

CHAPTER 1. INTRODUCTION AND BACKGROUND

1.0 INTRODUCTION AND BACKGROUND

1.1 PROJECT OVERVIEW

Gasco Energy Inc. (Gasco) has proposed to the United States Department of the Interior (USDOI) Bureau of Land Management (BLM) Vernal Field Office (VFO) to develop oil and natural gas resources within the Monument Butte–Red Wash and West Tavaputs Exploration and Development Areas. The project area is located within Uintah and Duchesne Counties, Utah, and consists of approximately 187 sections located in Township 9 South, Ranges 18 and 19 East; Township 10 South, Ranges 14, 15, 16, 17, and 18 East; and Township 11 South, Ranges 14, 15, 16, 17, 18, and 19 East (see Map 1).

Gasco operates the majority of the mineral lease rights underlying both the public and private lands in the project area. The project area encompasses approximately 206,826 acres, predominantly in the West Tavaputs Exploration and Development Area with some overlap into the Monument Butte–Red Wash Exploration and Development Area of the Diamond Mountain Planning Area of the VFO. It is located primarily on BLM-administered lands (177,644 acres), but also includes lands administered by the State of Utah (25,451 acres) and privately owned lands (3,731 acres). The project area includes lands within the restored boundary of the Ute Indian Reservation, but no lands administered by the tribe or by the Bureau of Indian Affairs (BIA). Targeted geologic strata lie in the Wasatch, Mesaverde, Blackhawk, Mancos, Dakota, and Green River Formations, approximately 5,000–20,000 feet below the earth's surface. It is Gasco's intent to further explore and develop all these potentially productive subsurface formations.

This project is preceded by three natural gas exploration actions in the project area: the Riverbend Natural Gas Drilling Project, analyzed in Environmental Assessment (EA) UT-080-2005-322 and approved by the BLM on December 19, 2006; Riverbend 2-D Seismic Survey, analyzed in EA UT-080-2006-478 and approved by the BLM on January 12, 2007; and the Wilkin Ridge Drilling Project, analyzed in EA UT-080-2006-329. These EAs evaluated impacts from seismic exploration and exploratory drilling projects designed to identify oil and gas resources within the project area. The BLM also authorized a pipeline traversing from Wilkin Ridge to Willow Creek, analyzed in EA UT-080-2006-064 and approved by the BLM on February 27, 2007. Currently, Gasco operates approximately 80 wells in the project area.

1.2 BACKGROUND

Minerals underlying the project area have been leased for oil and gas development by the U.S. government, the State of Utah, and private parties to Gasco and various other lessees. The leases grant certain rights and obligations to the lessee to explore, develop, and produce oil and gas resources underlying the leases, allow ingress and egress, and identify a royalty interest to be paid to the federal and state governments on any production obtained.

1.2.1 THE ENVIRONMENTAL IMPACT STATEMENT DECISION FRAMEWORK

This Environmental Impact Statement (EIS) assesses the environmental impacts of the Proposed Action, No Action, and three other alternatives and is intended to encourage public participation in the BLM's decision-making process. It provides a programmatic analysis of impacts that could result from the implementation of the Proposed Action and alternatives; and it identifies

mitigation measures to address environmental consequences. The EIS does not contain final decisions regarding the Proposed Action or alternatives.

Under the Mineral Leasing Act of 1920 (MLA), the BLM is the agency authorized to manage federal mineral interests underlying federal or split estate lands. Approximately 86% of the surface of the project area and 86% of the mineral interests underlying the project area are owned by the United States and administered by the BLM. Therefore, the BLM is the lead agency for this EIS and will issue a Record of Decision (ROD) that will apply to federal lands and federal minerals only.

1.2.2 DECISIONS TO BE MADE AFTER THE EIS

The decisions made regarding the Proposed Action and alternatives will be documented in a ROD signed by the Authorized Officer (AO). The BLM decision will only apply to public lands and leases.

Within the ROD, the BLM decision-maker (i.e., the BLM AO) will determine

- whether the analysis contained within the EIS is adequate for the purposes of reaching informed decisions regarding the Proposed Action and alternatives;
- whether to approve the Proposed Action, select a different alternative, or select a combination of alternatives;
- whether the Proposed Action and alternatives are in conformance with applicable land and resource management plans; and
- the Conditions of Approval (COA) that may be attached to the ROD.

In the event the BLM decides in the ROD to authorize the project, then it will be required, as part of its management responsibilities under the MLA and the Federal Land Policy and Management Act (FLPMA), to review and act on Applications for Permits to Drill (APDs) and right-of-way (ROW) applications. These applications would seek approval to construct wells, pipelines, flowlines, roads, or other ancillary facilities associated with project development. Submission and approval of such applications are required prior to surface disturbance. Consequently, the ROD to be issued following this EIS will not authorize any surface disturbance or entitle the project proponent to take any action that may result in surface disturbance.

Prior to approving an APD or ROW, the BLM will conduct an on-site inspection of the proposed well pad, access road, and/or other areas of proposed surface use. During the site-specific review, the need for specific mitigation measures would be identified.

1.3 PURPOSE AND NEED

1.3.1 PURPOSE

The purpose of BLM's action is to respond to Gasco's proposal and to facilitate action on future plans and applications related to this proposal. The BLM developed this EIS to provide information to allow the VFO to render an informed decision whether to approve the Proposed Action or another alternative. A decision to approve the Proposed Action or another alternative would authorize Gasco to exercise its lease rights as described in the selected alternative, subject to COAs and additional site-specific review and approval as required.

Gasco holds federal, state, and private oil leases within the 206,826-acre project area. The leases have created contractual rights and obligations between Gasco and the United States, the State of Utah, or private mineral owners. Gasco's purpose for the Proposed Action is to develop these leases and efficiently produce commercial and economic quantities of oil and gas by expanding the Monument Butte–Red Wash and West Tavaputs Oil and Gas Field infrastructure. Gasco estimates that the Proposed Action could yield nearly three trillion cubic feet (Tcf) of natural gas through the year 2053.

1.3.2 NEED

The BLM's need for the project is to fulfill its responsibilities under federal laws and federal oil and gas leases to allow leaseholders to develop mineral resources to meet continuing national energy needs and economic demands. The nation's demand for natural gas is projected to increase at an average 0.7% per year from 22.6 Tcf in 2004 to 27.1 Tcf in 2030 (DOE 2006). The BLM oil and gas leasing program encourages development of domestic oil and gas reserves and the reduction of the United States' dependence on foreign energy sources. Increased development of gas resources on public lands in an environmentally responsible manner is consistent with the Comprehensive National Energy Strategy announced by the U.S. Department of Energy (DOE 1998) in April 1998, the Energy Policy and Conservation Act (42 United States Code [USC] 6201), and the Energy Policy Act of 2005 (Public Law 109-58). Private production from federal oil and gas leases is an integral part of the BLM's oil and gas program under the authority of the Mineral Leasing Act (MLA), as amended by the Federal Land Policy and Management Act (FLPMA), and the Federal Onshore Oil and Gas Leasing Reform Act of 1987. In addition, the current Vernal RMP (BLM 2008c) provides for oil and gas exploration and development.

Gasco's need for the project is to fulfill its obligations and responsibilities under federal leases to explore, develop, and produce commercial quantities of natural gas.

Implementation of the Proposed Action would, among other things,

- generate federal and state taxes and/or royalty revenues,
- support local economies by providing and maintaining employment opportunities and expanding the tax base, and
- allow Gasco to develop natural gas pursuant to their rights under valid existing federal oil and gas leases, subject to additional site-specific review as necessary.

1.4 CONFORMANCE WITH BLM LAND USE PLANS AND OTHER LAWS AND POLICY CONSIDERATIONS

The preparation of this EIS is in accordance with NEPA and in compliance with the Council of Environmental Quality (CEQ) regulations (40 CFR Parts 1500–1508), U.S. Department of the Interior requirements (Department Manual 516), and guidelines listed in the BLM NEPA Handbook, H-1790-1 and in the BLM Utah NEPA Guidebook (BLM 2006i).

The Proposed Action would be consistent with various federal, state, county, and local laws and regulations. In addition, applicable permits will be acquired as necessary. The proposed wells would be developed in accordance with the MLA and 43 C.F.R. Part 3100. The MLA (30 USC § 181 et seq.) requires that all public lands not specifically closed to leasing be open to lease for the exploration and development of mineral resources. The intent of the MLA and its

implementing regulations is to allow, and encourage, lessees or potential lessees to explore for oil and gas underlying public lands. FLPMA mandates that the BLM manage public lands on the basis of multiple use (43 USC 1701[a][7]). Minerals are identified as one of the principal uses of public lands under Section 103 of FLPMA (43 USC 1702[c]).

The Proposed Action will take place within the VFO, which is managed under the VFO Record of Decision and Approved Resource Management Plan (hereafter referred to as the Vernal RMP or "the RMP") (BLM 2008c). The RMP allows for the exploration and development of oil and gas resources (including tight gas reservoirs) while protecting or mitigating other resource values. The majority of the proposed project lies within an area that was previously partially developed for oil and gas production and is designated as Category 2 for oil and gas leasing by the BLM. Category 2 areas are open to oil and gas leasing with stipulations to protect sensitive surface resources. The Proposed Action and alternatives presented in this EIS are consistent with the management decisions of the Vernal RMP (BLM 2008c), which covers all of the BLM lands in Uintah, Duchesne, and Daggett counties (and small areas of Grand County).

1.4.1 CONSISTENCY WITH LOCAL PLANS

The Proposed Action is consistent with the Uintah County General Plan (Uintah County 2005). The plan generally indicates support for development proposals in its emphasis on multiple-use public land management practices and its emphasis on responsible use and optimum utilization of public land resources. Therefore, as stated in the plan, the county supports the development of natural resources as they become available or as new technology allows.

The Duchesne County General Plan (2005a) supports "responsible natural resources use and development" and emphasizes the need to keep public lands open for oil and gas exploration and development under multiple-use and sustainable yields management prescriptions. The Proposed Action is consistent with the Duchesne County General Plan.

The State of Utah does not have planning documents for the vicinity of the Proposed Action. Utah's School and Institutional Trust Lands Administration (SITLA) has leased all of the state lands within the project area for oil and gas production. Because the objectives of SITLA are to produce funding for the state school system, and because production of federal leases could lead to further interest in drilling state leases in the area, it is assumed that the Proposed Action is consistent with the objectives of the State of Utah.

1.4.2 OTHER REGULATIONS

The following applicable BLM regulations, orders, and guidelines constitute the range of standard procedures that are applied to operators under 43 C.F.R. § 3160 governing onshore oil and gas operations.

Onshore Oil and Gas Orders:

- Onshore Order No. 1—Approval of Operations
- Onshore Order No. 2—Drilling Operations
- Onshore Order No. 3—Site Security
- Onshore Order No. 4—Measurement of Oil
- Onshore Order No. 5—Measurement of Gas

- Onshore Order No. 6—Hydrogen Sulfide Operations
- Onshore Order No. 7—of Produced Water

Other BLM Guidelines:

- The Gold Book: Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development (USDI and USDA 2007)

1.5 PUBLIC INVOLVEMENT AND SCOPING OF ISSUES

The BLM has conducted public and internal scoping to solicit input and identify the environmental concerns and issues associated with the proposed project. A Notice of Intent (NOI) was published in the Federal Register on February 10, 2006. The BLM then prepared a scoping information packet and provided copies of it to federal, state, and local agencies, the Northern Ute Tribe, and members of the general public. Announcements of scoping opportunities were made in various local news media. The BLM conducted open houses for public scoping and information on February 27, 2006, in Vernal, Utah; on February 28, 2006, in Duchesne, Utah; and on March 2, 2006, in Price, Utah.

The issues identified during the scoping process are summarized below.

ISSUE 1: ALTERNATIVES

What is the viability of a reduced number of wells? How will impacts to other operators and leases in the Uinta Basin be addressed? What Best Management Practices (BMPs) are technically and/or economically feasible? How will access routes be varied to protect resources? How will the Green River, Nine Mile Canyon, and special designation areas be protected?

ISSUE 2: AIR QUALITY

How will the impacts of increased airborne dust, industrial particulates, magnesium chloride, and other dust-abating chemicals be mitigated?

ISSUE 3: CULTURAL RESOURCES

How will prehistoric and historic cultural resources, especially those located in and around Nine Mile Canyon, be protected? How will consultation with cultural preservation groups be incorporated?

ISSUE 4: MITIGATION

What BMPs will be included in the Proposed Action and all alternatives? What will be done to maximize restoration and remediation following surface disturbance?

ISSUE 5: NATIVE AMERICAN CONSULTATION

What cultural importance do local tribes place on the project area?

ISSUE 6: NOISE

How will noise from construction and operation be minimized?

ISSUE 7: PROCESS

How will the EIS best convey project information, especially information that is conceptual? What reasonable foreseeable actions should be examined in the EIS?

ISSUE 8: PUBLIC HEALTH AND SAFETY

How will public health and safety issues resulting from increased travel, potential chemical spills or fires, and increased access in the project area be minimized?

ISSUE 9: PURPOSE AND NEED

Are the stated purpose and need of the project valid?

ISSUE 10: RECREATION AND VISUAL

How will the effects of the extraction industry on recreational resources and opportunities (as well as the recreation industry) be mitigated? How will visual impacts in the project area be reduced?

ISSUE 11: SOCIOECONOMICS

How will the direct and indirect impacts to recreation and the recreation industry be balanced with the positive impacts brought by the extraction industry?

ISSUE 12: SOILS

How will long-term impacts to biological soil crusts and other soil types, including runoff and erosion, be mitigated?

ISSUE 13: SPECIAL DESIGNATIONS

How will Areas of Critical Environmental Concern (ACECs) and Wild and Scenic Rivers (WSRs) be protected?

ISSUE 14: TRANSPORTATION

How will direct and indirect impacts from traffic be minimized?

ISSUE 15: WILDLIFE/THREATENED AND ENDANGERED SPECIES

How will wildlife resources, threatened and endangered species, and habitat be protected?

ISSUE 16: VEGETATION

How will vegetation resources be protected, maintained, or restored? How will the spread of noxious weeds be mitigated?

ISSUE 17: WATER QUALITY

How will water resources be managed to protect and maintain water quality?

ISSUE 18: WILDERNESS CHARACTERISTICS

How will wilderness resources and attributes be protected?

Each of the issues listed above was considered in the formulation of alternatives and is addressed in Chapter 3 Affected Environment and in Chapter 4 Impacts Analysis. Table 1-1 (below) shows where each issue is addressed in this EIS.

Table 1-1. Issues Addressed in EIS

Issue	How/Where Issue is Addressed	Section(s)
Alternatives	Incorporated into the range of alternatives in Chapter 2	2.2–2.8
Air Quality*	Analyzed in Air Quality sections	3.2; 4.2
Cultural Resources*	Analyzed in Cultural Resources sections	3.3; 4.3
Mitigation*	Included as Applicant Committed Measures, Actions Common to All, and proposed and analyzed for all resource sections	2.1; 2.2.9; 2.3.9; 2.4.9; 2.5.9; 2.6.9; Chapter 4 (Mitigation and Unavoidable Adverse Impacts sections)
Native American Consultation*	Described in Chapter 5	5.2.2
Noise*	Analyzed in Cultural Resource, Land Use, Recreation, Special Designations, Special Status Species, and Wildlife sections	
Process	Addressed throughout document, and in analysis of cumulative impacts	Entire document; 4.17
Public Health and Safety*	Analyzed in Air Quality, Land Use and Transportation, and Recreation sections	4.2; 4.5; 4.8
Purpose and Need	Addressed in the Purpose and Need section	1.3
Recreation and Visual*	Analyzed in Visual Resource and Recreation sections	3.8; 3.14; 4.8; 4.14
Socioeconomics*	Analyzed in Socioeconomics section	3.9; 4.9
Soils*	Analyzed in Soils section	3.10; 4.10
Special Designations*	Analyzed in Special Designations section	3.11; 4.11
Transportation*	Analyzed in Land Use and Transportation section	3.5; 4.5
Wildlife/TES*	Analyzed in Wildlife and Special Status Species sections	3.16; 3.12; 4.16; 4.12

Table 1-1. Issues Addressed in EIS

Issue	How/Where Issue is Addressed	Section(s)
Vegetation*	Analyzed in Vegetation section	3.13; 4.13
Water Quality*	Analyzed in Water Resources section	3.15; 4.15
Wilderness Characteristics* [†]	Analyzed in the Wilderness Characteristics section	3.17, 4.17

*These issues were also considered in the development of a reasonable range of alternatives.

[†] Lands managed as wilderness or for wilderness characteristics are not present in the project area.

1.6 AUTHORIZING ACTIONS

Gasco must obtain federal, state, and local permits and ROW grants, licenses, easement agreements, and other authorizing actions to proceed with all project-related development. Federal, state, county, and local regulatory and permitting actions required to implement any of the alternatives would generally be the same for any alternative selected. These permit requirements, which are listed in Tables 1-2 and 1-3, represent most of the regulatory and permitting actions required for the Gasco project, but the list is not necessarily comprehensive. Also note, many of the permits listed below address site-specific actions, therefore the need for those permits will not be fully known until the site specific proposal (APD, Sundry Notice, or ROW) is received.

Table 1-2. Regulatory Compliance and Mandates for Gasco Uinta Basin Natural Gas Development Project Components

Agency/Regulatory Authority	Nature of Regulatory Action	Applicable Project Component
USDI–Bureau of Land Management		
National Noxious Weed Act Compliance	Control of noxious weeds	Any occurrence of noxious weeds on and near project facilities
Material Sales	Sales of sand, gravel, and riprap	Construction activities
USDI–U.S. Fish and Wildlife Service		
Endangered Species Act Compliance (Section 7)	Protection of threatened and endangered species	Any activity potentially affecting listed or proposed threatened or endangered species
Migratory Bird Treaty Act	Protection of migratory birds	All ground-disturbing activities
Bald Eagle Protection Act	Protection of bald and golden eagles	All ground-disturbing activities

Table 1-2. Regulatory Compliance and Mandates for Gasco Uinta Basin Natural Gas Development Project Components

Agency/Regulatory Authority	Nature of Regulatory Action	Applicable Project Component
Advisory Council on Historic Preservation		
Cultural Resource Compliance (Section 106)	Protection of cultural and historic resources; coordinated with the Utah State Historic Preservation Officer	All ground-disturbing activities
Utah Department of Environmental Quality		
Fugitive Dust Control	Control of fugitive dust emissions	Construction of facilities and vehicle traffic
State of Utah School and Institutional Trust Lands Administration)		
Compliance with Rules	Compliance with applicable general and program rules	Construction of facilities on SITLA lands
Utah Division of State History, Preservation Section		
Section 106 Cultural Resources Consultation	Determining significance of cultural resources potentially affected by surface-disturbing activities	All surface-disturbing activities
Utah Division of Oil, Gas, and Mining		
Safety Regulations for Oil and Gas Activities	Regulation of oil and gas activities to protect public safety	All Proposed Action and alternative components
Uintah and Duchesne Counties		
Solid Waste Ordinance	Regulation of disposal of wastes in the county	Construction and operational waste
Noxious Weed Act Compliance	Control of listed noxious weeds	Any occurrence of noxious weeds on and near project facilities

Table 1-3. Major Permits, Approvals, and Authorizing Actions Required for the Proposed Gasco Uinta Basin Natural Gas Development Project

Permit Approval Name/Issuing Agency	Nature of Permit Action	Applicable Project Component
USDI–Bureau of Land Management		
Permit to Drill, Deepen, or Plug Back (APD) and Sundry Notice; Plugging and Abandonment; Venting; or Flaring	Control of drilling and production for oil and gas on federal onshore leases	Wells and production facilities
ROW Grant and Temporary Use Permit	ROW grant on BLM-managed lands	Oil and gas pipelines, roads, facilities, etc., on BLM-managed lands

Table 1-3. Major Permits, Approvals, and Authorizing Actions Required for the Proposed Gasco Uinta Basin Natural Gas Development Project

Permit Approval Name/Issuing Agency	Nature of Permit Action	Applicable Project Component
Cultural Resource Use Permit	Archaeological surveys and limited testing on public lands; archaeological data recovery (excavation) of sites on public lands	All surface-disturbing activities
Paleontological Resource Use Permit	Survey and limited surface collection during site fieldwork on public lands	Surface-disturbing activities
Pesticide Use Permit	Control of pests	Wells, roads, and ancillary facilities
National Noxious Weed Act Compliance	Control of noxious weeds	Any occurrence of noxious weeds on or near project facilities
U.S. Environmental Protection Agency		
Title V, Part 71 Operating Air Quality Permit	Ensure that source operators, regulators, and the public know which air pollution control requirements apply to each facility; Part 71 permits are issued after a source has been constructed and has begun operating	Post-construction facilities
Class II Underground Injection Control Permit	Under the Safe Drinking Water Act, regulation of the injection of "fluid" into the subsurface	Disposal of deep wastewater produced in conjunction with gas production
U.S. Army Corps of Engineers		
Permit to Discharge Dredged or Fill Material (Section 404 Permit)	Authorization of placement of fill or dredged material in waters of the U.S. or adjacent wetlands	All surface-disturbing activities affecting waters of the U.S. or wetlands, such as roads and pipeline crossings (waters of the U.S. include streams, lakes, playas, wetlands, and other identified aquatic resources)
Utah Department of Transportation		
Transport Permit	Authorization of oversize, overlength, and overweight loads	Transportation of equipment and materials on state highways

Table 1-3. Major Permits, Approvals, and Authorizing Actions Required for the Proposed Gasco Uinta Basin Natural Gas Development Project

Permit Approval Name/Issuing Agency	Nature of Permit Action	Applicable Project Component
Utah Department of Environmental Quality		
Utah Pollutant Discharge Elimination System (UPDES) Permit	Authorization of discharge of pollutants to surface waters of the state	Any point-source surface discharge
UPDES General Permit for Stormwater Discharges	Control of discharge of stormwater pollutants associated with industrial and construction activities	Construction activities disturbing more than five acres of land; gas production facilities that have had a discharge of a reportable quantity
Utah Division of Water Rights		
Change in Nature of Use Application	Authorization of change of use on water rights	Non-consumptive and consumptive water uses
Stream Alteration Permit	Approval of construction plans	Perennial stream crossings
Utah Division of State History, Antiquities Section		
Antiquities Annual Permit: Blanket Permit to Conduct Archaeological Investigations	Regulation of all archaeological investigations on state and private lands	All surface-disturbing activities on state and private lands
Antiquities Projects Permit (Excavation)	Regulation of all archaeological excavations on state and private lands	All surface-disturbing activities on state and private lands
Utah Division of Oil, Gas, and Mining		
Permit to Drill, Deepen, or Re-enter and Operate an Oil and Gas or Disposal Well	Approval of drilling on all lands within the state	Wells (production and disposal)
Underground Injection Control Permit	Regulation of underground disposal wells	Underground disposal wells
Disposal Facility Permit	Disposal of waste	Waste and disposal facilities
Permit to Flare Gas	Regulation of flaring up to 30 days of testing or 50 MMcf, whichever is less	Flaring of gas wells
Uintah and Duchesne Counties		
Conditional Use Permit	Authorization of extraction and processing on private lands	Any project activities in residential or critical environment zones
Road Use Permit	Authorization of oversize, overweight, or overlength loads on county roads	Transportation of equipment and materials on county roads

Table 1-3. Major Permits, Approvals, and Authorizing Actions Required for the Proposed Gasco Uinta Basin Natural Gas Development Project

Permit Approval Name/Issuing Agency	Nature of Permit Action	Applicable Project Component
Road Opening Permit	Authorization of pipeline crossings, routing of pipelines parallel to county roads, and tying a project access road into a county road	Pipelines or project roads that cross or intersect with a county road
Road ROW Encroachment Permit	Authorization of construction, maintenance, repair, operation, or use of any pole line, surface, or subsurface line in the ROW on affected county roads	Construction or other activities that may tie into county roads
Building Permit	Control of construction of all structures in the county	Construction of all buildings