



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 04 2011

MEMORANDUM

TO: Superintendent, Fort Berthold Agency

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

SUBJECT: Environmental Assessment and Finding of No Significant Impact

In compliance with the regulations of the National Environmental Policy Act (NEPA) of 1969, as amended, an Environmental Assessment has been completed and a Finding of No Significant Impact (FONSI) has been issued. The environmental assessment authorizes land use for an industrial water well by QEP Energy Company, 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)
Grady Wolf, KLJ (with attachment)
Jonathon Shelman, Corps of Engineer
Jeff Hunt, Fort Berthold Agency

Finding of No Significant Impact

QEP Energy Company

Addendum to:

Questar Exploration and Production Company August 2011 Environmental Assessment for Drilling of MHA 2-04-03H-149-91 and MHA 4-04-03H-149-91 Oil and Gas Wells on the Independence 4 Well Pad, MHA 3-06-01H-149-92 and MHA 4-06-01H-149-92 Oil and Gas Wells on the Independence 6 Well Pad, and MHA 2-32-29H-150-91 and MHA 4-32-29H-150-91 Oil and Gas Wells on the Independence 32 Well Pad


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

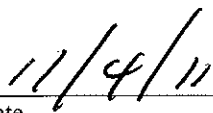
The U.S. Bureau of Indian Affairs (BIA) has received a proposal for an addendum to the above referenced Environmental Assessment (EA). The proposal is to drill one industrial use water well on one of the previously approved well pads. The proposed water well would be located in the SE ¼ NE ¼ of Section 6, T149N, R91W, 5th P.M Associated federal actions by BIA include determinations of impacts and effects regarding environmental resources.

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

This determination is based on the following factors:

1. Agency and public involvement solicited for the preceding NEPA document was sufficient to ascertain potential environmental concerns associated with the currently proposed project.
2. Protective and prudent measures were designed to minimize impacts to air, water, soil, vegetation, wetlands, wildlife, public safety, water resources, and cultural resources. The remaining potential for impacts was disclosed for both the proposed action and the No Action alternatives.
3. Guidance from the U.S. Fish and Wildlife Service has been fully considered regarding wildlife impacts, particularly in regard to threatened or endangered species. This guidance includes the Migratory Bird Treaty Act (16 U.S.C.703 et seq.) (MBTA), the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.) (NEPA), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d, 54 Stat. 250) (BGEPA), Executive Order 13186 "Responsibilities of Federal Agencies to Protect Migratory Birds", and the Endangered Species Act (16 U.S.C. 1531 et seq.) (ESA).
4. The proposed action is designed to avoid adverse effects to historic, archaeological, cultural and traditional properties, sites and practices. Compliance with the procedures of the National Historic Preservation Act is complete.
5. Environmental justice was fully considered.
6. Cumulative effects to the environment are either mitigated or minimal.
7. No regulatory requirements have been waived or require compensatory mitigation measures.
8. The proposed project will improve the socio-economic condition of the affected Indian community.


Acting Regional Director


Date

ENVIRONMENTAL ASSESSMENT

Addendum

United States Bureau of Indian Affairs

Great Plains Regional Office
Aberdeen, South Dakota



QEP Energy Company

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Fort Berthold Indian Reservation

October 2011

For information contact:

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

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1 PURPOSE AND NEED FOR THE PROPOSED ACTION

QEP Energy Company (QEP) proposes to drill and complete one industrial use water well on an existing oil and gas well pad on the Fort Berthold Reservation. Water from this well would be transported using overland pipes and would be used for drilling, fracking, and other operations only on properties owned or leased by QEP. The well site is proposed to be located in the SE ¼ NE ¼ of Section 6, T149N, R91W, 5th P.M. The existing well pad was previously analyzed in an Environmental Assessment (EA) and approved by the US Bureau of Indian Affairs (BIA) in a Finding of No Significant Impact (FONSI) dated August 16, 2011. The proposed water well and associated facilities would be located entirely within the existing well pad footprint and existing access roads would be utilized. Please refer to *Figure 1, Project Overview Map*.

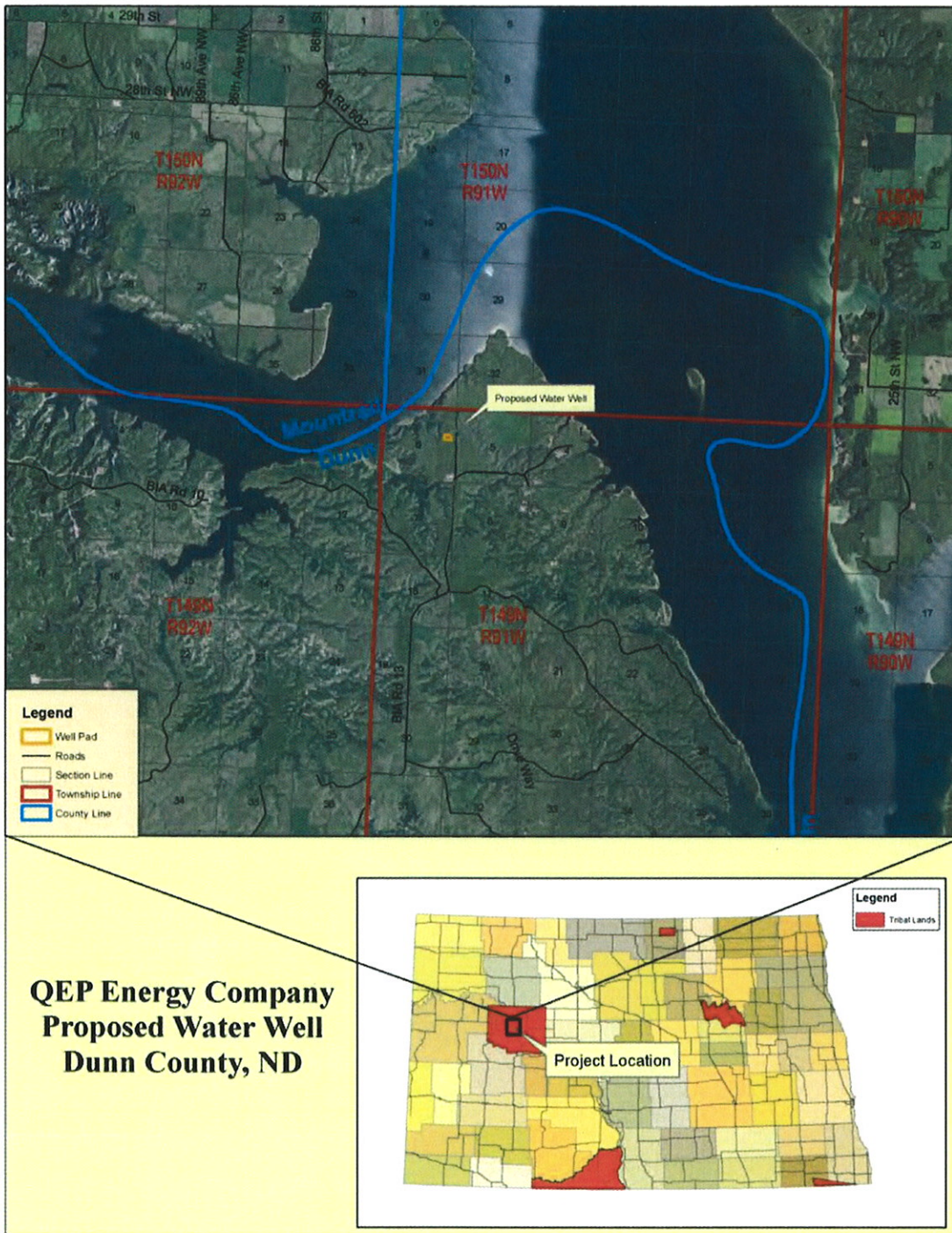


Figure 1, Project Overview Map

2 AUTHORITIES

The BIA must comply with the National Environmental Policy Act (NEPA) of 1969 before it issues a determination of effect regarding environmental resources. Therefore, an Addendum for the proposed water well to the previously approved EA is necessary to analyze the direct, indirect and cumulative impacts of the proposed project.

Developmental activities on Indian lands are subject to a variety of federal environmental regulations and policies under authority of the BIA. This inspection and enforcement authority derives from the United States trust obligations to the Tribes. These include, but are not limited to, conducting operations in a manner which ensures the proper handling, measurement, disposition and site security of leasehold production; and protecting other natural resources, environmental quality, life and property.

The Three Affiliated Tribes administers the application and issuance of water well permits on the Fort Berthold Indian Reservation. The proposed project would be constructed in compliance with Tribal regulations.

3 LEGAL LAND DESCRIPTION OF PROPOSED ACTION

The proposed water well and associated facilities would be constructed in the SE ¼ NE ¼ of Section 6, T149N, R91W, 5th P.M. No new access roads would be constructed.

4 SCOPE OF WORK FOR PROPOSED ACTION

The proposed action includes drilling of one industrial-use water well on an existing well pad along with associated infrastructure. Infrastructure may include buried electrical lines, which would be located within the existing access road rights-of-way (ROW). In addition, overland pipe will be laid within existing QEP ROW to connect the water supply to well locations.

The target of the proposed action is the Fox Hills Aquifer, a geologic formation that can be found throughout the western half of North Dakota. The United States Geological Survey estimates that there are approximately 51 million-acre-feet of fresh water located within the aquifer. Fresh water, which would be recovered by the proposed action, would be used for oil and gas exploration and development.

A drilling rig would be rigged up at the well pad. The time for drilling the well is anticipated to be approximately two to three weeks. The well would be drilled vertical to a depth of approximately 1,200 to 1,400 feet, and would be drilled in three phases: the well would initially be drilled with a four to six-inch bit, then reamed out with a 10-12-inch bit, and finally reamed out with a 16-17-inch bit. Following drilling, 10-inch casing would be inserted into the well and cementing methods would be

used to stabilize the well bore. Completion and evaluation activities include cleaning out the well bores, pressure testing the casings, and running production tubing for production.

QEP would utilize the existing cuttings pit used for drilling the oil and gas well at the site. The cuttings from the water well would be stabilized and handled in the same manner as drill cuttings from the oil/gas wells. The cuttings pit would be lined to prevent seepage and contamination of the adjacent and underlying soil. Prior to their use, the pits would be fenced on the non-working sides. The access sides would be fenced and netted immediately following drilling and completion operations in order to prevent wildlife and livestock from accessing the pit. Upon well completion, the pit would be covered with backfill and surface sloped, when practicable, to promote surface drainage away from the reclaimed area.

Supporting facilities at the well site would include six, 400 bbl storage tanks. Up to an 8-inch poly-line would be used to transport water overland to approximately 20 other QEP wells. The proposed action would be drilled during the fall or winter of 2011 or spring of 2012. Please refer to **Figure 2, Proposed Project Layout**. Items in red indicate the proposed action. Please also refer to **Figure 3, Proposed Pipeline Location**.

MHA 3-06-01H-149-92
Production Layout

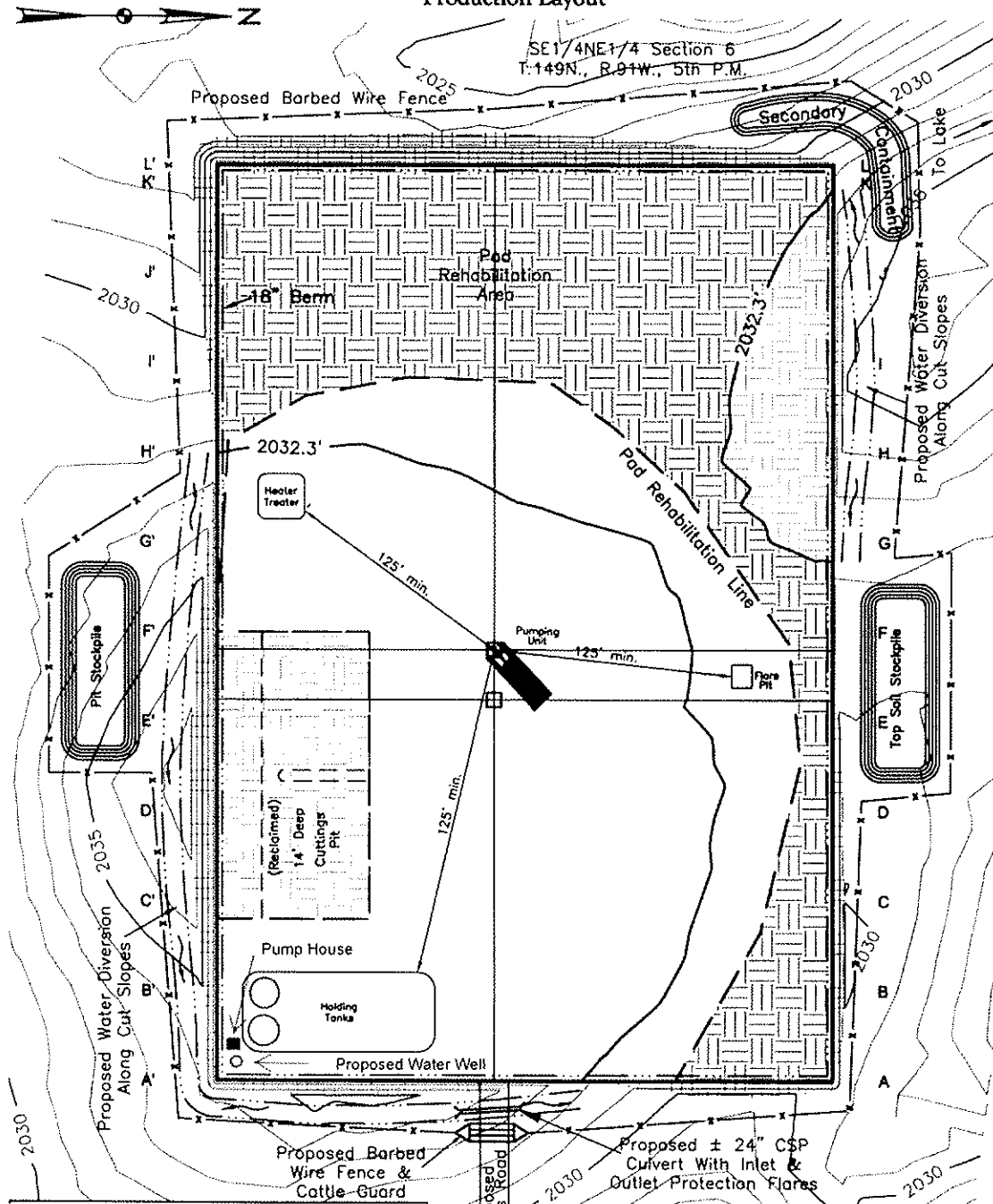


Figure 2, Proposed Project Layout

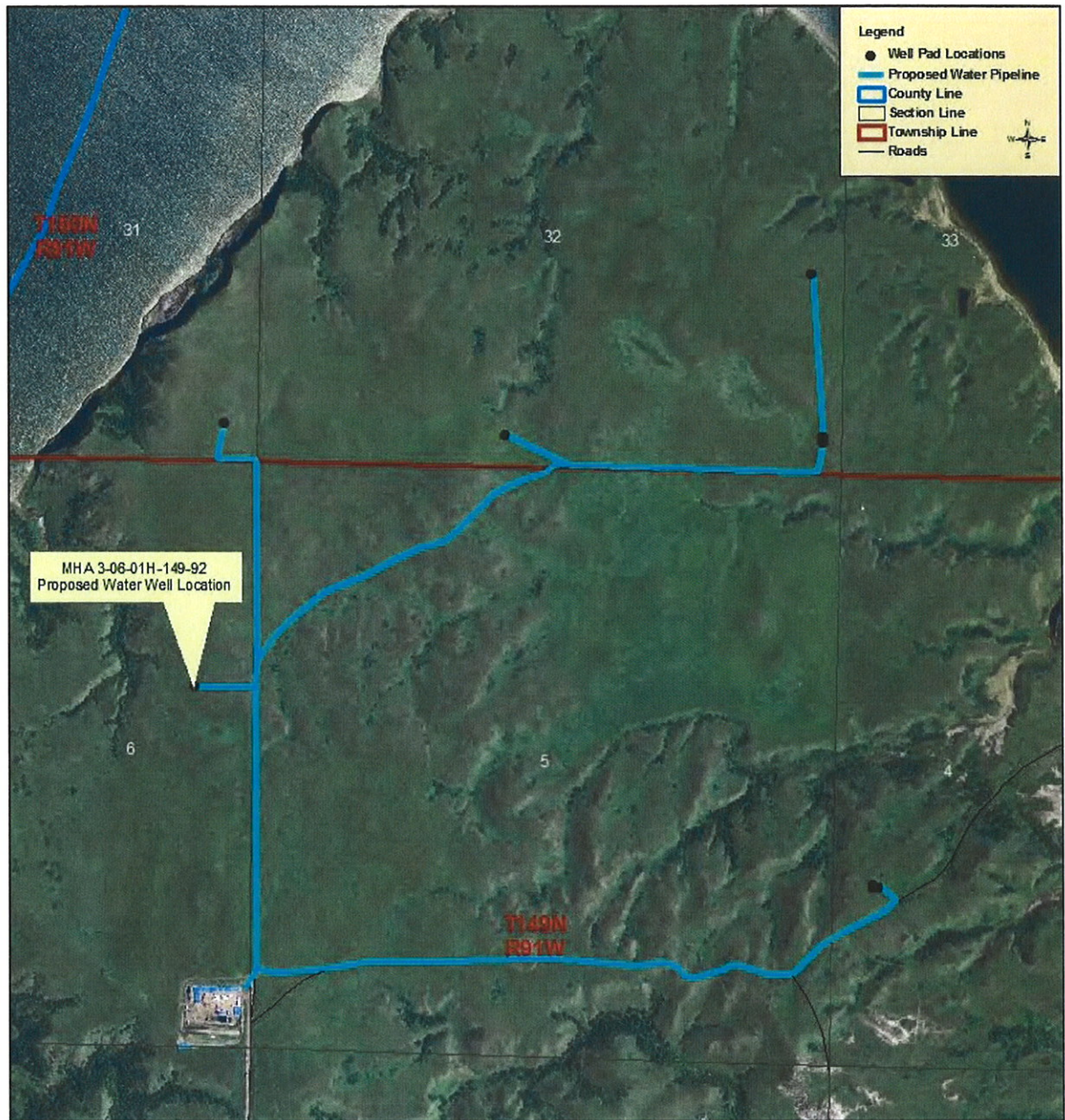


Figure 3, Proposed Pipeline Location

5 APPLICABLE NEPA DOCUMENTS

The BIA has previously approved an EA for the drilling of MHA 2-04-03H-149-91 and MHA 4-04-03H-149-91 Oil and Gas Wells on the Independence 4 Well Pad, MHA 3-06-01H-149-92 and MHA 4-06-01H-149-92 Oil and Gas Wells on the Independence 6 Well Pad, and MHA 2-32-29H-150-91 and MHA 4-32-29H-150-91 Oil and Gas Wells on the Independence 32 Well Pad. The proposed action is located on the MHA 3-06-01H-149-92 and MHA 4-06-01H-149-92 Independence 6 Well Pad.

6 ASSESSMENT OF ENVIRONMENTAL IMPACTS

The following discussion addresses environmental and social impacts as a result of the proposed industrial water well. Impacts are only discussed if the proposed project has changed the impact assessment discussed in the August 2011 EA.

A. Ground Water Impacts

The proposed project would utilize water from the Fox Hills Aquifer, which extends under the majority of western North Dakota. Up to 300 gallons per minute would be pumped from the proposed well. A 2007 study on the Fox Hills Aquifer commissioned by the North Dakota State Water Commission found that the pressure head in the wells located in the Fox Hills Aquifer had an average annual rate of decline of 0.8 feet per year through the years of 1994–2005. This rate was higher than the previous decade's average annual rate of decline of 0.6 feet per year. This decline in pressure head happens when the discharge rate from the aquifer is higher than the recharge rate. Recharge to the Fox Hills Aquifer has been documented to be very small and easily exceeded by discharge.¹ Limited scientific data is available regarding the effects of hydro-fracturing (or "fracking") on ground water.² As such, since there are no aquifers or groundwater wells within the spacing units being developed, no significant impacts to groundwater are expected to result from the proposed action.

B. Air Quality Impacts

Construction activities of the proposed industrial water well would temporarily generate minor amounts of dust and gaseous emissions of PM, SO₂, NO₂, CO and volatile organic compounds. Emissions would be limited to the immediate project areas and are not anticipated to cause or contribute to a violation of National Ambient Air Quality Standards. Installation of the proposed water well would result in the reduction of approximately 150 water tanker truck trips per well. This reduction in truck traffic would improve overall air quality emissions. No detectable or long-term adverse impacts to air quality or visibility are expected within the airsheds of the Fort Berthold Reservation, State or Theodore Roosevelt National Park. No mitigation or monitoring measures are recommended.

¹ Honeyman, R. P. (2007). Pressure Head Fluctuations of the Fox Hills-Hell Creek Aquifer. Water Resources Investigation No. 44. North Dakota State Water Commission.

² The EPA is currently scoping a study on fracking, which will address potential impacts to ground water. The study is anticipated to be completed in 2014.

C. Socioeconomic Conditions Impacts

The proposed action is not anticipated to substantially impact the socioeconomic conditions in the project areas, but it does have the potential to yield beneficial impacts on Tribal employment and income. The proposed action would aid in the development of oil and gas production which may result in indirect economic benefits to tribal business owners resulting from construction workers expending money on food, lodging, and other necessities. The water used from the well would be metered and royalties would be paid to the surface owner. The decreased traffic associated with hauling water from the facility would improve congested traffic conditions for nearby residents.

D. Infrastructure and Utilities Impacts

Vehicular traffic associated with construction of the proposed action would temporarily increase the overall traffic on the local roadway network. QEP would follow Dunn County, North Dakota Department of Transportation and BIA rules and regulations regarding oversize/overweight loads on state and county roads. All contractors are required to permit their oversize/overweight loads through these entities. All water transmission pipeline would be overland and within existing QEP ROW.

7 NEPA ADEQUACY CRITERIA

This document has identified one previously prepared and approved NEPA document: an EA for the drilling of MHA 2-04-03H-149-91 and MHA 4-04-03H-149-91 Oil and Gas Wells on the Independence 4 Well Pad, MHA 3-06-01H-149-92 and MHA 4-06-01H-149-92 Oil and Gas Wells on the Independence 6 Well Pad, and MHA 2-32-29H-150-91 and MHA 4-32-29H-150-91 Oil and Gas Wells on the Independence 32 Well Pad. The previously approved EA, along with this EA Addendum, provide adequate information to assess the proposed projects environmental impacts based on the following reasons:

- The proposed action is at the sites specifically analyzed in the existing NEPA document.
- The range of alternatives is reasonable with respect to the current proposed action in the existing NEPA documents, which appropriately considers and analyzes current environmental concerns, interests and resource values.
- The existing analysis and conclusions are adequate in the existing NEPA document. The analysis is still valid in light of new studies and/or resource assessment information.
- The methodology and analytical approach used in the existing NEPA document continues to be appropriate for the proposed action.
- The direct and indirect impacts of the proposed action are unchanged from those identified in the existing NEPA documents.
- The cumulative impacts that would result from implementation of the proposed action are unchanged from those analyzed in the existing NEPA document.
- A 30-day comment period involving public input and interagency review was used in the development of the existing NEPA document.

Notice of Availability and Appeal Rights

QEP: Industrial Water Well

The Bureau of Indian Affairs (BIA) is planning to issue administrative approvals related to an Environmental Assessment to Authorize Land Use for the an industrial water wall on the Fort Berthold Reservation as shown on the attached map. Construction by QEP Energy Company 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 5, 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

