

## 1.0 INTRODUCTION

### 1.1 BACKGROUND

BBC and other oil and gas operators have proposed to develop the oil and gas resources of the WTP Project Area in Duchesne and Carbon Counties, Utah, approximately 30 miles east-northeast of Price, Utah. The WTP Project Area is bounded on three sides by natural features – on the west by Sheep Canyon, on the north by Nine Mile Canyon, and on the east by the Green River. The southern boundary of the WTP Project Area is a straight line reflecting an anticline in the sub-surface that limits the southern extent of the natural gas resources targeted by the project. Surface ownership in the 137,930-acre WTP Project Area is approximately 87 percent Federal (managed by the BLM), approximately 8 percent State of Utah (managed by State Institutional Trust Lands Administration [SITLA]), and approximately 5 percent private (see **Table 1.1-1**). Mineral ownership closely parallels surface ownership.

The WTP Project Area includes portions of the Desolation Canyon and Jack Canyon WSAs. Drilling is planned in the WSAs on several leases issued prior to the FLPMA of 1976. The 137,930-acre WTP Project Area includes about 24,668 acres of the Desolation Canyon WSA and 7,480 acres of the Jack Canyon WSA. The Proposed Action includes up to 43 proposed well pads within the WSAs. The WTP Project Area also involves two Federal oil and gas units, the Peter's Point and Prickly Pear Units in Townships 11-13 South, Ranges 13-18 East, Salt Lake Meridian.

During the public scoping process for this EIS, the U.S. Environmental Protection Agency (EPA), U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (COE), U.S. Department of Transportation (DOT), State of Utah, Carbon County, Duchesne County, Uintah County, the BIA-Uintah and Ouray Agency and Northern Ute Indian Tribe were invited to be cooperating agencies on this EIS.

The EPA, USFWS, State of Utah, Carbon County, Duchesne County, and Uintah County agreed to participate as Cooperating Agencies and will act as such throughout the EIS process. The COE, DOT, and BIA agreed to participate as informal cooperators primarily in review capacity.

Formal Tribal consultation and coordination with the Northern Ute Indian Tribe, Southern Ute Indian Tribe, Mountain Ute Indian Tribe, Hopi Tribe, multiple chapters of the Navajo Nation, Paiute Indian Tribe, Pueblo of Laguna, Pueblo of Zia, Pueblo of Zuni, Jicarilla Apache Tribe, Pueblo of Acoma, and Pueblo of Santa Clara has been ongoing throughout the EIS process (see **Section 6.1**). The Section 106 consultation process with the Utah State Historic Preservation Officer (SHPO) has been initiated and is presently ongoing. This process has thus far involved two meetings between the SHPO and members of the project team, and two site visits to the WTP Project Area. In addition, the SHPO has been provided with a copy of the Class I Cultural Resource Literature Review (Whitfield et al. 2006). Consultation between the SHPO and the project team will continue throughout the entire Section 106 review of cultural resources within the WTP Project Area.

Preparation of this Draft Environmental Impact Statement (EIS) was initiated with the publication of a Notice of Intent (NOI) in the Federal Register on August 26, 2005. Its

preparation is preceded by multiple oil- and gas-related actions in the WTP Project Area and their associated NEPA documents, most notably the Stone Cabin 3-D Seismic Survey Project Environmental Assessment (EA) (UT-070-2003-15) completed in 2004, and the West Tavaputs Plateau Drilling Program EA (UT-070-2004-28), also completed in 2004. Others include the Burris 1-10 Well and Right of Way EA (UT-066-97-55), the Wasatch Oil and Gas Claybank Springs Well Developments EA (UT-070-2000-66), and the Wasatch Peters Point 3A Gas Well EA (UT-070-2001-05). These analyses evaluated impacts from seismic exploration and exploratory drilling projects designed to identify oil and gas resources within the WTP Project Area.

Since publication of the NOI, natural gas development within the WTP has continued under authorizations based on the previous NEPA analyses and provisions of the Energy Policy Act of 2005. Section 390 of the Energy Policy Act provides for the categorical exclusion of certain oil and gas development activities from NEPA analysis. In addition, three EAs were prepared to evaluate limited interim drilling activities within the Project Area, which were provided for through subsequent decisions. Council on Environmental Quality (CEQ) regulations (40 CFR 1500), which direct Federal agencies on the implementation of NEPA, provide for such limited actions to occur in the interim while an EIS is under preparation. In order to provide the most conservative analysis of overall effects from the development of natural gas resources within the WTP Project Area, these interim actions are included in the Proposed Action.

<b>Table 1.1-1. Land Ownership within the WTP Project Area</b>	
<b>Land Ownership</b>	<b>Total Project Area<sup>1</sup> (% of WTP Project Area)</b>
BLM	~120,206 acres (87%)
State	~10,410 acres (8%)
Private	~7,292 acres (5%)
<b>Total</b>	<b>~137,930</b>

<sup>1</sup> Slight discrepancies between surface owner acreages and total Project Area due to GIS software "clipping" overlap between surface owners.  
% = percent

## 1.2 PURPOSE AND NEED

The BLM's purpose and need is to consider the proposal for full field development of natural gas resources on the West Tavaputs Plateau in an efficient, orderly, and environmentally sensitive manner. The BLM is considering this proposed project to provide for the extraction and recovery of natural gas from Federal oil and gas leases on the WTP held by BBC and other operators in accordance with its multiple-use mandate and the goals and objectives of the President's National Energy Plan. National mineral leasing policies, and the regulations by which they are enforced, recognize the statutory right of leaseholders to develop mineral resources to meet continuing increase in the United States' demand for natural gas, so long as undue environmental degradation is not incurred.

Development of oil and gas resources is consistent with the mission of the BLM. The 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 is 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 managing activities consistent with rights associated with valid existing leases. Under the MLA, the lessee shall have the right, subject to stipulations, applicable law, and reasonable measures required by BLM, to use as much of the leased lands as is necessary to explore, develop, and dispose of the leased resource (43 CFR 3101.1-2). According to FLPMA, these rights must be permitted in a manner that assures adequate protection of other resource values.

The BLM anticipates that an amendment to its current management framework plan would be necessary if its ultimate decision provides for all or portions of full field development under this plan. The BLM's land use planning regulations at 43 CFR 1610.5-5 explicitly state, "An amendment shall be initiated by the need to consider...a proposed action that may result in a change in the scope of resource uses or a change in the terms, conditions and decisions of the approved plan." Therefore, the BLM must also consider as part of its evaluation and decision making process all potential land use plan amendments.

BBC's and other operators' purpose and need for the WTP project is to exercise their valid lease rights and extract the leased natural gas from the subsurface, thereby increasing the available supply of domestic natural gas by a daily delivery of approximately 250 million standard cubic feet per day (MMscf/day). The operators must fulfill their obligations and responsibilities under Federal leases to explore, develop, and produce commercial quantities of hydrocarbons.

### **1.3 THE EIS DECISION FRAMEWORK**

This EIS is prepared in accordance with the NEPA and in compliance with the CEQ regulations (40 CFR Parts 1500-1508), USDOl requirements (Department Manual 516, Environmental Quality), and guidelines listed in the BLM NEPA Guidebook (BLM 2004a).

According to the terms of the MLA, the BLM is authorized to manage Federal mineral interests underlying Federal or split estate lands. Approximately 87 percent of the surface of the WTP Project Area and 87 percent of the mineral interests underlying the WTP Project Area are owned by the United States and administered by the BLM. Therefore, the BLM is the lead agency in this process, and Federal jurisdiction of the WTP natural gas full field development proposal is assumed by the BLM, which will issue a ROD for this EIS.

Within the ROD, the BLM decision maker (i.e., the BLM Utah State Director) will determine:

- Whether the Proposed Action and alternatives are in conformance with the applicable land use plan and programmatic plans developed under NEPA, or if the applicable land use plan requires amending (see **Section 1.5**);
- Whether the analysis contained within this document is adequate for the purposes of reaching informed decisions regarding the WTP natural gas full field development Proposed Action and alternatives;
- Whether to approve the Proposed Action, select a different alternative, or select a combination of alternatives;
- The Conditions of Approval (COAs) that may be attached to the ROD and any individual permit issued subsequent to the ROD; and
- Whether a decision to approve all or portions of the proposed development would preclude options or prejudice decisions on the resource management plans currently under revision (see **Section 1.6.1**).

#### **1.4 SUBSEQUENT DECISIONS TO BE MADE**

If the BLM decides to approve the proposed WTP natural gas full field development project, the BLM would be required to review and act on Surface Use Plans (SUPs), which are an integral component of APDs and right of way (ROW) applications, which seek approval to construct pipelines, drill pads and roads, or other ancillary facilities associated with project development. Submission and approval of such applications are required prior to surface disturbance. The APD and ROW grant processes are discussed further in the following sections.

While this EIS provides analysis of development on unleased lands within the WTP Project Area, the ROD for this EIS will not include a decision to lease any specific parcel within the WTP Project Area. Through the BLM's competitive leasing process, rather, the BLM may utilize the analysis in this EIS to evaluate nominated parcels and then make leasing decisions in separate decision documents.

The leasing, APD, and ROW grant processes are discussed further in the following sections.

##### **1.4.1 Oil and Gas Leasing Process**

BLM Utah conducts competitive oil and gas lease sales quarterly in accordance with Federal law. Lease parcels are made up of lands that have been determined to be open for leasing through BLM's land use planning process, and are either nominated or requested by the public. Leasing enables companies to secure rights to mineral resources before investing in geophysical testing and other kinds of exploratory techniques to determine if development is economically feasible. Once parcels are leased, operators are required to submit exploration or development proposals to BLM for an environmental analysis and application of measures to mitigate impacts prior to any implementation of such proposals.

### **1.4.2 APD Process**

An operator can initiate the APD process either by filing an APD or a Notice of Staking (NOS). The NOS consists of an overview of the operator's proposal, including a location map and a sketched site plan. The APD includes the site-specific SUP and drilling program. The detailed information required to be submitted for each APD is identified in Onshore Oil and Gas Order No. 1 and 43 CFR 3162.3.

The BLM is responsible for approving a project proponent's APD, including both the SUP and subsurface drilling program, and applying appropriate mitigation measures, or COAs, for affected resources, as necessary, on BLM-administered lands or minerals. Prior to approving an APD, the BLM must prepare environmental impact analysis (such as this EIS) and develop mitigation measures for surface resources on potentially affected BLM-administered lands. The environmental analysis consists of an onsite inspection of the proposed well, access road, and pipeline locations, as well as other areas of proposed surface use. The purpose of the onsite inspection is to identify site-specific environmental impacts and to identify avoidance techniques or other mitigation measures. The onsite inspection could, for example, include site-specific surveys for cultural and paleontological resources or threatened and endangered species if the potential for these resources exists on or near the proposed disturbance. After the onsite inspection is performed, the project proponent would submit the APD or would revise the APD. Additional mitigation measures (e.g., adjusting the proposed locations of well sites, roads, and pipelines to avoid a sensitive resource; identifying specific construction methods to be employed; or identifying reclamation standards) may be added as COAs to protect affected resources.

After drilling, routine well operations would not require approval; however, the BLM would have approval authority for operational activities that may alter the specifications of an approved APD, certain subsequent well operations, disposal of water produced from Federal leases, and new surface disturbances (e.g., workover pits). The BLM also retains the authority to approve plugging and abandonment of wells, gas venting, gas flaring, and certain measures for handling production. Other permits, approvals, authorizing actions, and consultations required by Federal, State and local agencies are discussed in **Section 1.6**.

### **1.4.3 Right of Way Process**

Operators are required to submit a ROW application to obtain approval to construct a pipeline, well pad, road, or ancillary facility located on BLM-administered lands outside of the lease or unit on which the proposed project is to be conducted. APDs and Sundry Notices are often acceptable as applications for ROW grants for off-lease facilities if they provide sufficient detail about the entire proposal. Most of the proposed project would lie within the unit boundaries of the Peter's Point Unit or Prickly Pear Unit; however, project development would require that BBC secure the necessary ROWs to facilitate access by road and transportation of produced gas to processing facilities outside of the unit boundaries.

## **1.5 CONFORMANCE WITH BLM LAND USE PLANS**

The BLM land use planning decisions for Federal lands and minerals within the WTP Project Area are contained in the following documents:

- Price River Resource Area Management Framework Plan (Price River Management Framework Plan [MFP]) (BLM 1984a);
- Diamond Mountain RMP (BLM 1994b).

Of these land use plans, the Price River MFP is the applicable plan for approximately 94 percent of the WTP Project Area. Since nearly all of the proposed development would be subject to the management prescriptions of Price River MFP, the MFP may require a plan amendment.

### **1.5.1 Conformance with the Price River MFP**

Oil and gas management decisions documented in the existing Price River MFP provide for the continued availability of the Federal lands and mineral estate for development of oil and gas resources. In general, implementation of the Proposed Action would be in conformance with the oil and gas decision (Minerals-1) in the MFP which states, "Allow and encourage development of those leaseable minerals known to occur within the planning area in accordance with current laws and regulations so as to aid in filling the local and national energy requirements."

This EIS analyzes the physical, biological, social, and economic effects of the Proposed Action and alternatives on a variety of resources and resource uses within the WTP Project Area. While the proposed full field development is in conformance with the Price River MFP decision on oil and gas activities, its scale of development exceeds that considered in the programmatic oil and gas leasing EAs for the Price River MFP, supplemented in August, 1984. Therefore, this EIS serves to update foreseeable development projections from those previously considered. The BLM would use the revised foreseeable development projections and analysis in this EIS to amend the MFP and update the existing NEPA analysis.

The BLM must review the Price River MFP decisions for other resources, resource uses, or terms and conditions to determine if any elements of the development described in this EIS would preclude accomplishment of the goals and objectives for non-oil and gas resources in the MFP. For purposes of project conformance with certain resource goals and management policies, the BLM has determined that at the time of the WTP ROD, an amendment to the MFP may be necessary to provide for all or portions of full field development of natural gas resources as well as address certain potential impacts from the development. The BLM would use the analyses contained in this EIS to provide the basis to amend the MFP with respect to the WTP Project Area only. A plan amendment would not apply to other parts of the Price Field Office planning area.

Should the BLM provide for full field development of natural gas resources in the WTP Project Area under the revised foreseeable development projects, an MFP amendment could include, but may not be limited to, decisions on the following resources, resource uses, or terms and conditions:

- Visual resource management classifications for certain areas within the WTP Project Area
- Criteria for which variances to lease stipulations regarding high country watersheds, crucial winter habitats, slopes greater than 30 percent, and riparian habitats/floodplains may be granted

Should an amendment of the Price River MFP be necessary, it will be based on the following preliminary planning criteria that have been identified to guide resolution of any planning issues that may arise as a result of this full field development EIS analysis:

- The plan amendment would recognize valid existing rights;
- Lands covered in the MFP amendment would be public lands, which include split estate lands, managed by the BLM. Decisions in the MFP amendment would be made only on lands managed by the BLM;
- The BLM would use a collaborative and multi-jurisdictional approach, where possible, to jointly determine the desired future condition of public lands;
- The BLM would make all possible attempts to ensure that its management prescriptions and amended planning actions are as complementary as possible to other planning jurisdictions within the boundaries described by law and policy;
- The BLM would consider the management prescriptions on adjoining lands to minimize inconsistent management. To the extent possible, the BLM would coordinate inventories, planning and management programs with other Federal, State, Tribal and local governments and agencies;
- Management prescriptions would focus on the relative values of resources and not necessarily the combination of uses that would give the greatest economic return or economic output;
- To the extent possible, the BLM would use current scientific information, research, new technologies, and the results of resource assessments, monitoring, and coordination to determine appropriate local and regional management strategies that would enhance or recover impaired ecosystems; and
- The plan amendment would be completed in compliance with FLPMA, NEPA, and all other relevant Federal laws, Executive Orders and management policies of the BLM.

### **1.5.2 Conformance with the Diamond Mountain RMP**

The proposed full field development would be in conformance with the Diamond Mountain RMP (BLM 1994b), which provides for management of BLM-administered public lands in Daggett, and Duchesne County and portions of Uintah County. Portions of these lands to the north of Nine Mile Canyon are designated an ACEC to provide special management prescriptions for the protection of cultural resources, special status plant species, and high quality scenery. The primary access to the WTP Project Area is via the Gate Canyon Road from the Uinta Basin, which bisects the ACEC. Since this access is currently maintained as a Class B road by Duchesne County, the RMP objectives for the ACEC would not be compromised.

## **1.6 CONSISTENCY WITH OTHER PLANS, STATUTES, AND OBJECTIVES**

### **1.6.1 Consistency with BLM Resource Management Plan Revisions**

Price and Vernal Field Offices of the BLM are currently revising their land use plans, including the Price River MFP and Diamond Mountain RMP respectively. The BLM is taking steps to assure that a decision on the full field development plan would not preclude options considered for the RMP revisions, nor prejudice the ultimate decisions subsequent to completing the revised plans. This assurance could require the BLM to limit its decision in the ROD for full field development to components of the development which would not preclude options or prejudice decisions on the RMPs until such time as the RMP revisions are complete.

### **1.6.2 Consistency with BLM Activity Level Plans**

In addition, four activity level planning documents provide management direction for lands within the WTP Project Area in addition to the comprehensive land use plans:

- The BLM Recreation and Cultural Area Management Plan: Nine Mile Canyon Special Recreation and Cultural Management Area (SRCMA) (BLM 1995a);
- The BLM Range Valley Mountain Coordinated Habitat Management Plan (BLM 1991a);
- The Range Creek Wild Horse Management Area (HMA) Plan (EA UT-066-94-10) (BLM 1994a); and
- Desolation and Gray Canyons of the Green River Management Plan (BLM 1979).

Numerous oil and gas leases were issued in the WTP Project Area prior to and subsequent to the preparation of these plans. Implementation of full field development of natural gas resources is generally expected to be consistent with the plans' objectives. Any potential conflicts between the full field development plan and these activity level plans will be disclosed and addressed as part of this analysis.

### **1.6.3 Consistency with State of Utah Objectives**

Portions of the WTP Project Area are owned by the State of Utah. State lands within the WTP Project Area are managed by SITLA. Because SITLA's objectives are to produce funding for the State school system, the proposed development is consistent with the objectives of the State.

### **1.6.4 Consistency with County Plans**

The *Carbon County Master Plan* (Carbon County 2005b) set a goal that resource development activities on public lands within the county be fully bonded for all estimated reclamation costs (separate from Federal performance bonds). The area of Carbon County associated with the Proposed Action is regulated as M&G-1, Mining and Grazing, and has been reviewed and approved for Non-Conditional Use by the Carbon County Planning and Zoning Board; therefore, the Proposed Action is in compliance with the *Carbon County Master Plan*.



The Proposed Action would be in compliance with the *Duchesne County General Plan* (2005).

The Duchesne County General Plan supports management of public lands for multiple use, sustained yields, prevention of waste of natural resources, and to protect the health and welfare of the public. The plan emphasizes the importance of access to and across public lands for resource management and development. The plan encourages the proper management of public lands for fish, wildlife, livestock production, timber harvest, recreation, energy production, mineral extraction and the preservation of natural scenic, scientific and historical values.

The portions of the WTP Project Area within Uintah County are guided by the *Uintah County General Plan* (Uintah County Plan) (Uintah County 2005). The Uintah County Plan emphasizes multiple-use public land management practices, responsible use, and optimum utilization of public land resources. Multiple-use is defined in the plan as including, but not limited to, the following historically and traditionally practiced resource uses: grazing, recreation, timber, mining, oil and gas development, agriculture, wildlife habitat, and water resources, as they become available or as new technology allows.

As previously discussed, Carbon, Duchesne, and Uintah Counties are Cooperating Agencies on this EIS.

### **1.6.5 Consistency with Other Laws and Objectives**

The Proposed Action and alternatives would be in compliance with various Federal, State, and local laws and regulations, and the operators would procure any required permits or easements (**Table 1.6-1**). The alternatives would be developed in accordance with the MLA and 43 CFR (Onshore Oil and Gas Leasing). Under this authority, BBC and other operators have the right to drill for and produce oil and gas on their valid leases.

## **1.7 PUBLIC INVOLVEMENT/SCOPING OF ISSUES**

### **1.7.1 Identified Issues**

The BLM conducted public scoping to solicit input and identification of environmental issues and concerns associated with BBC's and other operators' Proposed Action. The public scoping process was initiated on August 26, 2005 with the publication of the NOI in the Federal Register. The BLM prepared a scoping information notice and provided copies of it to Federal, State, and local agencies, numerous Tribes, and general public. Announcements of the scoping opportunities were sent to the Vernal Express, Uinta Basin Standard, Deseret News, Emery County Progress, Price Sun Advocate, Denver Post, and Salt Lake Tribune for publication; local and Utah radio stations for publication; and Channel 3 (i.e., the local Price television station), for announcement. These announcements included information on public scoping and information open houses, which were held October 18, 2005 at the Holiday Inn in Price; October 19, 2005 at the Museum of Ancient Life in Lehi; and October 20, 2005 at the Roosevelt Campus of Utah State University in Roosevelt. The official scoping period ended November 4, 2005 (within 15 days after the final public meeting).

<b>Table 1.6-1 Major Federal, State, and Local Permits and Approvals applicable to the Proposed Action and Alternatives</b>	
<b>AGENCY</b>	<b>PERMIT, APPROVAL, OR ACTION</b>
<b>Federal Agency</b>	
Bureau of Land Management	Permits to drill, deepen, or plug back on BLM-managed land (APD/Sundry Notice process) ROW grants and temporary use permits for pipelines on BLM-managed land ROW grants for access roads on BLM-managed land Authorization for flaring and venting of natural gas on BLM-managed land Plugging and abandonment of a well on BLM-managed land Modification of Category 2 lease stipulations Antiquities, cultural and historic resource permits on BLM-managed land Paleontological resource use permits Approval to dispose of produced water on BLM-managed land Pesticide use permits Noxious Weed Act enforcement Initiation of Section 7 consultation with USFWS Mineral material sales permits
U.S. Army Corps of Engineers (COE)	Section 404 permits for placement of dredged or fill material in area waters and adjacent wetlands
U.S. Fish and Wildlife Service (USFWS)	ESA Section 7 consultation, coordination, and impact review on Federally listed threatened and endangered (T&E) species Migratory Bird Treaty Act and Bald Eagle Protection Act consultations Section 404 permit consultation
Advisory Council on Historic Preservation	Section 106 cultural resource compliance; coordinated with Utah State Historic Preservation Office
U.S. Environmental Protection Agency Region 8	Review and comment on major Federal actions

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<b>AGENCY</b>	<b>PERMIT, APPROVAL, OR ACTION</b>
(EPA)	Underground Injection Control permits (through Utah Division of Oil, Gas, and Mining) Air quality permits
U.S. Department of Transportation (DOT)	Approval of construction and operation of natural gas pipelines Transport permits Encroachment permits
U.S. Department of the Treasury, Bureau of Alcohol, Tobacco and Firearms	Explosives user permits
<b>State Agency</b>	
Utah Division of Wildlife Resources (UDWR)	Section 404 permit process participation and coordination on impacts to fish and wildlife and State-sensitive species ROW grants for construction activities on UDWR lands Consistency with essential elements of wildlife mitigation strategy
Utah Division of Forestry, Fire and State Lands (UDFFSL)	ROW grants for construction activities on State lands
Utah Department of Environmental Quality, Division of Water Quality (UDEQ/DWQ)	Utah Pollutant Discharge Elimination System (UPDES) stormwater construction permits UPDES construction dewatering permits Section 401 CWA water quality certification stream and wetland crossings Stream alteration permits Solid and hazardous waste control
Utah Department of Environmental Quality, Division of Air Quality (UDEQ/DAQ)	Approval orders and permits for compressors and other stationary emissions sources Air quality permits to construct New Source Review permits Fugitive dust control

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<b>AGENCY</b>	<b>PERMIT, APPROVAL, OR ACTION</b>
Utah Department of Transportation (UDOT)	Heavy equipment transport permits Permits for utility crossings of State roads
Utah Division of Water Rights (UDWR)	Stream alteration permits Change in nature of use of water applications
Utah Public Lands Policy Coordination Office (PLPCO)	Antiquities annual permits to conduct archeological surveys Antiquities projects permits (excavations)
Utah Division of State History, Preservation Section (State Historic Preservation Office)	Section 106 consultation for cultural resource clearances, inventories, evaluation, and mitigation
Utah School and Institutional Trust Lands Administration	ROW easements on State Trust Lands Compliance with applicable general and program rules
Utah Division of Oil, Gas, and Mining	Permits to drill, deepen, or re-enter and operate oil and gas or disposal wells Underground Injection Control Permits (on behalf of EPA) Pressure monitoring and well spacing Disposal facility permits Permits to flare natural gas Compliance with safety regulations for oil and gas activities
Utah State Engineer's Office	Water well permits
<b>Local Government</b>	
Carbon and Duchesne Counties	County zoning/land use plan consultation Special use and conditional use permits Encroachment permits County bonds

<b>Table 1.6-1 Major Federal, State, and Local Permits and Approvals applicable to the Proposed Action and Alternatives</b>	
<b>AGENCY</b>	<b>PERMIT, APPROVAL, OR ACTION</b>
	Road conditional use and opening permits Solid waste disposal permits Construction permits and licenses Noxious Weed Act enforcement

In addition to conducting public scoping, the BLM has conducted considerable internal scoping, which has been open and ongoing throughout the EIS process.

Substantive issues and concerns that have been identified during the public and internal scoping process are addressed in Chapters 3 and 4 of this EIS and are summarized below.

#### **1.7.1.1 Air Quality**

- Construction, drilling, completion, and operation activities could lead to increased criteria pollutant emissions.
- Diesel engine emissions from vehicles, drill rig engines, and other equipment could result in adverse air quality impacts near roads and well sites.
- Fugitive dust from construction and operation activities could lead to exceedances of ambient air quality standards for PM<sub>10</sub> and PM<sub>2.5</sub>.
- The Proposed Action could impact air quality related values, such as visibility and acid deposition, at nearby Class I areas.
- Project emissions could lead to an increase in ozone.
- Project activities could lead to increased ambient air concentrations of hazardous air pollutants.

#### **1.7.1.2 Areas of Critical Environmental Concern**

- Development within existing Nine Mile Canyon ACEC has the potential to impact the relevant and important values for which the area was designated (e.g., cultural, recreational, visual, and wildlife).
- Development within the potential Nine Mile Canyon and Desolation Canyon ACECs could impact the relevant and important values for which the ACECs were nominated.
- Development within the potential ACECs could prevent the BLM from designating these areas in the future.

#### **1.7.1.3 Cultural Resources**

- The proposed development could have direct, indirect, and cumulative impacts to petroglyphs, pre-historic habitation, and historic resources in the WTP Project Area specifically due to increased traffic, noise, and infrastructure.
- The proposed development could impact the proposed Nine Mile Canyon Historic District.
- The accumulation of dust and/or dust suppressants could change petroglyph and pictograph clarity.
- Increased access to the WTP Project Area could increase vandalism, looting, and unauthorized off highway vehicle (OHV) use in the WTP Project Area.

#### **1.7.1.4 Geology and Minerals**

- Construction of well pads and other project facilities could change the topographic character of the WTP Project Area.
- Development could increase the potential for landslides and rock falls.
- Development could potentially conflict with future oil shale and tar sands production.
- Development could deplete existing sand and gravel quarries.

#### **1.7.1.5 Invasive, Non-native Species**

- The proposed development could result in the spread and introduction of noxious weeds into the WTP Project Area along roadways and other disturbed areas.

#### **1.7.1.6 Threatened, Endangered, Candidate, and Sensitive Plant Species**

- Construction of well pads, roads, pipelines and other facilities could result in a loss or fragmentation of suitable habitat for the Uinta Basin hookless cactus or Graham's beardtongue.
- Access into previously inaccessible areas could potentially lead to illegal collection of the Uinta Basin hookless cactus.
- Increased sedimentation could potentially cause loss of or modify suitable habitat for the Uinta Basin hookless cactus or Graham's beardtongue.

#### **1.7.1.7 Threatened, Endangered or Candidate Animal Species**

- Construction of well pads, roads, pipelines and other facilities as well as increased human activity could result in a loss of foraging habitat including USFWS-designated critical habitat for Mexican spotted owl (MSO).
- Increased noise levels and artificial lighting could limit use of potential nesting and hunting areas for MSO.
- Water depletion, sedimentation, and chemical spills into the Green River could impact the endangered Colorado River fish.

#### **1.7.1.8 Water Quality and Quantity (Surface and Ground)**

- The proposed development could impact surface and groundwater quality, including rivers, creeks, streams, springs, and aquifers.
- Hydraulic fracturing from the proposed development could impact groundwater and drinking water sources and springs.
- Magnesium chloride used in the proposed development for dust suppression could impact surface water and shallow groundwater quality.
- The proposed development could reduce the flow from natural springs and seeps.

- Development could negatively impact the proper functioning condition of floodplains.
- Use of water resources for dust suppression and drilling/completion could reduce the flows of Nine Mile Creek and the Green River.
- Development would result in increased salinity in the Colorado River system.

#### **1.7.1.9 Wetlands/Riparian Zones**

- Surface disturbing activities could result in a loss of riparian vegetation and degrade the Proper Functioning Condition (PFC) of riparian habitat.
- Surface disturbing activities could impact the viability of wetland communities and the function of the system.

#### **1.7.1.10 Wild and Scenic Rivers**

- The proposed development could impact the outstandingly remarkable values and tentative classifications of Nine Mile Creek and the Green River and prevent them from being included in the National Wild and Scenic River (WSR) system.

#### **1.7.1.11 Wilderness Study Areas and Non-WSA Lands with Wilderness Characteristics**

- Development within WSAs and areas with wilderness characteristics has the potential to impact the wilderness values of Jack and Desolation Canyons (e.g., size, naturalness, outstanding opportunities for solitude or primitive and unconfined recreation, and supplemental values).
- Development within the Jack and Desolation Canyon WSAs could impair wilderness suitability and prevent future congressional designation.
- Development in WSAs is inconsistent with the BLM's non-impairment criteria.
- Development within areas with wilderness characteristics could prevent the BLM from managing these areas in a manner that protects their wilderness values in the future.

#### **1.7.1.12 Livestock Grazing**

- The proposed development could result in the loss of available forage.
- The proposed development could result in changes to existing range facilities and increased difficulties in management of herds.
- Increased traffic levels could result in increased vehicle collisions with livestock herds.

#### **1.7.1.13 Vegetation Including Special Status Plants Other than USFWS Candidate or Listed Species**

- Surface disturbance would result in the direct loss of vegetation in the WTP Project Area.



- Construction of well pads, roads, pipelines and other facilities could result in the loss or fragmentation of suitable habitat for the Graham's beardtongue.
- Increased dust from traffic and construction could degrade productivity of vegetative communities and suitable habitat for the Graham's beardtongue.
- The use of dust suppression, including the use of magnesium chloride could impact vegetation adjacent to treated roads.

**1.7.1.14 Fish and Wildlife Including Special Status Wildlife Other than USFWS Candidate or Listed Species (e.g., Migratory Birds)**

- The construction of well pads, roads, pipelines, and other facilities would cause loss and fragmentation of habitat for wildlife species including elk, mule deer, sage-grouse, and other species.
- Year-round drilling and completion activities could cause displacement of elk, mule deer, and sage-grouse from winter use areas.
- The construction of well pads, roads, pipelines, and other facilities and increased human activity could result in temporary displacement of migratory birds, including raptors, from nesting and foraging habitats.
- The proposed development could result in contact of migratory birds with petroleum-based products contained in reserve pits and water management facilities.
- The proposed development could result in asphyxiation of migratory birds in heater-treaters or open-fired vessels.
- The proposed development could result in direct habitat loss or temporary displacement of bald eagles from roosting and foraging areas.
- Increased traffic could potentially result in vehicle collisions with carrion feeding bald and golden eagles.

**1.7.1.15 Soils**

- Removal of vegetation, mixing of soil horizons, and soil compaction could have a negative impact on soil productivity.
- Disturbance of soils could increase their susceptibility to wind and water erosion and subsequent sedimentation.
- Development could lead to contamination of soils with petroleum products.
- Surface disturbance could cause destruction of biological soil crusts within the WTP Project Area.

**1.7.1.16 Recreation**

- Development would increase motorized access into previously inaccessible areas reducing opportunities for primitive recreation.
- Development could diminish recreational experiences within the Nine Mile and Desolation Canyon Special Recreation Management Areas (SRMAs).

- Development could change the experience of the visitors traveling the Nine Mile Canyon Backcountry Byway.
- Noise from development could diminish recreational experiences within Desolation Canyon NHL.
- Development could reduce opportunities for high-quality hunting in limited entry areas.

#### **1.7.1.17 Visual Resources**

- The addition of wells, roads, pipelines, and gas production facilities would adversely affect the visual character of the landscape.
- Proposed development could be inconsistent with existing Visual Resource Management (VRM) classifications, particularly in VRM class I and II areas.
- The visual landscape as seen from sensitive viewpoints could be substantially degraded.
- Lighting of drill rigs would be visible from long viewing distances.

#### **1.7.1.18 Paleontology**

- The proposed development could lead to the loss of scientifically important Green River Formation vertebrate fossils.

#### **1.7.1.19 Socioeconomics**

- The proposed development could create the need for additional housing and public facilities and services (e.g., law enforcement, emergency, and health care services).
- The proposed development could help in meeting the nation's demand for natural gas, reducing costs of natural gas, and contribute to the national, State, and local economy.
- The proposed development would result in the creation of employment opportunities and public revenue streams (e.g., taxes and royalties) during the LOP.
- The proposed development could change the rural character of local communities surrounding the WTP Project Area.
- Rapid growth associated with development could create a short-term and disruptive boom in Duchesne, Uintah, and Carbon Counties.
- Proposed development could have an adverse impact on other economic sectors (e.g., ranching operations and recreational and cultural tourism).

#### **1.7.1.20 Transportation**

- Increased traffic could cause dust generation, vehicle emissions, road congestion, noise, accelerated deterioration of roads, and increased potential for vehicle accidents.

- Construction and widening of access roads could increase soil erosion, modify the visual landscape, impact paleo-geologic and cultural resources, and cause habitat fragmentation.
- Existing roads in the WTP Project Area were not designed for the proposed level of development and are not in compliance with the BLM road safety standards.
- Alternative access routes should be considered that would reduce the amount of vehicle traffic in Nine Mile Canyon.

#### **1.7.1.21 Health and Safety**

- Increased traffic could lead to more traffic accidents within the WTP Project Area.
- Proposed development and associated traffic could possibly affect emergency response time.
- Health and safety could be impacted from leaks and spills, on-site storage of hazardous materials, the content of reserve pits, and venting/flaring of toxic gases.
- Vehicle emissions and dust could impact human health.

#### **1.7.1.22 Wild Horses**

- The proposed development could result in a loss and fragmentation of winter range on Flat Iron Mesa and Cedar Ridge within the Range Creek Horse Management Area.
- Proposed development on benches and along ridge lines could alter wild horse migration routes between winter and summer grounds.
- Increased vehicles access could result in harassment of wild horses.

#### **1.7.1.23 Noise**

- The proposed development would result in increased ambient noise levels within the WTP Project Area as a result of construction, drilling, completion, and production activities. Increased noise levels could adversely affect wildlife and recreational experiences.

### **1.7.2 Critical Elements of the Human Environment**

The BLM requires that the type and magnitude of potential impacts to the following 17 Critical Elements of the Human Environment be addressed during the NEPA process (2003a, 2004a):

Water Quality	Air Quality
Wetlands/Riparian Zones	Rangeland Standards
Farmlands, Prime and Unique	Cultural Resources
Threatened and Endangered Species	ACECs
Paleontological Resources	WSAs
Wild and Scenic Rivers	Native American Trust Resources
Hazardous Materials/Waste	Environmental Justice
Migratory Birds	Native American Religious Concerns
Floodplains	

Prime or unique farmlands and designated wilderness do not occur within the WTP Project Area and, therefore, are not addressed further in this EIS. The remaining 15 Critical Elements of the Human Environment are discussed and analyzed in the Affected Environment (Chapter 3) and Environmental Consequences (Chapter 4) chapters of this EIS.