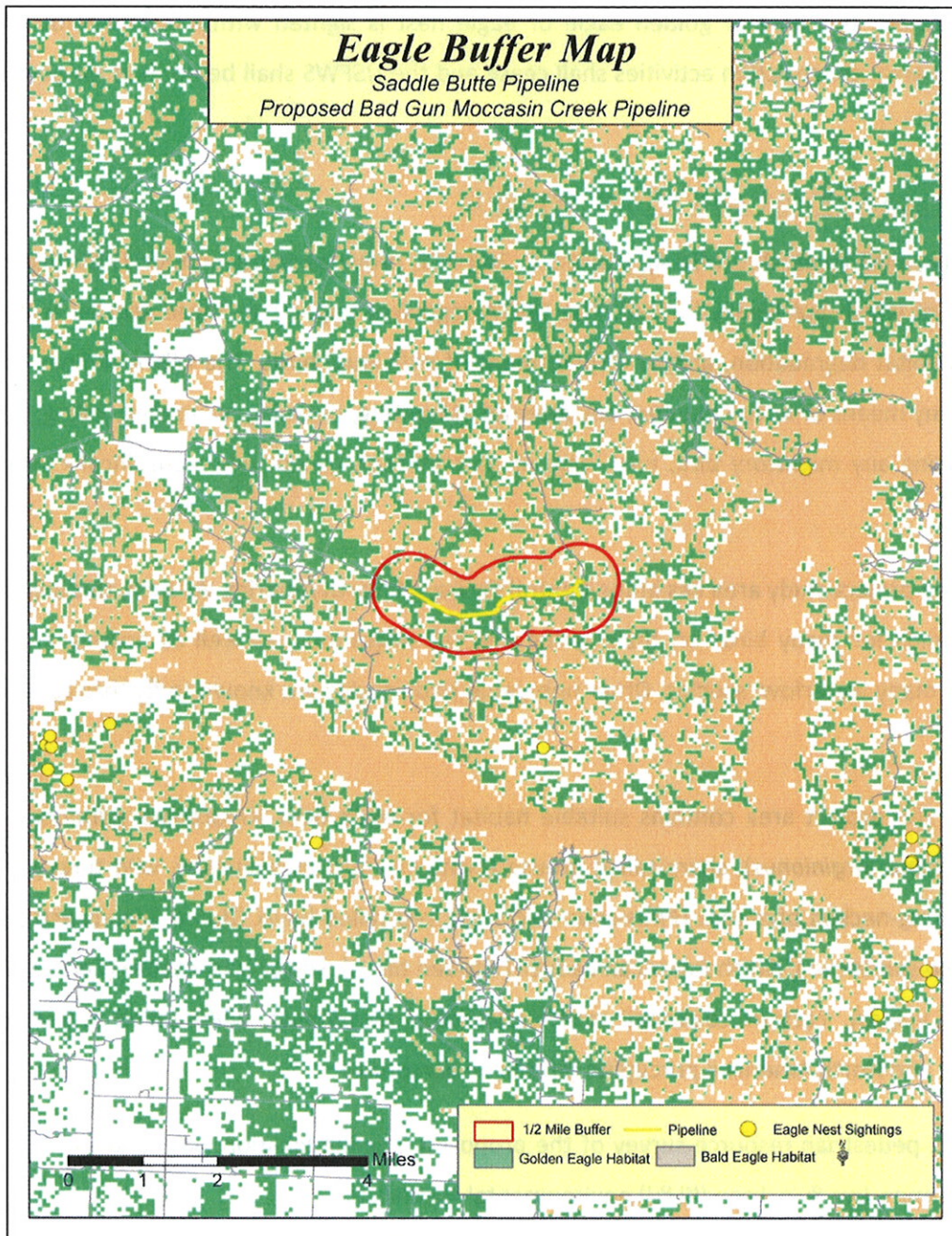


FIGURE 3-4 BALD AND GOLDEN EAGLE HABITAT AND NEST SIGHTINGS

3.7.1 Eagle Impacts/Mitigation

Alternative A (No Action)—Alternative A would not impact bald or golden eagles.

Alternative B (Proposed Action)—The proposed project is located within areas of recorded suitable bald eagle and golden eagle habitat. No impacts to bald or golden eagles are anticipated to result from the

proposed project. If a bald or golden eagle or eagle nest is sighted within 0.5 miles of the project construction area, construction activities shall cease and the USFWS shall be notified for advice on how to proceed.

3.8 Migratory Birds and Other Wildlife

The Migratory Bird Treaty Act (MBTA), 916 U.S.C. 703-711, provides protection for 1,007 migratory bird species, 58 of which are legally hunted. The MBTA regulates impacts to these species such as direct mortality, habitat degradation, and/or displacement of individual birds. The MBTA defines “taking” to include by any means or in any manner, any attempt at hunting, pursuing, wounding, killing, possessing, or transporting any migratory bird, nest, egg, or part thereof, except when specifically permitted by regulations.

The proposed 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.

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

An intensive, pedestrian resource survey of the proposed pipeline location was conducted on June 28, 2011 by Kadrmas, Lee & Jackson (KL&J) environmental specialists.

The purpose of this survey was to gather site-specific data and photos with regard to botanical, biological, threatened and endangered species, eagle, and water resources. A study corridor of 200 feet centered on the proposed pipeline corridor was evaluated. Resources were evaluated using visual inspection and pedestrian transects across the site. One turkey vulture, 10 unidentified sparrows and 15+ tree swallows were observed during the field survey. No additional wildlife species were observed near the pipeline corridor on the day of the survey.

3.8.1 Migratory Birds and Other Wildlife Impacts/Mitigation

Alternative A (No Action)—Alternative A would not impact migratory birds or other wildlife.

Alternative B (Proposed Action)—Due to the presence of suitable habitat at the project site for many wildlife and avian species, ground clearing activities associated with the pipelines may impact individuals by displacing animals from suitable habitat. While many species of wildlife may continue to use the project area for breeding and feeding and continue to thrive, the activities associated with oil and gas development may displace animals from otherwise suitable habitats. 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. Therefore, the proposed project may impact individuals and populations within these wildlife species, but is not likely to result in a trend towards listing of any of the species identified. As no grouse leks were observed in the project area, additional timing restrictions for construction are not required.

All efforts would be made to complete construction outside the migratory bird nesting season (February 1 through July 15) in order to avoid impacts to migratory birds during the breeding/nesting season. In the event that construction needs to take place during the migratory bird nesting season, a pre-construction survey for migratory birds or their nests would be conducted by a qualified biologist within five days prior to the initiation of all construction activities or the project areas would be mowed the previous fall to deter birds from nesting in project areas. The findings of the pre-construction surveys would be reported to the USFWS.

Additionally, all reasonable, prudent, and effective measures to avoid the taking of migratory bird species would be implemented during the pipeline construction phase. The measures would include: the use of suitable mufflers on all internal combustion engines; certain compressor components to mitigate noise; and only utilizing approved roadways.

3.9 Vegetation

An intensive resource survey of botany species was conducted for the proposed pipeline corridor by KL&J. The purpose of this site visit was to gather site-specific data and photos with regards to botanical

resources. A study corridor of 200 feet centered on the proposed pipeline corridor was surveyed. Botanical resources were evaluated using visual inspection. The pipeline corridor was also investigated for the presence of invasive plant species.

The proposed pipeline corridor consisted of native and non-native upland grasses and shrubs. The dominant grasses along the proposed pipeline corridor included Kentucky bluegrass (*Poa pratensis*), smooth brome (*Bromus inermis*), and prairie junegrass (*Koeleria macrantha*). Dominant shrubs within the area included western snowberry (*Symphoricarpos occidentalis*) and creeping juniper (*Juniperus horizontalis*). A variety of forbs were also present including cudweed sagewort (*Artemisia ludoviciana*), western yarrow (*Achillea millefolium*), and yellow sweet clover (*Melilotus officinalis*). Also present within the pipeline corridor were several wooded draws containing green ash (*Fraxinus pennsylvanica*) and American elm (*Ulmus americana*). For a visual overview of the project area please refer to **Figure 3-5**, **Figure 3-6**, and **Figure 3-7**.



FIGURE 3-5 WEST END OF PIPELINE PROJECT CORRIDOR LOOKING SOUTHEAST



FIGURE 3-6 LARGE WOODED DRAW ALONG PROJECT CORRIDOR LOOKING NORTHWEST



FIGURE 3-7 SMALL WOODED DRAW ALONG PROJECT CORRIDOR LOOKING EAST

In addition, the project area was surveyed for the presence of noxious weeds. Of the 11 species declared noxious under the North Dakota Century Code (Chapter 63-01.0), three are known to occur in Dunn County. Please refer to **Table 3-3 Noxious Weed Species**. In addition, counties and cities have the option to add species to the list to be enforced within their jurisdictions. There are no additional noxious weeds listed for Dunn County. During the field survey, the noxious weed leafy spurge was identified within upland sites and wooded draws along the corridor.

TABLE 3-3 NOXIOUS WEED SPECIES

Common Name	Scientific Name	2010 Dunn County Reported Acres
Absinth wormwood	<i>Artemisia absinthium L.</i>	43,800
Canada thistle	<i>Cirsium arvense (L.) Scop</i>	39,300
Dalmation toadflax	<i>Linaria genistifolia ssp. Dalmatica</i>	—
Diffuse Knapweed	<i>Centaurea diffusa Lam</i>	—
Leafy spurge	<i>Euphorbia esula L.</i>	6,200
Musk thistle	<i>Carduus nutans L.</i>	—
Purple loosestrife	<i>Lythrum salicaria</i>	—
Russian knapweed	<i>Acroptilon repens (L) DC.</i>	—
Saltcedar (tamarisk)	<i>Tamarix ramosissima</i>	—
Spotted knapweed	<i>Centaurea maculosa Lam.</i>	—
Yellow toadflax	<i>Linaria vulgaris</i>	—

3.9.1 Vegetation Impacts/Mitigation

Alternative A (No Action)—Alternative A would not impact vegetation.

Alternative B (Proposed Action)—Ground clearing activities associated with construction of the proposed pipelines would result in vegetation disturbance; however, the areas of proposed surface disturbances are minimal in the context of the setting, and these impacts would be further minimized in accord with the BLM Gold Book standards for pipeline reclamation. Following construction, reclamation measures to be implemented include leveling, re-contouring, backfill, compacting fill, and re-seeding with a native grass seed mixture from a BIA approved source. Erosion control measures would be installed as appropriate. Stockpiled topsoil would be redistributed and re-seeded as recommended by the BIA.

Upon final abandonment of commercial operations, all disturbed areas would be promptly reclaimed. Regrading, contouring, and reseeded of disturbed areas would occur as soon as practical after

construction but no later than the next appropriate planting season. All areas would be re-contoured to match topography of the original landscape as closely as possible and re-seeded with vegetation consistent with surrounding native species to ensure a healthy and diverse mix free of noxious weeds. Seed would be obtained from a BIA approved source. Re-vegetation of the site would be consistent with the BLM Gold Book standards. Erosion control measures would be installed as appropriate in a manner that is consistent with the BLM Gold Book standards. Maintenance of the re-vegetated site would continue until such time that the stand was consistent with the surrounding undisturbed vegetation and the site free of noxious weeds. The surface management agency would provide final inspection of the site to deem the reclamation effort complete.

3.10 Wetlands

Wetlands are defined in both the 1977 Executive Order 11990, Protection of Wetlands, and in Section 404 of the Clean Water Act of 1986, as those areas that are inundated by surface or ground water with a frequency to support and, under normal circumstances, do or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Three parameters that define a wetland, as outlined in the Federal Manual for Delineating Jurisdictional Wetlands (US Army Corps of Engineers, 1987), are hydric soils, hydrophytic vegetation and hydrology. Wetlands are an important natural resource serving many functions, such as providing habitat for wildlife, storing floodwaters, recharging ground water and improving water quality through purification.

No wetlands or riparian areas were identified within the study area for the proposed pipeline corridor during the field survey.

3.10.1 *Wetland impacts/Mitigation*

Alternative A (No Action)—Alternative A would not impact wetlands.

Alternative B (Proposed Action)—Due to the absence of wetlands within the proposed pipeline corridor, Alternative B would not impact wetlands.

3.11 Cultural Resources

Historic properties, or cultural resources, on federal or tribal lands are protected by many laws, regulations and agreements. The National Historic Preservation Act of 1966 (16 USC 470 et seq.) at

Section 106 requires, for any federal, federally assisted or federally licensed undertaking, that the federal agency take into account the effect of that undertaking on any district, site, building, structure or object that is included in the National Register of Historic Places (National Register) before the expenditure of any federal funds or the issuance of any federal license. Cultural resources is a broad term encompassing sites, objects, or practices of archaeological, historical, cultural and religious significance. Eligibility criteria (36 CFR 60.6) include association with important events or people in our history, distinctive construction or artistic characteristics, and either a record of yielding or a potential to yield information important in prehistory or history. In practice, properties are generally not eligible for listing on the National Register if they lack diagnostic artifacts, subsurface remains or structural features, but those considered eligible are treated as though they were listed on the National Register, even when no formal nomination has been filed. This process of taking into account an undertaking's effect on historic properties is known as "Section 106 review," or more commonly as a cultural resource inventory.

The area of potential effect (APE) of any federal undertaking must also be evaluated for significance to Native Americans from a cultural and religious standpoint. Sites and practices may be eligible for protection under the American Indian Religious Freedom Act of 1978 (42 USC 1996). Sacred sites may be identified by a tribe or an authoritative individual (Executive Order 13007). Special protections are afforded to human remains, funerary objects, and objects of cultural patrimony under the Native American Graves Protection and Repatriation Act (NAGPRA, 25 USC 3001 et seq.).

Whatever the nature of the cultural resource addressed by a particular statute or tradition, implementing procedures invariably include consultation requirements at various stages of a federal undertaking. The MHA Nation has designated a Tribal Historic Preservation Officer (THPO) by Tribal Council resolution, whose office and functions are certified by the National Park Service. The THPO operates with the same authority exercised in most of the rest of North Dakota by the State Historic Preservation Officer (SHPO). Thus, BIA consults and corresponds with the THPO regarding cultural resources on all projects proposed within the exterior boundaries of the Fort Berthold Reservation.

A cultural resource inventory of this pipeline route was conducted by personnel of Kadrmas, Lee & Jackson, Inc., using an intensive pedestrian methodology. Approximately 43.6 acres were inventoried on July 20, 2011 (Mitchell 2011). One archaeological site was located that may possess the quality of integrity and meet at least one of the criteria (36 CFR 60.6) for inclusion on the National Register. As the lead federal agency, and as provided for in 36 CFR 800.5, on the basis of the information provided, BIA reached a determination of no historic properties affected for this undertaking, as the archaeological site will be avoided. This determination was communicated to the THPO on August 25, 2011; however, the THPO did not respond within the allotted 30 day comment period.

3.11.1 Cultural Resource Impacts/Mitigation

Alternative A (No Action)—Alternative A would not impact cultural resources.

Alternative B (Proposed Action)—One cultural resource site was identified within the APE. The proposed pipeline location was moved to avoid this site. As such, cultural resources impacts are not anticipated. If cultural resources are discovered during construction or operation, work shall immediately be stopped, the affected site secured, and BIA and THPO notified. In the event of a discovery, work shall not resume until written authorization to proceed has been received from the BIA. All project workers are prohibited from collecting artifacts or disturbing cultural resources in any area under any circumstances.

3.12 Socioeconomic Conditions

Socioeconomic conditions depend on the character, habits, and economic conditions of people living within the proposed project areas. Business, employment, transportation, utilities, etc. are factors that affect the social climate of a community. Other factors that distinguish the social habits of one particular area from another include the geography, geology, and climate of the area.

The Fort Berthold Reservation is home to six major communities, consisting of New Town, White Shield, Mandaree, Four Bears, Twin Buttes, and Parshall. These communities provide small business amenities such as restaurants, grocery stores, and gas stations; however, they lack the larger shopping centers that are typically found in larger cities in the region such as Minot and Bismarck. According to 2000 US

Census Data⁸, educational/health/social services is the largest industry on the reservation, followed by the entertainment/recreation/accommodation /food industry. The Four Bears Casino, Convenience Store, and Recreation Park are also major employers with over 320 employees, 90% of whom are tribal members. In addition, several industries are located on the reservation, including Northrop Manufacturing, Mandaree Enterprise Corporation, Three Affiliated Tribes Lumber Construction Manufacturing Corporation, and Uniband.

Several paved state highways provide access to the reservation including ND Highways 22 and 23 and Highway 1804. These highways provide access to larger communities such as Bismarck, Minot, and Williston. Paved and gravel BIA Route roadways serve as primary connector routes within the reservation. In addition, networks of rural gravel roadways are located throughout reservation boundaries providing access to residences, oil and gas developments, and agricultural land. Major commercial air service is provided out of Bismarck and Minot, with small-scale regional air service provided out of New town and Williston.

3.12.1 Socioeconomic Impacts/Mitigation

Alternative A (No Action)—Alternative A would not impact the socioeconomic conditions in the project area. However, Alternative A would not help facilitate the development of oil and gas resources within the surrounding area. Current and future development of oil and gas resources could have a positive effect on employment and income through the creation of jobs and payment of leases, easements, and/or royalties to tribal members.

Alternative B (Proposed Action)—Alternative B is not anticipated to substantially impact the socioeconomic conditions in the project areas, but it does have the potential to yield beneficial impacts on Tribal employment and income. The proposed pipelines would provide needed infrastructure for continued oil and gas development through which qualified individual tribal members may find employment and increase their individual incomes. Additionally, the proposed action may result in indirect economic benefits to tribal business owners resulting from construction workers expending money on food, lodging, and other necessities. The increased traffic during construction may create more congested traffic conditions for residents. Saddle Butte Pipeline would follow Dunn County, BIA,

⁸ It should be noted that the most recent US Census data dates from 2000. Since 2000, there has been an increasing focus on oil and gas development on the Fort Berthold Reservation. As such, it is anticipated that these trends have likely shifted; however, no new data is available until the 2010 US Census is published.

and North Dakota Department of Transportation rules and regulations regarding the movement of oversized/overweight loads on state and county roads used as haul roads in order to maintain safe driving conditions. Construction of the proposed pipelines would lessen the congestion of traffic for residents over the long run thereby creating a positive socioeconomic impact.

3.13 Environmental Justice

Per Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, measures must be taken to avoid disproportionately high adverse impacts on minority or low-income communities.

Generally, the Three Affiliated Tribes qualify for environmental justice consideration as both a minority and low-income population. The population of North Dakota is predominantly Caucasian. Tribal members comprise 5.0% of North Dakota’s population and 10.9% of the population of Dunn County.

According to 2005-2009 U.S. Census Bureau data, the Fort Berthold Reservation has lower than statewide averages of per capita income and median household income, whereas Dunn County has a higher per capita income and median household income than the statewide average. In addition, Dunn County has slightly lower rates of unemployment than the state average, while Fort Berthold’s rate of unemployment was substantially greater. Please refer to **Table 3-4 Employment and Income**.

TABLE 3-4 EMPLOYMENT AND INCOME

Location	Per Capita Income	Median Household Income	Unemployment Rate	Individuals Living Below Poverty Level
Dunn County	\$25,006	\$45,270	2.0%	8.9%
Fort Berthold Reservation	\$15,945	\$40,603	7.8%	25.2%
Statewide	\$24,978	\$45,140	2.4%	12.3%

Source: U.S. Census Bureau, 2005-2009 American Community Survey.

Population decline in rural areas of North Dakota has been a growing trend as individuals move toward metropolitan areas of the state, such as Bismarck and Fargo. While Dunn County’s population has been slowly declining, the Fort Berthold Reservation has witnessed a steady increase in population. American Indians are the majority population on the Fort Berthold Reservation but are the minority population in Dunn County and the state of North Dakota. Please refer to **Table 3-5 Demographic Trends**.

TABLE 3-5 DEMOGRAPHIC TRENDS

Location	Population in 2009	% of State Population	% Change 1990-2000	Predominant Race	Predominant Minority
Dunn County	3,318	0.52%	-7.8%	White	American Indian (10.9%)
Fort Berthold Reservation	6,094	0.95%	+3.0%	American Indian ⁹	White (28.8%)
Statewide	639,725	--	-0.4%	White	American Indian (5.0%)

Source: U.S. Census Bureau, 2005-2009 American Community Survey.

3.13.1 Environmental Justice Impacts/Mitigation

Alternative A (No Action)—Alternative A would not result in disproportionately high adverse impacts to minority or low-income populations.

Alternative B (Proposed Action)—Alternative B would not require relocation of homes or businesses, cause community disruptions, or cause disproportionately high adverse impacts to members of the Three Affiliated Tribes. The proposed project has not been found to pose significant impacts to any other critical element (public health and safety, water, wetlands, wildlife, soils, or vegetation) within the human environment. The proposed project is also not anticipated to result in disproportionately high adverse impacts to non-Tribal minority or low-income populations.

Oil and gas development of the Bakken Formation is occurring both on and off the Fort Berthold Reservation. Employment opportunities related to oil and gas development may lower the unemployment rate and increase the income levels on the Fort Berthold Reservation. Infrastructure in the form of oil and gas pipelines are needed to facilitate this continued development.

3.14 Infrastructure and Utilities

The Fort Berthold Reservation’s infrastructure consists of roads, bridges, utilities, and facilities for water, wastewater, and solid waste.

The only known infrastructure within the vicinity of the proposed project is gravel roadways.

⁹ According to the North Dakota Tourism Division, there are 10,400 enrolled members of the Three Affiliated Tribes.

3.14.1 *Infrastructure and Utility Impacts/Mitigation*

Alternative A (No Action)—Alternative A would not impact infrastructure or utilities.

Alternative B (Proposed Action)—The proposed pipelines would run parallel to BIA Road 17 and cross it twice near the eastern end of the project area. In accordance with BIA recommendations, Saddle Butte Pipeline would utilize horizontal boring to complete these crossings. Horizontal boring would allow the roadway to remain open to traffic and would have a smaller surface footprint compared to trenching. Saddle Butte Pipeline would need to obtain a BIA Road Crossing Permit prior to any roadway crossing activities. No other mitigation measures would be required for construction of the proposed pipelines.

3.15 Public Health and Safety

Health and safety are key concerns on any construction project. One major objective in designing and constructing a pipeline is to minimize the risk to public health and safety. Typically, the highest probability of an accident occurs during the construction phase due to the variety of equipment, number of personnel and types of activity which are present during this period.

Generally, negative impacts, such as noise, dust, air pollution from the use of fossil fuels, ground water contamination from liquid spills as well as traffic hazards from construction are temporary. These temporary negative impacts can be controlled through routine education, safety reminders/briefings, careful planning and proper preparation.

Combustion and explosive hazards, although an uncommon possibility in and around operating pipelines, are none the less an important consideration when evaluating public health and safety for any project. The risk and extent of negative impact from system operation is considerably more difficult to predict than the impact from construction due to the many, diverse variables involved.

The size of an area which can potentially be affected by a pipeline leak or rupture and possible resulting fire, or even an explosion, is specific to each particular site. In many instances it is impossible to find a route which does not have some possible negative impact during the life of a project. The ultimate goal is therefore to route, design and construct the pipelines in a manner which has the least probable impact on the environment and on society.

Factors which must be considered in establishing a pipeline corridor location and width include:

- Pipeline diameter, pipe material, and pressure rating
- Normal operating pressure of pipeline
- Product to be conveyed by the pipeline
- Depth to bury below the ground surface
- Type of soil
- Presence of vegetation (grass, trees, shrubs, barren etc.)
- Possibility of leak, fire, explosion, product discharge to surface or ground water etc.
- Topography (flat, rolling, badlands etc.) and minimum and maximum gradients of terrain
- Historical wind speed and direction
- Existing nearby structures, occupied and unoccupied
- Nearby roads and trails

3.15.1 Public Health and Safety Impacts/Mitigation

Alternative A (No Action)—Alternative A would not impact public health and safety.

Alternative B (Proposed Action)—The proposed pipelines would have a maximum diameter of 12-inches. The pipeline corridor would have a maximum of four pipelines associated with it. These pipelines could include a low pressure gas line, a high pressure gas line, a crude oil line, and a water line. The pipelines for this project are proposed to be buried a minimum of 48-inches below the ground surface. Natural gas and crude oil are both highly flammable and can become explosive under certain conditions.

An explosion, although extremely unlikely, is possible; therefore, human safety and structural damage are potentially at risk. A gas pipeline rupture within the normal operating pressure could create a crater 50-100 feet in diameter depending on the depth of the buried pipeline, pipeline diameter, actual pipeline pressure, pipeline location, and soil conditions. If a fire resulted, temperatures could reach well in excess of several thousand degrees Fahrenheit at the point of rupture and decrease outward, depending upon wind speed and direction as well as ambient temperature and vegetative foliage in the area. This could cause structural damage in an area up to 2,500 feet downwind of the point of the blast.

Based upon the above information, the blast impact corridor width would be approximately one-mile (1/2-mile on each side of the proposed pipeline). Aerial view imagery shows that there are no residences located within this blast corridor. The corridor does include several miles of unpaved roads which could be utilized at various times of the year. Please refer to **Figure 3-8 Blast Zone Perimeter Map**.

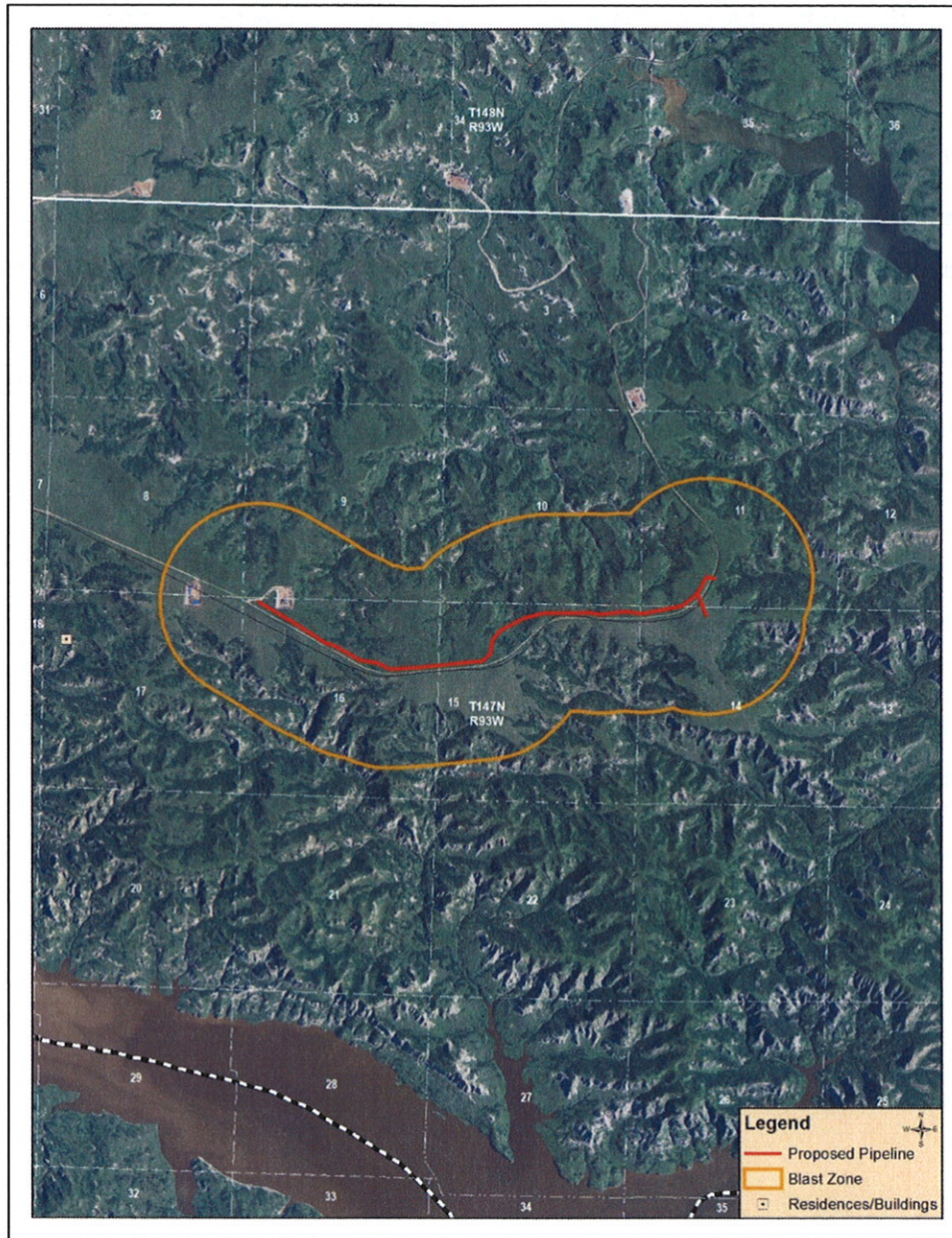


FIGURE 3-8 BLAST ZONE PERIMETER MAP

3.16 Cumulative Considerations

Cumulative impacts result from the incremental consequences of an action “when added to other past, present, and reasonable foreseeable future actions regardless of what agency or person undertakes such other actions” (40 FCR 1508.7). Effects of an action may be minor when evaluated in an individual context, but these effects can add to other disturbances and collectively may lead to a measureable environmental change. By evaluating the impacts of the proposed action with the effects of other

actions, the relative contribution of the proposed action to a projected cumulative impact can be estimated.

3.16.1 Past, Present, and Reasonably Foreseeable Actions

Oil and gas development in western North Dakota has occurred with varying intensity for the past 100 years. Gas development began in the area in 1909, and the first recorded oil well was drilled in 1920. North Dakota's oil production has boomed twice prior to the current boom; first in the 1950's, peaking in the 1960's, and again in the 1970's, peaking in the 1980's. North Dakota is currently experiencing its third oil boom, which has already far surpassed the previous booms in magnitude. This oil boom is occurring both within and outside the Fort Berthold Reservation.

According to the NDIC, as of July 18, 2011, there were approximately 568 active and/or confidential oil and gas wells within the Fort Berthold Reservation and 373 within the 20-mile radius outside the boundaries of the Fort Berthold Reservation. Please refer to **Figure 3-9 Existing and Proposed Oil and Gas Wells**. There are 14 known oil and gas wells within one-mile of the proposed Bad-Gun Moccasin Creek pipelines. Please refer to **Table 3-6 Summary of Active and Proposed Wells**.

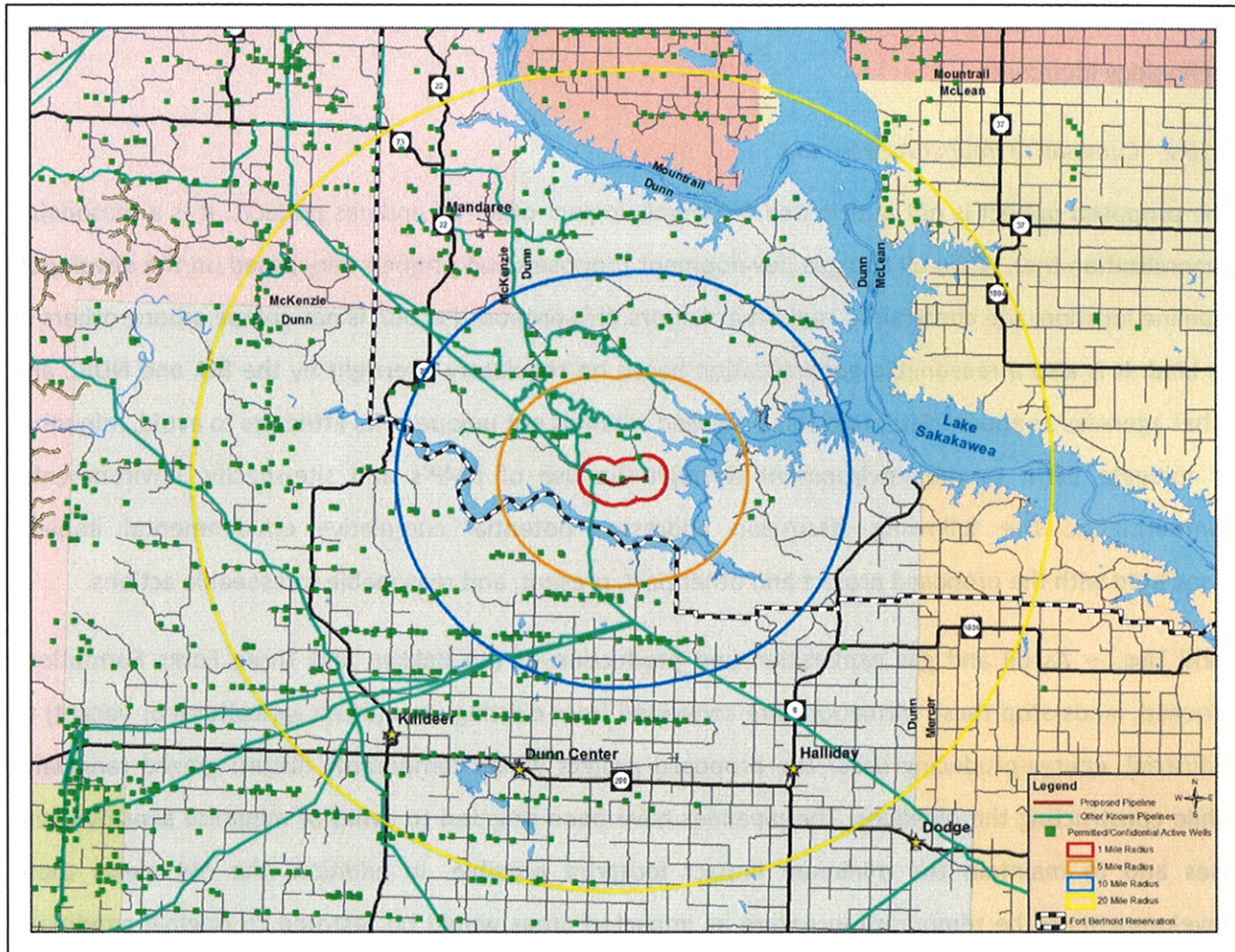


FIGURE 3-9 EXISTING AND PROPOSED OIL AND GAS WELLS

TABLE 3-6 SUMMARY OF ACTIVE AND PROPOSED WELLS

Distance from Site	Number of Active or Proposed Wells
1 mile radius	14
5 mile radius	40
10 mile radius	194
20 mile radius	642

As mentioned previously in this EA, the Bakken Formation covers approximately 25,000 square miles beneath North Dakota, Montana, Saskatchewan, and Manitoba, with approximately two-thirds of the acreage beneath North Dakota. The Three Forks Formation lies beneath the Bakken. The North Dakota Department of Mineral Resources estimates that there are approximately 2 billion barrels of recoverable

oil in each of these Formations and that there will be 30-40 remaining years of production, or more if technology improves.

3.16.2 Cumulative Impact Assessment

The proposed project is not anticipated to directly impact other oil and gas projects. It is a reasonable generalization that, while oil and gas development proposals and projects vary based on the developer, pipeline location, site constraints, and other factors, this proposed action is not unique among others of its kind. It is also a reasonable generalization based on regulatory oversight by the BIA and NDIC, and other agencies as appropriate, that this proposed action is not unique in its attempts to avoid, minimize, or mitigate harm to the environment through the use of BMP's and site-specific environmental commitments. The following discussion addresses potential cumulative environmental impacts associated with the proposed project and other past, present, and reasonable foreseeable actions.

Land Use — As oil and gas exploration and production of the Bakken and Three Forks Formations proceed, lands atop these formations are converted from existing uses (often agricultural or vacant) to industrial, energy-producing uses. The proposed project would temporarily disturb grazed rangeland while constructing the pipelines. The pipelines have been selected to avoid or minimize sensitive land uses and to maintain the minimum impact footprint possible. In addition, the BIA views these developments to be temporary in nature as impacted areas would be restored to original conditions upon completion of oil and gas activity.

Air Quality — The proposed project is anticipated to have a long-term benefit to air quality in the project area because it would reduce emissions associated with gas flaring. In addition, instead of trucks having to travel to these well sites to collect oil and gas, the lateral lines would transport the product to main pipelines. The oil and gas would then be collected at one consolidated storage location. In the long-term, this may improve air quality in the area by reducing mobile source air pollutants associated with trucking operations.

Threatened and Endangered Species — The potential for cumulative impacts to threatened and endangered species comes to those listed species that may be affected by the proposed project or candidate species that may be impacted by the proposed project. The proposed project occurs within the central flyway through which whooping cranes migrate. Continual development (e.g. agriculture, oil and gas, wind, etc.) within the central flyway has compromised whooping crane habitat both through

direct impacts via conversion of potential habitat for other uses and indirect impacts due to disrupting the use of potential stopover habitat, as whooping cranes prefer isolated areas and are known to avoid large-scale development. However, the proposed action, when added to other development directly and indirectly impacting whooping cranes and their habitat, is not anticipated to significantly contribute to cumulative impacts occurring to the whooping crane population.

As previously stated, habitat for the interior least tern, pallid sturgeon, and piping plover is primarily associated with Lake Sakakawea and its shoreline. When added to other past, present, and reasonable foreseeable projects, such as oil and gas wells and water intake structures on Lake Sakakawea, the proposed pipeline project may have an indirect cumulative impact on potential habitat (Lake Sakakawea and its shoreline) for these species due to potential leaks or spills. However, due to the buried nature of the project and distance from the shoreline, the transfer of accidentally released fluids to Lake Sakakawea and its associated habitats is unlikely. Therefore, it is unlikely the project would contribute to cumulative impacts to the interior least tern, pallid sturgeon, and piping plover.

Please refer to the discussion below (Wetlands, Eagles, Other Wildlife, and Vegetation) for an analysis of potential cumulative impacts to candidate species (Dakota Skipper and Sprague's pipit).

Wetlands, Eagles, Other Wildlife, and Vegetation — The proposed project, when added to previously constructed and reasonably foreseeable oil and gas wells and pipelines, would temporarily contribute to habitat loss and fragmentation associated with construction of the pipeline. The North Dakota Parks and Recreation Department notes in its undated publication, "North Dakota Prairie: Our Natural Heritage" that approximately 80% of the state's native prairie has been lost to agriculture, with most of the remaining areas found in the arid west; ongoing oil and gas activity has the potential to threaten remaining native prairie resources.

The proposed action and other similar actions are carefully planned to avoid or minimize impacts to wildlife and associated habitat. Multiple components of the process used by the BIA to evaluate and approve such actions, including biological and botanical surveys, on-site assessments with representatives from multiple agencies and entities, agency comment periods on this EA, and the use of BMPs and site-specific environmental commitments are in place to ensure that environmental impacts associated with oil and gas development are minimized. The practice of utilizing existing roadways to

the greatest extent practicable further minimizes impacts to wildlife habitats and prairie ecosystems. Reclamation activities are anticipated to minimize and mitigate disturbed habitat.

3.17 Irreversible and Irretrievable Commitment of Resources

Potential irreversible and irretrievable commitments of resources include soil lost through wind and water erosion, cultural resources inadvertently destroyed, wildlife killed during earthmoving activities or in collisions with vehicles, and energy expended during construction and operation.

3.18 Short-term Use of the Environment versus Long-term Productivity

Short-term activities would not significantly detract from long-term productivity of the project area. The project area would generally remain available for livestock grazing, wildlife habitat and other uses. The Tribe and/or allottees with surface rights would be compensated for loss of productive acreage during construction. Successful and ongoing reclamation of the landscape would quickly support wildlife and livestock grazing, stabilize the soil, and reduce the potential for erosion and sedimentation. Long-term productivity of the oil and gas wells attached to the proposed pipeline would improve as previously lost hydrocarbons are collected and brought to market. In addition, there would be a long-term benefit as the proposed project would reduce air emissions associated with flaring and trucking of stored liquids at these well sites.

3.19 Permits

On Tribal land in North Dakota the EPA is responsible for permitting Storm Water Pollution Prevention Plans (SWPPP) through permit NDR1000I using the National Pollution Discharge Elimination System (NPDES). For NPDES permitting, both the construction and operation activities for oil and gas are subject to permitting if any of the three criteria are met:

- Has had a discharge of storm water resulting in the discharge of a reportable quantity for which notification is or was required pursuant to 40 CFR 117.21 or 40 CFR 302.6 at any time since November 16, 1987;
 - Has had a discharge of storm water resulting in the discharge of a reportable quantity for which notification is or was required pursuant to 40 CFR 110.6 at any time since November 16, 1987;
- or

- Contributes to a violation of a water quality standard.

Construction of the proposed pipelines does not meet any of the three criteria; therefore, a SWPPP is not required for construction of the proposed project. Should one of these criteria be met during construction or operation of the pipelines, a SWPPP would need to be acquired through coordination with the EPA.

The proposed project would cross BIA Road 17 twice near the eastern end of the pipeline corridor. Saddle Butte Pipeline would utilize horizontal boring to complete these crossings and would need to obtain a BIA Road Crossing Permit prior to any roadway crossing activities.

3.20 Environmental Commitments/Mitigation

The following commitments have been made by Saddle Butte Pipeline:

- Topsoil would be segregated and stored on-site to be used in the reclamation process. All disturbed areas will be re-contoured to original elevations as part of the reclamation process.
- BMP's would be implemented to minimize wind and water erosion of soil resources.
- Water would be used as a palliative to control dust during construction if necessary.
- Disturbed vegetation would be re-seeded with an approved seed mixture from the BIA Environmental Protection Specialist upon completion of the project. The seeding would be maintained until such time that the vegetation is consistent with surrounding undisturbed areas and the area is free of noxious weeds.
- If cultural resources are discovered during construction or operation, work shall immediately be stopped, the affected site secured, and BIA and THPO notified. In the event of a discovery, work shall not resume until written authorization to proceed has been received from the BIA.
- All project workers are prohibited from collecting artifacts or disturbing cultural resources in any area under any circumstances.

- If a bald or golden eagle or eagle nest is sighted within 0.5 miles of the project construction area, construction activities shall cease and the USFWS shall be notified for advice on how to proceed.
- Utility modifications would be identified during design and coordinated with the appropriate utility company.
- In the event that construction activity takes place within the nesting and breeding season, pre-construction surveys for migratory birds or their nests would be conducted within five days prior to that initiation of construction activities and/or the route would be mowed prior to the nesting/breeding season to prevent birds from nesting along the route.
- Measures implemented during construction to avoid the taking of migratory bird species will include: suitable mufflers on all internal combustion engines, certain compressor components to mitigate noise levels, and only utilizing approved roadways.
- All slopes greater than 15 percent would be hydroseeded or fiber matted to reduce the potential for soil erosion..
- During reclamation, slopes shall be roughened to reduce erosion.
- Straw wattles, silt fence, or water bars shall be installed on all slopes greater than 5 percent.
- Trees and shrubs with a trunk diameter greater than four inches would be chipped and spread as erosion control. Small shrubs would be buried, shredded, or left with backfill and re-spread during reclamation.

Chapter 4

4.1 Introduction

This chapter identifies the names and qualifications of the principal people contributing information to this EA. In accordance with Part 1502.6 of the Council on Environmental Quality regulations for implementing NEPA, the efforts of an interdisciplinary team comprising technicians and experts in various fields were required to accomplish this study.

This chapter also provides information about consultation and coordination efforts with agencies and interested parties, which has been ongoing throughout the development of this EA.

4.2 Preparers

Kadrmass, Lee & Jackson, Inc. prepared this EA under a contractual agreement between Saddle Butte Pipeline, LLC and Kadrmass, Lee & Jackson, Inc. A list of individuals with the primary responsibility for conducting this study, preparing the documentation, and providing technical reviews is contained in **Table 4-1 Preparers**.

TABLE 4-1 PREPARERS

Affiliation	Name	Title	Project Role
Bureau of Indian Affairs	Marilyn Bercier	Regional Environmental Scientist	Review of Draft EA and recommendation to Regional Director regarding FONSI or EIS
	Mark Herman	Environmental Engineer	
Saddle Butte Pipeline, LLC	Linda Selser	Vice President Land	Project development, alternatives, document review
	Christian Stoddard	Manager Land/GIS	Project development, alternatives, document review
Kadmas, Lee & Jackson, Inc.	Grady Wolf	Environmental Scientist	Field resource surveys, client and agency coordination, senior review
	Mike Huffington	Environmental Planner	Impact assessment, field resource surveys, principal author
	Jennifer Macy	Archaeologist	Cultural resources surveys
	Kelly Morgan	Archaeologist	Cultural resources surveys
	Myron Kadmas	Surveyor	Site Plats
	Jeff Price	GIS Analyst	Impact assessment, exhibit creation

4.3 Agency Coordination

To initiate early communication and coordination, an early notification package to tribal, federal, state, and local agencies and other interested parties was distributed on July 15, 2011. This scoping package included a brief description of the proposed project, as well as a location map. Pursuant to Section 102(2) (D) (IV) of NEPA, a solicitation of views was requested to ensure that social, economic, and environmental effects were considered in the development of this project.

At the conclusion of the 30-day comment period, seven responses were received. These comments provide valuable insight into the evaluation of potential environmental impacts. The comments were referenced and incorporated where appropriate within the environmental impact categories addressed in this document. Please refer to Appendix A, Scoping Materials.

4.4 Public Involvement

Provided the BIA approves this document and determines that no significant environmental impacts would result from the proposed action, a Finding of No Significant Impact (FONSI) will be issued. The FONSI is followed by a 30-day public appeal period. BIA will advertise the FONSI and public appeal period by posting notices in public locations throughout the Reservation. No construction activities may commence until the 30-day public appeal period has expired.

Chapter 5

5.1 References

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Mitchell, Mary

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APPENDIX A AGENCY SCOPING MATERIALS

July 15, 2011

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

**RE: Saddle Butte Pipeline, LLC.
Badgun-Moccasin Creek
Fort Berthold Reservation
Dunn County, North Dakota**

Dear «CTitle» «Last»,

On behalf of Saddle Butte Pipeline, LLC (Saddle Butte Pipeline), Kadrmas, Lee & Jackson, Inc. (KL&J) is preparing an EA (Environmental Assessment) under NEPA (the National Environmental Policy Act) for the BIA (Bureau of Indian Affairs) and BLM (Bureau of Land Management). The proposed action includes approval by the BIA and BLM for the construction of pipelines within a 100-foot right-of-way on the Fort Berthold Reservation. The proposed pipelines construction would consist of up to four lines (high pressure gas line, low pressure gas line, oil line, and water line) with each line being up to 12-inches in diameter. Total length of the pipelines would be approximately 14,300-feet.

The pipeline corridor is proposed to be positioned in the following locations: T147N, R93W, N ½ of Section 16, 15 & 14 and the SW ¼ of Section 11. ***Please refer to the enclosed project location map.***

The proposed action would provide infrastructure to collect oil, gas and water from four wells located on two dual well pads operated by Marathon Petroleum Corporation. Construction of the proposed pipelines is expected to begin in late 2011.

To ensure that social, economic, and environmental effects are analyzed accurately, we solicit your views and comments on the proposed action. We ask your assistance in identifying any property or resources that you own, manage, oversee, or otherwise value that might be affected. We are also interested in existing or proposed developments you may have that should be considered in connection with the proposed project.

Please provide your comments by **August 11, 2011**. We request your comments by that date to ensure that we will have ample time to review them and incorporate them into the EA.

If you would like further information regarding this project, please contact me at (701) 355-8726. Thank you for your cooperation.

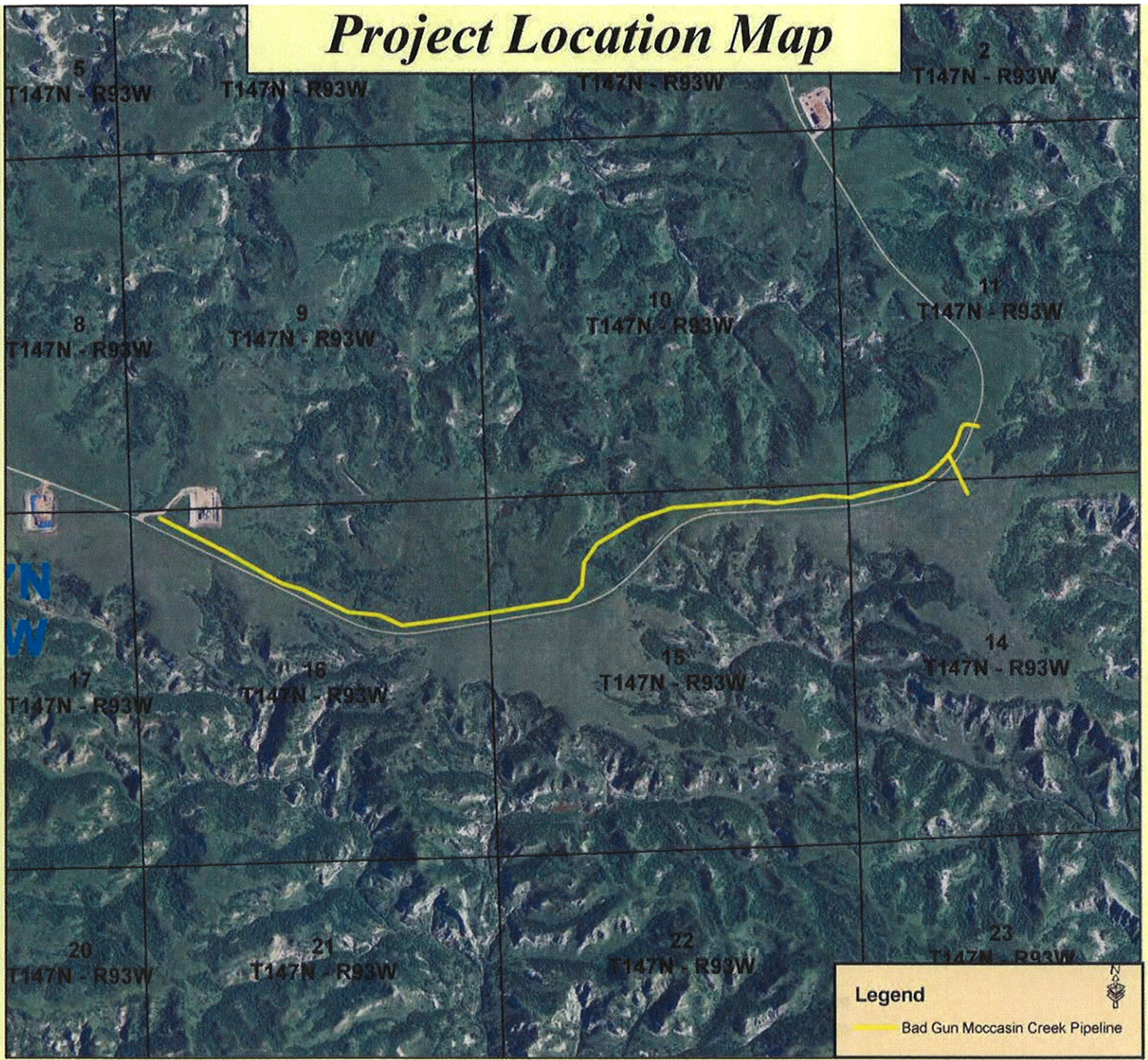
Sincerely,

Kadrmas, Lee & Jackson, Inc.

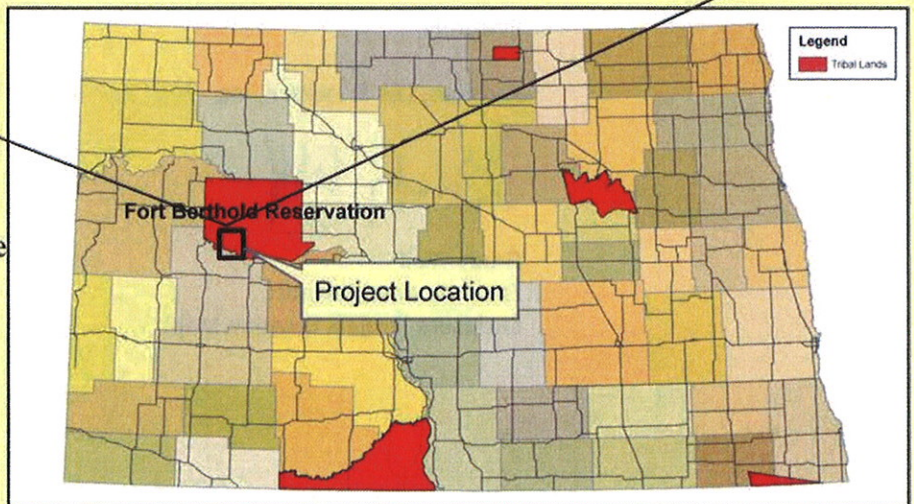


Grady Wolf
Environmental Scientist
Enclosure (Project Location Map)

Project Location Map



Saddle Butte Pipeline
Proposed Bad Gun Moccasin Creek Pipeline
Dunn County, ND



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

SOV MASTER LIST

CTitle	First	Last	Title	Department	Agency	Address	City	State	Zip
Mr	Waldo	Loudermilk	Regional Director		Bureau of Indian Affairs	115 4th Ave. SE	Aberdeen	SD	57401
Mr	Jeffrey	Desjardis	Environmental Protection Specialist		Bureau of Indian Affairs	202 Main Street	New Town	SD	58763
Mr	Darryl	Turcotte	Environmental Protection Specialist		Bureau of Indian Affairs	202 Main Street	New Town	ND	58763
Mr	Tom	Nelson	Chief, Resource Management		Bureau of Reclamation	PO Box 1017	Bismarck	ND	58502-0117
Mr	Tom	Schauer	Chief, Resource Management		Bismarck Airports District Office	2301 University Drive, Bldg 233	Bismarck	ND	58504
Mr	Dan	Cimarosi	Manager		US Army Corps of Engineers	1513 S. 12th St.	Bismarck	ND	58504
Mr	Charles	Sorensen	Natural Resource Specialist		US Army Corps of Engineers	PO Box 527	Riverside	ND	58566
Ms	Candace	Gordon	Chief, Env., Economics, & Cultural Resource Section		US Army Corps of Engineers	106 S. 15th St.	Omaha	NE	68102-1618
Mr	Gerald	Paulson	Director, Transmission Lines Substations		US Department of Energy	PO Box 1173	Bismarck	ND	58502-1173
Mr	Larry	Svoboda	Director		Western Area Power Admin.	1595 Wynkoop Street	Denver	CO	80202-1129
Mr	Richard	Clark	Wastlands Coordinator		US Environmental Protection Agency	1595 Wynkoop Street	Denver	CO	80202-1129
Mr	Jeffrey	Towner	Field Supervisor		US Environmental Protection Agency	3425 Minam Ave	Bismarck	ND	58501
Mr	Irwin	Russell	Acting State Conservationist		US Fish & Wildlife Service	PO Box 1458	Bismarck	ND	58502-1458
Mr	Scott	Davis	Executive Director		Natural Resources Conservation Service	600 E. Blvd. Ave.	Bismarck	ND	58506-0300
Mr	Greg	Wiche	Director		Indian Affairs Commission	1st Floor, Judicial Wing, Rm 117	Bismarck	ND	58501
Mr	L. David	Gleit	Chief		US Geological Survey	821 E. Interstate Ave.	Bismarck	ND	58501-1947
Mr	Ed	Slemward	Director		ND Game & Fish Department	100 Bismarck Expressway	Bismarck	ND	58501-5085
Mr	Mark	Zimmerman	Director		ND Geological Survey	600 E. Blvd. Avenue	Bismarck	ND	58506-0840
Mr	Dale	Frank	State Engineer		ND Parks & Recreation Dept.	1600 E. Century Ave., Suite 3	Bismarck	ND	58503-0849
Mr	Scott	Hochhalter	Soil Conservation Specialist		ND State Water Commission	900 E. Blvd. Ave.	Bismarck	ND	58506-0850
Mr	Bill	Boyd	Construction Manager		Soil Conservation Committee	2718 Galeway Ave., #104	Bismarck	ND	58503
Mr	Doug	Dixon	General Manager		Midcontinent Cable Company	719 Memorial Hwy	Williston	ND	58801-1406
Mr	John	Skurupcy	General Manager		Montana Dakota Utilities	PO Box 1406	Williston	ND	58801-1406
Mr	Ken	Miller	Manager/CEO		McKenzie Electric Cooperative	PO Box 649	Watford City	ND	58854-0649
Mr	Ray	Christenson	Manager/CEO		Norman Border Pipe Line Company	13710 FNB Parkway	Omaha	NE	68194-5200
Mr	David C.	Schickooch	CEO		Southwest Water Authority	4695 2nd St. W.	Dickinson	ND	58601
Mr	Lonny	Eagley	District Engineer		West Plains Electric Coop. Inc.	PO Box 2747	Fargo	ND	58108-2747
Mr	Mike	Nash	Assistant Field Office Manager		Xcel Energy	1700 3rd Ave W, Suite 101	Dickinson	ND	58601-3009
Mr	Michael	Savage	Tribal Chairman		Bureau of Land Management	99 23rd Ave W, Suite A	Dickinson	ND	58601
Ms	Myra	Pearson	Tribal Chairman		Bureau of Land Management	99 23rd Ave W, Suite A	Dickinson	ND	58601
Mr	Charles	Murphy	Tribal Chairman		Sisseton-Wapeton Sioux Tribe	PO Box 509	Sisseton	SD	57262-0267
Mr	Elin	Crows Breast	Tribal Historic Preservation Officer		Spirit Lake Sioux Tribe	PO Box 359	Fl. Totten	ND	58325
Mr	Tex	Hall	Tribal Chairman		Standing Rock Sioux Tribe	PO Box D	Fort Yates	ND	58538
Mr	Marle	St. Claire	Tribal Chairman		Three Affiliated Tribes	404 Frontage Road	New Town	ND	58763
Mr	Dannon	Williams	Tribal Attorney		Three Affiliated Tribes	HC3 Box 2	New Town	ND	58763
Mr	Fred	Fox	Director		Three Affiliated Tribes	HC3 Box 2	New Town	ND	58763
Ms	V. Judy	Brough	Representative		Three Affiliated Tribes	PO Box 900	Belcourt	ND	58316-0900
Mr	Arnold	Stralis	Representative		Three Affiliated Tribes	404 Frontage Road	New Town	ND	58763
Mr	Scott	Eagle	Representative		Three Affiliated Tribes	404 Frontage Road	New Town	ND	58763
Mr	Mervin	Packineau	Representative		Three Affiliated Tribes	PO Box 865	Mandaree	ND	58757
Mr	Frank	Whitscar	Representative		Three Affiliated Tribes	404 Frontage Road	New Town	ND	58763
Mr	Barry	Benison	Representative		Three Affiliated Tribes	PO Box 468	Parshall	ND	58770
Mr	Fred	Foltra	Representative		Three Affiliated Tribes	404 Frontage Road	New Town	ND	58763
Mr	Lester	Crowheart	Director		Three Affiliated Tribes	70879 E Ave NW	New Town	ND	58763
Mr	Roger	Hovda	Operations Manager		Three Affiliated Tribes	404 Frontage Road	New Town	ND	58763
Mr	Ranhard	Hauk	Auditor		Reservation Telephone Cooperative	308 Four Bears Complex	New Town	ND	58763
Ms	Deryl	Dulset	Chairman		Dunn County	PO Box 88	Parshall	ND	58770-0088
					Dunn County	205 Owens Street	Manning	ND	58642
					Dunn County	470 96th Ave SW	Dunn Center	ND	58626

July 15, 2011

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

**Re: Saddle Butte Pipeline, LLC
Badgun-Moccasin Creek Pipeline
Fort Berthold Reservation
Dunn County, North Dakota**

Dear Mr. Towner:

On behalf of Saddle Butte Pipeline, LLC (Saddle Butte Pipeline), Kadrmias, Lee & Jackson, Inc. (KL&J) is preparing an EA (Environmental Assessment) under NEPA (the National Environmental Policy Act) for the BIA (Bureau of Indian Affairs) and BLM (Bureau of Land Management). The proposed action includes approval by the BIA and BLM for the development of oil, gas and water pipelines located within a 100-foot right-of-way on the Fort Berthold Reservation. The pipelines would consist of up to four lines (high pressure gas line, low pressure gas line, oil line, and water line) with each line being up to 12-inches in diameter. Total length of the pipelines would be approximately 14,300-feet. The pipelines are proposed to be positioned in the following location:

- T147N, R93W, N ½ of Section 16, 15 & 14 and SW ¼ of Section 11.

Please refer to the enclosed project location map.

The proposed action would provide infrastructure to collect oil, gas and water from four wells located on two dual well pads operated by Marathon Petroleum Corporation. Construction of the proposed pipeline is expected to begin in late 2011.

An intensive, pedestrian resource survey of the proposed pipelines were conducted on June, 28 2011 by KL&J. The purpose of this survey was to gather site-specific data and photos with regards to botanical, biological, threatened and endangered species, biological, eagle, and water resources. A 200-foot wide pipeline corridor was evaluated for the site. In addition, a 0.50 mile wide buffer around all areas of project disturbance was used to evaluate the presence of eagles and eagle nests. Resources were evaluated using visual inspection and pedestrian transects across the site. ***Please refer to the enclosed eagle buffer map.***

A BIA-facilitated EA on-site assessment of the pipeline corridor was also conducted on June, 28 2011. The BIA Environmental Protection Specialist, as well as representatives from the Tribal Historic Preservation Office (THPO), Saddle Butte Pipeline, and KL&J were present. During the assessment, construction suitability with respect to topography, stockpiling, drainage, erosion control, and other surface issues were considered. Those present at the on-site assessment agreed that the chosen location is positioned to minimize impacts to sensitive wildlife and botanical resources and that the environmental commitments Saddle Butte Pipeline has made would further minimize harm to the environment. BMPs and other commitments Saddle Butte Pipeline has made to avoid, minimize, or mitigate impacts are listed at the end of this letter.

Threatened and Endangered Species: The proposed pipeline corridor occurs in Dunn County. In Dunn County, the interior least tern, whooping crane, black-footed ferret, pallid sturgeon, and gray wolf are all listed as endangered species. The piping plover is listed as a threatened species, and the Dakota skipper and Sprague's pipit are listed as a candidate species. Dunn County also contains designated critical habitat for the piping plover. None of these species were observed during the field survey and on-site assessment.

Whooping cranes use shallow, seasonally and semi-permanently flooded palustrine (marshy) wetlands for roosting, and various cropland and emergent wetlands for feeding. The proposed project is located in the Central Flyway where 75 percent of confirmed whooping crane sightings have occurred. However, there is no existing or potential stopover habitat within the study area. Lake Sakakawea is located outside of the study area, approximately 1.5-miles away at the nearest point. The proposed project is anticipated to have no effect to the whooping cranes or whooping crane habitat. If a whooping crane is sighted within one-mile of a pipeline or associated facilities while under construction, all work will cease within one-mile of that part of the project and the USFWS will be contacted immediately. In coordination with USFWS, work may resume after the bird(s) leave the area.

Suitable habitat for the interior least tern, pallid sturgeon, and piping plover is largely associated with Lake Sakakawea and/or its shoreline. The USFWS has determined Lake Sakakawea's shoreline to be critical habitat for the piping plover. The proposed pipeline corridor is located on upland bluffs of grazed rangeland, with Lake Sakakawea and its shoreline located approximately 360-feet below the bluffs and approximately 1.5-miles to the southeast. The topographic features of the area and distance from the shoreline should assist in providing sight and sound buffers for shoreline-nesting birds. Due to the proximity of the proposed project to Lake Sakakawea (approximately 1.5-miles at the nearest point) the proposed project may affect, but is not likely to adversely affect, the least tern, pallid sturgeon and piping plover.

The black-footed ferret historically could be found throughout the Rocky Mountains and Great Plains. In North Dakota, the black-footed ferret may potentially be present within prairie dog towns. However, this species has not been confirmed in North Dakota for over 20 years and is presumed extirpated. Its preferred habitat includes areas around prairie dog towns, as it relies on prairie dogs for food and lives in prairie dog burrows. Black-footed ferrets require at least an 80-acre prairie dog town to survive. Due to a lack of suitable habitat and known populations, the proposed project is anticipated to have no effect to the black-footed ferret.

Historically, the gray wolf's preferred habitat includes biomes such as boreal forest, temperate deciduous forest, and temperate grassland. While the gray wolf is not common in North Dakota, occasionally individual wolves do pass through the state. The study area is located far from other known wolf populations and is positioned on rangeland that is grazed. No wolves or indications of wolves were observed during the field survey. Due to a lack of preferred habitat characteristics and known populations, the proposed project is anticipated to have no effect to the gray wolf.

The Dakota Skipper is a small butterfly with a one-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 undisturbed, flat, moist bluestem prairies and upland prairies with an abundance of wildflowers. The study area is located on grazed rangeland that does contain bluestem prairies and wildflowers. Although grazing is evident, it is moderate in nature; therefore, the project site does contain suitable habitat for the Dakota skipper. Construction of the proposed pipelines will disturb suitable habitat for the Dakota skipper, although reclamation will occur as soon as practical after construction and there will be no permanent habitat loss or fragmentation. The proposed project may impact individuals or habitat, but will not likely contribute to a trend toward federal listing or cause a loss of viability to the population or species.

The Sprague's pipit is a small songbird found in prairie areas throughout the Northern Great Plains. Preferred habitat includes rolling, upland mixed-grass prairie habitat with high plant species diversity. The Sprague's pipit breeds in habitat with minimal human disturbance. The proposed study area consists of grazed rangeland which may provide potential habitat for the Sprague's pipit. No Sprague's pipit were observed during the field survey. Construction of the proposed pipelines will disturb suitable habitat for the Sprague's pipit, although reclamation will occur as soon as practical after construction and there will be no permanent habitat loss or fragmentation. The proposed project may impact individuals or habitat, but will not likely contribute to a trend toward federal listing or cause a loss of viability to the population or species.

Saddle Butte Pipeline plans to begin construction in late 2011, after the migratory bird breeding season of February 1 to July 15. In the event that construction is not completed during the 2011 construction season and that construction activities would take place within the migratory bird breeding season, pre-construction surveys for migratory birds or their nests would be conducted within five days prior to the initiation of construction activities; or mowing of the site prior to the nesting/breeding season would be completed to discourage nesting activities.

Botanical Resources: The study area for the proposed pipelines consists of grazed upland grasses. The 200-foot corridor around the proposed pipelines was dominated by Kentucky bluegrass (*Poa pratensis*), smooth brome (*Bromus inermis*), western wheatgrass (*Pascopyrum smithii*), cudweed sagewort (*Artemisia ludoviciana*), yellow sweet clover (*Melilotus officinalis*), and western snowberry (*Symphoricarpos occidentalis*). Several woody draws were present within the study area composed primarily of green ash (*Fraxinus pennsylvanica*) and American elm (*Ulmus americana*). Leafy spurge (*Euphorbia esula*) is listed as a noxious weed in Dunn County and was present in minor amounts within the study area. There are no threatened or endangered plant species listed for Dunn County.

Biological Resources: The proposed study area contains suitable habitat for mule deer (*Odocoileus Hemionus*), white-tailed deer (*Odocoileus virginianus*), sharp-tailed grouse (*Tympanuchus phasianellus*), ring-necked pheasant (*Phasianus colchicus*), golden eagle (*Aquila chrysaetos*), red-tailed hawk (*Buteo jamaicensis*), bald eagle (*Haliaeetus leucocephalus*), American badger (*Taxidea taxus*), song birds, coyote (*Canis latrans*), red fox (*Vulpes vulpes*), eastern cottontail rabbit (*Sylvilagus floridanus*), wild turkey (*Meleagris gallopavo*), white-tailed jackrabbit (*Lepus townsendii*), and North American porcupine (*Erethizon dorsatum*). During the field survey one turkey vulture and 10 tree swallows were observed.

As mentioned previously, construction of the pipelines may take place within the migratory bird breeding and nesting timeframe. In the event that a construction activity needs to take place within the nesting and breeding season, pre-construction surveys for migratory birds or their nests would be conducted within five days prior to the initiation of construction activities; or mowing of the site prior to nesting/breeding season may be completed in lieu of the pre-construction survey.

Additionally, all reasonable, prudent, and effective measures to avoid the taking of migratory bird species will be implemented during the construction and operation phases. These measures will include: the use of suitable mufflers on all internal combustion engines, certain compressor components to mitigate noise, and only utilizing approved roadways.

Eagles: A ground survey for eagle nests was conducted on June 28, 2011 and no eagle nests were detected within 0.5 miles of the study area. The study area was thoroughly searched and no eagles or eagle nests were observed. Dr. Anne Marguerite Coyle of Dickinson State University has completed focused research on golden eagles and maintains a database of golden eagle nest sightings. According to Dr. Coyle's information, the closest recorded golden eagle nest is located approximately 2.0 miles south of the proposed pipeline corridor. If a bald or golden eagle or eagle nest is sighted within 0.5 miles of the study area, construction activities shall cease and the USFWS shall be notified for advice on how to proceed.

Water Resources: The majority of the proposed pipeline study area drains north into a series of wooded draws. Once in the draws, runoff would flow approximately 4.9-miles north and then northeast into Lake Sakakawea. The very eastern portion of the proposed pipeline drains east into a wooded draw. From there, runoff would flow approximately 1.5-miles east before reaching Lake Sakakawea.

Best Management Practice: BMPs for soil erosion would be implemented as needed to include over-seeding of cut areas and spoil piles via hydro-seeding, as well as the use of diversion ditches, silt fences and/or mats. Trees or shrubs with a trunk diameter of four inches or greater, removed during site construction, would be chipped and spread as erosion control or removed from the site and disposed of at a approved location. Small shrubs will be buried, shredded, or left with backfill and re-spread during reclamation. The alteration of drainages near the proposed pipeline corridor would be

avoided. Upon completion of the pipelines, the disturbed area will be reclaimed to further avoid environmental areas of concern.

Summary of Commitments to Avoid or Minimize Impacts: In an effort to minimize the potential environmental effects associated with the proposed project, Saddle Butte Pipeline will also implement the following measures into the development of this site:

- Topsoil will be segregated and stored on-site to be used in the reclamation process. All disturbed areas will be re-contoured to original elevations as part of the reclamation process.
- BMPs will be implemented to minimize wind and water erosion of soil resources.
- Water will be used as a palliative to control dust during construction.
- Disturbed vegetation will be re-seeded with an approved seed mixture from the BIA Environmental Protection Specialist upon completion of the project. The seeding will be maintained until the vegetation is consistent with surrounding undisturbed areas and the area is free of noxious weeds.
- If cultural resources are discovered during construction or operation, work shall immediately be stopped, the affected site secured, and BIA and THPO notified. In the event of a discovery, work shall not resume until written authorization to proceed has been received from the BIA.
- All project workers are prohibited from collecting artifacts or disturbing cultural resources in any area under any circumstances.
- If a bald or golden eagle or eagle nest is sighted within 0.5 miles of the study area, construction activities shall cease and the USFWS shall be notified for advice on how to proceed.
- Prior to construction, Saddle Butte Pipeline will coordinate with the Fort Berthold Water Authority Director to ensure minimization of impacts to existing water distribution pipelines.
- Utility modifications will be identified during design and coordinated with the appropriate utility company.
- Construction areas will be properly fenced to prevent human or animal access.
- In the event that construction activity takes place within the nesting and breeding season, pre-construction surveys for migratory birds or their nests would be conducted within five days prior to the initiation of construction activities and/or the route would be mowed prior to the nesting/breeding season to prevent birds from nesting along the route.
- Measures implemented during construction to avoid the taking of migratory bird species will include: suitable mufflers on all internal combustion engines, certain compressor components to mitigate noise levels, and only utilizing approved roadways.
- If a whooping crane is sighted within one-mile of the project while it is under construction, all work shall cease within one-mile of that part of the project and the USFWS shall be contacted immediately. In coordination with USFWS, work may resume after the bird(s) leave the area.
- All slopes greater than 15 percent will be hydroseeded or fiber mats will be used for soil stability.
- During reclamation, slopes shall be roughened to reduce erosion.
- Straw wattles, silt fence, or water bars shall be installed on all slopes greater than 5 percent.
- Trees and shrubs with a trunk diameter greater than four inches will be chipped and spread as erosion control or removed from the site to an approved location. Small shrubs will be buried, shredded, or left with backfill and re-spread during reclamation.

To ensure that social, economic, and environmental effects are considered in the development of this project, we are soliciting your views and comments on the proposed development of this project, pursuant to Section 102(2) (D) (IV) of the National Environmental Policy Act of 1969, as amended. We ask your assistance in identifying any property or resources that you own, manage,

oversee, or otherwise value that might be affected. We are also interested in existing or proposed developments you may have that should be considered in connection with the proposed project.

It is requested that any comments or information be forwarded to our office on or before **August 15, 2011**. We request your comments by that date to ensure that we will have ample time to review them and incorporate them into the necessary environmental documentation.

If you would like further information regarding this project, please contact me at (701) 355-8726. Thank you for your cooperation.

Sincerely,

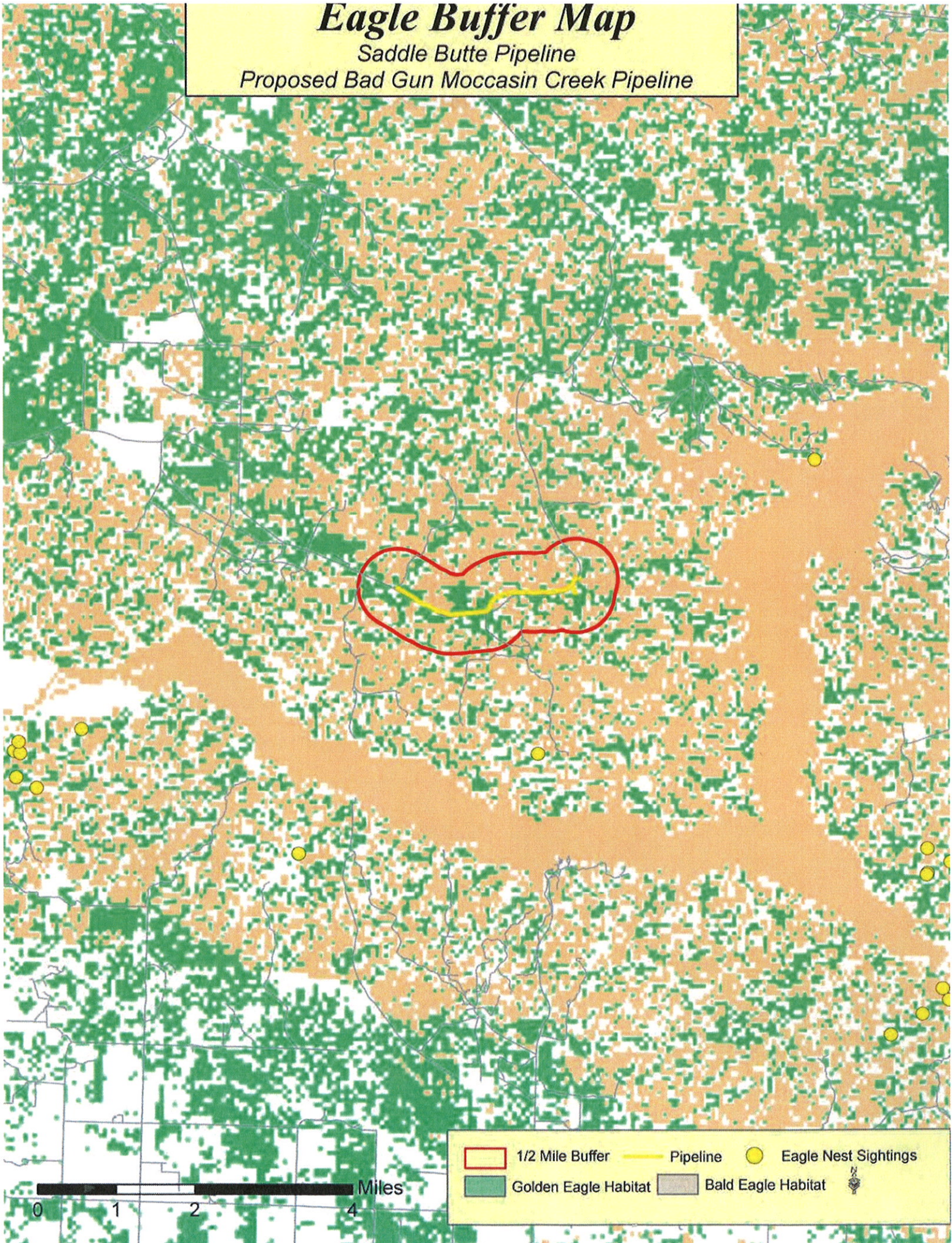
Kadmas, Lee & Jackson, Inc.









Grady Wolf
Environmental Planner
Enclosures (Maps)

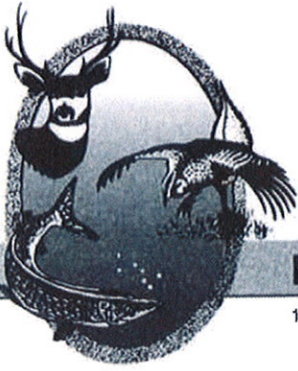
Eagle Buffer Map

Saddle Butte Pipeline
Proposed Bad Gun Moccasin Creek Pipeline



	1/2 Mile Buffer		Pipeline		Eagle Nest Sightings
	Golden Eagle Habitat		Bald Eagle Habitat		

APPENDIX B AGENCY SCOPING RESPONSES



"VARIETY IN HUNTING AND FISHING"

NORTH DAKOTA GAME AND FISH DEPARTMENT

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

August 9, 2011

Grady Wolf
Environmental Planner
Kadmas, Lee & Jackson, Inc.
PO Box 1157
Bismarck, ND 58502-1157

Dear Mr. Wolf:

RE: Mandaree Cut Across 5-16 and 209
Badgun-Moccasin Creek Pipeline
Moccasin Creek Pipeline
Riverview Pipeline

Saddle Butte Pipeline, LLC is proposing the construction of five pipeline corridors, with up to four pipelines in each, on the Fort Berthold Reservation in Dunn and McKenzie Counties, North Dakota.

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

The National Wetland Inventory indicates various wetlands within the proposed project corridors. Steps should be taken to protect any wetlands that cannot be avoided, no alterations should be made to existing drainage patterns, and above-ground appurtenances should not be placed in wetland areas.

Sincerely,

Greg Link
Chief
Conservation & Communication Division

js

July 15, 2011

Mr. Tom Schauer
Manager
Bismarck Airports District Office
Federal Aviation Administration
2301 University Drive, Bldg 23B
Bismarck, ND 58504

**RE: Saddle Butte Pipeline, LLC.
Badgun-Moccasin Creek
Fort Berthold Reservation
Dunn County, North Dakota**

Dear Mr. Schauer,

On behalf of Saddle Butte Pipeline, LLC (Saddle Butte Pipeline), Kadrmass, Lee & Jackson, Inc. (KL&J) is preparing an EA (Environmental Assessment) under NEPA (the National Environmental Policy Act) for the BIA (Bureau of Indian Affairs) and BLM (Bureau of Land Management). The proposed action includes approval by the BIA and BLM for the construction of pipelines within a 100-foot right-of-way on the Fort Berthold Reservation. The proposed pipelines construction would consist of up to four lines (high pressure gas line, low pressure gas line, oil line, and water line) with each line being up to 12-inches in diameter. Total length of the pipelines would be approximately 14,300-feet.

The pipeline corridor is proposed to be positioned in the following locations: T147N, R93W, N ½ of Section 16, 15 & 14 and the SW ¼ of Section 11. **Please refer to the enclosed project location map.**

The proposed action would provide infrastructure to collect oil, gas and water from four wells located on two dual well pads operated by Marathon Petroleum Corporation. Construction of the proposed pipelines is expected to begin in late 2011.


To ensure that social, economic, and environmental effects are analyzed accurately, we solicit your views and comments on the proposed action. We ask your assistance in identifying any property or resources that you own, manage, oversee, or otherwise value that might be affected. We are also interested in existing or proposed developments you may have that should be considered in connection with the proposed project.

Please provide your comments by **August 11, 2011**. We request your comments by that date to ensure that we will have ample time to review them and incorporate them into the EA.

If you would like further information regarding this project, please contact me at (701) 355-8726. Thank you for your cooperation.

Sincerely,

Kadrmass, Lee & Jackson, Inc.

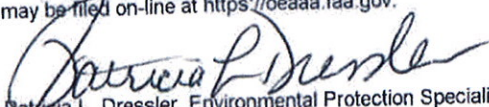

Grady Wolf
Environmental Scientist
Enclosure (Project Location Map)



US Department
of Transportation
**Federal Aviation
Administration**

✓
Date Aug 10, 2011

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


Patricia L. Dressler, Environmental Protection Specialist
FAA/Bismarck Airports District Office
2301 University Drive, Building 23B
Bismarck, ND 58504



NORTH DAKOTA
DEPARTMENT of HEALTH

ENVIRONMENTAL HEALTH SECTION
Gold Seal Center, 918 E. Divide Ave.
Bismarck, ND 58501-1947
701.328.5200 (fax)
www.ndhealth.gov



July 22, 2011

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

Re: Saddle Butte Pipeline, LLC, Badgun-Moccasin Creek
Fort Berthold Reservation, Dunn County

Dear Mr. Wolf:

This department has reviewed the information concerning the above-referenced project submitted under date of July 15, 2011 with respect to possible environmental impacts.

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

1. All necessary measures must be taken to minimize fugitive dust emissions created during construction activities. Any complaints that may arise are to be dealt with in an efficient and effective manner.
2. Care is to be taken during construction activity near any water of the state to minimize adverse effects on a water body. This includes minimal disturbance of stream beds and banks to prevent excess siltation, and the replacement and revegetation of any disturbed area as soon as possible after work has been completed. Caution must also be taken to prevent spills of oil and grease that may reach the receiving water from equipment maintenance, and/or the handling of fuels on the site. Guidelines for minimizing degradation to waterways during construction are attached.
3. Oil and gas related construction activities located within tribal boundaries in North Dakota may be required to obtain a permit to discharge storm water runoff from the U.S. Environmental Protection Agency. Further information may be obtained from the U.S. EPA's website or by calling the U.S. EPA - Region 8 at (303) 312-6312. Also, cities or counties may impose additional requirements and/or specific best management practices for construction affecting their storm drainage system. Check with the local officials to be sure any local storm water management considerations are addressed.

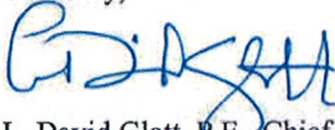
4. Noise from construction activities may have adverse effects on persons who live near the construction area. Noise levels can be minimized by ensuring that construction equipment is equipped with a recommended muffler in good working order. Noise effects can also be minimized by ensuring that construction activities are not conducted during early morning or late evening hours.

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

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

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

Sincerely,

A handwritten signature in blue ink, appearing to read "L. David Glatt".

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

LDG:cc
Attach.



Construction and Environmental Disturbance Requirements

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

Soils

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

Surface Waters

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

Fill Material

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



Jack Dalrymple, Governor
Mark A. Zimmerman, Director

1600 East Century Avenue, Suite 3
Bismarck, ND 58503-0649
Phone 701-328-5357
Fax 701-328-5363
E-mail parkrec@nd.gov
www.parkrec.nd.gov

July 26, 2011

Mr. Grady Wolf
Kadrmass Lee & Jackson
128 Soo Line Drive
PO Box 1157
Bismarck, ND 58502-1157

Re: Saddle Butte Pipeline, LLC, Badgun_Moccasin Creek, Fort Berthold Reservation

Dear Mr. Wolf,

The North Dakota Parks and Recreation Department (the Department) has reviewed the above referenced proposal for the construction of gas, oil and water pipelines on the Fort Berthold Reservation, Dunn County, North Dakota.


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

The North Dakota Natural Heritage biological conservation database has been reviewed to determine if any plant or animal species of concern or other significant ecological communities are known to occur within an approximate one-mile radius of the project area. Based on this review, there are no documented occurrences in our database within or adjacent to project area. Because this information is not based on a comprehensive inventory, there may be species of concern or otherwise significant ecological communities in the area that are not represented in the database. The lack of data for any project area cannot be construed to mean that no significant features are present. The absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks natural heritage resources.

The Department recommends that the project be accomplished with minimal impacts and that all efforts be made to ensure that critical habitats not be disturbed in the project area to help secure rare species conservation in North Dakota. Regarding any reclamation efforts, we recommend that any impacted areas be revegetated with species native to the project area.

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

Sincerely,


Kathy Duttenehner, Coordinator
Natural Resources Program
Nature Preserves/Natural Heritage Inventory

R.USNDNHII*2011_177 KD7/26/2011DL8.11.2011

• • • • •
Play in our backyard!



United States Department of the Interior

BUREAU OF RECLAMATION

Dakotas Area Office

P.O. Box 1017

Bismarck, North Dakota 58502



IN REPLY REFER TO:
DK-5000
ENV-6.00

JUL 27 2011

Mr. Grady Wolf
Environmental Scientist
Kadrmass, Lee, & Jackson, Inc.
P.O. Box 1157
Bismarck, ND 58102-1175

Subject: Solicitation for an Environmental Assessment for the Construction of up to Four, 12-Inch Pipelines of High and Low Pressure Gas, Oil, and Water Lines Within Two, 100 Feet Wide Right-of-Ways of Approximately 14,300 Feet by Marathon Oil on the Fort Berthold Reservation in McKenzie County, North Dakota

Dear Mr. Wolf:

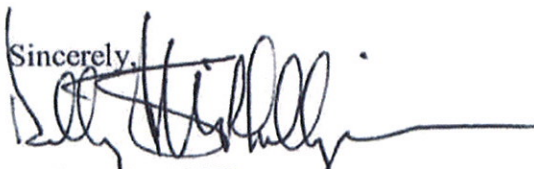
This letter is written to inform you that we received your letter July 20, 2011, and the information and map have been reviewed by Bureau of Reclamation staff.

It appears there are no Federal, Reclamation facilities in Section 11, 14, 15, or 16, T147N, R93W, Saddle Butte SW or Mandaree SE. However, I have provided you with a map of the general vicinity of your proposed well pipeline routes to assist you in determination of potential effects due to your proposed action. Should you have need to cross a Fort Berthold Rural Water System pipeline please refer to the attached sheet for pipeline crossings specifications and contact our engineer, Colin Nygaard as below.

Since Reclamation is the lead Federal agency for the Fort Berthold Rural Water System, we request that any work planned on the reservation be coordinated with Mr. Lester Crows Heart, Fort Berthold Rural Water Director, Three Affiliated Tribes, 308, 4 Bears Complex, New Town, North Dakota 58763.

For future reference, please direct all future environmental consultation communications to Ms. Loretta Chandler, Chief of Reclamation's Dakotas Area Office, Environmental Management Division.

Thank you for providing the information and opportunity to comment. If you have any further environmental questions, please contact me at 701-221-1287 or Colin Nygaard, Civil Engineer, for engineering questions at 701-221-1262.

Sincerely,

Kelly B. McPhillips
Environmental Specialist

Enclosure

cc: See next page.

Subject: Solicitation for an Environmental Assessment for the Construction of up to Four, 12 Inch Pipelines of High and Low Pressure Gas, Oil, and Water Lines Within Two, 100 Feet Wide Right-of-Ways of Approximately 14,300 Feet by Marathon Oil on the Fort Berthold Reservation in McKenzie County, North Dakota

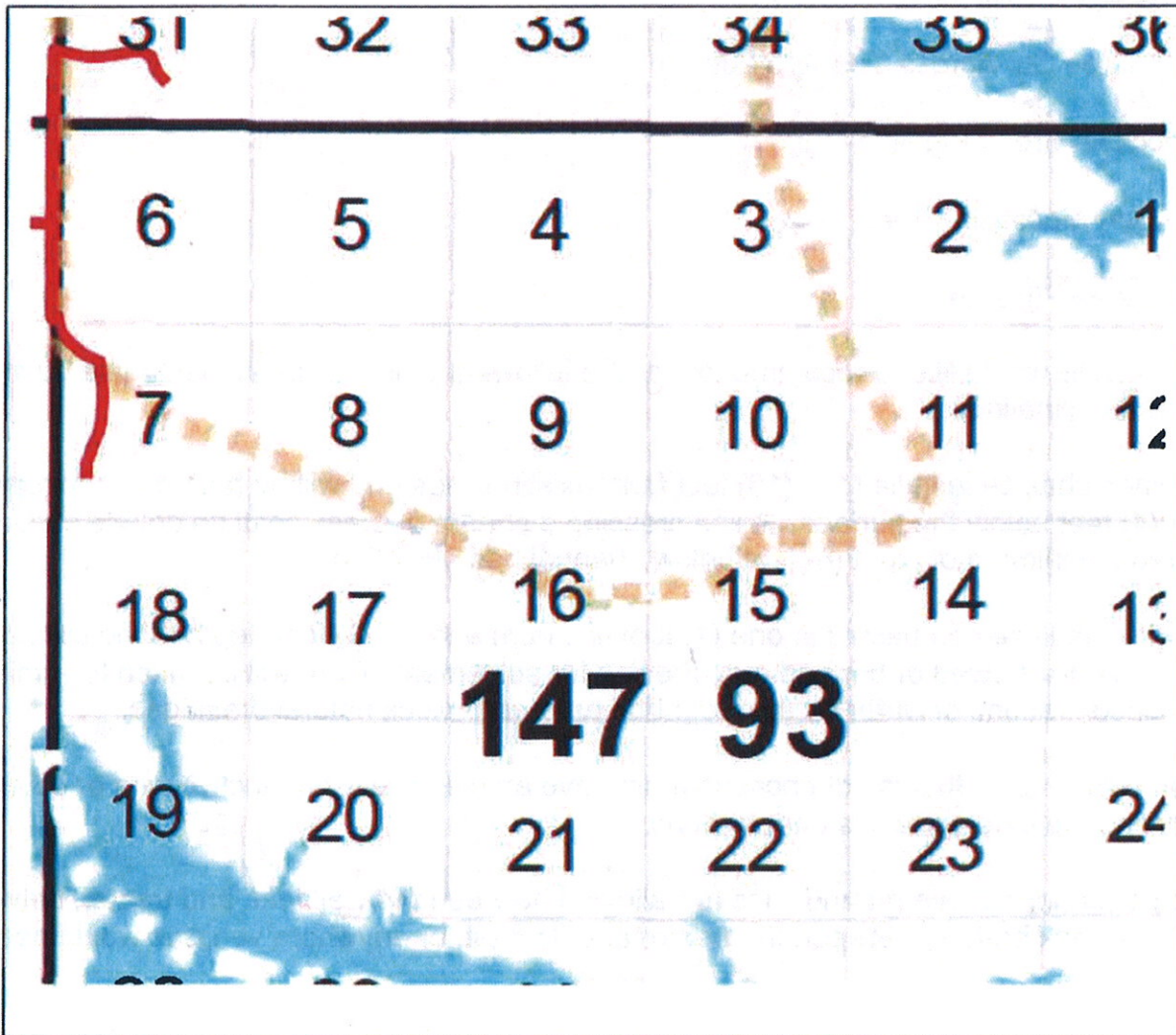
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cc: Bureau of Indian Affairs
Great Plains Regional Office
Attention: Ms. Marilyn Bercier
Regional Environmental Scientist
115 Fourth Avenue S.E.
Aberdeen, SD 57401

Mr. Lester Crows Heart
Fort Berthold Rural Water Director
Three Affiliated Tribes
308 4 Bears Complex
New Town, ND 58763
(w/encl)

Subject: Solicitation for an Environmental Assessment for the Construction of up to Four, 12 Inch Pipelines of High and Low Pressure Gas, Oil, and Water Lines Within Two, 100 Feet Wide Right of Ways of Approximately 14,300 Feet by Marathon Oil on the Fort Berthold Reservation in McKenzie County, North Dakota

Sections 16+15, T147N, R93W, Mandaree SE and Sections 14+11 in T147N, R93W, Saddle Butte SW, North Dakota, in McKenzie County - Red lines represent rural water pipelines while solid and dashed Brown lines represent county roads.



Grady Wolf

From: Sorensen, Charles G NWO [Charles.G.Sorensen@usace.army.mil]
Sent: Tuesday, July 26, 2011 10:34 AM
To: grady.wolf@kljeng.com
Cc: charles.g.sorensen@usace.army.mil
Subject: New Saddle Butte Pipelines within the Fort Berthold Reservation

Grady

Thank you for letting the U.S. Army Corps of Engineers Garrison Dam/Lake Sakakawea Project comment on the following actions

- Mandaree Cut Across 5-16 and 209
- Moccasin Creek Pipeline
- Badgun-Moccasin Creek
- Riverview Pipeline

At this time the COE would like to recommend that the following practices be implamented during the construction of the pipelines

- All lines shall be installed ten (10) feet from existing lines and will be buried at a minimum depth of four (4) feet below the surface. A line crossing a stream or creek shall be double cased and buried or bored a minimum of eight (8) feet below channel bed elevation
- Backfill shall be compacted in one (1) foot lifts from a three (3) foot depth to the surface. Excess dirt will be windrowed or bermed over the line for settlement. Care will be taken to eliminate all potential concentrations of water on the disturbed area or to block natural drainages.
- Non-ferrous pipe that is not encased must have an electrically conductive wire or other means of locating the pipe while it is underground
- No permanent above ground lines are allowed between the wellhead and treater, between the wellhead and tank battery, between the treater and flare pit, or anywhere vehicles would need to cross them.
- All line construction activities are subject to immediate suspension during periods of wet weather.
- During below-freezing weather, when the topsoil and subsoil are frozen solid, all construction activities should be suspended
- Construction of the pipeline should be accomplished using best management practices in regards to construction of the pipelines

Charles Sorensen
Natural Resource Specialist
U.S. Army Corps of Engineers
Garrison Dam/Lake Sakakawea Project

Riverdale, North Dakota Office
(701) 654 7411 ext 232



REPLY TO
ATTENTION OF

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

July 19, 2011

North Dakota Regulatory Office

Kadrmass, Lee & Jackson, Inc.
Attn: Mr. Grady Wolf, Environmental Scientist
128 Soo Line Drive
PO Box 1157
Bismarck, North Dakota 58502-1157

Dear Mr. Wolf:

This is in response to your letter on behalf of Saddle Butte Pipeline, LLC; received July 20, 2011, requesting Department of the Army (DA), US Army Corps of Engineers (Corps) comments regarding construction of pipelines located within the Fort Berthold Reservation, Dunn and McKenzie Counties, North Dakota. The proposed pipelines include the 14,300-foot Badgun-Moccasin Creek; the 2,800-foot Moccasin Creek and the 15,563-foot Riverview.

Corps regulatory offices administer Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. Section 10 of the Rivers and Harbors Act regulates work in, over or under navigable waters. The Missouri River (Lake Sakakawea) is considered navigable waters. Section 404 of the Clean Water Act regulates the discharge of dredge or fill material (temporarily or permanently) in waters of the United States. Waters of the United States may include, but are not limited to, rivers, streams, ditches, coulees, lakes, ponds, and their adjacent wetlands. Fill material include, but is not limited to, rock, sand, soil, clay, plastics, construction debris, wood chips, overburden from mines or other excavation activities and materials used to create any structure or infrastructure in the waters of the United States.

Nationwide Permit 12 authorizes activities for the construction of utility lines. A copy of this nationwide permit and conditions is enclosed. **The nationwide permit and conditions are submitted only for informational purposes and in no way is it, or this letter, to confirm that your activity complies with the nationwide permit and conditions.** As explained within Nationwide Permit 12, the permittee is required to submit a pre-construction notification to the Corps of Engineers prior to construction if any of seven criteria are met.

If your proposal requires review by the Corps in accordance with Section 10 of the Rivers and Harbors Act and possibly Section 404 of the Clean Water Act, complete and submit the enclosed Corps of Engineers permit application to the U. S. Army Corps of Engineers, North Dakota Regulatory Office, 1513 South 12th Street, Bismarck, North Dakota 58504.

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

Sincerely,



Daniel E. Cimarosti
Regulatory Program Manager
North Dakota

Enclosures
ENG Form 4345
Fact Sheet NWP 12



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
3425 Miriam Avenue
Bismarck, North Dakota 58501



AUG 26 2011

Mr. Grady Wolf, Environmental Planner
Kadmas, Lee & Jackson
128 Soo Line Drive
PO Box 1157
Bismarck, North Dakota 58502-1157

Re: Saddle Butte Pipeline, LLC Proposed
Badgun-Moccasin Creek Pipeline,
Fort Berthold Reservation, Dunn
County, North Dakota

Dear Mr. Wolf:

This is in response to your July 15, 2011, scoping letter regarding up to four proposed oil, gas and water pipelines to be completed by Saddle Butte Pipeline, LLC (Saddle Butte) on the Fort Berthold Reservation, Dunn County, North Dakota. The pipelines would be approximately 14,300-feet long, and located within a shared 100-foot right-of-way.

Specific locations for the proposed pipelines are:

T. 147 N., R. 93 W., N ½ Sections 16, 15 and 14 and SW ¼ Section 11

We offer the following comments under the authority of and in accordance with the Migratory Bird Treaty Act (16 U.S.C. 703 *et seq.*) (MBTA), the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 *et seq.*) (NEPA), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d, 54 Stat. 250) (BGEPA), Executive Order 13186 "Responsibilities of Federal Agencies to Protect Migratory Birds," the Endangered Species Act, as amended (16 U.S.C. 1531 *et seq.*) (ESA), and the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57).

Threatened and Endangered Species

In an e-mail dated October 13, 2009, the Bureau of Indian Affairs (BIA) designated Kadmas, Lee & Jackson (KLJ) to represent the BIA for informal Section 7 consultation under the ESA. Therefore, the U.S. Fish and Wildlife Service (Service) is responding to you as the designated non-Federal representative for the purposes of ESA, and under our other authorities as the entity preparing the NEPA document for adoption by the BIA.

The Service concurs with your “may affect, not likely to adversely affect” determinations for least tern, pallid sturgeon and piping plover. These concurrences are based upon Saddle Butte’s placement of the proposed pipeline on upland bluffs, with Lake Sakakawca and its shoreline located approximately 360-feet below the bluffs and approximately 1.5-miles to the southeast. The topographic features of the area and distance from the shoreline should assist in providing sight and sound buffers for shoreline-nesting birds.

The Service acknowledges your “no effect” determination for whooping cranes. If you maintain your determination, no further consultation is necessary; however, the project proponent is still liable for violations of ESA Section 9 prohibitions against take of federally listed species. The Service does not believe a “no effect” determination for this species is correct. The fact that Saddle Butte has made a commitment to stop work on the proposed site if a whooping crane is sighted implies that continuing work could disturb cranes, which would warrant a “may affect, not likely to adversely affect” determination. The Service suggests that a determination of “may affect, not likely to adversely affect” for whooping crane may be more appropriate in this case.

The Service acknowledges your “no effect” determination for gray wolf and black-footed ferret.

Our GIS data indicates that there may be suitable grassland habitat present along the proposed pipeline route for the Dakota skipper and Sprague’s pipit. No effects determinations are required for candidate species and there is no legal requirement under the ESA to protect candidate species. However, it is within the spirit of the ESA to consider these species as intrinsically valuable and worth protecting. Section 7(a)(4) of the ESA provides a mechanism for identifying and resolving potential conflicts whereby a Federal action agency may request a conference on any proposed action that may adversely affect proposed species or proposed critical habitat at an early planning stage. During the conference, the Service may assist the action agency in determining effects and may advise the action agency on ways to avoid or minimize adverse effects to proposed species (or candidate species if present, and voluntarily considered by the action agency and/or the applicant) or proposed critical habitat. Conferences may involve informal discussions among the Service, the action agency, and the applicant.

Our recommendations to avoid or minimize impacts on candidate species include reducing the construction ROW through native prairie to the greatest extent possible and committing to a comprehensive revegetation and monitoring protocol to ensure that the habitat along the pipeline ROW is returned to pre-project condition. We recommend that the revegetation plan include a commitment to reseed disturbed native prairie with a comparable native grass/forb seed mixture and planting a diverse mixture of native cool and warm season grasses and forbs. Research has suggested that a more diverse mix, including numerous forb species, is not only ecologically beneficial, but is also more weed resistant, allowing for less intensive management and chemical use. In essence, the more species included in a mixture, the higher the probability of providing competition to resist invasion by non-native plants. The seed source should be as local as possible,

preferably collected from the nearby native prairie. Obtain seed stock from nurseries within 250 miles of the project area to insure the particular cultivars are well adapted to the local climate. The Natural Resources Conservation Service (NRCS) compiles a list of vendors in North Dakota that supply conservation seed and plants (<http://www.plant-materials.nrcs.usda.gov/pubs/ndpncmt8152.pdf>). Additional information on native grasses and forbs may be found at the NRCS Bismarck Plant Materials Center (<http://www.plant-materials.nrcs.usda.gov/ndpnc/>). Reseeded areas should be monitored to ensure that the area revegetates as expected.

Migratory Birds

The letter states that Saddle Butte will implement the following measures to avoid/minimize take of migratory birds:

- Construction will be completed outside of the migratory bird nesting season (Feb. 1-July 15);
- If construction needs to take place within the breeding and nesting season, pre-construction surveys for migratory birds and their nests will be conducted within 5 days prior to the initiation of construction activities. If birds or nests are discovered, the Service will be contacted for additional information on how to proceed;
- Or, mowing of the site prior to the nesting/breeding season would be completed to discourage nesting activity.

The above measures may reduce or eliminate impacts to migratory birds during construction. However, even if all measures are taken to avoid take of migratory birds during the construction phase, there is likely to be some migratory bird take associated with the ongoing operation and maintenance of the proposed pipeline. The Service recommends that Saddle Butte develop a Conservation Plan in cooperation with the Service to identify potential impacts to migratory birds during all phases of the proposed project. This Conservation Plan should evaluate impacts both from the immediate footprint of the project as well as from the larger impacts from ongoing disturbance. We recommend that this plan include a Habitat Equivalency Analysis or similar habitat analysis method, which may include funding to allow for conservation actions to be directed towards the greatest needs of migratory birds in the proposed pipeline project area.

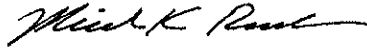
Bald and Golden Eagles

The letter states that a ground survey for eagle nests was conducted on June 28, 2011. No eagles or nests were discovered within 0.5-mile of the project area. The database does not indicate any recorded eagle nests within 0.5-mile of the project area. If a bald or golden eagle is sighted within 0.5-mile of the study area, Saddle Butte proposes to cease all construction activities and contact the Service for advice on how to proceed.

The Service reminds Saddle Butte that commitment to implement the aforementioned measures does demonstrate compliance with the MBTA and the BGEPA.

Thank you for the opportunity to comment on this project proposal. If you require further information or the project plans change, please contact me or Heidi Riddle of my staff at (701) 250-4481 or at the letterhead address.

Sincerely,



For Jeffrey K. Towner
Field Supervisor
North Dakota Field Office

cc: Bureau of Indian Affairs, Aberdeen
(Attn: Marilyn Bercier)
Bureau of Land Management, Dickinson
ND Game & Fish Department, Bismarck



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS
Great Plains Regional Office
115 Fourth Avenue S.E., Suite 409
Aberdeen, South Dakota 57401



IN REPLY REFER TO:
DESCRM
MC-208

AUG 25 2011

Elgin Crows Breast, THPO
Mandan, Hidatsa and Arikara Nation
404 Frontage Road
New Town, North Dakota 58763

Dear Mr. Crows Breast:

We have considered the potential effects on cultural resources of a pipeline in Dunn County, North Dakota. Approximately 43.6 acres were intensively inventoried using a pedestrian methodology. Potential surface disturbances are not expected to exceed the area depicted in the enclosed report. One archaeological site (32DU1634) was located which may possess the quality of integrity and meet at least one of the criteria (36 CFR 60.4) for inclusion on the National Register of Historic Places. No properties were located that appear to qualify for protection under the American Indian Religious Freedom Act (42 USC 1996).

As the surface management agency, and as provided for in 36 CFR 800.5, we have therefore reached a determination of **no historic properties affected** for this undertaking, as the archaeological site will be avoided. Catalogued as **BIA Case Number AAO-1926/FB/11**, the proposed undertaking, location, and project dimensions are described in the following report:

Mitchell, Mary
(2011) Bad Gun – Moccasin Creek Gathering Line: A Class III Cultural Resource Inventory, Dunn County, North Dakota. KLJ CR for Saddle Butte Pipeline, LLC, Durango, CO.

If your office concurs with this determination, consultation will be completed under the National Historic Preservation Act and its implementing regulations. We will adhere to the Standard Conditions of Compliance.

If you have any questions, please contact Dr. Carson N. Murdy, Regional Archaeologist, at (605) 226-7656.

Sincerely,

Regional Director

Enclosure

cc: Chairman, Three Affiliated Tribes
Superintendent, Fort Berthold Agency

Notice of Availability and Appeal Rights

Saddle Butte Pipeline: Badgun-Moccasin Creek Pipeline

The Bureau of Indian Affairs (BIA) is planning to issue administrative approvals related to an Environmental Assessment to Authorize Land Use for the Badgun-Moccasin Creek Pipeline on the Fort Berthold Reservation as shown on the attached map. Construction by Saddle Butte Pipeline, LLC is expected to begin in 2011.

An environmental assessment (EA) determined that proposed activities will not cause significant impacts to the human environment. An environmental impact statement is not required. Contact Earl Silk, Superintendent at 701-627-4707 for more information and/or copies of the EA and the Finding of No Significant Impact (FONSI).

The FONSI is only a finding on environmental impacts – it is not a decision to proceed with an action and *cannot* be appealed. BIA's decision to proceed with administrative actions *can* be appealed until November 2, 2011, by contacting:

United States Department of the Interior
Office of Hearings and Appeals
Interior Board of Indian Appeals
801 N. Quincy Street, Suite 300, Arlington, Va 22203.

Procedural details are available from the BIA Fort Berthold Agency at 701-627-4707.

Project locations

