

**WEST TAVAPUTS PLATEAU
NATURAL GAS FULL FIELD DEVELOPMENT PLAN
RECORD OF DECISION**

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Record of Decision

West Tavaputs Plateau Natural Gas Full Field Development Plan

Bureau of Land Management Price Field Office

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, Carbon, and Uintah 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 Land Management [BLM]), approximately 8 percent State of Utah (managed by State Institutional Trust Lands Administration [SITLA]), and approximately 5 percent private. Mineral ownership closely parallels surface ownership.

Within the West Tavaputs Plateau Natural Gas Full Field Development Plan Environmental Impact Statement (UT-070-05-055) (WTP EIS), which was initiated with scoping on August 26, 2005, the BLM considered five alternatives– 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. The WTP EIS disclosed the direct, indirect, and cumulative impacts of development pursuant to the requirements of the National Environmental Policy Act (NEPA), its implementing regulations, and other applicable laws.

During preparation of the Final EIS, BBC submitted to the BLM a signed letter (**Attachment 1**) voluntarily contracting their plan of development for the area. According to BBC, as a result of interim drilling authorized by the BLM during the 5-year preparation of the EIS, they have increased their knowledge of the geology and extent of the natural gas deposits underlying the WTP Project Area. In addition, their operational practices have been refined and technology has advanced.

This Record of Decision (ROD) documents the Utah State Director's decision to approve, with minor modifications, BBC's contracted development plan (CDP), which falls within the range of alternatives described in the WTP EIS. Under this plan, BBC and other operators propose to develop approximately 626 natural gas wells from approximately 120 well pads (63 new well pads and 57 re-occupied well pads) on leased Federal lands over a 4 to 7 year period. Anticipated short-term surface disturbance associated with the project is approximately 1,603 acres (includes Federal, State, and private lands).

The CDP, as modified, will provide for natural gas exploration and development while mitigating impacts on key resources including cultural resources in Nine Mile Canyon,

sensitive landscapes around Desolation Canyon, wildlife resources in the Book Cliffs, and air quality in the Uinta Basin and southeastern Utah.

Requirements for all operators are presented in this ROD. While individual operators other than BBC, who is the primary operator within the WTP Project Area, are not named, the requirements herein will pertain to all operators conducting oil and gas development activities in the WTP Project Area. The requirements in this ROD will also apply to any successors.

The ROD will be available for a 30-day appeal period initiated by the publication of the Notice of Availability (NOA) of this document in the Federal Register.

INTRODUCTION

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, Carbon, and Uintah Counties, Utah, approximately 30 miles east-northeast of Price, Utah. The WTP Project Area is bounded on three sides by natural features – on the west by Sheep Canyon, on the north by Nine Mile Canyon, and on the east by the Green River. The southern boundary of the WTP Project Area is a straight line reflecting an anticline in the sub-surface that limits the southern extent of the natural gas resources targeted by the project. Surface ownership in the 137,930-acre WTP Project Area is approximately 87 percent Federal (managed by the BLM, approximately 8 percent State of Utah (managed by SITLA, and approximately 5 percent private. Mineral ownership closely parallels surface ownership.

OVERVIEW OF PROPOSED ACTION AND ALTERNATIVES

Alternatives Considered

The five fully analyzed alternatives within the WTP EIS included 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. Included below is a description of the alternatives taken directly from the WTP Final EIS Executive Summary.

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. 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 drill 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 the 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 and private lands, subject to the approval of Utah Division of Oil, Gas, and Mining (UDOGM) or the appropriate private land owner. In addition, production and maintenance activities would continue for all existing wells and infrastructure developed on Federal lands. 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. BBC would operate three drill rigs 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, 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:

- Construction and use of an alternative access route through Trail Canyon to alleviate traffic issues on portions of Nine Mile Canyon Road.
- 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 a 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 restrictions 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.

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 water resources. 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 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 National Historic Landmark (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, Jack Canyon, Jack Ridge, and Cedar Ridge Roads (i.e., closed to the public).
- No temporary worker housing locations to reduce the potential for worker-related impacts to cultural resources.
- No exceptions, waivers, or modifications 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 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 of the Proposed Action, Alternative C, and Alternative D, as well as additional cultural resource protection measures, included within the West Tavaputs Plateau Natural Gas Full-Field Development Plan Programmatic Agreement (WTP PA). 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 water resources 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 a 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 proposed new roads longer than 2 miles after drilling and completion activities are completed in sensitive resource areas;
- 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, the Desolation Canyon NHL, and the Nine Mile Canyon ACEC:

- 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 NHL;
- as feasible (where to do so would not preclude the development of valid and existing lease rights), NSO on Federal lands within canyon bottoms; and

- NSO on unleased Federal lands within the Nine Mile Canyon ACEC as designated in the Approved RMP of the *Price Field Office Approved Resource Management Plan and Record of Decision* (BLM 2008b).

As with Alternatives C and D, under the Agency Preferred Alternative impacts to resources would also be reduced by limiting annual surface disturbance and by limiting the 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 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.

Finally, a unique component of the Agency Preferred Alternative is that BBC and other operators would be required to carry out cultural resource mitigation measures as specified in the WTP PA (**Appendix T**). These measures include, but are not limited to:

- providing funding for a Class II cultural resource inventory;
- providing funding for a cultural resource monitoring plan;
- providing funding for conservation treatments and continuing research;
- expansion of current dust suppression efforts and dust monitoring;
- increasing personnel training; and
- development of visitor interpretation/enhancement sites.

Environmentally Preferred Alternative

In accordance with CEQ regulations (40 CFR 1502.2(b)), the environmentally preferred alternative must be identified in the ROD. The BLM considers the environmentally preferred alternative for the WTP Natural Gas Full Field Development Project to be the No Action Alternative. This alternative would result in the least amount of impact to the majority of the resources within the WTP Project Area. However, the No Action Alternative does not meet the BLM's purpose and need for the project, which is to provide for the extraction and recovery of natural gas from Federal oil and gas leases within the WTP Project Area held by BBC and other operators in accordance with its multiple-use mandate. Therefore, the CDP, with minor modifications, was selected. Of the action alternatives, the Selected Alternative is the environmentally preferred alternative. The Selected Alternative, as contained within this ROD, adopts all practicable mitigation measures identified during the NEPA process.

Alternatives Considered but Eliminated from Detailed Analysis

Rescinding Leases

During scoping, it was suggested that an option be considered that would buy back producing and non-producing Federal mineral leases within the WTP Project Area or exchange them for Federal mineral interests outside the WTP Project Area. This option was not analyzed in detail because it did not meet the BLM's purpose and need, which was to allow development of WTP lease rights held by BBC and other operators in an environmentally sensitive manner. In addition to interfering with valid existing lease rights, a decision to buy back leases held by production would interfere with existing infrastructure development and production occurring on those leases previously authorized by the BLM. Based on this information, an alternative analyzing rescinding existing Federal leases was eliminated from detailed analysis.

Suspending Leases within WSAs

During the scoping process, it was suggested that suspending oil and gas leases terms within the Jack Canyon and Desolation Canyon WSAs should be considered as a separate alternative. According to the BLM's Interim Management Policy and Guidelines for Lands Under Wilderness Review (H-8550-1), the Secretary of the Interior has the discretionary authority to direct or assent to a suspension of lease terms if it is in the interest of conservation to do so and when the specific circumstances involved warrant such an action (BLM 1995b).

This separate alternative was not analyzed in detail because the impacts of suspending operational and production requirements of leases within the WSAs would have been substantially similar, for the duration of the suspension, to the impacts described under Alternative D – Conservation Alternative, which prohibited surface occupancy within those areas. Also, suspension of lease terms would not remove the valid existing rights to develop leases within the WSAs, but only delay their development.

In addition, alternatives analyzed in full in the EIS were developed to meet the requirements of the Interim Management Policy for Lands under Wilderness Review, which addresses valid existing rights such as those associated with the leases within Jack Canyon and Desolation Canyon WSAs.

No New Development in the WTP Project Area

A No New Development Alternative, which would deny all APDs and Rights-of-way (ROW) in the WTP Project Area, was briefly considered but eliminated from further analysis because it did not meet the BLM's purpose and need for the following reasons:

BBC maintains valid existing rights to develop all of its leases that are located in the WTP Project Area.

With approval from the appropriate landowner, development would occur on State of Utah and private lands within the WTP Project Area regardless of a BLM decision to deny development of Federal lands.

Development on Federal lands could potentially be approved on a site-specific basis under the guidelines of the Price Field Office Approved RMP, through the Categorical Exclusion process in Section 390 of the 2005 Energy Policy Act, and/or through additional analysis under NEPA.

The BLM cannot deny access through Federal lands to private holdings on non-Federal lands. The BLM's policy concerning access to oil and gas resources on non-Federal lands is detailed in the BLM Manual 2800 on ROW and in 43 CFR Part 2800. This policy directs the BLM to allow access to secure to the owner/lessee reasonable use and enjoyment. Necessary access through Federal lands cannot be denied as long as the landowner/lessee complies with the BLM rules and regulations on Federal surface.

Denial of development on Federal lands could lead to the drainage of Federal reserves by wells on adjacent State and private lands. Drainage by offset non-Federal wells would result in a loss of Federal royalties. A drainage stipulation designed to protect the Federal mineral estate is included in the terms of the lease contracts for all Federally-leased lands in the WTP Project Area.

A denial to develop valid leases would violate the lessees' contractual rights as agreed to by the United States. An oil and gas lease grants the lessee the right and privilege to drill from, extract, mine, remove, and dispose of all oil and gas deposits in the leased lands, subject to the terms and conditions of the lease, applicable laws, and reasonable measures imposed by the BLM. A denial of all activity would constitute a breach of contract of the lessees' rights to conduct oil and gas operations on the leased lands. Only the U.S. Congress has the authority to grant a complete denial of the granted lease rights. Disallowing the development of valid leases would also result in a loss of Federal royalties.

Based on the above rationale, an alternative analyzing no new development in the WTP Project Area would not meet the purpose and need for the project, and was eliminated from detailed analysis.

Alternatives X and Y

In early drafts of the WTP alternative outlines, the BLM, in coordination with its cooperating agencies, briefly considered including two separate alternatives that addressed the features that were found within Alternative D (Conservation Alternative). In preliminary alternative outlines, the BLM considered an alternative entitled "No Surface Occupancy in Federal Land Canyon Bottoms, Wilderness Study Areas, or the National Historic Landmark" and another alternative entitled "Conformance with Existing Lease Notices and Stipulations." For ease of understanding these briefly considered alternatives, they will be referred to as Alternatives X and Y. Within the very preliminary outlines of these alternatives, the intent of each was fairly distinct:

The original intent of Alternative X (NSO in Federal Land Canyon Bottoms, WSAs, or National Historic Landmark) involved the protection of resources within specific, bounded, geographic or designated areas, that is, canyon bottoms, WSAs, and the NHL.

The original intent of Alternative Y (Conformance with Existing Lease Notices and Stipulations) involved strict adherence or conformance with existing or proposed environmental protection measures, such as conformance with winter drilling and high country watershed standards.

However, during subsequent alternative development meetings, the BLM, in coordination with its cooperating agencies, began incorporating additional components in Alternatives X and Y in order to respond to public comments received during the public scoping period. For example, under Alternative X, the BLM added a requirement that there would be no temporary worker housing within the WTP Project Area in order

to minimize potential impacts of cultural resource vandalism during off-project hours. In another example, under Alternative Y, the BLM added an NSO requirement for non-WSA lands with wilderness characteristics. With the accumulation of additional spatial and temporal protective measures to both Alternatives X and Y, the original intent and goals of these alternatives began to mirror one another. NEPA does not require the BLM to conduct a “separate analysis of alternatives which are not significantly distinguishable from alternatives actually considered, or which have substantially similar consequences” (Headwaters, Inc. v. BLM, 914 F.2d 1174, 1181 [9th Cir. 1990]). Therefore, the BLM combined the components of the original Alternatives X and Y into a cohesive Conservation Alternative (Alternative D). Based on this decision, the original Alternatives X and Y were eliminated from detailed analysis.

Directional Drilling

The Draft and Final EIS did not fully analyze an alternative limiting surface density to one drill pad per 160 acres. At the time the directional drilling report¹ was completed for the WTP Project and independently reviewed by the BLM, it was determined that 160 acre surface pad density over the entire project area was not reasonable. Since that time, through interim drilling authorized by the BLM on Federal lands and UDOGM on State lands, BBC has learned more about the geology and extent of natural gas deposits underlying the WTP Project Area. Based on the knowledge acquired, technology advances, and refinements in operational practices, under the CDP, BBC has proposed a development scenario which now limits well-pad density to approximately 160-acres and is reflected in this ROD.

Alternative Access Routes

In an effort to reduce impacts to cultural resources and cultural resource tourism, during the scoping process it was suggested that the BLM should identify an alternative access route that would reduce traffic in Nine Mile Canyon, which has been designated by the BLM as a BLM Backcountry Byway and by the State of Utah as a State Scenic Byway.

As part of the Draft EIS, which was released to the public on February 1, 2008, the BLM considered three alternative routes including 1) new routes that transect Nine Mile Canyon from the Uinta Basin; 2) the Bruin Point route; and 3) a route around the mouth of Nine Mile Canyon.

After considering each of these alternative routes it was determined by the BLM, in coordination with their Cooperating Agencies, that there were legitimate reasons for eliminating each of these alternative routes from detailed analysis in the Draft EIS.

However, during the 90-day public comment period (February 1- May 1, 2008) numerous comments were received from individuals and organizations that indicated the BLM had failed to provide adequate justification for dismissing these alternative transportation routes from detailed analysis, and that the BLM should reconsider an alternative that includes use of one or a combination of the aforementioned routes to reduce industrial traffic and dust in Nine Mile Canyon.

¹ Directional Drilling Analysis, West Tavaputs Plateau Carbon County, Utah. New Tech Engineering. March 20

In response to comments received during the public comment period, during April of 2008, a BLM interdisciplinary team conducted a field evaluation to reexamine proposed alternative access routes to the West Tavaputs Plateau.

After reevaluating alternative access routes, it was determined that construction of a new route through Trail Canyon should be considered. The impacts of constructing a new route through Trail Canyon were considered under Alternative C in the Final EIS.

After careful consideration, other routes brought forward by the public during the scoping and public comment period were dismissed from further analysis for numerous reasons.

The Bruin Point Route is problematic for the following reasons:

- Traffic originating in the Uinta Basin would be required to travel Highway 40/191 to Duchesne, Highway 191 through Indian Canyon, Highway 6 through Helper, Price, and Wellington, and Highway 123 through Sunnyside. By using Duchesne County Road 32 (Gate Canyon) to its junction at Nine Mile Canyon (Carbon County Road 53) these rural and urban communities would largely be avoided. Displacing industrial traffic onto routes through population centers could impact public safety and add several hours of driving time to each vehicle round trip. Increased travel time would also result in increased impacts to regional air quality.
- The elevation of West Tavaputs Plateau gradually rises from the south to the north. The majority of development is proposed near the southern end of the plateau in areas with an elevation which ranges between 6,000 and 7,500 feet. Bruin Point, on the other hand, is located on the northern end of the plateau, and has an elevation of over 10,000 feet. At higher elevations on the plateau freeze conditions persist for a longer period and snow accumulation is greater making winter road maintenance more difficult than in areas such as Gate and Nine Mile Canyon.
- The existing road to Bruin Point does not meet standards and would require extensive engineering. During a field evaluation of roads within the WTP Project Area, a BLM engineer traveled the Bruin Point Route and concluded that upgrading the existing road to a standard capable of accommodating the amount of traffic which could be generated by implementation of the Proposed Action or Alternatives would result in unnecessary and undue degradation to other resources in the area.
- Opening the Bruin Point route year-round could significantly increase impacts to sage-grouse and big game species. While it is true that each of the alternatives would result in some impacts to big game and sage-grouse habitats, construction of the Bruin Point Route would magnify these impacts by disrupting migration patterns between crucial winter and summer habitats for big game, increasing habitat fragmentation, increasing the loss of available forage due to increased surface disturbance, and increasing temporary wildlife displacement due to increased noise levels.

A new route around the mouth of Nine Mile Canyon would provide motorized access into what is currently an undeveloped and inaccessible area and is inconsistent with the BLM's land use planning objectives. Under all alternatives the operators would be granted reasonable access necessary to develop their valid and existing lease rights in the WTP Project Area. In select locations within the WTP Project Area this would require the BLM to grant access through areas that are currently undeveloped, inaccessible, and protected by special designation. However, under no alternative analyzed within the EIS is surface disturbing activity proposed within the Desolation Canyon Special Recreation Management Area (SRMA), the Desolation Canyon NHL, or the potential Green River Wild and Scenic River (WSR) corridor. Creating new access through these remote and sensitive resource areas would cause unnecessary and undue degradation that could be avoided by using existing travel routes through Nine Mile and Gate canyons. It is true that the implementation of certain alternatives could result in increased off-highway vehicle (OHV) use along the existing unmaintained two-track route that crosses through these areas of special designation which provide protection of the Green River corridor. However, these impacts would not be comparable to the adverse impacts that would occur if the existing primitive route were upgraded to a standard that could accommodate the amount of industrial traffic anticipated under the Proposed Action or Alternatives.

Based on public comments received on the Draft EIS, under Alternative C, the BLM considered the impacts of constructing a new route through Trail Canyon, which intersects Nine Mile Canyon near Harmon Canyon. Harmon Canyon is the primary access route to Prickly Pear Mesa. Public comments received on the Draft EIS suggested that once vehicles are on the mesa, existing road segments extending beyond the boundaries of the WTP Project Area could provide access to the other mesas from Prickly Pear. By using mesa to mesa routes, industrial traffic could avoid use of the Nine Mile Canyon Road. However, use of these existing routes would be problematic for the following reasons:

- Because BBC is a predominant landowner in Nine Mile Canyon, the Nine Mile Canyon Road between Harmon and Gate Canyons would still be used to access staging areas, the existing Dry Canyon compressor station, and other ancillary facilities located on their lands.
- Nine Mile Canyon would have to be used to access existing and proposed well locations and facilities located on other private lands (i.e., those not owned by BBC) in Nine Mile Canyon.
- Existing two-track roads between Prickly Pear and Flat Iron Mesa would require substantial engineering and upgrade to accommodate industrial traffic. Road upgrades would result in increased impacts to a number of resources such as soils, vegetation, water resources, wildlife, and visual resources.
- The existing two-track roads that connect Prickly Pear Mesa to Flat Iron Mesa include the routes to Mt. Bartles and Bruin Point. Use of these routes would add approximately 20 miles of travel on unpaved roads to each vehicle trip, or 40 miles to each round-trip. Traveling from Prickly Pear Mesa to proposed wells on Peter's Point would add approximately 30 miles of travel on unpaved roads to each vehicle trip, or 60 miles to each round-trip. Increased travel distances on unpaved roads by a large number of vehicles would increase dust and vehicle emissions.

- As previously described, because of elevation, the road around Mt. Bartles (9,750 feet) and Bruin Point (10,184 feet) would be difficult to maintain in the wintertime.
- As previously described, road upgrades and increased traffic on existing roads between Prickly Pear and Flat Iron Mesa would cause additional surface disturbance, fragmentation of crucial wildlife habitat, and disruption of migration between summer and winter ranges.
- Existing two-track roads between Prickly Pear and Flat Iron Mesa cross private land(s).

During the public comment period it was also suggested that the BLM consider a combination of alternative access routes. By using a combination of alternative access routes the operators would be able to access their leases on each of the three mesas, while avoiding use of Nine Mile Canyon. The rationale as to why a combination of access routes is not feasible would be the same as the rationale as to why each individual access route is not feasible, which was presented above. A combination of access routes would magnify rather than reduce or eliminate these impacts.

As part of the Section 106 consultation process, and during development of the WTP PA, the BLM reopened discussion of alternative access routes with those organizations that had been invited to be consulting parties. During the course of consultation, a considerable amount of time was spent reevaluating alternative access routes that had previously been dismissed as well as exploring different options. The four primary routes discussed during meetings held with the consulting parties were:

- the National Trust for Historic Preservation (NTHP) alternative access routes;
- the Nine Mile Canyon Coalition (NMCC) connecting mesa routes;
- the potential Devils Canyon and Daddy Canyon routes; and
- the Questar pipeline route.

After information was submitted to the BLM for each of these routes, a BLM IDT considered the routes and then provided feedback, generally in the form of written and verbal response, to the consulting parties. For some of the routes, the project proponent independently submitted information regarding technical and economic feasibility.

Following consultation meetings held on March 26 and May 6, 2009, wherein potential alternative access routes to Nine Mile Canyon were discussed in detail, the BLM made a final determination regarding access to the WTP Project Area. The BLM concluded that use of Nine Mile Canyon would be necessary to access all or portions of the WTP Project Area. An "access determination" letter was sent to the SHPO, ACHP and provided to the consulting parties informing them of the BLM's decision on May 28, 2009. Thereafter, discussions were focused on identifying measures that would mitigate the impacts of industrial traffic in Nine Mile Canyon.

Provided below is a brief description of the abovementioned proposed alternative access routes and rationale as to why these routes discussed during the course of consultation were not carried forward for analysis.

The NTHP submitted a report completed by KPFF Engineering, which examined the feasibility of alternative access routes to the West Tavaputs Plateau. In addition to discussing the transecting Trail Canyon route, the Feasibility Review suggested construction of two potential connecting routes between Prickly Pear Mesa, Flat Iron Mesa, and Peter's Point which would allow project-related traffic to avoid use of Nine Mile Canyon Road as a primary route. After receiving this study the BLM conducted an evaluation of the routes identifying both potential adverse and beneficial impacts. In addition, BBC provided information on the technical feasibility of using these access routes based on the increased travel distance from the Uinta Basin. The specific routes proposed by the NTHP were dismissed for principally for the same reasons that mesa-to-mesa routes were dismissed above, with the primary impediment being access limitations through private lands. There are numerous private landowners on the route proposed by the NTHP. At least two of these land owners expressed, in writing, their opposition to project traffic crossing their private lands.

On May 4, 2009 the NMCC submitted a letter and a map asking the BLM to consider use of the proposed Trail Canyon route, as well as construction of shorter trans-mesa or connecting roads that would connect Prickly Pear Mesa to Flat Iron Mesa via Dry Canyon. The BLM followed through evaluating these routes by conducting a field trip into the WTP Project Area. The NMCC proposal was dismissed because of the technical feasibility of building a road out of a very steep walled canyon that would meet BLM road standards. BBC provided profiles of the proposed roads, which reinforced the BLM's decision.

Because of the challenges presented by mesa-to-mesa routes within the WTP Project, it was suggested that the BLM should consider other routes from the Uinta Basin that could transect Nine Mile Canyon near Cottonwood Canyon, which provides access to both Flat Iron Mesa and Peter's Point. The two canyons located to the north of the WTP Project Area that could potentially be used to reduce the length of travel in Nine Mile Canyon are Devils Canyon and Daddy Canyon. As with other route submissions, the BLM conducted a field evaluation of these potential routes. BBC also conducted a detailed engineering study of these routes, which identified a number of concerns. Alternative access routes through these canyons were dismissed predominantly because of other resource concerns (including potential impacts to known significant cultural resources located at the mouth of these canyons). In addition, both canyons are steep and narrow leaving little room for a road outside the canyon bottom. Any road constructed would likely be flooded or washed out during storm events/flash floods.

Finally, it was suggested that the BLM should consider approval of a route that would follow the Questar Pipeline, which would provide access to Prickly Pear Mesa via Soldier Creek Canyon. Use of all or portions of the Questar pipeline route was dismissed because of technical feasibility. Portions of the pipeline route are very steep and would require extensive rerouting to make the grades useable by heavy truck traffic.

Compliance with the BLM Road Standards

During the scoping process it was suggested that the BLM should consider an alternative that would require BBC and other operators to upgrade all existing roads and build all new roads within the WTP Project Area to comply with road standards that are contained in the BLM Manual 9113-Roads. A BLM engineer has evaluated the primary roads that would be used for full field development in the WTP Project Area and has determined that in certain situations the resource damage incurred by complying with specific road standards outweighs the advantages of compliance. The report

recommends that BBC and other operators should be allowed to apply for variances to some of the 9113 standards on a site-specific basis. The BLM's complete engineering report is contained in Appendix F of the Draft and Final EIS. Based on the conclusions in the BLM's engineering report, an alternative requiring that all existing and new roads within the WTP Project Area be upgraded or built to comply with the BLM road standards was eliminated from detailed analysis.

THE DECISION

During preparation of the WTP Final EIS, BBC submitted to the BLM a signed letter (**Attachment 1**) voluntarily contracting their plan of development. According to BBC, as a result of interim drilling authorized by the BLM and UDOGM during the 5-year preparation of the EIS, they have increased their knowledge of the geology and extent of the natural gas deposits underlying the WTP Project Area. In addition, their operational practices have been refined and technology has advanced allowing the company to access natural gas reserves while minimizing the amount of surface disturbance.

The decision is hereby made to allow natural gas drilling on leased Federal lands as proposed within BBC's CDP, and with minor modifications, to provide for development on leased lands within the WTP Project Area held by other operators (hereafter referred to as the Selected Alternative).

As shown in **Table 1**, when compared with other action alternatives considered in the WTP EIS, the Selected Alternative substantially reduces the amount of development and surface disturbance within the WTP Project Area.

Table 1. Comparison of the Selected Alternative and Alternatives Considered within the WTP EIS

Proposed Features	Alternative A – Proposed Action		Alternative B – No Action Alternative		Alternative C – Transportation Impact Reduction Alternative		Alternative D – Conservation Alternative		Alternative E – Agency Preferred Alternative		Selected Alternative	
Wells	807		81		807		558		807		626	
<i>Wells on Leased/Unleased Lands</i>	588	219	60	21	588	219	537	21	588	219	626	0
Well Pads	538		54		538		348		488		120 (63 new pads and 57 re-occupied)	
<i>Well Pads on Leased/Unleased Lands</i>	392	146	40	14	392	146	336	12	348	140	120	0
Number of Drilling Rigs	9		3		6		7		7 ² (assumed for the purpose of analysis)		2-7 ²	
Drilling Season	9 rigs Year-round		3 rigs Year-round		2 rigs year-round, remaining 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)		2-7 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)		156	
Drilling Duration (years)	8		2		15		21		9		4-7 years	
Life of Well (years)	20		20		20		20		20		20	

Table 1. Comparison of the Selected Alternative and Alternatives Considered within the WTP EIS

Proposed Features	Alternative A – Proposed Action	Alternative B – No Action Alternative	Alternative C – Transportation Impact Reduction Alternative	Alternative D – Conservation Alternative	Alternative E – Agency Preferred Alternative	Selected Alternative
Field Abandonment and Final Reclamation (years)	5	5	5	5	5	5
Life of Project (years)	33	27	40	46	34	29-32
New Access Road (miles)	178	32	179	127	164	40.9
Existing Road Improvements (miles)	21.5	6.2	53.3	46.6	46.6	20.4
Proposed Road Reroutes (miles)	8.9	0	6.0	0	6.0	8.8
Alternative Access Routes (miles)	0	0	2.85	0	0	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	155 co-located w/ proposed road 24 along existing road 10 cross-country	38.9 co-located w/ proposed road 5.8 along existing road 10 cross-country
Buried Pipelines	No	No	62 percent ³	No	62 percent ³	62 percent³
Surface Pipelines	Yes	Yes	38 percent ³	Yes	38 percent ³	38 percent³
Number of Pump Stations	4	0	4	3	4	4

Table 1. Comparison of the Selected Alternative and Alternatives Considered within the WTP EIS

Proposed Features	Alternative A – Proposed Action	Alternative B – No Action Alternative	Alternative C – Transportation Impact Reduction Alternative	Alternative D – Conservation Alternative	Alternative E – Agency Preferred Alternative	Selected Alternative
Number of Equipment Storage Areas	3	2	3	3	3	3
Airstrip Improvements/New Construction	Yes	No	Yes	Yes	Yes	Yes
Number of Temporary Worker Housing Locations	3	2	3	None	3	3
New Compressor Stations (associated hp)	3 (24K)	2 (17.6K)	3 (24K)	3 (20.8K)	3 (24K)	2 (12K)
Estimated Short-term Surface Disturbance	3,656	626	3,640	2,510	3,339	1,603
Estimated Long-term Surface Disturbance (after successful interim reclamation)	1,864	279	1,839	1,237	1,678	685
Maximum New Annual Surface Disturbance Allowed (acres)	NA	NA	280	180	540	250
Total Unreclaimed Surface Disturbance Allowed At Any Time (acres)	NA	NA	2,250	1,440	2,310	1,250⁴

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

² Under the Agency Preferred Alternative the BLM analyzed allowing year-round drilling in the WTP Project Area without imposing rig limitations or well number limitations. However, for the purpose of analysis, under Alternative E the BLM assumed that a maximum of seven rigs would be used at any time. Under the Selected Alternative, BBC will use 2-5 drill rigs in the WTP Project Area. Based on the number of other operators and the limited size of their leases, it is assumed that other operators will use no more than 2 rigs.

³ Buried pipelines would be required except where locally established criteria would allow construction of surface pipelines. Using GIS, it was determined that approximately 62 percent could be buried and 38 percent surface-laid. A determination as to whether a pipeline should be buried or constructed on the surface would be made on a site-specific basis.

⁴ Total unreclaimed surface disturbance under the Selected Alternative applies only to Federal lands within the WTP Project Area.

After review of BBC's CDP, the BLM has determined that the reduced development plan is qualitatively within the spectrum of alternatives analyzed in the WTP EIS. The reduced development plan does not include any operational changes that result in direct, indirect, or cumulative impacts not previously analyzed in the WTP Final EIS. Impacts from the reduced development will only differ in degree (less impacts to resources of concern), and not differ in terms of geographic location.

While the Selected Alternative reduces the overall amount of surface disturbance within the WTP Project Area, and while development is concentrated within a smaller geographic area than was analyzed in the WTP EIS, the BLM recognizes that there are still important and highly sensitive resources within or adjacent to the WTP Project Area that require consideration to prevent unnecessary or undue degradation (FLPMA, Section 302). To minimize impacts to resources of concern the BLM will require, monitor, and enforce:

- All design features of the Agency Preferred Alternative, as well as a number of the design features included within the Conservation Alternative.
- Applicant-committed environmental protection measures, many of which go beyond those identified in the Price Field Office Approved RMP (October 2008), existing regulation or statute, and/or are not included as stipulations to the valid and existing leases.
- State-of-the-art best management practices (BMPs) for natural gas drilling and production to help ensure that energy development is conducted in an environmentally responsible manner.
- Additional environmental resource/protection measures, developed by the BLM and its cooperators during the EIS process, that take into consideration concerns raised by the public and affected Tribes during scoping and in comments received on the Draft EIS.
- Standard operating procedures that will ensure that natural gas development and production will occur in a safe manner.

A summary of the measures that the agency has adopted within this ROD can be found in **Attachment 2**. Selection of the contracted development, as modified, with mitigation measures outlined in this ROD fulfills the BLM's statutory mission and responsibilities, and provides for the best balance of multiple uses within the WTP Project Area.

Many of the measures included within this ROD are designed to provide for adaptive management, or allow the BLM to make mid-course corrections, as knowledge is gained about the effectiveness of mitigation measures through monitoring programs.

WHAT THE DECISION PROVIDES

Project Components

This ROD allows the BLM to consider the approval of project components on BLM-administered lands within the WTP Project Area, subject to the terms and conditions discussed in the preceding section. Under the Selected Alternative, the following components are anticipated (includes Federal, State, and private lands):

- 626 wells and 120 well pads (63 new pads and 57 re-occupied);
- 20.4 miles improved road;
- 8.8 miles of road reroutes;
- 2.1 miles of new road without pipeline;
- 38.8 miles of new pipeline collocated with new road (including gas, water, and condensate);
- 10 miles of new cross-country pipeline;
- burial of 35 miles of existing pipeline;
- 5.8 miles of new pipeline along existing roads;
- 2 compressor facilities;
- 7 SWD wells;
- 5 water supply wells;
- 3 water management/disposal facilities;
- 15 centralized tank batteries;
- 4 pumping stations;
- 3 equipment storage areas;
- 3 aggregate borrow areas/cuttings storage areas;
- 3 worker housing facilities; and
- 3 airstrips (upgrade of one existing and construction of two new).

Within this ROD, the BLM has established limits on the amount of unreclaimed surface disturbance, which takes into consideration past, present, and proposed oil and gas development in the WTP Project Area. The goal of establishing surface disturbance limits is to ensure that successful interim reclamation is achieved on Federal lands and to mitigate impacts to resources by re-establishing a vegetation community as soon as practical.

Under the Selected Alternative, annual surface disturbance on Federal lands will be limited to approximately 250 acres, and total unreclaimed surface disturbance at any given time will be limited to approximately 1,250 acres. The BLM will not limit the number of drill rigs, well pads, roads, pipelines, or ancillary facilities constructed on Federal lands as long as operations 1) do not exceed surface disturbance limitations; 2) comply with conditions and requirements within this ROD; and 3) comply with State and Federal

regulations (e.g., Federal National Ambient Air Quality Standards (NAAQS)). If BBC and/or other operators propose development that does not comply with these conditions, additional NEPA review would be required.

Well Pads

Under the Selected Alternative, BBC and other operators anticipate constructing approximately 63 new well pads and re-occupying approximately 57 existing well pads in order to drill approximately 626 natural gas wells. Prior to individual well pad construction or re-occupation, BBC and other operators will obtain approval of an APD by the BLM and/or the UDOGM as appropriate, depending on mineral ownership. Each Federal APD will contain site-specific conditions of approvals (COAs) that apply to construction and well operations.

Drilling

BBC will be limited to no more than five drill rigs at any one time in the WTP Project Area. Subject to surface disturbance limitations, other operators may also drill within the WTP Project Area. According to BBC, based on current technology and drilling rates in the WTP Project Area they will be able to drill approximately 36 wells per year per drill rig.

Production Equipment

Given the increased commitment to directional drilling and increased number of wells per pad under the Selected Alternative, the number of tanks per well pad location will be greater than described under the original Proposed Action or Agency Preferred Alternative (Alternatives A and E, Final EIS). According to the operator, three 400-barrel (bbl) tanks will be required at each single well pad location. One additional 400 bbl tank will be added for each additional wellbore.

Centralized Tank Batteries

Centralized tank batteries (CTBs) will be used as multiple wells are brought into production within a given area. Each CTB will “centrally” locate production equipment for multiple wells; thereby reducing surface facilities on individual pads and support multi-phase gathering operations. Approximately 15 CTBs are proposed under the Selected Alternative. The locations of potential CTBs will be highly dependent upon the surrounding topography. CTBs will likely be constructed on existing production pads, or on new locations adjacent to existing roads and pipeline corridors.

Compression

BBC and other operators will likely construct two new compressor stations totaling 12,000 hp (subject to State of Utah air quality permitting). In addition to the existing Dry Canyon and Interplanetary Compressor Facilities, total compression within the WTP Project Area will be approximately 40,000 hp. Natural gas-fired internal combustion engines will be used to power the compressors. Each compressor station could include one gas conditioning refrigeration unit. The compressors will use hospital grade mufflers (an industry standard within the oil and gas industry) and will be enclosed in buildings or portable structures in an effort to abate noise from the compressor engines.

Roads

This ROD allows the BLM to consider the approval of construction of new roads to proposed facilities, as well as improvement and/or reroute of many existing roads within the WTP Project Area on BLM-administered lands. Road and ROW widths for proposed and improved roads are shown in **Table 2**. As feasible, roads will be constructed to standards established in the latest edition of the Gold Book (DOI-USDA); the *BLM Manual 9113* (BLM 1985); and in the *Price Field Office's Hydrological Modification Standards for Roads* (Appendix 19- Draft Price RMP EIS [BLM 2004b]).

Pipelines

Under the Selected Alternative, BBC and other operators will likely construct approximately 38.8 miles of new co-located pipeline and road, 5.8 miles of new pipeline along existing road, and 10 miles of cross-country pipeline. ROW widths for pipelines are shown in **Table 2**.

Pipelines will be necessary to transport gas from producing wells to the existing sales gas pipeline operated by Questar Pipeline, to transport produced water to proposed SWD wells and/or proposed water management facilities, and to transport condensate to holding tanks or CTBs.

The existing gas gathering system within the WTP Project Area will be expanded to convey the gas production volumes from proposed wells. This expansion will be accomplished both by installing new pipelines within existing and new pipeline corridors, and installing additional pipelines within or adjacent and parallel to existing pipeline corridors.

Water Management Facilities

Water to be used for drilling and completion and water recycled from drilling, completion, and production operations may be managed at water management facilities. Each water management facility will be approximately 5 acres in size. The facilities will typically include one or more lined storage ponds, which will be constructed in accordance with applicable regulations. Other equipment at the water management facilities will include truck loading and unloading facilities, oil separation and water treatment equipment, tanks, and pumps. A spray system may be constructed over the ponds to enhance evaporation. If a spray system is used, BBC personnel will monitor the system to make sure overspray will not leave the water management facility. Under the Selected Alternative, BBC and other operators will use a combination of pipelines and trucking to transport water and condensate from well pads, pump stations and CTBs to the water management facilities on each mesa.

Salt Water Disposal Wells

Under the Selected Alternative, BBC and other operators plan to construct seven SWD wells in the WTP Project Area. When possible, water not reused will be disposed of in a SWD well permitted by the BLM and the State of Utah. Depending on the location, proposed SWD wells will be drilled to either the North Horn/Price River formations or the Colton Formation (or other non-producing, non-potable water bearing, formations capable of accepting water). These formations do not produce gas, contain no potable water, and are capable of accepting large quantities of injected water. In some cases, non-producing gas wells may also be converted for SWD use.

Pump Stations

Water and condensate pipelines from the tops of mesas to loading and pump stations in the canyon bottoms may also be constructed. The water lines will be 2-way, that is, water may either be pumped up to the mesa tops or down to the canyon bottoms, depending on the water balance. Condensate lines will be used to transport condensate from the mesa tops to a loading facility at the pump station. Up to four 2-acre loading and pump facilities could be constructed under the Selected Alternative. Surface facilities at each pump station will likely include one water pump with a maximum 400-hp natural-gas fired generator and up five 400-bbl water storage tanks.

Temporary Worker Housing

Under the Selected Alternative, as many as three 10-acre locations may be needed for temporary worker housing. Each temporary housing location will generally include up to 15 60-foot by 15-foot sleeping trailers, a kitchen, a recreational facility, portable toilets, trash containers, generators, and fresh water tanks. Each temporary worker housing site will be capable of housing approximately 100 personnel. Temporary housing within the WTP Project Area could be used on a year-round basis.

Aggregate Borrow Areas/Cuttings Storage Areas

In order to facilitate road and drill pad construction, BBC and other operators will be allowed to construct new aggregate borrow areas within the WTP Project Area. Based upon the operators conceptual plan of development it is anticipated that one of these areas could be needed on each mesa. Because BBC is planning on using closed-loop drilling for the majority of their wells, there may be a need to store tested and clean drill cuttings off individual well locations. All cuttings piles would be located on an impermeable barrier and provided with secondary containment or other BMPs to prevent impacts to stormwater. If determined appropriate, prior to surface use, the cuttings would be tested for the parameters described in the 1996 UDOGM Environmental Handbook (version 1.0, 1-96) (Environmental Regulations for the Oil & Gas Exploration & Production Industry). In addition to the testing required by UDOGM, drill cuttings would be subject to Toxicity Characteristic Leaching Procedure (TCLP) testing. These data would be used to evaluate potential impacts to surface water and other natural resources, and whether surface use of the cuttings is appropriate.

Equipment Storage Areas

This ROD allows the BLM to consider the approval of equipment storage areas that will be used to temporarily house construction equipment, vehicles, pipe and pipe welding materials, CO₂ tanks, frac tanks, production equipment, and other standard gas field equipment. Based upon BBC and other operators' conceptual plan of development, there may be one storage area located on each mesa.

Landing Strips

Under the Selected Alternative, BBC and other operators may construct/improve an airstrip on each of the mesas. Use of airstrips has the potential to reduce the amount of vehicle traffic. No upgrades will be allowed to the Interplanetary Airstrip to minimize impacts to sage-grouse.

Workovers

Periodic workovers to correct downhole problems in producing wells will be allowed. Generally, workovers are not undertaken on a set schedule, but rather on an as needed basis to increase or maintain production from downhole-producing zones or to re-complete a well in a new zone.

Road Maintenance

Project roads will require routine year-round maintenance. BBC and other operators will be required to prepare and implement road maintenance plans for all roads used for project-related purposes.

Gating of New Roads

Under the Selected Alternative, BBC and other operators will be required to install locked gates on all new roads that are 2 miles in length or longer, when determined practicable and/or feasible by the Authorized Officer (AO). Gating of roads will limit public access into areas that were previously inaccessible by motorized vehicle. The operators will be responsible for installation and maintenance of all locked gates and additional barriers that may need to be constructed for the LOP, or until final reclamation is complete. Keys to locked gates will be provided to the BLM. The BLM may distribute keys to others for approved administrative access. The selection of actual sites and the color and design of the gates will be determined by the BLM.

Gating of Existing Roads in Sensitive Resource Areas

Under the Selected Alternative BBC and other operators, following applicable restriction actions, will be required to install locked gates on Horse Bench, Jack Ridge, Jack Canyon, and Cedar Ridge roads at approximately the locations shown on **Figure 1**. Gates will be installed within 6 months of signing this ROD and the operators will be responsible for installation and maintenance of all locked gates for the LOP until final reclamation is complete. The selection of actual sites and the color and design of the gates will be determined by the BLM. As noted above, keys will be supplied to the BLM. Administrative closure of the four roads mentioned above will limit public access on approximately 41 miles of existing BLM roads in the WTP Project Area. The BLM may distribute keys to others with approved administrative access.

Surface Disturbance Limits

As previously discussed under the Selected Alternative, BBC and other operators will be required to track the amount of annual and cumulative surface disturbance associated with past (since 2004), present, and proposed oil and gas development activities in the WTP Project Area. In order to minimize impacts to resources of concern and ensure reclamation on Federal lands, BBC and other operators will be allowed no more than 250 acres of surface disturbance per-year, no more than 1,250 acres of new surface disturbance at any given time, and no more than 1,500 acres of cumulative surface disturbance (i.e., new surface disturbance added to past and present surface disturbance associated with oil and gas development in the WTP Project Area since 2004). Estimated surface disturbance associated with the Selected Alternative is presented in **Table 2**.

In accordance with the Green River District Reclamation Guidelines (**Attachment 3**), interim reclamation will be considered successful when the BLM determines that there is

75 percent basal cover (based on similar undisturbed adjacent native vegetation community) comprised of desired species re-established over the entire reclaimed area. The objective is to obtain reclamation success within 5 years of the initial reclamation action. BBC and other operators will be required to monitor reclamation using an approved BLM method and submit monitoring reports on an annual basis.

Table 2. Road and ROW Widths, Disturbance Widths, and Facility Sizes, and Surface Disturbance under the BLM Selected Alternative						
Project Feature	Proposed ROW Width¹ (feet)	Estimated Disturbance Widths for Roads and Pipeline Corridors		Total Linear Mileage	Total Estimated Short-term Disturbance Acreage	Total Estimated Long-term Disturbance Acreage
		Short-term (feet)²	Long-term (feet)			
Proposed Road and Pipeline (co-located)	100	80	30	38.8	376	141
Proposed Road Without Pipeline	50	40	30	2.1	10	7
Existing Road Needing Improvement	50	40	30	20.4	99	74
Proposed Pipeline	50	40	0-2	5.8	28	1
Proposed Road Reroutes	50	40	30	8.8	43	32
Burial of Existing Surface Pipeline ⁷	50	40	0-2	35	170	7
Cross-country Pipeline ⁷	50	40	0-2	10	48	2
Project Facility	Estimated Disturbance Acreage Per Facility			Estimated Total Surface Disturbance for Facilities		
		Short-term (acres) per Facility	Long-term (acres) per Facility	Total Quantity of Facilities	Total Estimated Short-term Disturbance Acreage	Total Estimated Long-term Disturbance Acreage
Proposed Well Pads		5.6 ³	2.0 ⁴	63 ⁶	353	126
Existing Pads to be Re-occupied		5.6 ³	2.3 ⁴	57	319	131

Table 2. Road and ROW Widths, Disturbance Widths, and Facility Sizes, and Surface Disturbance under the BLM Selected Alternative						
Salt Water Disposal Well Pads		5.1	1.7	7	36	12
Water Supply Well Pads		5.1	1.7	5	25	9
Pump Stations		2.0	2.0	4	8	8
Equipment Storage Areas		5	5	3	15	15
Compressor Stations		5	5	2	10	10
Aggregate Borrow Areas		2	2	3	6	6
Water Management Facilities		5	5	3	15	15
Temporary Worker Housing Locations		10	10	3	30	30
Airstrip Improvements ⁷		7	7	3	21	21
Central Tank Batteries ⁷		3	3	15	45	45
TOTAL SURFACE DISTURBANCE		NA	NA	NA	1,603⁵	685⁵

¹ The proposed road or ROW width is defined as the actual width of the road or ROW that will be authorized by the BLM. The disturbance width/corridor represents the area of surface disturbance permitted that will be needed to construct/install a road and/or pipeline.

² Short-term disturbance estimates are based on assumption that 80 percent of the road or ROW would be disturbed.

³ Under the Selected Alternative, short-term surface disturbance for a well pads hosting a single vertical well would be approximately 5.1 acres (i.e., 2.93 acres for the working pad plus an additional 2.2 acres for cut, fill, and soil stockpiles). Each additional well drilled from a well pad would require an additional 0.1 acres to accommodate drilling and production equipment. For Selected Alternative disturbance calculations it is assumed that each natural gas well pad would host an average of 5.2 natural gas wells (i.e., 626 wells / 120 well pads = 5.2 wells). Thus, the average surface disturbance at a well pad would be approximately 5.6 acres (i.e., 2.93 acres for the working pad for the initial vertical well + (4.2 additional wells * 0.1 acres per well) + an additional 2.2 acres to accommodate cut, fill, and stockpiles = approximately 5.6 acres for per pad). Water supply and SWD well pads do not host individual gas wells and are therefore, estimated to occupy approximately 5.1 acres (i.e., 2.93 acres for the working pad + an additional 2.2 acres for storage of cut, fill, and soil stockpiles). See next section for additional information.

⁴ Under the Selected Alternative, long-term surface disturbance for a well pad would depend upon whether the location is a new well pad, existing well pad to be re-occupied, and/or the number of wells to be drilled from an individual pad. However, for new well pads with a single gas well, SWD well, or water supply well, long-term disturbance following interim reclamation would be approximately 1.7 acres. Long-term disturbance for an individual well drilled from an existing pad to be re-occupied following interim reclamation would be approximately 2 acres. Each additional natural gas well bore would require an additional 0.6 acres of long-term disturbance. Thus, for a new well pad hosting the average 5.6 natural gas wells, long-term disturbance would be approximately 2 acres after rounding (i.e., 1.7 acres of long-term disturbance for the initial vertical well + (4.6 additional wells * 0.06 acres per additional well)). For an existing pad to be re-occupied hosting the average 5.6 natural gas wells, long-term disturbance would be approximately 2.3 acres after rounding (i.e., 2 acres for the initial vertical well on the existing pad + (4.6 additional wells * 0.06 acres per additional well)).

⁵ Total Surface Disturbance calculations were generated using sophisticated GIS software which removes areas of overlapping development, therefore the resulting total is considered more accurate and will be less than total disturbance calculated utilizing simple multiplication.

⁶ Under the Selected Alternative it is assumed that BBC would construct approximately 50 new well pads and other operators with leases in the WTP Project Area would construct approximately 13 well pads.

⁷ Burial of existing surface pipelines, cross-country pipelines, airstrip improvements, and CTBs are not shown on **Figure 1** and were therefore not calculated using GIS. Surface disturbance associated with these design features will equate to a total of approximately 284 acres of short-term disturbance, and 75 acres of long-term disturbance.

Primarily using GIS-based calculations, it was determined that of the estimated 1,603 acres of short-term disturbance associated within this project, approximately 1,250 will be on Federal lands administered by the BLM. The remaining surface disturbance will be located on State and private lands in the WTP Project Area. Of the approximately 685 acres of long-term disturbance, 537 acres will be on BLM lands with the remainder on State and private lands. Surface disturbance limits for this project (1,250 acres) are based on the amount of surface disturbance the BLM estimates will occur on Federal lands.

WHAT THE DECISION DOES NOT PROVIDE

As part of the Proposed Action and Alternatives, the BLM evaluated the potential impacts of development on leased and unleased lands in the WTP Project Area as well as the impacts of development on private and State lands. While the EIS provided an analysis of development on unleased lands, this ROD does not include a decision to lease any specific parcel within the WTP Project Area, and does not modify leasing decisions in the Price Field Office Approved RMP. If parcels are nominated for leasing through the BLM's competitive leasing process, the environmental impact analysis contained in the WTP EIS may fulfill the BLM's obligations to conduct environmental analysis and identify measures that mitigate impacts.

Decisions contained within this document apply only to BLM-administered lands. Agencies and individuals that have adjoining lands are encouraged to consider implementation of all relevant and reasonable mitigation measures contained within this ROD, which have been identified through a comprehensive environmental analysis.

This ROD does not specifically authorize construction, maintenance, or use of any particular facility on BLM-administered lands. Rather the operators will be required to submit APDs, Sundry Notices, and ROW applications for approval of wells, well pads, pipelines, roads, or other ancillary facilities associated with project development. Submission and approval of such applications with site-specific NEPA review is required prior to initiating surface disturbing activities.

This decision will not limit the number of drill rigs, well pads, roads, pipelines, or ancillary facilities constructed on Federal lands within the WTP Project Area as long as operations 1) do not exceed surface disturbance limitations; 2) comply with conditions and requirements within this ROD; and 3) comply with State and Federal regulations (e.g., Federal NAAQS). If BBC and/or other operators propose development that does not comply with these conditions, additional NEPA review would be required.

This decision does not provide for construction of an alternative access route to the WTP Project Area. As discussed in the alternatives considered but eliminated from detailed analysis section, the BLM evaluated the feasibility of construction of multiple new routes to the WTP Project Area that would reduce or eliminate the amount of project-related traffic in Nine Mile Canyon. Within the WTP Final EIS, and in direct response to public comments received on the Draft EIS, the BLM evaluated the impacts of constructing a new route through Trail Canyon. Because a segment of the proposed road crosses private lands, the BLM cannot authorize or require construction and/or use of this route. Therefore, under the Selected Alternative, access to the WTP Project Area would be through Nine Mile Canyon. Under the WTP PA the BLM, in consultation with consulting

parties, developed reasonable mitigation to protect cultural resources in Nine Mile Canyon.

MANAGEMENT CONSIDERATIONS IN SELECTING THE CONTRACTED PLAN OF DEVELOPMENT WITH MINOR MODIFICATIONS

The Selected Alternative Meets the Purpose and Need for the Project

The BLM's underlying need for this project was to respond to the applicant's proposal to exercise valid existing rights by developing natural gas resources from Federal oil and gas leases while minimizing impacts on sensitive landscapes such as Nine Mile and Desolation canyons, and other resources and resource values (e.g., wildlife and air quality). Information presented in the sections below demonstrates that the Selected Alternative meets this purpose and need.

Under the Selected Alternative, BBC, who is the primary leaseholder within the WTP Project Area, has determined that they will be able to extract equal or greater natural gas resources from their leases than they originally expected when they submitted their Proposed Action in 2005.

Through implementation of stipulations contained in the WTP PA, impacts to Nine Mile Canyon will be decreased, monitored, and mitigated. Additionally, because of the BBC's CDP, there will be no development within the WSAs, and reductions in the amount of surface will minimize impacts to environmental resources.

The Selected Alternative is in Conformance with BLM Land Use Plans

The decision to approve the Selected Alternative is consistent with the goals and objectives for mineral and energy resources in the Approved RMP, which was completed in October 2008. Applicable goals and objectives include:

- Provide opportunities for mineral exploration and development under the mining and mineral leasing laws subject to legal requirements to protect other resource values.
- Support the need for domestic energy resources by managing and conserving the mineral resources without compromising the long-term health and diversity of public lands.
- Manage oil and gas leasing, exploration, and development while minimizing impacts to other resource values.

Installation of locked gates on Jack Canyon, Jack Ridge, Cedar Ridge, and Horse Bench roads is in conformance with decisions throughout the Approved RMP including:

- TRV-4: "To reduce road density, maintain connectivity, and reduce habitat fragmentation, continue to require reclamation of redundant roads or roads that no longer serve their intended purpose."
- OHV-2: "Where the authorized officer determines that OHVs are causing or will cause considerable adverse impacts, the authorized officer shall close or restrict such areas and the public will be notified."

- OHV-9: “Route designations in the limited to designated category will be periodically reviewed and changes made based on resource conditions, changes in use, and other needs.”
- REC-21: “The (Desolation Canyon) SRMA will be closed to recreational OHV use except for Sand Wash and Lower Gray Canyon RMZ.”
- WSR-6: Protective management will apply to BLM lands along suitable river segments. The Green River from the County line near Nine Mile Creek to Chandler Canyon is closed to OHV use.
- TRA-22: “Manage the Desolation Canyon NHL for heritage tourism under the prescriptions of the Desolation and Gray Canyons of the Green River Management Plan, SRMA, WSA and suitable WSR segment.”

After a thorough review of other decisions contained within the Price Field Office Approved RMP, the BLM has determined that the Selected Alternative does not conflict with other decisions contained within the plan such as management decisions for the Nine Mile Canyon ACEC, SRMA, or BLM Backcountry Byway; the Desolation Canyon NHL or SRMA, BLM natural areas, WSAs, WSRs, or other natural resources.

While no surface disturbing activities are proposed on Federal lands administered by the BLM Vernal Field Office, portions of the WTP Project Area, including segments of Nine Mile Canyon, are contained within the Field Office boundaries. The Selected Alternative is consistent with the objectives, goals, and decisions included within the Vernal Field Office Approved RMP related to management of resources in Nine Mile Canyon, such as management decisions for Nine Mile Canyon ACEC, SRMA, or BLM Backcountry Byway.

The Selected Alternative Falls within the Range of Alternatives Considered in the WTP EIS

Internal review of the Draft EIS by the BLM, and review of comments received from Cooperating Agencies, Indian Tribes, organizations, and members of the public, resulted in revisions to the alternatives and analysis incorporated into the Final EIS. Based on changes between the Draft and the Final EIS, the BLM considered initiation of a Supplemental Draft EIS. Supplementation has a particular meaning in the NEPA context. An agency is required to prepare a supplemental EIS when:

- substantial changes are made to the Proposed Action that are relevant to the environmental concerns (40 CFR 1502.9 (c)(1)(i));
- a new alternative is added that is outside the spectrum of alternative already analyzed (see Question 29b, CEQ, Forty Most Asked Questions Concerning CEQ’s NEPA Regulations, March 23, 1981); and
- there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its effects (40 CFR 1502.9 (c)(1)(ii)).

After careful review, the BLM determined that changes in circumstances and conditions did not lead to significantly different analysis conclusions than those previously disclosed in the Draft EIS. In addition, modifying alternatives to achieve certain mitigation benefits,

does not compel the Agency to complete a Supplemental Draft EIS so long as the mitigation measures are discussed in the Final EIS (see *CEQ's 40 Most Asked Questions [29 b]*). Thus, the BLM completed a Final EIS rather than a Supplemental Draft EIS.

Following receipt of BBC's CDP, the BLM carefully examined whether there was anything contained within the CDP that was not discussed in the Draft EIS or given adequate consideration by the Agency; and, again, whether information submitted by the project proponent required the BLM to prepare a Supplemental EIS. The BLM determined that the CDP was within the range of alternatives considered in the Draft EIS, and therefore, a Supplemental Draft EIS was not needed. Specifically, the amount of development proposed under the CDP is greater than that considered under Alternative B - the No Action Alternative, and substantially less than that considered in Alternative A - the Proposed Action.

The responsible official's decision may combine elements of alternatives discussed in the relevant environmental document if the effects of such combined elements of alternatives are reasonably apparent from the analysis in the relevant environmental document (43 CFR Part 46). Therefore, the ROD may include the Proposed Action, select a different alternative, or select a combination of alternatives considered within the "range of alternatives" discussed in the WTP EIS (see *CEQ's Forty Most Asked Questions [1a]*). The Selected Alternative, which includes the CDP with minor modifications, represents a combination of alternatives included in the WTP EIS, and is most similar to the Agency Preferred Alternative.

Similarities between the Selected Alternative and the Agency Preferred Alternative

As previously discussed, the Selected Alternative incorporates many of the design features of the Agency Preferred Alternative as identified in the Final EIS. Discussed below are a number of these design features.

Programmatic Agreement

In December of 2008 the BLM, in consultation with the SHPO, determined that implementation of the Agency Preferred Alternative could have an "Adverse Effect" on historic properties in the WTP Project Area. Within the determination letter, which was submitted to the SHPO and ACHP, the BLM recommended development of a PA. During the consultation process the BLM: 1) increased the size of the Area of Potential Effect (APE); 2) revised their "Adverse Effects" determination; and 3) developed mitigation measures, including dust suppression requirements, which will allow natural gas development to occur while minimizing impacts to cultural resources. Under the Agency Preferred Alternative, the BLM addressed the anticipated effectiveness of stipulations contained within the WTP PA and described the residual effects that remain after mitigation measures have been applied. Implementation of the WTP PA has been carried forward as a COA under the Selected Alternative.

Air Quality Mitigation Measures

Under the Agency Preferred Alternative, the BLM included mitigation measures to reduce impacts to air quality. Many of the measures that were incorporated into the Draft EIS were included at the request of the State of Utah and Environmental Protection Agency (EPA). As part of the Selected Alternative BBC and other operator will be

required to implement the following air quality measures, which were analyzed under the Agency Preferred Alternative in the WTP EIS.

- Tier II rig standards will be required for all new and re-located rigs.
- Emission controls will be utilized on all condensate storage batteries with emissions greater than 5 tons/year. This will include all tank batteries located at well sites, centralized production facilities and compressor stations. The emission controls may consist of vapor recovery, thermal oxidation or other available technologies. At a minimum, the applied control technology must be capable of reducing emissions by 95 percent.
- BMPs will be employed during completion operations to minimize emissions to the atmosphere as a result of well flowback. The preferential BMP shall be “Green Completion” where the well flowback is captured, separated, and sold as product. When Green Completions are not technically reasonable, flaring or other control practices shall be employed to minimize venting emissions directly to the atmosphere.
- Emissions from engines will be controlled utilizing Best Available Control Technology (BACT) in accordance with Utah Division of Air Quality (UDAQ) regulations. Emissions controls may consist of lean-burn technology, catalysts, air/fuel ratio controllers or other technologies as they become commercially available. Engines located at facilities outside of UDAQ jurisdiction (EPA jurisdiction) will be controlled in a like manner.
- In accordance with a Utah Department of Environmental Quality/ Division of Air Quality (UDEQ-DAQ) letter dated June 6, 2008 requesting implementation of interim nitrogen oxide control measures and compressor engines; BLM will require the following as a Lease Stipulation or COA for APDs:
 - All new and replaced internal combustion oil and gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 gms of nitrogen oxide (NOx) per horsepower-hour. This requirement does not apply to oil and gas field engines of less than or equal to 40 design-rated horsepower.
 - All new and replacement internal combustion oil and gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NOx per horsepower-hour.

In the CDP, the project proponent has also voluntarily committed to implementation of additional air quality mitigation measures, which will be discussed in subsequent sections.

Year-Round Drilling and Drilling Schedule

BBC will drill and complete approximately the same number of wells each year under the Selected Alternative as was considered under the Agency Preferred Alternative. Drilling will occur on a year-round basis under the condition that the operators comply with special protection measures for sensitive resources in the WTP Project Area and mitigate impacts through the provisions of the wildlife mitigation plan.

Construction of Ancillary Facilities

Under the Selected Alternative, BBC will construct approximately the same number of ancillary facilities (e.g., compressor stations, worker housing locations, water disposal/management facilities, centralized production facilities, airstrips, pump stations, and equipment storage areas) as was proposed under the Agency Preferred Alternative. Even though the number of wells and pads has been reduced, through technological advances and increased downhole well density, BBC expects recovery of an equal or greater total volume of natural gas than was originally anticipated, thus requiring a similar number of support facilities.

Project-Related Traffic/Traffic Reduction Measures

BBC will drill and complete approximately the same number of wells each year under the Selected Alternative as was considered under the Agency Preferred Alternative. The effect will be basically the same amount of average daily project-related traffic on project-area roads as was discussed under the Agency Preferred Alternative. Many of the traffic reduction measures contained in the Agency Preferred Alternative have been adopted as COAs under the Selected Alternative.

Water/Condensate Transfer System

Under the Agency Preferred Alternative, BLM considered requiring BBC and other operators to transport produced water/condensate via pipeline (i.e., liquids gathering system) where technically feasible. As part of the Selected Alternative, transport of produced water/condensate via pipeline will be required with the following exceptions:

- Water/condensate lines will not be required in areas where development is considered exploratory.
- Water/condensate lines may not be required in remote locations where the number of proposed wells is limited (e.g., Cedar Ridge, Jack Canyon, and Cottonwood Ridge) and construction of water/condensate line will be cost prohibitive).
- Water/condensate lines may not be required in locations where the topographical variations could require construction of additional pumping facilities in addition to those illustrated on **Figure 1**.

Burying Pipelines

In accordance with WO IM-2007-021 (Integration of Best Management Practices into Application for Permit to Drill Approvals and Associated Right of Way), under the Agency Preferred Alternative, the BLM considered requiring the burial of pipelines except in limited circumstances where locally established criteria will allow surface placement of pipe. Under the Selected Alternative, pipelines will be buried under most circumstances. Surface-laid pipeline will be allowed:

- Where very shallow topsoil occurs over bedrock (5-20 inches);
- Where the pipeline does not follow an access road (cross-country);
- Over cliffs where there is no other viable route available; and/or
- As determined during the onsite process.

A determination as to whether one or more of these exceptions apply will be made on a site-specific basis. In the circumstances where the operator proposes to construct a new pipeline adjacent to an existing surface pipeline, the proposed pipeline and existing pipeline will be buried, subject to the exception criteria listed above.

Gating of New Roads

Under the Agency Preferred Alternative, the BLM considered gating new roads longer than 2 miles on a year-round basis. The determination whether or not a road will be gated will be made on a site specific basis taking into consideration a number of variables. Use of these roads will be limited to those granted administrative access by the BLM.

Similarities between the Selected Alternative and the Conservation Alternative

Number and Location of wells

Under the Conservation Alternative, the BLM considered development of approximately 558 wells from approximately 348 well pads. Under the Selected Alternative, BBC and other operators will develop approximately 626 wells from 120 well pads. Therefore, the number of wells being authorized under the Selected Alternative is similar to what was considered under the Conservation Alternative. In terms of geographic locations, for the purposes of analysis under the Conservation Alternative, the BLM looked at applying a NSO standard to proposed development in the Desolation and Jack Canyon WSAs. As part of Selected Alternative, based on a voluntary commitment from BBC, no well pads will be constructed within the WSAs, from WSA cherry-stems, or from roads that constitute a WSA boundary.

In the WTP EIS, the Conservation Alternative – Alternative D, analyzed minimizing disturbance and impacts to non-WSA lands with wilderness characteristics. As part of their CDP, BBC has minimized the amount of disturbance in areas that the BLM has inventoried and found to have wilderness characteristics, and eliminated proposed development from their leases located on the eastern side of Horse Bench near the Green River.

In addition to minimizing and limiting surface disturbance in WSAs and in areas with wilderness characteristics, under the Conservation Alternative, the BLM analyzed the impacts of eliminating development from Federal lands in Canyon bottoms, including Dry Canyon. As part of the CDP, BBC has voluntarily agreed to avoid construction of well pads on Federal lands in canyon bottoms (including Nine Mile Canyon, Jack Canyon, and Dry Canyon), and further, has agreed to eliminate their proposed wells from private lands in Nine Mile Canyon.

Gating of Jack Canyon, Horse Bench, Jack Ridge, and Cedar Ridge Roads

As part of the Conservation Alternative within the Draft EIS, the BLM considered gating Jack Canyon and Horse Bench Roads. Within the Final EIS, the BLM analyzed gating two additional roads: Jack Ridge and Cedar Ridge. Under the Selected Alternative, the BLM will require BBC and other operators to install locked gates on these four roads to minimize impacts to sensitive resource areas.

The Selected Alternative Provides For Recovery of Natural Gas Resources and Protection of Important Environmental Resources

Even though BBC, through the CDP, has committed to: a) eliminate surface locations from the WSAs; b) minimize the number of locations in areas with wilderness characteristics; and c) reduce the overall number of wells and well pads within the WTP Project Area, they have indicated that because of technological advances and increased downhole density that they will be able to meet the purpose and need for the project and recover an equal or greater volume of natural gas than they estimated was recoverable when the project was initiated. The Selected Alternative provides for significant production of natural gas resources that are important to the State and local economies, and are necessary to meet the demand for energy in the United States.

While reductions in the amount of surface disturbance associated with natural gas development in the WTP Project Area will minimize impacts to all environmental resources discussed in the WTP EIS, the primary resource concerns that were taken into consideration when developing the Selected Alternative were: 1) impacts to cultural resources in Nine Mile Canyon; 2) impacts to wilderness characteristics (in the Desolation and Jack Canyon WSAs and non-WSA lands with wilderness characteristics that are contiguous to the WSAs); 3) impacts to air quality, including potential exceedance of ozone standards; and 4) impacts to wildlife including crucial big game winter habitat and crucial sage-grouse wintering and brooding habitat. The majority of the concerns that were raised by the public during formal scoping and the comment period on the Draft EIS were focused on these issues. Included below is a discussion of how mitigation measures contained within the Selected Alternative will minimize impacts to these resources.

Cultural Resources

As part of the Selected Alternative, BBC and other operators will be required to implement stipulations outlined in the WTP PA, which has been included as **Attachment 4**. In December of 2008 the BLM, in consultation with the SHPO, determined that implementation of the Agency Preferred Alternative could have an “Adverse Effect” on historic properties in the WTP Project Area. Within the effects determination letter, which was submitted to the SHPO and ACHP, the BLM recommended development of a PA. In January of 2009, the BLM invited all organizations and individuals that had previously expressed interest in being consulting parties for the project to participate in development of the PA. Those that were invited and elected to participate include the National Trust for Historic Preservation (NTHP), Nine Mile Canyon Coalition (NMCC), Utah Rock Art Research Association (URARA), Colorado Plateau Archaeological Alliance (CPAA), Utah Statewide Archaeological Society (USAS), Barrier Canyon Style (BCS) Project, and Southern Utah Wilderness Alliance (SUWA). In addition to these organizations, the BLM, Advisory Council on Historic Preservation (ACHP), Utah State History Preservation Officer (SHPO), project proponent (BBC), State of Utah’s Governor’s Office, SITLA, and Carbon and Duchesne counties, contributed to development of the PA. All Tribes that had previously shown interest in the WTP Project were also invited to join in development of the Agreement. However, only the Ute Indian Tribe elected to take part. During the consultation process the BLM: 1) increased the size of the Area of Potential Effect (APE); 2) revised their “Adverse Effects” determination; and 3) developed mitigation measures, including dust suppression

requirements, which will allow natural gas development to occur while minimizing impacts to cultural resources.

On January 5, 2010, the WTP PA was signed by each of the aforementioned government and non-governmental organizations, with the exception of the Ute Indian Tribe. As part of the PA, BBC and other operators will be required to:

- Provide funding for a Class II cultural resource inventory not to exceed 3,700 acres, which is approximately 2.5 percent of the project APE. The purpose of the Class II inventory will be to improve cultural resource information in areas where data is currently lacking.
- Provide financial support for a cultural resource monitoring plan. The intent of the plan is to gather information about a sample of sites and then monitor changes to those sites over time. As part of the monitoring plan, a third-party contractor will collect dust samples to determine if dust, generated by industrial traffic, is still being deposited on sites. If the BLM determines that dust is continuing to accumulate on sites, the BLM will mitigate the impacts by: 1) requiring conservation treatments; 2) requiring BBC and other operators to implement additional project-related traffic reduction measures; and/or 3) stopping or limiting approval of new APDs and denying or limiting new ROW applications.
- Fund removal of dust from panels that have previously been impacted by oil and gas development in the APE. Prior to removing dust from affected sites, systems for removing dust will be developed and tested by a rock art conservator selected by the BLM.
- Fund a research project, which looks at whether dust that has settled on rock art is causing physical degradation.
- Expand dust suppression efforts to include portions of Nine Mile Canyon and Gate Canyon roads within the APE, which extends beyond the WTP Project Area boundary.
- Identify new dust monitoring methods that will be qualitative, cost effective, and easy to operate.
- Train all personnel (including contractors; and new, added, or replaced personnel) on site avoidance, site etiquette, and statutes protecting cultural resources prior to working in the WTP Project Area, and maintain records demonstrating that personnel's training has been carried out.
- Fund development of visitor interpretation/enhancement (e.g., parking, walking paths, signage, and/or information kiosks) at nine to eleven sites within the WTP Project Area. The purpose of these site enhancements will be to inform and educate visitors of the unique archeological resources in Nine Mile Canyon as well as improve visitor safety.

Through development and implementation of the PA, the ACHP and the SHPO have agreed that the BLM has fulfilled its statutory obligations under Section 106 of the National Historic Preservation Act (NHPA). In addition to the aforementioned operator commitments, as part of the PA, the BLM has committed to development of a site stewardship program for the Nine Mile Canyon area, and to submitting eligible properties for listing on the National Register of Historic Places (NRHP).

In addition to the stipulations contained in the WTP PA, the Selected Alternative contains a number of design features and mitigation measures which will decrease the amount of project related traffic in Nine Mile Canyon, thereby reducing potential impacts to cultural resources. These measures include but are not limited to:

- provision of temporary worker housing;
- as feasible, disposal of produced water within the WTP Project Area (SWD wells and water management facilities);
- reuse of water for drilling and completion activities;
- where feasible, construction of water/condensate transfer lines;
- provision of new and improved airstrips for aerial transportation; and
- where feasible, use of telemetry equipment (remote monitoring) at well locations.

Wilderness Characteristics

As formerly discussed, under the CDP, BBC voluntarily agreed not to construct well pads within the WSAs, from WSA cherry-stems, or from roads that constitute a WSA boundary. Therefore, implementation of this project will not result in any new surface disturbing activities that will impair the suitability of these WSA for wilderness designation by Congress.

Additionally, for wells that are within ¼ mile of a WSA boundary, BBC has committed to drill during the recreational off-season and to install low profile equipment on these well pads. This will ensure that drilling activities will not impact river recreation occurring in Desolation Canyon of the Green River, which is the focal point of primitive recreational use of the WSA.

As part of the Selected Alternative, the BLM will require BBC and other operators to install locked gates on Jack Canyon, Jack Ridge, and Cedar Ridge roads which are within or bound the WSAs. Gating of these roads will effectively eliminate the potential for unauthorized cross-country motorized vehicle travel in portions of the WSAs that fall within the WTP Project Area. This will minimize intrusions and protect the appearance of naturalness and opportunities for solitude and/or primitive and unconfined recreation.

Lands included in the WTP Project Area are within the 204,643-acre Desolation Canyon and 1,465-acre Jack Canyon non-WSA areas with wilderness characteristics that were inventoried by the BLM and found to have wilderness characteristics. Within the range of alternatives for the recent Price Field Office land use planning effort, these lands were considered and thoroughly analyzed for the protection, preservation, and maintenance of those wilderness characteristics as well as for the impacts that could occur if other resource developments and uses were allowed. While the BLM did not carry either the Desolation Canyon or Jack Canyon areas forward for protection of wilderness characteristics, and chose to provide opportunities for other resource development and uses (Approved RMP, page 93, 2008), the Selected Alternative will have minimal impact on the wilderness characteristics within these areas.

In the case of the Selected Alternative, construction of approximately 6 new well pads and associated roads and pipelines as well as re-occupation and expansion of up to 10 well pads will result in the short-term disturbance on approximately 182 acres of Federal

lands that have been inventoried and found to have wilderness characteristics in the Desolation Canyon area. Construction of these wells will result in the direct loss of naturalness, and the loss of opportunities for solitude and/or primitive and unconfined recreation in approximately 0.09 percent of the Desolation Canyon wilderness characteristics area. Indirect impacts will extend beyond the area of direct disturbance to those areas that are within sight and sound of development. The new disturbance will generally be located near the boundary of the wilderness characteristics area in and around the Peter's Point area, within the Peter's Point Federal Oil and Gas Unit (see **Figure 1**).

In order to minimize impacts of development in areas with wilderness characteristics, BBC has voluntarily agreed to limit new well pad density to one surface location per 320 acres, design roads in a manner that minimizes impacts to visual resources, place well-heads and/or separators in subsurface grate covered concrete vaults, place production equipment off-location, and use low profile equipment.

Under the Selected Alternative, BBC and other operators will also be required to install locked gates on the Horse Bench Road which is within the non-WSA lands with wilderness characteristics. The segment of the road that is needed to access operations will be upgraded. Gating this road will deter increased recreational motorized use of this area, which is currently protected by difficulty of access. Gating Horse Bench road will also lessen the amount of unauthorized cross-country travel on Horse Bench, and the resulting impacts to natural and cultural resources.

Mitigation measures that will reduce impacts to areas with wilderness characteristics (i.e., WSA and non-WSA) will also protect compatibly managed lands such as the Desolation Canyon SRMA, Desolation Canyon NHL, and wild segments of the Green River found to be suitable for WSR designation.

Air Quality

Within the Draft EIS, ozone impacts from the Proposed Action and alternatives were estimated using the results of an impact analysis performed for the Pinedale Anticline EIS (February 2007). The predicted cumulative ozone levels presented in the WTP Draft EIS did not indicate violations of the NAAQS at the time it was released to the public (February 1, 2008). However, on March 12, 2008, and thus subsequent to the publication of the Draft EIS, EPA changed the NAAQS for ground-level ozone. Because the EPA lowered the NAAQS in March 2008, the predicted cumulative values contained in the Draft EIS exceeded the new NAAQS. EPA is currently reviewing the ozone NAAQS, and may lower the standard again to anywhere from 70 to 60 ppb. In view of the cumulative ozone levels modeled and predicted under the Proposed Action and alternatives, the BLM concluded in coordination with EPA and the State of Utah, that additional cumulative and project specific ozone modeling needed to be completed. The results of this modeling are included within the WTP Final EIS (See Appendix J). The project-specific analysis showed little effect from the WTP alternatives when compared to projected cumulative ozone emissions in the greater Uinta Basin. Within and immediately surrounding the WTP Project Area, the maximum ozone predicted value ranged between 72.5 and 77.1 parts per billion (ppb), which is approximately 0.4 ppb above the predicted value for cumulative sources without the WTP project sources. These levels are predicted to be above the ozone 8-hour NAAQS of 75 ppb in the year 2018.

Following completion of modeling for the WTP Project, a regional ozone modeling study was conducted in 2008. The BLM participated in a technical analysis of the potential air quality and air quality related value impacts that may result from oil and gas industry activity and other emission sources within the Uinta Basin. This analysis, known as the Uinta Basin Air Quality Study (UBAQS), was finalized in 2009 and included basin-wide ozone modeling. A summary of the results of the UBAQS are also included in the WTP Final EIS. UBAQS predicted the 2012 base year ozone concentrations in the WTP Project Area are to be below the 8-hour NAAQS, with concentrations above the NAAQS in the northwest corner of the greater Uinta Basin and a small area in central Emery County.

Subsequent to the preparation of this Final EIS ambient air monitoring for ozone in the Uinta Basin has recorded ozone concentrations in excess of the NAAQS. While this data is still preliminary, it is cause for concern. The high ozone concentrations are occurring via an unusual “cold-pool” formation whereby stagnate weather conditions during mid-winter when the ground is snow covered is apparently leading to the formation of short-lived but intense ozone episodes in areas common to oil field operations. This cold-pool ozone formation is not well understood; indeed it can’t even be modeled at this time.

PM2.5 has also been measured above the NAAQS in the Uinta Basin (City of Vernal), although given the timing and nature of these measured exceedences it is unknown if oil and gas activities are contributing to this in any meaningful way.

Based upon air quality concerns, the BLM has incorporated a number of mitigation measures into the Selected Alternative which were analyzed under the Agency Preferred Alternative that will reduce impacts to air quality. These measures include:

- Tier II rig standards will be required for all new and re-located rigs.
- All new and replaced pneumatic controllers will be a no bleed or low bleed design.
- Emission controls will be utilized on all condensate storage batteries with emissions greater than 5 tons/year. This will include all tank batteries located at well sites, centralized production facilities and compressor stations. The emission controls may consist of vapor recovery, thermal oxidation or other available technologies. At a minimum, the applied control technology must be capable of reducing emissions by 95 percent.
- BMPs will be employed during completion operations to minimize emissions to the atmosphere as a result of well flowback. The preferential BMP shall be “Green Completion” where the well flowback is captured, separated, and sold as product. When Green Completions are not technically reasonable, flaring or other control practices shall be employed to minimize venting emissions directly to the atmosphere.
- Emissions from engines will be controlled utilizing BACT in accordance with UDAQ regulations. Emissions controls may consist of lean-burn technology, catalysts, air/fuel ratio controllers or other technologies as they become commercially available. Engines located at facilities outside of UDAQ jurisdiction (EPA jurisdiction) will be controlled in a like manner.

- In accordance with a UDEQ-DAQ letter dated June 6, 2008 requesting implementation of interim nitrogen oxide control measures and compressor engines; BLM will require the following as a Lease Stipulation or Condition of Approval for APDs:
 - All new and replaced internal combustion oil and gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 gms of NOx per horsepower-hour. This requirement does not apply to oil and gas field engines of less than or equal to 40 design-rated horsepower.
 - All new and replacement internal combustion oil and gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NOx per horsepower-hour.

In addition to the above requirements, as part of the CDP, BBC has voluntarily committed to implement additional air quality mitigation measures, which will further reduce impacts to air quality when compared to the impacts modeled for the Agency Preferred Alternative in the Final EIS. BBC will:

- Limit the maximum number of drill rigs to five.
- Use drill rigs fueled by natural gas engines, if more than two drill rigs are being used in the WTP Project Area.
- Maintain a 5 ton VOC emissions/year threshold for controls for essentially all new wells. At a minimum, the applied control technology will be capable of reducing VOC emissions by 95 percent.
- Eliminate dehydrators from well sites.
- Use FLIR (thermal imaging) methodology for detecting fugitive emissions.

Though not specifically intended to minimize impacts to air quality, the Selected Alternative includes additional measures that will also reduce air quality impacts:

- Apply dust suppressants that will reduce annual particulate matter emissions.
- Reduce the number of well pads from 494 (Agency Preferred Alternative to approximately 120 well pads (49 new pads and 57 re-occupied), resulting in a decrease in development and operational impacts, including mobilization impacts.
- Decrease the overall amount of surface disturbance when compared to other action alternatives.
- Drill individual wells in less time than the rigs analyzed in the EIS to reduce total emissions.

It should also be noted that results of the modeling included in the WTP EIS for the Agency Preferred Alternative did not indicate any potential violations of the NAAQS other than ozone. As shown in **Table 3**, based upon the reduction in the amount of development and the abovementioned required measures, impacts to air quality will be substantially less under the Selected Alternative than the Agency Preferred Alternative. Additionally, the modeled analysis used only existing regulatory controls for other future projects. In other words no additional controls beyond those already required were

assumed to be employed for all other future projects. This is an extremely conservative assessment, as controls similar to those employed by WTP will most likely become minimum standards for all future oil and gas development in Utah, and will result in significantly lower emission rates and impacts than modeled by this study.

Table 3. BBC West Tavaputs Total Emissions Reductions under the Selected Alternative (tons/yr)¹					
NO _x	CO	SO ₂	VOC	PM ₁₀	PM _{2.5}
-708	-480	-6.54	-4,818	-156	-46.9

¹Predicted emission reductions included in this Table are conservatively estimated using only quantifiable reductions such as equipment controls and reductions in the amount of development

To ensure that this project will result in the continued attainment of NAAQS and not contribute to ozone exceedances, within 1 year of the signing of this ROD, BLM and BBC with input from appropriate stakeholders (i.e., EPA, Ute Indian Tribe, UDAQ), will refine the NO_x and VOC emissions inventory for the Project based upon updated actual and projected levels of development. BBC will update its emissions inventory on an annual basis and provide this inventory to the BLM and other interested stakeholders (i.e., EPA, UDAQ, and Ute Indian Tribe). This information will be made publicly available on an annual basis.

In the event that the updated emissions inventory shows a significant increase in NO_x, VOCs, or other ozone precursors relative to the levels predicted by the EIS, then BBC, in consultation with the BLM and appropriate Federal, Tribal and State stakeholders, will perform a new air quality model analysis utilizing the new inventory and monitored data, or incorporate the updated emissions inventory in a planned regional scale air quality modeling study. The modeling will consider the current operating practices, operator committed mitigation, and BACT requirements in place at the time the model is conducted. BLM in consultation with appropriate Federal, State, and Tribal stakeholders will evaluate the modeling results and identify any needed additional reductions in ozone precursor emissions.

As soon as possible following evaluation of the modeling results, BLM and appropriate stakeholders will use their respective authorities to implement any needed emission control mitigation measures and/or operating limitations necessary to ensure continued compliance with applicable ambient air quality standards for ozone. Absent an effective technology to implement, reductions in the pace of development may be utilized to ensure ambient air quality standards are met.

Potential mitigation measures that the BLM and appropriate stakeholders may employ include:

- additional natural gas-fired rig engines;
- fuel additives;
- gas turbines rather than internal combustion engines for compressors;
- secondary controls on drill rig engines;
- electric drill rigs;

- electric compression;
- cleaner technologies on completion activities, and other ancillary sources;
- reduction in the pace of development;
- further centralization of gathering facilities to reduce truck traffic, including liquids gathering system; and/or
- advancements in drilling technologies.

Wildlife

Implementation of the Selected Alternative will have less impact on wildlife in the WTP Project Area than any of the action alternatives that were considered within the WTP EIS because: 1) BBC has agreed to reduce well pad density to one surface location per 160 acres, and in areas with wilderness characteristics, one well pad per 320 acres; 2) development will be concentrated in a smaller geographical area; 3) the overall amount surface disturbance will be less; and 4) the construction phase of the project will be shorter.

Despite the fact that the Selected Alternative would have fewer impacts on wildlife than other alternatives considered in the WTP EIS, many areas where development will be concentrated have been identified as crucial winter habitat for elk and mule deer, as well as crucial sage-grouse winter habitat and crucial sage-grouse brooding habitat. Typically in crucial habitats (depending on the lease terms) there are stipulations/timing limitations for surface disturbing activities.

In order to provide for more efficient development of natural gas resources, as part of their Proposed Action, BBC and other operators requested that the BLM consider allowing year-round drilling in the WTP Project Area.

Within the WTP EIS the BLM considered a range of alternatives, including action alternatives which would have authorized, prohibited, and restricted drilling during the winter season (defined for most wildlife resources in the Approved RMP as December 1-April 15).

As part of the Selected Alternative, the BLM has identified mitigation measures which will allow the Agency to grant a waiver or exception to seasonal timing limitations in the WTP Project Area on a lease-by-lease basis as specific applications for development on the affected lease(s) are submitted except in areas that UDWR and the BLM have identified as the core sage-grouse winter-use areas. Exceptions or waivers will be granted under the condition that operators comply with the special protection measures outlined in **Attachment 5**, and mitigate impacts to wildlife as agreed to in the wildlife mitigation plan (**Attachment 6**). In addition, an annual review will be completed by the BLM in coordination with other appropriate agencies to evaluate operator compliance with conditions of waivers or exceptions, resource conditions, and effectiveness of mitigation measures.

On leases that have no seasonal stipulations attached, the special protective measures outlined in **Attachment 5** would be applied to APDs (and other individual applications) as COAs to ensure sensitive resource impacts present within the WTP Project Area are

sufficiently mitigated. This would ensure that resource protection measures are applied consistently, regardless of varying lease terms.

To mitigate the impacts of winter-time drilling, the Price Field Office in coordination with the UDWR has developed a Wildlife Mitigation Plan (**Attachment 6**), which outlines proposed mitigation for natural gas full field development in the WTP Project Area. The agencies' mitigation plan, which is a modified version of BBC's Wildlife Mitigation Plan that was voluntarily submitted with their Proposed Action (see Final EIS Appendix B), emphasizes the importance of offsetting the effects of the full field development in its entirety. The agencies' plan gives priority to compensating for potential effects to greater sage-grouse, deer, raptors, and elk.

Under the Agency Wildlife Mitigation Plan, BBC and other operators will be required to implement wildlife mitigation at a 4:1 ratio based on total long-term surface disturbance (685 acres).²

The Agency Wildlife Mitigation Plan also establishes a mitigation oversight committee (MOC) to be led by the BLM, in coordination with UDWR, and other agencies/organizations. The WTP MOC will evaluate the implementation and effectiveness of mitigation measures, provide direction on effective means of mitigating planned development activities, and develop adaptive strategies and projects. The WTP MOC will complete evaluations and make recommendations to the authorized officer on on-going and planned mitigation activities on an annual basis, in advance of considerations for winter activities, and prepare a report on its findings.

In addition to requiring the aforementioned mitigation, the BLM in coordination with its Cooperating Agencies, have developed special protection measures for wildlife resources (**Attachment 5**). Similar to the Wildlife Mitigation Plan, the special protective measures were developed by the BLM and its Cooperating Agencies to address the effects of winter development on wildlife. The BLM will evaluate the effectiveness of these measures annually and adaptively adjust their application to optimize opportunities to mitigate impacts to wildlife resources within the WTP Project Area.

Included in the special protection measures for wildlife, is a requirement that BBC and other operators must realign existing roads within core sage-grouse winter habitat, thereby reducing fragmentation (see ROD **Figure 1**) within 1 year of signing this ROD. Strategic planning will be completed in cooperation with the UDWR to determine appropriate locations for road realignments.

As described in Alternative E – Agency Preferred Alternative of the WTP Final EIS, within the winter core-use sage-grouse habitat 41 well pads. Under the Selected Alternative, there will seven new well pads and 13 re-occupied well pads. Increased directional drilling within winter core-use sage-grouse habitat will also result in less fragmentation from linear disturbance features (i.e., roads and pipelines to individual well locations).

² Approximately 685 acres multiplied by four equals 2,740 acres of mitigation.

The Selected Alternative is Consistent with Statutes, Regulation, and Local Plans

Federal Laws, Regulations, and Policy

Implementation of the Selected Alternative provides for the extraction and recovery of natural gas from Federal oil and gas leases within the WTP Project Area held by BBC and other operators in accordance with the Federal Lands Policy and Management Act (FLPMA) and the Mineral Leasing Act (MLA) as amended.

FLPMA mandates that the BLM manage public lands on the basis of multiple uses, and minerals are identified as one of the principal uses of public lands in Section 103 of FLPMA (43 U.S.C. § 1702(c)). Additionally, Section 201 and 202 of FLPMA require that the BLM manage lands in accordance with the established land use plans. As such, the Selected Alternative is in conformance with the Price Field Office Approved RMP (October 2008).

The MLA, as amended, provides that exploration and development of domestic oil and gas is in the best interest of the United States. The intent of the MLA and its implementing regulations is to allow and encourage lessees, or potential lessees, to explore for oil and gas or other mineral reserves on Federally-administered lands. The BLM is responsible for managing activities consistent with rights associated with valid existing leases (43 CFR 3101.1-2).

Consistency with State of Utah Plans and Policies

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

Between August 29, 2008 and October 28, 2008 the Governor's Office conducted a 60-day consistency review of the Price Field Office Proposed RMP/Final EIS in accordance with planning regulations at 43 CFR Part 1610.3-2(e). The Governor's Office did not identify any inconsistencies concerning State or local plans, policies, and programs. As discussed in preceding sections, implementation of the Selected Alternative is in conformance with the Approved RMP, and therefore is considered to be consistent with State plans and policies.

Consistency with Local Plans

As recommended by CEQ, (*NEPA 40 Most Asked Questions*, [23b]) the BLM is encouraged to disclose conflicts with local plans. Gating of four existing roads in the WTP Project Area is not consistent with Carbon County's Master Plan. These routes are being gated to protect resources in conformance with the Price Field Office Approved RMP, as was discussed previously in this ROD. As part of the Selected Alternative, and to partially resolve this inconsistency, the BLM has the discretion to provide administrative access when appropriate.

Carbon County may hold valid existing rights in the WTP Project Area pursuant to R.S. 2477. However, issues pertaining to R.S. 2477 are beyond the scope of this project, and it does not adjudicate, analyze, or otherwise determine the validity of any claimed ROW under R.S. 2477. Likewise, nothing in this ROD alters or extinguishes any valid R.S.

2477 ROW the County may have, or their right to assert and protect R.S. 2477 rights, and to challenge in Federal court or other appropriate venue any restrictions that they believe are inconsistent with their rights.

The *Carbon County Master Plan* (Carbon County 2005b) set a goal that resource development activities on public lands within the county be fully bonded for all estimated reclamation costs (separate from Federal performance bonds). Portions of the WTP Project Area within Carbon County have been reviewed and approved for Non-Conditional Use by the Carbon County Planning and Zoning Board for mining and grazing; therefore, the Selected Alternative is consistent with the *Carbon County Master Plan*, with the exception mentioned above.

The Selected Alternative is consistent with the *Duchesne County General Plan* (2005). The Duchesne County General Plan supports management of public lands for multiple use, sustained yields, prevention of waste of natural resources, and to protect the health and welfare of the public. The plan emphasizes the importance of access to and across public lands for resource management and development. The plan encourages the proper management of public lands for fish, wildlife, livestock production, timber harvest, recreation, energy production, mineral extraction and the preservation of natural scenic, scientific and historical values.

The portions of the WTP Project Area within Uintah County are guided by the *Uintah County General Plan* (Uintah County Plan) (Uintah County 2005). The Uintah County Plan emphasizes multiple-use public land management practices, responsible use, and optimum utilization of public land resources. Multiple-use is defined in the plan as including, but not limited to, the following historically and traditionally practiced resource uses: grazing, recreation, timber, mining, oil and gas development, agriculture, wildlife habitat, and water resources, as they become available or as new technology allows. Nothing in the Selected Alternative appears to be inconsistent with the Uintah County Plan.

CONSULTATION AND COORDINATION

During the NEPA process, the BLM made formal and informal efforts to consult and coordinate with other Federal agencies, State and local governments, and Native American Tribes. A summary of the Agencies consultation efforts has been included in following sections. Detailed information regarding the BLM's consultation and coordination efforts can be found in Chapter 6 of the WTP Final EIS.

Cooperating Agencies

During the public scoping process for the WTP EIS, the EPA, U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (USACE), U.S. Department of Transportation (DOT), State of Utah, Carbon County, Duchesne County, Uintah County, and the BIA-Uintah and Ouray Agency were invited to be Cooperating Agencies on the project.

The EPA, USFWS, State of Utah, Carbon County, Duchesne County, and Uintah County agreed to participate as Cooperating Agencies and have participated throughout the EIS process. The USACE, DOT, and BIA participated as informal cooperators, primarily in a review capacity.

Those who elected to participate as Cooperating Agencies were provided with numerous opportunities to assist in the development of the alternatives early in the NEPA process. In addition to providing valuable assistance in the development of alternatives, the Cooperating Agencies were given multiple opportunities to comment on the impact analyses.

NHPA Section 106 Consultation

The NHPA and the regulations at 36 CFR Part 800 govern BLM's cultural resource management program. The regulations provide specific procedures for consultation between the BLM and the SHPO. The Section 106 consultation process with the Utah SHPO, initiated in April of 2006, has been ongoing throughout the NEPA process.

On September 29, 2008, after the comment period on the Draft EIS, the BLM received a letter from the ACHP wherein they notified the BLM of their decision to formally participate in consultation pursuant to the criteria for involvement established in Section 4(b)(3) of the BLM Nationwide Programmatic Agreement regarding "highly controversial undertakings" and Section VII(A)(3) of the Utah State Protocol.

In December of 2008, and in consultation with the SHPO, the BLM determined that implementation of the Agency Preferred Alternative could have an "Adverse Effect" on historic properties within the WTP Project Area.

In order to resolve potential adverse effects, the BLM, in coordination with the ACHP and SHPO, determined that it would be appropriate to develop a PA for the project. Development of the WTP PA (**Attachment 4**) was initiated in January 2009 with consulting parties.

In January of 2009, the BLM invited Carbon and Duchesne Counties, the project proponent, the State of Utah, SITLA, the NTHP, NMCC, URARA, UPAC, CPAA, USAS, BCS Project, and SUWA to be consulting parties under Section 106 of the National Historic Preservation Act (NHPA).

The signing of the WTP PA on January 5, 2010 by all parties and its implementation concludes the Section 106 process.

Native American Consultation

Twenty-seven Native American Tribal organizations were invited to formally participate as consulting parties to the EIS. No Tribe elected to participate; however, Government-to-Government Tribal consultation has been ongoing throughout the NEPA process. A summary of Native American Consultation is included Chapter 6 of the WTP Final EIS. A complete history of Tribal consultation can be found in the *Proposed West Tavaputs Plateau Natural Gas Full Field Development Plan Native American Consultation and Identification of Traditional Cultural Places* (Summit Applied Anthropology 2008), which is contained in the administrative record for this project.

Section 7 Consultation under the Endangered Species Act

In addition to the USFWS being actively involved in the WTP project as a Cooperating Agency, the BLM formally consulted with the Service in accordance with Section 7 of the ESA, which requires Federal agencies to evaluate their actions with respect to any species that are proposed or listed as endangered or threatened, and their critical habitat, if any has been formally designated.

Based on an agreement between the BLM and USFWS, the information on threatened, endangered, and candidate species the WTP EIS was used as the Biological Assessment for this project. The USFWS' Biological Opinion (BO) (**Attachment 9**) concurred with the BLM's findings for threatened, endangered, and candidate species within the WTP Project Area based on the Alternative E - Agency Preferred Alternative contained in the WTP Final EIS. The final BO was signed by the USFWS prior to signing this ROD (June 14, 2010), thereby formally concluding the Section 7 Consultation process.

The USFWS has concurred that potential impacts to all listed species and their habitats are less under the Selected Alternative than those analyzed in the Agency Preferred Alternative in the WTP Final EIS (also considered the Biological Assessment for this project) (see **Attachment 9**).

All of the measures identified by the USFWS in the BO have been included in this decision as committed mitigation (see **Attachment 2**).

PUBLIC INVOLVEMENT

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 Notice of Intent (NOI) in the Federal Register. In addition to conducting public scoping, the BLM has conducted considerable internal scoping, which has been open and ongoing throughout the EIS process.

On February 1, 2008, a NOA announcing the availability the Draft EIS for a 90-day public comment period was published in the Federal Register (<http://www.gpoaccess.gov/fr/>) and the EPA's Federal Register of Environmental Documents (<http://www.epa.gov/fedrgstr/>). The public comment period officially closed on May 1, 2008. During the Draft EIS public comment period, the Price Field Office received approximately 55,000 comment letters from other Federal agencies, State and local governments, Indian Tribes, and interested publics. As required by NEPA, the BLM formally responded to all substantive comments. Where warranted, the BLM responded by making revisions to the Final EIS (text changes). If no change was warranted, the BLM clearly explained why the comment did not warrant further response, citing the sources, authorities, or reasons, which support that position.

In reaching this decision, the issues raised by the public as well as local, State, and other Federal agencies were considered. Many of the mitigation measures included in the Selected Alternative, including important applicant-committed measures, have been incorporated in direct response to public comments. Responses to substantive comments received on the Draft EIS are available for review in the Final EIS.

CEQ guidance normally requires a minimum 30-day waiting period between the NOA for the Final EIS and issuance of a ROD. However, because this ROD is subject to a 30-day appeal to the Interior Board of Land Appeals (IBLA), the BLM has decided to issue this ROD at the same time as the Final EIS as allowed by (40 CFR 1506.10(b)). This allows the 30-day appeal period for this ROD, and the 30-day waiting/availability period for the EIS to run concurrently. See the Appeal requirements provided below.

Based on the volume and the nature of public comments received on the Draft EIS, the BLM has determined that is not practical or necessary to send a copy of the Final EIS and this ROD to all those that submitted comments. However, the BLM has widely announced the availability of these documents through publication in the Federal Register, the Utah Environmental Notification Bulletin Board (ENBB), BLM websites, and notices in State and local newspapers. Copies of these documents are readily available in electronic format at http://www.blm.gov/ut/st/en/fo/price/energy/Oil_Gas.html or in hard copy upon special request from the Price Field Office.

APPEAL PROCESS

All decisions are effective 30-days from the date that the BLM publishes Notice of Availability of the Final EIS and ROD in the *Federal Register*. During the 30-days these decisions may be appealed to the IBLA, Office of Hearings and Appeals, U.S. Department of the Interior, 801 North Quincy Street, Suite 300, Arlington VA., 22203, in accordance with the regulations contained in 43 CFR 3165.4 and 43 CFR 8364. The appeal must also be filed with the State Director, BLM, Utah State Office, P.O. Box 45155, Salt Lake City, Utah 84145-0155.

If you wish to file a petition for stay pursuant to 43 CFR 3165.4 and/or 43 CFR 4.21 of the effectiveness of this decision during the time that your appeal is being reviewed by the IBLA, the petition for a stay must accompany your notice of appeal. A petition for stay is required to show sufficient justification based on the standards listed in 43 CFR 3165.4(c) and/or 43 CFR 4.21(b) which include:

- (1) the relative harm to the parties if the stay is granted or denied;
- (2) the likelihood of the appellant's success on the merits;
- (3) the likelihood of irreparable harm to the appellant or resource if the stay is not granted; and
- (4) whether the public interest favors granting the stay.

If a petition for stay is submitted with the notice of appeal, a copy of the notice of appeal and petition for stay must be served on each party named in the decision from which the appeal is taken, and with the IBLA at the same time it is filed with the State Director.

A copy of the notice of appeal, and statement of reasons and all pertinent documents must be served on each adverse party named in the decision from which the appeal is taken and on the Office of the Regional Solicitor, U.S. Department of the Interior, 6201 Federal Building 125 South State Street, Salt Lake City, Utah 84138-1180, no later than 15 days after filing the document with the State Director and/or IBLA.

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APPROVAL

In consideration of the foregoing, I approve the Record of Decision for the West Tavaputs Natural Gas Full Field Development Plan.



Approving Official

7-2-10

Date

Selma Sierra
Utah State Director
Bureau of Land Management
Department of the Interior

