

**FINDING OF NO SIGNIFICANT IMPACT  
AND  
DECISION RECORD**

*for*  
Stewart's Tumbleweed II  
Environmental Assessment

Uintah County, Utah  
EA# DOI-BLM-UTG010-2009-0090-EA

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# FINDING OF NO SIGNIFICANT IMPACT

*for*

## Stewart's Tumbleweed II Environmental Assessment

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EA# DOI-BLM-UTG010-2009-0090-EA

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### **A. INTRODUCTION:**

The Bureau of Land Management (BLM) has prepared an Environmental Assessment (EA) to address Stewart's Tumbleweed II project. The Project Area comprises 7,655 acres including BLM-, and SITLA-administered lands. Although impacts to the entire Project Area were analyzed in the EA, the BLM's decisions apply only to BLM-administered lands.

The project area is located approximately 32 miles south of Ouray, Utah. Stewart's leases (UTU-74858, UTU-72667, UTU-72018, UTU-72059, and UTU-84256) form the Tumbleweed II Project Area boundary. The legal location of the Project Area is composed of portions of Townships 14 - 15 South, Range 21 East (T14-15S; R21E), within the Salt Lake Meridian in Uintah County, Utah.

### **B. FINDING OF NO SIGNIFICANT IMPACT DETERMINATION:**

Based upon a review of the EA, I have determined that Alternative D, the Directional Drilling Alternative is not a major federal action and will not significantly affect the quality of the human environment, individually or cumulatively with other actions in the general area. No environmental effects meet the definition of significance in context or intensity as defined in 40 CFR 1508.27 and do not exceed those effects described in the Vernal Field Office Resource Management Plan and Final Environmental Impact Statement (RMP/FEIS). Therefore, an environmental impact statement is not needed. This finding is based on the context and intensity of Alternative D as described below.

**Context:** Alternative D has the potential to directly impact up to 38.2 acres of land initially, with a long term disturbance (after interim reclamation) of 12.7 acres) that by itself does not have international, national, regional, or state-wide importance.

**Intensity:** The following discussion is organized around the Ten Significance Criteria described in 40 CFR 1508.27. The following points have been considered in evaluating intensity for this proposal:

- 1. Impacts that may be both beneficial and adverse.** Alternative D will impact resources as described in Chapter 4 of the EA. Based on the analysis in the EA, none

of the environmental effects are considered significant, nor do the effects exceed those described in the Vernal Field Office RMP/FEIS.


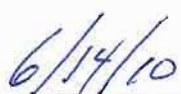
2. **The degree to which the action affects public health or safety.** Potential impacts to public health and safety from the installation and use of production facilities are disclosed in the RMP/FEIS and will be minimized through compliance with OSHA regulations and the Applicant Committed Measures. None of the environmental effects are considered significant, nor do the effects exceed those described in the Vernal Field Office RMP/FEIS.
3. **Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farm lands, wetlands, wilderness, wild and scenic rivers, or ecologically critical areas.** No park lands, prime farm lands, riparian/wetlands, threatened or endangered plant species, wilderness, or wild and scenic rivers will be impacted by Alternative D because they are not present in the project area (see Appendix A of the final EA). Impacts to cultural resources and threatened or endangered animal species and their habitat will occur as described in Chapter 4 of the EA. Consultation was completed for cultural resources and threatened and endangered species as described in section D below. Consultation documentation is included in Appendix F of the Final EA. None of the environmental effects are considered significant, nor do the effects exceed those described in the Vernal Field Office RMP/FEIS.
4. **The degree to which the effects on the quality of the human environment are likely to be highly controversial.** No scientific controversy over the nature of the impacts of Alternative D exists.
5. **The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.** The potential effects of Alternative D are not unique or unknown. The BLM has implemented similar actions in similar areas. The environmental effects are fully analyzed in the Final EA. None of the environmental effects are considered significant, nor do the effects exceed those described in the Vernal Field Office RMP/FEIS.
6. **The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.** Alternative D does not establish a precedent for future actions with significant effects, nor does it represent a decision in principle about a future consideration. Alternative D is in conformance with the Vernal Field Office RMP/Record of Decision (ROD).
7. **Whether the action is related to other actions with individually insignificant but cumulatively significant impacts – which include connected actions regardless of land ownership.** The interdisciplinary team evaluated the possible actions (including connected actions) in context of past, present and reasonably foreseeable actions. No other actions are connected to this proposed action beyond what was analyzed in the

EA. Significant cumulative impacts are not expected. A complete disclosure of cumulative effects is contained in Chapter 4 of the Final EA.

8. **The degree to which the action may adversely affect districts, sites, highways, structures, or other objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.** Cultural sites are known to occur in the project area. Avoidance and mitigation measures have been incorporated into Alternative D to eliminate or reduce impacts. None of the environmental effects are considered significant, nor do the effects exceed those described in the Vernal Field Office RMP/FEIS. Consultation regarding this project was initiated with the Utah State Historic Preservation Officer on December 8, 2009. Concurrence with the BLM's determination of "No Adverse Effect" was received on January 12, 2010. Consultation regarding this project was initiated with the Tribes having historic ties to the Uinta Basin on December 8, 2009. Two response letters were received: one from the Hopi Tribe which stated Hopi Traditional Cultural Properties do not occur in the project area, and one from the Pueblo of the Laguna which stated the proposed action will not have a significant impact. See Appendix F of the Final EA for consultation documentation. Consultation is therefore considered to be closed. However, if previously unknown cultural sites are discovered during construction, consultation will be reinitiated and site-appropriate mitigation measures will be developed and implemented by the BLM in coordination or consultation with the Utah State Historic Preservation Office and affected Native American Tribes as appropriate.
9. **The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973, or the degree to which the action may adversely affect: 1) a proposed to be listed endangered or threatened species or its habitat, or 2) a species on BLM's sensitive species list.** Special status animal species and threatened or endangered animal species and their habitat may be impacted as described in Chapter 4 of the Final EA. However, no critical habitat occurs in the project area. None of the environmental effects are considered significant, nor do the effects exceed those described in the Vernal Field Office RMP/FEIS. Consultation was conducted for threatened or endangered animal species as noted in section D of this Decision Record. Surveys for the species have been and will continue to be completed in accordance with protocol. If any species are located during these surveys, consultation will be reinitiated as appropriate and additional mitigation or avoidance measures will be implemented.
10. **Whether the action threatens a violation of a federal, state, local, or tribal law, regulation or policy imposed for the protection of the environment, where non-federal requirements are consistent with federal requirements.** State, local, private, federal, and tribal interests were given the opportunity to participate in the environmental analysis process through public involvement opportunities detailed in the public involvement portion of section D below. Consultation and coordination is summarized in the consultation and public involvement portion of section D below.

Comments received were used as scoping for the final EA, and changes to the analysis were made as appropriate. Based on BLM knowledge and the comments from the public involvement, consultation, and coordination processes, the project does not violate any federal, state, local or tribal law or requirement imposed for the protection of the environment. In addition, the project is consistent with applicable land management plans, policies, and programs.

**Summary:** Alternative D will not result in significant effects (direct, indirect or cumulative) to the impacted resources. All impacts are disclosed in the Final EA.

	
_____	_____
<b>Vernal Field Office Manager</b>	<b>Date</b>

**DECISION RECORD**  
*for*  
Stewart's Tumbleweed II  
Environmental Assessment

Uintah County, Utah  
EA# DOI-BLM-UTG010-2009-0090-EA

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**A. DECISION:**

It is my decision to approve Alternative D, the Directional Drilling Alternative, including the Applicant Committed Measures and subject to the Conditions of Approval listed in section F below. Collectively this decision is hereafter referred to as the selected alternative. The decision only applies to BLM-administered land and includes the following:

Under Alternative D, Stewart will drill nine exploratory wells within the Tumbleweed II Project Area. Under Alternative D it is assumed that proposed bottom hole or target locations could be accessed from a combination of vertical and directional drilling from four well pads (see **Figure 2-2 - Appendix E** of the Final EA). Surface disturbance under the selected alternative is outlined in **Table 1**.

- 1) The proposed TUF #19-1 and TUF #18-8 wells will be directionally drilled from the existing TUF #18-9 well pad as described under the Proposed Action.
- 2) The proposed TUF #17-4 and TUF #9-11 well pads, access roads, and pipelines will be constructed as described under the Proposed Action. The proposed #TUF 17-4 and #9-11 wells will then be vertically drilled, completed, and tested using procedures identical to those described in the Proposed Action.
- 3) Stewart will construct the TUF #4-11 well pad, from which up to two wells will be directionally drilled.
- 4) Alternative D incorporates the design features described in the Proposed Action of the Final EA.

**Table 1. Initial and Long-Term Surface Disturbance Estimates – Selected Alternative**

<b>Proposed Surface Facility/Activity</b>	<b>Initial Size - Length/Width</b>	<b>Initial Surface Disturbance</b>	<b>Long-term Size - Length/Width</b>	<b>Long-term Surface Disturbance</b>
Proposed Well Pads (4)	1.8 acres / pad	7.2 acres	0.7 acre	2.8 acres
Proposed Roads	2.7 miles/32-foot wide	10.5 acres	2.7 miles/16-foot	5.2 acres
Existing Roads Needing Upgrades/Improvement	1.9 miles/32-foot wide	7.4 acres	1.9 miles/16-foot	3.7 acres
Proposed Surface-laid Pipeline	10.8 miles/10-foot wide	13.1 acres	10.8 miles/0.8 feet	1 acre
<b>Total Surface Disturbance</b>	<b>NA</b>	<b>38.2 acres*</b>	<b>NA</b>	<b>12.7 acres</b>

\*The total estimated initial disturbance for the selected alternative differs slightly from that calculated as a result of GIS analysis (37.8 acres), which removes areas of overlapping development (0.4 acre).

With the exception of the locations of the 4-11 and 9-11 well pads, project components are analyzed site-specifically in the Tumbleweed II EA and will be permitted and approved as described in the selected alternative. Because the exact locations of the 4-11 and 9-11 well pads have not been identified, the BLM will conduct further site-specific NEPA review when applications (Notice of Staking (NOS) or Application for Permit to Drill (APD)) are submitted.

**Authorities:** The authority for this decision is contained in the Vernal Field Office Resource Management Plan and Record of Decision (RMP/ROD). Also, national policies, and the regulations by which they are enforced, recognize the statutory right of leaseholders to develop mineral resources to meet continuing national needs and economic demands.

**B. RATIONALE:**

The decision to approve the selected alternative has been made in consideration of the environmental impacts identified under all analyzed alternatives in addition to the following considerations.

**1. Consistency with Plans, Statutes, and Regulations:** The selected alternative is consistent with the Vernal Field Office RMP/ROD which allows for processing of APDs and right-of-way (ROW) grant applications in support of oil and gas operations, with the impacts of construction and operation activities to be analyzed on a case-by-case basis. The management objective of the Approved RMP for energy resources is to encourage and facilitate the development by private industry of public land mineral resources in a manner that satisfies national and local needs and provides for economical and environmentally sound exploration, extraction and reclamation practices. The selected alternative responds to this objective by allowing Stewart to explore natural gas resources in the Tumbleweed II Project Area, while avoiding, minimizing, or mitigating the potential effects of construction, drilling, completion, and operational activities on biotic and abiotic resources. The selected alternative does not conflict with other decisions throughout the plan.

Although the majority of construction will occur on Federal lands, a small portion will occur on State lands managed by the SITLA in Section 16, T14S R21E. There are no comprehensive SITLA guidance documents for the vicinity of the Tumbleweed II Project Area. However, because SITLA's objectives are to produce funding for the State school system, and because production on Federal leases in the region could potentially lead to drilling and production on State lands, it is assumed that the selected alternative is consistent with the objectives of the State.

The selected alternative is also consistent with the Uintah County Public Lands Implementation Plan (Uintah County 2003) and the Uintah County General Plan (Uintah County 2005). These plans include information about public lands multiple-use, resource use and development, access, and wildlife management. The Public Lands Implementation Plan specifically states, "Uintah County's economy is based upon extractive mineral industries and will continue to be in the foreseeable future. The County supports maintaining and increasing renewable resource values, but the vital importance of the minerals industry should be given the highest priority possible. Utilizing Best Management Practices (BMPs) has demonstrated that the minerals industry and renewable resources can thrive at the same time." Based on this information, it is assumed that the selected alternative is consistent with the objectives of Uintah County.

**2. How the Selected Alternative meets the Need and Purpose for the Project:** The BLM's purpose and need for the proposed project is to allow Stewart Petroleum to explore their current leases within the Tumbleweed II Project Area in accordance with their valid lease rights. The BLM's objectives are to consider approval of the Proposed Action and alternatives in a manner that is consistent with management objectives identified in the RMP, is consistent with the lease rights granted to Stewart Petroleum, and is consistent with the BLM's authority to authorize the project so long as undue and unnecessary environmental degradation is not incurred. The selected alternative meets the purpose and need by allowing Stewart to develop their leases, while including conditions of approval that minimize impacts to the environment.

**3. Why the Other Alternatives were not Selected:** Environmental analyses were carried through the EA for Alternative A (Proposed Action), Alternative B (No Action), Alternative C (Buried Pipelines), and Alternative D (Directional Drilling).

Alternative A as proposed by the proponent was not selected because potential impacts to resources of concern could have been reduced. Alternative A, as proposed by the proponent, did not meet the BLM's purpose for the project.

Alternative B (No Action) was not selected because it did not meet the BLM's need for the project in that it will not allow the proponent to develop their valid existing leases consistent with the lease rights granted to them.

Alternative C (Buried Pipelines) was not selected because potential impacts to resources of concern could have been reduced. Alternative C did not meet the BLM's purpose for the project.

Alternative D (Directional Drilling) as modified by the below conditions of approval is the selected alternative. This alternative is the environmentally preferred alternative.

#### **4. Consultation:**

##### ***U.S. Fish & Wildlife Service Consultation:***

Formal Section 7 Consultation with the USFWS over the original Tumbleweed project was concluded on September 13, 2007, in a letter and Biological Opinion from the USFWS to the BLM VFO. The changed alternatives did not affect the determinations of impacts or level of impacts to threatened, endangered, or candidate species, except to the fish species.

A water depletion of 30.6 acre-feet was consulted on under the original Tumbleweed EA. An additional 15.2 acre-feet of water could be used in this revised project for drilling, completion, and dust suppression. To address depletion issues, on January 21-22, 1988, the Secretary of the Interior; the Governors of Wyoming, Colorado, and Utah; and the Administrator of the Western Area Power Administration were cosigners of a Cooperative Agreement to implement the Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River basin (USFWS 1987). In order to further define and clarify the process in the Recovery Program, a Section 7 agreement was implemented on October 15, 1993 by the Recovery Program participants. Incorporated into this agreement is a Recovery Implementation Program Recovery Action Plan (Plan) which identifies actions currently believed to be required to recover the endangered fishes in the most expeditious manner. Activities and accomplishments under the Recovery Program provide the reasonable and prudent alternatives which avoid the likelihood of jeopardy to the continued existence of the endangered Colorado River fishes and to avoid the likely destruction or adverse modification of critical habitat in Section 7 consultations on all impacts (except the discharge of pollutants such as trace elements, heavy metals, and pesticides) associated with historic water projects in the Upper Basin. Depletion charges or other measures will not be required from historic projects. Additional consultation is not required.

See Appendix F of the Final EA for consultation documentation. Consultation for this project is considered to be closed. Consultation will be re-initiated on a site-specific level as appropriate, and upon development of any additional phases.

##### ***Utah State Historic Preservation Office Consultation:***

Section 106 Consultation was formally initiated between the BLM and SHPO on December 3, 2008. A concurrence with the No Adverse Effect determination was received on December 16, 2008. See Appendix F of the Final EA for consultation documentation. Consultation for this project is considered to be closed for those portions of the project that have had a Class III survey completed. Consultation will be re-initiated on a site-specific level as appropriate, should previously unknown sites be found. Consultation will be initiated, as appropriate, for the 4-11 and 9-11 well pads upon completion of the Class III survey.

***Native American Tribes Consultation:***

Native American Tribal consultation was formally initiated by the BLM on December 8, 2008. The following tribes were contacted: White Mesa Ute, Ute Mountain Ute, Ute, Southern Ute, Hopi, Navajo Nation, Laguna Pueblo, Zia Pueblo, Santa Clara Pueblo, Eastern Shoshone, and Northwest Band of Shoshone. The Laguna Pueblo responded on December 18, 2008 and stated that no significant impacts will occur, but requested that they be notified if additional sites are found. The Hopi Tribe responded on December 22, 2008 and said that they were not aware of any Hopi Traditional Cultural Properties in the project area. No other responses were received. See Appendix F of the final EA for consultation documentation. Consultation for this project is considered to be closed for those portions of the project that have had a Class III survey completed. Consultation will be re-initiated on a site-specific level as appropriate, should previously unknown sites be found. Consultation will be initiated, as appropriate, for the 4-11 and 9-11 upon completion of the Class III survey.

**5. Public Involvement:** The original Tumbleweed Exploratory Drilling Project (EA UT-080-05-201), was made available for a 30-day public comment period beginning on June 15, 2007. During the public comment period, the BLM received seven comment letters from various interested parties including the U.S. Fish and Wildlife Service (USFWS), Southern Utah Wilderness Alliance (SUWA), the Utah Division of Air Quality (UDAQ), the Theodore Roosevelt Conservation Partnership (TRCP), the Utah Division of Wildlife Resources (UDWR), the Hopi Tribe, and Mr. Ken Kreckel. All substantive comments that were received by the BLM during the public comment period were individually responded to or were used to modify the alternatives and analysis. After responding to comments and modifying the document, the Tumbleweed Exploratory Drilling Project EA was completed, and a FONSI and Decision Record (DR) were issued by the BLM on September 21, 2007.

On October 26, 2007, SUWA submitted a request for State Director Review (SDR) of the Vernal Field Office September 21, 2007 FONSI/DR. On November 16, 2007, the State Director remanded the Vernal Field Office decision. Following successful completion of the TUF #18-9, Stewart petroleum filed for APD approval of the TUF #18-8 and TUF #19-1, both of which were proposed to be directionally drilled from the existing TUF #18-9 well pad. The BLM Vernal Field Office granted Stewart approval under the second statutory categorical exclusion (CX) created under the Section 390 of the Energy Policy Act on September 22, 2008. SUWA filed a request for SDR of the Vernal Field Offices determinations to use Section 390 CXs for these two directional wells. After review, the BLM Vernal Field Office rescinded the CXs for the TUF #19-1 and #18-8.

After the CXs for the TUF #19-1 and #18-8 were rescinded, Stewart chose to incorporate these two directional wells within their Proposed Action and initiate a new EA for their exploratory project. While revising the Proposed Action, Stewart also decided to remove two of the original proposed well locations (TUF #5-18 and #17-14) and replace those locations with two new locations (#TUF 17-4 and #17-12).

Based on the above-mentioned changes to the Proposed Action, and the mid-document land use plan change, the environmental analysis for Stewart's proposal had to be rewritten to reflect the changed circumstances. In order to properly address these issues, the BLM determined that an entirely new EA should be drafted and the project should be assigned a new NEPA number. Accordingly, this document has been assigned NEPA number DOI-BLM-UTG010-2009-0090-EA. Public participation for DOI-BLM-UTG010-2009-0090-EA was initiated with the posting of the proposed project on the BLM's Environmental Notice Bulletin Board (ENBB) in November, 2008. All comments submitted for the previously published EA UT-080-05-201 which are still applicable, within the context of the new RMP, were taken into account as this document was written.



Vernal Field Office Manager



Date

### **C. LANGUAGE FOR AN ADMINISTRATIVE REVIEW**

This decision is effective upon the date it is signed by the authorized officer. The decision is subject to appeal. Under BLM regulation, this decision is subject to administrative review in accordance with 43 CFR 3165. Any request for administrative review of this decision must include information required under 43 CFR 3165.3(b) *State Director Review*, including all supporting documentation. Such a request must be filed in writing with the State Director, Bureau of Land Management, Utah State Office, P.O. Box 45155, Salt Lake City, Utah 84145-0155, within 20 business days of the date this decision is received or considered to have been received.

If you wish to file a petition for stay, the petition for stay should accompany your notice of appeal and shall show sufficient justification based on the following standards:

- (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 resources if the stay is not granted; and,
- (4) Whether the public interest favors granting the stay.

## D. APPLICANT COMMITTED MEASURES AND CONDITIONS OF APPROVAL

### **Air Quality**

- All internal combustion equipment will be kept in good working order. (Applicant Committed)
- Drill rigs used for drilling in the Tumbleweed II Project Area will be equipped with Tier II or better diesel engines. The use of Tier II or better engines will greatly reduce the amount of NO<sub>x</sub> that will be emitted during drilling operations. (Applicant Committed)
- Vent emissions from stock tanks and natural gas TEG dehydrators will be controlled by routing the emissions to a flare or similar control device which will reduce emissions by 95% or greater. This control measure will reduce VOC and HAP emissions from the project. (Applicant Committed)
- During drilling and completion operations, temporary worker housing will be located on the existing TUF #18-9 well pad. By providing housing close to the project, and reducing the amount of miles that the drilling and completion crews will travel, emissions associated with vehicle impacts will be reduced, specifically particulate matter from unpaved roads and tailpipe (VOC and NO<sub>x</sub>) emissions. Approximately 10 workers (comprised of 2-4 person rig crews working 12-hour shifts, plus 2 drilling/geological consultants) will occupy the temporary worker housing site at any one time. (Applicant Committed)
- Low bleed pneumatics will be installed on separator dump valves and other controllers. The use of low bleed pneumatics will result in a lower emission of VOCs. (Applicant Committed)
- During completion operations Stewart will limit flaring to clean up uses and as soon as possible will install production equipment and gathering line which will limit VOC emissions. (Applicant Committed)
- Stewart will use water or other approved dust suppressants at construction sites and along roads, as determined appropriate by the Authorized Officer. (Applicant Committed)
- Well site telemetry will be utilized to eliminate unnecessary pumper travel to the well site, thus further reducing vehicle tailpipe emissions. (Applicant Committed)

## **Cultural/Historical Resources**

- Stewart will inform their employees, contractors and subcontractors about relevant Federal regulations intended to protect archaeological and cultural resources. All personnel will be informed that collecting artifacts, including arrowheads, is a violation of Federal law and that employees engaged in this activity will be subject to disciplinary action. (Applicant Committed)

## **Health and Safety/Hazardous Materials**

- Stewart will utilize portable sanitation facilities at drill sites; place dumpsters at each construction site to collect and store garbage and refuse; and ensure that all refuse and garbage is transported to a State-approved sanitary landfill for disposal. (Applicant Committed)

## **Rangeland Management and Wild Horses**

- Stewart will repair or replace to current BLM standards any fences, cattle guards, gates, drift fences, and natural barriers that are damaged as a result of the Proposed Action. Cattle guards will be used instead of gates for livestock control on most road ROWs. (Applicant Committed)
- Where the proposed pipeline (from the existing compressor station) will cross the Horse Point and Winter Ridge Allotment boundary, Stewart will keep the boundary intact with an appropriate cattleguard and gate, and will make any fence modification to the four-strand barbed wire specification required for all cattle range fences. (Applicant Committed)
- In order to offset potential impacts to water sources, the guzzler within Section 4, T15S, R21E could be improved for livestock, wild horse, and wildlife use. As an alternative to improving the existing guzzler, the BLM will consider requiring the construction of a new guzzler at ~ UTM 625751, 4376800. The decision as to which of these mitigation measures will be implemented will be determined on a site-specific basis following project approval but prior to additional surface disturbance. (Condition of Approval)
- At the direction of the BLM, the operator will improve existing ponds within the project area (i.e., located at the following UTM coordinates 1) 623173, 437615; 2) 622699, 4375516; 3) 622294, 4375110; and 4) 621019, 4374039 in order to minimize displacement of animals and to offset potential impacts to water sources. (Condition of Approval)

## Soils

- Stewart will comply with standards identified in “The Surface Operating Standards for Oil and Gas Exploration and Development” (Gold Book) (BLM 2007). (Applicant Committed)
- Topsoil will be temporarily stockpiled and seeded to reduce erosion until interim reclamation is initiated. Topsoil stockpiles will also be designed to maximize surface area in order to reduce impacts to soil microorganisms. On reclaimed areas, topsoil depths will be distributed evenly unless conditions warrant a varying depth. (Applicant Committed)
- Areas used for spoil storage will be stripped of topsoil before spoil placement. (Applicant Committed)
- Appropriate erosion control and revegetation measures will be employed. In areas with unstable soils where seeding alone may not adequately control erosion, grading will be used to minimize slopes, and water bars will be installed on disturbed slopes. BMPs will be installed as specified in the SWMP. These BMPs could include retention basins, infiltration basins, and vegetated filter strips. Erosion control efforts will be monitored by Stewart and necessary modifications made to control erosion. (Applicant Committed)
- Soils compacted during construction will be ripped and tilled as necessary prior to reseeded. Cut and fill sections on all roads and along pipelines will be revegetated with seed mixtures as defined in **Section 2.1.13** of the Final EA. (Applicant Committed)

## Vegetation

- Removal and disturbance of vegetation will be kept to a minimum through construction site management (e.g., using previously disturbed areas and existing easements where feasible, placing pipelines adjacent to roads, limiting well pad size, etc.). (Applicant Committed)
- To mitigate the loss of recently completed habitat restoration work within the Tumbleweed II Project Area, the BLM will consider compensatory mitigation on an “as appropriate basis” in proportion with annual project-related disturbance. As feasible, the location of the habitat restoration work will be identified within or adjacent to the Tumbleweed II Project Area, and similar restoration efforts will be implemented as had previously been completed. Work will likely consist of removing encroaching pinyon and juniper trees from the sagebrush habitat in order to enhance sagebrush habitats. Vegetation mitigation will be completed at the expense of the operator. The details of this mitigation plan will be determined by the BLM and UDWR. (Condition of Approval)

## **Water Resources**

- Stewart will inform their employees, contractors and subcontractors of the potential impacts that could result from accidental spills, as well as the appropriate actions to take if a spill does occur. (Applicant Committed)

## **Wildlife**

- To minimize wildlife-vehicle collisions, Stewart will advise project personnel regarding appropriate speed limits in the Tumbleweed II Project Area. Employees and contractors will be educated about anti-poaching laws. If wildlife law violations are discovered, the offending employee will be subject to disciplinary action by Stewart and the violations will be reported to the UDWR. (Applicant Committed)
- No surface disturbing activities that will result in adverse impacts to deer and elk within crucial winter range will be allowed from December 1-April 30. (Condition of Approval)

## ***Greater Sage-grouse***

- Prior to surface disturbance or drilling activity between March 1 and June 15, historic leks within a 2-mile radius of proposed surface disturbance will be surveyed during the breeding season to determine if they are being actively used by sage-grouse. If a lek is active, no surface-disturbing activities will occur within 2 miles of the active lek from March 1-June 15. Furthermore, if a lek is active, Stewart will limit all traffic (with the exception of traffic associated with emergency repairs or maintenance) within 2 miles of the active lek between 5:00am and 9:00am from March 1 to June 15. (Applicant Committed)
- No new surface-disturbing activities will be allowed within ½ mile of active sage-grouse leks year-round, unless with explicit cause and after consultation with the State, the BLM grants a variance to this buffer (PLPCO 2008). (Condition of Approval)
- For active sage-grouse leks that are not visually screened from well pads by natural topography or vegetation, low-profile tanks will be used. (Applicant Committed)

## ***Raptors***

- Prior to any surface-disturbing activities associated with construction or drilling during the breeding season, a BLM-approved contractor will survey all areas within 1 mile of proposed surface disturbance, or as directed by the BLM, for the presence of raptor nests. If occupied/active raptor nests are found, construction or drilling will not occur during the nesting season for that species within the

species-specific buffer described in the Approved RMP. In addition, as specified in these guidelines, modifications of these spatial and seasonal buffers for BLM-authorized actions will be permitted by the AO, so long as protection of nesting raptors is ensured (BLM 2008). On SITLA-administered lands, raptor management will be coordinated with the appropriate AO. (Applicant Committed)

### *Mexican Spotted Owl*

- No surface-disturbing activities will be allowed within “good” and “fair” Mexican Spotted Owl (MSO) habitat as defined by the BLM in SWCA (2005) until surveys have been conducted in accordance with USFWS protocol. If more than four years have elapsed since the last survey, another complete, two year, inventory will be required prior to any project-related surface-disturbing activities.<sup>1</sup> (Applicant Committed)
  
- In order to protect MSO and their habitat, the following survey and protection protocols will be put into effect for the proposed TUF #4-11, TUF #9-11, TUF #17-4, and TUF #18-9:
  - No surface-disturbing activities will be allowed within “good” and “fair” habitat designations or within the ½-mile buffer of those designations until the two years of surveys have been completed.
  - If MSO are documented during future surveys, the BLM will follow USFWS protocol for Protected Activity Center (PAC) establishment and raptor management protocol defined in “Best Management Practices for Raptors and their Associated Habitats in Utah.”
  - If no owls have been detected at the completion of the two seasons of calling surveys, no additional mitigation or BMPs (including special or timing restrictions) will be implemented. However, if more than four years have elapsed between the end of the two seasons of survey and the initiation of surface-disturbing activities at any proposed location then another complete inventory will be required prior to any surface-disturbing activities.

(Applicant Committed)

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<sup>1</sup> \* 2 years of MSO surveys were completed for the proposed TUF #18-9 and associated road and pipeline corridor by Grasslands Consulting and EIS Consulting according to USFWS guidelines. No MSO were seen or heard during the 2006 or 2007 inventories. As such, MSO survey requirements for this proposed well and its proposed road and pipeline corridor have been met. If more than four years elapse between the end of the two seasons of survey and the initiation of surface-disturbing activities within the ½-mile buffer, then another complete inventory will be required prior to any surface-disturbing activities.