

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

NOV 0.8 2011

MEMORANDUM

TO:

Superintendent, Fort Berthold Agency

FROM: Action 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 Moccasin Creek Lateral 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 is a copy 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.

Marly Perior

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 Moccasin Creek
Oil, Gas, and Water Pipelines

Fort Berthold Indian Reservation Dunn County, North Dakota

The U.S. Bureau of Indian Affairs (BIA) has received a proposal to construct pipelines located as follows:

T148N, R93W, 5th P.M., SE¼ of Section 33 (Dunn County)

Associated federal actions by BIA include determinations of effect regarding environmental resources and positive recommendations to the Bureau of Land Management regarding the construction of the Moccasin Creek lateral pipelines.

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

11811

Date

ENVIRONMENTAL ASSESSMENT

United States Bureau of Indian Affairs

Great Plains Regional Office Aberdeen, South Dakota



Saddle Butte Pipeline, LLC

Moccasin Creek Lateral Pipeline

Fort Berthold Indian Reservation

November 2011

For information contact:
Bureau of Indian Affairs, Great Plains Regional Office
Division of Environment, Safety and Cultural Resources
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CHAPTER 1 PURPOSE AND NEED FOR ACTION

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 Formation, a geologic formation rich in oil and gas deposits that extends approximately 25,000 square miles beneath North Dakota, 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 2 billion barrels of recoverable oil in each of these formations¹. The Department's director estimates that there are 30–40 remaining years of production, or more if technology improves.

The purposed action includes construction of up to four gas, oil and/or water lines. The oil and gas lines would be up to eight inches in diameter and the water line would be up to six inches in diameter. Total length of each pipeline would be approximately 2,800-feet. The proposed action would provide infrastructure to collect oil, gas and water from multiple wells operated by various production companies. The proposed pipelines would be located on the Fort Berthold Reservation and is proposed to be positioned in T148N, R93W, SE¼ of Section 9 in Dunn County. 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.

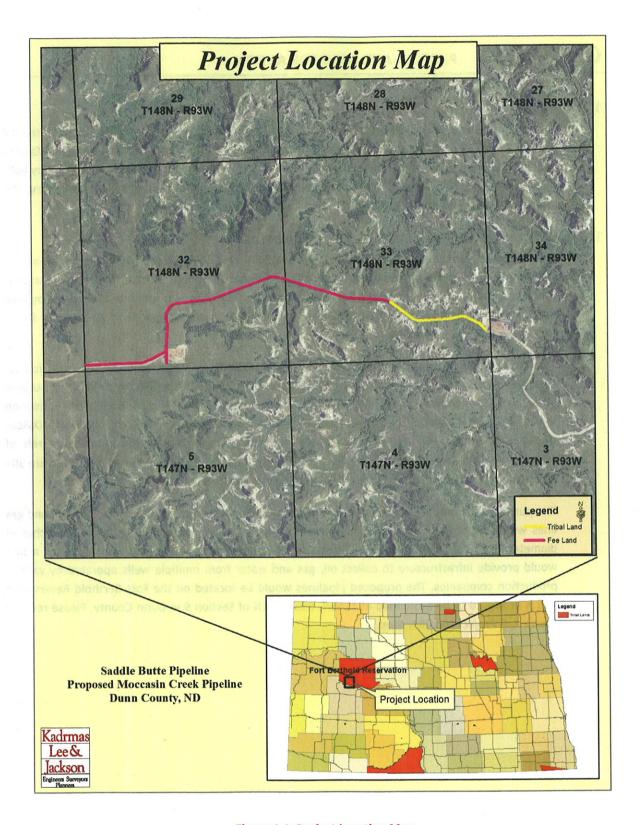


Figure 1.1, Project Location Map

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 positive recommendation for approval of the proposed pipeline 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.

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, as well as truck traffic, 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 regarding the proposed project. Therefore, an EA for the pipelines are 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 ALTERNATIVES

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.

2.3 Alternative B: Proposed Action

The proposed action (Alternative B) includes authorization by the BIA to install up to four gas, oil and/or water lines, gathering systems, and other appurtenances above or below ground to move produced gas and liquids to a suitable processing location. The proposed project would also require approval for the associated rights-of-way acquisition.

An intensive, pedestrian resource survey of the proposed pipelines was conducted on June 23, 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, eagle, and water resources. A 200-foot wide pipeline corridor was evaluated for this 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.

The BIA EA on-site assessment of the pipeline corridor was conducted on June 28, 2011. The BIA Environmental Protection Specialist, representatives from the Tribal Historic Preservation Office, Saddle Butte Pipeline, and KL&J participated in this assessment. During this 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, along with the minimization measures Saddle Butte Pipeline plans to implement, are positioned in areas which would minimize impacts to sensitive wildlife and botanical resources. 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 water, gas, and oil lines are 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 show in *Appendix A, Moccasin Creek Plat*. 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 personnel 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. Reasonable efforts 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 pipeline. Typical ROW Cross Section is as shown in *Figure 2.1*.

All Saddle Butte installations are monitored by an inspection/construction management team as well as independent third party contract experts. Saddle Butte's construction specifications require contractors to allow for inspection, and no pipeline is laid and backfilled without appropriate approvals. Hydrotesting of pipelines would be used to assure no possibility of leakage at the time of installation.

It is understood that other utilities, including water pipelines, are also present in the immediate area. The Fort Berthold Rural Water (FBRW) pipeline occurs approximately 2 miles west of the proposed pipeline and would not be impacted by construction. Five feet of lateral distance would be maintained from all telephone and cable lines. Any line crossing conflicts would be worked out individually at each location with the respective utility.

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 ditch as bending, welding and other installation preparations were completed. After the pipelines were lowered into the ditch they would be hydrotested with water acquired from a local commercial source. Water used for hydrotesting would be removed from the site and disposed of at a permitted location.

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

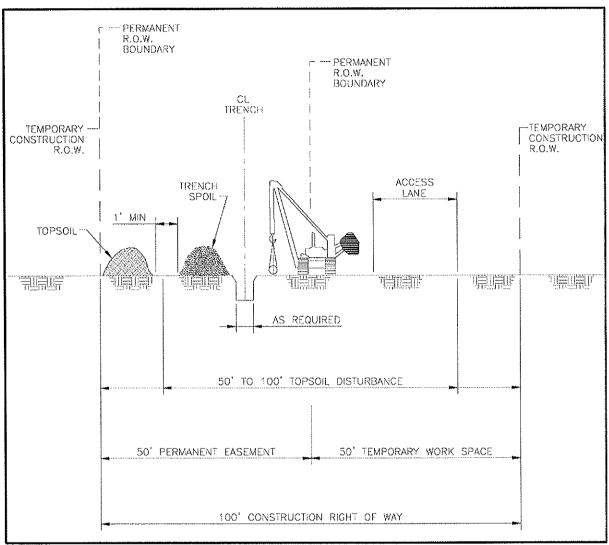


Figure 2.1, Typical ROW Cross Section

2.5 Reclamation

All reclamation is the responsibility of Saddle Butte Pipeline as the ROW permit holder. Reclamation shall be implemented after initial installation or pipeline(s), after additional approved lines are installed, after any maintenance activity, and after final abandonment of a decommissioned line.

Saddle Butte is committed to reclaiming and restoring the property it disturbs to as good a condition as existed prior to construction activities. 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 and acceptable to the BIA.

Saddle Butte would avoid winter construction where possible, and only in rare circumstances would Saddle Butte incur the significant additional costs associated with winter construction. In such rare event, construction plans and procedures would be altered in the late fall to prevent excessive exposure to difficult winter weather. Construction plans for October forward, include provisions for backfilling as much trench as possible, and keeping each portion of the pipeline spread as close together as possible, thereby minimizing the possibility of using frozen soils for backfill. Where backfill is required during periods of freeze, construction procedures specify the creation of large spoil piles, such that the inner portions of the spoil pile remain unfrozen and can be used as backfill. By keeping ditching operations and backfill operations as closely spaced as possible, the exposure to frozen materials is minimized due to limited soil being exposed overnight.

For locations that are reclaimed in winter months or late fall such that no germination is possible, Saddle Butte will either use a sprayed reinforcement, lain matting reinforcement, spread and crimp straw and/or will minimize erosion issues with straw wattle and silt fence through winter months. Any temporary reclamation measures would remain until final reclamation of the disturbed area in the spring. All temporary reclamation measures will be inspected on a monthly basis, or more frequently as necessary, throughout the winter. In addition, Saddle Butte will also install straw bales on slopes as needed to provide erosion breaks.

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 reseeded 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, maintenance of the ROW would be confined 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.

As current estimates expect the Bakken field to remain active for 30 to 40 years, it is important that pipeline systems are designed to perform for this period of time. Pipelines, if designed effectively and well maintained, may have an indefinite life expectancy.

To ensure their long-term viability, all pipelines would be coated with between 14-16 mils of fusion bonded epoxy coating, which helps protect the pipelines against corrosive elements in the soil. The coating would be inspected thoroughly at the time of installation, both visually and by electronic testing means. Saddle Butte also utilizes specialty coatings that are applicable for underground fittings, bore crossings, etc. to provide additional levels of protection in areas that require it. Velocities and pressure drops for the pipeline system are carefully evaluated and lines are sized so as to prevent erosion velocity. Additionally, lines are designed to be cleaned and inspected via internal tools (e.g., cleaning pigs and smart pigs), which helps in the identification of issues in the pipes.

Following design and installation, Saddle Butte would immediately conduct a cathodic survey utilizing test stations, rectifier pads and other means designed by cathodic protection specialists. Saddle Butte would also install pig launchers and receivers on its trunk lines and primary laterals to identify pipeline conditions both internally and externally to maintain the integrity of the pipeline system.

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 DESCRIPTION OF THE AFFECTED ENVIRONMENT AND IMPACTS

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 alternative, and avoidance, minimization, and/or mitigation measures for adverse impacts is included.

3.2 Climate, Geologic Setting, and Land Use

The proposed pipelines are 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 Formation and Three Forks Formations are well-known sources 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 Formation feasible.

According to High 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 16.5 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 38.5 inches of snow are received annually.

The topography within the project area is primarily identified as part of the United States Geological Survey's (USGS's) 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 was comprised of grassland (96%) and barren lands (4%). *Please refer to Figure 3.1, Land Use*.

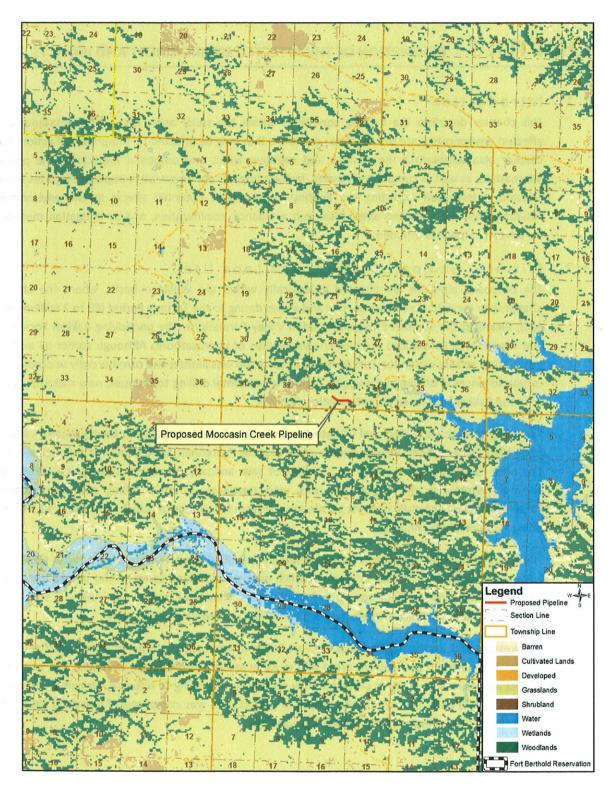


Figure 3.1, Land Use

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 geology within the study area.

Alternative B (Proposed Action) — Alternative B would result in the temporary conversion of approximately 6.49 acres of land from 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 geologic 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 is one soil type identified within the project impact area. Location and characteristics of this soil is identified in Table 3.1, Soils.

The only soil listed, Badland-Cabba-Arikara complex, is well drained and is not susceptible to flooding or ponding. Depth to the water table for this soil is greater than 80 inches. The soil has moderate susceptibility to sheet and rill erosion and can tolerate high levels of erosion without loss of productivity.

Table 3.1, Soils

MAP UNIT	SOIL NAME	PERCENT SLOPE		(IN UPPER 60 INCHES) FACTOR*		HYDROLOGIC SOIL GROUP ³		
JIIIIDOL		SLOPE	% sand	% silt	% clay	T .	Kf.	SUIL GROUP
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).

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 development 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, 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, ensuring the road gradient fits closely with the natural terrain, siltation barriers on the downslope side next to the creek, 24 hour construction window in drainage areas, 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 BLM, the NDIC, and where appropriate the North Dakota Department of Health (NDDH) and the procedures of the surface management agency shall be followed to contain spills and leaks. Saddle Butte Pipeline would be responsible for all necessary remediation to restore the area to preexisting conditions if such an event was to occur.

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 Environmental Protection Agency (EPA) and 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 SDWA (Safe Drinking Water Act) 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.

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

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 project is located in the Lake Sakakawea basin, meaning surface waters within this basin drain to Lake Sakakawea. In addition, the proposed project is located in the Waterchief Bay Watershed. *Please refer to Figure 3.2, Surface Water Resources*. Runoff throughout the study area is by sheet flow until collected by ephemeral and perennial streams draining to Lake Sakakawea. Runoff from the study area drains southeast into a wooded creek. The creek would then flow to the northeast approximately 2.6 miles into Lake Sakakawea.

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. Erosion control measures will be used to mitigate the migration of temporary construction-related sediment downhill or downstream. No measurable increase in runoff or impacts to surface waters is expected. Specific measures to mitigate the impacts to surface waters and to minimize the disruption of drainage patterns may include, but are not limited to, the implementation of siltation barriers and a 24 hour construction window in drainage areas.

Two types of valves would be utilized for spill isolation:

- Check valves would be installed between trunk lines and lateral lines to prevent a "back feed" scenario to a spill, thereby limiting the volume of any spill to the wells that are directly contributing to it.
- Manual valve sets would also be installed at all intersections of laterals to trunk lines, allowing isolation at the wells themselves.

Saddle Butte has also developed a GIS database that establishes real time, web-based maps for use by its operations team and first responder personnel. In addition, Saddle Butte has provided options in its trunk lines for automatic isolation based on low pressure switching devices once the system pressure exceeds 1400 psi. These valves will automatically isolate the pipeline under most line rupture circumstances. Based on these mitigation measures, 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 corridor. The Little Missouri River Aquifer is located south of the proposed site and the Squaw Creek Aquifer is located north of the site. No sole source aquifers have been identified within the state of North Dakota. *Please refer to 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) — Saddle Butte's standard bore depth beneath an actively eroding drainage area is eight feet. However, bores are designed on a case by case basis to avoid any adverse effects of the natural surface in the vicinity of the bore. Additionally, bore pipe would be coated with abrasion resistant coating that provides substantial abrasion resistance if a large erosion or flooding event occurs.

Due to Saddle Buttes commitments described above, no impacts to groundwater, including groundwater wells and aquifers, are expected to result from Alternative B.

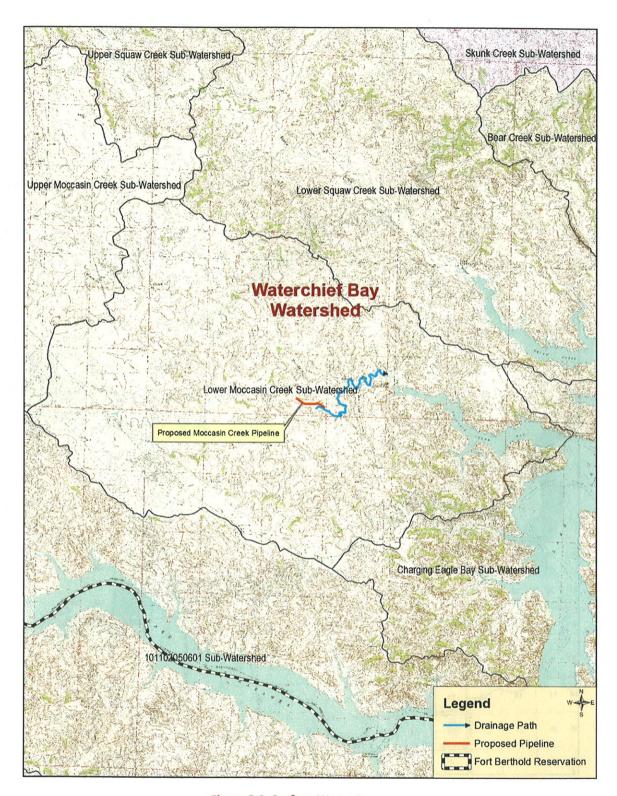


Figure 3.2, Surface Water Resources

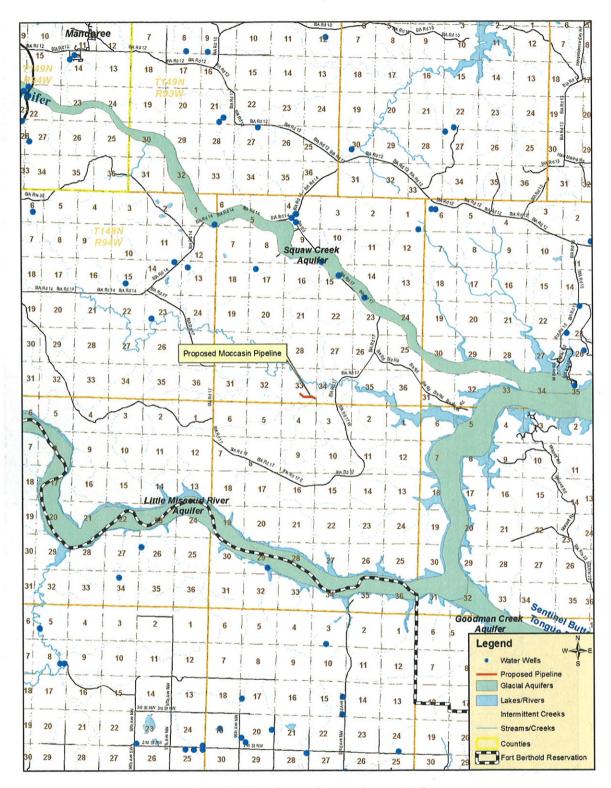


Figure 3.3, Aquifers and Groundwater Wells

3.5 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 groundwater with a frequency to support and under normal circumstances do or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Three parameters that define a wetland, as outlined in the Federal Manual for Delineating Jurisdictional Wetlands (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 groundwater, 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 surveys.

3.5.1 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.

3.6 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 of 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, North Dakota, approximately 18.3 miles south southwest of the proposed Moccasin Creek lateral pipeline. 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. The federal and state air quality standards for these pollutants are summarized in 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 2008 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 areas within the project area. The Theodore Roosevelt National Park is the nearest Class I area, located approximately 33.36 miles west of the proposed Moccasin Creek lateral pipeline.

Table 3.2, Federal and State Air Quality Standards and Reported Data for Dunn Center

POLLUTANT	AVERAGING EPA AIR QUALITY PERIOD STANDARD		NDDH AIR STAND		DUNN CENTER 2009 REPORTED DATA		
		MG/M ³	parts per million	MG/M ³	parts per million	MG/M ³	parts per million
SO ₂	24-Hour	365	0.14	260	0.099	_	.0060
	Annual Mean	80	0.030	60	0.023	_	.0005
PM ₁₀ ⁵	24-Hour	150		150		54.0	
	Annual Mean	50	_	50		11.3	
PM _{2.5} ⁶	24-Hour	35		35	_	15.0	
	Weighted Annual Mean	15		15	_	3.4	
NO ₂	Annual Mean	100	0.053	100	0.053	_	.0015
CO	1-Hour	40,000	35	40,000	35	*******	L-9-11-11-
	8-Hour	10,000	9	10,000	9		
Pb	3-Month	1.5		1.5	_		
03	1-Hour	240	0.12	235	0.12	_	.067
	8-Hour		0.08		0.08		.057

3.6.1 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 well below the state and federal standards. Alternative B would not include any major sources of air pollutants. Emissions would be limited to the 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 water through the lateral lines and into the main pipelines. In the long-term, this may improve air quality in the area by reducing mobile source air pollutants associated with trucking operations. No mitigation or monitoring measures are recommended.

⁵ PM_{10} refers to particulates 10 micrometers (μ) or less in size.

⁶ PM_{2.5} refers to particulates 2.5 micrometers (μ) or less in size.

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

The proposed project area was evaluated to determine the potential for occurrences of federally-listed threatened, endangered, and candidate species. The USFWS October 2010 Endangered, Threatened, and Candidate Species and Designated Critical Habitat in North Dakota County List identified the gray wolf, black-footed ferret, interior least tern, pallid sturgeon, and whooping crane as endangered species that may be found within Dunn County. The piping plover is listed as a threatened species and 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. Habitat requirements, the potential for suitable habitat within the project area, and other information regarding listed species for Dunn County are as follows:

3.7.1 Endangered Species

Gray Wolf (Canis lupus)

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 grassland. Gray wolves live in packs of up to 21 members, although some individuals will roam alone. The project area is located far from other known wolf populations.

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, the 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. No prairie dog towns were identified during the field surveys.

Interior Least Tern (Sterna 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 nesting season. The interior least tern nests in sandbars 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 scare away predators.

There is no existing or potential habitat within the project area. According to USFWS data, habitat occurs throughout the entire shoreline of Lake Sakakawea. However, due to increasing water levels in Lake Sakakawea, sparsely vegetated shoreline beaches composed of sand, gravel, or shale that once provided suitable habitat for the interior least tern, may now be inundated with water. Lake Sakakawea is located approximately 1.5 miles away from the proposed project site at the closest point.

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." Weighing up to 80 pounds, pallid sturgeons are long lived, with individuals possibly reaching 50 years of age.

There is no existing or potential habitat within the project area. According to USFWS data, habitat for the pallid sturgeon occurs within Lake Sakakawea. Lake Sakakawea is located approximately 1.5 miles away from the proposed project site at the closest point.

Whooping Crane (Grus americana)

The whooping crane is the tallest bird in North America. In the United States, this species ranges through the Midwest and Rocky Mountain regions from North Dakota south to Texas and 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.

The proposed pipeline is located in the Central Flyway where 75 percent of confirmed whooping crane sightings have occurred. The proposed project site does not contain wetlands or cropland. Lake Sakakawea, which provides potential stopover habitat for whooping crane migration, is approximately 1.5 miles away.

3.7.1.2 Endangered Species Impacts/Mitigation

Alternative A (No Action) - Alternative A would not affect endangered species.

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 is largely associated with Lake Sakakawea and its shoreline. The pipeline is located on upland bluffs of rangeland, with Lake

Sakakawea and its shoreline located approximately 170 feet below the bluffs and 1.5 miles to the east. 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 temporary nature of the disturbance associated with the proposed project, it is anticipated to have no effect to the interior least tern or pallid sturgeon or their associated habitats.

The proposed project is located within the Central Flyway where approximately 75 percent of confirmed whooping crane sightings have occurred, though no shallow, emergent wetlands or cropland food sources were observed within or near the project study area. The proposed project may effect but is not likely to adversely affect whooping cranes or whooping crane habitat.

3.7.2 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, critical habitat occurs throughout the entire shoreline of Lake Sakakawea. However, due to increasing water levels in Lake Sakakawea, sparsely vegetated shoreline beaches composed of sand, gravel, or shale that once provided suitable for the piping plover, may now be inundated with water. Lake Sakakawea is located approximately 1.5 miles away from the proposed project site at the closest point.

3.7.2.2 Threatened Species Impacts/Mitigation

Alternative A (No Action) – Alternative A would have no effect to threatened species and would not destroy or adversely modify critical habitat.

Alternative B (Proposed Action) – Suitable habitat for the piping plover is largely associated with Lake Sakakawea and its shoreline. The proposed pipelines are located on upland bluffs of rangeland, with Lake Sakakawea and its shoreline located approximately 170 feet below the bluffs and 1.5 miles to the east. 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, the proposed project is anticipated to have no effect to the piping plover or piping plover habitat.

3.7.3 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 project 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 skipper⁷.

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 project areas consist of grazed rangeland which may provide potential habitat for the Sprague's pipit⁸. No Sprague's pipits were observed during the field survey.

3.7.3.2 Candidate Species Impacts/Mitigation

Alternative A (No Action) – Alternative A would not adversely impact candidate species.

Alternative B (Proposed Action) — The proposed project is located in an area that is moderately disturbed by grazing, yet still contains suitable habitat for the Dakota skipper and Sprague's pipit. Construction of the proposed pipelines would disturb suitable habitat for the Dakota skipper and 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. An "effect determination" under Section 7 of the Endangered Species Act has not been made due to the current unlisted status of each species.

3.8 Eagles, Migratory Birds, and Other Wildlife

An intensive, pedestrian resource survey of the proposed pipeline corridor was conducted on June 23, 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, 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.

The BIA EA on-site assessment of the pipeline was conducted on June 28, 2011. The BIA Environmental Protection Specialist, representatives from the Tribal Historic Preservation Office (THPO), Saddle Butte Pipeline, and KL&J participated in the assessment. Construction suitability with respect to topography, stockpiling, drainage, erosion control, and other surface issues were considered. The pipelines were adjusted, as appropriate, to avoid conflicts with identified environmental areas of concern. Those present at the on-site assessment agreed that the chosen location, along with the minimization measures Saddle Butte Pipeline plans to implement, are positioned in areas which would minimize impacts to sensitive wildlife and botanical resources. In addition, comments received from the USFWS have been considered in the development of this project.

⁷ Information contained in this document is based on current land use conditions visible during the EA on-site. It should be noted that site conditions may change as grazing patterns change.

⁸ Information contained in this document is based on current land use conditions visible during the EA on-site. It should be noted that site conditions may change as grazing patterns change.

3.8.1 Bald and Golden Eagles

Protection is provided for the bald and golden eagle through the Bald and Golden Eagle Protection Act (BGEPA) of 1940. 16 U.S.C. 668–668d, as amended, which 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. Under the BGEPA, "take" includes to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb, wherein "disturb" means to agitate or bother a bald or golden eagle to the degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, causing injury, death, or nest abandonment.

The 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 verified⁹. Its preferred habitat 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. No bald eagles or eagle nests were observed during the field survey conducted on June 23, 2011.

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. No golden eagles or eagle nests were observed during the field survey conducted on June 23, 2011.

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 corridor 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 4.3 miles west of the survey area, there is also another nest that is approximately 4.3 miles to the south as well. *Please refer to Figure 3.4, Bald and Golden Eagle Habitat and Nest Sightings.*

3.8.1.1 Bald and Golden 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 and golden eagle habitat. However, no evidence of eagle nests was found within 0.5 miles of the project area and no nest sightings have been recorded within one mile of the project area. Therefore, 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.

⁹ Source: "Nesting in Numbers." <u>ND Outdoors</u> February 2010 issue.

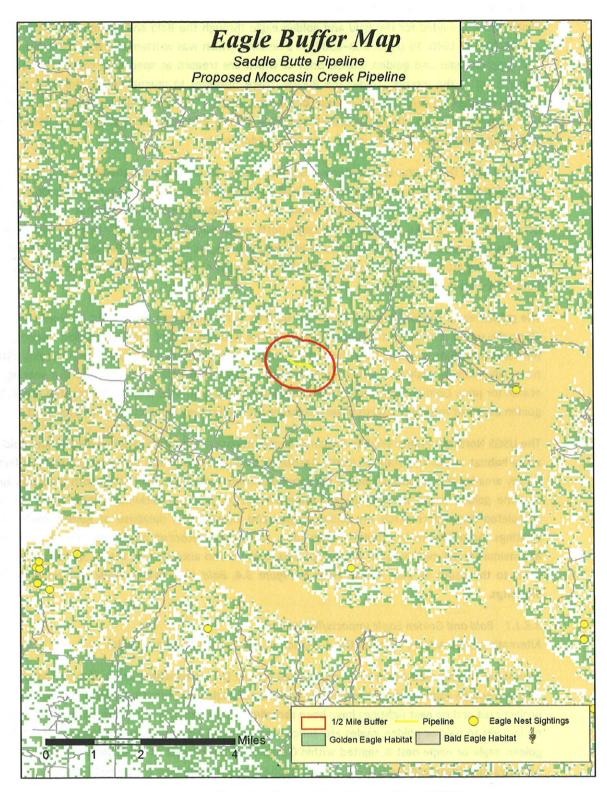


Figure 3.4, Bald and Golden Eagle Habitat and Nest Sightings

3.8.2 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 areas contain suitable habitat for mule deer (*Odocoileus hemionus*), whitetail deer (*Odocoileus virginianus*), plains sharptail grouse (*Tympanuchus phasianellus*), ring-necked pheasant (*Phasianus colchicas*), red-tailed hawk (*Buteo jamaicensis*), 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*).

During the pedestrian field surveys, migratory birds, raptors, big and small game species, non-game species, potential wildlife habitats, and and/or bird nests were identified if present. No wildlife was observed during the surveys.

3.8.2.1 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, it is determined that ground clearing activities associated with the proposed project may impact individuals by displacing animals from suitable habitat. Saddle Butte Pipeline plans to begin construction during the 2011 construction season. In the event that construction activity takes place within the nesting and breeding season, February 1 to July 15, preconstruction 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. Therefore, the proposed project may affect 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.

The proposed Moccasin Creek lateral pipeline corridor is located on an upland area that is at a considerably higher elevation (approximately 170 feet) than the Lake Sakakawea shoreline. Additionally, the distance to Lake Sakakawea is approximately 1.5 miles. This distance, along with the topographic features of the area, should assist in providing sight and sound buffers for shorelinenesting birds.

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

3.9 Vegetation

Botanical resources were evaluated using visual inspection. The project area was also investigated for the presence of invasive plant species.

The study area for the proposed pipeline consists of grazed upland grasses. The 200-foot corridor around the proposed pipeline was dominated by blue grama (Bouteloua gracilis), needle & thread (Stipa comata), green needlegrass (Stipa viridula), western wheatgrass (Agropyron smithii), and little bluestem (Schizachyrium scoparium). Green ash (Fraxinus pennsylvanica) and American elm (Ulmus americana) occurred in a wooded draw on the southern edge of the pipeline. A drainage area west of the well pad cuts through the pipeline corridor. No noxious weeds were observed during the field surveys. There are no threatened or endangered plant species listed for Dunn County. No wetlands were observed in the study area. Please refer to Figure 3.5, East End of Pipelines Facing West, Figure 3.6, Wooded Draw West of Well Pad, Figure 3.7, West End of Pipelines, and Figure 3.8, Grazed Rangeland and Well Pad in the Distance, for examples of vegetation observed at the Bad Guns lateral pipeline corridor.



Figure 3.5, East End of Pipelines Facing West

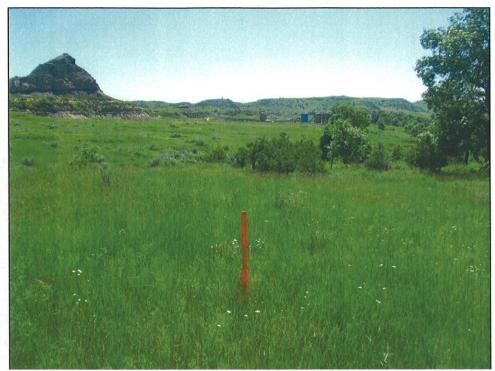


Figure 3.6, Wooded Draw West of Well Pad



Figure 3.7, West End of Pipelines

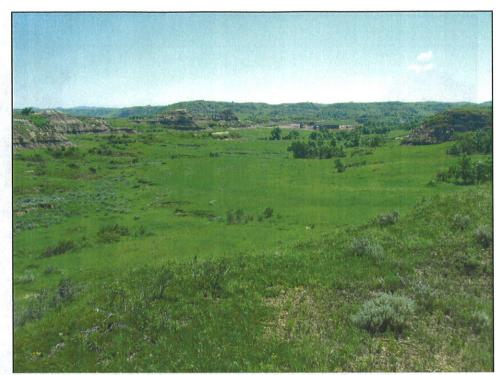


Figure 3.8, Grazed Rangeland and Well Pad in the Distance

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), 3 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. Dunn County has listed no additional species. No noxious weeds were observed during the field survey.

Table 3.3, Noxious Weed Species

COMMON NAME	SCIENTIFIC NAME	2010 DUNN COUNTY REPORTED ACRES
Absinth wormwood	Artemesia absinthium L.	43,800
Canada thistle	Cirsium arvense (L.) Scop	39,300
Dalmation toadflax	Linaria genistifolia ssp. Dalmatica	<u> </u>
Diffuse knapweed	Centaurea diffusa Lam	
Leafy spurge	Euphorbia esula L.	6,200
Musk thistle	Carduus nutans L.	- , 2
Purple loosestrife	Lythrum salicaria	
Russian knapweed	Acroptilon repens (L) DC.	*
Salt cedar (tamarisk)	Tamarix ramosissima	
Spotted knapweed	Centaurea maculosa Lam.	_
Yellow toadflax	Linaria vulgaris	_

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 pipeline 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 accordance 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/BLM-approved source. These measures would be undertaken as soon as practical after construction and no later than the next appropriate planting season. Erosion control measures would be installed as appropriate. Stockpiled topsoil would be redistributed and re-seeded as recommended by the BIA.

For locations that are reclaimed in winter months or late fall such that no germination is possible, Saddle Butte will either use a sprayed reinforcement, lain matting reinforcement, spread and crimp straw and/or will minimize erosion issues with straw wattle and silt fence through winter months. Any temporary reclamation measures would remain until final reclamation of the disturbed area in the spring. All temporary reclamation measures will be inspected on a monthly basis, or more frequently as necessary, throughout the winter. In addition, Saddle Butte will also install straw bales on slopes as needed to provide erosion breaks.

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 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 354.6 acres were inventoried between May 12 and 16, 2011 (Macy 2011). Seven archaeological sites were 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 sites will be avoided. This determination was communicated to the THPO on October 6, 2011; however, the THPO did not respond within the allotted 30 day comment period.

3.10.1 Cultural Resources Impacts/Mitigation Alternative A (No Action) – Alternative A would not impact cultural resources.

Alternative B (Proposed Action) — No cultural resources were identified within the APE. 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.

3.11 Socioeconomic Conditions

Socioeconomic conditions depend on the character, habits, and economic conditions of people living within the proposed project area. 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 of the region such as Minot and Bismarck. According to 2000 US Census data, educational/health/social services is the largest industry on the Reservation, followed by the entertainment/recreation/accommodation/food industry ¹⁰. The Four

¹⁰ 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

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 Electrical Cooperative, 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.

3.11.1 Socioeconomic Impacts/Mitigation

Alternative A (No Action) – Alternative A would not impact the socioeconomic conditions in the project area. However, Alternative A would allow the continued loss of valuable natural resources through current flaring practices rather than being brought to market, and corresponding royalty payments would be lost.

Alternative B (Proposed Action) – Alternative B is not anticipated to substantially impact the socioeconomic conditions in the project area, but it does have the potential to yield minor beneficial impacts on Tribal income. This may occur through minor increases in royalty payments due to capturing natural gas which is currently being lost through flaring practices. Qualified individual tribal members may find employment through oil and gas development 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 will follow Dunn County, BIA, and North Dakota Department of Transportation rules and regulations regarding oversize/overweight loads on state and county roads used as haul roads in order to maintain safe driving conditions.

3.12 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.

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 compromise 5.0% of North Dakota's population and 5.9% of the population of Dunn County.

According to 2005–2009 U.S. Census Bureau data, the Fort Berthold Reservation has lower than the statewide average of per capita income and median household income. Dunn County has slightly

anticipated that these trends have likely shifted; however, no new data is available until the $2010~\mathrm{US}$ Census is published.

lower rates of unemployment than the state average, while Fort Berthold's rate of unemployment was substantially greater¹¹. Please refer to **Error! Reference source not found..**

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%

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*.

¹¹ While more current data reflecting income, unemployment, and poverty levels within the Fort Berthold Reservation are not available, it is anticipated that 2010 numbers may show different trends. The exploration and production of oil and gas resources on the Reservation since 2006 have created employment opportunities and have likely affected these economic indicators. However, this assessment uses the best available data.

Table 3.5, Demographic Trends

LOCATION	POPULATION ESTIMATE 2005–2009	% OF STATE POPULATION	% CHANGE 2000–2009	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 ¹²	White (28.8%)
Statewide	639,725	-	-0.4%	White	American Indian (5.0%)
Source: U	J.S. Census Bureau, 2	2005-2009 American	Community Surve	v	

3.12.1 Environmental Justice Impacts/Mitigation

Alternative A (No Action) – Alternative A would not result in environmental justice impacts.

Alternative B (Proposed Action) – Alternative B would not require relocation of homes or businesses, cause community disruptions, or cause disproportionately 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 not anticipated to result in disproportionately adverse impacts to minority or low-income populations.

3.13 Infrastructure and Utilities

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

Known utilities and infrastructure within the vicinity of the proposed project includes paved and gravel roadways. The nearest water pipeline is located two miles west of the Moccasin Creek lateral pipelines.

3.13.1 Infrastructure and Utility Impacts/Mitigation

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

Alternative B (Proposed Action) – The proposed pipeline corridor does not cross any roadways; therefore, no impacts to roadways are anticipated. No other mitigation measures would be required for construction of the proposed pipelines.

The proposed project would provide infrastructure for oil and gas wells on the Fort Berthold Reservation.

 $^{^{12}}$ According to the North Dakota Tourism Division, there are 10,400 enrolled members of the Three Affiliated Tribes.

3.14 Public Health and Safety

Public 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, 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.

Ground water contamination from liquid spills can greatly impact public health and safety. If leaks occur from the proposed pipeline and leach through the soil, there can be potential contamination of aquifers. The possibility of ground water contamination can be reduced through proper planning, preparation, regulation, and inspection.

Combustion and explosive hazards, although an uncommon possibility in and around operating pipelines, are nonetheless 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

3.14.1 Public Health and Safety Impacts/Mitigation
Alternative A (No Action) – Alternative A would not impact public health and safety.

Alternative B (Proposed Action) – Development of the pipeline corridor would include up to four gas, oil and/or water lines. The oil and gas lines would be up to eight inches in diameter and the water line would be up to six inches in diameter. The pipelines proposed for this project are to be buried a minimum of four feet below the ground surface. Soil conditions found along the pipeline corridor vary from sandy to clay. The products being conveyed within the pipelines include natural gas, crude oil, and water, both natural gas and crude oil are highly flammable and explosive. The topography along the pipeline corridor is variable, ranging from flat with nearly no slope to gradual rolling hills. Vegetative communities range from grazed rangeland to hardwood draws. Historical wind direction is from the northwest and velocity varies from 0 mph to >40 mph.

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, depending on soil conditions and exact location, create a crater 50-100 feet in diameter depending on the depth of the buried pipeline, pipeline diameter, actual pipeline pressure, 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 temperatures 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 (½-mile on each side of the proposed pipeline). Aerial view imagery shows no residences are located within this mile-wide corridor. This corridor does include approximately 2,500 feet of access roads which are used for oil and gas production. Please refer to the *Figure 3.9, Blast Zone Perimeter Map*.

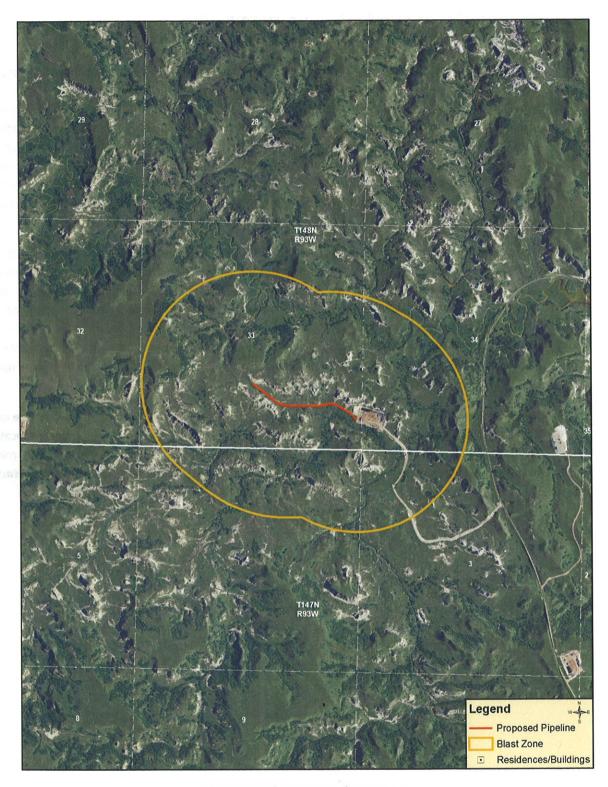


Figure 3.9, Blast Zone Perimeter Map

Third-party intrusions are one of the biggest contributing factors to spills. To aid in the prevention of such intrusions, Saddle Butte would fully comply with the marking requirements specified in the US Department of Transportation's rules and regulations, specifically contained in 49 CFR Parts 192 and 195. To ensure such compliance, Saddle Butte developed construction specifications to delineate the requirements for pipeline marking in accordance with applicable laws, rules, and regulations, including the locations of such markings (e.g., road crossings, waterbody crossings, line of sight, etc.) and the manner of marking such pipelines (e.g., height of markings and signage on the markings).

Saddle Butte has committed to developing a spill response plan that will be submitted to the BIA prior to the commencement of the construction activities. The response plan will include procedures that specifically address making the appropriate contacts, isolating the incident, protecting waterways and providing contact information for all the appropriate contractors and experts necessary to facilitate a rapid response.

3.15 Cumulative Considerations

Cumulative impacts result from the incremental consequences of an action "when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions" (40 CFR 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.

3.15.1 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 1950s, peaking in the 1960s, and again in the 1970s, peaking in the 1980s. 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 29, 2011, there were approximately 568 active and/or confidential oil and gas wells within the Fort Berthold Reservation and 349 within the 20-mile radius outside the boundaries of the Fort Berthold Reservation. Please refer to *Figure 3.10, Existing and Proposed Oil and Gas Wells*. There are five known oil and gas wells and one pipeline within one-mile of the proposed Moccasin Creek lateral pipeline. Please refer to *Table 3.6, Summary of Active and Proposed Wells*.

Figure 3.10, 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	5
5 mile radius	59
10 mile radius	173
20 mile radius	665

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.

3.15.2 Cumulative Impact Assessment

The proposed project is not anticipated to directly impact other oil and gas-related 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, BLM, 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 BMPs and site-specific environmental commitments. The following discussion addresses potential cumulative environmental impacts associated with the proposed project and other past, present, and reasonably 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 practice installation adjacent to an existing roadway minimizes potential impacts to land use. The proposed project would temporarily disturb grazed rangeland while constructing the pipeline. The pipeline corridor has 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 water, the lateral lines would transport the product to a main pipeline. The oil and water 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, which would not impact preferred roosting or feeding habitat for the whooping crane, 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 reasonably foreseeable projects, such as oil and gas wells, water intake structures on Lake Sakakawea, and other pipelines, the proposed project may have an indirect cumulative impact on potential habitat (Lake Sakakawea and its shoreline) for these species. 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, gas, and water 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-related 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.

3.16 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.

3.17 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.

3.18 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 Pollutant 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. No other permits are required for the construction of the proposed project.

3.19 Environmental Commitments/Mitigation

The following commitments have been made by Saddle Butte Pipeline:

- 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 such as straw wattles and matting 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 such time that the vegetation is consistent with surrounding undisturbed areas and the area be 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 will be identified during design and coordinated with the appropriate
 utility company. In addition, every attempt will be made to leave existing utility
 infrastructure in place. If the proposed lateral pipeline must cross an existing utility line, then
 the lateral pipeline will be installed at least 2 feet below the utility line.
- 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.
- All slopes greater than 15 percent will be hydroseeded and or matted to protect the site from 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.
- Siltation barriers will be placed on the downslope side next to the creek.
- There will be a 24 hour construction window in drainage areas.
- Trees and shrubs with a trunk diameter greater than four inches will be chipped and spread as erosion control or removed and hauled to an approved location. Small shrubs will be buried, shredded, or left with backfill and respreads during reclamation.
- Saddle Butte would use a sprayed reinforcement, lain matting reinforcement, spread and
 crimp straw and/or will minimize erosion issues with straw wattle and silt fence through
 winter months. Any temporary reclamation measures would remain until final reclamation
 of the disturbed area in the spring. All temporary reclamation measures will be inspected on
 a monthly basis, or more frequently as necessary, throughout the winter.

CHAPTER 4 PREPARERS AND AGENCY COORDINATION

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

Kadrmas, Lee & Jackson, Inc. prepared this EA under a contractual agreement between Saddle Butte Pipeline, LLC and Kadrmas, 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
	Mark Herman	Environmental Engineer	Director regarding FONSI or EIS
Saddle Butte Pipeline, LLC	Linda Selser	Vice President Land	Project development, alternatives, document review
	Christian Stoddard	Manager Land/GIS	Project development, alternatives, senior review
Kadrmas, Lee & Jackson, Inc.	Grady Wolf	Environmental Scientist	Client coordination, field resource surveys, document review
	Alex Nisbet	Environmental Planner	Impact assessment, agency coordination, principal author
	Myron Kadrmas	Surveyor	Site plats
	Jeff Price	GIS Analyst	Impact assessment, exhibit creation
	Jen Macy	Archaeologist	Cultural Resource Surveys
	Kelly Morgan	Archaeologist	Cultural Resource Surveys

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 18, 2011. This scoping package included a brief description of the proposed project, as well as a location map. *Appendix B contains Scoping Materials*. 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, nine 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. *Appendix C contains Agency Scoping Responses*.

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 REFERENCES

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Macy, Jennifer N.

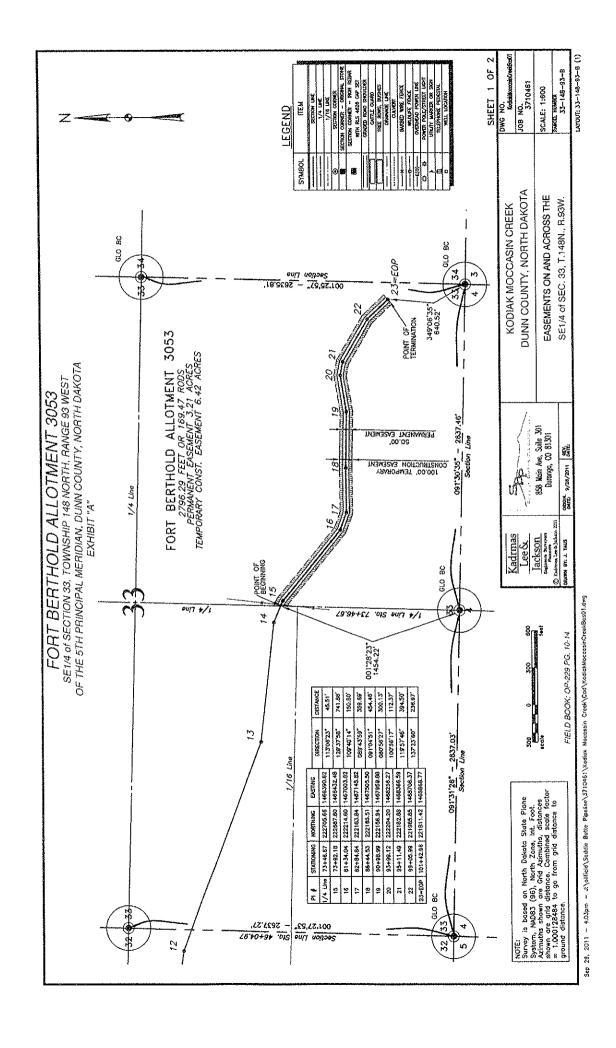
(2011) Moccasin Creek Gathering Line: A Class III Cultural Resource Inventory, Dunn County, North Dakota. KLJ Cultural Resources for Saddle Butte Pipeline Company, Durango, CO.

Appendix A

Moccasin Creek Plat

Appendix A

Moccasin Creek Plat



FORT BERTHOLD ALLOTMENT 3053

SE1/4 of SECTION 33, TOWNSHIP 148 NORTH, RANGE 93 WEST OF THE 5TH PRINCIPAL MERIDIAN, DUNN COUNTY, NORTH DAKOTA EXHIBIT "A"

SADDLE BUTTE PIPELINE COMPANY KODIAK MOCCASIN CREEK

DESCRIPTION: PERMANENT EASEMENT SURVEY

A fifty (50) foot wide continual easement for utilities and pipelines of an oil and gas collection system over, under and across the Southeast Quarter (SE1/4) of Section 33, Township 148 North, Range 93 West of the 5th Principal Meridian, Dunn County, State of North Dakota, lying twenty—five (25) feet on each side of the following described line:

Commencing at the southwest corner of said Southeast Quarter of Section 33; thence along the west line of said Southeast Quarter of Section 33 on an azimuth of 001'28'23" a distance of 1454.22 feet to the POINT OF BEGINNING; thence on an azimuth of 113'06'23" a distance of 45.51 feet to a point (PI #15); thence on an azimuth of 129'37'58" a distance of 741.86 feet to a point (PI #16); thence on an azimuth of 109'40'14" a distance of 150.80 feet to a point (PI #17); thence on an azimuth of 089'43'59" a distance of 359.69 feet to a point (PI #18); thence on an azimuth of 091'04'51" a distance of 454.46 feet to a point (PI #19); thence on an azimuth of 080'56'27" a distance of 300.13 feet to a point (PI #20); thence on an azimuth of 100'56'17" a distance of 112.37 feet to a point (PI #21); thence on an azimuth of 137'23'60" a distance of 236.97 feet to the POINT OF TERMINATION (PI #23-EOP). Said point is located on an azimuth of 349'06'35" a distance of 640.52 feet from the southeast corner of said Southeast Quarter of Section 33.

Covering in all 2796.29 feet or 169.47 rods. Said easement contains 3.21 acres, more or less.

Together with a (100) foot wide temporary construction easement for utilities and pipelines of an oil and gas collection system over, under and across the Southeast Quarter (SE1/4) of Section 33, Township 148 North, Range 93 West of the 5th Principal Meridian, Dunn County, State of North Dakota, lying fifty (50) feet on each side of the following described line:

Commencing at the southwest corner of said Southeast Quarter of Section 33; thence along the west line of said Southeast Quarter of Section 33 on an azimuth of 001'28'23" a distance of 1454.22 feet to the POINT OF BEGINNING; thence on an azimuth of 113'06'23" a distance of 45.51 feet to a point (PI #15); thence on an azimuth of 129'37'58" a distance of 741.86 feet to a point (PI #16); thence on an azimuth of 109'40'14" a distance of 150.80 feet to a point (PI #17); thence on an azimuth of 089'43'59" a distance of 359.69 feet to a point (PI #18); thence on an azimuth of 091'04'51" a distance of 454.46 feet to a point (PI #19); thence on an azimuth of 080'56'27" a distance of 300.13 feet to a point (PI #20); thence on an azimuth of 100'56'17" a distance of 112.37 feet to a point (PI #21); thence on an azimuth of 139'35'80" a distance of 394.50 feet to a point (PI #22); thence on an azimuth of 137'23'60" a distance of 236.97 feet to the POINT OF TERMINATION (PI #23-EOP). Said point is located on an azimuth of 349'08'35" a distance of 640.52 feet from the southeast corner of said Southeast Quarter of Section 33.

Covering in all 2796.29 feet or 169.47 rods. Said temporary construction easement contains 6.42 acres, more or less.

NOTES:

- 1. Survey is based on North Dakota State Plane System, NAD83 (96), North Zone, Int. Foot. Azimuths shown are Grid Azimuths, distances shown are grid distance. Combined scale factor = 1.000128484 to go from grid distance to ground distance.
- Descriptions and sketches of easements depicted herein are based on information obtained while conducting the survey for easement acquisition and on deeds supplied by the client, and DO NOT CONSTITUTE THE RESULTS OF A FULL BOUNDARY SURVEY.

I, Myron J. Kadrmas, Registered Land Surveyor, N.D. RLS No. 3758, do hereby certify that the survey plat shown hereon was made by me, or under my direction, from notes made in the field, and the same is true and correct to the best of my knowledge and belief. The field survey was performed by Kirk Jorgenson on April 18, 2011.

9-29-11

Myron J. Kadrmas, Registered Land Surveyor N.D. RLS No. 3758

FIELD BOOK: OP-229 PG. 10-14

Kadrmas

Lee&

Jackson

an, Lee & Jack

BY: J. TAUS

KODIAK MOCCASIN CREEK DUNN COUNTY, NORTH DAKOTA

JOB NO. 3710461 SCALE: NONE

DWG NO.

858 Main Avenue, Suite 301 Durango, CO 81301

EASEMENTS ON AND ACROSS THE SE1/4 of SEC. 33, T.148N., R.93W. SHEET 2 OF 2

Appendix B

SOV Materials

Last			Consolination of the second			00	20702
1	Regional Director		Bureau of Indian Affairs	115 4th Ave. SE	Aberdeen Now Town	સ હ	5/401
· ·	Environmental Protection Specialist		Bureau of Indian Affaire	202 Main Street	New Town	9 5	58763
	Child Protection Specialist		bureau of Ribrary	COZ Wall Sueer	Diamorek	GN CIN	58502 4047
	Management Management	Dismarch Aircate District Office	bureau of Reciamation	2301 Flainareity Bring Bidg 23B	Bismarck	QV.	58504
	Managel	NO Document Office	Treueral Aviation Administration	1612 C 10th Ct	Diemorch	S CS	58504
Cimarosti	Manager S	ND Regulatory Office	US Army Corps of Engineers	1513 S. 12(ff St.	Dismarck	O C	505004
Sorton	Chief For Frontice & Cultural	Omaha District	11S Army Come of Engineers	106 S 15th St	Omaha	E L	68102.1618
	Resource Section	- 1	Co Alling Colps of Englineers	100 O. 1011 Ot.	9	Ţ	2012
	Director, Transmission Linest Substations	ND Maintenance Office	US Department of Energy Western Area Power Admin.	PO Box 1173	Bismarck	<u>Q</u>	58502-1173
	Director	NEPA Program, Region 8	US Environment Protection Agency	1595 Wynkoop Street	Denver	03	80202-1129
	Wetlands Coordinator	Region 8, EPR-EP	US Environment Protection Agency	1595 Wynkoop Street	Denver	00	80202-1129
	Field Supervisor	ND Field Office	US Fish & Wildlife Service	3425 Minam Ave.	Bismarck	Q	58501
Sir or Madam	State Conservationist	US Department of Agriculture	Natural Resources Conservation Service	PO Box 1458	Bismarck	QN	58502-1458
	Executive Director		Indian Affairs Commission	600 E. Bivd. Ave. 1st Floor, Judicial Wing, Rm 117	Bismarck	Q	58505-0300
	Director	Water Resources Division	US Geological Survey	821 E. Interstate Ave.	Bismarck	QN	58501
	Chief	Environmental Health Section Gold Seal Center	ND Department of Health	918 E. Divide Ave., 4th floor	Bismarck	QN	58501-1947
Steinwand	Director		ND Game & Fish Department	100 Bismarck Expressway	Bismarck	QN	58501-5095
Murphy	State Geologist		ND Geological Survey	600 E. Blvd. Avenue	Bismarck	모	58505-0840
Zimmerman	Director		ND Parks & Recreation Dept.	1600 E. Century Ave., Suite 3	Bismarck	QV	58503-0649
	State Engineer		ND State Water Commission	900 E. Blvd. Ave.	Bismarck	Q :	58505-0850
Hochhalter	Soil Conservation Specialist	NDSU Extension Service	Soil Conservation Committee	2718 Gateway Ave., #104	Bismarck	QN S	58503
	Construction Manager		Midcontinent Cable Company	719 Memorial rwy	Bismarck	ON ON	50503 4406
	Centeral Manager	Dadianos region	Mortania Davola Duniues	PO Box 6400	Wolford City	Q N	59864 0649
Shulupey	Oction Wallayer	and Department	Northern Border Dipoline Company	13710 ENB Parkway	Omaha	2 4	68154-5200
Christenson	Manager/CEO	Cally Department	Southwest Water Authority	4665 2nd St. W.	Dickinson	QN ON	58601
Schelkoph	CEO		West Plains Electric Coop., Inc.	PO Box 1038	Dickinson	ND	58602-1038
Sir or Madam	Manager		Xcel Energy	PO Box 2747	Fargo	QN	58108-2747
Sir or Madam	District Engineer	Dickinson District	ND Department of Transportation	1700 3rd Ave W. Suite 101	Dickinson	<u>Q</u>	58601-3009
Bagley	Field Office Manager	North Dakota Field Office	Bureau of Land Management	99 23rd Ave W, Suite A	Dickinson	QN	58601
	Assistant Field Office Manager	Division on Mineral Resources	Bureau of Land Management	99 23rd Ave W, Suite A	Dickinson	ND	58601
Seivage	Tribal Chairman		Sisseton-Wahpeton Sioux Tribe	PO Box 509	Sisseton	OS.	57262-0267
Pearson	Tribal Chairman	Ft. Totten Tribal Business Office	Spirit Lake Sioux Tribe	PO Box 359	Ft. Totten	Q	58325
Murphy	Tribal Chairman		Standing Rock Sioux Tribe	PO Box D	Fort Yates	8	58538
Spotted Horsse	Environmental Division Director	Natural Resources Department	Three Affiliated Tribes	404 Frontage Road	New Town	QN	58763
Crows Breast	Tribal Historic Preservation Officer		Three Affliated Tribes	HC3 Box 2	New Town	ND ND	58763
***************************************	Tribal Chairman		Three Affliated Tribes	HC3 Box 2	New Town	Q	58763
St. Claire	Tribal Chairman		Turtle Mountain Chippewa	PO Box 900	Belcourt	2	58316-0900
Williams	Tribal Attorney		Three Affiliated Tribes	404 Frontage Road	New Town	QN .	58/63
***************************************	Director	Energy Department	Three Affiliated Tribes	404 Frontage Road	New Town	ON	58763
	Representative	Four Bears Segment	Three Affliated Tribes	404 Frontage Road	New Town	Q	58763
Strahs	Representative	Mandaree Segment	Three Affiliated Tribes	PO Box 665	Mandaree	QN	58757
	Representative	Shell Creek Segment	Three Affiliated Tribes	404 Frontage Road	New Town	QN	58763
Packineau	Representative	Parshall/Lucky Mound Segment	Three Affiliated Tribes	PO Box 468	Parshall	<u>QQ</u>	58770
Whitecalf	Representative	White Shield Segment	Three Affliated Tribes	404 Frontage Road	New Town	ON	58763
Benson	Representative	Twin Buttes Segment	Three Affliated Tribes	70879 E Ave NW	Halliday	QN.	58636
	MAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	Game and Fish Department	Three Affiliated Tribes	404 Frontage Road	New Town	Q	58763
Crowsheart	Director	Fort Berthold Rural Water	Three Affiliated Tribes	308 Four Bears Complex	New Town	Q	58763
	Operations Manager		Reservation Telephone Cooperative	PO Box 68	Parshall	QV	58770-0068
	Auditor		Dunn County	PO Box 105	Manning	2	58642
		0				!	

Re:

Saddle Butte Pipeline, LLC Moccasin Creek Pipeline Fort Berthold Reservation Dunn County, North Dakota

Dear Interested Party:

On behalf of Saddle Butte Pipeline, LLC, Kadrmas, Lee & Jackson, Inc. 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 up to four pipelines that are approximately 2,800 feet long, located within a shared 100-foot construction right-of-way and a 50-foot permanent right-of-way, on the Fort Berthold Reservation. The project could contain up to four lines consisting of high-pressure gas, low-pressure gas, oil, and water lines. The pipelines are proposed to be positioned on Tribal land in the following location: T148N, R93W, SE¼ of Section 33. The remainder of the pipeline crosses fee land *Please refer to the enclosed project location map*.

The proposed action would provide infrastructure to collect oil and gas from one Kodiak operated well pad that has three wells on it, located at the east end of the proposed project. The well pad would be connected to an existing pipeline operated by Saddle Butte Pipeline on fee land, located at the west end of the proposed project. Construction of the proposed pipelines is to begin in 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 18, 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.

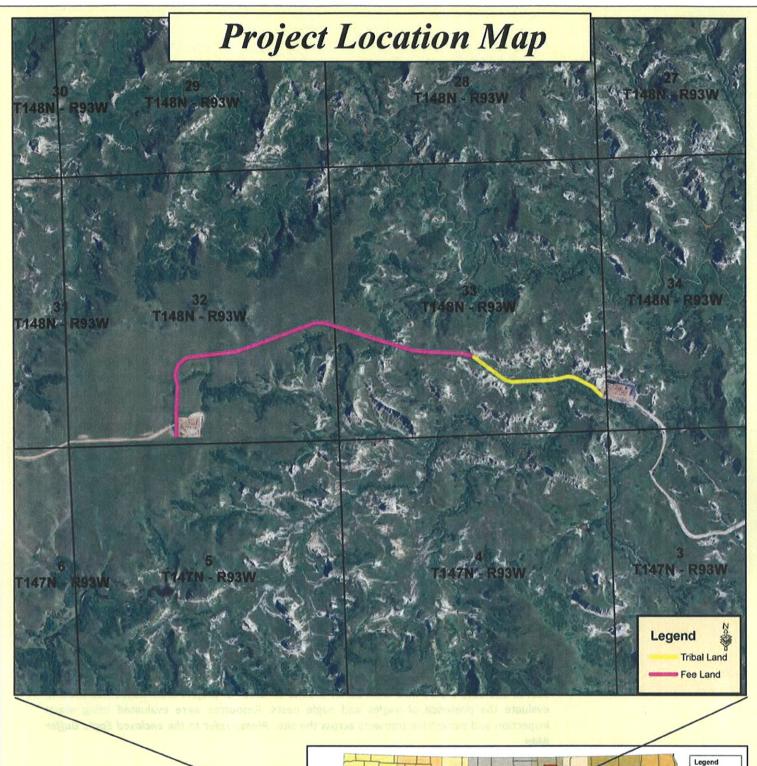
Sincerely,

Kadrmas, Lee & Jackson, Inc.

Grady Wolf

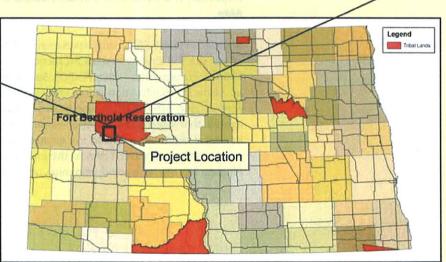
Environmental Planner

Enclosure (Map)



Saddle Butte Pipeline
Proposed Moccasin Creek Pipeline
Dunn County, ND





July 19, 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 Moccasin Creek Pipeline Fort Berthold Reservation Dunn County, North Dakota

Dear Mr. Towner:

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 development of up to four pipelines that are approximately 2,800 feet long, located within a shared 100-foot construction right-of-way and a 50-foot permanent right-of-way, on the Fort Berthold Reservation. The project could contain up to four lines consisting of high-pressure gas, low-pressure gas, oil, and water lines. The pipelines are proposed to be positioned on Tribal property in T148N, R93W, SW ¼ of Section 33. The remainder of the pipeline crosses fee property.

Please refer to the enclosed project location map.

The proposed action would provide infrastructure to collect oil, gas and water from one Kodiak operated well pad that has three wells on it, located at the east end of the proposed project. The well pad would be connected to an existing pipeline operated by Saddle Butte Pipeline on fee land, located at the western end of the proposed project. Construction of the proposed pipelines is to begin in 2011.

An intensive, pedestrian resource survey of the proposed pipeline corridor on Tribal property was conducted on June 23, 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 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 pipelines occur 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. Lake Sakakawea, considered whooping crane habitat, is located approximately 1.5 miles east of the proposed project. Due to the proximity of the proposed project to Lake Sakakawea and the occurrence within the 75 percent of confirmed sightings corridor, adjacent habitat may be used as stopover habitat. The proposed project may affect but is not likely to adversely affect whooping cranes or whooping crane habitat. If a whooping crane is sighted within one-mile of the pipelines 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 proposed pipeline corridor is located on upland bluffs of grazed rangeland, with Lake Sakakawea and its shoreline located approximately 170 feet below the bluffs and approximately 1.5 miles to the east. No additional habitat was identified during the onsite surveys. The topographic features of the area and distance from the shoreline should assist in providing sight and sound buffers for shorelinenesting birds. USFWS determined Lake Sakakawea's shoreline to be critical habitat for the piping plover. With the present lake level, the shoreline in the vicinity of the project area doesn't presently provide suitable habitat for nesting species and no additional habitat was identified the day of the field survey. Due to the proposed pipelines proximity to Lake Sakakawea, the proposed project may affect, but is not likely to adversely affect the interior 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 pipeline corridor is located far from other known wolf populations. 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 lowa 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 study area does contain suitable habitat for the Dakota skipper. Construction of the proposed pipelines would disturb suitable habitat for the Dakota skipper, although reclamation would occur as soon as practical after construction and there would be no permanent habitat loss or fragmentation. The proposed project may impact individuals or habitat, but would 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 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 would disturb suitable habitat for the Sprague's pipit, although reclamation would occur as soon as practical after construction and there would be no permanent habitat loss or fragmentation. The proposed project may impact individuals or habitat, but would 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 2011. In the event that construction activity takes place within the nesting and breeding season of February 1 to July 15, 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.

<u>Botanical Resources</u>: The study area for the proposed pipelines consists of grazed upland grasses. The 200-foot corridor around the proposed pipeline corridor was dominated by blue grama (*Bouteloua gracilis*), needle & thread (*Stipa comata*), green needlegrass (*Stipa viridula*), western wheatgrass (*Agropyron smithii*), and little bluestem (*Schizachyrium scoparium*). Green ash (*Fraxinus pennsylvanica*) and American elm (*Ulmus americana*) occurred in a wooded draw on the southern edge of the pipeline corridor. A drainage area west of the well pad cuts through the study area. No noxious weeds were observed during the field surveys. There are no threatened or endangered plant species listed for Dunn County.

Biological Resources: The 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). One mourning dove (Zenaida macroura) and its nest were observed during the field survey.

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 would be implemented during the construction and operation phases. These measures would include: the use of suitable mufflers on all internal combustion engines, certain compressor components to mitigate noise, and only utilizing approved roadways.

<u>Eagles</u>: A ground survey for eagle nests was conducted on June 23, 2011 and no eagles or eagle nests were detected within 0.5 miles of the study area. 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 4.3 miles south of the study area. There is also another nest located approximately 4.3 miles east of the study area. If a bald or golden 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.

<u>Water Resources</u>: Runoff from the study area drains southeast into a wooded creek. The creek would then flow to the southeast approximately 2.6 miles into Lake Sakakawea.

Best Management Practices: BMPs for soil erosion would be implemented as needed to include seeding disturbed areas immediately following construction, as well as the use of silt fences, straw wattles, water bars and fiber 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 to an approved location. Small shrubs will be buried, shredded, or left with backfill and respread during reclamation. The alteration of drainages near the proposed pipelines would be avoided and there would be a 24 hour construction window for areas that are within drainages. The pipelines were routed around one draw containing shrubs to minimize impacts to the landscape and drainage areas. Upon completion of the pipelines, the disturbed area would be immediately reclaimed to further avoid environmental areas of concern.

<u>Summary of Commitments to Avoid or Minimize Impacts</u>: 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 would be re-contoured to original elevations as part of the reclamation
 process.
- BMPs would be implemented to minimize wind and water erosion of soil resources.
- Water would be used as a palliative to control dust during construction.
- 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 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 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.
- Prior to construction, Saddle Butte Pipeline would coordinate with the Fort Berthold Water Authority Director to ensure minimization of impacts to existing water distribution pipelines.
- Utility modifications would be identified during design and coordinated with the appropriate utility company.
- Trenches or open pits would 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 would 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 geotextile fabric or straw matting shall be placed to ensure soil stablitiy.
- During reclamation, slopes shall be roughened to reduce erosion.
- Straw wattles, silt fence, and/or water bars shall be installed on all slopes greater than
 5 percent.
- Construction duration in drainage areas is to be completed within a 24 hour window.
- 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 a approved location. Small shrubs will be buried, shredded, or left with backfill and respread 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 19, 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. A draft copy of the Environmental Assessment document will be provided to your office once complete.

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

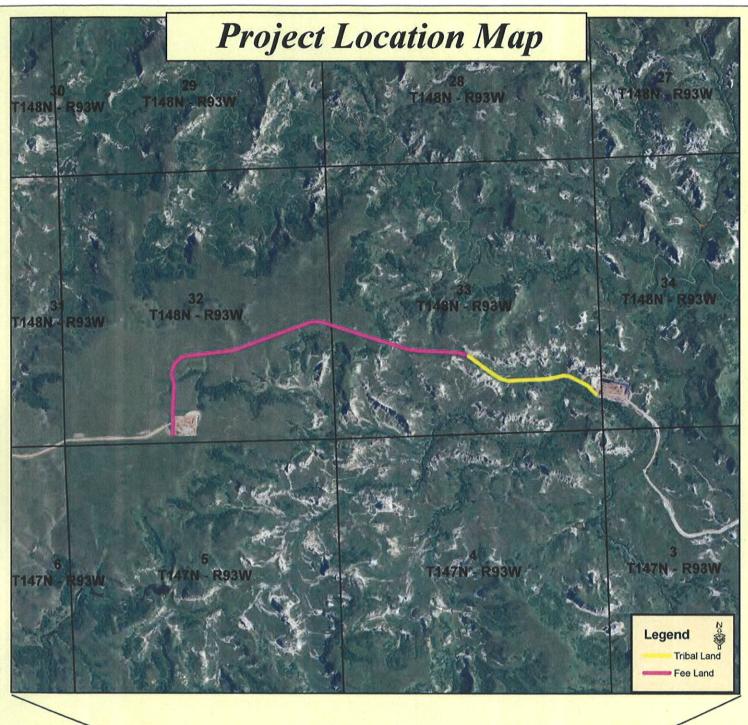
Sincerely,

Kadrmas, Lee & Jackson, Inc.

Grady Wolf

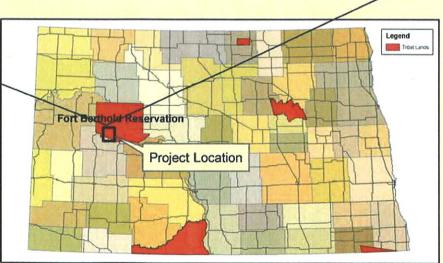
Environmental Planner

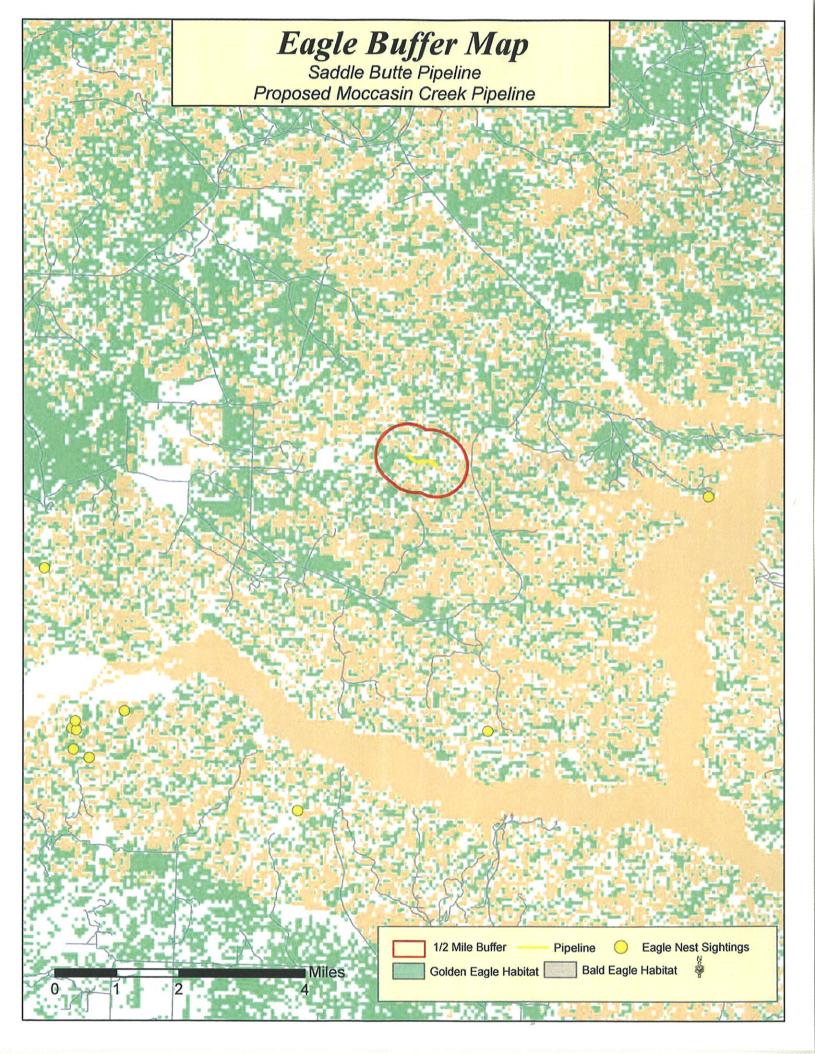
Enclosures (Maps)



Saddle Butte Pipeline Proposed Moccasin Creek Pipeline Dunn County, ND







Appendix C

SOV Responses



Jack Dalrymule, 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 Kadrmas Lee & Jackson 128 Soo Line Drive PO Box 1157 Bismarck, ND 58502-1157

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

Dear Mr. Wolf,

The North Dakota Parks and Recreation Department (the Department) has reviewed the above referenced proposal development of up to four oil, gas 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 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 interagency cooperation to date. For additional information please contact me at (701-328-5370 or kgduttenhefner@nd.gov). Thank you for the opportunity to comment on this proposed project.

Sincerely,

Natural Resources Program

Nature Preserves/Natural Heritage Inventory

R.USNDNHI*2011_178 KD7/26/2011DL8.11.2011

Play in our backyard!



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 Kadrmas, Lee & Jackson, Inc. P.O. Box 1157 Bismarck, ND 58502-1157

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

Dear Mr. Wolf:

This department has reviewed the information concerning the above-referenced project submitted under date of July 18, 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,

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

LDG:cc Attach.

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

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.



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 Kadrmas, Lee & Jackson 128 Soo Line Drive PO Box 1157 Bismarck, North Dakota 58502-1157

Re: Saddle

Saddle Butte Pipeline, LLC

Proposed Moccasin Creek Pipeline, Fort Berthold Reservation, Dunn

County, North Dakota

Dear Mr. Wolf:

This is in response to your July 19, 2011, scoping letter regarding the development of up to four pipelines consisting of oil, gas and water lines to be completed by Saddle Butte Pipeline, LLC (Saddle Butte) on the Fort Berthold Reservation, Dunn County, North Dakota. The pipelines would be approximately 2,800-feet long and would be located within a shared 100-foot construction right-of-way and a 50-foot permanent right-of-way.

Specific location for the proposed pipelines is:

T. 148 N., R. 93 W., SW 4 Sec 33

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 Kadrmas, 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" determination for whooping cranes. This is predicated on Saddle Butte's commitment to cease work if a whooping crane is sighted within I mile of the project area and immediately contact the Service. In coordination with the Service, work may resume after the bird(s) leave the area.

The Service concurs with your "may affect, not likely to adversely affect" determinations for pallid sturgeon, interior least terms and piping plovers. These concurrences are based upon Saddle Butte's placement of the proposed pipeline on upland bluffs, with Lake Sakakawea and its shoreline located approximately 360 feet below the bluffs and at a distance of approximately 1.5-miles. 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 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/ndpmcmt8152.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/ndpmc/). 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, preconstruction 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 23, 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, construction activities will cease and the Service will be notified 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,

Jo Jeffrey K. Towner
Field Supervisor
North Dakota Field Office

Mink Ross

cc: Bureau of Indian Affairs, Aberdeen

(Attn: Marilyn Bercier)

Bureau of Land Management, Dickinson ND Game & Fish Department, Bismarck



DEPARTMENT OF THE ARMY

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

August 10, 2011

Planning, Programs, and Project Management Division

Mr. Grady Wolf Kadrmas, Lee & Jackson, Inc. 128 Soo Line Drive P.O. Box 1157 Bismarck, North Dakota 58502

Dear Mr. Wolf:

The U.S. Army Corps of Engineers, Omaha District (Corps) has reviewed your letter dated July 18, 2011 regarding the construction of the Moccasin Creek pipeline on the Fort Berthold Reservation in Dunn County, North Dakota. The Corps offers the following comments:

Your plans should be coordinated with the U.S. Environmental Protection Agency, which is currently involved in a program to protect groundwater resources. If you have not already done so, it is recommended you consult with the U.S. Fish and Wildlife Service and the North Dakota Game and Fish Department regarding fish and wildlife resources. In addition, the North Dakota State Historic Preservation Office should be contacted for information and recommendations on potential cultural resources in the project area.

Since the proposed project does not appear to be located within Corps owned or operated lands we are providing no floodplain or flood risk information. To determine if the proposed project may impact areas designated as a Federal Emergency Management Agency special flood hazard area please consult the following floodplain management office.

NFIP Coordinator:
North Dakota State Water Commission
Attention: Jeff Klein
900 East Boulevard Avenue
Bismarck, North Dakota 58505-0850
jjkein@nd.gov
T-701-328-4898
F-701-328-3747

Any proposed placement of dredged or fill material into waters of the United States (including jurisdictional wetlands) requires Department of the Army authorization under Section 404 of the Clean Water Act. You can visit the Omaha District's Regulatory website for permit applications and related information. Please review the information on the provided website (https://www.nwo.usace.army.mil/html/od-r/district.htm) to determine if this project requires a

404 permit. For a detailed review of permit requirements, preliminary and final project plans should be sent to:

U.S. Army Corps of Engineers Bismarck Regulatory Office Attention: CENWO-OD-R-ND/Cimarosti 1513 South 12th Street Bismarck, North Dakota 58504

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

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

in a the

If you have any questions, please contact Kailin Bellows of my staff at (402) 995-2897.

Sincerely,

Eric Laux

ActingChief, Environmental Resources and Missouri River Recovery Program Plan Formulation Section Copy Furnished: CENWO-OD-R-ND/Cimarosti



North Dakota State Water Commission

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

August 17, 2011

Grady Wolf Kadrmas, Lee and Jackson PO Box 1157 Bismarck, ND 58502-1157

Dear Mr. Wolf:

This is in response to your request for review of environmental impacts associated with the Saddle Butte Pipeline, LLC, Moccasin Creek Pipeline, Fort Berthold Reservation, Dunn County, ND.

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

- The property is not located in an identified floodplain and it is believed the project will not affect an identified floodplain.
- It is the responsibility of the project sponsor to ensure that local, state and federal agencies are contacted for any required approvals, permits, and easements.
- All waste material associated with the project must be disposed of properly and not placed in identified floodway areas.
- No sole-source aquifers have been designated in ND.

There are no other concerns associated with this project that affect State Water Commission or State Engineer regulatory responsibilities.

Thank you for the opportunity to provide review comments. If you have any questions, please call me at 328-4969.

Sincerely

Larry Knudtson Research Analyst

LJK:dp/1570

TODD SANDO, P.E.
SECRETARY AND STATE ENGINEER

Sign accompanies and participal to the every table in

are promise a narrante promise belief



"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 Kadrmas, 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,

Chief

Cilier

Conservation & Communication Division

Kadrmas Engineers Surveyors

Planners

July 18, 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 Moccasin Creek Pipeline Fort Berthold Reservation Dunn County, North Dakota

Dear Mr. Schauer:

On behalf of Saddle Butte Pipeline, LLC, Kadrmas, Lee & Jackson, Inc. 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 up to four pipelines that are approximately 2,800 feet long, located within a shared 100-foot construction right-of-way and a 50-foot permanent right-of-way, on the Fort Berthold Reservation. The project could contain up to four lines consisting of high-pressure gas, low-pressure gas, oil, and water lines. The pipelines are proposed to be positioned on Tribal land in the following location: T148N, R93W, SE¼ of Section 33. The remainder of the pipeline crosses fee land Please refer to the enclosed project location тар.

The proposed action would provide infrastructure to collect oil and gas from one Kodiak operated well pad that has three wells on it, located at the east end of the proposed project. The well pad would be connected to an existing pipeline operated by Saddle Butte Pipeline on fee land, located at the west end of the proposed project. Construction of the proposed pipelines is to begin in 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 18, 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 Planner

128 Soo Line Drive

PO Box 1157

701 355 8400

Bismarck, ND 58502-1157

Fax 701 355 8781

kljeng.com

Kadrmas, Lee & Jackson, Inc.

US Department

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.

Environmental Protection Specialist

Bismarck Airports District Office 2301 University Drive, Building 23B Bismarck, ND 58504

Enclosure (Map)



ENV-6.00

United States Department of the Interior



BUREAU OF RECLAMATION

Dakotas Area Office P.O. Box 1017 Bismarck, North Dakota 58502

AUG * 4 2011

Mr. Grady Wolf Environmental Scientist Kadrmas, 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 2,800 Feet by Saddle Butte Pipeline on the Fort Berthold Reservation in Dunn 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 32 or 33, T148N, R93W, Mandaree SE, North Dakota. However, there is a rural water pipeline in Section 31. Since you did not provide any indication of need for road access 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 a need to cross a Fort Berthold Rural Water System pipeline, please refer to the enclosed sheet for pipeline crossing 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. Chandler, Chief, Environmental Management.

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

Enclosures - 2

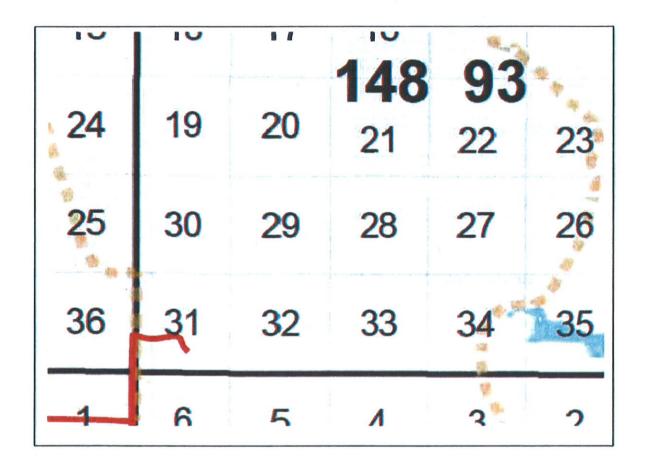
cc: See next page.

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 2,800 Feet by Saddle Butte Pipeline
on the Fort Berthold Reservation in Dunn County, North Dakota

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 2,800 Feet by Saddle Butte Pipeline on the Fort Berthold Reservation in Dunn County, North Dakota

Sections 32+33, T148N, R93W, Mandaree SE - Red lines represent rural water pipelines while solid and dashed Brown lines represent county roads.



United States Department of Agriculture



Natural Resources Conservation Service P.O. Box 1458 Bismarck, ND 58502-1458

August 3, 2011

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

RE: Saddle Butte Pipeline, LLC

Moccasin Creek Pipeline Badgun-Moccasin Creek Riverview Pipeline

Mandaree Cut Across 5-16 and 209

Fort Berthold Reservation

McKenzie and Dunn Counties, ND

Dear Mr. Wolf:

The Natural Resources Conservation Service (NRCS) has reviewed your letters dated July 15, 18, and 19, 2011, regarding the Saddle Butte Pipeline on the Fort Berthold Reservation in Dunn and McKenzie Counties, North Dakota.

NRCS has a major responsibility with Farmland Policy Protection Act (FPPA) in documenting conversion of farmland (i.e., prime, statewide, and local importance) to non-agricultural use when federal funds are utilized. It appears your proposed project is not supported by Federal funding or actions; therefore, no further action is required.

If you have additional questions pertaining to FPPA, please contact Steve Sieler, State Soil Liaison, at (701) 530-2019.

Sincerely,

JEROME M. SCHAAR

State Soil Scientist/MO 7 Leader

Helping People Help the Land

An Equal Opportunity Provider and Employer



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 0 6 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 two gathering pipelines in Dunn County, North Dakota. Approximately 488.2 acres were intensively inventoried using a pedestrian methodology. Potential surface disturbances are not expected to exceed the areas depicted in the enclosed reports. Nine archaeological sites (32DU1600, 32DU1601, 32DU1635, 32DU1636, 32DU1637, 32DU1638, 32DU1639, 32DU1640, 32DU1641) were located that 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. One "area of tribal concern" was located which may 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 these undertakings, as the archaeological sites and area of tribal concern will be avoided. Catalogued as BIA Case Number AAO-1926/FB/11, the proposed undertakings, locations, and project dimensions are described in the following reports:

Macy, Jennifer N.

- (2011a) Horse Camp Natural Gas Gathering Line: A Class III Cultural Resource Inventory, Dunn County, North Dakota. KLJ Cultural Resources for Saddle Butte Pipeline Company, Durango,
- (2011b) Moccasin Creek Gathering Line: A Class III Cultural Resource Inventory, Dunn County, North Dakota, KLJ Cultural Resources for Saddle Butte Pipeline Company, 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.

Regional Director

Sincerely

Enclosures

· cc: Chairman, Three Affiliated Tribes

Superintendent, Fort Berthold Agency

Notice of Availability and Appeal Rights

Saddle Butte Pipeline: Moccasin Creek Lateral Pipeline

The Bureau of Indian Affairs (BIA) is planning to issue administrative approvals related to an Environmental Assessment to Authorize Land Use for the Moccasin Creek Lateral 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 December 8, 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.

