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XTO Energy's River Bend Unit Infill Development Environmental Assessment and Biological Assessment

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Sections 2, 3, 10, 11, 14-23, T10S, R20E;
Uintah County, Utah

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1.0 INTRODUCTION

This Environmental Assessment (EA) has been prepared to analyze XTO Energy's (XTO) proposed natural gas infill development on its Federal leases located within the River Bend Unit Project Area (RBU Project Area). The EA is a site-specific analysis of potential impacts that could result with the implementation of the Proposed Action or alternatives to the Proposed Action. The EA assists the Bureau of Land Management (BLM) in project planning and ensuring compliance with the National Environmental Policy Act (NEPA), and in making a determination as to whether any "significant" impacts could result from the analyzed actions. "Significance" is defined by NEPA and is found in regulation 40 CFR (Code of Federal Register) 1508.27. An EA provides evidence for determining whether to prepare an Environmental Impact Statement (EIS) or a statement of Finding of No Significant Impact (FONSI). If the decision maker determines that this project has "significant" impacts following the analysis in the EA, then an EIS would be prepared for the project. If not, a Decision Record (DR) may be signed for the EA approving the selected alternative, whether the Proposed Action or another alternative. A DR, including a FONSI statement, documents the reasons why implementation of the selected alternative would not result in "significant" environmental impacts (effects) beyond those already addressed in the *Vernal Field Office Approved RMP and Record of Decision (ROD)* (BLM 2008b).

1.1 BACKGROUND

The RBU Project Area is located approximately 34 miles south of Vernal. The RBU Project Area consists of 16,719 acres including parts of Township 9 South, Range 19 East; Township 10 South, Range 19 East; and Township 10 South, Range 20 East; Salt Lake Meridian, Uintah County, Utah. Surface ownership in the RBU Project Area consists of BLM land administered by the Vernal Field Office (FO) (12,002 acres), Uintah and Ouray Indian Reservation land administered by the Bureau of Indian Affairs (BIA) (4,075 acres), and State land administered by the School and Institutional Trust Lands Administration (SITLA) (642 acres) (**Figure 1**).

Oil and gas development in the RBU Project Area began in the 1950's, and from 1951 to 1998 approximately 180 wells were drilled. In February 1998, a DR/FONSI for Dominion's EA No. 1997-49 was issued for additional gas development in the RBU and the West Willow Creek Unit Areas. The analysis area for EA No. 1997-49 covered approximately 21,760 acres and approved the development of an additional 301 gas wells. Approximately 15,482 acres (93%) of the proposed RBU Project Area was included in the analysis area for EA No. 1997-49. As of August 2007, 173 of the 301 wells approved under EA No. 1997-49 had been developed. A summary of the status of existing wells in the RBU Project Area can be found below in **Table 1.1** and is displayed in **Figure 1**. Surface-disturbing activities associated with previous oil and gas development in the RBU Project Area consists of the construction of 324 well pads, 108 miles of road, and 137 miles of pipeline right-of-way (ROW). These activities have disturbed approximately 1,461 acres in the RBU Project Area. **Figure 1** displays existing development (i.e., well pads, roads, pipeline, and compressors) in the RBU Project Area.

As mentioned previously, as of August 2007, only 173 of the 301 wells previously approved under the EA No. 1997-49 had been developed. As such, 128 wells previously approved under EA No. 1997-49 have not yet been drilled. As of July 31, 2007, XTO is the owner and operator of all well development projects previously possessed by Dominion in the RBU Project Area. Regardless of the decision of this EA, XTO will be able to continue development in the RBU Project Area following site-specific environmental analysis of those wells approved under EA No. 1997-49 (see **Section 2.1** – No Action Alternative).

Table 1.1. Status of Existing Well Development in the RBU Project Area

Well Status	Number of Wells Drilled Prior to EA No. 1997-49 ¹	Number of Wells Drilled Under EA No. 1997-49	Total Number of Wells
Producing	140	148	288
Plugged and Abandoned	23	5	28
Shut-In	15	6	21
Spudded, Not Yet Complete	0	14	14
Water Injection	2	0	2
Total	180	173	353

¹Numbers only reflect development in the proposed RBU Project Area. Additional wells were developed within the EA No. 1997-49 analysis area (outside of the proposed RBU Project Area) prior to 1997. As previous development of these wells has no bearing regarding future development in the RBU Project Area, they were not included in this table.

XTO's purpose for the project is to expand and fully develop natural gas resources from their leases by increasing well density in the RBU Project Area, while minimizing or mitigating to the extent possible the environmental impacts associated with such development. To meet this purpose, the Proposed Action includes utilizing directional drilling from existing and proposed well pads in the RBU Project Area to attain 20-acre well spacing. Specific requirements would include the expansion of the existing, and installation of new, infrastructure including well pads, roads, pipelines, and supporting facilities such as tanks, dehydrators, and compressors.

1.2 PURPOSE AND NEED

BLM's need for the project is to respond to the applicant's proposal. Mineral exploration and production are allowed on public lands in the RBU Project Area as long as they are in conformance with the terms and conditions of the subject lease. Development of oil and gas resources is consistent with the mission of the BLM. The Mineral Leasing Act of 1920 (MLA), as amended, provides that exploration and development of domestic oil and gas is in the best interest of the United States. The intent of the MLA and its implementing regulations are to allow, and essentially encourage, lessees or potential lessees to explore for oil and gas or other mineral reserves on Federally-administered lands. The Federal Land Policy and Management Act of 1976 (FLPMA) mandates that the BLM manage public lands on the basis of multiple use [43 U.S.C. § 1701(a)(7)]. Minerals are identified as one of the principal uses of public lands in Section 103 of FLPMA [43 U.S.C. § 1702(c)]. The BLM is responsible for administering activities consistent with rights associated with valid existing leases.

BLM's purpose is to allow XTO to develop its existing Federal leases in order to meet domestic demands for natural gas, while also preventing unnecessary degradation to public land. The proposed development would exercise existing lease rights to drill for, extract, remove, and market commercial quantities of natural gas. The MLA, and related regulations and policies by which they are implemented, recognize the right of leaseholders to develop Federal mineral resources to meet continuing needs and economic demands, so long as undue and unnecessary environmental degradation is not incurred. This includes the right to build and maintain necessary improvements, subject to lease terms and conditions. Under the MLA, the lessee shall have the right to use as much of the leased lands as is necessary to explore and develop, and dispose of the leased resource (43 CFR 3101.1-2) subject to lease terms, conditions, and stipulations. FLPMA mandates that these rights must be permitted in a manner that assures adequate protection of other resource values.

XTO's need for this project is to exercise their lease rights by drilling natural gas wells on these leases. Development of oil and gas resources is consistent with the mission of the BLM. The MLA provides that exploration and development of domestic oil and gas is in the best interest of the United States. The intent of the MLA and its implementing regulations are to allow, and essentially encourage, lessees or potential lessees to explore for oil and gas or other mineral reserves on Federally-administered lands. FLPMA mandates that the BLM manage public lands on the basis of multiple use [43 U.S.C. § 1701(a)(7)]. Minerals are identified as one of the principal uses of public lands in Section 103 of FLPMA [43 U.S.C. § 1702(c)]. The BLM is responsible for administering activities consistent with rights associated with valid existing leases. Under the MLA, the lessee shall have the right to use as much of the leased lands as is necessary to explore and develop, and dispose of the leased resource (43 CFR 3101.1-2). FLPMA mandates that these rights must be permitted in a manner that assures adequate protection of other resource values.

1.3 CONFORMANCE WITH BLM LAND USE PLANS

The management of BLM public lands and resources within the RBU Project Area is directed and guided by the *Vernal Field Office Approved RMP and Record of Decision (ROD)* (BLM 2008b). The ROD and RMP allow for processing of Applications for Permit to Drill (APDs) and ROW grant applications in support of oil and gas leasing operations with the impacts of construction and operation activities (e.g., drilling of wells, operation of compressor stations, etc.) to be analyzed on a case-by-case basis. The management objective of the RMP for energy resources is to meet local and national non-renewable and renewable energy needs, while protecting other resource values. In addition, the RMP does not affect valid existing rights, including oil and gas leases that were issued prior to completion of the existing ROD.

Implementation of the Proposed Action or Alternative C would respond to the management objective of the RMP by allowing XTO to further develop natural gas resources in the RBU Project Area, while minimizing or avoiding the potential effects of construction and operational activities on natural resources. The drilling described in the Proposed Action or Alternative C would occur on 41 mineral leases currently held by XTO (32 Federal, 6 State, and 3 Tribal). Of the Federal leases, only one was issued after FLPMA, but prior to approval of the ROD and Approved RMP (BLM 2008b). As the RMP recognizes valid existing rights of previously existing oil and gas leases, and as development of lease U-76500 would meet the management objective of the RMP, the Proposed Action would be in conformance with the ROD and Approved RMP. Implementation of Alternative B would also be in conformance with the ROD and Approved RMP, as gas development could be permitted on a case-by-case basis.

1.4 RELATION TO STATUTES, REGULATIONS, AND OTHER PLANS

This EA was prepared by the BLM in accordance with NEPA and in compliance with all applicable regulations and laws passed subsequently, including the President's Council on Environmental Quality (CEQ) regulations and U.S. Department of the Interior requirements.

The Proposed Action and the No Action Alternative are consistent with the *Uintah County General Plan* adopted October 31, 2005 (County Plan), which encompasses the RBU Project Area. The County Plan contains specific policy statements addressing public lands; i.e. multiple-use, resource use and development, access, and wildlife management. In general, the County Plan indicates support for development proposals, such as the Proposed Action, through its

emphasis of multiple-use of public land management practices, responsible use, and optimum utilization of public land resources. The County, through its Plan, supports the development of natural resources as they become available or as new technology allows.

There are no comprehensive State of Utah plans for the RBU Project Area. SITLA has leased all of the State lands within the RBU Project Area for oil and gas production. Because the objectives of SITLA are to produce funding for the State school system, and because production on Federal leases could lead to further interest in drilling State leases in the area, it is assumed that the alternatives analyzed, with the exception of the No Action Alternative, are consistent with the objectives of the State.

Portions of the RBU Project Area fall within the boundary of the Uintah and Ouray Indian Reservation. The BIA in Fort Duchesne, Utah, guides the management of Tribal lands and resources within the RBU Project Area. No formal management plan exists for Tribal lands under the jurisdiction of the BIA. Instead, the elected Ute Tribe Business Committee and the BIA determine approval of land use activities on Tribal lands. One of the BIA's objectives is to produce funding for the Ute Indian Tribe (Tribe). Production on Tribal leases provides royalties and damage fees to the Tribe; therefore, the Proposed Action is assumed to be consistent with the objectives of the BIA and Tribe.

In May 1997 the Utah BLM published *Standards for Rangeland Health and Guidelines for Grazing Management for BLM Lands in Utah*. These standards for rangeland health were developed to ensure that various services, activities, and all renewable resources of the land are environmentally sustainable, and that non-renewable resources are recovered in ways that ensure the long-term health of the land managed by the BLM. The Proposed Action and alternatives carried through in this assessment is consistent with these standards. These standards cover upland soils, riparian systems, natural ecosystems, and water quality.

1.5 IDENTIFICATION OF ISSUES

Announcement of the Proposed Action was posted on the Environmental Notification Bulletin Board (ENBB) on July 17, 2007, which provides notice of all BLM actions subject to NEPA occurring in each of the Utah field offices. BLM resource specialists in the BLM (Vernal FO) reviewed XTO's plan of development and conferred with other agencies and the public to assess the type and magnitude of potential impacts to the elements of the human environment and other resources. The potential issues listed below are consistent with relevant concerns and potential issues presented in **Appendix B** (Interdisciplinary Team Analysis Record Checklist). These potential issues are carried forward for analysis in the Environmental Consequences section (**Chapter 4**) of this EA. Those elements which were identified in the checklist as "Not Impacted" (NI) by the Proposed Action or "Not Present" (NP) in the Project Area are not discussed in the text of this EA.

1.5.1 AIR QUALITY

Issue 1: Potential effects from fugitive dust emissions.

Issue 2: Potential effects from emissions of criteria and hazardous air pollutants (HAPs).

1.5.2 CULTURAL RESOURCES

Issue 1: Surface-disturbing activities could result in damage to, or destruction of, cultural resources.

1.5.3 FISH AND WILDLIFE INCLUDING SPECIAL STATUS SPECIES

Issue 1: Potential effects from removal or disturbance to certain wildlife habitats.

Issue 2: Potential effects from displacement of some wildlife species.

1.5.4 LIVESTOCK GRAZING

Issue 1: Potential effects from decrease in vegetative productivity and available forage for livestock and wildlife.

Issue 2: Potential effects from displacement of livestock.

1.5.5 PALEONTOLOGICAL RESOURCES

Issue 1: Surface-disturbing activities could result in damage to, or destruction of, paleontological resources.

1.5.6 SOIL RESOURCES

Issue 1: Potential effects from removal of vegetation and disturbance to underlying soils.

Issue 2: Potential effects from mixing of soil horizons, soil compaction, and increased susceptibility of the soils to wind and water erosion.

1.5.7 VEGETATION INCLUDING SPECIAL STATUS PLANT SPECIES AND INVASIVE OR NOXIOUS WEEDS

Issue 1: Potential effects from removal of vegetation and disturbance to underlying soils.

Issue 2: Potential effects from weed invasion and establishment.

Issue 3: Potential impacts to populations and habitat of special status plant species

1.5.8 WATER RESOURCES

Issue 1: Potential effects from surface water run-off, soil erosion, and sediment yield.

Issue 2: Potential effects from chemical spills that could be yielded to RBU Project Area drainages.

Issue 3: Potential effects from water depletions.