

CHAPTER 1

PURPOSE AND NEED

1.1 PROJECT OVERVIEW

Three companies have proposed to develop natural gas in Carbon and Emery Counties in central Utah. Anadarko Petroleum Corporation (Anadarko); Chandler and Associates, LLC. (Chandler); and Texaco Exploration and Production, Inc. (Texaco) have proposed to develop two separate areas northeast and southwest of Price, Utah totaling about 111,520 acres. These two areas, called the North Area and the South Area, are adjacent to the area where River Gas Corporation (River Gas) is implementing the Price Coalbed Methane Project, which was approved by the Bureau of Land Management (BLM) in 1997. Also, Questar Pipeline Company (Questar) has proposed to develop a new pipeline as part of the Proposed Action. The corridor for this pipeline encompasses about 261 acres, which brings the total area encompassed by the Proposed Action to 111,781 acres. For purposes of this environmental analysis, the proposals of these four companies have been combined into the Ferron Natural Gas Development Plan. **Figure 1–1** shows the location of the proposed Ferron Natural Gas Project. **Chapter 2** of this Environmental Impact Statement (EIS) provides a detailed description of the proposed project.

The proposed project would involve private lands, state lands, National Forest System lands, and public lands administered by the BLM. The BLM, as lead federal agency, has determined that the proposed project constitutes a major federal action requiring the development of an EIS.

1.2 PURPOSE AND NEED

The Companies hold valid federal, state, and private oil and gas leases in the Project Area. The leases have created contractual and property rights for the Companies from the United States, the State of Utah, and private mineral landowners to develop natural gas resources. The purpose of the Companies' proposal is to extract and transport natural gas at a profit from the portions of the Project Area leased by them.

Private exploration and development of federal oil and gas reserves are integral parts of the BLM's oil and gas leasing programs under the authority of the Mineral Leasing Act of 1920, as amended by the Federal Land Policy and Management Act (FLPMA) of 1976 and the Federal Onshore Oil and Gas Leasing Reform Act of 1987. The BLM's oil and gas leasing program encourages development of domestic oil and gas reserves and the reduction of U.S. dependence on foreign energy sources. Natural gas is considered essential to supplying the Nation's future energy needs. Domestic demand is increasing and expected to reach 24.8 trillion cubic feet (tcf) per year in 2010 (Gas Research Institute 1993). Increased development of natural gas in an environmentally-responsible manner is necessary to satisfy federal energy policy (U.S. Department of Energy 1998). The project also would provide a source of clean-burning energy.

This EIS addresses the effects of implementing a level of natural gas development within the Project Area that is conceptual in nature. The wells, roads, pipelines, and ancillary facilities depicted in this EIS represent a proposed level of development and tentative locations for these facilities. The final location for each component of this proposed project would be determined through future site-specific analyses that would be required for each facility. These analyses would occur when applications, such as an Application for

Permit to Drill (APD), a Forest Service Special Use Permit (SUP), or a BLM Right-of-Way Grant, are filed by the Companies for each project component.

Therefore, this EIS serves two purposes. It provides the basis to analyze and disclose the impacts of the level of development proposed within the Project Area. It also identifies mitigation measures to address issues and approval conditions for the subsequent site-specific applications for individual locations.

1.3 ENVIRONMENTAL ANALYSIS PROCESS

The BLM and Forest Service are required by the National Environmental Policy Act (NEPA) and Council on Environmental Quality (CEQ) directives to analyze proposed actions involving federal lands and leases in terms of their potential effects on the human environment (40 Code of Federal Regulations (CFR) Parts 1500–1508). The BLM and Forest Service are further required, by the regulations implementing the Mineral Leasing Act of 1920, to review and act on APDs and attached Surface Use Plans of Operations (SUPO) and to decide on the requirements for surface occupancy provided by the SUPO. The BLM also issues right-of-way (ROW) grants to construct and operate linear transportation facilities, such as roads and pipelines, across federal lands under Title V of FLPMA and the Mineral Leasing Act.

The analysis of impacts to the human environment discloses the potential environmental consequences of the Proposed Action and alternative actions. Another responsibility of the BLM and Forest Service is establishing provisions for ensuring the reclamation of facilities and disturbed lands if an oil and gas operator would fail to complete adequate reclamation efforts. Bonds are required for oil and gas operations on federal leases to indemnify the government for safe rehabilitation, royalty payments, and civil penalties. Bonds are also required for ROWs on federal lands.

The BLM, Price Field Office in Price, Utah is the responsible federal agency for preparing this EIS. The USDA Forest Service, Manti-La Sal National Forest, is a cooperating agency and is responsible for protecting non-mineral resources on National Forest System lands. The development of the Proposed Action and the alternatives was conducted through a cooperative effort among the Companies, the BLM, the Forest Service, and the project interdisciplinary team. Interdisciplinary participation included specialists provided by a third-party contractor, a private consulting firm working under the direction of, and in cooperation with, the BLM. In addition, the Utah Division of Oil, Gas, and Mining (UDOGM) participated as a cooperating agency.

The EIS provides the responsible agencies with information upon which to base a final decision that considers factors relevant to the proposal. Scoping issues and concerns raised by the public and agencies drove the development of alternatives and focused the impact analysis process. The EIS documents (1) the analysis of impacts that could result from implementation of the proposal and alternatives and (2) the development of environmental protection measures necessary to reduce or eliminate environmental consequences.

The EIS is not a decision document; it documents the process used to analyze the potential environmental consequences of implementing the proposed natural gas development project and alternatives to the Proposed Action. The decisions regarding the proposed project are documented in separate Records of Decision (ROD) signed by the responsible officials of the BLM and Forest Service. The BLM and Forest Service's decisions will apply primarily to federal lands and leases administered by them. Decisions by other jurisdictions to issue or not to issue approvals related to this proposal may be aided by the disclosure of impacts available in this analysis.

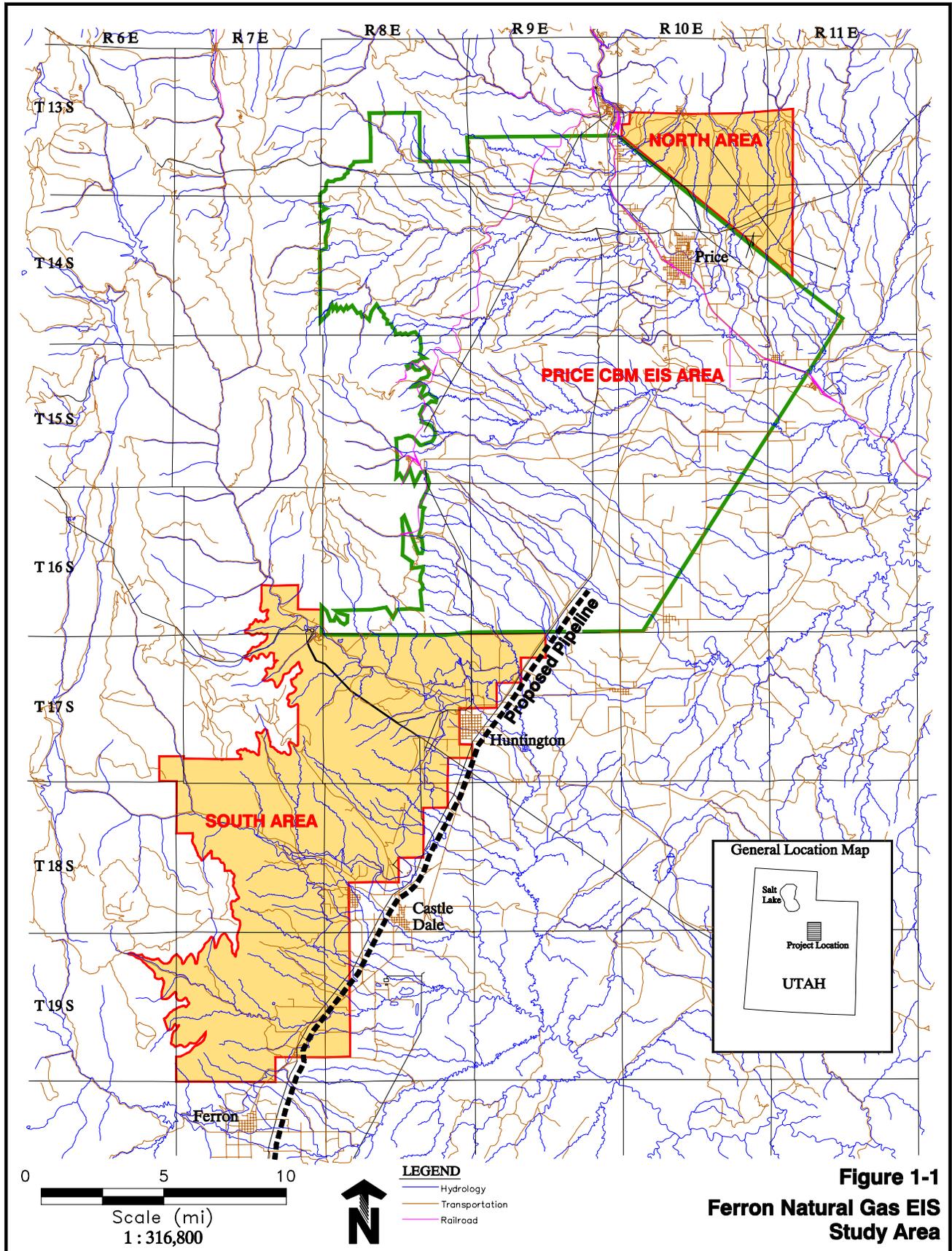


Figure 1-1
Ferron Natural Gas EIS
Study Area

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1.4 DECISIONS TO BE MADE AFTER THE EIS PROCESS

The RODs associated with this EIS are not the final review nor the final approvals for all actions associated with the Ferron Natural Gas Project. Although the RODs would approve a maximum level of natural gas development and its general location, the analysis of each project component that involves surface disturbance to federal lands must be approved on a site-specific basis by the BLM and the Forest Service. The method used to evaluate each surface-disturbing activity is the APD or right-of-way application/special use permit, which would be required before any construction can occur.

The APD includes a surface use program and a drilling plan. The detailed information to be submitted under each program is identified in Onshore Oil and Gas Order No. 1 and 43 CFR 3162.3. An on-site inspection of the locations proposed for the well, access road, pipelines, and other areas of proposed surface use would be conducted before approval. The inspection team would include the BLM, a Forest Service representative (if the construction would occur on National Forest System lands), the lessee or their designated representative, and the Company's primary drilling and construction contractors. The purpose of the on-site inspection would be to identify potentially-sensitive areas and the environmental impacts associated with the proposal at each specific location and site-specifically apply the methods needed to mitigate those impacts. The on-site could include site-specific surveys for cultural resources or threatened and endangered species, if the potential for occurrence of these resources exists on or near the proposed disturbance. After the site inspection, the APD may be revised or site-specific mitigation may be added as Conditions of Approval of the APD for protection of surface and/or subsurface resource values near the proposed activity. These may include adjusting the proposed locations of well sites, roads, and pipelines; identifying the construction methods to be employed; and identifying reclamation standards for the lands.

The BLM is responsible for conducting an environmental analysis on BLM lands, preparing the documentation, and providing mitigation measures to protect surface resources for APD approval. The Forest Service would have similar responsibilities on National Forest System lands. The BLM is responsible for approval of the drilling program, protection of groundwater and other subsurface resources, and final approval of the APD on both BLM and National Forest System lands.

The operator can initiate the APD process either by filing an APD or a Notice of Staking (NOS). The NOS would consist of an outline of the operator's proposal, including a location map and a sketched site plan.

Access roads and pipelines on BLM-managed land outside an applicant's lease would require a ROW Grant. Likewise, these facilities on National Forest System lands would require an SUP. The APD could be acceptable as an application for a ROW Grant or SUP for off-lease facilities, if it provides sufficient detail of the entire proposal.

After drilling, routine well operations would not require approval. However, the BLM would have approval authority for a variety of related activities. Any changes to an approved APD, certain subsequent well operations, and all subsequent new surface disturbances, such as workover pits, would require prior approval. Complete details of subsequent well operations are contained in 43 CFR 3162.3–2. Disposal of produced water from Federal leases would require prior approval, as outlined in Onshore Oil and Gas Order No. 7. The BLM also would approve plugging and abandonment of wells, hydrogen sulfide protection measures (if necessary), gas venting, gas flaring, and certain measures for handling production. Other permits, approvals, authorizing actions, and consultations required by Federal, State of Utah, and local agencies are discussed in **Section 1.8**.

1.5 LAND STATUS, LEGAL AND POLICY CONSIDERATIONS

1.5.1 Land Status

The North and South areas encompass approximately 111,520 acres. Surface and mineral estate ownership within these areas is divided among federal (BLM and Forest Service administered), School and Institutional Trust Lands Administration (SITLA), Utah Division of Wildlife Resources (UDWR), and private entities. BLM-administered federal surface lands account for approximately 44,240 acres (40 percent of the Project Area); National Forest System lands total 10,976 acres (10 percent); state surface lands total 28,041 acres (25 percent); and the remaining 28,263 acres (25 percent) are held in private ownership. Mineral ownership within the Project Area is split roughly equally between federal and state/private ownership.

Surface ownership along the pipeline corridor also is divided among the BLM, State of Utah, and private entities. BLM-administered federal surface lands account for about 62 acres. The State of Utah's lands encompass about 3 acres. The remaining 196 acres are held in private ownership.

The Companies currently hold leases on federal, state, and private lands within the Project Area. Within the Project Area, unleased lands and leases held by others also exist.

1.5.2 Land Exchange/U.S. Government and State of Utah

The DEIS identified and described an exchange of lands proposed by the U.S. Government and State of Utah. This exchange included some federally-owned lands in the Project Area. The exchange was proposed in an agreement signed on May 8, 1998 by the Secretary of the Interior Bruce Babbitt and Utah Governor Mike Leavitt. Before the DEIS' publication, legislation supporting the agreement was passed by the U.S. House of Representatives (June 24, 1998). Since the DEIS' publication, the U.S. Senate passed the same legislation (October 9, 1998) and the President signed the legislation into law (October 31, 1998). The legislation required completion of the exchange within 70 days of the President's date of signature.

With implementation of the exchange, about 17,400 acres of BLM-administered surface and mineral estates in the Project Area were conveyed to the State of Utah. **Table 1–1** identifies the distribution of these estates within the Project Area. Because the exchange was completed before the FEIS' completion, the FEIS was revised to incorporate the exchange into the analysis fully. Consequently, all figures, plates, and the results of all analyses presented in this document were based on post-exchange patterns of land ownership.

1.5.3 Lease Categories

Resource management planning direction for issuance of Federal oil and gas leases is specified in Bureau Manual 1624, "Supplemental Program Guidance for Energy and Mineral Resources (BLM 1986a) issued in 1986. Under this system, four leasing categories exist for Federal lands:

1. Open Subject to Standard Lease Terms and Conditions — These are areas where it has been determined through the planning process that the terms and conditions of the standard lease form are sufficient to protect other land uses or resource values.

Table 1-1
Locations of Land and Mineral Estates Included in the 1998 Land Exchange

| Surface and Mineral Estate | Acres | Surface Estate Only | Acres | Mineral Estate Only | Acres |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------------|-----------|--------------------------------|----------|
| T. 18 S., R. 7 E., SLM, Utah Sec 1, all; Total | 665 | | 0 | | 0 |
| T. 17 S., R. 8 E., SLM, Utah Sec. 1, lots 1-4, S½N½, N½SW, SWSW, SE; Secs. 3, and 4, all; Sec. 5, lots 1, 2, 6-12, N½SW; Sec. 6, lots 6, 7, SESW, SWSE; Sec. 7, all; Sec. 8, lots 1-12, NWNE, N½NENW, N½S½NENW, SWSWNENW, SESEENENW, W½NW; Sec. 9, SENE, NENW, SW, NESE; Sec. 10, N½, N½S½; Sec. 11, N½NE, SENE, W½; Sec. 12, N½NENE, NESENE, N½NWNE, SWNWNE, W½SEWNNE, W½NW; Sec. 14, S½SW, SWSE; Sec. 15, S½NW, S½; Secs. 17, through 22, all Sec. 23, NWNE, NENW, W½W½, SESW, SWSE; Sec. 26, NWNE, NW; Secs. 27, through 31, all; Secs. 33, and 34, all. Total | 14,587 | Sec. 11, SWNE | 40 | Sec. 8, SESWNENW, SWSENENW; | 5 |
| T. 18 S., R. 8 E., SLM, Utah Secs. 5, and 6, all. Total | 1,282 | | 0 | | 0 |
| T. 17 S., R. 9 E., SLM, Utah Sec. 6, lots 1-7, S½NE, SENW, E½SW, W½SE, SESE; Sec. 7, lot 1, N½NE, SWNE, E½NW. Total | 836 | | 0 | | 0 |
| Total | 17,371 | | 40 | | 5 |
| Ferron Natural Gas Project Total | 17,416 | | | | |

- Open Subject to Seasonal or Other Minor Constraints — These are areas where it has been determined that moderately-restrictive lease stipulations may be required to mitigate impacts to other land uses or resource values.
- Open Subject to No Surface Occupancy or Other Major Constraint — These are areas where it has been determined through the planning process that highly-restrictive lease stipulations are necessary to protect resources.

4. Closed to Leasing — These are areas where it has been determined that other land uses or resource values cannot be adequately protected and appropriate protection can only be ensured by closing the land to leasing.

Before 1986, a similar system of categories was used to issue leases. Management Framework Plans and Environmental Assessments used as foundation for lease issuance were based on a 1973 DOI EIS published on the Federal Upland Oil and Gas Leasing Program.

The Forest Service conducted an oil and gas analysis for the Manti-La Sal National Forest in 1992. This analysis identifies areas that are available for leasing and lease stipulations required for specific areas needed to protect surface resources. In the consideration to lease National Forest System lands for oil and gas development, six options are available for each parcel of land. These options are:

1. No Lease (NL) — No lease would be authorized.
2. Standard Lease terms (SLT) — No special limitations would be applied. Operations are only restricted by current laws, regulations, and Onshore Orders. Under the SLT, facilities could be moved up to 200 meters (219 yards) or rescheduled for up to 60 days to protect resources.
3. Lease Notice (LN) — Provides information to a lessee concerning resources that are protected by law or regulation, thereby making a specific lease stipulation unnecessary. Examples of this information are threatened and endangered species protected under Section 7 of the Endangered Species Act and historic sites protected under the National Historic Preservation Act.
4. No Surface Occupancy (NSO) — Neither exploration nor production facilities (well pads, drilling rigs, etc.) would be allowed to be constructed.
5. Controlled Surface Use (CSU) — Surface occupancy and use are permitted, but are restricted to mitigate effects to particular resources. The CSU stipulation provides for mitigation measures that would not normally be met by relocating the drilling site 200 meters under the SLT. It is assumed that the well could be located within ½ mile of the proposed location and the targeted reservoir could be reached by directional drilling.
6. Timing Limitation (TL) — Construction activities would be restricted or prohibited during certain periods to protect resources. An example is to restrict construction in an area during a time when big game inhabit the area as a designated Big Game Winter Range.

Leases on Federal mineral estate have been granted within the Project Area to the Companies and others in conformance with applicable land use plans. A list of the proponents' leases and their associated stipulations is available for review at the Price Field Office of the BLM.

1.5.4 Conformance with Federal Management Plans

The Proposed Action and all alternatives described in this EIS would take place within the Price River Resource Area and the San Rafael Resource Area of the BLM. The Price River Resource Area is managed under a Management Framework Plan (MFP) (BLM 1984a), an MFP Supplement (BLM 1984b), and the subsequent Environmental Assessment (EA) Supplement (BLM 1988). The San Rafael Resource Area is managed under a Resource Management Plan (RMP) approved in 1991.

The decision in the Price MFP pertaining to oil and gas development states: “Establish oil/gas production as the priority land use for Known Geologic Structures that have been or may be identified.” The San Rafael RMP decision states: “Management Objective is to lease public lands for oil and gas development and to allow geophysical activity to occur, only so long as the RMP goals are met; and to administer operational aspects of federal oil and gas leases where BLM does not manage the surface.”

The Proposed Action and all alternatives analyzed in the EIS have been determined to be in conformance with both land use plans. Consequently, a plan amendment would not be required for either plan. The analysis of conformity with these plans is found in Section 4.10 of Chapter 4.

While development of natural gas resources is in conformance with both the Price River MFP and San Rafael RMP, the scale of development for the Ferron Natural Gas Project exceeds the scale of development analyzed by either plan. This EIS will update the 1988 Environmental Assessment supplement for the Price River MFP and the “Reasonable Foreseeable Development Scenario” for the San Rafael RMP, by analyzing the higher level of natural gas development in the Project Area.

The Manti-La Sal National Forest is managed under its Land and Resource Management Plan (LRMP), which was approved in 1986. Oil and gas leasing decisions were made for the Forest in the LRMP as modified by the Record of Decision associated with the Oil and Gas Leasing EIS, which was completed in 1992.

1.5.5 Consistency with Local Plans

Carbon and Emery counties have completed Master Plans that recognize oil and gas development in the area. Cooperation among the counties, land management agencies, and the companies, is emphasized in the plans for the minimization, mitigation, and compensation of the impacts from natural gas development. The Carbon County plan identifies the need to monitor public land use decisions through the creation of the Public Lands Committee. Emery County has a Public Lands Council, which is tasked with monitoring and participating in land use decisions.

Zoning regulations and requirements for both counties allow oil and gas development in all identified zones encompassing the Project Area. In Emery County, site plans require approval and fees to the county for permits before construction of facilities. Carbon County requires site plan approval by the County Commission for activities in certain zoned areas.

As identified in the plans, the Counties’ objectives are to maintain and protect rural, recreational, cultural, and water resources. Concerns include the reclamation of the Project Area and the preservation of the open spaces, cultural resources, and recreation resources contained within the counties.

In the North Area, the Carbon County Trails Plan (Trails Plan), prepared in 1995, set out to establish an organized and formal trails system throughout the county (Keleher 1995). The Utah Centennial Trail System is a series of trails (interconnected and separate) that are within and around the North Area. The Wood Hill/Kenilworth Loop is a series of dirt and gravel roads that has developed into a traditional community trail system. The Trails Plan identifies this area as the most important for implementation due to user needs and the proximity to communities. The Wood Hill/Kenilworth Loop would be the hub for the entire Trails Plan and could connect all the other trails systems throughout the county.

An inconsistency exists between the Proposed Action and the Trails Plan in that both intend to develop the area for separate and in some cases incompatible purposes. Oil and gas leases were issued under the provisions of Price River MFP. The Federal leases grant valid rights to develop the lands. The inconsistency between the proposed development and the Trails Plan is further affected by the number of different landowners and management agencies present within the affected area. Some trails within this area have already been affected by natural gas development on private, State, and Federal leases. Roads have been transformed to allow larger vehicle and heavy equipment travel and vehicle use has increased.

The Trails Plan calls for several actions to help in facilitating trail implementation where other competing development exists. Joint planning, identification of trails corridors through areas of development, and funding as a form of mitigation from developing companies are identified as methods available to help with implementation of the Plan. The Trails Plan calls for designation of priorities for trail development. The Wood Hill/Kenilworth Loop is designated the first area of concern by the county. The Trails Plan suggests that the developed areas be mitigated by creating parallel trails along affected roads. The Trails Plan also mentions requesting funding from companies pursuing CBM projects as possible mitigation in the affected area.

1.6 PUBLIC INVOLVEMENT/SCOPING OF ISSUES

In February 1997, the BLM conducted public and internal scoping to solicit input to identify the environmental issues and concerns associated with the proposed Ferron Natural Gas Project. A Notice of Intent (NOI) to prepare an EIS was published in the Federal Register on January 28, 1997. An amendment to the NOI was published in the Federal Register on February 3, 1998, which adjusted the western boundary of the South Area to the location evaluated in this EIS. The BLM prepared a scoping information packet and provided copies of it to federal, state, and local agencies; Native American groups; and members of the general public. In addition, the BLM conducted public scoping meetings in Price, Utah; Castle Dale, Utah; and Salt Lake City, Utah on February 11, 12, and 13, 1997, respectively. The environmental issues identified for the proposed project are described in the following sections. A summary of the results of scoping is available for review in the Price Office of the BLM.

1.6.1 Geology and Minerals

- Effect of seismic activity on project facilities, such as pipelines, and the risks to public safety.
- Potential for conflicts between gas drilling and existing or potential underground coal mining.
- Effect of irretrievable commitment of natural gas.

1.6.2 Water Resources

- Effects of underground disposal of produced water on the natural flow and quality of water in the target and shallower formations.
- Effect of dewatering the Ferron coal zone on shallower groundwater sources and surface waters.
- Advantages, disadvantages, and feasibility of available produced water disposal methods.
- Effects of potential spills at various locations and the means to prevent and control spills.
- Consumption of domestic and irrigation waters during the project and the effects on current users.
- Control of stormwater runoff.
- Erosion effects on surface waters.
- Effects of surface water quality and quantity in the project area and leaving the project area.

- Effectiveness of monitoring to detect and quantify potential surface water impacts.
- Effects of the project on existing water users rights.
- Effects of the project on the value of water rights.

1.6.3 Air Quality

- Effects of fugitive dust from construction, drilling, production and abandonment operations, and traffic.
- Effects of criteria pollutant emissions from construction, drilling, production, and abandonment operations and vehicles.
- Effects on atmospheric visibility.

1.6.4 Soils

- Effects of surface disturbance operations on soil stability, structure, texture and biotic components.
- Effects of increased sedimentation and runoff, including soil and salt loads increases.
- Effects of disturbed soils on rehabilitation potential.

1.6.5 Vegetation and Riparian/Wetland

- Effects of the loss of vegetative productivity.
- Effects of fugitive dust on vegetation and crops near roads.
- Effects of noxious weed infestation and control.
- Effects to wetlands and riparian areas from road, pipeline and well site construction.

1.6.6 Reclamation

- Reclamation potential of disturbed areas.
- Bonding adequacy.

1.6.7 Terrestrial and Aquatic Wildlife

- Displacement of wildlife from development operations and increased human presence.
- Effects on wildlife habitat suitability.
- Effects of the loss of high value and critical winter range for big game (mule deer and elk) from disturbances associated with the development.
- Offsite mitigation of critical winter range for big game.
- Effects on raptors.

1.6.8 Threatened, Endangered, Candidate, and Special-Status Species

- Effects on Federally listed species.
- Effects on BLM, Forest Service, and UDWR identified sensitive species.

1.6.9 Livestock Management

- Effects of vegetation loss on livestock productivity.
- Effects of road construction, well sites and facilities, and increased human presence on rangeland improvements and livestock management.
- Effects on livestock management facilities.

1.6.10 Cultural Resources

- Effects of project activities on Native American sites with religious or cultural significance.
- Effects of the project on historic landscapes, including the Emery County irrigation system.
- Effects of ground disturbances and indirect impacts to cultural resources including archaeological sites.
- Effects on cultural resources on private lands.

1.6.11 Land Use

- Effect of project-related traffic on local roads used by the public.
- Private property owner rights in relation to the project.
- Effects on existing land uses, including residential and agricultural.
- Coordination with local governments for land and road use and local plans.
- Consistency with adopted plans and policies of federal, state and local agencies.
- Need for a transportation plan that would eliminate/minimize duplication of existing roads.

1.6.12 Recreation

- Effects of the development on recreational opportunities and amenities, particularly those close to towns and residential areas.
- Effects of the development on recreational activities.
- Potential for change in the quality of recreational experiences.

1.6.13 Visual Resources

- Effects of the development on scenic qualities.
- Regional haze effects on visual resources.
- Effects of night lighting of facilities (skyshine).
- Effects on Visual Resource Management classifications.

1.6.14 Noise

- Effects of the development and vehicular traffic on ambient noise levels.

1.6.15 Social and Economic Values

- Effects of demographic changes.
- Effects of employment changes.

- Effects on infrastructure.
- Costs and benefits of the proposed project.
- Effects of a possible economic boom/bust cycle.
- Effects of the project taxes and mineral royalties.
- Effects on “quality of life.”
- Effects on tourism.

1.6.16 Health and Safety

- Effects of project activities on public health and safety.
- Effects of increased traffic associated with the development on public safety.
- Effects of potential methane seeps in soils and at the Ferron outcrop.
- Effects of increased human use of the lands on wildfire ignitions.

1.6.17 Hazardous Materials and Waste

- Hazardous materials identification.
- Waste disposal.
- Pollution prevention.
- Potential for hazardous substance releases and effects on the public and the environment.

A Notice of Availability for the DEIS was published in the Federal Register on October, 2, 1998. Three hundred copies of the DEIS were distributed. During the 55-day review period, public hearings on the DEIS were conducted in Castle Dale, Price, and Salt Lake City on October 27, 28, and 29, 1998, respectively. Fifty-seven separate comment letters were received on the DEIS in addition to comments submitted at the public hearings. Substantive comments were considered during preparation of the FEIS. Appendix F contains a summary of the comments received and BLM’s responses to the comments.

1.7 CRITICAL ELEMENTS ANALYSIS

In addition to issues and concerns brought out in the public scoping process, the BLM requires that potential impacts be addressed for the following critical elements:

- Water Quality
- Floodplains
- Wetlands/Riparian Zones
- Air Quality
- Farmlands, Prime/Unique
- Rangeland Standards
- Threatened and Endangered Species
- Cultural Resources
- Paleontological Resources
- Areas of Critical Environmental Concern
- Wild and Scenic Rivers
- Wilderness Areas
- Native American Religious Concerns
- Native American Trust Resources

- Hazardous Materials/Waste
- Environmental Justice

Of the 16 critical elements required to be addressed, areas of critical environmental concern, prime or unique farmlands, wild and scenic rivers, and wilderness/wilderness study areas do not occur within the Project Area. Also, there are no interests or properties held in trust for Tribes by the United States government in the Project Area. Therefore, an impact analysis is not applicable for these resources.

Environmental Justice and Native American Religious Concerns were not identified as elements for analysis in this EIS. During scoping of this EIS, the Spanish Assembly of God Church and 70 Native American Tribes/Groups/Bands were contacted. The only expression of interest was from the Uintah and Ouray Tribe of Fort Duchesne, Utah. The Tribe requested to be placed on the EIS mailing list for receipt of mailings and the Draft EIS. No additional interest was expressed. Additional consultation and coordination with the Uintah and Ouray, Southern Ute, and Ute Mountain Ute Tribes were conducted during preparation of the Cultural Resources Programmatic Agreement.

A separate Rangeland Health analysis has not been prepared as the soils, riparian/wetlands, special-status species, and water resource conditions were addressed in their respective sections of Chapters 3, 4, and 5 of the EIS.

1.8 AUTHORIZING ACTIONS

Federal, state, county and local 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 **Table 1-2**, represent most of the permitting actions required for the Ferron Project, but the list is not necessarily conclusive.

**Table 1-2
Major Permits, Approvals, and Consultations Potentially Required for the Ferron Natural Gas Project**

| <u>Issuing Agency/Permit Approval Name</u> | <u>Nature of Permit Action</u> | <u>Applicable Project Component</u> |
|---------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| FEDERAL PERMITS, APPROVALS, AND AUTHORIZING ACTIONS | | |
| <i>USDI - Bureau of Land Management</i> | | |
| Permit to Drill, Deepen, or Plug Back (APD) and Sundry Notice, plugging and abandonment, venting, and flaring | Controls drilling and production for oil and gas on federal onshore leases | Wells and production facilities |
| Rights-of-Way Grant and Temporary Use Permit | Right-of-way grant on BLM-managed lands | Oil and gas pipelines, roads, facilities, etc. on BLM-managed lands. |
| 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 |
| Pesticide Use Permit | Control of pests | Wells, roads, and ancillary facilities |
| National Noxious Weed Act Compliance | Controls noxious weeds | Any occurrence of noxious weeds on and near project facilities |
| Material Sales | Sales of sand, gravel, and riprap | Construction activities |
| <i>USDA - U.S. Forest Service</i> | | |
| Special Use Permit | Surface disturbance on Forest Service-managed lands | Wells, roads, pipelines, and facilities on Forest Service land |
| Special Use Permit (Cultural Resources) | Archaeological surveys and limited testing on public lands. Archaeological data recovery (excavation) of sites on public lands | All surface-disturbing activities |

**Table 1-2 (continued)
Major Permits, Approvals, and Consultations Potentially Required for the Ferron Natural Gas Project**

| Issuing Agency/Permit Approval Name | Nature of Permit Action | Applicable Project Component |
|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>USDI - U.S. Fish and Wildlife Service</i> | | |
| Endangered Species Act Compliance (Section 7) | Protects threatened and endangered species | Any activity potentially affecting listed or proposed threatened or endangered species |
| Migratory Bird Treaty Act | Protects migratory birds | All ground-disturbing activities |
| Bald Eagle Protection Act | Protects bald and golden eagles | All ground-disturbing activities |
| <i>Advisory Council on Historic Preservation</i> | | |
| Cultural Resource Compliance (Section 106) | Protects cultural and historic resources; coordinated with the Utah State Historic Preservation Officer (SHPO) | All ground-disturbing activities |
| <i>U.S. Department of Army Corps of Engineers</i> | | |
| Permit to Discharge Dredged or Fill Material (Section 404 Permit) | Authorized placement of fill or dredged material in waters of the United States or adjacent wetlands | All surface disturbing activities affecting waters of the United States or wetlands, such as roads and pipeline crossings. Waters of the U.S. include streams, lakes, playas, wetlands, and other identified aquatic resources. |
| <i>U.S. Department of Transportation</i> | | |
| Construction and operation of natural gas pipelines | Prescribes minimum safety requirements for pipeline facilities and the transportation of gas, including pipeline facilities | Natural gas pipelines. |

**Table 1-2 (continued)
Major Permits, Approvals, and Consultations Potentially Required for the Ferron Natural Gas Project**

| <u>Issuing Agency/Permit Approval Name</u> | <u>Nature of Permit Action</u> | <u>Applicable Project Component</u> |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Utah Department of Environmental Quality</i> | | |
| Utah Pollutant Discharge Elimination System (UPDES) Permit | Authorizes discharge of pollutants to surface waters of the state | Any point-source surface discharge |
| UPDES General Permit for Storm Water Discharges | Controls discharge of storm water pollutants associated with industrial and construction activities | Construction activities disturbing more than five acres of land; and gas production facilities that have had a discharge of a reportable quantity |
| New Source Review (NSR) Permit (non-Prevention of Significant Deterioration (PSD)) | Controls emissions from new or modified sources | All pollutant emission sources and construction activities associated with Proposed Action or alternative |
| <i>Fugitive Dust Control</i> | | |
| <i>Utah Department of Transportation</i> | | |
| Transport Permit | Control fugitive dust emissions | Construction of facilities and vehicle traffic |
| Encroachment Permit | Authorizes oversize, overlength, and overweight loads | Transportation of equipment and materials on state highways |
| | Authorized pipeline crossings or access roads tying into state or federal highways | Construction of pipeline across state or federal highways; construction of project roads that tie into state or federal highways |
| <i>Utah Department of Natural Resources</i> | | |
| Application to Store and Use Explosives | Permit to use, store, or transport explosives | All Proposed Action and alternative components |
| Right-of-Way of Special Use Permit | Authorizes activities on land purchased by Utah Division of Wildlife Resources for wildlife management objective | Facilities on land owned by Utah Division of Wildlife Resources |

**Table 1-2 (continued)
Major Permits, Approvals, and Consultations Potentially Required for the Ferron Natural Gas Project**

| <u>Issuing Agency/Permit Approval Name</u> | <u>Nature of Permit Action</u> | <u>Applicable Project Component</u> |
|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| <u>Utah Division of Water Rights</u> | | |
| Change in Nature of Use Application | Authorizes change of use on water rights | Non-consumptive and consumptive water uses |
| <u>Stream Alteration Permit</u> | | |
| Approves construction plans | | Perennial stream crossings |
| <u>Utah Division of Oil, Gas, and Mining</u> | | |
| Permit to Drill, Deepen, or Re-enter and Operate an Oil and Gas or Disposal Well | Approves drilling on all lands within the state | Wells (production and disposal) |
| Underground Injection Control Permit | Regulates underground disposal wells | Underground disposal wells |
| Disposal facility permit | Waste disposal | Waste and disposal facilities |
| Safety Regulations for Oil and Gas Activities | Regulates oil and gas activities to protect public safety | All Proposed Action and alternative components |
| Permit to Flare Gas | Regulates flaring up to 30 days of testing or 50 MMcf, whichever is less | Flaring of gas wells |
| <u>Utah Division of State History, Antiquities Section</u> | | |
| Antiquities Annual Permit: Blanket Permit to Conduct Archaeological Investigations | Regulates all archaeological investigations on state and private lands | All surface-disturbing activities on state and private lands |
| Antiquities Projects Permit (Excavation) | Regulates all archaeological excavations on state and private lands | All surface-disturbing activities on state and private lands |
| <u>Utah Division of State History Preservation Section (SHPO)</u> | | |
| Section 106 Cultural Resources Consultation | Determines significance of cultural resources potentially affected by surface-disturbing activities | All surface-disturbing activities |

**Table 1–2 (continued)
Major Permits, Approvals, and Consultations Potentially Required for the Ferron Natural Gas Project**

| Issuing Agency/Permit Approval Name | Nature of Permit Action | Applicable Project Component |
|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| <i>Utah School and Institutional Trust Lands Administration (SITLA)</i> | | |
| Compliance with Rules | Compliance with applicable general and program rules | Facilities on SITLA lands |
| LOCAL PERMITS, APPROVALS, AND AUTHORIZING ACTIONS | | |
| <i>Carbon County</i> | | |
| Conditional Use Permit | Authorizes extraction and processing on private lands | Any project activities in residential or critical environment zones |
| Road Use Permit | Authorizes overweight and overlength loads on county roads | Transportation of equipment and materials on county roads |
| Road Opening Permit | Authorizes 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 |
| Solid Waste Ordinance | Regulates disposal of wastes in the County | Construction and operational waste |
| Building Permit | Controls construction of all structures in the County | Construction of all buildings in Carbon County |
| Noxious Weed Act Compliance | Controls listed noxious weeds | Any occurrence of noxious weeds on and near project facilities |

**Table 1-2 (continued)
Major Permits, Approvals, and Consultations Potentially Required for the Ferron Natural Gas Project**

| <u>Issuing Agency/Permit Approval Name</u> | <u>Nature of Permit Action</u> | <u>Applicable Project Component</u> |
|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Emery County</i> | | |
| Conditional Use Permit | Authorizes extraction and processing activities in Emery County | All project components in Emery County |
| Road Use Permit | Authorizes overweight and overlength loads on county roads | Transportation of equipment and materials on county roads |
| Encroachment Permit | Authorizes 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 |
| Solid Waste Permit | Regulates disposal of wastes in the County | Construction and operational waste |
| Building Permit | Controls construction of all structures in the County | All project structures that will have human occupants in Emery County |
| Noxious Weed Act Compliance | Controls listed noxious weeds | Any occurrence of noxious weeds on and near project facilities |
| Gas Well Permit | Authorizes installation of gas wells | Gas wells on non-federal lands |
| Large Site Plan Approval | Regulates the construction of large projects | All project components in Emery County |
| Road Encroachment Permit | Authorizes pipeline crossings or access roads tying into local roads | Construction of pipelines across county roads; construction of project roads that tie into county roads; use of county roads by the Companies or their contractors |