

EXECUTIVE SUMMARY

Bill Barrett Corporation (BBC) and other oil and gas operators have proposed to develop the oil and gas resources of the West Tavaputs Plateau (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 Bureau of Land Management [BLM]), approximately 8 percent State of Utah (managed by the State Institutional Trust Lands Administration [SITLA]), and approximately 5 percent private. Mineral ownership closely parallels surface ownership.

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.

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 Mineral Leasing Act of 1920 (MLA), as amended, provides that exploration and development of domestic oil and gas is in the best interest of the United States. The intent of the MLA and its implementing regulations are to allow, and essentially encourage, lessees or potential lessees to explore for oil and gas or other mineral reserves on Federally-administered lands. FLPMA mandates that the BLM manage public lands on the basis of multiple use (43 U.S.C. § 1701(a) (7)). Minerals are identified as one of the principal uses of public lands in Section 103 of FLPMA (43 U.S.C. § 1702(c)).

The BLM is responsible for administering activities consistent with rights associated with valid existing leases. Under the MLA, the lessee shall have the right to use as much of the leased lands as is necessary to explore, develop, and dispose of the leased resource (43 CFR 3101.1-2). According to the Federal Lands Policy Management Act (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 (see **Section 1.5**).

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.

SCOPING

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).

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 were identified during the public and internal scoping process are discussed in **Section 1.7.1**.

PROPOSED ACTION AND ALTERNATIVES

This EIS evaluates the potential environmental impacts from implementing the Proposed Action and alternatives as outlined in this chapter. Decisions on the Proposed Action and alternatives will be documented in a separate Record of Decision (ROD). The five fully analyzed alternatives within this EIS include Alternative A – Proposed Action; Alternative B – No Action Alternative; Alternative C – Transportation Impact Reduction Alternative; Alternative D – Conservation Alternative; and Alternative E – Agency Preferred Alternative. A brief summary of each alternative is provided below. Key components of the alternatives are also included in **Table ES-1**.

Under **Alternative A**, the Proposed Action, BBC and other operators would develop up to 807 natural gas wells from up to 538 well pads in the WTP Project Area. Of the 538 well pads proposed, approximately half of those pads would have directionally drilled wells (hence, the 807 wells). For the purpose of analysis, it is assumed that during the first year of development (the assumed peak year of development) BBC would operate six drill rigs year-round and other WTP operators would operate three rigs year-round. Following the first or peak year of development, drilling activity would likely begin to decline as other operators begin to exhaust their well locations. Drilling activities would occur for approximately 8 years. The anticipated life of an individual well is 20 years. The anticipated time it would take for field abandonment and final reclamation is 5 years. Therefore, the anticipated life of project (LOP) under the Proposed Action would be approximately 33 years.

In order to mitigate the impacts of winter drilling, BBC has included a detailed Wildlife Mitigation Plan as part of their Proposed Action. The goal of BBC's Wildlife Mitigation Plan is to improve habitats for sage grouse, mule deer, elk, and raptors, in an effort to offset the effects of winter drilling and other potential impacts of the project.

Under **Alternative B**, the No Action Alternative, proposed natural gas development on BLM-administered lands as described in the Proposed Action would not be implemented; however, natural gas development would likely continue to occur on State of Utah and private lands, subject to the approval of Utah Division of Oil, Gas, and Mining (UDOGM) or the appropriate private land owner. Production and maintenance activities would continue for wells and infrastructure developed on Federal lands prior to the publication of the NOI in the Federal Register on August 26, 2005 (as indicated in **Section 1.1**, certain development activities implemented subsequent to the NOI are included under Alternative A – Proposed Action to provide a more conservative analysis of full field development). Reasonable access across Federal lands to proposed well pads and facilities on State and private lands would occur under the No Action Alternative.

Under the No Action Alternative, approximately 81 natural gas wells would be developed from up to 54 well pads on State and private lands in the WTP Project Area. Three drill rigs would operate year-round for approximately 2 years. The anticipated life of an individual well would be approximately 20 years, and the anticipated time it would take for field abandonment and final reclamation is 5 years. Therefore, the anticipated LOP would be about 27 years. Because BBC and other operators are proposing directional drilling when technically and economically practicable, there is a possibility that wells drilled from State or private surface would extract minerals from below Federal surface. All proposed wells targeting Federal minerals would be required to go through the BLM Applications for Permit to Drill (APD) process.

Alternative C, the Transportation Impact Reduction Alternative, so named because of its focus on resolving issues related to transportation, was developed to address specific concerns raised by the public during the scoping process, while also considering a variety of measures to reduce environmental effects. The primary transportation-related concerns identified by the public during scoping were increased traffic on existing roads, safety hazards created by increased traffic volumes, and adverse impacts that traffic could have on recreation and natural and cultural resources. Under Alternative C, natural gas development on Federal leases would occur in a phased manner by limiting the number of rigs allowed and surface disturbance restrictions imposed by the BLM. Of the six rigs allowed under Alternative C, only two would operate during the winter season (defined as November 1 – May 15 in the Price River MFP), the remaining four rigs would operate on a seasonal basis. When compared to the Proposed Action, the implementation of Alternative C would increase the overall LOP by approximately 7 years, but would decrease traffic-related impacts and annual surface disturbance.

In addition to limiting the number of rigs, transportation impacts would be reduced under Alternative C by implementation of the following:

- Daily use of the existing Peter's Point air strip, and proposed Flat Iron and Prickly Pear Mesa airstrips, for transport of drilling workforce and/or supplies (reduction of approximately eight vehicle roundtrips per well/day).
- Transporting produced water and condensate via water/condensate transfer pipelines to proposed Salt Water Disposal (SWD) wells or water management facilities.
- Administrative access only (i.e., closed to the general public) on Cottonwood Canyon Road, Harmon Canyon Road, and Prickly Pear Road during the winter season (December 1 - April 15).
- Prohibiting use of Prickly Pear Road by all project-related trailer traffic or vehicles with truck-load capacity of 1-ton or larger.
- Requiring transportation of routine drilling and completion supplies to the storage areas during hours of low use (7:00 PM to 10:00 AM) during the non-winter period (May 16 – October 31).
- Limiting transportation of routine drilling and completion supplies on weekends and holidays.
- Administrative access on Horse Bench Road (i.e., closed to the general public).

- Gating all proposed roads longer than 2 miles after drilling and completion activities are completed.
- Gating all roads that provide access to proposed wells in the Wilderness Study Areas (WSAs) (i.e., closed to the general public).
- Reclaiming redundant roads, roads that create unnecessary loops, or roads determined to be detrimental to sensitive natural and cultural resources.
- Using enhanced dust abatement techniques (e.g., chlorides or enzymes) on the BLM system roads located within the WTP Project Area.

In addition to reducing transportation impacts, if Alternative C were selected, impacts to sensitive resources throughout the WTP Project Area would be reduced by the implementation of special protection measures for wildlife and high country watersheds. These special protection measures would help ensure the stability of sensitive resources and were developed by the BLM and its cooperating agencies. The BLM would evaluate the effectiveness of these measures annually and would optimize resource protection through an adaptive management approach.

Under Alternative C, the special protection measures and the measures in **Tables 2.6-7** and **2.6-8** would be implemented and would allow development activities to occur throughout the WTP Project Area as proposed by BBC and other operators. Thus, under the phased development of Alternative C, it is assumed that BBC and other operators would develop up to 807 natural gas wells from up to 538 well pads over a 15-year period. The anticipated life of an individual well would be approximately 20 years. The anticipated time it would take for field abandonment and final reclamation is 5 years. Therefore, the anticipated LOP would be approximately 40 years.

In addition to limiting the number of rigs and the inclusion of special protection measures, under Alternative C, maximum new annual surface disturbance would be limited to approximately 280 acres per year, and the total unreclaimed surface disturbance allowed under this EIS would be limited to approximately 2,250 acres at any given time. Site-specific disturbed acreages would be removed from the total unreclaimed surface disturbance calculation once the site-specific surface disturbance meets successful interim reclamation standards.

The effectiveness of the special protection measures for sensitive resources and transportation impact reduction measures, as well as compliance with interim reclamation standards and disturbance thresholds would be monitored by a third-party contractor selected by the BLM and funded by the operators.

Under Alternative C, the BLM and Utah Division of Wildlife Resources (UDWR) have also included an Agency Wildlife Mitigation Plan, which is a modification of BBC's Wildlife Mitigation Plan. The agencies' mitigation plan emphasizes the importance of offsetting, to the extent reasonable, the impacts of the full field development in its entirety. The agencies' plan gives priority to compensating for potential effects to greater sage grouse, deer, elk, and raptors.

Alternative D, the Conservation Alternative, generically named because of its focus on protecting certain surface resources, was developed in response to public concerns and opposition to oil and gas development and production activity within the Jack Canyon

and Desolation Canyon WSAs, the proposed Nine Mile Canyon and Desolation Canyon Areas of Critical Environmental Concern (ACECs), and other sensitive areas (e.g., canyon bottoms, non-WSA lands with wilderness characteristics, crucial wildlife habitat, and high-country watersheds). Under Alternative D, impacts to these resource areas would be reduced or eliminated by implementation of the measures outlined in **Tables 2.6-7** and **2.6-8** and by implementation of the following measures:

- No surface occupancy (NSO) by new well pads or other facilities on Federal lands within Jack Canyon and Desolation Canyon WSAs.
- NSO on Federal lands within the Desolation Canyon NHL.
- No leasing of currently unleased lands with wilderness characteristics.
- NSO on unleased Federal lands within the potential Nine Mile Canyon and Desolation Canyon ACECs, as illustrated in the Conservation Alternative (Alternative D) of the *Draft Price Resource Management Plan and Environmental Impact Statement* (BLM 2004b) and the *Supplemental Information and Analysis to the Draft Price Resource Management Plan and Environmental Impact Statement for Areas of Critical Environmental Concern* (BLM 2006a).
- As feasible (where to do so would not preclude the development of valid and existing lease rights), NSO on Federal lands within canyon bottoms.
- Administrative access only on Horse Bench Road (i.e., closed to the public).
- No temporary worker housing locations to reduce the potential for worker-related impacts to cultural resources.
- No variances to existing lease stipulations.

If Alternative D were selected, natural gas development on Federal leases would be implemented in a phased manner through limitations on the number of rigs, seasonal restrictions, and surface disturbance restrictions imposed by the BLM. Thus, it is assumed that if Alternative D were implemented BBC and other operators would develop up to 558 natural gas wells from up to 348 well pads over a 21-year period. The anticipated life of an individual well would be approximately 20 years, and the anticipated time it would take for field abandonment and final reclamation is 5 years. Therefore, the anticipated LOP would be approximately 46 years.

In addition to the limitations and restrictions described above, the maximum new annual surface disturbance would be limited to approximately 180 acres per year on Federal land, and the total unreclaimed surface disturbance allowed under this EIS would be limited to approximately 1,440 acres at any given time. Acreages would be removed from the total unreclaimed surface disturbance calculations once the site-specific surface disturbance meets successful interim reclamation standards. Assuming successful interim reclamation, the maximum long-term disturbance under Alternative D would be approximately 1,237 acres.

The effectiveness of the special protection measures for sensitive resources and transportation impact reduction measures, as well as compliance with interim reclamation standards and disturbance thresholds would be monitored by a third-party contractor selected by the BLM and paid for by the operators.

Alternative E has been designated by the BLM as the Agency Preferred Alternative. The Agency Preferred Alternative incorporates components from the Proposed Action, Alternative C, and Alternative D. Under this alternative, it is assumed that BBC and other operators would develop up to 807 natural gas wells from approximately 494 well pads over a 9-year period.

The Agency Preferred Alternative would allow year-round drilling in the WTP Project Area without imposing rig limitations.

If Alternative E were selected, the BLM would require implementation of additional special protective measures for wildlife and high country watersheds in the WTP Project Area, as well as the following transportation impact reduction measures:

- Transporting produced water and condensate via water/condensate transfer pipelines to proposed SWD wells or water management facilities;
- Prohibiting use of Prickly Pear Road by all project-related trailer traffic or vehicles with truck-load capacity of 1-ton or larger;
- Limiting transportation of routine drilling and completion supplies on weekends and holidays;
- Requiring the use of storage areas for casing material and pipeline material to reduce project-related traffic;
- Gating all proposed new roads longer than 2 miles after drilling and completion activities are completed;
- Gating all roads that provide access to proposed well pads in the WSAs (i.e., closed to the general public); and
- Reclaiming redundant roads, roads that create unnecessary loops, or roads determined to be detrimental to sensitive natural and cultural resources.

In an effort to minimize impacts to sensitive resource areas, the Agency Preferred Alternative also contains several components from Alternative D. The following measures would reduce the impacts of development within WSAs, canyon bottoms, and the Desolation Canyon NHL:

- As feasible (where to do so would not preclude the development of valid and existing lease rights), NSO by new well pads or other facilities on Federal lands within Jack Canyon and Desolation Canyon WSAs;
- NSO on Federal lands within the Desolation Canyon National Historic Landmark (NHL); and
- As feasible (where to do so would not preclude the development of valid and existing lease rights), NSO on Federal lands within canyon bottoms.

As with Alternatives C and D, under the Agency Preferred Alternative impacts to resources would also be reduced by limiting annual surface disturbance and total unreclaimed surface disturbance allowed at any given time. Under Alternative E, BBC and other operators would be limited to approximately 540 acres of surface disturbance per year (see **Section 2.6.1.1**). Total unreclaimed surface disturbance allowed at any

given time under this EIS would be limited to approximately 2,310 acres. To accommodate these surface disturbance thresholds, BBC and other operators would be required to initiate interim reclamation measures as soon after development as practicable. Acreages of disturbance would be removed from the unreclaimed surface disturbance totals upon meeting successful interim reclamation standards.

Under Alternative E, the BLM and UDWR have also included an Agency Wildlife Mitigation Plan. The agencies' alternative mitigation plan emphasizes the importance of offsetting, to the extent reasonable, the effects of the full field development in its entirety. The agencies' plan gives priority to compensating for potential impacts to greater sage grouse, deer, elk, and raptors.

A final and unique component of the Agency Preferred Alternative would require BBC and other operators to construct turnouts and/or designated parking locations at appropriate intervals on Federal lands along the Nine Mile Canyon Backcountry Byway to reduce transportation-related safety concerns. The turnout and parking locations would include those coinciding with site improvements identified in the *BLM Recreation and Cultural Area Management Plan: Nine Mile Canyon Special Recreation and Cultural Management Area* (BLM 1995a).

In addition, BLM would invite BBC and other operators to cooperate in a partnership to develop visitor interpretation/enhancement sites (e.g., walking paths, signage, and/or informational kiosks), some of which are located on BBC-owned land, to improve the recreational experience in Nine Mile Canyon. Site improvement priorities would be based on the Recreation and Cultural Area Management Plan referenced above. These sites would direct people to designated areas, inform and educate visitors of the unique resources in the Nine Mile Canyon area, while contributing to a safer visitor experience. The priority sites include but are not limited to the following:

- First Site
- Owl Panel
- Cottonwood Complex (i.e., Cottonwood Village, Great Hunt Panel, Big Buffalo)
- Rasmussen Cave
- Daddy Canyon
- Interpretive Panel at Gate Canyon
- Gate Canyon historic road

ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED ANALYSIS

Seven alternatives were briefly considered but eliminated from detailed analysis: Rescinding Leases: separation of Alternative D into two alternatives (Alternatives X and Y); No New Development in the WTP Project Area; Suspending Leases within WSAs, Directional Drilling; Alternative Access Routes; and Compliance with the BLM Road Standards.

AFFECTED ENVIRONMENT

Chapter 3 of the EIS describes the affected environment of the WTP Project Area. Resources and resource uses described in this chapter include the Critical Elements of the Human Environment that are known to occur in the WTP Project Area, as well as the substantive issues of concern brought forward during internal and public scoping. Affected environment information within Chapter 3 is intended to set up a baseline for comparison of the direct, indirect, and cumulative impacts of each of the alternatives.

ENVIRONMENTAL CONSEQUENCES

Chapter 4 describes the effects of implementing the alternatives on the affected human environment as described in Chapter 3. The resource-specific effects of the alternatives are evaluated both quantitatively and qualitatively, depending on available data and the nature of the resource analyzed. A summary of the Chapter 4 impact analyses is provided in **Table ES-2**.

CUMULATIVE IMPACTS

Cumulative impacts from past, present, and reasonably foreseeable development are discussed in Chapter 5. Spatial boundaries for cumulative impact assessments vary and are larger for resources that are mobile or migrate compared to resources that are stationary. For most resources, the Cumulative Impact Analysis Area (CIAA) includes the Price planning area. For some resources, the CIAA is smaller due to the geographically-confined nature of cumulative impacts (e.g., specific grazing allotments and/or areas of special designation). For other resources (e.g., socioeconomics), the CIAA includes the greater Uinta Basin, which encompasses the northwest portion of the Price planning area and the Vernal planning area. In support of the cumulative impact discussions, this chapter provides a discussion on all known Reasonable Foreseeable Future Action (RFFA) that could take place within the 20-year planning period defined in the Draft Price Resource Management Plan (RMP) (BLM 2004b). However, based upon available information and the fact that minerals and energy activity present the greatest potential for significant impacts, the focus of this analysis is on past, present, and reasonably foreseeable oil and gas development. Because of the lack of detailed information, cumulative impacts associated with other activities or projects are examined on a more qualitative basis.

Table ES-1. Summary Comparison of Alternatives										
Proposed Features¹	Alternative A – Proposed Action		Alternative B – No Action Alternative		Alternative C – Transportation Impact Reduction Alternative		Alternative D – Conservation Alternative		Alternative E – Agency Preferred Alternative	
Wells	807		81		807		558		807	
<i>Wells on Leased/Unleased Lands</i>	588	219	60	21 ¹	588	219	537	21	588	219
Well Pads	538		54		538		348		494	
<i>Well Pads on Leased/Unleased Lands</i>	392	146	40	14	392	146	336	12	348	146
Number of Drilling Rigs	9		3		6		7		7 ² (assumed for the purpose of analysis)	
Drilling Season	9 rigs Year-round		3 rigs Year-round		2 rigs Year-round, remaining 4 rigs allowed 5/16 – 10/31 (approval of winter drilling would be subject to annual review requirements) 6 rigs		7 rigs 5/16 – 10/31 (No winter drilling 11/1 – 5/15)		7 ² rigs Year-round (approval of winter drilling would be subject to annual review requirements)	
Wells per year	168		60		62		40		128 ² (assumed for the purpose of analysis)	
Drilling Duration (years)	8		2		15		21		9	
Life of Well (years)	20		20		20		20		20	

¹ Under the No Action Alternative development is proposed on some unleased State lands within the WTP Project Area.

Table ES-1. Summary Comparison of Alternatives					
Proposed Features¹	Alternative A – Proposed Action	Alternative B – No Action Alternative	Alternative C – Transportation Impact Reduction Alternative	Alternative D – Conservation Alternative	Alternative E – Agency Preferred Alternative
Field Abandonment and Final Reclamation (years)	5	5	5	5	5
Life of Project (years)	33	27	40	46	34
New Access Road (miles)	178	32	176	127	168
Existing Road Improvements (miles)	21.5	6.2	53.3	46.6	46.6
Proposed Road Reroutes (miles)	8.9	0	6.0	0	6.0
Pipeline (miles)	165 co-located w/ proposed road 19.5 along existing road 10 cross-country	29 co-located w/ proposed road 6.7 along existing road 10 cross-country	169 co-located w/ proposed road 24 along existing road 10 cross-country	120 co-located w/ proposed road 19 along existing road 10 cross-country	159 co-located w/ proposed road 24 along existing road 10 cross-country
Buried Pipelines	No	No	62 percent	No	Yes
Surface Pipelines	Yes	Yes	38 percent	Yes	No
Number of Pump Stations	4	0	4	3	4
Number of Equipment Storage Areas	3	2	3	3	3
Airstrip improvements/New Construction	Yes	No	Yes	Yes	Yes

Table ES-1. Summary Comparison of Alternatives					
Proposed Features¹	Alternative A – Proposed Action	Alternative B – No Action Alternative	Alternative C – Transportation Impact Reduction Alternative	Alternative D – Conservation Alternative	Alternative E – Agency Preferred Alternative
Number of Temporary Worker Housing Locations	3	2	3	None	3
New Compressor Stations (associated hp)	3 (24K)	2 (17.6K)	3 (24K)	3 (11.2K)	3 (24K)
Estimated Short-term Surface Disturbance	3,656	626	3,626	2,510	3,399
Estimated Long-term Surface Disturbance (after successful interim reclamation)	1,864	279	1,829	1,237	1,705
Maximum New Annual Surface Disturbance Allowed (acres)	NA	NA	280	180	540
Total Unreclaimed Surface Disturbance Allowed At Any Time (acres)	NA	NA	2,250	1,440	2,310

¹All numbers and units of measure should be considered approximations.

²The Agency Preferred Alternative would allow year-round drilling in the WTP Project Area without imposing rig limitations or well number limitations. However, for the purpose of analysis, Alternative E assumes that a maximum of 7 rigs would be drilling at any time.

Table ES-2. Summary Comparison of the Impacts of the Alternatives					
Resource	Alternative A – Proposed Action Impacts	Alternative B – No Action Alternative Impacts	Alternative C – Transportation Impact Reduction Alternative Impacts	Alternative D – Conservation Alternative Impacts	Alternative E – Agency Preferred Alternative Impacts
Geology and Minerals	Topographic changes would result from 538 well pads and other facilities on mesa tops, canyon bottoms, and canyon rims. No significant impacts to salable minerals, coal, tar sands, or oil shale. Slightly increased potential for landslides and rock falls in canyons during blasting.	Topographic changes would be approximately 17 percent of Proposed Action. No significant impacts to salable minerals, coal, tar sands, or oil shale. Slightly increased potential for landslides and rock falls in canyons during blasting. Recovery of natural gas about 9 percent of Proposed Action.	Impacts similar to Proposed Action, but would occur over a longer time period. Production of natural gas would proceed at approximately 33 percent slower rate than under the Proposed Action.	Topographic changes would be about 66 percent of that for the Proposed Action. Production of natural gas would proceed at 50 percent slower rate than for the Proposed Action. Depletions of natural gas about 65 percent of that for the Proposed Action. Limited development in canyon bottoms or slopes over 40 percent would lessen the potential for landslides compared to the Proposed Action. Slightly increased potential for rock falls in canyons during blasting.	Impacts similar to Proposed Action. Topographic changes approximately 92 percent of Proposed Action. No significant impacts to salable minerals, coal, tar sands, or oil shale. Slightly increased potential for landslides and rock falls in canyons during blasting. Recovery of natural gas similar to Proposed Action.
Paleontology	Based on conceptual locations of surface facilities, surface-disturbing activities could potentially result in impacts to four known and other unknown paleontological localities in the WTP Project Area. Construction of project facilities may also uncover scientifically important fossils.	Based on conceptual locations of surface facilities, surface-disturbing activities could potentially result in impacts to three known and other unknown paleontological localities in the WTP Project Area. Construction of project facilities may also uncover scientifically important fossils. Surface disturbance equals approximately 17 percent of Proposed Action.	Impacts similar in nature and scope to the Proposed Action.	Impacts would be substantially less than those described under the Proposed Action based on NSO in canyon bottoms where fossil potential is high. Surface disturbance equals approximately 69 percent of Proposed Action.	Impacts similar in nature and scope to the Proposed Action. Surface disturbance equals approximately 93 percent of Proposed Action.
Air Quality	The Proposed Action would result in emissions of criteria pollutants below the NAAQS. NO ₂ concentrations would not likely exceed PSD Class II increments. However, PM ₁₀ concentrations would potentially exceed the PSD Class II increments. Non-carcinogenic acute REL and RfC impacts would be below	Qualitative air quality impacts under the No Action Alternative would be similar in nature to those described for the Proposed Action given the reduction in numbers of wells and compression; however, under the No Action Alternative, PM ₁₀ concentrations would not exceed the PSD Class II	Qualitative air quality impacts would be similar to but slightly less than those described under the Proposed Action.	Qualitative air quality impacts would be similar to but substantially less than those described under the Proposed Action given the reduction in numbers of wells and compression.	Qualitative air quality impacts would be similar to those described under the Proposed Action.

Table ES-2. Summary Comparison of the Impacts of the Alternatives					
Resource	Alternative A – Proposed Action Impacts	Alternative B – No Action Alternative Impacts	Alternative C – Transportation Impact Reduction Alternative Impacts	Alternative D – Conservation Alternative Impacts	Alternative E – Agency Preferred Alternative Impacts
	<p>all applicable significance criteria. Formaldehyde and benzene impacts are not expected to exceed TSLs for the State of Utah. Increases in pollutant concentrations are not expected to exceed PSD Criteria Increments. Terrestrial acid deposition is not expected to exceed thresholds at Class I or Class II areas. Predicted impacts at all lakes would be a 10 percent change in acid neutralizing capacity. No changes in visibility at Class I areas that exceeded a 1.0 deciview limit of acceptable change.</p>	<p>Increments.</p>			
Soils	<p>Increased erosion, vegetation loss, loss of productivity, and increased compaction on approximately 3,656 acres short-term and 1,864 acres long-term surface disturbance. Erosion increases of 2,575 tons short-term (2.9 percent increase) and 887 tons long-term (1.0 percent). Increased chance of soil contamination from products and fuels. Potential initial disturbance of 1,097 acres of biological soil crusts.</p>	<p>Impacts similar to the Proposed Action, but of substantially lesser magnitude. Approximately 626 acres short-term and 279 acres long-term surface disturbance. Erosion increases of 475 tons short-term (0.54 percent increase) and 147 tons long-term (0.17 percent). Increased chance of soil contamination from products and fuels approximately 17 percent of that for the Proposed Action. Potential initial disturbance of 188 acres of biological soil crusts.</p>	<p>Impacts similar to the Proposed Action, but over longer time frame. Approximately 3,626 acres short-term and 1,828 acres long-term surface disturbance. Erosion increases of 2,878 tons short-term (3.2 percent increase) and 913 tons long-term (1.0 percent). Potential initial disturbance of 1,088 acres of biological soil crusts.</p>	<p>Impacts similar to the Proposed Action, but of lesser magnitude. Approximately 2,510 acres short-term and 1,237 acres long-term surface disturbance. Erosion increases of 2,046 tons short-term (2.3 percent increase) and 758 tons long-term (0.9 percent). Chance of soil contamination from products and fuels substantially less in sensitive areas such as canyon bottoms, WSAs, and proposed ACECs because of NSO requirements. Potential initial disturbance of 753 acres of biological soil crusts.</p>	<p>Impacts similar to the Proposed Action. Approximately 3,399 acres short-term and 1,705 acres long-term surface disturbance. Erosion increases of 2,702 tons short-term (3.1 percent increase) and 853 tons long-term (1.0 percent). Potential initial disturbance of 1,020 acres of biological soil crusts.</p>

Resource	Alternative A – Proposed Action Impacts	Alternative B – No Action Alternative Impacts	Alternative C – Transportation Impact Reduction Alternative Impacts	Alternative D – Conservation Alternative Impacts	Alternative E – Agency Preferred Alternative Impacts
Water Resources	<p>Increased sediment delivery to Nine Mile Creek of 538 tons per year short-term and 185 tons per year (0.16 percent) long-term. Increased sediment delivery to the Green River of 773 tons short-term and 266 tons (0.0039 percent) long-term. Slightly increased runoff, turbidity, and salinity. Increased chance of water contamination from produced fluids, dust suppressants, and fuels. Depletion of Nine Mile Creek flows by 1.15 percent over an 8-year development period. No significant impacts to groundwater or springs.</p>	<p>Impacts similar to the Proposed Action, but of lesser magnitude. Increased sediment delivery to Nine Mile Creek of 100 tons per year short-term and 44 tons per year (0.028 percent) long-term. Increased sediment delivery to the Green River of 43 tons short-term and 44 tons (0.0007 percent) long-term. Chance of water contamination from produced fluids, dust suppressants, and fuels approximately 17 percent of that for the Proposed Action. Depletion of Nine Mile Creek flows by 0.71 percent over a 2-year development period. No significant impacts to groundwater or springs.</p>	<p>Impacts similar to the Proposed Action, but over longer time frame. Increased sediment delivery to Nine Mile Creek of 608 tons per year short-term and 191 tons per year (0.16 percent) long-term. Increased sediment delivery to the Green River of 864 tons short-term and 274 tons (0.004 percent) long-term. Increased runoff, turbidity, salinity, and potential for water contamination similar to Proposed Action. Depletion of Nine Mile Creek flows by 0.65 percent over a 15-year development period. No significant impacts to groundwater or springs.</p>	<p>Impacts similar to the Proposed Action, but of lesser magnitude. Increased sediment delivery to Nine Mile Creek of 425 tons per year short-term and 155 tons per year (0.13 percent) long-term. Increased sediment delivery to the Green River of 614 tons short-term and 227 tons (0.0033 percent) long-term. Increased runoff, turbidity and salinity similar to Proposed Action. Potential for water contamination lower than Proposed Action due to NSO in canyon bottoms. Depletion of Nine Mile Creek flows by 0.35 percent over a 20-year development period. No significant impacts to groundwater or springs.</p>	<p>Impacts similar to the Proposed Action, but over longer time frame. Increased sediment delivery to Nine Mile Creek of 566 tons per year short-term and 178 tons per year (0.15 percent) long-term. Increased sediment delivery to the Green River of 808 tons short-term and 256 tons (0.0038 percent) long-term. Increased runoff, turbidity, salinity, and potential for water contamination similar to Proposed Action. Depletion of Nine Mile Creek flows by 1.01 percent over a 9-year development period. No significant impacts to groundwater or springs.</p>
Land Use	<p>Implementation would lead to adjustments in existing land uses on public and private lands and authorization of additional ROWs.</p>	<p>Impacts would be similar to those described under the Proposed Action but would be substantially less based upon the level of development.</p>	<p>Impacts would be similar to the Proposed Action; however, surface disturbance thresholds and rig limitations would limit the annual and total amount of surface disturbance. As such, the extent of land uses displaced would be less than under the Proposed Action.</p>	<p>Impacts would be similar to the Proposed Action; however, surface disturbance would be approximately 69 percent of disturbance estimated under the Proposed Action. In addition, intensity of development would be controlled by rig limitations, surface disturbance thresholds, and seasonal restrictions. Finally, there would be NSO in canyon bottoms (where surface occupancy restrictions would not preclude access to valid and existing rights) and in WSAs. Consequently, the extent of land uses displaced would be less than under the Proposed Action.</p>	<p>Impacts would be similar to the Proposed Action; however, surface disturbance thresholds would limit the annual and total amount of surface disturbance. In addition, there would be reduced surface disturbance in WSAs and NSO in canyon bottoms (where surface occupancy restrictions would not preclude access to valid and existing rights). As such, the extent of land uses displaced would be less than under the Proposed Action.</p>

Resource	Alternative A – Proposed Action Impacts	Alternative B – No Action Alternative Impacts	Alternative C – Transportation Impact Reduction Alternative Impacts	Alternative D – Conservation Alternative Impacts	Alternative E – Agency Preferred Alternative Impacts
Rangeland Management	<p>Short-term removal of forage, thereby impacting 212 AUMs; potential impacts to livestock management facilities (e.g., damage to gates and cattle guards) could subsequently affect livestock movements; potential increase in livestock–vehicle collisions; winter development in the Green River allotment and snow-plowed roads (i.e., high snow banks) with no exit points could potentially hinder livestock movement; and increased potential for invasive and noxious plants, which could further reduce available forage for livestock.</p>	<p>Short-term removal of forage, thereby impacting 21 AUMs; potential impacts to livestock management facilities (e.g., damage to gates and cattle guards) could subsequently affect livestock movements; potential increase in livestock–vehicle collisions; winter development in the Green River allotment and snow-plowed roads (i.e., high snow banks) with no exit points could potentially hinder livestock movement; and increased potential for invasive and noxious plants, which could further reduce available forage for livestock.</p> <p>Most direct impacts would be limited to State and private lands and impacts to Federal AUMs would be substantially less than Proposed Action, Alternatives C, D, or E.</p>	<p>Impacts similar in nature to those under Proposed Action; activities would result in short-term removal of forage, thereby impacting 210 AUMs; potential impacts to livestock management facilities could subsequently affect livestock movements; potential increase in livestock–vehicle collisions; and increased potential for invasive and noxious plants, which could further reduce available forage for livestock. However, impacts resulting from weeds would be reduced based on mitigation measures in Table 2.6-8 requiring a weed control plan and annual monitoring of weeds.</p> <p>Winter development in the Green River allotment and snow-plowed roads (i.e., high snow banks) with no exit points could potentially hinder livestock movement, however these potential impacts would be reduced under Alternative C given the special protection measures that would require operators to leave openings during plowing to provide for wildlife (and livestock) movement.</p> <p>Traffic related impacts (e.g., livestock-vehicle collision potential) would be reduced because of rig limitations and other measures to reduce traffic.</p>	<p>Direct impacts substantially less than Proposed Action, Alternative C, or Alternative E because of NSO limitations in sensitive areas.</p> <p>Short-term removal of forage, thereby impacting 159 AUMs; potential impacts to livestock management facilities (e.g., damage to gates and cattle guards) could subsequently affect livestock movements; potential increase in livestock–vehicle collisions; and increased potential for invasive and noxious plants, which could further reduce available forage for livestock. However, impacts resulting from weeds would be reduced based on mitigation measures in Table 2.6-8 requiring a weed control plan and annual monitoring of weeds.</p> <p>Potential impacts to livestock during the winter would be substantially reduced as construction, drilling, or completion would be prohibited during the winter months. However, winter related impacts could still occur as production activities would continue year-round.</p>	<p>Impacts similar in nature to those under Proposed Action; activities would result in short-term removal of forage, thereby impacting 197 AUMs; potential impacts to livestock management facilities (e.g., damage to gates and cattle guards) could subsequently affect livestock movements; potential increase in livestock–vehicle collisions; and increased potential for invasive and noxious plants, which could further reduce available forage for livestock. However, impacts resulting from weeds would be reduced based on mitigation measures in Table 2.6-8 requiring a weed control plan and annual monitoring of weeds.</p> <p>Winter development in the Green River allotment and snow-plowed roads (i.e., high snow banks) with no exit points could potentially hinder livestock movement, however these potential impacts would be reduced under Alternative E given the special protection measures that would require operators to leave openings during plowing to provide for wildlife (and livestock) movement.</p> <p>Traffic related impacts (e.g., collision potential) would be reduced because of transportation restrictions.</p>

Resource	Alternative A – Proposed Action Impacts	Alternative B – No Action Alternative Impacts	Alternative C – Transportation Impact Reduction Alternative Impacts	Alternative D – Conservation Alternative Impacts	Alternative E – Agency Preferred Alternative Impacts
Wild Horses	Proposed Action would result in short-term removal of approximately 1,091 acres of forage within Range Creek HMA, 6,823 acres of habitat fragmentation, and general loss in habitat value; potential displacement from habitats, which could adversely affect horses, especially when displaced from wintering areas; potential increase in wild horse-vehicle collisions.	Impacts substantially lower than Proposed Action, Alternative C, or Alternative E because development would be limited to State and private lands. However, No Action Alternative would result in short-term removal of approximately 99 acres of forage and increased habitat fragmentation; potential displacement from habitats, which could adversely affect horses, especially when displaced from wintering areas; potential increase in wild horse-vehicle collisions.	Impacts similar to Proposed Action. Short-term removal of approximately 1,116 acres of forage, increased habitat fragmentation, and general loss in habitat value; potential displacement from habitats, which could adversely affect horses especially when displaced from wintering areas. Impacts on horses during the winter would be reduced as only 2 rigs would be allowed to operate during the winter season. Similarly, special mitigation measures designed for reducing winter-related effects on wildlife would serve to reduce impacts on wild horses. Traffic related impacts (e.g., collision potential) would also be reduced because of rig limitations and other measures to reduce transportation-related impacts.	Alternative D would result in short-term removal of approximately 726 acres of forage, 11,008 acres of habitat fragmentation, and general loss in habitat value; potential displacement from habitats, which could adversely affect horses especially when displaced from wintering areas; and potential increase in wild horse-vehicle collisions. However, potential impacts to horses during the winter would be substantially reduced as development would prohibit construction, drilling, or completion during the winter months. However, winter-related impacts could still occur as production activities would continue year-round. Impacts substantially less than Proposed Action, Alternative C, or Alternative E because of NSO limitations in sensitive areas.	Alternative E would result in short-term removal of approximately 1,002 acres of forage, increased habitat fragmentation, and general loss in habitat value; potential displacement from habitats, which could adversely affect horses especially when displaced from wintering areas; and potential increase in wild horse-vehicle collisions. Impacts on horses during the winter would be reduced given special mitigation measures designed for reducing winter-related effects on wildlife, which would serve to reduce impacts on wild horses. Traffic related impacts (e.g., collision potential) would also be reduced because of rig limitations and other measures to reduce transportation-related impacts.
Vegetation	Proposed Action would result in direct, short-term removal of approximately 3,656 acres of vegetation and increased fragmentation of vegetation communities; decreased productivity due to increased erosion, sediment deposition, and fugitive dust; increased potential for wildfires; and increased potential for the spread of invasive and noxious plants primarily along roadways, which could out-compete native vegetation in the WTP Project Area.	No Action Alternative would result in direct, short-term removal of approximately 626 acres of vegetation and increased fragmentation of vegetation communities; decreased productivity due to increased erosion, sediment deposition, and fugitive dust; increased potential for wildfires; and increased potential for the spread of invasive and noxious plants primarily along roadways, which could out-compete native vegetation in the area.	Alternative C would result in direct, short-term removal of approximately 3,626 acres of vegetation and increased fragmentation of vegetation communities; decreased productivity due to increased erosion, sediment deposition, and fugitive dust; increased potential for wildfires; and increased potential for the spread of invasive and noxious plants primarily along roadways, which could out-compete native vegetation in the area. However, impacts resulting from	Alternative D would result in direct, short-term removal of approximately 2,510 acres of vegetation and increased fragmentation of vegetation communities; decreased productivity due to increased erosion, sediment deposition, and fugitive dust; increased potential for wildfires; and increased potential for the spread of invasive and noxious plants primarily along roadways, which could out-compete native vegetation in the area. However, impacts resulting from	Alternative E would result in direct, short-term removal of approximately 3,399 acres of vegetation and increased fragmentation of vegetation communities; decreased productivity due to increased erosion, sediment deposition, and fugitive dust; increased potential for wildfires; and increased potential for the spread of invasive and noxious plants primarily along roadways, which could out-compete native vegetation in the area. However, impacts resulting from

Resource	Alternative A – Proposed Action Impacts	Alternative B – No Action Alternative Impacts	Alternative C – Transportation Impact Reduction Alternative Impacts	Alternative D – Conservation Alternative Impacts	Alternative E – Agency Preferred Alternative Impacts
		<p>Impacts substantially lower than under the Proposed Action, Alternative C, or Alternative E because development would be limited to State and private lands.</p>	<p>weeds would be reduced compared to the Proposed Action based on mitigation measures in Table 2.6-8 requiring a weed control plan and annual monitoring of weeds, as well as requirements for interim reclamation.</p> <p>Traffic-related impacts (e.g., sediment deposition, fugitive dust) would be reduced because of rig limitations and other transportation restrictions, which would reduce traffic within the WTP Project Area.</p> <p>Long-term fragmentation of vegetation communities would be less than Proposed Action due to interim reclamation requirements and burial of 62 percent of proposed pipelines (followed by interim reclamation of the pipeline ROWs).</p>	<p>weeds would be reduced compared to the Proposed Action based on mitigation measures in Table 2.6-8 requiring a weed control plan and annual monitoring of weeds, the reduction in surface disturbance, as well as requirements for interim reclamation.</p> <p>Traffic-related impacts (e.g., sediment deposition, fugitive dust) would be reduced because transportation restrictions would reduce traffic in sensitive areas.</p> <p>Long-term fragmentation of vegetation communities would also be less than Proposed Action due to interim reclamation requirements.</p>	<p>weeds would be reduced compared to the Proposed Action based on mitigation measures in Table 2.6-8 requiring a weed control plan and annual monitoring of weeds, as well as requirements for interim reclamation.</p> <p>Traffic-related impacts (e.g., sediment deposition, fugitive dust) would be reduced because transportation restrictions would reduce traffic in sensitive areas.</p> <p>Long-term fragmentation of vegetation communities would be less than Proposed Action due to interim reclamation requirements and burial of all proposed pipelines (followed by interim reclamation of the pipeline ROWs).</p>
Wildlife	<p>Potential for direct, short-term removal of approximately 3,656 acres of habitat, 16,842 acres of habitat fragmentation in crucial winter mule deer habitat; 20,058 acres of habitat fragmentation in crucial winter elk habitat; reduced habitat value or use by wildlife; temporary habitat loss due to changes in vegetation structure; avoidance of habitat or temporary displacement from habitat caused by increased human activity, traffic, noise, and lighting, which could increase physical distress,</p>	<p>Potential for direct, short-term removal of approximately 626 acres of habitat and foraging areas, and increased fragmentation of these areas; reduced habitat value or use by wildlife; temporary habitat loss due to changes in vegetation structure; avoidance of habitat or temporary displacement from habitat caused by increased human activity, traffic, noise, and lighting, which could increase physical distress, energy expenditure, competition for resources, and decrease nutrition</p>	<p>Based on the special protective measures designed for wildlife, many of the direct and indirect impacts of the Proposed Action would be reduced or eliminated under Alternative C. Furthermore, mitigation measures in Table 2.6-8 would eliminate many of the potential impacts (e.g., raptor nest survey requirements and compliance with spatial and seasonal restrictions would eliminate or reduce potential impacts on nesting raptors).</p> <p>Potential for direct, short-term removal of approximately 3,626</p>	<p>Mitigation measures in Table 2.6-8 would eliminate many of the potential impacts (e.g., raptor nest survey requirements and compliance with spatial and seasonal restrictions would eliminate or reduce potential impacts on nesting raptors).</p> <p>Potential for direct, short-term removal of approximately 2,510 acres of habitat and foraging areas; 12,951 acres of habitat fragmentation in crucial winter mule deer habitat; 15,460 acres of habitat fragmentation in crucial winter elk habitat; increased fragmentation of these</p>	<p>Based on the special protective measures designed for wildlife, many of the direct and indirect impacts of the Proposed Action would be reduced or eliminated under Alternative E. Furthermore, mitigation measures in Table 2.6-8 would eliminate many of the potential impacts (e.g., raptor nest survey requirements and compliance with spatial and seasonal restrictions would eliminate or reduce potential impacts on nesting raptors).</p> <p>Potential for direct, short-term removal of approximately 3,399</p>

Table ES-2. Summary Comparison of the Impacts of the Alternatives					
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	<p>energy expenditure, competition for resources, and decrease nutrition condition and reproductive success; displacement from crucial winter habitats or wintering grounds due to winter drilling; increased potential for disruption of migration routes and prevention of access to sufficient foraging and water resources; and increased potential for collisions with vehicles.</p> <p>Impacts would be substantially mitigated with implementation of BBC's Wildlife Mitigation Plan.</p>	<p>condition and reproductive success; displacement from crucial winter habitats due to winter drilling; increased potential for disruption of migration routes and prevention of access to sufficient foraging and water resources; and increase potential for collisions with vehicles.</p> <p>Impacts substantially lower than under the Proposed Action, Alternative C, or Alternative E because development would be limited to State and private lands.</p>	<p>acres of habitat and foraging areas, and increased fragmentation of these areas; reduced habitat value or use by wildlife; temporary habitat loss due to changes in vegetation structure; avoidance of habitat or temporary displacement from habitat caused by increased human activity, traffic, aerial transport, noise, and lighting, which could increase physical distress, energy expenditure, competition for resources, and decrease nutrition condition and reproductive success; displacement from crucial winter habitats or wintering grounds due to winter drilling; increased potential for disruption of migration routes and prevention of access to sufficient foraging and water resources; and increase potential for collisions with vehicles.</p> <p>Impacts on wildlife during the winter would be reduced as only 2 rigs would be allowed to operate during the winter season, and given the special mitigation measures designed for reducing winter-related effects on wildlife.</p> <p>Traffic-related impacts (e.g., avoidance, displacement, and potential for collisions with vehicles) would be reduced because rig limitations and other transportation restrictions would reduce traffic within the WTP Project Area.</p>	<p>areas; reduced habitat value or use by wildlife; temporary habitat loss due to changes in vegetation structure; avoidance of habitat or temporary displacement from habitat caused by increased human activity, traffic, aerial transport, noise, and lighting, which could increase physical distress, energy expenditure, competition for resources, and decrease nutrition condition and reproductive success; increased potential for disruption of migration routes and prevention of access to sufficient foraging and water resources; and increased potential for collisions with vehicles.</p> <p>Traffic-related impacts (e.g., avoidance, displacement, and potential for collisions with vehicles) would be reduced because transportation restrictions would reduce traffic in sensitive areas.</p> <p>Impacts resulting from weeds would be reduced compared to the Proposed Action based on mitigation measures in Table 2.6-8 requiring a weed control plan and annual monitoring of weeds, as well as requirements for interim reclamation.</p> <p>Fragmentation of habitat would be less due to interim reclamation requirements.</p> <p>Displacement from crucial winter habitats or wintering grounds</p>	<p>acres of habitat and foraging areas, and increased fragmentation of these areas; reduced habitat value or use by wildlife; temporary habitat loss due to changes in vegetation structure; avoidance of habitat or temporary displacement from habitat caused by increased human activity, traffic, aerial transport, noise, and lighting, which could increase physical distress, energy expenditure, competition for resources, and decrease nutrition condition and reproductive success; displacement from crucial winter habitats or wintering grounds due to winter drilling; increased potential for disruption of migration routes and prevention of access to sufficient foraging and water resources; and increased potential for collisions with vehicles.</p> <p>Traffic-related impacts (e.g., avoidance, displacement, and potential for collisions with vehicles) would be reduced because transportation restrictions would reduce traffic in sensitive areas.</p> <p>Impacts resulting from weeds would be reduced compared to the Proposed Action based on mitigation measures in Table 2.6-8 requiring a weed control plan and annual monitoring of weeds, as well as requirements for interim reclamation.</p> <p>Impacts from winter drilling could</p>

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			<p>Impacts resulting from weeds would be reduced compared to the Proposed Action based on mitigation measures in Table 2.6-8 requiring a weed control plan and annual monitoring of weeds, as well as requirements for interim reclamation.</p> <p>Fragmentation of habitat would be less due to interim reclamation requirements and burial of 62 percent of proposed pipelines.</p> <p>Habitat loss and fragmentation impacts on mule deer, elk, and sage grouse could be substantially mitigated with implementation of Agency Wildlife Mitigation Plan.</p>	<p>would not occur because winter drilling would not occur within the WTP Project Area.</p> <p>NSO within WSAs, no leasing or development of lands within non-WSA lands with wilderness characteristics, and NSO within unleased lands in canyon bottoms would eliminate or substantially reduce potential impacts to species utilizing these areas (e.g., big horn sheep lambing areas in Jack Canyon would not be affected).</p>	<p>be substantially reduced based on special protective measures.</p> <p>Expanded use of directional drilling in the WSAs, non-WSA lands with wilderness characteristics, and canyon bottoms would substantially reduce potential impacts to species utilizing these areas (e.g., big horn sheep lambing areas in Jack Canyon would not be affected).</p> <p>Fragmentation of habitats would be less due to interim reclamation requirements and burial of all proposed pipelines (followed by interim reclamation of the pipeline ROWs).</p> <p>Habitat loss and fragmentation impacts on mule deer, elk, and sage grouse could be substantially mitigated with implementation of Agency Wildlife Mitigation Plan.</p>
Threatened, Endangered, and Sensitive (T&E) Plants	Proposed Action would result in direct, short-term removal of approximately 3,656 acres of vegetation and increased fragmentation of vegetation communities; increased potential for exploitation by collectors by improving access to habitats; increased potential for damage or destruction of plants as a result of increased OHV use due to improved access within the Project Area; decreased productivity due to increased erosion, sediment deposition,	No Action would result in direct, short-term removal of approximately 626 acres of vegetation and increased fragmentation of vegetation communities; increased potential for exploitation by collectors by improving access to habitats; increased potential for damage or destruction of plants as a result of increased OHV use due to improved access within the Project Area; decreased productivity due to increased erosion, sediment deposition,	Alternative C would result in direct, short-term removal of approximately 3,626 acres of vegetation and increased fragmentation of vegetation communities; increased potential for exploitation by collectors by improving access to habitats (albeit less potential for access to T&E species habitats given gating of/administrative access only select roads); increased potential for damage or destruction of plants as a result of increased OHV use due to improved access within the WTP	Alternative D would result in direct, short-term removal of approximately 2,510 acres of vegetation and increased fragmentation of vegetation communities; increased potential for exploitation by collectors by improving access to habitats (albeit less potential for access to T&E species habitats given gating of/administrative access only Horse Bench road); increased potential for damage or destruction of plants as a result of increased OHV use due to improved access within the	Alternative E would result in direct, short-term removal of approximately 3,399 acres of vegetation; increased fragmentation of vegetation communities; increase the potential for exploitation by collectors by improving access to habitats (albeit less potential for access to T&E species habitats given gating of/administrative access only select roads); increased potential for damage or destruction of plants as a result of increased OHV use due to

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	<p>and fugitive dust; increase potential for wildfires; and increased potential for the spread of invasive and noxious plants primarily along roadways, which could compete with vegetation in the WTP Project Area.</p> <p>May affect, is not likely to adversely affect, Uinta Basin hookless cactus.</p> <p>May affect individual Graham's beardtongue but is not likely to result in a trend toward Federal listing of the species.</p>	<p>and fugitive dust; increased potential for wildfires; and increase potential for the spread of invasive and noxious plants primarily along roadways, which could compete with native vegetation in the area.</p> <p>Impacts substantially lower than under the Proposed Action, Alternative C, or Alternative E because development would be primarily limited to State and private lands.</p> <p>May affect, is not likely to adversely affect, Uinta Basin hookless cactus.</p> <p>May affect individual Graham's beardtongue but is not likely to result in a trend toward Federal listing of the species.</p>	<p>Project Area; decreased productivity due to increased erosion, sediment deposition, and fugitive dust; increased potential for wildfires; and increased potential for the spread of invasive and noxious plants primarily along roadways, which could compete with native vegetation in the area.</p> <p>Traffic-related impacts (e.g., sediment deposition, fugitive dust) would be reduced because rig limitations and other transportation restrictions would reduce traffic within the WTP Project Area; potential for exploitation by collectors would be reduced by gating roads and other transportation access restrictions; potential for noxious weeds could be reduced by surface disturbance restrictions and interim reclamation incentives; and fragmentation of vegetation communities would be less due to interim reclamation and burial of approximately 62 percent of proposed pipelines.</p> <p>May affect, is not likely to adversely affect, Uinta Basin hookless cactus.</p> <p>May affect individual Graham's beardtongue but is not likely to result in a trend toward Federal listing of the species.</p>	<p>Project Area; decreased productivity due to increased erosion, sediment deposition, and fugitive dust; increased potential for wildfires; and increased potential for the spread of invasive and noxious plants primarily along roadways, which could compete with native vegetation in the area.</p> <p>Traffic-related impacts (e.g., sediment deposition, fugitive dust) would be reduced because transportation restrictions would reduce traffic in sensitive areas; potential for exploitation by collectors would be reduced by transportation access restrictions; potential for noxious weeds could be reduced by surface disturbance restrictions and interim reclamation incentives; and fragmentation of vegetation communities would be less due to interim reclamation.</p> <p>May affect, is not likely to adversely affect, Uinta Basin hookless cactus.</p> <p>May affect individual Graham's beardtongue but is not likely to result in a trend toward Federal listing of the species.</p>	<p>improved access within the Project Area; decreased productivity due to increased erosion, sediment deposition, and fugitive dust; increased potential for wildfires; and increased potential for the spread of invasive and noxious plants primarily along roadways, which could compete with native vegetation in the area.</p> <p>Traffic-related impacts (e.g., sediment deposition, fugitive dust) would be reduced because transportation restrictions would reduce traffic in sensitive areas; potential for exploitation by collectors would be reduced by gating roads and other transportation access restrictions; potential for noxious weeds could be reduced by surface disturbance restrictions and interim reclamation incentives; and fragmentation of vegetation communities would be less due to interim reclamation and burial of all proposed pipelines.</p> <p>May affect, is not likely to adversely affect, Uinta Basin hookless cactus.</p> <p>May affect individual Graham's beardtongue but is not likely to result in a trend toward Federal listing of the species.</p>

Resource	Alternative A – Proposed Action Impacts	Alternative B – No Action Alternative Impacts	Alternative C – Transportation Impact Reduction Alternative Impacts	Alternative D – Conservation Alternative Impacts	Alternative E – Agency Preferred Alternative Impacts
Threatened, Endangered, and Sensitive Wildlife (T&E Wildlife)	<p>In general, impacts on T&E wildlife species would include the direct, short-term removal of approximately 3,656 acres of habitat and foraging areas; increased fragmentation of habitats; reduced habitat value or use by wildlife; temporary habitat loss due to changes in vegetation structure; avoidance of habitat or temporary displacement from habitat caused by increased human activity, traffic, noise, and lighting, which could increase physical distress, energy expenditure, competition for resources, and decrease nutrition condition and reproductive success; displacement from crucial winter habitats or wintering grounds due to winter drilling; increased potential for disruption of migration routes and prevention of access to sufficient foraging and water resources; and increased potential for collisions with vehicles.</p> <p>Habitat loss or fragmentation impacts would be substantially mitigated with implementation of BBC's Wildlife Mitigation Plan.</p> <p>May affect, is likely to adversely affect, MSO. Would also result in a modification of MSO designated critical habitat.</p>	<p>Impacts on T&E wildlife substantially lower than under the Proposed Action, Alternative C, or Alternative E because development would be primarily limited to State and private lands; however, the No Action Alternative would result in the direct, short-term removal of approximately 626 acres of habitat and foraging areas; increased fragmentation; reduced habitat value or use by T&E wildlife; temporary habitat loss due to changes in vegetation structure; avoidance of habitat or temporary displacement from habitat caused by increased human activity, traffic, noise, and lighting, which could increase physical distress, energy expenditure, competition for resources, and decrease nutrition condition and reproductive success; displacement from crucial winter habitats due to winter drilling; increased potential for disruption of migration routes and prevention of access to sufficient foraging and water resources; and increased potential for collisions with vehicles.</p> <p>May affect, is likely to adversely affect, MSO. Would also result in a modification of MSO designated critical habitat.</p>	<p>Direct, short-term removal of approximately 3,626 acres of habitat and foraging areas. Other impacts on T&E wildlife similar to the Proposed Action; however, T&E wildlife habitat loss impacts would be substantially mitigated with implementation of Agency Wildlife Mitigation Plan.</p> <p>Impacts on wildlife during the winter would be reduced as only two rigs would be allowed to operate during the winter season, and given the special mitigation measures designed for reducing winter-related effects on wildlife.</p> <p>Traffic-related impacts (e.g., avoidance, displacement, and potential for collisions with vehicles) would be reduced because rig limitations and other transportation restrictions would reduce traffic within the WTP Project Area.</p> <p>Impacts resulting from weeds would be reduced compared to the Proposed Action based on mitigation measures in Table 2.6-8 requiring a weed control plan and annual monitoring of weeds, as well as requirements for interim reclamation.</p> <p>Fragmentation of habitat would be less due to interim reclamation requirements.</p> <p>Impacts resulting from weeds would be reduced compared to the Proposed Action based on mitigation measures in Table 2.6-8 requiring a weed control plan and annual monitoring of weeds, as well as requirements for interim reclamation.</p> <p>Fragmentation of habitat would be less due to interim reclamation requirements and burial of 62 percent of proposed pipelines (with subsequent reclamation of the ROWs).</p>	<p>Direct, short-term removal of approximately 2,510 acres of habitat. Other impacts similar to the Proposed Action; however, impacts on T&E wildlife during the winter would be reduced given seasonal closures on construction, drilling or completion during the winter.</p> <p>Traffic-related impacts (e.g., avoidance, displacement, and potential for collisions with vehicles) would be reduced because of rig limitations and transportation restrictions would reduce traffic within the WTP Project Area.</p> <p>Impacts resulting from weeds would be reduced compared to the Proposed Action based on mitigation measures in Table 2.6-8 requiring a weed control plan and annual monitoring of weeds, as well as requirements for interim reclamation.</p> <p>Fragmentation of habitat would be less due to interim reclamation requirements.</p> <p>NSO within WSAs, no leasing or development of lands within non-WSA lands with wilderness characteristics, and NSO within unleased lands in canyon bottoms would eliminate or substantially reduce potential impacts to T&E species utilizing these areas (e.g., MSO in canyon habitats).</p> <p>Impacts to MSO would be</p>	<p>Direct, short-term removal of approximately 3,399 acres of habitat. Other impacts similar to the Proposed Action; however, habitat loss impacts would be substantially mitigated with implementation of Agency Wildlife Mitigation Plan.</p> <p>Impacts on wildlife during the winter would be reduced given the special mitigation measures designed for reducing winter-related effects on T&E wildlife.</p> <p>Traffic-related impacts (e.g., avoidance, displacement, and potential for collisions with vehicles) would be reduced because transportation restrictions would reduce traffic within the WTP Project Area.</p> <p>Impacts resulting from weeds would be reduced compared to the Proposed Action based on mitigation measures in Table 2.6-8 requiring a weed control plan and annual monitoring of weeds, as well as requirements for interim reclamation.</p> <p>Fragmentation of habitat would be less due to interim reclamation requirements and burial of all proposed pipelines (with subsequent reclamation of the ROWs).</p> <p>Impacts to MSO would be substantially reduced given the NSO requirements in canyon bottoms; however, Alternative E still may affect, is likely to</p>

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Resource	Alternative A – Proposed Action Impacts	Alternative B – No Action Alternative Impacts	Alternative C – Transportation Impact Reduction Alternative Impacts	Alternative D – Conservation Alternative Impacts	Alternative E – Agency Preferred Alternative Impacts
	<p>May affect, is likely to adversely affect, southwestern willow flycatcher.</p> <p>May affect, is likely to adversely affect, yellow-billed cuckoo.</p> <p>May affect, is likely to adversely affect, Colorado River endangered fish species. However, may affect, is not likely to adversely affect, designated critical habitat for the Colorado River fish species.</p> <p>Would reduce sage-grouse habitat and may displace or affect individual sage-grouse. However, BBC's Wildlife Mitigation Plan would benefit sage-grouse by improving or creating habitat for the species.</p> <p>Impacts to bald eagles would be similar to the general impacts described above.</p>	<p>May affect, is likely to adversely affect, southwestern willow flycatcher.</p> <p>May affect, is likely to adversely affect, yellow-billed cuckoo.</p> <p>May affect, is likely to adversely affect, Colorado River endangered fish species. However, may affect, is not likely to adversely affect, designated critical habitat for the Colorado River fish species.</p> <p>Would reduce sage-grouse habitat and may displace or affect individual sage-grouse.</p> <p>Impacts to bald eagles would be similar to the general impacts described above.</p>	<p>Impacts to MSO would be substantially reduced given the NSO requirements in canyon bottoms; however, Alternative C still may affect, is likely to adversely affect, MSO. Would also result in a modification of MSO designated critical habitat.</p> <p>May affect, is not likely to adversely affect, southwestern willow flycatcher.</p> <p>May affect, is not likely to adversely affect, yellow-billed cuckoo.</p> <p>May affect, is likely to adversely affect, Colorado River endangered fish species. However, may affect, is not likely to adversely affect designated critical habitat for the Colorado River fish species.</p> <p>Would reduce sage-grouse habitat and may displace or affect individual sage-grouse. However, Agency Wildlife Mitigation Plan would benefit sage-grouse by improving or creating habitat for the species.</p> <p>Impacts to bald eagles would be similar to the general impacts described above.</p>	<p>substantially reduced given the NSO requirements; however, Alternative E still may affect, is likely to adversely affect, MSO. Would also result in a modification of MSO designated critical habitat.</p> <p>May affect, is not likely to adversely affect, southwestern willow flycatcher.</p> <p>May affect, is not likely to adversely affect, yellow-billed cuckoo.</p> <p>May affect, is likely to adversely affect, Colorado River endangered fish species. However, may affect, is not likely to adversely affect designated critical habitat for the Colorado River fish species.</p> <p>Impacts to wintering sage-grouse would be substantially reduced given winter closures; however, Alternative D would still reduce sage-grouse habitat and may displace or affect individual sage-grouse. Agency Wildlife Mitigation Plan would benefit sage-grouse by improving or creating habitat for the species.</p> <p>Impacts to bald eagles would be similar to the general impacts described above.</p>	<p>adversely affect, MSO. Would also result in a modification of MSO designated critical habitat.</p> <p>May affect, is not likely to adversely affect, southwestern willow flycatcher.</p> <p>May affect, is not likely to adversely affect, yellow-billed cuckoo.</p> <p>May affect, is likely to adversely affect, Colorado River endangered fish species. However, may affect, is not likely to adversely affect, designated critical habitat for the Colorado River fish species.</p> <p>Would reduce sage-grouse habitat and may displace or affect individual sage-grouse. However, Agency Wildlife Mitigation Plan would benefit sage-grouse by improving or creating habitat for the species.</p> <p>Impacts to bald eagles would be similar to the general impacts described above.</p>

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Resource	Alternative A – Proposed Action Impacts	Alternative B – No Action Alternative Impacts	Alternative C – Transportation Impact Reduction Alternative Impacts	Alternative D – Conservation Alternative Impacts	Alternative E – Agency Preferred Alternative Impacts
Recreation	ROS designations would shift toward Rural in the short-term and Rooded Natural in the long-term for areas near development. Recreational experiences would be diminished in the Desolation Canyon and Nine Mile Canyon SRMAs. Expanded road systems would increase opportunities for OHV use. Opportunities for primitive and unconfined recreation would be reduced by development in the WSAs and other areas designated as primitive.	Potential impacts would be similar to those described for the Proposed Action but would be substantially lower because development would be limited to State and private lands.	Potential impacts would be similar to the Proposed Action, but would be reduced in proportion to reduction in traffic levels. Gating of roads would limit expansion of OHV opportunities in the WTP Project Area and traffic in the WSAs. Impacts would extend over a longer period of time.	Potential impacts would be similar to the Proposed Action but would be reduced in proportion to the reduction in proposed development. In addition, opportunities for primitive and unconfined recreation would continue to be available in a broader portion of the Project Area as there would be NSO allowed within the WSAs, and no development allowed on unleased lands within the potential Nine Mile and Desolation Canyon ACECs, or Jack and Desolation Canyon wilderness characteristics areas.	Potential impacts would be similar in nature to the Proposed Action with the following exceptions. Gating of roads would limit expansion of OHV opportunities and would limit traffic within WSAs. In addition, under Alternative E opportunities for primitive and unconfined recreation would continue to be available in a broader portions of the of the WTP Project Area because there would be less surface disturbance within the WSAs as well as other areas considered primitive.
Cultural Resources	Based on conceptual locations for surface facilities, activities associated with new surface disturbance would potentially conflict directly with 37 known cultural resources – 21 of which are eligible for the NRHP. Activities associated with existing road maintenance or upgrades would potentially conflict directly with 43 known cultural resources – 26 of which are eligible for the NRHP. Surface-disturbing activities would potentially conflict directly with between approximately 94 and 219 unknown cultural resources. Direct impacts to buried cultural resources could also occur. Anticipated indirect impacts to cultural resources include the accumulation of dust and its impact on rock art, the impact of vibration	Based on conceptual locations for surface facilities, activities associated with new surface disturbance would potentially conflict directly with five known cultural resources – three of which are eligible for the NRHP. Activities associated with existing road maintenance or upgrades would potentially conflict directly with 43 known cultural resources – 26 of which are eligible for the NRHP. Surface-disturbing activities would potentially conflict directly with between approximately 17 and 59 unknown cultural resources. Direct impacts to buried cultural resources could also occur. Anticipated indirect impacts to cultural resources include the accumulation of dust and its impact on rock art, the impact of vibration	Based on conceptual locations for surface facilities, direct impacts to cultural resources are nearly identical to those described under the Proposed Action. Indirect impacts to cultural resources are similar to those described under the Proposed Action, although the extent of the impacts is slightly different. Specifically, alternate means of transportation and transportation restrictions could reduce traffic-related impacts such as vibration, erosion, increased visitation, and vandalism. However, it is unknown if any reduction of dust accumulation on rock art would occur and if so, what the significance of the reduction would be. Anticipated indirect impacts to cultural resources include the accumulation of dust and its impact on rock art, the impact of vibration and project-	Based on conceptual locations for surface facilities, activities associated with new surface disturbance would potentially conflict directly with 25 known cultural resources – 13 of which are eligible for the NRHP. Activities associated with existing road maintenance or upgrades would potentially conflict directly with 41 known cultural resources – 30 of which are eligible for the NRHP. Surface-disturbing activities would potentially conflict directly with between approximately 68 and 181 unknown cultural resources. Direct impacts to buried cultural resources could also occur. Indirect impacts to cultural resources are generally identical to those described under the Proposed Action, although the extent of the impacts is slightly different. Specifically, alternate means of	Direct impacts to cultural resources are identical to those described under the Proposed Action, except that additional direct impacts could occur to cultural resources through the proposed installation of turnouts and/or designated parking locations at frequently-visited sites within the WTP Project Area. As these turnouts and/or designated parking locations would be located near known cultural sites, any surface disturbance associated with this proposal has a high potential to encounter buried cultural resources. Indirect impacts to cultural resources are generally identical to those described under the Proposed Action, although the extent of the impacts is slightly different. Specifically, if the proponent voluntarily initiates traffic reduction, traffic-related impacts

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	and project-related erosion on cultural resources, increased visitation and vandalism, OHV use and traffic, and impacts to the natural setting and viewshed of TCPs.	and project-related erosion on cultural resources, increased visitation and vandalism, OHV use and traffic, and impacts to the natural setting and viewshed of TCPs.	related erosion on cultural resources, increased visitation and vandalism, OHV use and traffic, and impacts to the natural setting and viewshed of TCPs.	transportation, transportation restrictions, and surface occupancy restrictions could reduce traffic-related impacts such as dust, vibration, erosion, increased visitation, and vandalism.	such as vibration, erosion, increased visitation, vandalism, and possibly the effects of dust accumulation on rock art could be reduced. Finally, additional indirect impacts from increased visitation and vandalism could occur as a result of the installation of the proposed turnouts and/or designated parking locations.
Socio-Economics	<p>During the 8-year development phase total average employment (direct and secondary) would be approximately 1,100 jobs in Carbon, Duchesne, and Uintah Counties. Increased employment could create a temporary housing shortage within Duchesne County.</p> <p>Production from up to 807 wells could generate substantial public revenues (e.g., property taxes, severance taxes, mineral lease royalties, sales and use taxes, and ad-velorem taxes) for the State as well as for impacted counties and local governments.</p>	<p>During the 2-year development phase total average employment (direct and secondary) would be approximately 435 jobs in Carbon, Duchesne, and Uintah Counties.</p> <p>Production from up to 81 wells on State and private lands would generate public revenues; however, these revenues would be only a fraction of those generated by the Proposed Action.</p>	<p>During the 15-year development phase total average employment (direct and secondary) would be approximately 585 jobs in Carbon, Duchesne, and Uintah Counties.</p> <p>Total public revenues would be roughly equivalent to those under the Proposed Action but annual revenues would be lower because development, and therefore production, would be spread out over a longer period of time.</p>	<p>During the 21-year development phase total average employment (direct and secondary) would be approximately 281 jobs in Carbon, Duchesne, and Uintah Counties.</p> <p>Because of the length of the development phase, population and housing impacts would be less than under the Proposed Action and employment would be sustained over a longer period of time.</p> <p>Cumulative public revenues would be approximately 30 percent less under Alternative D than the Proposed Action based on the number of proposed wells (558 wells). In addition, annual revenues would be lower because development, and therefore production, would be spread over a longer period of time.</p>	<p>During the 9-year development phase total average employment (direct and secondary) would be approximately 972 jobs in Carbon, Duchesne, and Uintah Counties. Increased employment could create a temporary housing shortage within Duchesne County.</p> <p>Similar to the Proposed Action, production from up to 807 wells could generate substantial public revenues (e.g., property taxes, severance taxes, mineral lease royalties, sales and use taxes, and ad-velorem taxes) for the State and impacted counties and local governments.</p>

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Environmental Justice	No disproportionately high or adverse human health or environmental impacts on low-income, minority, or Tribal populations would occur as a result of the Proposed Action. The one exception to this is that activities associated with the Proposed Action have the potential to impact important, traditional Tribal lifeways, and religious and cultural sites. Regarding low-income communities, these groups would likely experience economic benefits by the Proposed Action.	Impacts would be similar to the Proposed Action. However, because Alternative B involves considerably less development and associated surface disturbance, the potential impacts to important, traditional Tribal lifeways, and religious and cultural sites would be proportionately reduced. In addition, because Alternative B involves considerably less development, the potential economic benefits available to low-income populations under the Proposed Action would be proportionately reduced.	Impacts similar to the Proposed Action.	Impacts similar to the Proposed Action.	Impacts similar to the Proposed Action. The construction of turnouts and/or designated parking locations would present benefits to public safety and recreation, but also has the potential for adverse effects to cultural sites as increased visitation increases the risk of vandalism (both intentional and unintentional), and unauthorized collection of artifacts and other cultural materials.
Transportation	ADT increase of 575 vehicles per day during peak development (approximately 555 percent increase) and significant road improvements on a limited number of primary access roads. Construction of 178 miles of new access road.	Minor ADT traffic increases in comparison with all other alternatives. Construction of 32 miles of new access road. Significant upgrades to Horse Bench Road only.	ADT increase of 125 vehicles during the winter and 261 vehicles during other seasons. Where feasible, all existing BLM system roads would be improved to “Gold Book” standards. Construction of 176 miles of new access roads would be partially mitigated by reclamation of 19 miles of roads. Administrative access only on Horse Bench and the majority of new roads in the WTP Project Area, winter closure of all existing roads providing access to the Plateau, and required use of aerial transportation, would also reduce transportation impacts.	No development traffic would occur during the winter. ADT increase of 300 vehicles during other seasons. Where feasible all existing BLM system roads would be improved to “Gold Book” standards. Construction of 127 miles of new access roads. Administrative access only on Horse Bench.	ADT increase of 441 vehicles per day during peak development. As feasible, all primary roads would be improved to “Gold Book” standards. Construction of 168 miles of roads would be partially mitigated by reclamation of 17 miles of roads. Administrative access only on the majority of new roads and compliance with other transportation impact reduction measures would further reduce impacts.

Resource	Alternative A – Proposed Action Impacts	Alternative B – No Action Alternative Impacts	Alternative C – Transportation Impact Reduction Alternative Impacts	Alternative D – Conservation Alternative Impacts	Alternative E – Agency Preferred Alternative Impacts
Health and Safety	Potential impacts on human health and safety include occupational accidents, traffic accidents, exposure to air pollutants, fire hazards, rupture or damage of pipelines, and accidental spills.	Potential impacts on human health and safety would be similar to the impacts discussed under the Proposed Action but of lesser magnitude.	Potential impacts on human health and safety would be similar to the impacts discussed under the Proposed Action; however, the majority of pipelines would be buried resulting in less risk of pipeline damage and traffic would be lower resulting in a lower number of traffic accidents.	Potential impacts on human health and safety would be similar to the impacts discussed under the Proposed Action, but of lesser magnitude because the amount of development would be approximately 30 percent less.	Potential impacts on human health and safety would be similar to the impacts discussed under the Proposed Action; however, all pipelines would be buried resulting in less risk of pipeline damage.
Visual Resources	Proposed facilities would introduce new elements of form, line, color, and texture into the landscape, which would essentially dominate foreground views. Development would be inconsistent with existing VRM Class designations in many areas but especially in WSAs and canyon bottoms.	Impacts substantially lower in magnitude than Proposed Action, Alternative C, or Alternative E because development would be limited to State and private lands.	The level of development, location of facilities, and expected surface disturbance under Alternative C would be identical to those described for the Proposed Action. However, Alternative C contains many mitigation measures that reduce impacts to visual resources. A moderate reduction in indirect impacts would occur with the reduction in traffic.	Potential impacts to visual resources would be similar in nature to those described under the Proposed Action but the magnitude of the impacts would be reduced in proportion to the reduction in planned development. This reduction would not be equally distributed across the WTP Project Area. Impacts to WSAs and canyon bottoms would not occur. In addition, Alternative D contains many mitigation measures that would reduce impacts to visual resources.	Potential impacts are expected to be similar to those described for the Proposed Action; however, impacts would be reduced in proportion to the reduction in planned surface disturbance. This reduction would not be equally distributed across the WTP Project Area. Under Alternative E, surfaced disturbance would be substantially reduced in the WSAs and restricted in canyon bottoms (unless surface occupancy restrictions would prohibit access to valid and existing rights). In addition, Alternative E contains many mitigation measures that would reduce impacts to visual resources.
Existing Nine Mile Canyon ACEC	No surface disturbance would occur on Federal lands; however, increased traffic and human activity in Nine Mile Canyon has the potential to impact the relevant and important values for which the ACEC was designated.	Impacts would be similar to those described under Alternative A, but substantially reduced in proportion to reductions in traffic.	Impacts would similar to those described under Alternative A, but substantially reduced in proportion to reductions in traffic.	Impacts would similar to those described under Alternative A, but reduced in proportion to reductions in traffic.	Impacts would be similar to those described under Alternative A, but slightly reduced in proportion to reductions in traffic during the first or peak year of development.

Resource	Alternative A – Proposed Action Impacts	Alternative B – No Action Alternative Impacts	Alternative C – Transportation Impact Reduction Alternative Impacts	Alternative D – Conservation Alternative Impacts	Alternative E – Agency Preferred Alternative Impacts
Potential ACECs	Potential impacts to the relevant and important criteria for which the areas were proposed. Potentially high impacts within the immediate vicinity of existing roads used for project purposes and proposed development.	Minimal impacts would occur on Federal lands within the potential ACECs from the development of access roads and pipelines on Federal ROWs.	Potential impacts would be identical in nature to the Proposed Action but traffic-related impacts would be reduced in proportion to decreases in traffic. Gating of roads would reduce use-related impacts. Mitigation measures would also reduce anticipated impacts to the relevant and important criteria for which the ACECs are proposed.	Development would be limited to existing leases within potential ACECs, substantially reducing the impacts in those areas. Mitigation measures would also reduce anticipated impacts to the relevant and important criteria for which the ACECs are proposed.	Impacts would be similar to the Proposed Action; however, gating of roads would reduce use-related impacts. Mitigation measures would also reduce anticipated impacts to the relevant and important criteria for which the ACECs are proposed.
WSAs	Development within Jack and Desolation Canyon WSAs (approximately 43 well pads) would impact the wilderness values of these areas. Direct impacts would be high within the immediate vicinity of development, but the majority of the WSAs would remain undeveloped. Indirect impacts to solitude and the opportunities for primitive and unconfined recreation would extend beyond the areas of direct impact.	No impact. WSAs are a Federal designation and do not apply to State and private lands.	Impacts to the WSAs would be similar to the Proposed Action; however, access into the WSAs would be gated, thereby reducing use-related impacts. In addition, Alternative C contains a number of mitigation measures that would reduce impairment to the wilderness values within the WSAs.	No impact based on NSO requirements within WSAs.	Direct impacts to the WSAs would be reduced in proportion to the amount of proposed development (approximately 20 proposed wells pads); in addition, all roads providing access to proposed well pads in the WSAs would be gated, thereby reducing use-related impacts. Finally, Alternative E contains a number of mitigation measures that would reduce impairment to the wilderness values within the WSAs.
Non-WSA Lands with Wilderness Characteristics	Development within the Desolation Canyon and Jack Canyon WIAs would impact the wilderness values within these areas. Direct impacts would be high within the immediate vicinity of development. Indirect impacts to solitude and the opportunities for primitive and unconfined recreation would extend beyond the areas of direct impact.	Minimal impacts would occur to the Desolation Canyon WIA from the development of access roads and pipelines on Federal ROWs.	Direct and indirect impacts would be similar to the Proposed Action; however, impacts to primitive and unconfined recreation would be reduced with the reduction in traffic and the gating of roads. In addition, Alternative C contains a number of mitigation measures that would reduce impairment to wilderness values.	Development would be limited to existing leases, effectively eliminating impacts to the Jack Canyon WIA and substantially reducing potential direct and indirect impacts to the Desolation Canyon WIA. In addition, Alternative D contains a number of mitigation measures that would reduce impairment to wilderness values.	Direct and indirect impacts would be similar to the Proposed Action; however, impacts to primitive and unconfined recreation would be reduced via gating of roads. In addition, Alternative E contains a number of mitigation measures that would reduce impairment to wilderness values.

Resource	Alternative A – Proposed Action Impacts	Alternative B – No Action Alternative Impacts	Alternative C – Transportation Impact Reduction Alternative Impacts	Alternative D – Conservation Alternative Impacts	Alternative E – Agency Preferred Alternative Impacts
Proposed Wild and Scenic Rivers	Implementation of the Proposed Action has the potential to impact the outstandingly remarkable values along the segment of Nine Mile Creek between Minnie Maud and Bulls Canyon, especially during the construction period. The Proposed Action would not directly impact other eligible WSR segments within the WTP Project Area.	Impacts would be similar in nature to those described under the Proposed Action but would be less because of reductions in traffic.	Impacts would be similar in nature to those described under the Proposed Action but would be less because of the reductions in traffic.	Impacts would be similar in nature to those described under the Proposed Action but would be less because of the reductions in traffic.	Impacts would be similar in nature to those described under the Proposed Action.
Desolation Canyon NHL	No surface disturbance would occur within 1 mile of the Green River; however, approximately three well pads are proposed within the viewshed and there is potential for auditory impacts.	No impacts.	Impacts would be the same as under Alternative A; however, Alternative C contains mitigation measures which could reduce potential visual and auditory impacts.	No impacts.	Impacts would be the same as under Alternative A; however, Alternative E contains mitigation measures which could reduce potential visual and auditory impacts.
Backcountry Byways/Scenic Byways	The quality of a visit along the byway would be reduced and the integrity of the byway designation could be diminished due to visual modifications, elevated noise levels, and potential for conflict between industrial and recreational users.	Impacts would be similar in nature to the Proposed Action but would be of a far lesser magnitude.	Impacts would be similar in nature to the Proposed Action but impact traffic-related impacts would be reduced proportional to the reduction in traffic levels.	Impacts would be similar in nature to the Proposed Action but would be of a lesser magnitude proportional to the reduction in proposed development.	Impacts would be similar to the Proposed Action.
Noise	Construction, drilling, completion, and production would affect ambient noise in terms of altering the types of human-induced noise, volumes, tones, and low frequency sounds within the WTP Project Area. Changes in noise could adversely affect sensitive resources such as wildlife and recreation.	Impacts would be similar to those described for the Proposed Action, but substantially decreased given the limited number of wells that would be developed. No development would occur in noise sensitive recreation areas.	Impacts would be similar to those described for the Proposed Action, but decreased based on required use of remote telemetry and water/condensate pipelines to transport water, which would reduce traffic and production noise; and mitigation to reduce noise within 2 miles of the Green River.	Impacts would be similar to those described for the Proposed Action, but substantially decreased given limited number of wells; NSO restrictions for WSAs, potential ACECs, and canyon bottoms; and mitigation to reduce noise within 2 miles of the Green River; and no leasing (or development) within unleased lands with wilderness characteristics.	Impacts would be similar to those described for the Proposed Action, but decreased given directional drilling requirements in WSAs and canyon bottoms; and mitigation to reduce noise within 2 miles of the Green River.

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