



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 22 2011

MEMORANDUM

TO: Superintendent, Fort Berthold Agency

FROM: Acting Regional Director, Great Plains Region 

SUBJECT: Environmental Assessment and Finding of No Significant Impact

In compliance with the regulations of the National Environmental Policy Act (NEPA) of 1969, as amended, an Environmental Assessment (EA) has been completed and a Finding of No Significant Impact (FONSI) has been issued. The EA authorizes land use for drilling up to eight wells from two pads on the George Evans #11-2H multi-well pad and the John Evans #11-23H dual-well pad 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.

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)
Ryan Krapp, Carlson McCain, Inc. (with attachment)
Jonathon Shelman, Corps of Engineers (with attachment)
Jeff Hunt, Fort Berthold Agency

**Finding of No Significant Impact
Dakota-3 E&P**

Environmental Assessment for:

**George Evans #11-2H Multi-Well Pad Site
John Evans #11-23H Dual-Well Pad Site**

**Fort Berthold Indian Reservation
McKenzie County, North Dakota**


The U.S. Bureau of Indian Affairs (BIA) has received a proposed Environmental Assessment authorizing land use for construction of the George Evans #11-2H Multi-Well Pad Site and John Evans #11-23H Dual-Well Pad Site with up to eight wells from two pads on the Fort Berthold Indian Reservation in McKenzie County, North Dakota. Associated federal actions by BIA include determinations of effect regarding cultural resources, approvals of leases, rights-of-way and easements, and a positive recommendation to the Bureau of Land Management regarding the Applications for Permit to Drill.

The potential of the proposed actions to impact the human environment is analyzed in the attached Environmental Assessment (EA), as required by the National Environmental Policy Act. Based on the recently completed EA, I have determined that the proposed projects will not significantly affect the quality of the human 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 was solicited and environmental issues related to the proposal were identified.
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 alternative.
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 actions are 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 projects will improve the socio-economic condition of the affected Indian community.

Acting


Regional Director

11-22-2011
Date

ENVIRONMENTAL ASSESSMENT

United States Bureau of Indian Affairs

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



**Dakota-3 E&P Company, LLC
George Evans #11-2H Multi-Well Pad Site
John Evans #11-23H Dual-Well Pad Site**

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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Environmental Assessment
George Evans #11-2H Multi-Well Pad Site
John Evans #11-23H Dual-Well Pad Site
Dakota-3 E&P Company, LLC

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1.0 Purpose and Need for the Proposed Action

Dakota-3 E&P Company, LLC (D-3) is proposing to construct two sites to drill eight horizontal oil/gas wells on the Fort Berthold Indian Reservation, in order to evaluate and/or develop the commercial potential of natural resources. The U.S. Bureau of Indian Affairs (BIA) is the surface management agency for potentially affected tribal lands and individual allotments. The BIA may also hold title to subsurface mineral rights. Developments are proposed on lands held in trust by the United States in Mountrail County, North Dakota (Figure 1). The proposed well sites are:

- **George Evans #11-2H Multi-Well Pad Site**
- **John Evans #11-23H Dual-Well Pad Site**

The George Evans #11-2H proposed multi-well pad site (six total) will include the George Evans 11-2HD, George Evans 11-2HZ, George Evans 11-2HC, George Evans 14-23HD, George Evans 14-23HZ and the George Evans 14-23HC well bores into the Bakken and Three Forks formations. The proposed John Evans 14-23H dual-well pad site (two wells) will include the John Evans 14-23HW and the John Evans 14-23HY well bores into the Three Forks formation. The drilling plan for these sites is depicted in Figure 2.

The economic development of available resources and associated BIA actions are consistent with BIA's general mission. Leasing and development of mineral resources offers substantial economic benefits to both the Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nations and to individual tribal members. Oil and gas exploration and development activities are conducted under authority of the Indian Mineral Leasing Act of 1938 (25 USC 396a, *et seq.*), the Indian Mineral Development Act of 1982 (25 USC 2101, *et seq.*), the Federal Onshore Oil and Gas Royalty Management Act of 1982 (30 USC 1701, *et seq.*), and the Energy Policy Act of 2005 (42 USC 15801, *et seq.*). BIA actions in connection with the proposed project include the approval of leases, easements and rights-of-way, determinations regarding cultural resource effects and recommendations to the Bureau of Land Management (BLM) regarding approval of Applications for Permit to Drill (APDs).

These proposed federal actions require compliance with the *National Environmental Policy Act* of 1969 (NEPA) and regulations of the Council on Environmental Quality (CEQ, 40 CFR 1500-1508). Analysis of the proposal's potential to affect the human environment is expected to both improve and explain federal decision-making. APDs submitted by D-3 describe developmental, operations, and reclamation procedures and practices that contribute to the technical basis of this Environmental Assessment (EA). The procedures and practices described in the application are critical elements in both the project proposal and the BIA's decision regarding environmental impacts. This EA will result in either a Finding of No Significant Impact (FONSI) or a decision to prepare an Environmental Impact Statement (EIS).

There are several components to each of the proposed actions. New access roads are needed to access the proposed well sites. These multi-well pads will be constructed to accommodate drilling operations. The working portions of well pads and the access road will remain in place during commercial production. All project components will eventually be abandoned and reclaimed, as specified in this document and the APD and according to any other federal conditions, unless formally transferred with federal approval to either the BIA or the landowner. The wells proposed are exploratory and production, in that results can also support developmental decisions on other leases in the surrounding area, but this EA addresses only

the installation and possible long-term operation of the listed wells and directly associated infrastructure and facilities.

Additional NEPA analysis, decisions, and federal actions will be required prior to any other developments.

Any authorized project will comply with all applicable federal, state, and tribal laws, rules, policies, regulations, and agreements. No construction, drilling, or other ground-disturbing operations will begin until all necessary leases, easements, surveys, clearances, consultations, permissions, determinations, and permits are in place.

Figure 1. Proposed Well Locations

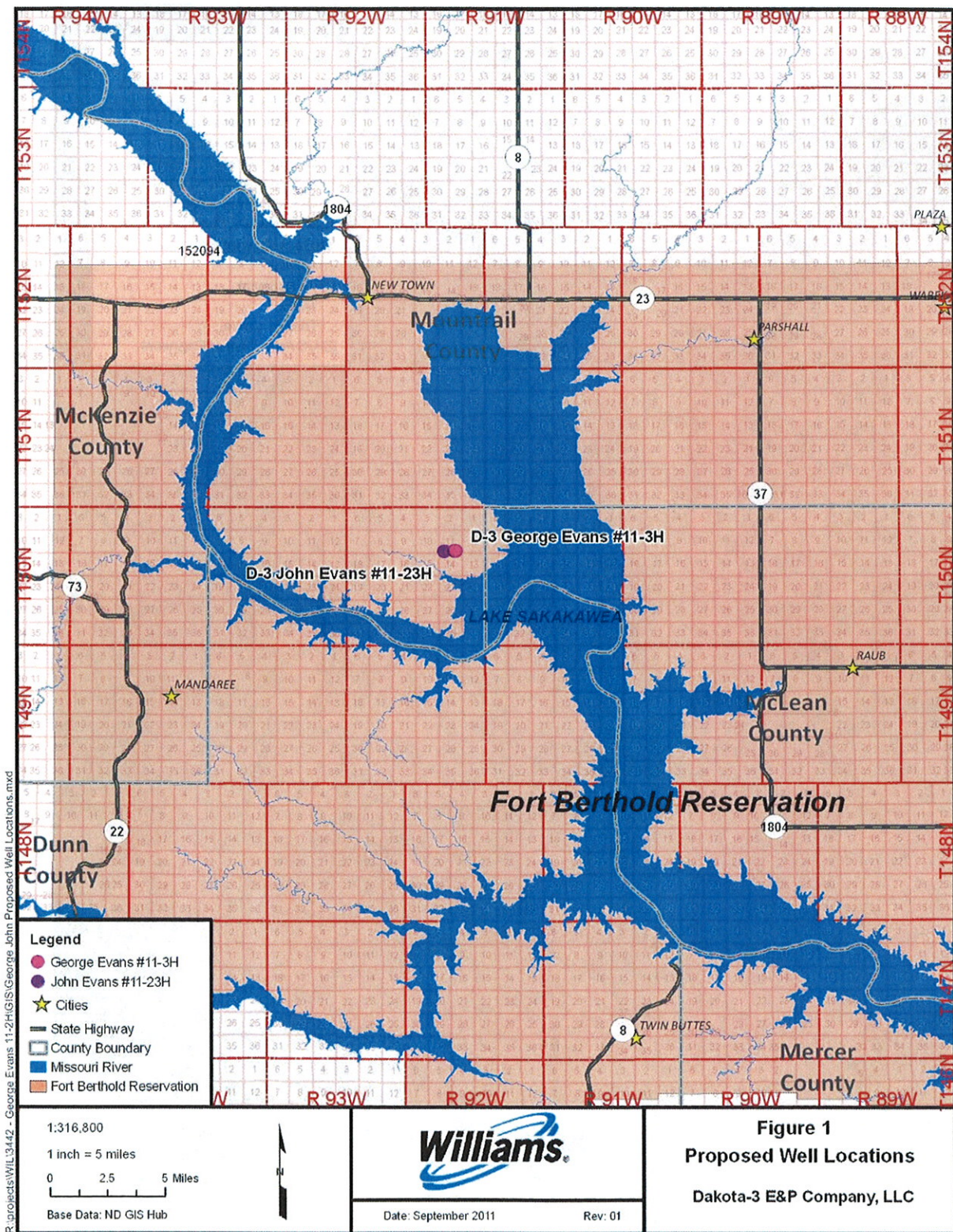
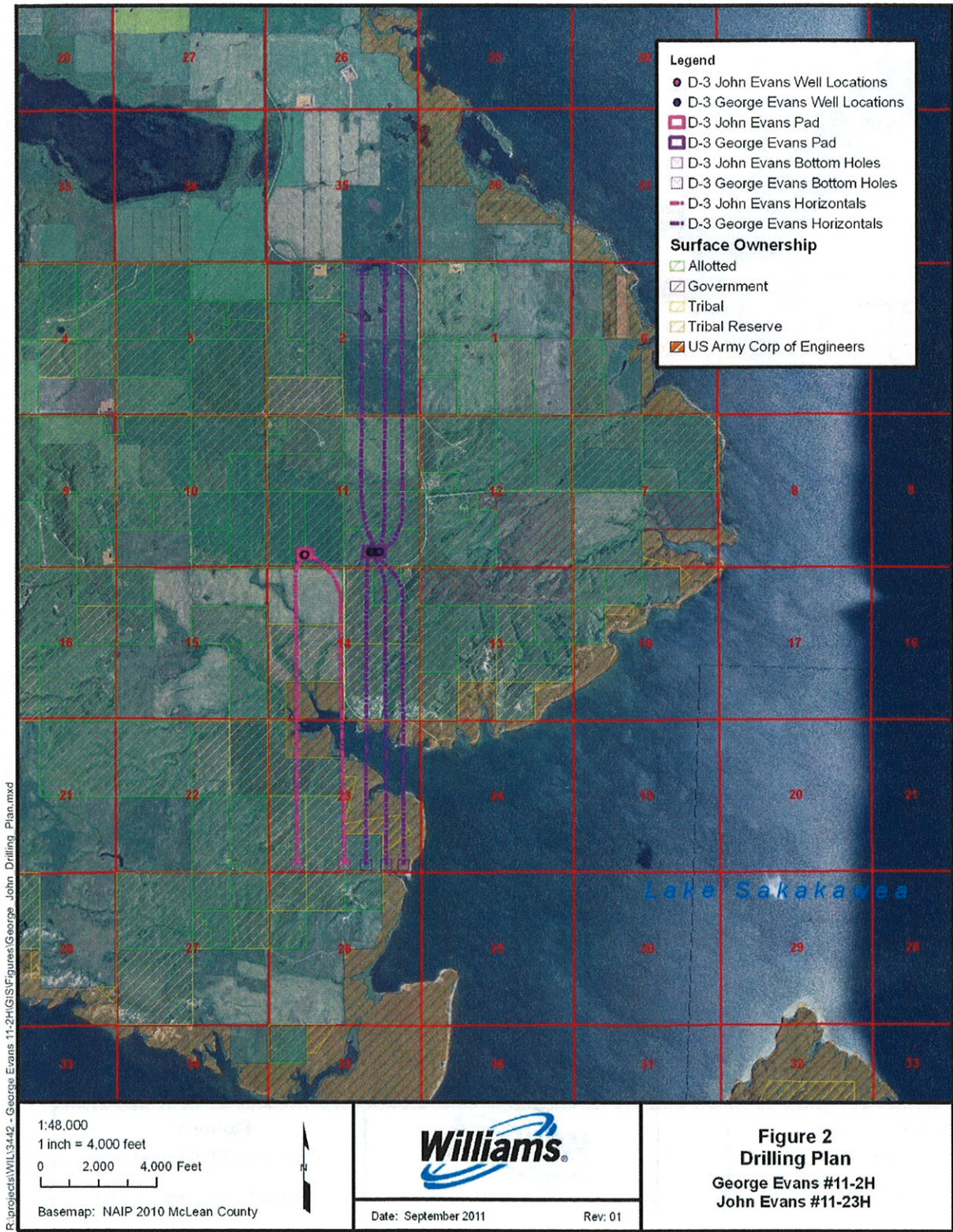


Figure 2. Proposed Drilling Plan



2.0 Proposed Action and Alternatives

The **No Action Alternative** must be considered within an EA. If this alternative is selected, BIA will not approve leases, rights-of-way, or other administrative proposals for one or more of the proposed projects. This document analyzes the potential impacts of specific proposed projects, seven exploratory oil/gas wells on mixed surface ownership and mineral estate within the boundaries of the Fort Berthold Indian Reservation in Mountrail County, North Dakota. The proposed wells will test the commercial potential of the Middle Bakken Dolomite Member of the Bakken Formation and the Three Forks Formation. Site-specific actions will include several components, including access roads, construction of well pads, drilling operations, installation of production facilities, tanker traffic, and reclamation.

Construction activities will follow lease stipulations, practices, and procedures outlined in this document, the APD, guidelines and standards in *Surface Operating Standards for Oil and Gas Explorations and Development* (BLM/US Forest Service, Fourth Edition, also known as the Gold Book), and any conditions added by either BIA or BLM. All lease operations will be conducted in compliance with applicable laws and regulations, including 43 CFR 3100, *Onshore Oil and Gas Orders 1, 2, 3, 6, and 7*, approved plans of operations and any applicable Notices to Lessees.

The specific well pad locations were determined at pre-on-site inspections by the proponent, the BIA Environmental Specialist, the civil surveyor, archeologists, the Tribal Historic Preservation Office (THPO) monitor and the environmental consultant. Those in attendance included: BIA Environmental Specialist(s), Jeff Desjarlais and Chris McLaughlin; Uintah Surveyor, Dean Graves; SWCA Archeologists; Tribal Historic Preservation Office (THPO) monitors; and NEPA Biologists, Ryan Krapp and Miranda Meehan (Carlson McCain).

Resource surveys were conducted on July 20, 2011, at the time of pre-on-site inspections, to determine potential affects to cultural and natural (i.e., biological and physical) resources. The location was inspected in consideration of topography, location of topsoil/subsoil stockpiles, natural drainage and erosion control, flora, fauna, habitat, historical and cultural resources, and other surface issues. The final location was determined in consideration of the previously identified issues. Avoidance measures and other protective measures were incorporated into the final project design to minimize impacts to evaluated resources, as appropriate (see Section 3). During the inspections, the BIA gathered information needed to develop site-specific mitigation measures that will be incorporated in the Permit to Construct.

2.1 Field Camps

Self-contained trailers may house a few key personnel during drilling operations, but any such arrangements will be short-term. No long-term residential camps are proposed. Construction and drilling personnel will commute to the proposed project sites, most likely from within or around the Reservation. Human waste will be collected in standard portable chemical toilets or service trailers located on-site, then transported off-site to a state-approved wastewater treatment facility. Other solid waste will be collected in enclosed containers and disposed of at a state-approved facility.

2.2 Access Road and Utility Corridor

Approximately 602 feet of new access roads will be constructed from BIA 6 to the well pads. An associated utility corridor is proposed to follow the road alignment within the 130 foot right-of-way (ROW). The utility corridor will include oil, gas, produced water gathering lines, and fresh water delivery pipelines along with underground electrical lines and fiber optic cables. These lines will connect to the larger Van Hook Gathering System (VHGS) for distribution to a central delivery point.

The natural gas well lateral connection pipeline will be 3 inch in diameter polyethylene pipe. The oil pipeline will be constructed of welded steel pipe 6-8 inch diameter. Produced water pipelines will consist of 4 inch diameter polyethylene pipe. Fresh water delivery pipelines will also be polyethylene pipe, 4-6 inches in diameter. Natural gas and oil pipelines will either be installed in the same trench or in a separate trench if they were installed in separate phases. Produced water and fresh water pipelines will be installed in the same trench. Trenches will be approximately 2.5 feet wide and will be placed 10-15 feet apart. All pipelines are installed at a minimum depth of six feet except as needed at road and stream crossings or as needed for safety considerations. Electrical and fiber optic utilities will be installed at the same time or at a later date by utilizing the spider-plow method.

The maximum disturbed right-of-way (ROW) width of 130 feet for each access road and utility corridor will result in a potential 1.0 acres of additional disturbance outside the fenced well pad surface use area. Signed agreements will be in place allowing road construction across affected surface allotments and private land surfaces, and any applicable approach permits and/or easements will be obtained prior to any construction activity.

Construction will follow road design standards outlined in the Gold Book. A minimum of four inches of topsoil will be stripped from the George Evans access road corridor and ten inches from the John Evans. The stockpiled topsoil redistributed on the outslope areas of the borrow ditches following road construction. These borrow ditch areas will be reseeded as soon as practical with a seed mixture determined by the BIA. Care will be taken during road construction to avoid disturbing any buried utilities that may exist along existing roads. The access road will be improved with a minimum of four inches of gravel and the roadway will remain in place for the life of the well(s). Typical cross-sections are shown in Figure 3.

2.3 Well Pads

The proposed multi-well pads will consist mainly of an area leveled for the drilling rig and related equipment. A semi-closed-loop drilling system that utilizes a dry cuttings pit will be implemented for the drilling of each well. Well pad areas will be cleared of vegetation, stripped of topsoil, and graded to the specifications presented in Section 3.6 and in APD. Topsoil will be stockpiled and stabilized until disturbed areas are reclaimed and re-vegetated. Excavated subsoils will be used in well pad construction, with the finished well pads graded to ensure positive water drainage away from the drill site.

The George Evans #11-2H site is planned to have six well bores that are to be drilled in two Phases, three wells being drilled per phase. The well pad working surface for Phase 1 drilling will initially be constructed to approximately 475 feet by 355 feet in size or approximately 3.9 acres. The spoil piles and slopes will result in an initial surface use loss (fenced area) of approximately 7.0 acres. Phase 2 well pad build out (three wells at a future date) will extend the pad surface 250 feet to the west (725 feet by 355 feet total) for a total surface use loss of

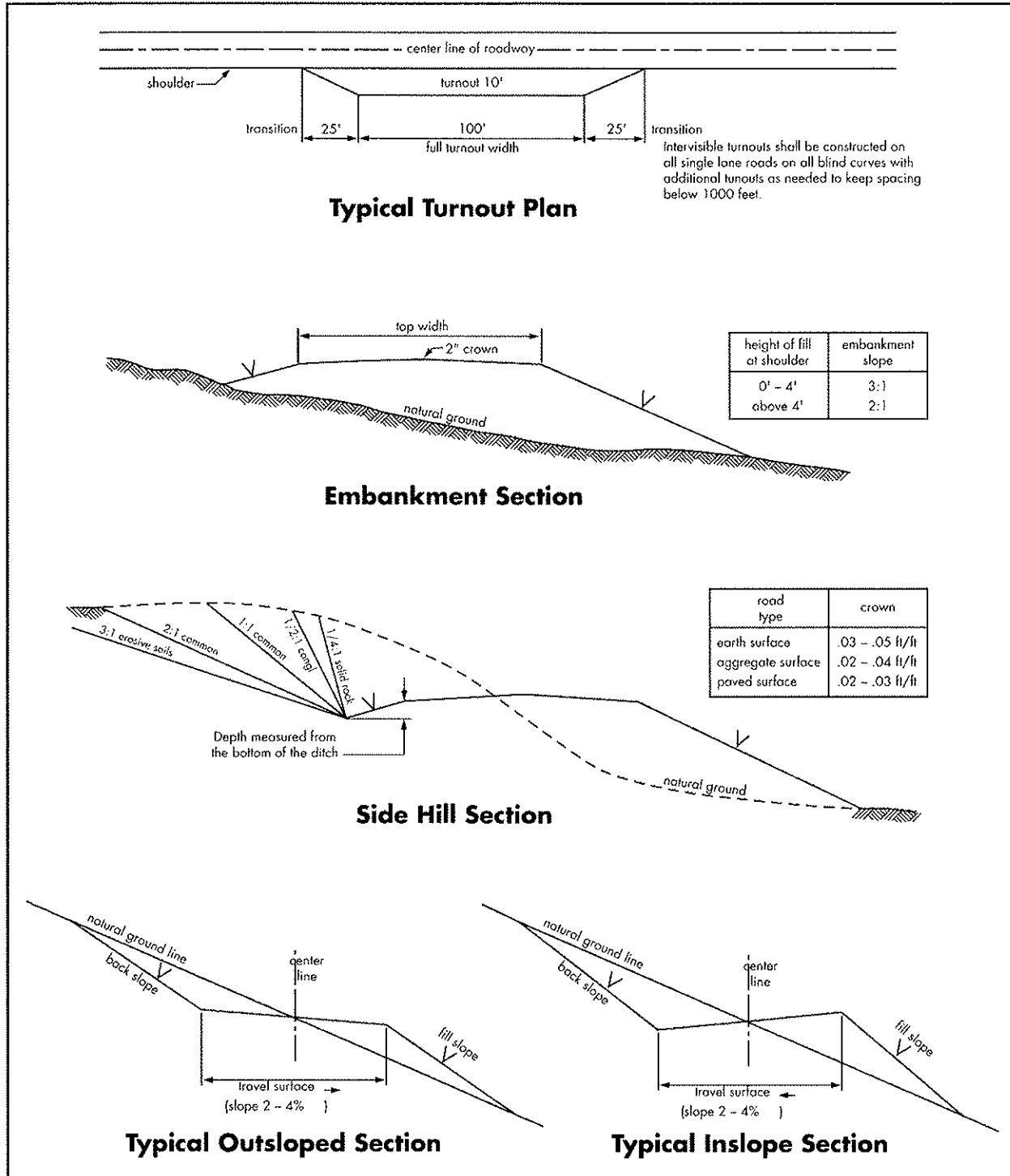
approximately 11.2 acres. The entire six well planned surface disturbance is being considered for the purposes of this document.

The John Evans #14-23H well pad working surface will initially be constructed approximately to 480 feet by 330 feet in size, or approximately 3.6 acres. The overall surface use loss, all surface disturbance in fenced area, will be approximately 8.28 acres.

Details of pad construction and reclamation are presented in Section 2.8. All utilities in corridor (including electrical) will be underground and will follow along the access road in the established ROW. Construction of these multi-well pads and access roads (including all utilities and pipelines) will result in an approximate maximum 20.5 acres of disturbance. Interim site reclamation plans after well drilling completions will reduce the pad surface sizes to less than half of the size needed for development. Reclaimed areas will be reseeded according to BIA recommendations and the fenced area will be reduced.

Figure 3. Typical roadway cross section (Gold Book)

- Construction Steps**
1. Salvage topsoil
 2. Construct road
 3. Redistribute topsoil
 4. Revegetate slopes



2.4 Drilling

D-3 will submit APDs to the BLM for the proposed wells. The BLM North Dakota Field Office will forward the APDs to the BIA's Fort Berthold Agency in New Town, North Dakota, for review and concurrence. BLM will not approve an APD until BIA completes its NEPA process and recommends APD approval. No construction or drilling will begin until an approved permit has been obtained from the BLM.

Rig transport and on-site assembly will take approximately seven days. A rotary drill rig will require approximately 35 days to reach target depths. A typical drilling rig is shown in Figure 4. For approximately the upper 2,500 feet of the drilled hole, a fresh-water based mud system with non-hazardous additives such as bentonite will be used to minimize contaminant concerns. Water will be obtained from a commercial source for drilling, using nearly 8.4 gallons of water per foot of hole drilled.



Figure 4. Typical drill rig (Carlson McCain)

Following the setting and cementing of the near-surface casing, an oil-based mud system will be used to drill to the production casing point for the proposed wells. The oil-based mud system consists of a diesel fuel (80-85%) and water (15-20%) mixture. The oil-based drilling fluids reduce the potential for hole sloughing while drilling through shale formations. Approximately 4,725 gallons of water and 18,900 gallons of diesel fuel per well will be used during the vertical drilling for each well. The lateral reach each well hole will be drilled using on average approximately 33,600 gallons of fresh water.

Dry cuttings generated from use of a semi-closed loop drilling system will be deposited in the cuttings pit on each individual well pad. Cutting pits will be lined with an impervious (plastic/vinyl) liner to prevent drilling fluid seepage and contamination of the underlying soil. Liners will be installed over sufficient bedding (either straw or dirt) to cover any rocks, will

overlap the pit walls, extend under the mud tanks, and will be covered with dirt and/or rocks to hold it in place. All fluids are collected in above ground storage containers and disposed of at approved waste disposal site.

Prior to use, the entire location will be fenced with a cattle guard at the access road location, in order to protect both wildlife and livestock. Fencing will be installed in accordance with Gold Book guidelines and maintained through the life of the well.

2.5 Casing and Cementing

Surface casing will be set to approximately 2,500 feet and cemented back to the surface during drilling, isolating all near-surface aquifers in the project area. The Fox Hills Formation will be encountered at approximately 1,700 feet and the Pierre Formation at about 1,800 feet. A production casing cemented from approximately 11,256 feet up to about 4,000 feet will isolate potential hydrocarbon zones in the Dakota Formation that occur below 4,500 feet. The production horizontal section will be uncased. Casing and cementing operations will be conducted in full compliance with *Onshore Oil and Gas Order 2* (Title 43 CFR 3160).

2.6 Completion and Evaluation

A work-over unit will be moved onto the well site following the completion of the drilling rig. Approximately 30 days are usually needed to clean out the well bore, pressure test the casing, perforate and fracture the horizontal portion of the hole, and run production tubing for commercial production. A mixture of sand and a carrier (water and/or nitrogen) may be pumped into the well bore under extreme pressure to fracture the target formation. The sand particles will stabilize the fractures, increase the capture zone and maximize the field drainage. The fracture fluids will be recovered by flowing the well back to the surface. Tanks will be used to collect fluids for disposal. Disposal will be conducted in accordance with NDIC rules and regulations.

2.7 Commercial Production

If drilling, testing, and production support commercial production from any of the proposed locations, additional equipment will be installed including a pumping unit at each well head, a vertical heater/treater, storage tanks (usually four 400-barrel steel tanks), and a flare/production pit. An impervious dike (that can contain 110% capacity of the largest holding tank) will be placed around the production tanks and heater/treater. Load-out lines will be located inside the diked area and a screened drip barrel will be installed under the outlet. A metal access staircase will provide access to the diked area, protect the dike, and may provide support to tanker truck hoses. The BIA will choose an inconspicuous paint color for all permanent aboveground production facilities from colors recommended either by the BLM or by the Rocky Mountain Five-State Interagency committee. A typical producing unit is shown in Figure 5.

Oil will be either collected in tanks installed on location and trucked to an existing oil terminal until connection to the planned gathering system. Produced water will be also be collected and contained in tanks and will be removed for periodic disposal at an approved disposal site until connected to the gathering system. Production volumes of oil and water along with pipeline installation date will dictate trucking frequency and duration.

The duration of production operations cannot be reliably predicted, but some oil wells have pumped for more than 100 years. Initial estimation of daily production will be approximately 500

barrels of oil and 100 barrels of water. The production is anticipated to decrease after three months to approximately 200 barrels of oil and 50 barrels of water per day.

Large volumes of natural gas are not expected from these locations. Small volumes will be flared in accordance with Notice to Lessees (NTL) 4A and adopted NDIC regulations, which prohibit unrestricted flaring for more than the initial year of operation (NDCC 28-08-06.4). The VHGS is proposed for construction in the area by well completion time and the connection will allow for gas, oil, and produced water capture and transport.

Should future oil/gas exploration and development activities be proposed wholly or partly on trust land, those proposals and associated federal actions would require additional site-specific NEPA analysis and BIA consideration prior to implementation.

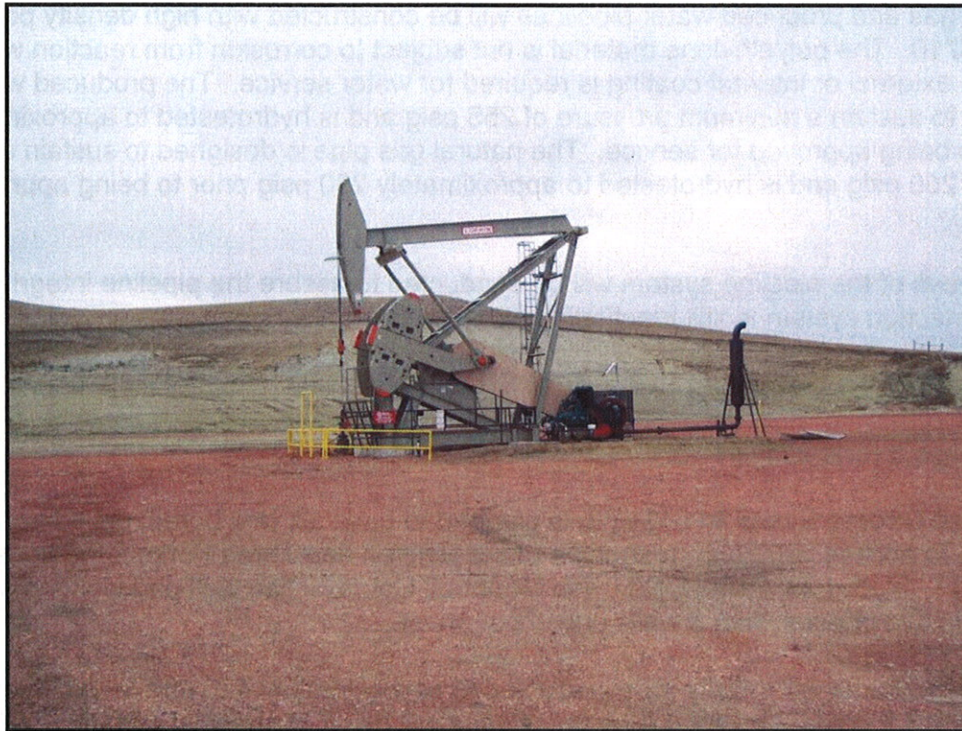


Figure 5. Typical producing unit (Carlson McCain)

2.8 Pipeline Spill Response Plan

An Emergency Spill Contingency Plan (Plan) for the VHGS (D-3, 2011). The spill preventative measures and monitoring protocols, notification procedures, spill detection and on-scene spill mitigation procedures, response activities, contacts, training and drill procedures, and response plan review and update procedures, as referenced in the Plan, apply to the proposed pipelines, so long as D-3 remains the operator. A copy of the Plan has been filed with the BIA and D-3 has legally committed to adhering to the procedures and requirements as defined by federal law (Title 49 Code of Federal Regulations [CFR] 194). D-3 has committed to providing the BIA a site specific spill plan prior to construction.

2.9 Pipeline Marking Procedures

D-3 will adhere to the requirements of 49 CFR 192.707 with regard to the marking of buried pipelines. Specifically, D-3 would place pipeline markers within 1,000 feet of one another, at all public road crossings, railroad crossings, creek crossings, fence crossings, and at all points of major direction change.

2.10 Pipeline Quality Control / Quality Assurance Measures

D-3 will purchase steel pipe that is rated as API 5L X-42/52 and will inspect all pipe while at the mill to ensure quality. D-3 will ensure that external epoxy coating is applied to a minimum thickness of 14 millimeters. During construction, all welds are visually inspected for quality and completeness by qualified professionals. Once welds have passed visual inspection, they are subjected to 20 percent Non Destructive Testing. After passing these tests, the weld areas are covered for corrosion protection. After the weld areas have been covered, the external coating of the pipe is inspected using a jeepmeter to detect holes and cracks. The pipe is lowered into the trench and buried. Prior to being put into service, the steel pipe is hydrotested to approximately 115% of the minimum design pressure of 720 pounds per square inch gauge (psig). A cathodic protection system will be installed on the steel pipe to protect against corrosion of the pipe.

The natural gas and produced water pipelines will be constructed with high density polyethylene pipe resin 4710. The polyethylene material is not subject to corrosion from reaction with the water so no external or internal coating is required for water service. The produced water pipe is designed to sustain a minimum pressure of 255 psig and is hydrotested to approximately 255 psig prior to being approved for service. The natural gas pipe is designed to sustain a minimum pressure of 250 psig and is hydrotested to approximately 250 psig prior to being approved for service.

Annual surveys of the pipeline system will be conducted to assure the pipeline integrity and cathodic protection system is still functioning adequately.

2.11 Construction Details at Individual Sites

2.11.1 George Evans #11-2H

The proposed George Evans #11-2H site is planned to have six well bores, drilled horizontally in two phases, to access petroleum resources of the Bakken and Three Forks formations under sections 2, 11, 14 and 23, T150N, R91W in Mountrail County. The well pad working surface will be built out in two phases, with 3 wells drilled per phase.

Phase 1 pad build out will initially be constructed to approximately 475 feet by 355 feet in size or approximately 3.9 acres. The spoil piles and slopes will result in an initial surface use loss (fenced area) of approximately 7.0 acres. Phase 2 well pad build out (three wells at a future date) will extend the pad surface 250 feet to the west (725 feet by 355 feet total) for a total surface use loss of approximately 11.2 acres. The entire six wells plan is being considered all at once for surface disturbance and the purposes of this document.

Carlson McCain biologists, attended an on-site visit on July 20, 2011, to review the natural resources found in the area. BIA personnel, cultural resource investigators and tribal representatives were on hand to evaluate effects of proposed development. At the on-site assessment, efforts were made at reducing the overall pad size and assured avoidance of a cultural resource site. It was determined that the well bore spacing could be reduced and save approximately 100ft of pad construction from original staked plan and as staked could avoid the cultural resource site by > 75ft. A cultural resource monitor will be onsite during pad construction to assure avoidance.

A semi-closed-loop drilling system that utilizes a dry cuttings pit will be implemented. The dry cuttings pit will be located on the north central part of the pad on the cut surface of the pad. An 18 inch containment berm will be constructed on top of the pad site to contain surface runoff.

Topsoil from site will be removed at a minimum depth of 4 inches (hilltop) and stockpiled for reclamation on the east corner of the pad to divert water and reduce erosion potential.

The access road will begin at 29th Street Northwest (BIA 6) and proceed north to the west side of pad approximately 340 feet. An associated utility corridor will follow the road alignment and is to include oil, gas, produced water, and fresh water pipelines along with underground electrical lines and fiber optic cables as described in Section 2.2. Shut off valves will be installed on pad site for all pipelines. These well connection lines will connect to the Van Hook Gathering System. The road and utility corridor will have a maximum disturbance width (ROW) of 130 feet will result in an approximate 0.8 acre of additional disturbance beyond the well pad surface use area.

Due to the large cut needed to accommodate six well bores, it was agreed upon at the on-site that a 2:1 slope will be constructed on the high cut slope to which matting and other erosion control will be applied to minimize soil erosion during drilling. Best Management Practices (BMP's) including the use of a containment berm(s), matting, soil compaction and reseeding of native species will be utilized during construction and for interim reclamation.

Figure 6. George Evans #11-2H Location

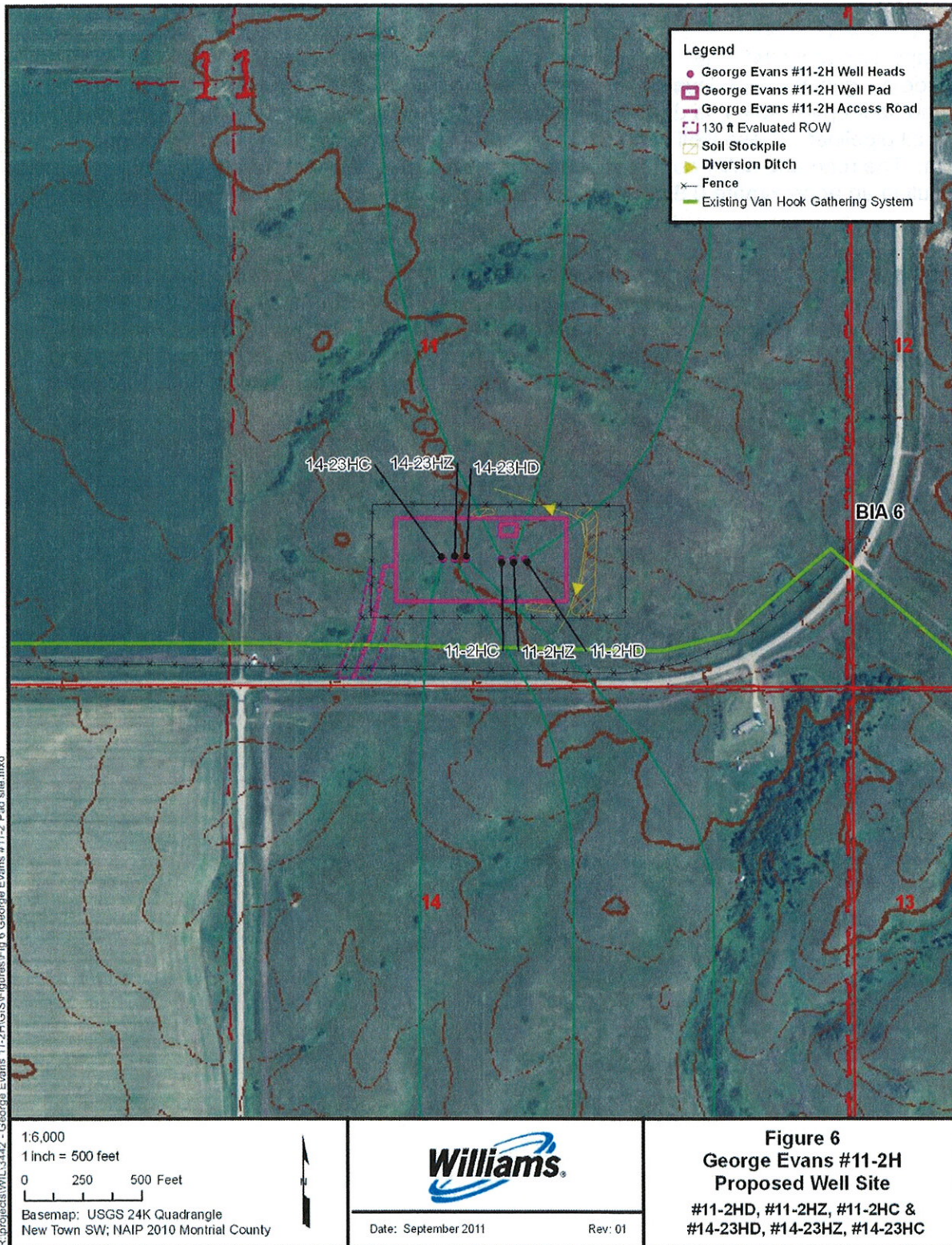




Figure 7. George Evans #11-2H General Appearance

The proposed well site is located on west sloping mixed grass prairie. Drainage from the site will be to the south and west. Photograph taken facing west across pad.



Figure 8. George Evans #11-2H well center(s)

Photograph taken from south facing north across the proposed pad. Three well center stakes in foreground.

2.11.2 John Evans #11-23H

The proposed site is planned initially to have two well bores, the John Evans #14-23HW and John Evans #14-23HY, drilled horizontally to access petroleum resources of the Three Forks formation under sections 14 and 23.

Carlson McCain biologists, attended an on-site visit on July 20, 2011, to review the natural resources found in area. BIA personnel, cultural resource investigators and tribal historic preservation office representatives were on hand to evaluate effects of proposed development. The proposed well pad working surface will initially be constructed approximately to 480 feet by 330 feet in size (Figures 9 and 10). The overall surface use loss, all surface disturbance in fenced area, will be approximately 8.28 acres. After well completions interim site reclamation will reduce the pad surface size to less than 2.5 acres, reseeded and fenced.

The access route will begin at 29th Street Northwest (BIA 6) and proceed north to the pad approximately 262 feet. An associated utility corridor will follow the road alignment and is to include oil, gas, produced water, and fresh water pipelines along with underground electrical lines and fiber optic cables as described in Section 2.2. Shut off valves will be installed on pad site for all pipelines. These well connection lines will connect to the Van Hook Gathering System that runs through the evaluated surface use area. The road and utility corridor will have a maximum disturbance width (ROW) of 130 feet will result in an approximate 0.17 acres of additional disturbance outside the well pad surface use area (road ditch).

A semi-closed-loop drilling system that utilizes a dry cuttings pit will be implemented. The dry cuttings pit will be located in the southeast corner of the pad. An 18 inch containment berm will be constructed on top of the pad site to contain surface runoff. Topsoil from site will be removed at a depth of 10 inches and will be stored for interim reclamation located around the northeast corner of the pad to divert water and reduce erosion. The corners of the proposed well pad were rounded as needed. Best Management Practices (BMP's) including the use of a containment berm(s), sediment fencing, soil compaction and reseeded of native species will be utilized during construction and after final reclamation.

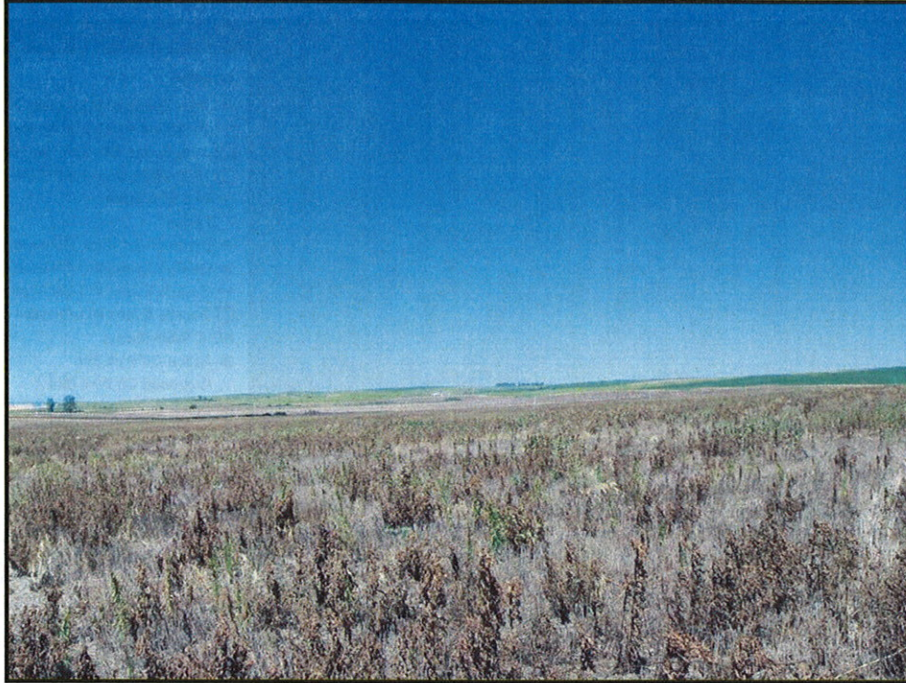
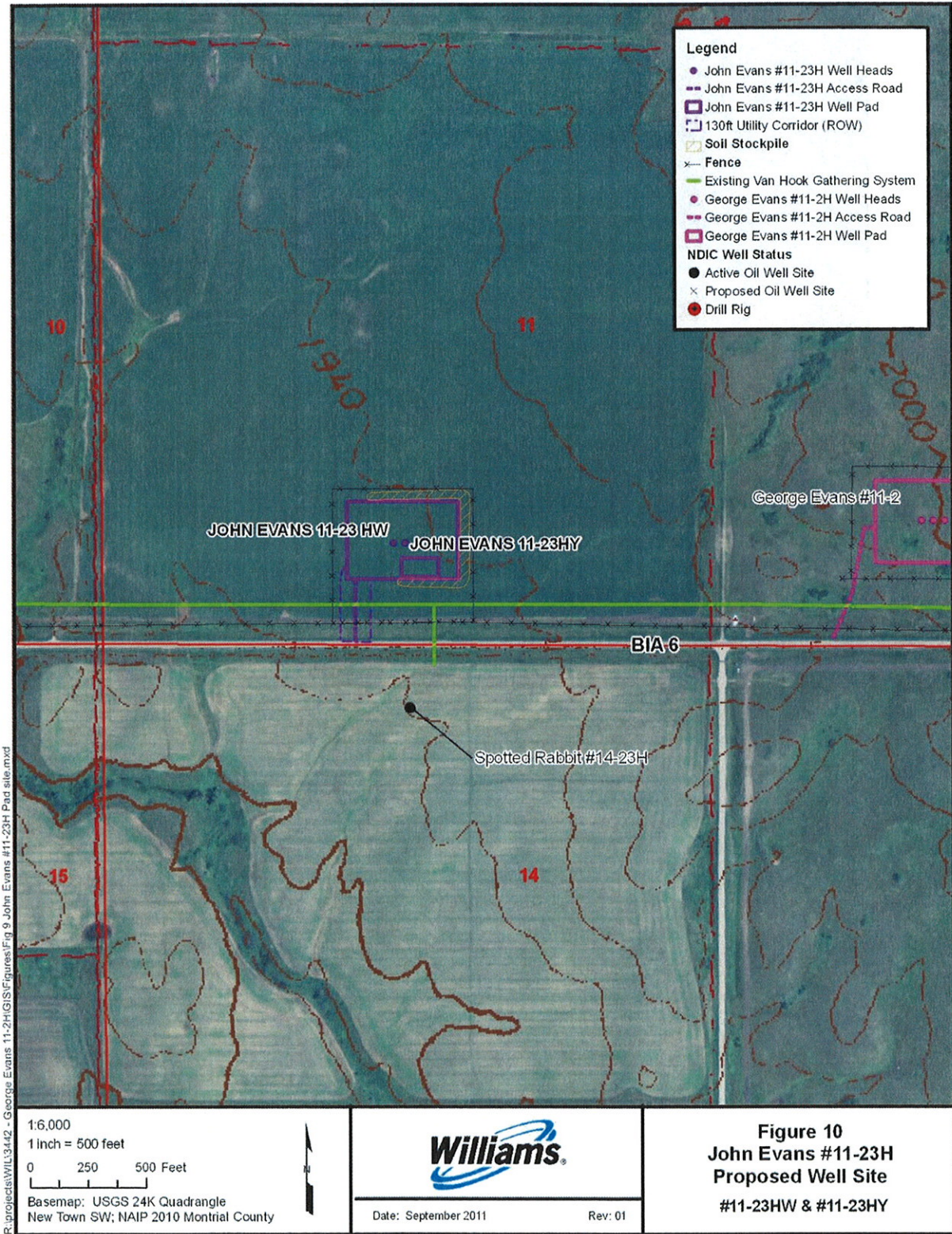


Figure 9. John Evans #11-23H General Appearance

The proposed well site is located on gently sloping cultivated agricultural field. Photograph taken from the facing northeast across the pad site.

Figure 10. John Evans #11-23H Location



R:\projects\WIL3442 - George Evans 11-2H\GIS\Figures\Fig 9 John Evans #11-23H Pad site.mxd

2.12 Interim Reclamation

The dry cuttings pit will be treated, solidified, backfilled, and buried as soon as possible after well completion. Controlled mixing of cuttings with non-toxic reagents causes an irreversible reaction that quickly results in an inert, solid material. Any oily residue is dispersed and captured, preventing coalescence and release to the environment at significant rates in the future. The alkaline nature of the stabilized material also chemically stabilizes various metals that may be present, primarily by transforming them into less soluble compounds. Treated material will then be buried in the reserve pit, overlain by at least four feet of overburden as required by adopted NDIC regulations.

If commercial production equipment is installed, best faith efforts will be made to reduced the size of the well pad to approximately half the original size, reclaiming the rest of the original pad surface within six months. The working area of each well pad and the running surface of access roads will retain surfaced with scoria or crushed rock. Other interim reclamation measures include reduction of the cut and fill slopes, redistribution of stockpiled topsoil, installation of erosion control measures, and reseeding of native species as recommended by the BIA within six months of original construction disturbance.

Pipeline trenches will be back-filled immediately after the pipe is installed and testing is complete, assuming frozen or saturated soils are not present. Back-fill piles would be stored opposite of the topsoil piles during construction. If construction is to occur during winter, D-3 will partially fill the trench with useable, non-frozen, back-fill soil to the extent possible and cover the entire ROW including the trench with straw. The trench would be back-filled and topsoil distributed as soon as practicable after the soil has defrosted. Topsoil piles would be covered to eliminate the potential for rill erosion and subsequent loss of soil during spring snow melt and precipitation events.

Applicable short- and long-term best management practices would be used to minimize and control erosion in disturbed areas. To reduce compaction, the ROW would be plowed before the stockpiled topsoil is distributed.

The disturbed areas would be reclaimed and contoured as soon as possible after construction is complete (fall/spring). The ROW would be covered with stockpiled topsoil and reseeded with a seed mixture determined by the BIA. D-3 will control noxious weeds within the ROW and other applicable facilities by approved chemical or mechanical methods. If seeding of the ROW does not occur due to growing season constraints, D-3 will deploy approved weed-free hay across the entire ROW. The presence of hay across the ROW will reduce the potential for excessive erosion as a result of spring snow melt and precipitation.

The entire ROW would be monitored for erosion, subsidence, or noxious weeds. In areas where problems are found to occur, reclamation efforts would continue until the BIA feels the ROW is successfully reclaimed. Reclamation is considered successful when seeded areas are established, adjacent vegetative communities spread back into the disturbed areas, and noxious weeds are under control.

If after two growing seasons the new seeding is not successful, the BIA may require additional efforts to establish vegetation. For noxious weeds, a survey was conducted on the ROW prior to the construction commencing. The BIA has developed a weed management plan to treat known or likely to occur noxious weed species.

2.13 Final Reclamation

Total reclamation will occur either in the very short term if the proposed well is commercially unproductive, or later upon final abandonment of commercial operations. All disturbed areas will be reclaimed, reflecting the BIA view of oil and gas exploration and production as temporary intrusions on the landscape. All facilities will be removed, well bores will be plugged with cement and dry hole markers will be set. Access roads and work areas will be leveled or backfilled as necessary, scarified, re-contoured and re-seeded. Decommissioning of the pipelines and utilities will also result in mandatory final reclamation of the ROW. Due to economic costs and additional environmental disturbance associated with excavation and removal, pipelines will be purged with water to remove hydrocarbons, and then abandoned in place. Long term monitoring will be required to ensure successful reclamation and implementation of any necessary remedial efforts.

Exceptions to these reclamation measures might occur if the BIA approves assignment of an access road either to the BIA roads inventory or to concurring surface allottees. Figure 11 and Figure 12 show a typical reclaimed site from the Gold Book.

2.14 Preferred Alternative

The preferred alternative is to complete all administrative actions and approvals necessary to authorize and/or facilitate oil and gas developments at the proposed well locations.

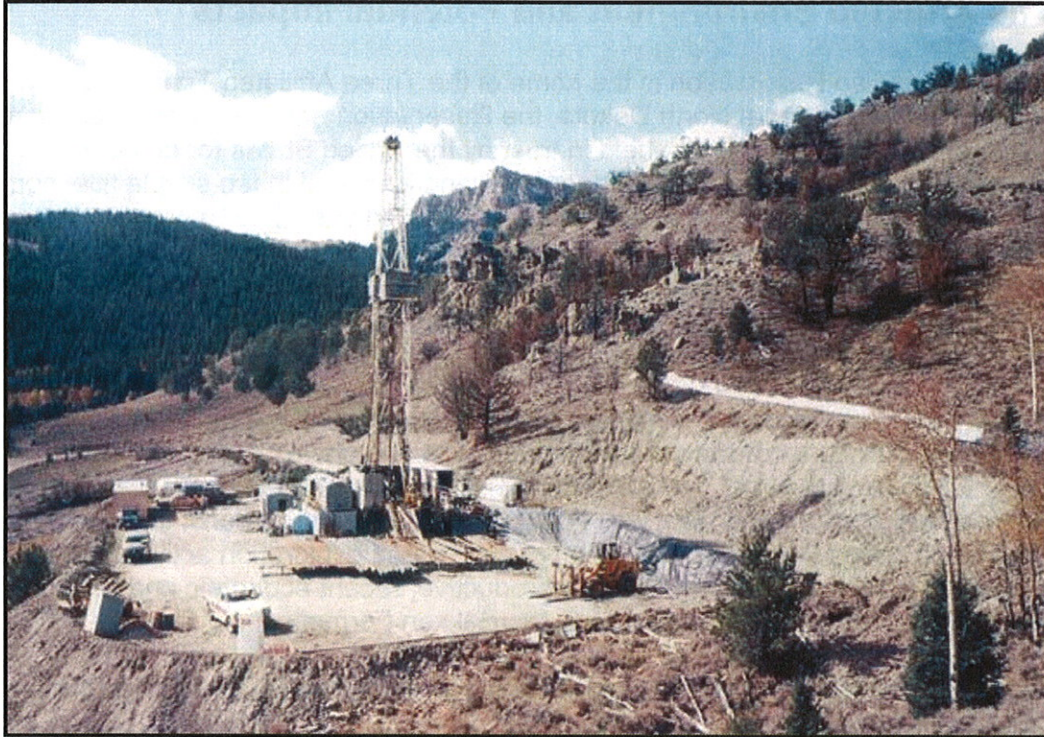


Figure 11. Typical well pad during operation.
The well pad and access road are constructed to the minimum size necessary to safely conduct drilling and completion operations.



Figure 12. Well pad after reclamation.
The well pad and access road have been regressed back to the original contour, the topsoil respread, and the site revegetated.

3.0 The Affected Environment and Potential Impacts

The Fort Berthold Indian Reservation is the home of the Three Affiliated Tribes of the MHA Nation. Located in west-central North Dakota, the Reservation encompasses more than one million acres, of which almost half are held in trust by the United States for either the MHA Nation or individual allottees. The remainder of the land is owned in fee simple title, sometimes by the MHA Nation or tribal members, but usually by non-Indians. The Reservation occupies portions of six counties, including Dunn, McKenzie, McLean, Mercer, Mountrail, and Ward. In 1945, the Garrison Dam was completed inundating much of the Reservation. The remaining land was divided into three sections by Lake Sakakawea, an impoundment of the Missouri River upstream of the Garrison Dam.

The proposed well(s) and access road(s) are situated geologically within the Williston Basin, where the shallow structure 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 is a well-known source of hydrocarbons; its middle member is targeted by the proposed project(s). Although earlier oil/gas exploration activities within the Reservation were limited and commercially unproductive, recent economic and technological advancement have created feasible access to the Bakken Formation.

The Reservation is within the northern Great Plains ecoregion, which consists of four physiographic units:

- Missouri Coteau Slope north of Lake Sakakawea;
- Missouri River Trench (not flooded);
- Little Missouri River Badlands; and
- Missouri Plateau south and west of Lake Sakakawea

Much of the Reservation is located on the Missouri Coteau Slope and is comprised of a glaciated gently rolling landscape. Elevations of the Reservation range from 1,838 feet at Lake Sakakawea to over 2,600 feet on Phaelan's Butte near Mandaree. Annual precipitation on the plateau averages between 15 to 17 inches. Mean temperatures fluctuate between -3° and 21°F in January and between 55° to 83° in July, with 95 to 130 frost-free days each year (Bryce et al. 1998; High Plains Regional Climate Center 2008).

The proposed well site(s) and spacing units are in a rural area consisting primarily of grassland, shrubland, and cropland that is currently farmed, idle or used to graze livestock. The landscape has been previously disturbed by dirt trails and gravel and paved roadways.

The broad definition of human and natural environment under NEPA leads to the consideration of the following elements:

- Air quality;
- Public health and safety;
- Water resources;
- Wetland/riparian habitat;
- Threatened and endangered species;
- Soils;
- Vegetation and invasive species;
- Cultural resources;
- Socioeconomic conditions; and

- Environmental justice.

Potential impacts to these elements are analyzed for both the No Action Alternative and the Preferred Alternative. Impacts may be beneficial or detrimental, direct or indirect, and short-term or long-term. The EA also analyzes the potential for cumulative impacts and ultimately makes a determination as to the significance of any impacts. In the absence of significant negative consequences, it should be noted that a significant benefit from the project does *not* in itself require preparation of an EIS. After consideration of the no-action alternative, existing conditions and potential impacts from proposed projects are described below.

3.1 The No Action Alternative

Under the No Action Alternative, the proposed projects will not be constructed, drilled, installed, or operated. Existing conditions will not be impacted for the following critical elements:

- Air quality;
- Public health and safety;
- Water resources;
- Wetland/riparian habitat;
- Threatened and endangered species;
- Soils;
- Vegetation and invasive species;
- Cultural resources;
- Socioeconomic conditions; and
- Environmental justice.

There will be no project-related ground disturbance, use of hazardous materials, or trucking of product to collection areas. Surface disturbance, deposition of potentially harmful biological material, trucking, and other traffic will not change from present levels. Under the No Action Alternative, the MHA Nation, tribal members, and allottees will not have the opportunity to realize potential financial gains resulting from the discovery of resources at these well locations.

3.2 Air Quality

The North Dakota Department of Health (NDDH) network of Ambient Air Quality Monitoring (AAQM) stations includes Watford City in McKenzie County, Dunn Center in Dunn County, and Beulah in Mercer County. These stations are located west, south, and southeast of proposed well sites. Criteria pollutants tracked under National Ambient Air Quality Standards (NAAQS) of the *Clean Air Act* include sulfur dioxide (SO₂), particulate matter (PM₁₀), nitrogen dioxide (NO₂), and ozone (O₃). Two other criteria pollutants – lead (Pb) and carbon monoxide (CO) – are not monitored by any of three stations. Table 1 summarizes federal air quality standards and available air quality data from the three-county study area.

Table 1. Summary of Federal Air Quality Standards and Available Air Quality Data

Pollutant	Averaging Period	NAAQS ($\mu\text{g}/\text{m}^3$)	NAAQS (ppm)	County		
				Dunn	McKenzie	Mercer
SO ₂	24-Hour	365	0.14	0.004 ppm	0.004 ppm	0.011 ppm
	Annual Mean	80	0.3	0.001 ppm	0.001 ppm	0.002 ppm
PM ₁₀	24-Hour	150	--	50 ($\mu\text{g}/\text{m}^3$)	35 ($\mu\text{g}/\text{m}^3$)	35 ($\mu\text{g}/\text{m}^3$)
	Annual Mean	50	--	--	--	--
PM _{2.5}	24-Hour	35	--	--	--	--
	Weighted Annual Mean	15	--	--	--	--
NO ₂	Annual Mean	100	0.053	0.002 ppm	0.001 ppm	0.003 ppm
CO	1-Hour	40,000	35	--	--	--
	8-Hour	10,000	9	--	--	--
Pb	3-Month	1.5	--	--	--	--
O ₃	1-Hour	240	0.12	0.071 ppm	0.072 ppm	0.076 ppm
	8-Hour	--	0.08	0.061 ppm	0.066 ppm	0.067 ppm

North Dakota was one of nine states in 2006 that met standards for all criteria pollutants. The state also met standards for fine particulates and the eight-hour ozone standards established by the U.S. Environmental Protection Agency (EPA) (NDDH 2007). The three counties addressed in Table 2 are also in full attainment and usually far below established limits (American Lung Association 2006). The Clean Air Act mandates prevention of significant deterioration in designated attainment areas. Class I areas are of national significance and include national parks greater than 6,000 acres in size, national monuments, national seashores, and federal wilderness areas larger than 5,000 acres and designated prior to 1977. There is a Class I air shed at nearby Theodore Roosevelt National Park (TRNP), which covers approximately 110 square miles in three units within the Little Missouri National Grassland between Medora and Watford City, located 30-40 miles west of the proposed projects. The reservation can be considered a Class II attainment air shed, which affords it a lower level of protection from significant deterioration.

The proposed project is similar to other nearby approved previously installed projects. Construction, drilling, and tanker traffic will generate temporary, intermittent, and nearly undetectable gaseous emissions of particulates, SO₂, NO₂, CO₂, and volatile organic compounds. Road dust will be controlled as necessary and other best management practices implemented as necessary to limit emissions to the immediate project areas (BLM 2005). No detectable or long-term impacts to air quality or visibility are expected within the air sheds of the Reservation, state, or TRNP. No laws, regulations or other requirements have been waived; no monitoring or compensatory measures are required.

3.3 Public Health and Safety

Health and safety concerns include naturally occurring toxic gases, hazardous materials used or generated during installation or production, and hazards posed by heavy truck traffic associated with drilling, completion, and production activities.

Hydrogen sulfide gas (H₂S) is extremely toxic in concentrations above 500 parts per million (ppm), but it has not been found in measurable quantities in the Bakken Formation. Before reaching the Bakken, however, drilling will penetrate the Mission Canyon Formation, which is

known to contain varying concentrations of H₂S. Release of H₂S at dangerous concentrations is very unlikely. Contingency plans submitted to BLM comply fully with relevant portions of *Onshore Oil and Gas Order 6* to minimize potential for gas leaks during drilling. Emergency response plans protect both the drilling crew and the general public within one mile of a well; precautions include automated sampling and alarm systems operating continuously at multiple locations on the well pad.

Satellite imagery was used to identify occupied homes within one and five miles of the proposed well site(s) (Table 2). Pouch Point cabin site is not within line of site of the proposed sites.

Table 2. Distance and Location of Residences

Well Name	Nearest residence	# Residences within 1 mile	# Residences within 5 miles*
George Evans #11-2H	750' Northwest	8	21
John Evans #11-23H	1,400' Northeast	5	23
* does not include 77 seasonal residences near Pouch Point Recreation area.			

Impacts from construction will be largely temporary. Noise, fugitive dust, and traffic hazards will be present during the construction, drilling, and well completion (approximately 60 days) and then diminish quickly during commercial operation. Approximately 50 trips during several days will be needed to transport the drilling rig and associated equipment to each site. The same amount of traffic will be required to dismantle and transport the drilling rig following the completion of the drilling operations.

Natural gas will initially be flared during production and the produced oil and water will be trucked away from the well site. Tanker truck activity depends directly on production of the well. Initially a successful Bakken well usually produces high rates of both oil and water. Upwards of 500 barrels of oil and 100 barrels of water per day might be expected during the initial months of production. Daily production typically decreases by 50% or more after the initial months. An oil tanker usually hauls 140 barrels and a water tanker holds 110 barrels per load. Four oil tankers and one water tanker may visit each well site per day during the initial months of production. This number will decline as production declines. Established load restrictions for state and BIA roadways will be followed and appropriate haul permits will be acquired. All traffic must be confined to approved routes and conform to load and speed limits.

The EPA specifies chemical reporting under Title III of the *Superfund Amendments and Reauthorization Act* (SARA) of 1986, as amended. No materials used or generated by this project for production, use, storage, transport, or disposal are on either the SARA list or on EPA's list of extremely hazardous substances in 40 CFR 355. Project design and operational precautions mitigate against impacts from toxic gases, hazardous materials, and traffic. All operations, including flaring, will conform to instructions from BIA fire management staff. Impacts from the proposed projects are considered minimal, unlikely or insignificant. No laws regulations, or requirements have been waived; no compensatory mitigation measures are required.

3.4 Water Resources

3.4.1 Surface Water

The proposed sites are located on a glaciated upland in the Missouri River Regional Water Basin (Figure 13). Surface water runoff generally starts as sheet-flow until collected by ephemeral drainages leading to Lake Sakakawea. The ephemeral drainages, in turn, combine to form intermittent and/or perennial streams that flow into Lake Sakakawea. Lake Sakakawea is part of the Missouri River sub-regional watershed and is the receiving water for runoff from the land area surrounding the well sites.

3.4.1.1 George Evans #11-2H

The George Evans #11-2H is located within the Garrison Dam Sub-Basin, the Independence Point Watershed and the Little Shell Creek Sub-Watershed. D-3 will construct and maintain a 18 inch containment berm on the well pad during drilling operations and after interim reclamation. Surface water runoff will be diverted around the pad by topsoil placement off pad.

Table 3. Distance from George Evans #11-2H to receiving water

Source - Point	Distance
	(feet)
Pad to USGS intermittent stream	1,100
USGS intermittent stream to Lake Sakakawea ¹	6,000

¹Lake level based on Mountrail County Aerial Photograph (NAIP 2010) and high water mark

National Wetland Inventory (NWI) maps prepared and maintained by the USFWS do not identify any wetlands on or near the proposed well. The on-site assessment confirmed that wetlands are not located on the proposed well site.

3.4.1.2 John Evans #11-23H

The John Evans #11-23H well site is located within the Garrison Dam Sub-Basin, the Independence Point Watershed and the Little Shell Creek Sub-Watershed.

D-3 will construct and maintain a 18 inch containment berm on the well pad during drilling operations and after interim reclamation. Surface water runoff will be diverted around the pad by topsoil placement off pad.

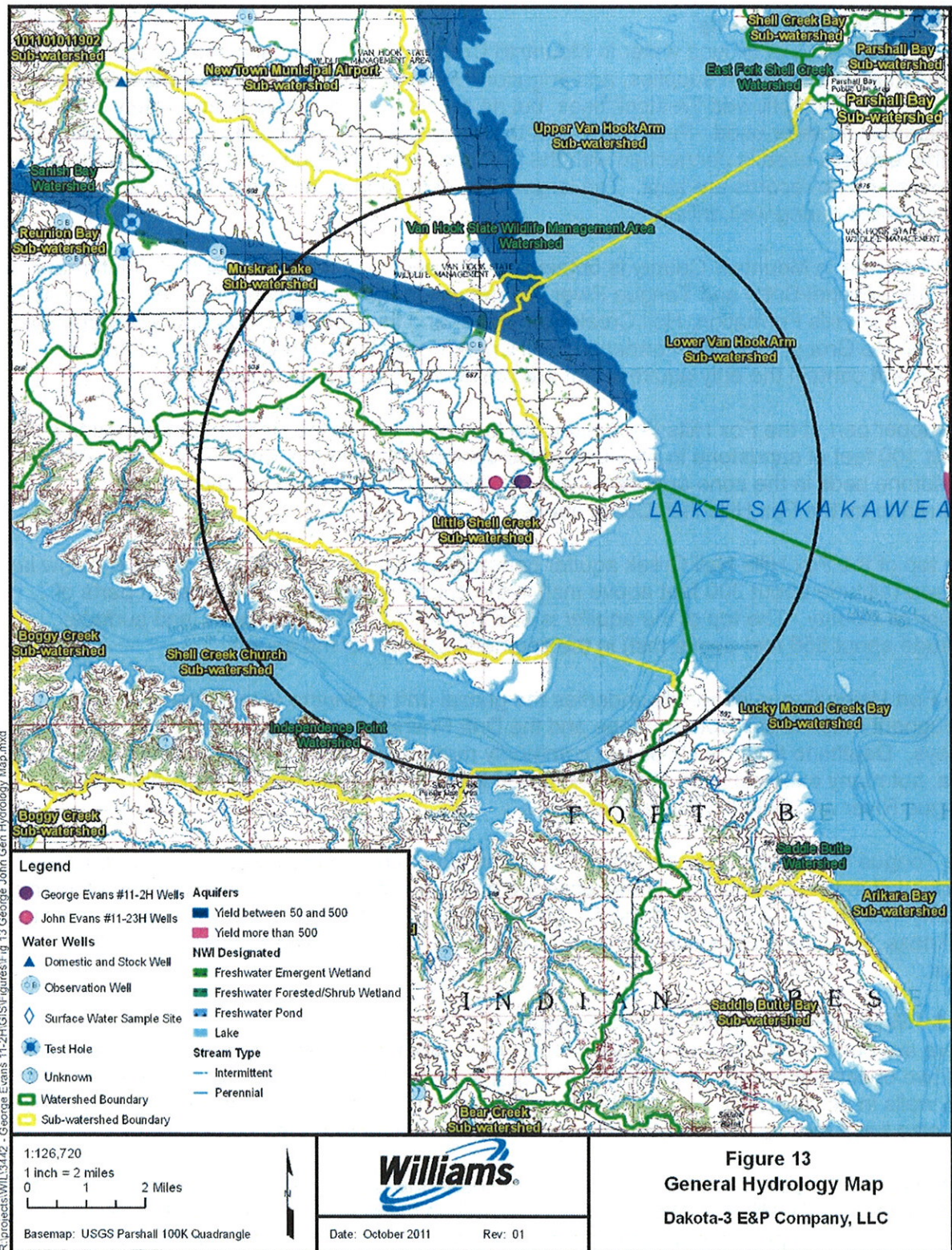
Table 4. Distance from John Evans #11-23H to receiving water

Source - Point	Distance
	(feet)
Pad to USGS intermittent stream	1,400
USGS intermittent stream to Lake Sakakawea ¹	6,100

¹Lake level based on Mountrail County Aerial Photograph (NAIP 2010) and high water mark

National Wetland Inventory (NWI) maps prepared and maintained by the USFWS do not identify any wetlands on or near the proposed well. The on-site assessment confirmed that wetlands are not located on the proposed well site.

Figure 13. General Hydrology Map



R:\projects\WIL342 - George Evans 11-2H\GIS\Figures\Fig 13 George John Evans Hydrology Map.mxd

3.4.2 Groundwater

3.4.2.1 Mountrail County

The principal uses of ground water in Mountrail County are for domestic and livestock supplies, public supplies, industrial supplies, and irrigation. Most farm units in the area have at least one well for their domestic and livestock uses, but no records are available to accurately determine the quantity of water used. Practically all of the water used for industrial purposes in Mountrail County either is used in connection with the production of petroleum or is obtained from public supplies and no records are kept. The largest use of ground water in the county is for pressure maintenance during well drilling.

Ground water in Mountrail County is obtained from aquifers in the glacial drift of Quaternary age, the Sentinel Butte and Tongue River Formations in the Fort Union Group of Tertiary age, and the Fox Hills Formation, Hell Creek Formation, and the Dakota Group of Cretaceous age. The Dakota Group, Fox Hills Formation, Hell Creek Formation, Fort Union Group, and the glacial drift contain the only aquifers that are presently of economic importance.

The upper part of the Fox Hills Formation and the lower part of the Hell Creek Formation contain about 100 feet of sandstone in an interbedded sandstone, siltstone, and shale zone. The sandstone beds in the zone apparently are hydrologically connected and herein are referred to as the Fox Hills-Hell Creek aquifer.

The top of the Fox Hills-Hell Creek aquifer generally ranges from 1,550 to 2,100 feet below land surface (altitude about 300 feet above msl) in the south-central and southwestern parts of Mountrail County. The top of the aquifer is about 1,450 to 2,100 feet below land surface (altitude about 550 feet above msl) in the southeastern part of the county.

The Fort Union Group generally underlies the glacial drift at depths of less than 100 feet throughout much of the Coteau Slope and the Drift Prairie, except in the larger ancient buried valleys. Depths to the Fort Union are commonly more than 100 feet in the Coteau du Missouri area, but many exceptions do exist. The group is subdivided into four formations in some Tongue River and Sentinel Butte Formations

The Tongue River and Sentinel Butte Formations either crop out or immediately underlie the glacial drift in the report area. These units are distinguishable only on the surface in Mountrail County. Individual sand beds in the Tongue River-Sentinel Butte Formations vary greatly in thickness. Most sand beds are less than 10 feet thick, but thicknesses exceeding 100 feet, do occur.

3.4.3 Water Wells and Water Use Permits

There are no domestic or stock water supply wells within five miles of the proposed well sites and two observation wells (Figure 13). The first is located 2.4 miles from the John Evans #11-23H wells in section 34 of T151N, R92W, drilled into the White Shield Aquifer (Table 5). There has also been two water test wells drilled within five miles of the proposed locations.

One active water permit is located within five miles of the project area. It is located in the SW¼ Section 34, T151N, R92W. The permit was issued on October 27, 1970, to J. & S. Pennington. This is a perfected permit for flood irrigation from the surface water of Muskrat Lake. Muskrat Lake will have little to no potential impact due to drilling these wells.

Table 5. Water Wells Within 5 miles

LOCATION	Distance To Nearest Proposed Well (miles)	Permit Type	Aquifer	Well Depth (feet)	Date
NE SE 34 T151N R92W	2.4	Observation Well	White Shield	138	8/6/1966
SE NE 30 T151 R92W	4.8	Observation Well	Undefined	210	6/04/92

¹ ND State Water Commission 2009

Water quality will be protected by drilling with fresh water to a point below the base of the Fox Hills Formation, implementing proper hazardous materials management, and using appropriate casing and cementing. Drilling will proceed in compliance with *Onshore Oil and Gas Order 2, Drilling Operations* (43 CFR 3160). If cement circulation is lost, a cement bound log will be required by BLM to ascertain if remedial cementing is required to provide an adequate seal between casing and strata. Surface casing will be cemented in place to a depth of about 2,500 feet, isolating aquifers in the Fox Hills Formation and extending a minimum of 50 feet into the underlying Pierre shale. Intermediate casing will extend from the surface and be cemented as needed to isolate potentially productive water and hydrocarbon-bearing zones.

Seepage and infiltration of hazardous materials from the sites are considered unlikely due to the use of semi-closed loop drilling system (dry cuttings pit only). There will be no other pits or lagoons. Impacts to shallow aquifers from surface activities and spills will also be avoided or managed by implementation of a Spill Prevention, Control, and Countermeasure (SPCC) Plan.

Produced water will be captured in tanks on-site and periodically trucked to an approved disposal site. BIA and BLM will monitor all operations and review site records at their discretion. Evidence of groundwater contamination related to the project will result in a stop work order until all appropriate measures were identified and implemented. These and other construction and reclamation techniques included in the APD will minimize potential for impacts to both surface water and groundwater. No significant impacts to surface water or groundwater are expected because of the proposed action. No applicable laws or regulations will be waived; no compensatory mitigation measures are required to protect surface water or groundwater.

3.5 Wildlife and Habitat

3.5.1 Species of Concern

Assessments for Federally listed threatened and endangered species and candidate species were conducted by evaluating historic and present occurrences by determining if potential habitat exists within the project area corridor. Scoping letters and consultation with the US Fish and Wildlife Service (USFWS), ND Game and Fish Department, BLM and the North Dakota Natural Heritage Inventory were made and comments received are presented in Appendix B.

Currently, seven species and one Designated Critical Habitat is listed as potential in Mountrail County, North Dakota (Table 6).

Table 6. County Endangered, Threatened, and Candidate species and Designated Critical Habitat

Species	Status	County
		Mountrail
Interior Least Tern	Endangered	X
Whooping Crane	Endangered	X
Black-footed Ferret	Endangered	
Pallid Sturgeon	Endangered	X
Gray Wolf	Endangered	X
Piping Plover	Threatened	X
W Prairie Fringed Orchid	Threatened	
Sprague's Pipit	Candidate	X
Dakota Skipper	Candidate	X
Designated Critical Habitat - Piping Plover		X

¹ USFWS (updated October, 2010)

Determinations concerning direct and cumulative effects of the proposed activities on each species and their habitat and is presented below. USFWS issued a letter to the species effects determinations made and is located in Appendix B. USFWS differed in species effects determinations. USFWS recommendations were taken under advisement and species effects determinations were made accordingly.

3.5.2 Species Assessments

Assessments for Federally listed threatened, endangered species were conducted by evaluating historic and present occurrences and by determining if potential habitat exists within the project area. A determination was made concerning direct and cumulative effects of the proposed activities on each species. Determinations made for federally listed species are:

- No effect
- May affect, but is not likely to adversely affect
- May affect, and is likely to adversely affect
- Is likely to jeopardize a proposed species or adversely modify critical habitat
- Is not likely to jeopardize a proposed species or adversely modify critical habitat

3.5.2.1 Gray Wolf

Gray wolves, an Endangered Species in North Dakota, were historically found throughout much of North America including the Upper Great Plains. Human activities have restricted their present range to the northern forests of Minnesota, Wisconsin, and Michigan and the Northern Rocky Mountains of Idaho, Montana, and Wyoming. They now only occur as occasional visitors in North Dakota. The most suitable habitat for the gray wolf is found around the Turtle Mountains region where documented and unconfirmed reports of gray wolves in North Dakota have occurred (Grondahl and Martin, no date). Due to the transient nature and no recent recorded sightings in the area the proposed project **may affect, is not likely to adversely affect** this species.

3.5.2.2 Interior Least Tern

The interior least tern nests on midstream sandbars along the Yellowstone and Missouri River systems. Interior least terns construct bowl-shaped depression nests on sparsely vegetated

sandbars and sandy beaches. Their nesting period occurs between mid-May through mid-August.

No individuals were observed in the area during the onsite visit. Although the proposed well site is located approximately 6,500 feet from and not within line-of-sight of the Missouri River system shoreline, there could be indirect effects to the species as they have the ability to forage up to 7.5 miles from the lake to wetlands during the nesting season.

If the site will be constructed during the nesting season (April 15 - September 1) surveys for migratory birds, including terns, will be conducted five days prior to construction. If birds or nests are discovered all construction will be stopped and the BIA and USFWS will be consulted for additional information on how to proceed. Mitigation measures recommended will be taken to avoid any disturbance of raptor or migratory bird nesting sites. The proposed project **may affect, is not likely to adversely affect** this species.

3.5.2.3 Pallid Sturgeon

Pallid sturgeon are found in the Mississippi, Missouri, and Yellowstone River systems and are adapted for living close to the bottom of large, shallow rivers with sand and gravel bars. Pallid sturgeon populations in North Dakota have decreased since the 1960's (Grondahl and Martin no date). The proposed well sites are approximately 6,500 feet from the Missouri River system. All BMP's will be implemented, including a 18 inch containment berm surrounding the proposed well pad sites and a semi-closed loop drilling system(dry cutting pit). As such, the project should have **no effect** on this species.

3.5.2.4 Whooping Crane

The primary nesting area for the whooping crane is in Canada's Wood Buffalo National Park. Arkansas National Wildlife Refuge in Texas is the primary wintering area for whooping cranes. In the spring and fall, the cranes migrate primarily along the Central Flyway. During the migration, cranes make numerous stops, roosting in large shallow marshes, and feeding and loafing in harvested grain fields. The primary threats to whooping cranes are power lines, illegal hunting, and habitat loss (Texas Parks and Wildlife 2008).

The proposed well site is located within the Central Flyway. Approximately 75% of the whooping crane sightings in North Dakota occur within a 90-mile corridor that includes the proposed well location. Because collisions with power lines are the primary cause for fledgling mortality, it is BIA directive that any utility lines be constructed underground. Land use in the area is native grasslands and agricultural fields. The pads and access roads are placed in a location that may have some potential of impacting whooping crane stop-over habitat. No individual whooping cranes were observed in the area during the on-site visits.

Construction activities may cause migratory cranes to divert from the area but are not likely to result in fatalities. If a crane is sighted within one mile of the project area, construction activities will cease and will be immediately reported to the US Fish and Wildlife Service (USFWS), North Dakota Game and Fish Department (NDGFD), and the BIA. In coordination with the USFWS and the BIA construction will resume once the bird(s) have left the area. Following these guidelines, it is reasonable to expect that the proposed activities **may affect, is not likely to adversely affect** whooping cranes.

3.5.2.5 Piping Plover and Critical Habitat

Piping plovers are found along the Missouri and Yellowstone River systems on gravel shorelines and sandbars and also on large alkaline wetlands. Nesting sites have been documented on the shorelines of Lake Sakakawea. In addition, critical habitat has been

designated along Lake Sakakawea. NDPRD records indicate no historic piping plover sightings or critical habitat within 2-miles of the project site.

No individuals were observed in the area during the onsite visit on July 20, 2011. Although the proposed well site(s) are located approximately 6,500 feet from and not within line-of-sight of the Missouri River system shoreline, there could be indirect effects to the species as they have the ability to forage up to 7.5 miles from the lake to wetlands during the nesting season.

If the site will be constructed during the nesting season (April 15 - September 1) surveys for migratory birds, including piping plovers, will be conducted five days prior to construction. If birds or nests are discovered all construction will be stopped and the BIA and USFWS will be consulted for additional information on how to proceed. Mitigation measures recommended will be taken to avoid any disturbance of raptor or migratory bird nesting sites. The proposed project **may affect, is not likely to adversely affect** this species.

3.5.2.6 Sprague's Pipit

The Sprague's pipit is a ground nesting bird that breeds and winters on open grasslands. It feeds mostly on insects and spiders and some seeds. The Sprague's pipit is closely tied with native prairie habitat and breeds in the north-central United States in Minnesota, Montana, North Dakota and South Dakota as well as south-central Canada. During the breeding season, Sprague's pipits prefer large patches of native grassland with a minimum size requirement thought to be approximately 145 ha (358.3 ac). The species prefers to breed in well-drained, open grasslands and avoids grasslands with excessive shrubs. Preferred grass height is estimated to be between 10 and 30 cm. They may avoid roads, trails, and habitat edges.

The proposed George Evans #11-2H well site had moderate vegetative height (ungrazed) at time of survey was approximately 30-50 cm in areas. Shrub patches were also scattered throughout the area. Based upon these factors the proposed project will have **may affect, is not likely to adversely affect** this species.

3.5.2.7 Dakota Skipper

Dakota skippers are found in native prairie containing a high diversity of wildflowers and grasses. Habitat includes two prairie types: 1) low (wet) prairie dominated by bluestem grasses, wood lily, harebell, and smooth camas; and 2) upland (dry) prairie on ridges and hillsides dominated by bluestem grasses, needlegrass, pale purple coneflower and upright coneflowers and blanket flower. Dakota skipper populations have declined historically due to widespread conversion of native prairie.

The George Evans #11-2H pad site and access road may contain a few of the potential vegetative species and moderate residual vegetative cover. The proposed John Evans #11-23H well site will be developed within agricultural field. Relatively small amounts of habitat critical to the life stages of the Dakota skipper may be altered by the proposed access road development. Based upon these factors the proposed project will have **may affect, is not likely to adversely affect** on this species.

3.5.3 Wildlife (General)

Proposed oil and gas development in the area may affect raptor and migratory bird species through direct mortality, habitat degradation, and/or displacement of individual birds. These impacts are regulated in part through the *Migratory Bird Treaty Act* (916 USC 703-711) and the Bald and Golden Eagle Protection Act (BGEPA).

A ground survey for cliff, tree, and ground raptor nests was conducted within ½-mile of the proposed projects during the on-site review July 20, 2011. The proposed sites were also traversed to identify the presence of migratory bird species as well as nests located within the development area. No raptor or migratory bird nests were observed during the on-site review. Ground and/or aerial surveys for migratory birds nests (including raptor) will again be conducted within 5 days of construction if portions of the projects are to be constructed during the spring nesting season (February 1 - July 15)

If a migratory bird nest is located, the location will be recorded, monitored and documentation will be maintained. The USFWS will be consulted to determine mitigation measures to avoid disturbance of the nest. Measures may include applying an appropriate avoidance buffer to the nest or delaying construction in that area until the nest is fledged.

Table 7 identifies other wildlife that may be generally expected around the proposed sites. Some of these were confirmed by direct observation or by various signs. Direct wildlife observations are affected by time of day, time of year, etc.

Table 7. Wildlife (General)

Location	Observed	Suitable Habitat
George Evans #11-2H	None	Pronghorn antelope, small mammals, sharp-tailed grouse, and a variety of grassland and song nesting birds
John Evans #11-23H	None	None

Potential impacts to wildlife include construction of well pads, construction of new roads, and potential future commercial operations. Minimal to no impacts on listed species are expected due to the sparseness of even anecdotal evidence that they may occur within the project area. On-site assessments confirmed that no threatened or endangered species will be impacted by proposed roads or wells. Ground clearing might impact habitat for unlisted species, including small birds, ground dwelling mammals, and other wildlife species. Proposed projects may affect raptor and migratory bird species through direct mortality, habitat degradation, and/or displacement of individual birds. Fragmentation of native prairie habitat is a specific concern for grouse species. Woody debris will be mulched and mixed into the topsoil during initial disturbance.

Precautions benefitting all wildlife include:

- Locations overlying existing disturbances;
- No open pits or ponds;
- Installation of covers on drip buckets under valves or spigots; and
- Prompt initial reclamation.

Final and complete reclamation will proceed immediately if the well is unproductive, or promptly after a commercial well is decommissioned. Wildlife inhabiting project areas are generally expected to adapt to changing conditions and continue to thrive.

3.6 Soils

The following paragraphs discuss soils found at the individual well sites. The Natural Resource Conservation Services (NRCS) soils data was reviewed prior to the on-site assessment and

verified during the field visit. Generally, the wells addressed in this report are located on fine-grained soils with low to moderate erosion potential. The sites are suitable for construction. Sites should be monitored for erosion and best management practices implemented to control erosion as necessary.

3.6.1 George Evans #11-2H

The George Evans #11-2H site (fenced surface use area) and ROW is located on a 9-15% slope to the southwest comprised mostly of the Vebar-Flasher-Zahl soil complex and Zahl-Williams loams, according to the NRCS Soils Mapping Units (MUs) of Mountrail County. Smaller amount of Williams-Zahl loams and Noonan-Williams loams are found at the edges of disturbance. The surface is mixed prairie grassland and topsoil is only approximately 4 inches deep across the site.

Table 8. George Evans #11-2H Soils

Soil Name	Surface Use Acres	ROW Acres	Total Acres
Vebar-Flasher-Zahl	7.1	0.3	7.4
Zahl-Williams	2.9	0	2.9
Williams-Zahl	0.7	0.5	1.2
Noonan-Williams	0.5	0	0.5

3.6.2 John Evans #11-23H

The John Evans #11-23H site (fenced surface use area) is located on a gentle western slope with an approximate 3% grade comprised entirely of Savage silty clay loam, according to the USGS soil MUs. The site is cultivated agricultural land and topsoil is approximately 10 inches deep.

Table 9. John Evans #11-23H Soils

Soil Name	Surface Use Acres	ROW Acres	Total Acres
Savage	8.3	0.2	8.5

3.7 Vegetation and Noxious Weeds

The Missouri Plateau Ecoregion (Missouri Slope) is a western mixed-grass and short-grass prairie (Bryce et al. 1998). The U.S. Department of Agriculture soil surveys for McLean and Mountrail Counties describe vegetation within proposed project areas as mostly cultivated farmlands, native grasses, and wetland plants. Common grain and seed crops include wheat, oats, flax, canola, and barley. Native grasses include big bluestem, little bluestem, blue grama, side-oats grama, green needlegrass, and western wheatgrass. Typical wetland plants are smartweed, sedge species, bulrush, bluejoint and cattail. Woody draws, coulees, and drainages may host communities of chokecherry, buffaloberry, western snowberry and gooseberry.

3.7.1 George Evans #11-2H

The pad site is located within an invaded native prairie community. Kentucky bluegrass (*Poa pratensis*), smooth brome (*Bromus inermis*), and crested wheatgrass (*Agropyron cristatum*) were dominant at the survey time. Forbs found include goat's beard (*Aruncus dioicus*), fringe sage (*Artemisia frigida*), and prairie rose (*Rosa arkansana*). Native shrub patches dominated by chokecherry (*Prunus virginiana*) and northern hawthorn (*Crataegus rotundifolia*) were also present on the proposed pad site. Smooth brome (*Bromus inermis*) dominates the

road ditch the access road will cross from 29th Street Northwest to the well pad. Woody debris will be mulched and mixed into topsoil stockpile.

3.7.2 John Evans #14-23H

The pad site is located with a fallow agricultural field. Wheat stubble was dominant at the survey time; however there was significant growth of sow thistle (*Sonchus arvensis*) and Canada thistle (*Cirsium arvensis*) to which herbicide had been applied. Smooth brome dominates the road ditch the access road will cross from 29th Street Northwest to the well pad.

3.7.3 Noxious Weeds

The North Dakota Agriculture Commission (ND Department of Agriculture 2002) identifies twelve noxious weed plant species in the state (Table 10). Seven of the twelve noxious weed species have been reported in Mountrail County. Absinth wormwood, Canada thistle, field bindweed, leafy spurge, musk thistle, saltcedar, spotted knapweed, Russian knapweed and yellow star thistle are known to occur (ND Department of Agriculture 2007). Canada thistle was observed within the agricultural field and road ditch at proposed John Evans on-site assessment.

Table 10. Noxious weeds known to occur in and Mountrail Counties

Common Name	Scientific Name	5 year (2003-2007) Average Reported Acres of Noxious Weeds ¹
		Mountrail County
Absinth wormwood	<i>Artemisia absinthium</i>	1,085
Canada thistle	<i>Cirsium arvense</i>	21,232
Dalmatian toadflax	<i>Linaria genistifolia</i>	NR
Diffuse knapweed	<i>Centaurea diffusa</i>	NR
Field bindweed	<i>Convolvulus arvensis</i>	1,429
Leafy spurge	<i>Euphorbia esula</i>	21,928
Musk thistle	<i>Carduus nutans</i>	2
Purple loosestrife	<i>Lythrum salicaria</i>	NR
Russian knapweed	<i>Acroptilon repens</i>	NR
Saltcedar	<i>Tamarix spp.</i>	721
Spotted knapweed	<i>Centaurea maculosa</i>	164
Yellow starthistle	<i>Centaurea solstitialis</i>	NR

¹ North Dakota Department of Agriculture 2003-2007

² Not Reported

Potential disturbance of up to 21.2 acres presents opportunities for invasive species and threatens to reduce the quality or quantity of forage or crop production. The APD and this EA require the operator to control noxious weeds throughout project areas. Vehicles that have been driven in areas with invasive species must be cleaned with high-pressure sprayers before entering the project area.

Surface disturbance and vehicular traffic must not take place outside approved rights-of-way or the well pad. Areas stripped of topsoil must be re-seeded and reclaimed at the earliest opportunity. Certified weed-free straw and seed must be used for all construction, seeding, and reclamation efforts. Prompt and appropriate construction, operation, and reclamation are expected to reduce vegetative impacts to minimal levels, effectively negating the potential to establish or spread invasive species.

3.8 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.

Cultural resource inventories of these well pads and access roads were conducted by personnel of SWCA Environmental Consultants, using an intensive pedestrian methodology. For the George Evans 11-2HC/11-2HZ/11-2HD/14-23HC/14-23HZ/14-23HD project approximately 40 acres were inventoried between July 6 and 11, 2010 (Herson and Reinhart 2011a). One archaeological site was located that may possess the quality of integrity and meet at least one of the criteria (36 CFR 60.6) for inclusion on the National Register. For the John Evans 14-23HW/14-23HY project approximately 40 acres were inventoried between July 6 and 11, 2010 (Herson and Reinhart 2011b). No historic properties were located that appear to 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 these undertakings. This determination was communicated to the THPO on October 19, 2011; however, the THPO did not respond within the allotted 30 day comment period.

If cultural resources are discovered during construction or operation, the operator shall immediately stop work, secure the affected site and notify BIA and THPO. Unexpected or inadvertent discoveries of cultural resources or human remains trigger mandatory federal procedures that include work stoppage and BIA consultation with all appropriate parties.

Following any such discovery, operations will not resume without written authorization from the BIA. **Project personnel are prohibited from collecting any artifacts or disturbing cultural resources in the area under any circumstances. Individuals outside the right-of-way are trespassing.** No laws, regulations, or other requirements have been waived; no compensatory mitigation measures are required.

3.9 Socio-economics

Socioeconomic conditions include population, demographics, income, employment, and housing. These conditions can be analyzed and compared at various scales. This analysis focuses on the reservation, the four counties that overlap the majority of the Reservation and the state of North Dakota. The state population showed little change between the last two censuses (1990-2000), but there were notable changes locally, as shown in Table 11. Populations in Dunn, McKenzie, McLean, and Mountrail counties declined 5 to 11%, while population on the Fort Berthold Reservation increased by almost 10%. These trends are expected to continue (Rathge et al. 2002). While American Indians are the predominant group on the reservation, they are a minority everywhere else in the state. More than two-thirds (3,986) of the Reservation population are tribal members.

In addition to the ranching and farming that are employment mainstays in western North Dakota, employment on the Reservation largely consists of ranching, farming, tribal government, tribal enterprises, schools, and federal agencies. The MHA Nation's Four Bears Casino and Lodge, near New Town, employs over 320 people, 90% of which are tribal members (Three Affiliated Tribes 2008).

Table 11. Population and Demographics.

County or Reservation	Population in 2000	% of State Population	% Change 1990-2000	Predominant Group	Predominant Minority
Dunn County	3,600	0.56	- 10.1	White	American Indian (12%)
McKenzie County	5,737	0.89	- 10.1	White	American Indian (21%)
McLean County	9,311	1.45	- 11.0	White	American Indian (6%)
Mountrail County	6,631	1.03	- 5.6	White	American Indian (30%)
Fort Berthold Reservation	5,915,	0.92	+ 9.8	American Indian	White (27%)
Statewide	642,200	100	+0.005	White	American Indian (5%)

Source: U.S. Census Bureau 2007.

As shown in Table 12, counties overlapping the Reservation tend to have per capita incomes, median household incomes, and employment rates that are lower than North Dakota statewide averages. Reservation residents have lower average incomes and higher unemployment rates compared to the encompassing counties. MHA Nation members are in turn disadvantaged relative to overall Reservation incomes and unemployment rates that average in non-Indian data. The most recent census found that per capita income for residents of the Reservation is \$10,291 (less than 1/3 the state average). Overcrowded housing skews the median reservation household income upward to \$26,274 (about 1/3 the state average). A BIA report in 2003 found that 33% of employed MHA Nation members were living below federal poverty levels. The

unemployment rate of tribal members is 22% compared to 11.1% for the reservation as a whole and 4.6% statewide.

Availability and affordability of housing can affect oil and gas development and operations. Housing information from the year 2000 is summarized in Table 13. The tribal Housing Authority manages a majority of the housing units within the reservation. Housing typically consists of homes built through various government programs, low-rent housing units, and scattered-site homes. Private purchase and rental housing are available in New Town. New housing construction has recently increased within much of the analysis area, but availability remains low.

Table 12. Income and Unemployment.

Unit of Analysis	Per Capita Income	Median Household Income	Unemployment Rate (2007)	Employed but Below Poverty Level	Percent of All People in Poverty
MHA Nation	--	--	22%	33%	Unknown
Fort Berthold Reservation	\$10,291	\$26,274	11.1%	--	Unknown
Mountrail County	\$29,071	\$34,541	5.8%	--	15.4%
Dunn County	\$27,528	\$35,107	3.4%	--	13%
McKenzie County	\$27,477	\$35,348	3.1%	--	15.8%
McLean County	\$32,387	\$37,652	4.7%	--	12.8%
North Dakota	\$31,871	\$40,818	3.2%	--	11.2%

Source: U.S. Department of Agriculture Economic Research Data 2008 and BIA 2003.

The proposed projects are not expected to have measurable impacts on population trends, local unemployment rates or housing starts. Relatively high-paying construction jobs will result from exploration and development of oil and gas reserves on the reservation, but most of these opportunities are expected to be short-term. The proposed action will require temporary employees during the well construction cycle and one to two full-time employees from the long-term production cycle. Short-term construction employment will provide some economic benefit. Long-term commercial operations will provide significant royalty income and indirect economic benefits.

Table 13. Housing

Housing Development	Fort Berthold Reservation	Dunn County	McKenzie County	McLean County	Mountrail County
Existing Housing					
Owner-Occupied Units	1,122	1,570	2,009	4,332	2,495
Renter Occupied Units	786	395	710	932	941
Total	1,908	1,965	2,719	5,264	3,436
New Private Housing Building Permits 2000-2005	--	18	4	135	113
Housing Development Statistics					
State rank in housing starts	--	51 of 53	15 of 53	21 of 53	17 of 53
National rank in housing starts	--	3112 / 3141	2498 / 3141	2691 / 3141	2559 / 3141

Source: U.S. Census Bureau 2007 and 2008

3.10 Environmental Justice

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*, was signed by President Clinton in 1994. The Order requires agencies to advance environmental justice (EJ) by pursuing fair treatment and meaningful involvement of minority and low-income populations. Fair treatment means such groups should not bear a disproportionately high share of negative environment consequences from federal programs, policies, decisions, or operations. Meaningful involvement means federal officials actively promote opportunities for public participation and federal decisions can be materially affected by participating groups and individuals.

The U.S. Environmental Protection Agency (EPA) headed the interagency workgroup established by the 1994 Order and is responsible for related legal action. Working criteria for designation of targeted populations are provided in *Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses* (EPA 1998). This guidance uses a statistical approach to consider various geographic areas and scales of analysis to define a particular population's status under the Order.

Environmental Justice is an evolving concept with potential for disagreement over the scope of analysis and the implications for federal responsiveness. It is nevertheless clear that tribal members on the Great Plains qualify for EJ consideration as both a minority and low-income population. The population of the Dakotas is predominantly Caucasian. While some 70% of Reservation residents are tribal members, Indians comprise only 5% of North Dakota residents.

There are, however, some unusual EJ considerations when proposed federal actions are meant to benefit tribal members. Determination of fair treatment necessarily considers the distribution of both benefits and negative impacts, due to variation in the interests of various tribal groups

and individuals. There is also potential for major differences in impacts to resident tribal members and those enrolled or living elsewhere. A general benefit to the MHA Nation government and infrastructure has already resulted from tribal leasing, fees, and taxes. Oil and gas leasing has also already brought much-needed income to MHA Nation members who hold mineral interests, some of whom might eventually benefit further from royalties on commercial production. Profitable production rates at proposed locations might lead to exploration and development on additional tracts owned by currently non-benefitting allottees. The absence of lease and royalty income does not, moreover, preclude other benefits. Exploration and development will provide many relatively high-paying jobs, with oversight from the Tribal Employment Rights Office.

The owners of allotted surface within the project areas may not hold mineral rights. In such case, surface owners do not receive oil and gas lease or royalty income and their only income will be compensatory for productive acreage lost due to road and well pad construction. Tribal members without either surface or mineral rights will not receive any direct benefits whatsoever. Indirect benefits of employment and general tribal gains will be the only potential offsets to negative impacts.

Potential impacts to tribes and tribal members include disturbance of cultural resources. There is potential for disproportionate impacts, especially if the impacted tribes and members do not reside within the Reservation and therefore do not share in direct or indirect benefits. This potential is significantly reduced following the surveys of proposed well locations and access road routes and determination by the BIA that there will be no effect to historic properties. Research and survey has found nothing to be impacted at either well pad that qualifies as a traditional cultural property (TCP) under the *American Indian Religious Freedom Act*. Potential for disproportionate impacts is further mitigated by requirements for immediate work stoppage following an unexpected discovery of cultural resources of any type. Mandatory consultations will take place during any such work stoppage, affording an opportunity for all affected parties to assert their interests and contribute to an appropriate resolution, regardless of their home location or tribal affiliation.

The proposed project has not been found to pose significant impacts to any other critical element – air, public health and safety, water, wetlands, wildlife, vegetation, or soils – within the human environment. The proposed action offers many positive consequences for tribal members, while recognizing Environmental Justice concerns. Procedures summarized in this document and in the APD are binding and sufficient. No laws, regulations, or other requirements have been waived; no compensatory mitigations measures are required.

3.11 Irreversible and Irretrievable Commitment of Resources

Removal and consumption of oil and/or gas from the Bakken and Three Forks Formation will be an irreversible and irretrievable commitment of resources. Other potential resource commitments include acreage devoted to disposal of cuttings, soil lost through wind and water erosion, cultural resources inadvertently destroyed, wildlife killed during earthmoving or in collisions with vehicles, and energy expended during construction and operation.

3.12 Short-Term Use versus Long-Term Productivity

Short-term activities will not detract significantly from long-term productivity of the project areas. The small areas dedicated to the access roads and well pads will be unavailable for livestock grazing, wildlife habitat, and other uses. Allottees with surface rights will be compensated for loss of productive acreage and project footprints will shrink considerably once wells are drilled

and non-working areas are reclaimed and reseeded. Successful and ongoing reclamation of the landscape will quickly support wildlife and livestock grazing, stabilize the soil, and reduce the potential for erosion and sedimentation. The major long-term resource loss corresponds with the project purpose: extraction of hydrocarbons from the Bakken and Three forks Formations.

3.13 Cumulative Impacts

Cumulative impacts result when the effects of an action are added to or interact with other effects in a particular place and within a particular time. It is the combination of these effects, and any resulting environmental degradation, that is the focus of the cumulative impact analysis. While impacts can be differentiated as direct, indirect, and cumulative, the concept of cumulative impacts takes into account all disturbances since cumulative impacts result in the compounding of the effects of all actions over time. Thus, the cumulative impacts of an action can be viewed as the total effects on a resource, ecosystem, or human community of that action and all other activities affecting that resource no matter what entity (federal, non-federal, or private) is taking the actions.

The landscape and vegetation of the Great Plains have undergone continual transformations due to the influences of nature and human actions. Cumulative effects have occurred as a loss and alteration of habitats caused by cultivation, range management practices, fire suppression, exotic species introductions, resource development, and other practices. Environmental impacts may accumulate either over time or in combination with similar activities in the area. Unrelated activities may also have negative impacts on critical elements, thereby contributing to cumulative degradation of the environment. Past and current disturbances near the proposed project include farming, grazing, roads, and other oil/gas development. Virtually all-available acreage is already organized into agricultural leases or range units to utilize surface resources for economic benefit.

The proposed projects would be one of various proposed developments in the area. As such, it would contribute only a portion of the cumulative impacts. In some instances, the cumulative impact on the environment of the proposed project and oil/gas development activities would be the sum of the individual impacts from each project in the region. There are other impacts, however, that cumulatively may be greater than the sum of the individual projects. By building multi-well sites, overall impacts to surface disturbance will be reduced versus developing each well bore individually.

The major activity with potential to impact critical elements of the human environment is oil field development. Over the past several years, exploration has accelerated over the Bakken and Three Forks Formation and has accelerated within the reservation boundary the last two years. Perimeters of 1, 5, 10, and 20 miles around the proposed well sites were evaluated to determine the level of oil and gas activity in the surrounding area, as shown in Table 14 and on Figure 14. There are now 19 active wells within five miles of the sites considered in this document with at least 13 confidential sites in the area as reported by the NDIC. The immediate area is currently being developed by D-3 and other producers. Within ten miles, there are currently 125 active wells with 85 proposed. Within 20 miles, there is approximately 901 total oil and gas wells in various stages of development or production, with ever increasing development within the Fort Berthold boundaries.

Table 14. Oil and Gas Well Status in Area

Distance from Well Sites	Active Wells	Proposed Wells (Confidential)	Permitted to Drill	Currently Drilling ¹	Totals
0-1 miles	3	0	0	0	3
1-5 miles	19	13	0	1	33
5-10 miles	103	72	5	6	186
10-20 miles	391	218	38	30	677
Cumulative Total (20-mile radius)	518	303	43	37	901
Fort Berthold Reservation	344	251	27	27	649

*NDIC OG well status – September 19, 2011

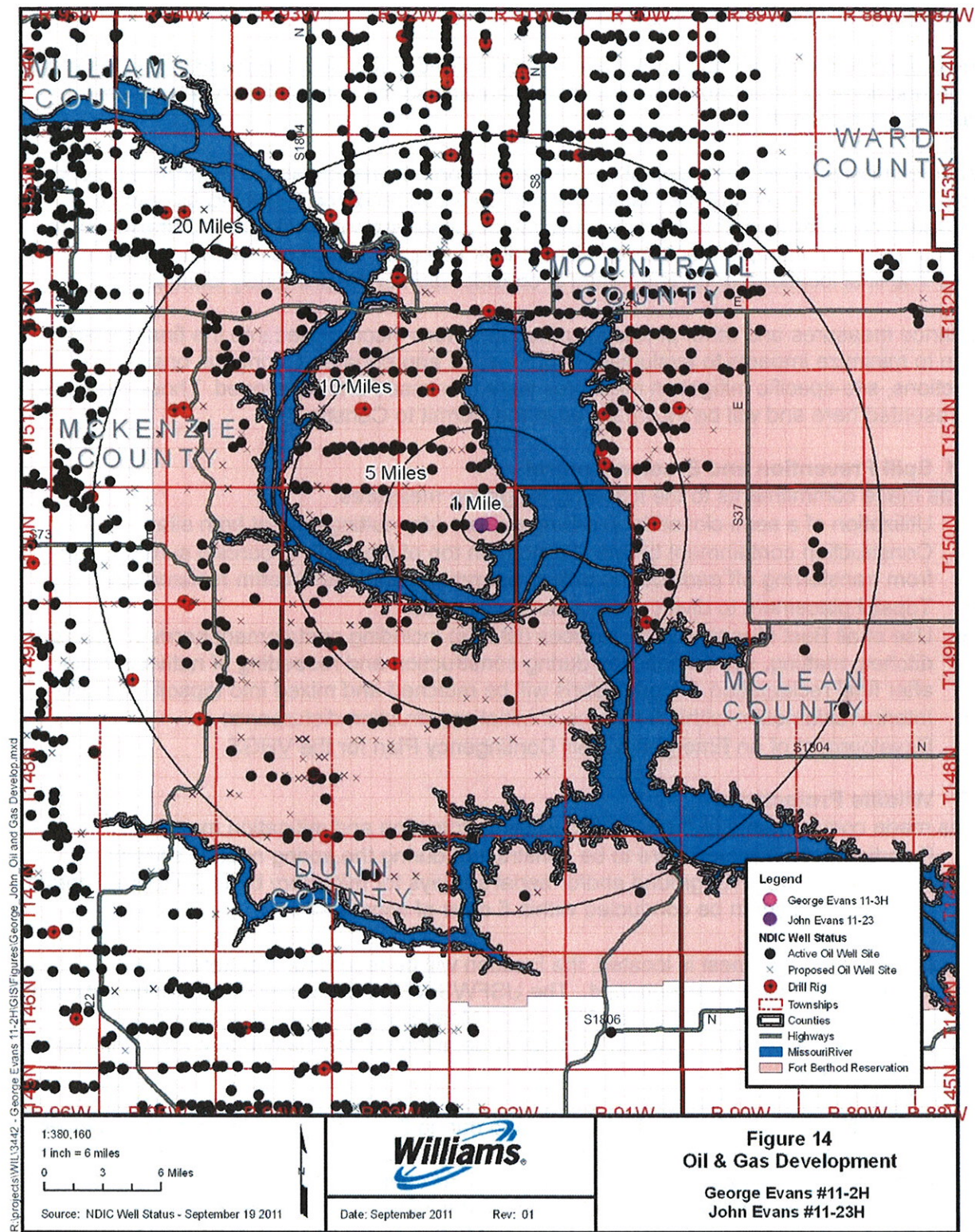
Commercial success at any new well might result in additional oil/gas exploration proposals, but such developments are speculative at this time. D-3 has numerous wells in various stages of development, in the planning process or in the application process. Such developments will rely wherever possible on shared roads, centralized and downsized facilities, and other opportunities to reduce surface disturbance and impacts to the human environment. D-3 also has developed a natural gas gathering system and is proposing to expand and include oil, produced water, fresh water system to connect all wells planned for development in the area. The development of this Van Hook Gathering System will dramatically reduce the amount of oil field truck traffic on the Sanish Peninsula.

Approved oil/gas leases may lead to additional exploration and development, but additional analysis and BIA approval are required before the surface is disturbed at any other location. Potential impacts from possible future development cannot be meaningfully analyzed at this time. Not only is the level of development highly sensitive to volatile commodities prices, but additional development may increase interest in pipelines, thereby *reducing* impacts to certain critical elements of the human environment, such as public safety and air quality.

There will be ground disturbing activities to lands that have not been previously cultivated or otherwise physically manipulated. The George Evans #11-2H well site will disturb a portion of native prairie rangelands with the John Evans #11-23H site being in cultivated agricultural land. There are no wetlands, floodplains, or major drainage facilities that will be significantly negatively affected by the proposed well sites. Current land uses are expected to continue with little change other than the acreage required for development. Increased truck traffic on adjacent roadways can be expected and has a documented negative, but manageable, impact on road conditions.

The proposed actions have been planned to avoid impacts to wetlands, floodplains, surface water, cultural resources, and threatened and endangered species. Unavoidable affects to these or other resources will be minimized and/or mitigated as described in this document. The operator of any facility will be required to complete reclamation following construction and completion. Implementation of other precautionary and protective measures detailed in this EA and applicable regulations are expected to minimize impacts to all critical elements of the human environment. Impacts from the proposed projects are expected to generally be minor, temporary, manageable, and/or insignificant. No cumulative impacts are reasonably foreseen from existing and proposed activities, relative to the existing scale of development, other than increasingly positive impacts to the reservation economy.

Figure 14. Oil and Gas Development



3.14 Mitigation and Commitments by D-3

Many protective measures and procedures are described in this document and in the APD. No laws, regulations, or other requirements have been waived; no compensatory mitigation measures are required.

Resource surveys were conducted at the time of pre-on-site inspections to determine potential affects to cultural and natural (i.e., biological and physical) resources. The locations were inspected in consideration of topography, location of topsoil/subsoil stockpiles, natural drainage and erosion control, flora, fauna, habitat, historical and cultural resources, and other surface issues. The final locations were determined in consideration of the previously identified issues.

Avoidance measures and other protective measures were incorporated into the final project design to minimize impacts to evaluated resources, as appropriate. During the onsite inspections, site-specific mitigation measures were discussed and developed. Those measures are presented here and will be incorporated in the Permit to Construct.

3.14.1 Spill Prevention and Erosion Control

D-3 has made commitments to the following mitigation measures:

- Utilization of a semi closed-loop drilling system (dry cuttings pit) at both sites
- Construction containment berms (18 inch) on top of the pads to contain surface water from transferring off pads during drilling operations and after interim reclamation.
- Topsoil placement to divert water around pad sites.
- Use of all Best Management Practices (BMP's) including containment berm(s), diversion ditches, matting, soil compaction during construction and reseeding of native species after final reclamation. Woody debris will be mulched and mixed into topsoil stockpile.
- Interim reclamation within 6 months of initial construction disturbance
- Development of an Emergency Spill Contingency Plan for the VHGS

3.14.2 Wildlife Protections

D-3 has made commitments to the following wildlife protection and mitigation measures:

- If portions of the projects are to be constructed during the spring nesting season (February 1 - July 15) ground and/or aerial surveys for migratory birds (including raptors) and nests will again be conducted within 5 days of construction.
- If a migratory bird nest is located, the location will be recorded, monitored and documentation will be maintained. The USFWS will be consulted to determine mitigation measures to avoid disturbance of the nest. Measures may include applying an appropriate avoidance buffer to the nest or delaying construction in that area until the nest is fledged.
- If the sites are scheduled to be constructed during the nesting season for piping plovers and least terns (April 15 - September 1) surveys will be conducted five days prior to construction. If birds or nests are discovered, all construction will be stopped and the BIA and USFWS will be consulted for additional information on how to proceed. Mitigation measures recommended will be taken to avoid any disturbance of raptor or migratory bird nesting sites.
- Construction will be stopped if whooping cranes are sighted within one mile of the construction activities and not resume until the birds have left the area. Any sightings will

be immediately reported to the US Fish and Wildlife Service (USFWS), North Dakota Game and Fish Department (NDGFD), and the BIA.

- Should Phase 2 pad expansion to drill additional 3 wells occur as discussed, all above commitments will be observed

3.14.3 Utilities

Underground utilities including electric, fiber optic, gas, water, and oil gathering lines are planned be constructed within the evaluated corridor. All efforts will be made to install utilities at one time and around the same time of interim reclamation of pad site.

3.14.4 Dust Control

D-3 will practice watering and/or application of a dust suppressant as necessary the access roads during construction, especially during periods of high winds and/or low precipitation.

3.14.5 Fire Control

D-3 implements fire prevention and control measures including, but not limited to, the following:

- Requiring construction crews to carry fire extinguishers in their vehicles and/or equipment.
- Training construction crews in the proper use of fire extinguishers.
- Contracting with the local fire district to provide fire protection.

3.14.6 Traffic and Roads

Cooperative efforts by operators, agencies, and the tribe are currently being developed and implemented across FBIR. These measures include the following.

- Requiring construction personnel to stay within the ROW or follow designated access roads.
- Increasing the pipeline infrastructure, centralizing water depots, and developing salt water disposal wells to reduce overall truck traffic and road degradation.
- Utilizing Tribal TERO fees for oil and gas activities, TAT Tribal funds, and IRR funds to increase the pace of maintenance and repair of roads impacted by increased truck traffic and unusually adverse weather conditions.

3.14.7 Cultural Resources

If cultural resources are discovered during construction or operation, the operator shall immediately stop work, secure the affected site and notify BIA and THPO. Unexpected or inadvertent discoveries of cultural resources or human remains trigger mandatory federal procedures that include work stoppage and BIA consultation with all appropriate parties. Following any such discovery, operations will not resume without written authorization from the BIA. Project personnel are prohibited from collecting any artifacts or disturbing cultural resources in the area under any circumstances. Individuals outside the right-of-way are trespassing.

4.0 Consultation and Coordination

Project scoping letters and maps were mailed on July 22, 2011. Direct mail recipients and a record of comments were received are listed in Table 15. An example scoping letter and responses are found in Appendices A and B. Species effect determination was received from USFWS on August 23, 2011 and is found in Appendix B.

Table 15. Scoping Record

Agency Scoping	Comments
Bureau Of Land Management	No Response
Bureau of Reclamation	Rural water lines in area
Dunn County	No Response
EPA	No Response
FAA Bismarck	No Objections
FAA Minneapolis	No Response
FEMA	No Response
Fort Berthold Rural Water Supply	No Response
McKenzie Ranger District	No Response
McLean County Board of Commissioners	No Response
MHA Nation	No Response
MHA Nation District Rep	No Response
MHA Nation Chairman	No Response
MHA Nation Game & Fish	No Response
MHA Nation Natural Resources Dept.	No Response
MHA Nation THPO	No Response
Montana Dakota Utilities	No Response
Mountrail Board of Commissioners	No Response
National Park Service	No Response
ND DOT	No Response
ND Game and Fish	Avoid fragmentation of native prairie
ND NRCS	Consult if wetlands are impacted
NDIAC	No Response
New Town Municipal Airport	No Response
NoDak Electric Cooperative, Inc.	No Response
North Dakota Department of Health	No Response
North Dakota Parks and Recreation Dept.	No species of concern or significant ecological communities within one-mile
Parshall-Hankins Field Airport	No Response
Reservation Telephone Co-op	No Response
Southwest Water Authority	No Response
Spirit Lake Tribe	No Response
Standing Rock Sioux Tribe	No Response
State Historical Society	Request for cultural

	resource survey results
Turtle Mountain Band of Chippewa	No Response
USACOE - Bismarck	Nationwide Permit 12 information provided
USACOE - Riverdale	No Response
USFWS	Partial concurrence with mitigation efforts and T&E species determinations
Ward County Board of Commissioners	No Response

5.0 List of Preparers

An interdisciplinary team contributed to this document, following guidance in Part 1502.6 of CEQ regulations. Portions of the documents were drafted by Carlson McCain, Inc, under contract to D-3 and under the direction of BIA. Federal officials, oil and gas representatives, and consultants included the following:

Bureau of Indian Affairs

Marilyn Bercier
Mark Herman

Dakota-3 E&P Company, LLC

Nelson Klitzka, Regulatory Specialist
Jennifer Head, Regulatory Team Lead

Carlson McCain, Inc.

Todd Hartleben, Senior Engineer
Ryan Krapp, Wildlife Biologist/GIS Specialist
Miranda Meehan, Ecologist

6.0 References and Acronyms

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(2011b) A Class I and Class III Cultural Resources Inventory of the John Evans #14-23H Well Pad and Utility Corridor, Fort Berthold Indian Reservation, Mountrail County, North Dakota. SWCA Environmental Consultants for Dakota-3 E & P Company, LLC, Denver.

Acronyms

AAQM	Ambient Air Quality Monitoring (site)
AIRFA	American Indian Religious Freedom Act
APD	Application for Permit to Drill
APE	Area of Potential Affect
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
CFR	Code of Federal Regulations
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
FONSI	Finding of No Significant Impact
GPRO	Great Plains Regional Office
MHA Nation	Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nation
NAGPRA	Native American Graves Protection and Repatriation Act
NDCC	North Dakota Century Code
NDDH	North Dakota Department of Health
NDGFD	North Dakota Game and Fish Department
NDIC	North Dakota Industrial Commission
NDNHI	North Dakota Natural Heritage Inventory
NDSWC	North Dakota State Water Commission
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPAL	Northern Plains Agro-ecosystems Laboratory
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NTL	Notice to Lessees
SHPO	State Historic Preservation Officer
TCP	Traditional Cultural Property
TERO	Tribal Employment Rights Office
THPO	Tribal Historic Preservation Officer

TVD	Total Vertical Depth
USACE	United States Army Corps of Engineers
USC	United States Code
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

Appendix A
Scoping and Concurrence Request



July 22, 2011

US Fish and Wildlife Service
Mr. Jeffrey Towner
Field Supervisor
3425 Miriam Avenue
Bismarck, ND 58501

**Re: Request for Comments
Proposed Oil & Gas Well Pad
George Evans 11-2H
Dakota D-3 E&P Company, LLC**

Dear Mr. Towner:

On behalf of Dakota-3 E&P Company, LLC (a subsidiary of Williams), Carlson McCain, Inc. is submitting information concerning development of the proposed George Evans 11-2H well pad. The proposed multi-well site (Site) will include the D-3 George Evans 11-2HD, D-3 George Evans 11-2HZ, D-3 George Evans 11-2HC, D-3 George Evans 14-23HD, George Evans 14-23HZ and the George Evans 14-23HC well bores into the Bakken and Three Forks formations. The Site and associated access route is located on the Fort Berthold Reservation in Section 11, T150N, R91W in Mountrail County (Figure 1).

An on-site biological assessment of the Site was conducted on July 20, 2011, with the Bureau of Indian Affairs (BIA). At the initial on-site visit the proposed well site and access road were "soft" staked and the location was reviewed in consideration of topography, natural drainage and erosion control, vegetation, T&E species, migratory birds, wildlife and habitats, historical and cultural resources and other surface impacts. Site-specific mitigation measures were discussed and incorporated into the final project design to minimize impacts to evaluated resources.

Project Description

The proposed site is planned to have six well bores, drilled horizontally to access petroleum resources of the Bakken and Three Forks formations under sections 2, 11, 14 and 23 (Figure 2). The proposed well pad working surface will initially be constructed approximately to 730 feet by 355 feet in size, or approximately 6 acres. Interim site reclamation after well completions will reduce the pad working surface size to less than half of original size and reseeded. The overall surface use loss (fenced area) will be approximately 9 acres.

The access route will begin at 29th Street Northwest and proceed north to the west side of pad approximately 340 feet. A maximum disturbance width (ROW) of 130 feet will result in a approximate 1.0 acre of disturbance. The pad site is located within a invaded native prairie community. Kentucky bluegrass (*Poa pratensis*), smooth brome grass (*Bromus inermis*), and crested wheatgrass (*Agropyron cristatum*) were dominant at the survey time. Native shrub patches dominated by chockcherry (*Prunus virginiana*) and northern hawthorn (*Crataegus rotundifolia*) were also present on the proposed pad site. Smooth brome (*Bromus inermis*) dominates the road ditch the access road will cross from 29th Street Northwest to the well pad.

Topsoil stockpiles will be located on the east corner of the pad to divert water and reduce erosion. An 18 inch containment berm will be constructed on top of the pad site to contain surface runoff. A semi-closed-loop drilling system that utilizes a dry cuttings pit will be implemented. Topsoil from site will be removed at a depth of 4 inches and spread onsite for interim and final reclamation use. The corners of the proposed well pad will be rounded as needed. A 2:1 slope will be constructed on the high cut slope to which matting and other erosion control will be applied to minimize soil erosion during drilling. Best Management Practices (BMP's) including the use of a containment berm(s), sediment fencing, soil compaction and reseeding of native species will be utilized during construction and after final reclamation. All electrical utilities will be underground.

Migratory Birds and Raptors

Proposed oil and gas development in the area may affect raptor and migratory bird species through direct mortality, habitat degradation, and/or displacement of individual birds. These impacts are regulated in part through the *Migratory Bird Treaty Act* (916 USC 703-711) and the Bald and Golden Eagle Protection Act (BGEPA).

A ground survey for cliff, tree, and ground raptor nests was conducted within line-of sight of the proposed project. No nests were observed during the on-site review. The project area was also surveyed for migratory bird species. At the time of the survey none were observed using the immediate area. Due to the location of the proposed project in a grassland community a raptor and migratory bird surveys will be conducted 5 days prior to construction and/or mowing and grubbing will take place on the site in the preceding fall.

High Value Habitat Avoidance

The ND Parks and Recreation Department (NDPRD) houses the North Dakota Natural Heritage biological conservation database. A request for record review will be done to determine if any current or historic 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.

The proposed pad site is located within a gently rolling native prairie community. A semi-closed-loop drilling system utilizing a dry cuttings pit will be implemented eliminating or greatly reducing potential for contamination or leaching. No high value wildlife habitat will be compromised by pad construction but there will be an overall loss of grassland cover. At the time of the field visit, no significant ecological communities were observed.

Disturbed areas and spoil piles will be reseeded with a native seed mix as specified by the BIA. Dakota-3 E&P and the BIA will monitor the seeding success and weed species control over life of project.

Cumulative Impacts

The well site and access route will result in approximately 10 total acres of agricultural land (pasture) loss. Potential impacts to wildlife will be minimal in the context of development in the immediate area. The goal of establishing a slightly larger multi-well pad will ultimately reduce the overall surface disturbance in the area. Access road and pad construction is near established roads oil facilities and should not significantly negatively affect unlisted species, including migratory birds, small and large mammals, and other wildlife species.

There are no wetlands, floodplains, or major drainage facilities that will be significantly negatively affected by the proposed well site. Mitigation efforts mentioned above will greatly reduce potential negative effects of wells drilled near Lake Sakakawea. Current land uses are expected to continue with little change other than the acreage required for development. Increased truck traffic on adjacent roadways can be expected and has a documented negative, but manageable, impact on road conditions.

Biological Species Assessment

Assessments for Federally listed threatened and endangered species were conducted by evaluating historic and present occurrences and by determining if potential habitat exists within the project area. A determination was made concerning direct and cumulative effects of the proposed activities on each species. Threatened and endangered species with documented occurrences in Mountrail County are listed in Table 1.

Table 1. Mountrail County Threatened, Endangered and Candidate Species List

Species	Status
Interior Least Tern	Endangered
Whooping Crane	Endangered
Pallid Sturgeon	Endangered
Gray Wolf	Endangered
Piping Plover and Designated Critical Habitat	Threatened
Sprague's Pipit	Candidate
Dakota Skipper	Candidate

¹ USFWS (updated March, 2011)

Determinations made for federally listed species are:

- No effect
- May affect, is not likely to adversely affect
- May affect, is likely to adversely affect

Gray Wolf

Gray wolves, an Endangered Species in North Dakota, were historically found throughout much of North America including the Upper Great Plains. Human activities have restricted their present range to the

northern forests of Minnesota, Wisconsin, and Michigan and the Northern Rocky Mountains of Idaho, Montana, and Wyoming. They now only occur as occasional visitors in North Dakota. The most suitable habitat for the gray wolf is found around the Turtle Mountains region where documented and unconfirmed reports of gray wolves in North Dakota have occurred (Grondahl and Martin, no date). Due to the transient nature and no recent recorded sightings in the area the proposed project **may affect, is not likely to adversely affect** this species.

Interior Least Tern

The interior least tern nests on midstream sandbars along the Yellowstone and Missouri River systems. Interior least terns construct bowl-shaped depression nests on sparsely vegetated sandbars and sandy beaches. Their nesting period occurs between mid-May through mid-August. The proposed well site is located approximately 6,500 feet from and not within line-of-sight of the Missouri River system shoreline. No individuals were observed in the area during the onsite visit. The proposed project will have **no effect** on this species.

Pallid Sturgeon

Pallid sturgeon are found in the Mississippi, Missouri, and Yellowstone River systems and are adapted for living close to the bottom of large, shallow rivers with sand and gravel bars. Pallid sturgeon populations in North Dakota have decreased since the 1960's (Grondahl and Martin no date). The proposed well site is located approximately 6,500 feet from Lake Sakakawea. BMP's will be implemented, including a containment berm surrounding the proposed well pad site and utilizing a semi-closed-loop (dry cuttings pit) drilling system, as such the project will have **no effect** on this species.

Whooping Crane

The primary nesting area for the whooping crane is in Canada's Wood Buffalo National Park. Arkansas National Wildlife Refuge in Texas is the primary wintering area for whooping cranes. In the spring and fall, the cranes migrate primarily along the Central Flyway. During the migration, cranes make numerous stops, roosting in large shallow marshes, and feeding and loafing in harvested grain fields. The primary threats to whooping cranes are power lines, illegal hunting, and habitat loss (Texas Parks and Wildlife 2008).

The proposed well site is located within the Central Flyway. Approximately 75% of the whooping crane sightings in North Dakota occur within a 90-mile corridor that includes the proposed well location. Because collisions with power lines are the primary cause for fledgling mortality, it is BIA directive that any utility lines be constructed underground. Land use in the area is previously cultivated grasslands and agricultural fields. The pad and access road are placed in a location that may have some potential of impacting whooping crane stop-over habitat. No individual whooping cranes were observed in the area during the on-site visits.

Construction activities may cause migratory cranes to divert from the area but are not likely to result in fatalities. If a crane is sighted within one mile of the project area, construction activities will cease and will be immediately reported to the US Fish and Wildlife Service (USFWS), North Dakota Game and Fish Department (NDGFD), and the BIA. In coordination with the USFWS and the BIA construction will resume once the bird(s) have left the area. Following these guidelines, it is reasonable to expect that the proposed activities **may affect, is not likely to adversely affect** whooping cranes.

Piping Plover and Critical Habitat

Piping plovers are found along the Missouri and Yellowstone River systems on gravel shorelines and sandbars and also on large alkaline wetlands. Nesting sites have been documented on the shorelines of Lake Sakakawea. In addition, critical habitat has been designated along Lake Sakakawea. NDPRD records indicate piping plover sightings and critical habitat within 2-miles of the project site.

The proposed well site is located in pasture lands and approximately 6,500 feet from and not within line-of-sight of the Missouri River system shoreline. No individuals were observed in the area during the onsite visit and critical habitat is not located in the area. The proposed project will have **no effect** on this species.

Sprague's Pipit

The Sprague's pipit is a ground nesting bird that breeds and winters on open grasslands. It feeds mostly on insects and spiders and some seeds. The Sprague's pipit is closely tied with native prairie habitat and breeds in the north-central United States in Minnesota, Montana, North Dakota and South Dakota as well as south-central Canada. During the breeding season, Sprague's pipits prefer large patches of native grassland with a minimum size requirement thought to be approximately 145 ha (358.3 ac). The species prefers to breed in well-drained, open grasslands and avoids grasslands with excessive shrubs. Preferred grass height is estimated to be between 10 and 30 cm. They may avoid roads, trails, and habitat edges.

The proposed pad site will be developed within an invaded native prairie pasture. The pasture was not grazed and vegetation height was moderate to high (>30cm). The pad site is near the highly traveled BIA road and shrub species (hawthorn and chokecherry) also occupy the immediate landscape. Based upon these landscape conditions the proposed activities **may affect, is not likely to adversely affect** this species.

Dakota Skipper

Dakota skippers are found in native prairie containing a high diversity of wildflowers and grasses. Habitat includes two prairie types: 1) low (wet) prairie dominated by bluestem grasses, wood lily, harebell, and smooth camas; and 2) upland (dry) prairie on ridges and hillsides dominated by bluestem grasses, needlegrass, pale purple coneflower and upright coneflowers and blanket flower. Dakota skipper populations have declined historically due to widespread conversion of native prairie.

The proposed pad site will be developed within an invaded native prairie pasture. The dry, rolling pasture does have needlegrass and coneflowers present but in very small percentage of the dominant vegetation. Based upon these landscape conditions the proposed activities **may affect, is not likely to adversely affect** this species.

Conclusion

The BIA has required the following site-specific construction procedures be implemented to help reduce potential impacts to wildlife and habitat:

- Use of a semi-closed-loop drilling system
- Construction of an 18" high containment berm on the pad
- Construction of a 2:1 slope on the cut slope
 - Use of BMPs (matting, fabric, ect.) to reduce erosion on cut slope.

George Evans 11-2H Pad

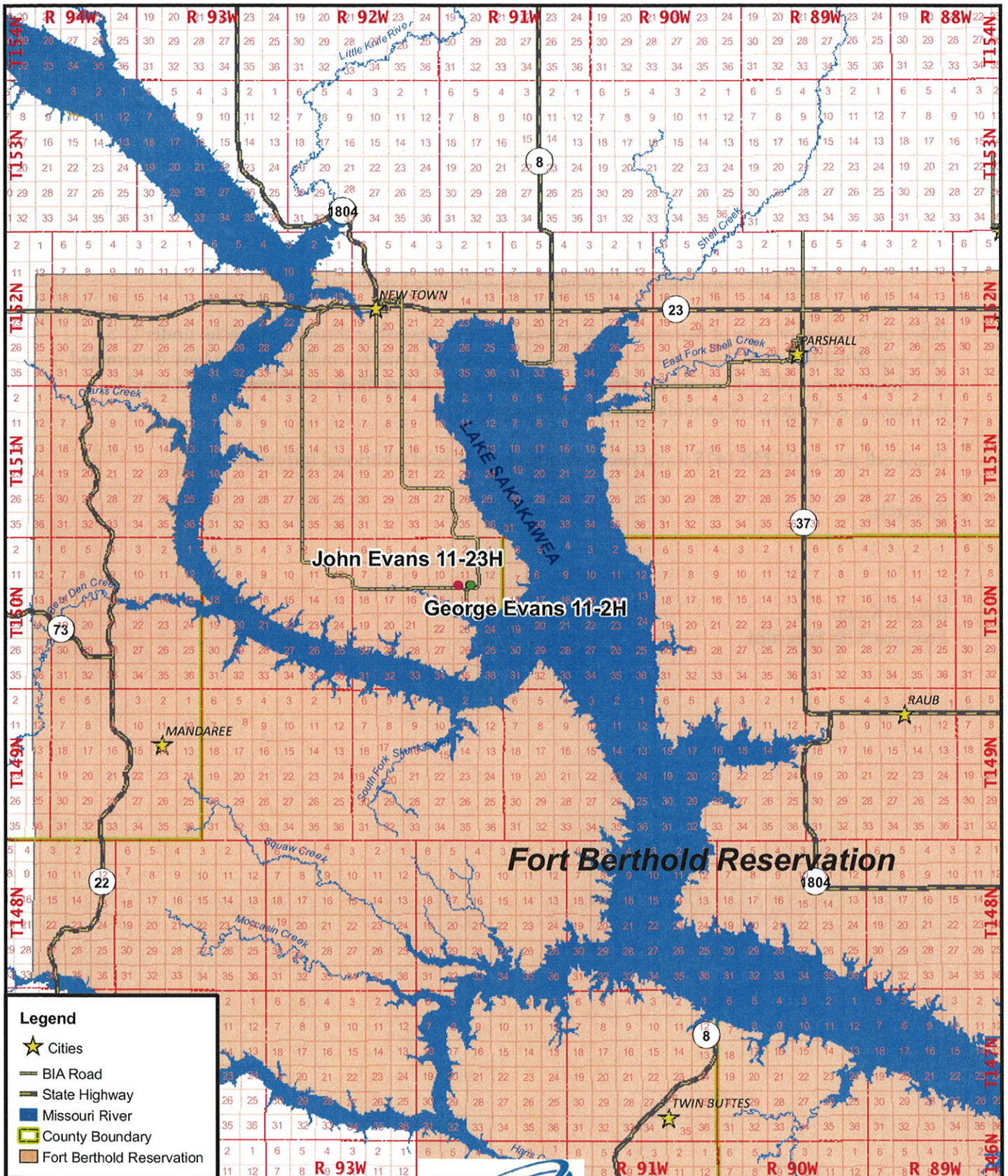
- Monitor required during construction and reclamation to ensure a minimum 75' buffer is maintained for cultural resources present.
- Raptor and migratory bird survey 5 days prior to construction
- Interim and final reclamation including:
 - Use of BMPs (soil compaction, berms, silt fences, wattles, fabric etc.) to reduce erosion
 - Monitoring and maintenance of potential erosion areas.
 - Seeding of native species.
 - Indefinite monitoring of seeding success and weed species control.

Based on a review of a list of federally listed or proposed endangered or threatened species under U.S. Fish and Wildlife Service jurisdiction, in addition to occasional transient individuals, we have determined that these actions will either have **no effect** or **may affect, but is not likely to adversely affect** listed threatened, endangered or candidate species and habitats.

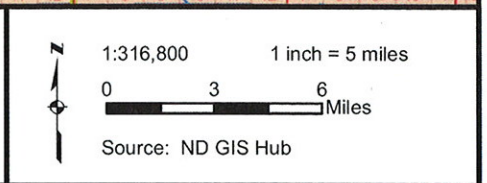
Please call me at 701-255-1475 if you have any questions or need additional information.

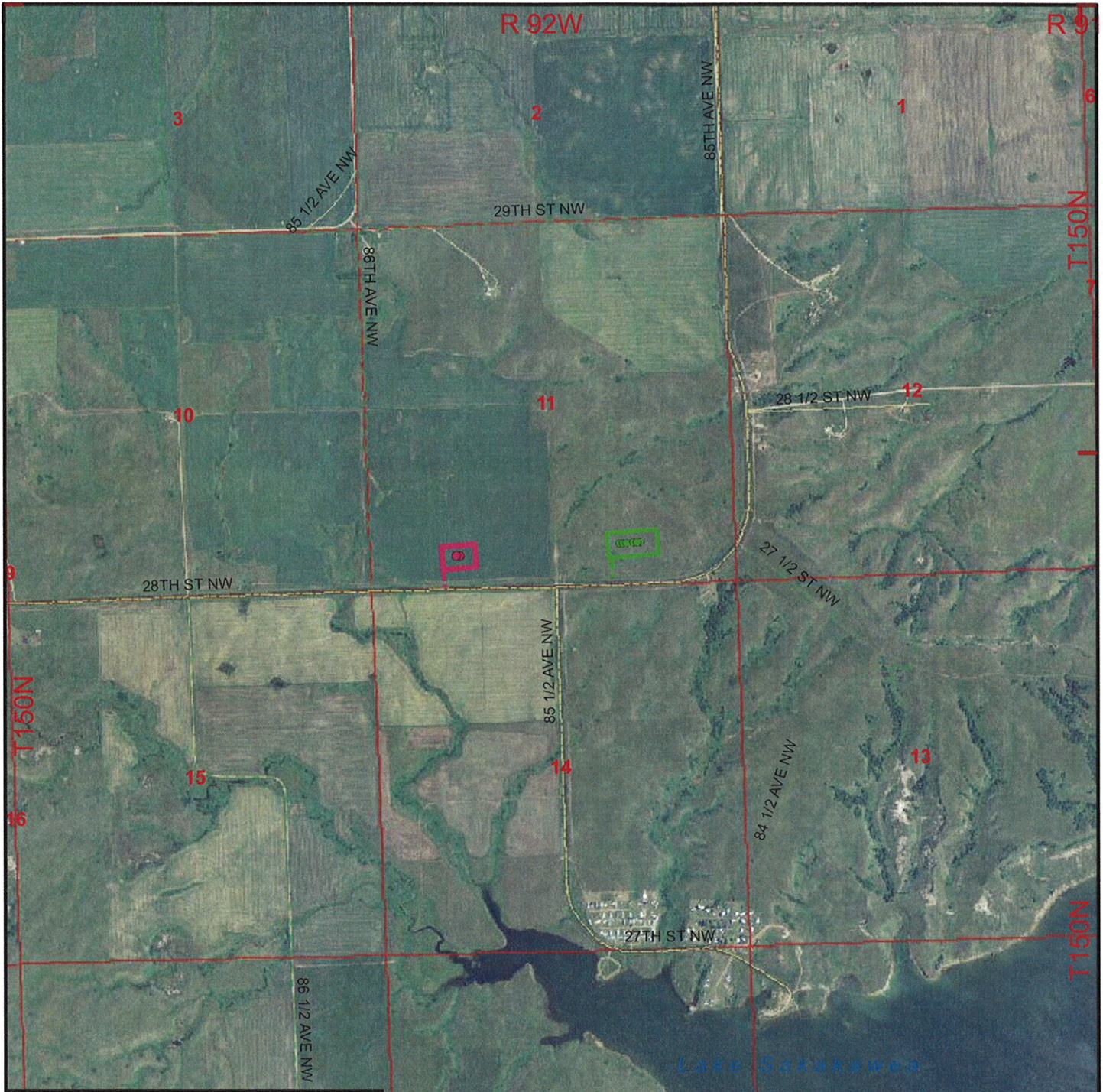
Sincerely,

Ryan J. Krapp
Ecologist/GIS Specialist



**George Evans 11-2H &
 John Evans 11-23H**
 Section 11, T150N R92W





Legend

- George Evans 11-2H Surface Locations
- George Evan 11-2H Well Pad
- John Evans 11-23H Surface Locations
- John Evans 11-23H Well Pad



**George Evans 11-2H &
John Evans 11-23H
Multi Well Pad Sites
Section 11, T150N R92W**

1:24,000 1 inch = 2,000 feet

0 1,000 2,000
Feet

Source: NIAP Orthophoto 2010
Mountrail County

Appendix B

Scoping Responses and Concurrence



United States Department of the Interior

BUREAU OF RECLAMATION

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



IN REPLY REFER TO
DK-5000
ENV-6.00

AUG 4 2011

Mr. Ryan J. Krapp
Ecologist/GIS Specialist
2718 Gateway Avenue Suite 101
Bismarck, ND 58503

Subject: Solicitation for an Environmental Assessment for the Construction of Two Oil and Gas Exploratory Well Pads at Section 11, T150, R92W, New Town SW, North Dakota, on the Fort Berthold Reservation in Mountrail County, North Dakota

Dear Mr. Krapp:

This letter is written to inform you that we received your letter of July 22, 2011, and the information and map have been reviewed by Bureau of Reclamation staff.

It appears Federal Reclamation facilities in the form of rural water pipelines are in and around Section 11, T150N, R92W as listed in your letter. I have provided you with a map of the general vicinity of your proposed well pad locations depicting Reclamations rural water line locations. 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. Loretta 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

cc: See next page.

Subject: Solicitation for an Environmental Assessment for the Construction of Two
Oil and Gas Exploratory Well Pads at Section 11, T150, R92W, New Town SW,
North Dakota on the Fort Berthold Reservation in Mountrail County, North Dakota

2

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)



ENVIRONMENTAL • ENGINEERING • LAND SURVEYING

July 22, 2011

Patricia Dressler
FAA Bismarck
2301 University Dr.
Bismarck, ND 58504

RE: Request for Comments
Dakota D-3 E&P Company, LLC

Dear Ms. Dressler,

On behalf of Dakota-3 E&P Company, LLC, Carlson McCain is submitting information concerning development of two proposed oil and gas extraction locations on the Fort Berthold Reservation (Reservation). The Bureau of Indian Affairs (BIA) is preparing an environmental assessment (EA) under the National Environmental Policy Act (NEPA) for the proposed action(s). The proposed surface locations for the two multiple well pads are described below, and illustrated on the Project location map (Figure 1).

- John Evans #11-23H well:
- George Evans #11-2H well:

Associated appurtenances include roads, utility lines, and production and storage facilities. In general, oil will be stored on location in tank batteries and then hauled to the nearest processing plant or sales point. Produced water will be transported by truck to water disposal wells or enclosed tanks. Any gas produced from these wells will initially be flared until a gathering system can be planned, permitted, and constructed.

In accordance with NEPA requirements, we are requesting comments regarding the proposed project. Comments are requested to be sent before August 22, 2011, so they may be incorporated into the final decision making. Please send comments to my attention at the address below.

Sincerely,

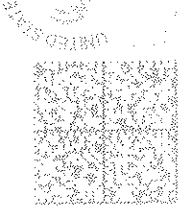
Ryan J. Krapp
Ecologist/GIS Specialist
2718 Gateway Avenue, Suite 101
Bismarck, ND 58503
rkrapp@carlsonmccain.com



Date August 12, 2011

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

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

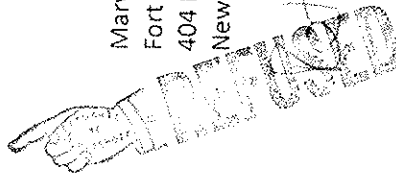


**Carlson
McCain**

2718 Gateway Avenue, Suite 101 • Bismarck, ND 58503



Marvin Danks
Fort Berthold Rural Water Supply
404 Frontage Road
New Town, ND 58763



Return to Sender



July 29, 2011

Mr. Ryan J. Krapp
Ecologist/GIS Specialist
Carlson McCain
2718 Gateway Avenue, Suite 101
Bismarck, ND 58503

Re: George Evans 11-2H and John Evans 11-23H Proposed Oil & Gas Wells
On the Fort Berthold Reservation, Dunn County

Dear Mr. Krapp:

This department has reviewed the information concerning the above-referenced project submitted under date of July 22, 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. Development of the production facilities and any access roads or well pads should have a minimal effect on air quality provided measures are taken to minimize fugitive dust. However, operation of the wells has the potential to release air contaminants capable of causing or contributing to air pollution. We encourage the development and operation of the wells in a manner that is consistent with good air pollution control practices for minimizing emissions. Detailed guidance is available at www.ndhealth.gov/AQ/OilAndGasWells.htm.

Any questions about air pollution control or permitting requirements should be addressed to Ms. Kathleen Paser at the U.S. Environmental Protection Agency, Region 8. She may be reached at (303) 312-6526 or Paser.Kathleen@epa.gov.

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 within 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

Mr. Ryan J. Krapp

2.

July 29, 2011

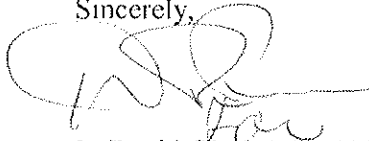
the U.S. EPA - Region 8 at (303) 312-6312. Also, cities or counties may impose additional requirements and/or specific best management practices for construction affecting their storm drainage system. Check with the local officials to be sure any local storm water management considerations are addressed.

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 Galt, P.E., Chief
Environmental Health Section

LDG:cc
Attach.



Construction and Environmental Disturbance Requirements

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

Soils

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

Surface Waters

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

Fill Material

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



"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 12, 2011

Ryan J. Krapp
Ecologist
Carlson McCain, Inc.
2718 Gateway Ave, Suite 101
Bismarck, ND 58503

Dear Mr. Krapp:

RE: George Evans 11-2H
John Evans 11-13H

Dakota-3 E&P Company, LLC is proposing eight oil and gas wells located on two well pads on the Fort Berthold Reservation in Mountrail County, North Dakota.

Our primary concern with oil and gas development is the fragmentation and loss of wildlife habitat associated with construction of the well pads and access roads. We recommend that construction be avoided to the extent possible within native prairie, wooded draws, riparian corridors, and wetland areas.

Sincerely,

A handwritten signature in black ink, appearing to read "Greg Link". The signature is stylized and cursive.

Greg Link
Chief

Conservation & Communication Division

js



Jack Dabrymple, 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

August 11, 2011

Mr. Ryan Krapp
Carlson McCain
2718 Gateway Ave.
Suite 101
Bismarck, ND 58503

Re: George Evans #11-2H Well & John Evans #11-23H Well

Dear Mr. Krapp,

The North Dakota Parks and Recreation Department (the Department) has reviewed the above referenced proposal for the development of proposed oil and gas well pad in Mountrail County.

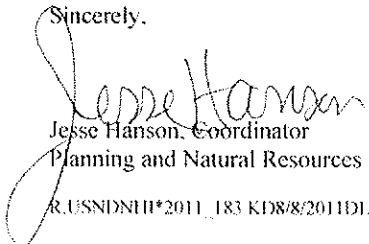
Our agency scope of authority and expertise covers recreation and biological resources (in particular rare plants and ecological communities). The project as defined does not affect state park lands that we manage or Land and Water Conservation Fund recreation projects that we coordinate.

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

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

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

Sincerely,


Jesse Hanson, Coordinator
Planning and Natural Resources Division
R:USNDNH1*2011_183 KD8/8/2011DL 8.22.2011

.....
Play in our backyard!

United States Department of Agriculture



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

August 17, 2011

Ryan J. Krapp
Carlson McCain
2718 Gateway Avenue, Suite 101
Bismarck, ND 58503

RE: John Evans #11-23H well
George Evans #11-2H well

Dear Mr. Krapp:

The Natural Resources Conservation Service (NRCS) has reviewed your letter dated July 22, 2011, regarding the John and George Evans' wells on the Fort Berthold Reservation in Mountrail County, North Dakota.

Important Farmlands - 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. It appears your proposed project is not supported by Federal funding or actions; therefore, no further action is required.

Wetlands – The Wetland Conservation Provisions of the 1985 Food Security Act, as amended, provide that if a USDA participant converts a wetland for the purpose of, or to have the effect of, making agricultural production possible, loss of USDA benefits could occur. NRCS has developed the following guidelines for the installation of buried utilities. If these guidelines are followed, the impacts to the wetland(s) will be considered minimal allowing USDA participants to continue to receive USDA benefits. Following are the requirements: 1) Disturbance to the wetland(s) must be temporary, 2) no drainage of the wetland(s) is allowed (temporary or permanent), 3) mechanized landscaping necessary for installation is kept to a minimum and preconstruction contours are maintained, 4) temporary side cast material must be placed in such a manner not to be dispersed in the wetland, and 5) all trenches must be backfilled to the original wetland bottom elevation.

Helping People Help the Land

An Equal Opportunity Provider and Employer

Mr. Krapp
Page 2

NRCS would recommend that impacts to wetlands be avoided. If the project requires passage through or disturbance of a wetland, NRCS can complete a certified wetland determination, if requested by the landowner/operator.

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

Sincerely,


JEROME SCHAAR
State Soil Scientist/MO 7 Leader



STATE
HISTORICAL
SOCIETY
OF NORTH DAKOTA

Jack Dalrymple
Governor of North Dakota

July 29, 2011

North Dakota
State Historical Board

Mr. Ryan J. Krapp
Ecologist/GIS Specialist
2718 Gateway Avenue, Suite 101
Bismarck ND 58503

Gerekl Gerntholz
Valley City - President

Calvin Grinnell
New Town - Vice President

A. Ruric Todd III
Jamestown - Secretary

NDSHPO REF. 11-2174 BIA/Mandan Hidatsa Arikara Nation Dakota-3 E&P Company, LLC development two oil and gas locations John Evans 11-23H and George Evans 11-2H in portions of [T150N R92W Section 11] Mountrail County, North Dakota

Albert I. Berger
Grand Forks

Richard Kloubee
Fargo

Dear Mr. Krapp,

Diane K. Larson
Bismarck

We received your correspondence regarding NDSHPO REF. 11-2174 BIA/Mandan Hidatsa Arikara Nation Dakota-3 E&P Company, LLC development two oil and gas locations John Evans 11-23H and George Evans 11-2H in portions of [T150N R92W Section 11] Mountrail County, North Dakota. We request that a copy of cultural resource site forms and reports be sent to this office so that the cultural resources archives can be kept current for researchers.

Chester F. Nelson, Jr.
Bismarck
Sam Ottie Coleman
Director
Tourism Division

Thank you for your consideration. Consultation is with MHAN THPO. If you have any questions please contact Susan Quinnell, Review & Compliance Coordinator at (701)328-3576 or squinnell@nd.gov

Kelly Schmidt
State Treasurer

Alvin A. Jaeger
Secretary of State

Sincerely,

Mark Zimmerman
Director
Parks and Recreation
Department

Merlan E. Paaverud, Jr.
State Historic Preservation Officer (North Dakota)
and Director, State Historical Society of North Dakota

Francis Ziegler
Director
Department of Transportation

Merlan E. Paaverud, Jr.
Director

c: Elgin Crows Breast, THPO MHAN
c: Brenda Shierts, BLM, Belle Fourche, SD

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REPLY TO
ATTENTION OF

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

August 8, 2011

North Dakota Regulatory Office

Ryan J. Krapp, Ecologist/GIS Specialist
2718 Gateway Avenue, Suite 101
Bismarck, North Dakota 58503

Dear Mr. Krapp:

This is in response to your solicitation letter on behalf of **Dakota-3 E&P Company, LLC**, received on July 27, 2011 requesting Department of the Army (DA), United States Army Corps of Engineers (Corps) comments for two multiple well pads within the Fort Berthold Indian Reservation. The proposed surface locations for the two multiple well pads are **John Evans #11-23H well and George Evans #11-2H well, Mountrail County, North Dakota.**

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

For any proposed well where the well line and/or bottom hole is under or crosses under Lake Sakakawea, regardless of depth, we require that project proponent provide a DA permit application (ENG Form 4345) to the Corps.

Enclosed for your information is the fact sheet for Nationwide Permit 12, Utility Line Activities. Pipeline projects are already authorized by Nationwide Permit 12 **provided the utility line can be placed without any change to pre-construction contours and all other proposed construction activities and facilities are in compliance with the Nationwide's permit conditions and 401 Water Quality Certification is obtained.** Please note the pre-construction notification requirements on page 2 of the fact sheet. **If a project involves any one of the seven notification requirements, the project proponent must submit a DA application.** Furthermore, a project must also be in compliance with the "Regional Conditions for Nationwide Permits within the State of North Dakota", found on pages 12 and 13 of the fact sheet. [The following info is for activities on a reservation] Please be advised that the United States Environmental Protection Agency (EPA), Region 8 has denied 401 Water Quality Certification for activities in perennial drainages and wetlands. Furthermore, EPA has placed conditions on activities in ephemeral and intermittent drainages. It is recommended you contact the U.S. Environmental Protection Agency, Region 8, Attn: Brent Truskowski, 1595 Wynkoop Street, Denver, Colorado 80202-1129 to review the conditions pursuant to Section 401 of the Clean Water Act prior to any construction.

Also enclosed for your information is the fact sheet for Nationwide Permit 14, Linear Transportation Projects. Road crossings are already authorized by Nationwide Permit 14 **provided the discharge does not cause the loss of greater than ½ acre of waters of the United States per crossing and all other proposed construction activities are in compliance with the Nationwide's permit conditions.** Please note the pre-construction notification requirements on the front page of the fact sheet. **If a project involves (1) the loss of waters of the United States exceeding 1/10 acre per crossing; or (2) there is a discharge in a special aquatic site, including wetlands, the project proponent must submit a DA application prior to the start of construction.** Please reference General Condition 27, Pre Construction Notification on page 8 of the fact sheet. Furthermore, a project must also be in compliance with the "Regional Conditions for Nationwide Permits within the State of North Dakota", found on pages 11 and 12 of the fact sheet. [The following is included for activities on a reservation] Enclosed is a copy of the United States Environmental Protection Agency, Region 8's; General Conditions for all Nationwide Permits and specific conditions for Nationwide Permit 14.

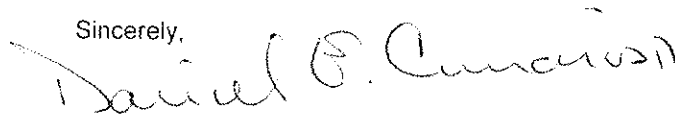
In the event your project requires approval from the U.S. Army Corps of Engineers and cannot be authorized by Nationwide Permit(s), a Standard or Individual Permit will be required. A project that requires a Standard or Individual Permit is intensely reviewed and will require the issuance of a public notice. A Standard or Individual Permit generally requires a minimum of 120 days for processing but based on the project impacts and comments received through the public notice may extend beyond 120 days.

This correspondence letter is neither authorization for the proposed construction nor confirmation that the proposed project complies with the Nationwide Permit(s).

If any of these projects require a Section 10 and/or Section 404 permit, please complete and submit the enclosed Department of the Army permit application (ENG Form 4345) to the U.S. Army Corps of Engineers, North Dakota Regulatory Office, 1513 South 12th Street, Bismarck, North Dakota 58504. If you are unsure if a permit is required, you may submit an application; include a project location map, description of work, and construction methodology.

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

Sincerely,



Daniel E. Cimarosti
Regulatory Program Manager
North Dakota

Enclosure
ENG Form 4345
Fact Sheet NWP 12 and 14
EPA 401 Conditions for Nationwide Permits

CF w/o encl
EPA Denver (Brent Truskowski)



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
3425 Miriam Avenue
Bismarck, North Dakota 58501



AUG 23 2011

Mr. Ryan Krapp, Ecologist
Carlson McCain
2718 Gateway Ave, Suite 101
Bismarck, North Dakota 58503

Re: Proposed George Evans 11-2H Dakota
D-3 E&P Company, LLC

Dear Mr. Krapp:

This is in response to your July 22, 2011, request for comments regarding the development of the proposed George Evans 11-2H well pad by Dakota-3 E&P Company, LLC (Dakota-3), on the Fort Berthold Reservation, Mountrail County, North Dakota.

Specific location for the proposed well pad is:

T. 151 N., 92 W., Section 11

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

Threatened and Endangered Species

In an email dated October 13, 2009, the Bureau of Indian Affairs (BIA) designated Carlson McCain, formerly McCain and Associates, Inc. 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 acknowledges your determination of "no effect" for the interior least tern and piping plover. If you maintain your determination, no further consultation is

necessary. However, the Service does not believe a “no effect” determination for these species is correct. When determining if an action may affect a listed species, the Federal agency must include direct and indirect effects, including interrelated or interdependent effects. We are concerned that there could be indirect effects to plovers and terns, since both these species have the ability to move far from the lake to wetlands to feed. Studies indicate that least terns may travel 7.5 miles or more to forage during the nesting season. The Service suggests that a determination of “may affect, not likely to adversely affect” for these two federally listed species is the correct determination, and one that we would likely concur with.

The Service concurs with your “may affect, is not likely to adversely affect” determination for whooping cranes. This concurrence is predicated on Dakota-3’s commitment to stop work on the proposed site if a whooping crane is sighted within 1 mile of the proposed project area and immediately contacting the Service. Work may resume in coordination with the Service once the bird(s) has(ve) left the area.

The Service concurs with your “may affect, is not likely to adversely affect” determination for gray wolf and piping plover designated critical habitat.

The Service acknowledges your “no effect” determination for pallid sturgeon.

The Dakota skipper and Sprague’s pipit are candidate species for listing under the ESA; therefore, an effects determination is not necessary for these species. No legal requirement exists to protect candidate species; however, it is within the spirit of the ESA to consider these species as having significant value and worth protecting. Although not required, Federal action agencies, such as the BIA, have the option of requesting a conference on any proposed action that may affect candidate species such as the Dakota skipper and Sprague’s pipit.

Migratory Birds

According to your July 22, 2011, letter and email correspondence with Heidi Riddle of my staff, dated August 15, 2011, Dakota-3 has committed to implementing the following measures:

- A bird/nest survey will be conducted 5 days prior to construction; if birds or nests are discovered, all construction will be stopped and the BIA and the Service will be consulted for additional information on how to proceed;
- Or, mowing and grubbing of the site will take place on the site during the preceding fall, and the habitat will be maintained in a degraded state until construction begins.

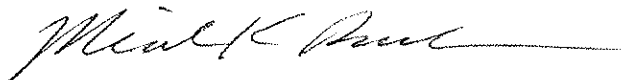
Bald and Golden Eagles

The eagle nest database maintained by the North Dakota Game and Fish Department does not indicate any recorded eagle nests within 0.5 mile of the project area. No eagle nests were observed within 0.5 mile of the project area during line-of-sight surveys.

The Service believes that Dakota-3's commitment to implement the aforementioned measures demonstrates that measures have been taken to protect migratory birds and bald and golden eagles to the extent practicable, pursuant to 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,



Jeffrey K. Towner
Field Supervisor
North Dakota Field Office

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



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
3425 Miriam Avenue
Bismarck, North Dakota 58501



AUG 23 2011

Mr. Ryan Krapp, Ecologist
Carlson McCain
2718 Gateway Ave, Suite 101
Bismarck, North Dakota 58503

Re: Proposed John Evans 11-13H Dakota
D-3 E&P Company, LLC

Dear Mr. Krapp:

This is in response to your July 22, 2011, request for comments regarding the development of the proposed John Evans 11-23 well pad by Dakota-3 E&P Company, LLC (Dakota-3), on the Fort Berthold Reservation, Mountrail County, North Dakota.

Specific location for the proposed well pad is:

T. 151 N., 92 W., Section 11

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

Threatened and Endangered Species

In an email dated October 13, 2009, the Bureau of Indian Affairs (BIA) designated Carlson McCain, formerly McCain and Associates, Inc. (McCain), 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 acknowledges your determination of "no effect" for interior least tern and piping plover. If you maintain your determination, no further consultation is necessary.

However, the Service does not believe a “no effect” determination for these species is correct. When determining if an action may affect a listed species, the Federal agency must include direct and indirect effects, including interrelated or interdependent effects. We are concerned that there could be indirect effects to plovers and terns, since both these species have the ability to move far from the lake to wetlands to feed. Studies indicate that least terns may travel 7.5 miles or more to forage during the nesting season. The Service suggests that a determination of “may affect, not likely to adversely affect” for these two federally listed species is the correct determination, and one that we would likely concur with.

The Service concurs with your “may affect, is not likely to adversely affect” determination for whooping cranes. This concurrence is predicated on Dakota-3’s commitment to stop work on the proposed site if a whooping crane is sighted within 1 mile of the proposed project area and immediately contacting the Service. Work may resume in coordination with the Service once the bird(s) has(ve) left the area.

The Service concurs with your “may affect, is not likely to adversely affect” determination for the gray wolf.

The Service acknowledges your “no effect” determination for pallid sturgeon.

The Dakota skipper and Sprague’s pipit are candidate species for listing under the ESA; therefore, an effects determination is not necessary for these species. No legal requirement exists to protect candidate species; however, it is within the spirit of the ESA to consider these species as having significant value and worth protecting. Although not required, Federal action agencies such as the BIA have the option of requesting a conference on any proposed action that may affect candidate species such as the Dakota skipper and Sprague’s pipit.

Migratory Birds

Dakota-3 has committed to implementing the following measures:

- The project will be constructed entirely within an existing cultivated cropfield. Although migratory birds could nest in the cropfield, the potential for take of migratory birds of conservation concern is minimal. The Service commends Marathon for the placement of the pad within a previously disturbed area, and due to the relative absence of migratory bird nesting habitat, other measures to minimize the potential for take, including timing restrictions and surveys are not necessary.

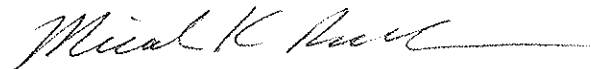
Bald and Golden Eagles

The eagle nest database maintained by the North Dakota Game and Fish Department does not indicate any recorded eagle nests within 0.5 mile of the project area. No eagle nests were observed within 0.5 mile of the project area during line-of-sight surveys.

The Service believes that Dakota-3's commitment to implement the aforementioned measures demonstrates that measures have been taken to protect migratory birds and bald and golden eagles to the extent practicable, pursuant to 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,

A handwritten signature in cursive script, appearing to read "Jeffrey K. Towner", followed by a horizontal line.

Jeffrey K. Towner
Field Supervisor
North Dakota Field Office

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



United States Department of the Interior

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



IN REPLY REFER TO:
DESCRM
MC-208

OCT 19 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 proposed oil well pads and an access road reroute in McKenzie and Mountrail Counties, North Dakota. Approximately 100.35 acres were intensively inventoried using a pedestrian methodology. Potential surface disturbances are not expected to exceed the areas depicted in the enclosed reports. One previously recorded non-eligible archaeological site (32MZ2153) was revisited and another archaeological site (32MN898) was 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. No properties were located that appear to qualify for protection under the American Indian Religious Freedom Act (42 USC 1996).

As the surface management agency, and as provided for in 36 CFR 800.5, we have therefore reached a determination of **no historic properties affected** for this undertaking, as site 32MN898 will be avoided. Catalogued as **BIA Case Number AAO-1993/FB/11**, the proposed undertakings, locations, and project dimensions are described in the following reports:

Herson, Chandler S., and Damien Reinhart

(2011a) A Class I and Class III Cultural Resources Inventory of the George Evans #11-2H Well Pad and Utility Corridor, Fort Berthold Indian Reservation, Mountrail County, North Dakota. SWCA Environmental Consultants for Dakota-3 E & P Company, LLC, Denver.

(2011b) A Class I and Class III Cultural Resources Inventory of the John Evans #14-23H Well Pad and Utility Corridor, Fort Berthold Indian Reservation, Mountrail County, North Dakota. SWCA Environmental Consultants for Dakota-3 E & P Company, LLC, Denver.


Schleicher, Jolene, and Damien Reinhart

(2011) Addendum to the Class I and Class III Cultural Resources Inventory of the Dakota-3 Mandaree Warrior #14-11H Well Pad, Access Road and Gathering Pipeline, Fort Berthold Indian Reservation, McKenzie County, North Dakota. SWCA Environmental Consultants for Dakota-3 E&P Company, LLC, Denver.

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Tim LePante". The signature is written in a cursive, flowing style.

ACTING
Regional Director

Enclosures

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

Notice of Availability and Appeal Rights

Dakota-3 E&P: George Evans #11-2H Multi-Well Pad Site

John Evans #11-23H Dual-Well Pad Site

The Bureau of Indian Affairs (BIA) is planning to issue administrative approvals related to an Environmental Assessment to Authorize Land Use to drill eight wells atop two pads on the Fort Berthold Reservation as shown on the attached map. Construction by Dakota-3 E&P Resources is expected to begin in 2011.

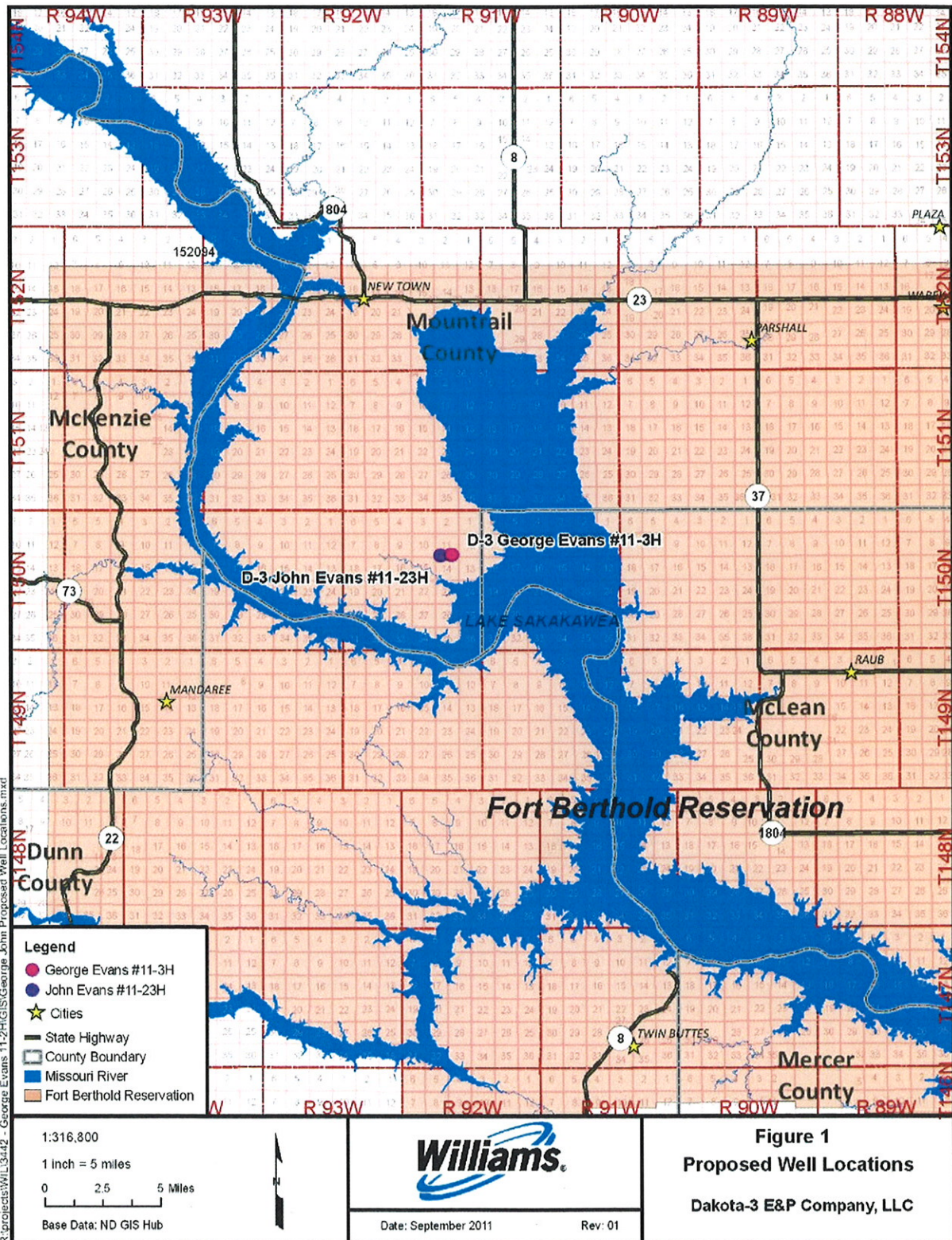
An environmental assessment (EA) determined that proposed activities will not cause significant impacts to the human environment. An environmental impact statement is not required. Contact Earl Silk, Superintendent at 701-627-4707 for more information and/or copies of the EA and the Finding of No Significant 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 22, 2011, by contacting:

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

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

Project locations.



R:\projects\WIL3442 - George Evans 11-2H\GIS\George John Proposed Well Locations.mxd