4.0 Environmental Consequences

4.1 Introduction

This chapter evaluates the environmental impacts that would occur from implementing each alternative described in Chapter 2.0. The purpose of this chapter is to determine the potential for significant impacts from implementing any of the alternatives on the human environment. The CEQ regulations for implementing the NEPA state that the "human environment" shall be interpreted comprehensively to include the natural and physical environment and the relationship of people with that environment (40 CFR §1508.14). The federal action is the BLM's selection of an alternative for VRM and the Blowout Penstemon ACEC that would guide future land use authorizations. The baseline used for determining the potential impacts is the current resource condition described in Chapter 3.0. The organization of this chapter parallels that of Chapter 3.0; the resource topics are again presented in alphabetical order.

4.1.1 Types of Impacts

The following impact analyses focus on identifying types of impacts and estimating their potential significance. This chapter uses the terms impacts and effects interchangeably, and the terms increase and decrease are used for comparison purposes. **Table 4-1** lists other terms used to describe impacts.

Table 4-1 Types of Impacts

Type	Description
Direct Impacts	Effects that are caused by the action and occur at the same time and place. Examples include elimination of original land use through erection of a structure. Direct impacts could cause indirect impacts, such as ground disturbance resulting in re-suspension of dust.
Indirect Impacts	Effects that are caused by the action but occur later in time or are farther removed in distance, but are still reasonably foreseeable and related to the action by a chain of cause-and-effect. Indirect impacts could extend beyond the natural and physical environment (e.g., environmental impact) to include growth-inducing effects and other effects related to induced changes to resource users (e.g., social impact).
Cumulative Impacts	Effects that result from the incremental impact of the action when it is added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes other such actions. Cumulative impacts could result from individually minor, but collectively significant, actions that take place over time.

4.1.2 Determination of Significance

Both direct and indirect impacts may be significant. Significance requires consideration of the context and intensity of the impact. This means that an action must be analyzed in several contexts – such as the immediate vicinity, affected interests, and locality. Both short-term and long-term effects are relevant. Intensity refers to the severity of the impact. Thus, impacts have intensity that must be considered negligible, minor, greater, or substantial.

Determining significance is complex. The significance of an impact is dynamic and thus may change during the planning period. For this analysis, the approach for establishing significance criteria was

based on, but not limited to, legal requirements, public perception, monitoring data, and professional judgment.

Specific significance criteria from the Rawlins RMP (BLM 2008a) were used in this issue-targeted Plan Amendment. The criteria provide thresholds beyond which impacts would be considered significant. Impacts exceeding these thresholds are identified if they arise. Identification of any significant impacts in the EA would either require mitigation to make the impact less than significant or the preparation of an EIS.

4.1.3 Region of Influence

The Regions of Influence (ROIs) for all resource topics includes all public lands and minerals administered by the BLM within the Planning Area. In addition, the ROI for impacts concerning socioeconomics includes four counties in southern Wyoming: Albany, Carbon, Laramie, and Sweetwater.

4.1.4 Methods and Assumptions

The analysis of issue-targeted plan amendment alternatives focuses on impacts from the BLM's management of visual resources and management actions for potential changes to the Blowout Penstemon ACEC on public lands. Other resource decisions from the 2008 Rawlins RMP would be unaffected.

The BLM manages public lands for multiple uses in accordance with the FLPMA. Land use decisions are made that protect the resources while allowing for multiple-use of those resources, such as livestock grazing, energy development, and recreation. Where there are conflicts between resource uses, or where a land use activity may result in irreversible or irretrievable impacts to the environment, the BLM may restrict or prohibit some land uses in specific areas. To ensure that the BLM meets its mandate of multiple-use in land management actions, the impacts of the alternatives on resource users are identified and assessed as part of the planning process. The plan's impacts on land use activities and the associated environmental impacts of land uses are characterized and evaluated for each of the alternatives. It is important to note that all management prescriptions for each resource and resource use directly or indirectly relate to each other. Therefore, impacts of other prescriptions and guidance may apply to each resource management activity.

GIS analyses and data from field investigations were used to quantify effects where possible; however, in the absence of quantitative data, best professional judgment was used. Acreage calculations and other numbers used in this analysis are approximate projections for comparison and analytic purposes only. They do not reflect exact measures of on-the-ground situations. At times, impacts are described using ranges of potential impacts or in qualitative terms.

Impact analysis is a cause-and-effect process. In evaluating the context of an impact, an affected resource is compared to the available area or quantity of that resource. The analysis identified resources that would be altered based on management actions and then predicted changes to these resources. The magnitude or scale of the resource change was then defined, and a judgment as to the significance of that change was made based on the significance criteria.

4.1.4.1 Methods and Assumptions for VRM Alternatives Analysis

The VRM actions proposed in Chapter 2.0 and shown in **Table 4-2** are planning-level decisions and do not result in direct, on-the-ground changes; however, the analysis does focus on impacts that would eventually result in on-the-ground changes by planning for uses on public lands. The issue-targeted plan amendment alternatives focus on decisions that guide resource uses and development for the sake of visual resources. These visual resource-based decisions would apply to all resource uses and

development activities within the Planning Area. However, resource uses and developments may be allowed or limited by other resource management decisions in the Rawlins RMP (BLM 2008a).

Table 4-2 Acreage of Proposed VRM Classes on Public Lands in the Planning Area by Alternative

VRM Class	Alternative 1: No Action Alternative		Alternative 2: Development		Alternative 3: Protection		Alternative 4: Preferred	
	Acres	%	Acres	%	Acres	%	Acres	%
Class I	62,584	2.2	62,078	2.2	76,889	2.8	62,078	2.2
Class II	235,019	8.4	0	0.0	741,909	26.6	355,472	12.7
Class III	2,086,807	74.7	783,999	28.1	1,205,888	43.2	776,410	27.8
Class IV	407,310	14.6	1,945,643	69.7	767,035	27.5	1,597,761	57.2
Total	2,791,721	100.0	2,791,721	100.0	2,791,721	100.0	2,791,721	100.0

Certain assumptions were made regarding level of land use activity, resource condition, and resource response on which to determine potential impacts. In addition to the analytical assumptions in the Rawlins RMP Final EIS (BLM 2008a), the following assumptions were used in this issue-targeted Plan Amendment:

- Proposed management actions only apply to public lands within the Planning Area and only apply to permitted actions authorized after the plan is adopted;
- Resource development trends for energy and mineral development would continue to increase in the Planning Area in areas with moderate to high potential for occurrence of the resources; and
- The checkerboard land ownership pattern may cause potential conflicts between private land owners and the BLM regarding future management of the area.

4.1.4.2 Methods and Assumptions for Blowout Penstemon/Ferris Dunes Proposed ACEC

A comparative analysis was conducted based on the acreages and management actions described in **Table 2-4**. **Tables 2-5** and **2-6** provide a summary comparison of impacts for all alternatives. The ACEC alternatives focus on decisions that allow or limit resource use and development within the ACEC for protection of the blowout penstemon, and potential changes to the size of the ACEC. These decisions would apply to all resource uses and development activities within the ACEC. Resource use and development may be allowed or limited by other resource management decisions as described in the 2008 RMP (BLM 2008a, b).

4.2 Analysis of VRM Proposed Management Actions

The impact analysis of proposed VRM management on resources under each alternative is discussed in the following sections. The impact analysis of the proposed Ferris Dunes ACEC management actions is discussed in Section 4.3. The following resources would not be directly impacted by VRM class alternatives and, therefore, would not change from the previous analysis of VRM class alternatives analyzed in the 2008 Rawlins RMP: air quality; paleontology; socioeconomics; vegetation; water quality, watershed, and soils; wild horses; and wildlife and fish. Refer to the 2008 Rawlins RMP Final EIS for a detailed analysis of effects to the following from VRM alternatives: air quality (Section 4.2, pp. 4-10); paleontology (Section 4.10, pp. 4-126); socioeconomics (Section 4.12, pp. 4-189 to 4-194, 4-202 to 4-203); vegetation (Section 4.15, pp. 4-371); water quality, watershed, and soils

(Section 4.17, pp. 4-414); and wildlife and fish (Section 4.19, pp.4-451). However, these resources are indirectly influenced by the VRM class alternatives. The indirect impact is included in the resource specific analysis found in each subsequent resource heading.

4.2.1 Air Resources

Existing conditions concerning air resources are described in Section 3.2. There would be little or no impacts to air resources from VRM decisions. VRM decisions would influence the ability to locate infrastructure associated with development including oil and gas facilities, wind energy turbines, communication sites, and utilities. These actions in turn have direct impacts on air resources. For a full discussion of these impacts, please refer to the respective sections in the 2008 Rawlins RMP.

4.2.2 Cultural Resources

This section presents potential impacts to cultural resources from changes in VRM classifications. Existing conditions concerning cultural resources are described in Section 3.3.

4.2.2.1 Impacts Under Alternative 1: No Action Alternative

Cultural properties located in the existing VRM Class I areas would be less likely to be affected because opportunities for visual intrusions and landscape contrast that modify the form, line, color, and texture of the landscape character would be heavily mitigated in Class I areas. The integrity of the setting of cultural resources located in the existing VRM Class II areas also would receive protection from management actions that would require structures to blend into the landscape when possible, thus minimizing the potential for adverse effects from cultural modifications that detract from the scenery. Cultural properties located in VRM Class III and IV areas would potentially be more affected by development activities, as these VRM classes allow for moderate and high levels of landscape contrast, respectively, through placement of structures and facilities. Cultural resources, where setting is an aspect of their integrity, would continue to be at risk from impacts associated with potential development within VRM Class III and IV areas in the Planning Area.

The VRM designations surrounding the Cherokee and Overland Trails would not change. Currently the Cherokee Trail intersects with 0.6 mile of VRM Class II, 52.6 miles of VRM Class III, and 9.0 miles of VRM Class IV areas. The Overland Trail intersects with 0 mile of VRM Class II, 5.8 miles of VRM Class III, and 4.2 miles of VRM Class IV areas. Areas of VRM Class III and IV along the Cherokee and Overland Trails would also be retained.

4.2.2.2 Impacts Under Alternative 2: Emphasis on Development of Resources

Under Alternative 2, there would be more potential for areas of visual intrusions and high levels of landscape contrast than Alternatives 1 and 3 as a result of increased VRM Class IV areas and decreased VRM Class III areas. This alternative would allow for the most landscape contrast that would affect the visual settings of cultural resource sites, and require the most mitigation. Fewer cultural resource sites, including Native American sacred sites, properties of traditional religious and cultural importance, historic trails, and other cultural resource properties where the setting contributes to their NRHP eligibility would be protected as a result of VRM classifications.

Under this alternative the VRM classes surrounding the Cherokee and Overland trails would consist of Class III and IV only. The Cherokee Trail would intersect with 30.7 miles of VRM Class III, and 31.5 miles of VRM Class IV areas. The Overland Trail would intersect with 0.5 mile of VRM Class III, and 9.5 miles of VRM Class IV areas. Areas of VRM Class III and IV along the Cherokee and Overland Trails would be retained.

Alternative 2 provides the greatest potential for alteration of cultural resource settings in areas determined to contain Class A and B scenery as depicted in the VRI (shown in **Figure 3-4**) with VRM Class III and IV designations. Although this alternative allows for a higher degree of alteration of

cultural resource settings in the northern and eastern portions of the Planning Area, the cultural resource setting in the checkerboard ownership areas and other fragmented landownership patterns is influenced by uses on private and state lands beyond the BLM's jurisdiction.

4.2.2.3 Impacts Under Alternative 3: Emphasis on Protection of Resources

Impacts to cultural resources from VRM decisions would be similar to those identified under Alternative 1, except a greater number of Native American sensitive sites, properties of traditional religious and cultural importance, historic trails, and other cultural resource properties where setting is an aspect of integrity to the NRHP eligibility would be affected by having increased areas of VRM Class I and II. These protections would come in the form of measures to retain the natural setting of the landscape by requiring additional measures on development activities. VRM Class II areas would include lands surrounding the Seminoe and Pathfinder Reservoirs, expansion to the Blowout Penstemon ACEC, and the Adobe Town DRUA.

Under this alternative there would be greater areas of VRM Class II surrounding both trails compared to Alternative 1. The VRM classes surrounding the Cherokee and Overland trails would consist of Class II, III, and IV. The Cherokee Trail would intersect with 36.4 miles of VRM Class II, 25.6 miles of VRM Class III, and 0.3 mile of VRM Class IV areas. The Overland Trail would intersect with 0.5 mile of VRM Class II, 8.0 miles of VRM Class III, and 1.5 miles of VRM Class IV areas. Areas of VRM Class III and IV along the Cherokee and Overland Trails would allow for landscape altering activities and visual contrast that could compromise potential future designation of these trails as National Trails, while VRM Class II would not.

Alternative 3 provides protection of cultural resource settings in areas determined to contain Class A scenery as depicted in the VRI (shown in **Figure 3-4**) with VRM Class I, II, and III designations and provides varying levels of protection and contrast of Class B scenery with VRM Class II, III, and IV designations. Although this alternative allows for a moderate to high degree of alteration of cultural resource settings in the northern and eastern portions of the Planning Area, the cultural resource setting in the checkerboard ownership areas and other fragmented landownership patterns is influenced by uses on private and state lands beyond the BLM's jurisdiction.

4.2.2.4 Impacts Under Alternative 4: Preferred Alternative

Under Alternative 4, there would be more potential for areas of visual intrusions and high levels of landscape contrast than Alternatives 1 and 3 as a result of increased VRM Class IV areas and decreased VRM Class III areas. If more visual intrusions and landscape contrast that modify the form, line, color, and texture of the landscape character takes place as a result of the revised VRM designations, this alternative would lead to an increased potential for visual impacts to cultural resource sites. This alternative would require more extensive mitigation for potential future visual intrusions and landscape contrast that would affect cultural resources than Alternative 2, but less than Alternatives 1 and 3.

The VRM classes surrounding the Cherokee and Overland trails would consist of Class II, III, and IV. The Cherokee Trail would intersect with 0.6 mile of VRM Class II, 41.7 miles of VRM Class III, and 20.0 miles of VRM Class IV areas. The Overland Trail would intersect with 0.0 mile of VRM Class II, 0.5 mile of VRM Class III, and 9.5 miles of VRM Class IV areas. Areas of VRM Class III and IV along the Cherokee and Overland Trails would be similar to Alternatives 1 and 2. Alternative 4 provides protection of cultural resource settings in areas determined to contain Class A scenery as depicted in the VRI (shown in **Figure 3-4**) with VRM Class II designations. This alternative provides varying levels of protection and contrast of Class B scenery with VRM Class III and IV designations. Although this alternative allows for a higher degree of alteration of cultural resource settings in the northern and eastern portions of the Planning Area, the cultural resource setting in the checkerboard ownership areas and other fragmented landownership patterns is influenced by uses on private and state lands beyond the BLM's jurisdiction.

4.2.3 Wildland Fire and Fuels

This section presents potential impacts to wildland fire and fuels from changes to VRM classifications. Geographic, climactic, and anthropomorphic variables make it very difficult to assess the advantages and disadvantages to the financial burden of fighting wildfires. Existing conditions concerning wildland fire and fuels are described in Section 3.4.

4.2.3.1 Impacts Under Alternative 1: No Action Alternative

Retaining existing VRM Classes I and II would potentially interfere with hazardous fuels reduction techniques available to BLM firefighters, such as straight-line fire breaks, which may lead to an increase in fire size. VRM Class III and IV areas that allow for the use of a wider range of hazardous fuel reduction treatments would experience a reduction in the size and spread of wildland fires. VRM Class III and IV areas would allow for activities that create contrasts to the landscape, which could introduce more ignition sources and lead to more fire starts. Conversely, VRM Class III and IV areas would lead to a better road network, which would provide for faster fire suppression response times, reducing the extent of the area burned.

4.2.3.2 Impacts Under Alternative 2: Emphasis on Development of Resources

This alternative would increase the VRM Class IV areas as compared to Alternative 1, allowing for the use of a wider range of hazardous fuel reduction treatments that reduce the size and spread of wildland fires. Compared to Alternative 1, more area would be available for activities that create contrast to the landscape, which could introduce more ignition sources and lead to more fire starts as large portions of the Planning Area would be changed from Class II and III to Class III and IV, including areas surrounding the Seminoe and Pathfinder Reservoirs. In the process of engaging in activities that create contrast to the landscape in Class III and IV areas, fuel loads would potentially be decreased, resulting in less severe fire size and intensity. The addition of roads also would facilitate firefighting efforts. If additional activities were to occur in VRM Class III and IV areas, the additional human presence, vehicles, and equipment would affect the ability to use wildland fire for beneficial vegetation treatment and may increase the frequency of fire events from ignition sources.

4.2.3.3 Impacts Under Alternative 3: Emphasis on Protection of Resources

This alternative would slightly increase the area of Class I and II designations, which would decrease the area available for activities that create contrast to the landscape compared to Alternative 1. These areas include lands surrounding the Ferris Mountain WSA, the Laramie Mountains, the Medicine Bow-Routt National Forest, south of Elk Mountain, and the Adobe Town DRUA and VRUA, and other surrounding areas. Areas changed from Class III to Class IV (compared to Alternative 1) are located in the northern and eastern portions of the Planning Area where landownership is fragmented and effects to these areas would be similar in nature to Alternative 2. The remainder of the Planning Area would potentially see increasing fuel loads that could increase fire size and intensity. Less ground clearing for project activities and fewer roads to assist firefighting efforts could result in greater fuel loads and fires that are more difficult to control. In unpopulated areas, wildland fire would be allowed to return to the fire-dependent ecosystems and used beneficially as a vegetation management tool due to the relative lack of industrial infrastructure and human presence. Fire frequency may be reduced due to a decrease in human presence and ignition sources.

4.2.3.4 Impacts Under Alternative 4: Preferred Alternative

This alternative would increase the area that requires less mitigation for landscape contrast (compared to Alternative 1), but not as much as Alternative 2. Large portions of the Planning Area would be changed from Class II and III to Class III and IV. There are some smaller portions that would be changed from Class III to Class II, including areas around the Adobe Town WSA, a portion of the viewshed from the CDNST, the Ferris Mountain proposed expansion, and areas south of Elk Mountain. For areas where classes are being changed from Class II to III or Class III to IV, the effects would be similar in nature to

Alternative 2. For the portions that would change from Class III to Class II the effects would be similar in nature to Alternative 3. Overall, wildland fire size and intensity could be reduced. There would potentially be an increase in human presence and ignition sources that would increase fire frequency.

4.2.4 Forest Management

This section presents potential impacts to forest management from changes to VRM classifications. Existing conditions concerning forest management are described in Section 3.5.

4.2.4.1 Impacts Under Alternative 1: No Action Alternative

Under current management, Elk Mountain Forest would remain in the VRM Class II and III designations. The fringes and foothills of the Medicine Bow National Forest would remain as Class II and III. Commercial forest treatments and timber removal conducted within these areas areas would be regulated by rules and guidelines associated with VRM Class II and III objectives. This would influence how large or visible a harvest or treatment unit could be and how large a buffer zone should be between an existing road and/or vehicle route and a treatment or harvest area as well as influence the method of harvest and location and method of construction of temporary access roads.

4.2.4.2 Impacts Under Alternative 2: Emphasis on Development of Resources

Forested land with potential for commercial harvest on Elk Mountain would remain as Class II and III. The fringes and foothills of Medicine Bow National Forest would be changed from Class II and III to Class III and IV on the eastern side of the CCSM Plan Amendment area boundary. Fewer mitigation measures for timber harvesting operations would be required during timber treatments and product removal. Harvest sites may be more visible from roads and scenic areas. There also would be a greater emphasis on fire suppression in an effort to protect commercial timber stands..

4.2.4.3 Impacts Under Alternative 3: Emphasis on Protection of Resources

Forested land with potential for commercial harvest on Elk Mountain would remain as Class II and III. The fringes and foothills of Medicine Bow National Forest would change from Class II and III to Class II and IV in the northeastern and southeastern portions of the Planning Area. This would reduce the mitigation measures that would be required to meet VRM class objectives compared to Alternative 1, but not as much as Alternative 2. Techniques may include strategic harvesting in stands that would create a mosaic and distributed age class structure.

4.2.4.4 Impacts Under Alternative 4: Preferred Alternative

Similar to Alternative 2, forested land on Elk Mountain would remain as Class II and III. Portions of the fringes and foothills of Medicine Bow National Forest would be designated as Class II, III, and IV as follows; The portion in the northeastern corner of the Planning Area would be designated as Class II; the Vedauwoo area would be designated as Class III and IV; the eastern edge of the Chokecherry boundary would be designated as Class II; and the area encompassing Elk Mountain would be designated as Class III. The impacts associated with this alternative would be similar to Alternative 2.

4.2.5 Lands and Realty

This section presents potential impacts to lands and realty from changes in VRM classifications. Existing conditions concerning lands and realty are described in Section 3.6. The acreage of VRM classifications on public lands with high wind potential in the Planning Area is shown in Table 4.3

Table 4-3 Acreage of VRM Classifications on Public Lands with High Wind Potential Acreage in the Planning Area

VRM Class	Alternative 1: No Action Alternative	Alternative 2: Development	Alternative 3: Protection	Alternative 4: Preferred
I	28,261	27,755	34,017	27,755
II	124,467	0	268,688	203,353
III	523,132	198,589	216,455	104,619
IV	66,977	516,493	223,677	407,109
Total	**742,837**	**742,837**	**742,837**	**742,837**

4.2.5.1 Impacts Under Alternative 1: No Action Alternative

VRM Class II areas would potentially limit opportunities for lands and realty development projects, such as wind energy development, utility transmission, and communication towers. To maintain the visual settings, lands and realty development projects would require mitigation measures, including reducing the height of structures, painting structures to match the existing environment, and/or redesigning or relocating facilities that would allow facilities to blend better into the surrounding landscape, and, in rare cases, would prohibit lands and realty actions.. Other lands and realty development projects, such as transmission lines or communication sites, may be permitted in VRM Class IV areas and potentially Class II and III areas, if mitigation measures limit impacts. Opportunities for wind energy development may be affected if adequate mitigation measures could not be employed to ensure that developments conform to VRM class objectives (**Table 4-3**).

4.2.5.2 Impacts Under Alternative 2: Emphasis on Development of Resources

In this alternative, there would be an increase in VRM Class IV areas from Alternative 1. The increase in VRM Class IV areas would allow for more opportunities for wind energy and utility developments to occur in the Planning Area without the need for major mitigation measures. Lands and realty developments such as transmission lines or communication sites would be consistent with the objectives for VRM Class IV and potentially VRM Class II and III, if mitigation measures that limit impacts are used. Opportunities for wind energy development would be limited on only 30 percent of areas with high wind potential if adequate mitigation measures were not developed (**Table 4-3**).

4.2.5.3 Impacts Under Alternative 3: Emphasis on Protection of Resources

In this alternative, a decrease in VRM Class III and an increase in Class IV areas from Alternative 1 levels are proposed. VRM Class I and II acreage would increase. This alternative would require the most use of mitigation on development activities. Lands and realty development projects such as transmission lines or communication sites would be authorized in VRM Class IV and potentially VRM Class II and III, if adequate mitigation measures reduce impacts to levels commensurate with the allowed level of change for each VRM class. Class II and potentially Class III areas would likely limit opportunities for wind development and other lands and realty development projects, such as transmission lines or communication sites, if mitigation measures for large vertical structures are not available.

4.2.5.4 Impacts Under Alternative 4: Preferred Alternative

In this alternative, there would be less mitigation required for development projects to conform to VRM class objectives than in Alternative 1 as a result of increased VRM Class IV areas. Lands and realty development projects such as transmission lines or communication sites would be authorized in VRM Class IV areas and potentially II and III areas, if adequate mitigation measures reduce impacts to levels

commiserate with the allowed level of change for each VRM class. The change in VRM class objectives would require less mitigation for lands and realty developments than Alternatives 1 and 3, but more mitigation than Alternative 2.

4.2.6 Livestock Grazing

This section presents potential impacts to livestock grazing from changes to VRM classifications. Existing conditions concerning livestock grazing are described in Section 3.7.

4.2.6.1 Impacts Under Alternative 1: No Action Alternative

VRM class objectives that require mitigation for surface disturbing activities and influence the size, design or location of surface disturbing activities would indirectly help to maintain forage production, reduce the potential for noxious and invasive weeds, and meet the standards for rangeland health. Consideration of visual quality in VRM Class II or Class III areas would potentially influence the type, design, and/or location of proposed range improvements. This would not preclude development, but would affect the complexity of construction and/or maintenance to be consistent with the VRM standards.

4.2.6.2 Impacts Under Alternative 2: Emphasis on Development of Resources

Alternative 2 would increase opportunities that could create contrasts to the landscape and would require fewer mitigation measures (compared to Alternative 1) as large portions of the Planning Area would be changed from Class III to Class IV. Some Class II areas also would be changed to Class III and IV. The increase in opportunities for activities that could result in contrasts to the landscape with few mitigation measures would likely have both short- and long-term impacts to grazing forage production. Fire suppression would increase the amount of available grazing forage; however, this would be offset by increased fuels and the potential for increased frequency of fire events due to additional human presence, vehicles, and equipment (ignition sources). A reduction to the required mitigation for rangeland improvements as compared to Alternative 1 (water development projects, fencing, etc.) would potentially allow for an increase in stocking rates.

4.2.6.3 Impacts Under Alternative 3: Emphasis on Protection of Resources

Alternative 3 would increase the area available for activities that could result in contrasts to the landscape (compared to Alternative 1) as large portions of the Planning Area would be changed from Class III to Class IV. Although the area increase from Class III to Class IV is not as great as for Alternative 2, large portions in the north-central and western half of the Planning Area would change to Class IV. As discussed under Alternative 2, the change from Class III to IV would allow for an increase in activities that would require less mitigation and allow more contrast with the landscape and could result in short and long-term loss of grazing forage production and livestock displacement. Issues related to dust and fire suppression also would be similar. In some areas in the Planning Area, including the Ferris and Laramie Mountains, Elk Mountain) and the area surrounding the Adobe Town WSA, VRM would change from Class III to Class II. This would require the use of more mitigation for projects that could result in contrasts to the landscape and grazing forage production rates (and quality) would benefit, as would the relative amount of shade created by woody plant growth in riparian areas. The development of rangeland improvement projects may be less flexible due to an increase in required mitigation to meet VRM objectives. Mitigation measures for improvement projects would potentially become more complex and expensive. A general lack of fire suppression would increase forage loss due to fire events; however, this may be offset by a potential decrease of fire frequency due to reduced human presence and ignition sources.

4.2.6.4 Impacts Under Alternative 4: Preferred Alternative

This alternative would increase the area available for activities that require less mitigation and can have more contrasts with the landscape more than Alternatives 1 and 3, but not as much as Alternative 2. Large areas within the checkerboard and in the western portion of the Planning Area would change from

Class III to Class IV and an area northwest of Hanna would change from Class II to Class III. Effects to these areas would be similar in nature to Alternative 2. Areas where more mitigation would be required would include a portion of the Planning Area northwest of the Adobe Town WSA, a portion of the CDNST (south of Bairoil), an area surrounding the Ferris Mountain WSA, and an expanded area around the Medicine Bow-Routt National Forest where designations would change from Class III to Class II. Effects to these areas would be similar in nature to Alternative 3. There would be no increase or decrease of VRM Class I areas.

4.2.7 Minerals, Geology, and Topography

This section presents potential impacts to mineral resources from changes to VRM classifications. There would be no impact on geology and topography from VRM class objectives. Existing conditions concerning mineral resources are described in Section 3.8. A summary of VRM classes on leased and unleased public lands with high and moderate oil and gas potential is provided in **Table 4-4**.

Table 4-4 VRM Classes on Public Lands With High and Moderate Oil and Gas Potential in the Planning Area

VRM Class	Alternative 1: No Action Alternative	Alternative 2: Development	Alternative 3: Protection	Alternative 4: Preferred
Authorized	632,174	632,174	632,174	632,174
I	403	403	403	403
II	20,171	0	162,272	17,327
III	436,387	135,058	264,363	234,603
IV	175,214	496,713	205,136	379,840
Non-leased	331,856	331,856	331,856	331 856
I	27,554	27,554	27,581	27,554
II	10,216	0	90,911	21,919
III	224,997	79,489	153,312	111,068
IV	69,089	224,813	60,051	171,316
Total	964,030	964,030	964,030	964,030

Note: Leases were delivered to AECOM for CCSM in 2009.

4.2.7.1 Impacts Under Alternative 1: No Action Alternative

The majority of the Planning Area would remain Class III and IV with the exception of the Class II areas around the Seminoe Reservoir in the checkerboard land ownership. More mitigation in VRM Class II and III areas will affect the placement of facilities associated with minerals exploration and development activities on the public lands and affect the ease of finding locations where development might occur as well as the size and coloration of facilities depending on the visual class and location. There would be little mitigation required to meet VRM class objectives within the Class IV areas, which are located in the western portion of the Planning Area and southwest of Seminoe Reservoir. Approximately 94 percent of areas with high and moderate oil and gas potential would be within VRM Class III and IV areas, where fewer mitigation measures are necessary to meet VRM class objectives (**Table 4-4**).

BLM surface and subsurface (mineral) ownership are often intermingled with non-federal mineral estates. While the BLM has to allow for access to non-federally owned minerals, the BLM still retains authority and is responsible for BLM-administered public lands. Within the Planning Area there is a total of 104,933 acres of federally owned surface lands over non-federal minerals (**Figure 3-4**). This occurs almost exclusively in the western half of the field office with 1,560 acres occurring in VRM Class I areas, 3,670 acres occurring in VRM Class II areas, 67,799 acres occurring in VRM Class III areas, and 31,903 acres occurring in VRM Class IV areas. Facilities within areas managed as VRM Class I and II will be subject to mitigation that is consistent with the VRM class objectives. Mitigation will include siting, size, and color of structures in order to avoid interfering with the form, line, color, and texture of the landscape character.

4.2.7.2 Impacts Under Alternative 2: Emphasis on Development of Resources

Alternative 2 would increase the area of VRM Class IV, resulting in resulting in fewer mitigation measures being required for the development of oil and gas. Compared to Alternative 1, an additional 410,549 acres of high and moderate oil and gas potential would change to Class IV. There would be a 384,597-acre decrease in Class III high and moderate potential oil and gas areas due to being re-designated as Class IV, which would have fewer mitigation measures required to meet VRM objectives on activities that could result in contrasts to the landscape and structure mitigation associated with mineral extraction opportunities. Two high and moderate potential areas totaling 27,957 acres would be designated as Class I, where activities that result in landscape contrast would be precluded. With the exception of the Adobe Town DRUA and two other small areas in the northern portion of the Planning Area, areas with high and moderate oil and gas potential would occur in VRM Class IV areas. Approximately 97 percent of areas with high and moderate oil and gas potential would be within VRM Class III and IV areas, where fewer mitigation measures are necessary to meet VRM class objectives (**Table 4-4**).

Of the 104,933 acres of federally owned surface lands over non-federal minerals 1,560 acres would occur in VRM Class I areas, 14,227 acres would occur in VRM Class III areas, and 89,146 acres would occur in VRM Class IV areas.

4.2.7.3 Impacts Under Alternative 3: Emphasis on Protection of Resources

Compared to Alternative 1, VRM Class II would increase by 198,444 acres, VRM Class III areas would decrease 218,203 acres, and VRM Class IV areas would increase by 20,884 acres. The increase in VRM Class IV acreage would be due to the difficulty in continuity of VRM for public lands in the checkerboard land ownership area. Under Alternative 3, a large percentage of the western portion of the Planning Area, which is dominated by high and moderate oil and gas potential areas, would be designated as VRM Class III compared to Alternative 2 and the Adobe Town DRUA would be changed to VRM Class II and the VRM Class I designation for the Adobe Town WSA would be extended to the north. The high and moderate potential area west of Seminoe Reservoir would become VRM Class III. Approximately 71 percent of areas with high and moderate oil and gas potential would be within VRM Class III and IV areas, where fewer mitigation measures are necessary to meet VRM class objectives (**Table 4-4**).

Of the 104,933 acres of federally owned surface lands over non-federal minerals 1,563 acres would occur in VRM Class I areas, 19,491 acres would occur in VRM Class II areas, 49,821acres would occur in VRM Class III areas, and 34,058 acres would occur in VRM Class IV areas.

4.2.7.4 Impacts Under Alternative 4: Preferred Alternative

Compared to Alternative 1, VRM Class II areas would decrease by 8,169 acres, VRM Class III areas would decrease by 251,562 acres, and VRM Class IV areas would increase by 259,732 acres. Much of the western portion of the Planning Area would be VRM Class IV with the exception of VRM Class III in the Adobe Town DRUA, Powder Rim, and the Chain Lakes WHMA areas. The high and moderate potential area west of Seminoe Reservoir would change from VRM Class III and IV to VRM Class II

and III (**Table 4-4**). For areas where VRM classes would be changed from VRM Class II to III or III to IV, the effects to mineral resources would be similar in nature to Alternative 2. For those areas that would change from VRM Class III or IV to II or III, the effects to mineral resources would be similar in nature to Alternative 3.

Approximately 95 percent of areas with high and moderate oil and gas potential would be within VRM Class III and IV areas, where fewer mitigation measures are necessary to meet VRM class objectives (**Table 4-4**).

4.2.8 Off-highway Vehicles

This section presents potential impacts to OHV management from changes in VRM classifications. Existing management concerning OHV users are described in Section 3.9.

4.2.8.1 Impacts Under Alternative 1: Continuation of Existing Management

Visual resources are an important determinant of the quality of OHV settings that would protect the scenic qualities of the OHV settings within the areas managed as Class I, Class II, and, in some instances, Class III. Some OHV users seek natural landscape settings and would be displaced from areas managed as Class III and IV, whereas other users seek the experience and opportunities for OHV activity regardless of setting. Opportunities for activities that could result in contrasts to the landscape and visual intrusions that modify the form, line, color, and texture of the landscape character in Class III and IV areas may result in degradation of the OHV setting desired by some OHV users, as well as potential displacement of OHV users.

Alternative 1 provides protection of OHV settings in areas determined to contain Class A scenery as depicted in the VRI (shown in **Figure 3-4**) with VRM Class II and III designations and Class B scenery with VRM Class II and III designations. Although this alternative provides more protective VRM in the northern and eastern portions of the Planning Area, the OHV setting in the checkerboard ownership areas and other fragmented landownership patterns is influenced by uses on private and state lands beyond the BLM's jurisdiction.

4.2.8.2 Impacts Under Alternative 2: Emphasis on Development of Resources

Under this alternative, an increase in VRM Class IV areas would allow for more activities that could result in contrasts to the landscape and visual intrusions that modify the form, line, color, and texture of the landscape character to occur in the Planning Area. OHV users seeking natural landscape settings may be displaced from areas managed as VRM Class III and IV if increased activities and visual intrusions were to occur. This alternative would allow for the greatest level of change from Alternative 1 that may affect OHV users.

Alternative 2 provides the greatest potential for visual contrasts in OHV user settings in areas determined to contain Class A and B scenery as depicted in the VRI (shown in **Figure 3-4**) due to VRM Class III and IV designations. Although this alternative allows for a higher degree of visual contrast in OHV user resource settings in the northern and eastern portions of the Planning Area, the OHV user setting in the checkerboard ownership areas and other fragmented landownership patterns is influenced by uses on private and state lands beyond the BLM's jurisdiction.

4.2.8.3 Impacts Under Alternative 3: Emphasis on Protection of Resources

Under this alternative, there is an increase in VRM Class IV areas compared to Alternative 1 but not as much as Alternatives 2 and 4. This would reduce opportunities for activities that could result in contrasts to the landscape and visual intrusions that modify the form, line, color, and texture of the landscape character in the Planning Area. Additional guidance required to meet VRM objectives for activities and visual intrusions would preserve the visual quality of OHV settings and OHV users

seeking this setting would not be displaced. This alternative would require the most guidance and mitigation for potential future developments that would affect OHV users.

Alternative 3 provides protection of OHV user settings in areas determined to contain Class A scenery as depicted in the VRI (shown in **Figure 3-4**) with VRM Class I, II, and III designations and provides varying levels of protection against visual contrast to Class B scenery with VRM Class II, III, and IV designations. Although this alternative allows for a moderate to high degree of alteration of OHV user settings in the northern and eastern portions of the Planning Area, the OHV user setting in the checkerboard ownership areas and other fragmented landownership patterns is influenced by uses on private and state lands beyond the BLM's jurisdiction.

4.2.8.4 Impacts Under Alternative 4: Preferred Alternative

Under this alternative, there would be less guidance required to meet VRM objectives for activities that could result in contrasts and visual intrusions that modify the form, line, color, and texture of the landscape character than Alternatives 1 and 3 as a result of increased VRM Class IV areas. More acreage designated as VRM Class IV may result in degradation of the OHV setting desired by some OHV users and result in the displacement of OHV users by activities and visual intrusions.

Alternative 4 provides protection of OHV user settings in areas determined to contain Class A scenery as depicted in the VRI (shown in **Figure 3-4**) with VRM Class II designations. This alternative provides varying levels of protection against visual contrast to Class B scenery with VRM Class III and IV designations. Although this alternative allows for a higher degree of alteration of OHV user settings in the northern and eastern portions of the Planning Area, the OHV user setting in the checkerboard ownership areas and other fragmented landownership patterns is influenced by uses on private and state lands beyond the BLM's jurisdiction.

4.2.9 Paleontology

Existing conditions concerning paleontology are described in Section 3.10. There would be little or no impacts on paleontology from VRM decisions. VRM decisions would influence the ability to locate development facilities including oil and gas facilities, wind energy development, communication sites, and utilities. These actions in turn have direct impacts on paleontology. For a full discussion of these impacts, please refer to the respective sections in the 2008 Rawlins RMP.

4.2.10 Recreation and Visitor Services

This section presents potential impacts to recreation and visitor services from changes in VRM classifications. Existing conditions concerning recreation resources are described in Section 3.11. **Table 4-5** summarizes changes to VRM classes near recreation sites by alternative.

Table 4-5 VRM Classes of Recreation Sites in the Planning Area by Alternative

Recreation Site Name	Alternative 1: No Action Alternative	Alternative 2: Development	Alternative 3: Protection	Alternative 4: Preferred
Developed Sites				
Dugway Recreation Site	II	IV	IV	IV
Prior Flat Campground	II	IV	II	II
Lake Hattie Reservoir	III	IV	IV	IV
Twin Buttes Lake	III	IV	IV	IV
Wheatland Reservoir #3	III	IV	IV	IV

Table 4-5 VRM Classes of Recreation Sites in the Planning Area by Alternative

Recreation Site Name	Alternative 1: No Action Alternative	Alternative 2: Development	Alternative 3: Protection	Alternative 4: Preferred
East Allen Lake	III	IV	IV	IV
Undeveloped Sites				
Nine-Mile Hill	III	IV	II	II
Shirley Basin Reservoir	III	IV	III	IV
Little Robbers Reservoir	III	IV	III	IV
First Ranch Creek	II	IV	III	IV
South Fork of Sage Creek	II	IV	II	II
Laramie River Access	II	III	II	II
Dispersed Recreation Areas				
Jelm Mountain	II	III	II	II
Laramie Plains Lakes	III & IV	IV	IV	IV
Adobe Town	I & III	I & III	I & II	I, II, & III
Pedro Mountains	II & III	III & IV	II & III	II & IV
Undeveloped Trail Systems				
Shirley Mountains Mountain Bike Trail	II & III	IV	II & III	II & IV
National Scenic Trails				
Continental Divide National Scenic Trail	III	III, IV	II	II

4.2.10.1 Impacts Under Alternative 1: No Action Alternative

These designations would require more mitigation associated with management actions in VRM Class I and Class II areas, whereas VRM Class III and Class IV would require less mitigation for activities that modify the natural environment. Mitigation associated with VRM Class I and Class II would work to reduce contrast with the existing elements, which would retain or improve the recreational settings. Mitigation associated with VRM Class III and Class IV would allow more scenic contrasts, which may detract from the recreational setting. Altering the recreational setting would influence recreational activities, which would displace some recreationists seeking back country to middle country recreation settings. The CDNST and North Platte River SRMAs would continue to be within VRM Class II and III areas where most development activities would be mitigated to reduce visual impacts. Developed, undeveloped, and two of the three dispersed recreation sites would remain VRM Class II and III as shown in **Table 4-5**.

4.2.10.2 Impacts Under Alternative 2: Emphasis on Development of Resources

Alternative 2 would designate the most acreage within the Planning Area as VRM Class IV. In this alternative, less acreage would be designated VRM Classes I and II and more would be designated VRM Classes III and IV. Existing VRM Class I acreage in WSAs would remain. Development activities,

such as energy and mineral development, would be permitted in accordance with the objectives of VRM Class III and IV areas and would require stricter mitigation than in Class I and II areas. Under this alternative, all of the developed, undeveloped, and dispersed recreation areas would change from VRM Class II or III to VRM Class III or IV compared to Alternative 1. Approximately 25 miles of the CDNST SRMA would change to VRM Class IV. The North Platte River, north of I-80, would be changed to VRM Class IV. Seminoe and Pathfinder reservoirs would be changed to VRM Class III and IV. Visitor uses to these areas often include camping, fishing, hiking, and mountain biking. Visitor experience may be affected by reduced mitigation requirements. The Adobe Town DRUA and VRUA would remain as VRM Class III .Overall this alternative would require the fewest mitigation measures for potential future activities that may result in contrasts to the landscape and visual intrusions.

4.2.10.3 Impacts Under Alternative 3: Emphasis on Protection of Resources

This alternative would designate more acres as VRM Class IV compared to Alternative 1 but fewer than Alternatives 2 and 4. It also would manage the greatest acreage of VRM Class II than any other alternative. Under this alternative, developed, undeveloped, and dispersed recreation areas would range from VRM Class II to VRM Class IV. The CDNST SRMA would be entirely within VRM Class II. A portion of the North Platte River, north of I-80, would be VRM Class IV. Seminoe Reservoir would be VRM Class II and III and Pathfinder Reservoir would be entirely VRM Class II. The Adobe Town DRUA and VRUA would change from VRM Class III to VRM Class II. Overall, this alternative would require the most mitigation for potential future activities that could result in contrasts to the landscape and visual intrusions to meet VRM class objectives.

4.2.10.4 Impacts Under Alternative 4: Preferred Alternative

Under this alternative, more acreage would be designated as VRM Class IV than Alternatives 1 and 3, but less acreage would be designated VRM Class IV than Alternative 2. Developed, undeveloped, and dispersed recreation areas would be within VRM Class II and IV. Approximately 25 miles of the CDNST SRMA would change from VRM Class III to VRM Class II. A portion of the North Platte River, north of I-80, would be VRM Class IV. Seminoe Reservoir would be VRM Class II and III and Pathfinder Reservoir would be entirely VRM Class II. The majority of the Adobe Town DRUA and VRUA would remain as VRM Class III; however, a small portion to the west would be changed to VRM Class II. This alternative would require less mitigation to meet VRM objectives for activities that could result in landscape contrasts and visual intrusions than Alternatives 1 and 3, but would require more mitigation than Alternative 2.

Alternative 4 provides protection of recreation settings in areas determined to contain Class A scenery as depicted in the VRI (shown in **Figure 3-4**) with VRM Class II designations. This alternative provides varying levels of protection and landscape contrast of Class B scenery with VRM Class III, and IV designations. This alternative allows for a higher degree of alteration of recreation settings in the northern and eastern portions of the Planning Area.

4.2.11 Socioeconomics

This section presents potential impacts to the social and economic components in the Planning Area counties (Albany County, Carbon County, Laramie County, and Sweetwater County). VRM decisions influence the logistics and mitigation measures required when planning development activities including oil and gas facilities, wind energy development, communication sites and utilities, among other activities. Development that occurs on BLM lands can impact local economies through employment, income, and revenue. Development can also impact the social cohesion, quality of life, infrastructure, crime rates, emergency service needs, and populations of local communities. Additionally, VRM decisions can also influence recreation opportunities and subsequent satisfaction (see Section 4.2.10, Recreation and Visitor Services) which can affect the local economy through the goods and services that visitors purchase in the area.

4.2.11.1 Impacts Under Alternative 1: No Action Alternative

Under Alternative 1, a majority of the Planning Area would be VRM Classes III and IV (see 4.2.7.1). Mineral resource development activities would continue to support jobs and income in the local economy. This type of development would continue to generate tax revenues for local communities. Large areas of high wind potential may not be available for development (see 4.2.5.1), which may limit the potential for jobs or income associated with wind energy development to occur in the local communities. Recreation and grazing activities would continue to generate tax revenues as well under Alternative 1. Changes to the population may occur due to mineral resource development, which could in turn affect the need for various community services and infrastructure. Population changes would likely be linked to employment opportunities available in local communities which may or may not be based upon activities occurring on BLM lands.

4.2.11.2 Impact Under Alternative 2: Emphasis on Development of Resources

Under Alternative 2, more acreage of high to moderate oil and gas potential and high wind potential occurs in VRM Class IV, which requires fewer mitigation measures for development activities. Alternative 2 would require fewer mitigation measures, thereby reducing the complexity associated with energy development as compared to Alternative 1. An increase in energy development (oil/gas and/or wind energy) would result in employment, regional income, and tax revenue increases. An increase in employment often results in population increases, which can then impact community services (emergency services, police services, housing, infrastructure, etc.). Depending on a community's ability to absorb an increase in population, localized impacts may occur. Development activities may affect quality of life for residents, with some residents being supportive of increased development and economic opportunities and others dissatisfied with the loss of views, increased noise and traffic, and recreation opportunity changes. Communities that have been integrally tied to oil and gas or other mineral development are more likely to support increased energy development as part of the community identity.

4.2.11.3 Impacts Under Alternative 3: Emphasis on Protection of Resources

In comparison to Alternative 1, Alternative 3 would require more mitigation associated with development activities, which may affect income and tax revenues. Alternative 3 could have positive quality of life impacts to those people wanting increased reduced impacts on visual resources, undisturbed landscapes, and recreation opportunities that afford solitude. For those people for which economic factors provide the basis for their quality of life, they may be impacted by stricter mitigation measures associated with energy development in Class I and II areas. Grazing may see localized impacts where areas change from Class III to Class II or Class III to Class IV (see 4.2.6.3). If grazing is displaced or there is short or long-term forage production loss, employment and income associated with grazing could be reduced; however; an increase in quantity and quality of forage production could benefit opportunities associated with livestock grazing.

4.2.11.4 Impacts Under Alternative 4: Preferred Alternative

Alternative 4 provides for more acreage in Class IV than in Alternative 1, but not as much as is in Alternative 2. The increase in Class IV acreage would reduce complexity associated with the placement of oil and gas facilities than in Alternative 1 but not as much as in Alternative 2. Employment, regional income and tax revenues associated with energy development may be affected slightly, but not as much as in Alternative 2. Population changes and community services associated with energy development would be similar to Alternative 1. Alternative 4 provides for an increase in Class II acreage, compared to Alternatives 1 and 2, which would limit landscape altering activities. These areas would provide for undisturbed landscapes and recreation opportunities that afford solitude, but not as much as Alternative 3. As with Alternative 3, grazing in Alternative 4 may see localized impacts in areas that change VRM classes.

4.2.12 Special Designations and Management Areas

This section presents potential impacts to Special Designations and Management Areas from changes in VRM classifications. Existing conditions concerning special designations and management areas are described in Section 3.13. **Table 4-6** summarizes VRM classes for all alternatives for WSAs, ACECs, WHMAs, WSRs, and National Scenic Trails (NST).

4.2.12.1 Impacts Under Alternative 1: No Action Alternative

Under all alternatives, proposed VRM designations would maintain the overall naturalness and integrity of the scenic qualities while allowing for landscape altering activities and visual intrusions that modify the form, line, color, and texture of the landscape character. Class I and II areas would require more mitigation, whereas VRM Class III and Class IV would allow for more modification with fewer mitigation measures of the natural environment.

Since few permanent cultural modifications exist north of the Town of Rawlins and I-80, VRM Class III along the CDNST would not be consistent with the recommended guidance to retain or improve the integrity of the associated settings and scenic values for which the National Trail was designated where not adversely impacted by existing cultural modifications.

4.2.12.2 Impacts Under Alternative 2: Emphasis on Development of Resources

Under this alternative, an increase in VRM Class IV areas would require less mitigation for landscape altering activities and visual intrusions that modify the form, line, color, and texture of the landscape character to occur in the Planning Area. All WSAs would retain their VRM Class I designation. Both ACECs and all five WHMAs would require less mitigation for potential for landscape altering activities and visual intrusions as they change (at least partially) as compared to Alternative 1. This alternative would allow for the greatest acreage of VRM Class IV designation and therefore require the fewest mitigation measures associated with opportunities for potential future landscape altering activities and visual intrusions.

Since few permanent cultural modifications exist north of the Town of Rawlins and I-80, VRM Class III (17 miles) and IV (11 miles) along the CDNST would not be consistent with the recommended guidance to retain or improve the integrity of the associated settings and scenic values for which the National Trail was designated where not adversely impacted by existing cultural modifications. The NSHT guidance (BLM 2012a) specifically states that VRM Class IV should not be considered for use within the National Trail Management Corridor.

4.2.12.3 Impacts Under Alternative 3: Emphasis on Protection of Resources

Under this alternative, there would be a decrease in VRM Class IV areas compared to Alternative 2. This decrease would restrict opportunities for potential future landscape altering activities and visual intrusions to Special Designation and Management areas. All WSAs would retain their VRM Class I designation. Compared to Alternative 2, all ACECs and WHMAs would receive more protection from future landscape altering activities and visual intrusions through changes to their VRM class with the exception of the Laramie Plains Lakes WHMA, which would not change classification. Overall, this alternative decreases the amount of VRM Class IV acreage and associated impacts compared to Alternative 2.

Table 4-6 VRM Classes of Special Designation Management Areas in the Planning Area by Alternative

Special Designation Site Name	Alternative 1: No Action Alternative	Alternative 2: Development	Alternative 3: Protection	Alternative 4: Preferred
WSAs				
Adobe Town	I	I	I	I
Ferris Mountain	I	I	I	I
Bennett Mountain	I	I	I	I
ACECs				
Blowout Penstemon	II & III	III & IV	I, II, & IV	II, III, & IV
Cave Creek	II	IV	II	II
WHMAs				
Chain Lakes	III & IV	IV	III	III & IV
Laramie Peak	I, II & III	III & IV	II	II, III, & IV
Laramie Plains Lakes	III & IV	IV	IV	IV
Upper Muddy Creek/Grizzly ACEC	IV	IV	IV	IV
Wick-Beumee	II	III	II	II
National Scenic Trails				
Continental Divide National Scenic Trail	III	III, IV	II	II
RCAs				
Shamrock Hills	III & IV	IV	II & III	IV

Since few permanent cultural modifications exist north of the Town of Rawlins and I-80, VRM Class II along the CDNST would be consistent with the recommended guidance to retain or improve the integrity of the associated settings and scenic values for which the National Trail was designated where not adversely impacted by existing cultural modifications.

4.2.12.4 Impacts Under Alternative 4: Preferred Alternative

Under this alternative, there would be fewer restrictions on landscape altering activities and visual intrusions than Alternative 3 as a result of increased VRM Class IV areas. All WSAs would retain their Class I designation. All WHMAs become more restrictive in regard to their VRM class with the exception of the Blowout Penstemon ACEC, which would change from VRM Class II and III to VRM Class II, III, and IV, and the Laramie Plains Lake WHMA, which would change from VRM Class III and IV to just VRM Class IV. Overall, this Alternative would be more restrictive than Alternative 2, but less than Alternatives 1 and 3.

Since few permanent cultural modifications exist north of the Town of Rawlins and I-80, VRM Class II along the CDNST would be consistent with the recommended guidance to retain or improve the integrity

of the associated settings and scenic values for which the National Trail was designated where not adversely impacted by existing cultural modifications.

4.2.13 Transportation and Access

This section presents potential impacts to transportation and access from changes in VRM classifications. Existing conditions concerning transportation and access are described in Section 3.14.

4.2.13.1 Impacts Under Alternative 1: Continuation of Existing Management

Existing VRM Class II would potentially interfere with the viability of transportation projects on BLM-administered lands in some areas. To maintain the visual settings, mitigation measures would modify the location of the road, road surface color, and design and would potentially result in more complexity associated with the planning of transportation and access actions. Limitations resulting from visual mitigation measures would be more pronounced for transportation projects on BLM-administered lands that require a network of roads as compared to single isolated access road or are located in areas of where the roads can't be screened or absorbed by the landscape.

4.2.13.2 Impacts Under Alternative 2: Emphasis on Development of Resources

There would be fewer mitigation measures required under this alternative as compared to Alternative 1. This alternative would increase opportunities for placement of transportation and access actions and would allow for greater flexibility of project placement.

4.2.13.3 Impacts Under Alternative 3: Emphasis on Protection of Resources

Impacts resulting from VRM classes would be the same as those described in Alternative 1, except there would be an increase in VRM Class II acreage to 741,909 acres. This alternative would result in the use of more mitigation measures associated with the placement of transportation and access actions, particularly for larger projects requiring a network or wider roads that would attract attention or are located in areas of where the roads can't be screened or absorbed by the landscape.

4.2.13.4 Impacts Under Alternative 4: Preferred Alternative

Impacts resulting from VRM classes would be the same as those described in Alternative 1, except there would be a decrease in VRM Class II acreage to 337,472acres. This alternative would increase opportunities for placement of transportation and access actions and would allow for greater flexibility of project placement.

4.2.14 Vegetation

Existing conditions concerning vegetation are described in Section 3.15. There would be little impacts on vegetation resources from VRM decisions. VRM decisions would influence the ability to locate development facilities including oil and gas facilities, wind energy development, communication sites, and utilities. These actions in turn have direct impacts on vegetation including sensitive plants, weeds, and livestock forage. For a full discussion of these impacts, please refer to the respective sections in the 2008 Rawlins RMP.

4.2.15 Visual Resources

This section presents potential impacts to visual resources from VRM classifications. Existing conditions concerning visual resources are described in Section 3.16. **Table 4-7**, **Table 4-8**, and **Table 4-9** show protections afforded to visual resource values defined in the VRI by the VRM classes for each alternative. Visual resource values that are managed at lower VRM classes (i.e., VRI Class II managed as VRM Class III or areas of high scenic quality/sensitivity levels managed for major level landscape modifications in VRM Class IV) would directly impact the visual resource.

Table 4-7 Comparison of Baseline VRI Classes and Proposed VRM Classes by Alternative on Public Lands in the Planning Area

Alternatives – VRM Class	VRI Class I		VRI Class II		VRI Class III		VRI Class IV		Not Classified[1]		Total	
	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
Baseline VRI Classes												
Baseline Sum	0	0.0	571,866	20.5	718,891	25.8	1,496,407	53.6	4,556	0.2	2,791,721	100.0
Alternative 1: No Action												
VRM I	0	0.0	60,200	2.2	2	0.0	2,172	0.1	210	0.0	62,584	2.2
VRM II	0	0.0	115,310	4.1	62,417	2.2	56,358	2.0	934	0.0	235,019	8.4
VRM III	0	0.0	393,576	14.1	563,654	20.2	1,126,223	40.3	3,354	0.1	2,086,807	74.7
VRM IV	0	0.0	2,779	0.1	92,819	3.3	311,655	11.2	58	0.0	407,310	14.6
Alternative 2: Development												
VRM I	0	0.0	59,694	2.1	2	0.0	2,172	0.1	210	0.0	62,078	2.2
VRM II	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
VRM III	0	0.0	307,026	11.0	220,967	7.9	253,884	9.1	2,123	0.1	783,999	28.1
VRM IV	0	0.0	205,145	7.3	497,923	17.8	1,240,352	44.4	2,223	0.1	1,945,643	69.7
Alternative 3: Protection												
VRM I	0	0.0	67,709	2.4	2	0.0	8,937	0.3	240	0.0	76,889	2.8
VRM II	0	0.0	435,110	15.6	205,457	7.4	98,602	3.5	2,741	0.1	741,909	26.6
VRM III	0	0.0	48,892	1.8	365,958	13.1	789,812	28.3	1,226	0.0	1,205,888	43.2
VRM IV	0	0.0	20,156	0.7	147,475	5.3	599,057	21.5	348	0.0	767,035	27.5
Alternative 4: Preferred												
VRM I	0	0.0	59,694	2.1	2	0.0	2,172	0.1	210	0.0	62,078	2.2
VRM II	0	0.0	251,768	9.0	63,220	2.3	38,596	1.4	1,887	0.1	355,472	12.7
VRM III	0	0.0	172,896	6.2	280,616	10.1	321,721	11.5	1,177	0.0	776,410	27.8
VRM IV	0	0.0	87,507	3.1	375,053	13.4	1,133,919	40.6	1,282	0.0	1,597,761	57.2

[1] The 4,556 acres that were not classified represent approximately 0.02 percent of the entire Planning Area during the 2011 VRI process. These areas were either inadvertently mistaken for private lands or are the result of digitizing errors during the inventory process.

1

Table 4-8 Comparison of Baseline Sensitivity Level Rating Units and Proposed VRM Classes by Alternative on Public Lands in the Planning Area

Alternatives – VRM Class	SLRU Low		SLRU Moderate		SLRU High		Not Inventoried[1]		Total	
	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
Baseline Sensitivity Level Rating Units										
Baseline Sum	506,439	18.1	1,403,164	50.3	877,749	31.4	4,369	0.2	2,791,721	100.0
Alternative 1: No Action										
VRM I	0	0.0	2,680	0.1	59,694	2.1	210	0.0	62,584	2.2
VRM II	30,297	1.1	97,927	3.5	105,879	3.8	916	0.0	235,019	8.4
VRM III	293,506	10.5	1,152,056	41.3	638,060	22.9	3,185	0.1	2,086,807	74.7
VRM IV	182,636	6.5	150,501	5.4	74,116	2.7	58	0.0	407,310	14.6
Alternative 2: Development										
VRM I	0	0.0	2,174	0.1	59,694	2.1	210	0.0	62,078	2.2
VRM II	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
VRM III	3,382	0.1	347,117	12.4	431,396	15.5	2,105	0.1	783,999	28.1
VRM IV	503,058	18.0	1,053,873	37.7	386,659	13.9	2,054	0.1	1,945,643	69.7
Alternative 3: Protection										
VRM I	0	0.0	8,940	0.3	67,709	2.4	240	0.0	76,889	2.8
VRM II	3,382	0.1	236,452	8.5	499,352	17.9	2,724	0.1	741,909	26.6
VRM III	138,947	5.0	813,316	29.1	252,399	9.0	1,226	0.0	1,205,888	43.2
VRM IV	364,110	13.0	344,456	12.3	58,290	2.1	179	0.0	767,035	27.5
Alternative 4: Preferred										
VRM I	0	0.0	2,174	0.1	59,694	2.1	210	0.0	62,078	2.2
VRM II	2,581	0.1	108,197	3.9	242,824	8.7	1,870	0.1	355,472	12.7
VRM III	54,727	2.0	405,340	14.5	315,166	11.3	1,177	0.0	776,410	27.8
VRM IV	449,131	16.1	887,453	31.8	260,065	9.3	1,113	0.0	1,597,761	57.2

[1] The 4,369 acres that were not classified represent approximately 0.02 percent of the entire Planning Area during the 2011 VRI process. These areas were either inadvertently mistaken for private lands or are the result of digitizing errors during the inventory process.

SLRU = Sensitivity Level Rating Units.

Table 4-9 Comparison of Baseline Scenic Quality Rating Units and VRM Classes by Alternative on Public Lands in the Planning Area

Alternatives – VRM Class	SQRU A		SQRU B		SQRU C		Not Inventoried[1]		Total	
	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
Baseline Scenic Quality Rating Units										
Baseline Sum	136,174	4.9	879,186	31.5	1,771,866	63.5	4,495	0.2	2,791,721	100.0
Alternative 1: No Action										
VRM I	24,982	0.9	35,221	1.3	2,172	0.1	210	0.0	62,584	2.2
VRM II	40,839	1.5	133,214	4.8	60,094	2.2	873	0.0	235,019	8.4
VRM III	68,744	2.5	661,557	23.7	1,353,152	48.5	3,354	0.1	2,086,807	74.7
VRM IV	1,610	0.1	49,194	1.8	356,449	12.8	58	0.0	407,310	14.6
Alternative 2: Development										
VRM I	24,476	0.9	35,221	1.3	2,172	0.1	210	0.0	62,078	2.2
VRM II	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
VRM III	70,459	2.5	313,848	11.2	397,621	14.2	2,072	0.1	783,999	28.1
VRM IV	41,240	1.5	530,117	19.0	1,372,073	49.1	2,213	0.1	1,945,643	69.7
Alternative 3: Protection										
VRM I	32,468	1.2	35,243	1.3	8,937	0.3	240	0.0	76,889	2.8
VRM II	76,763	2.7	467,239	16.7	195,226	7.0	2,680	0.1	741,909	26.6
VRM III	26,943	1.0	200,638	7.2	977,081	35.0	1,226	0.0	1,205,888	43.2
VRM IV	0	0.0	176,065	6.3	590,621	21.2	348	0.0	767,035	27.5

Table 4-9 Comparison of Baseline Scenic Quality Rating Units and VRM Classes by Alternative on Public Lands in the Planning Area

Alternatives – VRM Class	SQRU A		SQRU B		SQRU C		Not Inventoried[1]		Total	
	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
Alternative 4: Preferred										
VRM I	24,476	0.9	35,221	1.3	2,172	0.1	210	0.0	62,078	2.2
VRM II	78,987	2.8	218,505	7.8	56,153	2.0	1,826	0.1	355,472	12.7
VRM III	0	0.0	319,592	11.4	455,641	16.3	1,177	0.0	776,410	27.8
VRM IV	32,712	1.2	305,868	11.0	1,257,900	45.1	1,282	0.0	1,597,761	57.2

[1] The 4,495 acres that were not classified represent approximately 0.02 percent of the entire Planning Area during the 2011 VRI process. These areas were either inadvertently mistaken for private lands or are the result of digitizing errors during the inventory process.

SQRU = Scenic Quality Rating Units.

1

2

4.2.15.1 Impacts Under Alternative 1: No Action Alternative

VRM classifications would have indirect impacts to the scenic qualities of the natural landscapes. VRM classifications determine the allowable level of landscape contrast in specific areas while maintaining the effectiveness of land use allocations for activities based on other resources. Limitations on visual contrasts in VRM Class I and II areas are intended to retain or improve the quality of visual resources, whereas Class III and IV would allow more visual contrasts associated with activities that result in contrasts to the landscape and visual intrusions that modify the form, line, color, and texture of the landscape character. Because VRM Class IV objectives are to allow for a high level of contrast to the natural setting, management actions would allow for opportunities for activities that result in visual contrasts to impact the scenic qualities of the natural landscapes so that some natural setting would eventually trend towards an industrialized setting.

Visual mitigation in the form of BMPs (noted in Appendix 15 of the 2008 Rawlins RMP) would allow activities that result in landscape contrast and visual intrusions that minimize the extent of modifications to the form, line, color, and texture of the landscape character and minimize visual contrast with the natural setting to be compatible with all VRM Classes. Activities that result in visual contrast in Class II areas would be mitigated so as to retain the objectives of the VRM class and to not attract the attention of the casual observer. Activities that result in visual contrast would require extensive mitigation in VRM Class I areas. Mitigation for the designated VRM classes would prevent significant impacts, except where facilities are at such a scale and location as to dominate the landscape, which would create visual distractions from the natural landscapes. The checkerboard landownership pattern along the original UPRR ROW through the middle of the Planning Area is not conducive to VRM Class II due to the fragmented landownership pattern over adjacent private surface ownership where development would potentially impair visual qualities. The majority of the checkerboard landownership pattern would be managed as VRM Class III, which would allow activities that result in visual contrast that modify the form, line, color, and texture of the landscape character to be noticed, but not dominate the landscape.

4.2.15.2 Impacts Under Alternative 2: Emphasis on Development of Resources

In this alternative, an increase in VRM Class IV areas from Alternative 1 would allow for more opportunities for activities that could result in visual contrast to the landscape in the Planning Area. This alternative could provide the highest level of change to the natural elements of form, line, color and texture, resulting in the greatest contrast to the natural setting. Management actions associated with visual resources would provide protection measures to mitigate impacts from landscaping altering activities and visual intrusions in areas all VRM classes; however, more mitigation measures would be employed in Class I and II areas.

4.2.15.3 Impacts Under Alternative 3: Emphasis on Protection of Resources

This alternative would require the most mitigation for activities that have the potential to create visual contrasts in order to meet VRM class objectives. Compared to Alternative 1, there would be a greater total acreage managed as VRM Class I and II. There also would be a decrease in VRM Class IV areas compared to Alternative 2. If activities that could result in contrasts to the landscape and visual intrusions that modify the form, line, color, and texture of the landscape character were mitigated according to VRM Class I and II objectives, associated impacts to visual resources would not occur, and scenic quality would be maintained as a result. Management actions associated with visual resources would provide protection measures to mitigate impacts from activities that result in landscape contrast and visual intrusions in VRM Class II and III areas, as discussed in Alternative 1.

4.2.15.4 Impacts Under Alternative 4: Preferred Alternative

This alternative would require less guidance and mitigation for activities that would result in visual contrast than Alternatives 1 and 3, but more than Alternative 2. In this alternative, more VRM Class IV areas than Alternatives 1 and 3 requires less mitigation for activities that result in landscape contrast and

visual intrusions that modify the form, line, color, and texture of the landscape character that dominate the viewshed in the Planning Area. Management actions associated with visual resources would provide protection measures to mitigate impacts from activities that result in visual contrast in all VRM Class areas, as discussed in Alternative 1.

4.2.16 Water Quality, Watershed, and Soils

Existing conditions concerning water quality, watershed, and soils are described in Section 3.17. There would be little or no impacts on water quality, watershed, and soils resources from VRM decisions. VRM decisions would; however, influence the ability to locate development facilities including oil and gas facilities, wind energy development, communication sites, and utilities. These actions in turn could have direct impacts on water quality, watershed and soils. For a full discussion of these impacts, please refer to the respective sections in the 2008 Rawlins RMP.

4.2.17 Wild Horses

Existing conditions concerning wild horses are described in Section 3.18. There would be little or no impacts to wild horses from VRM decisions. VRM decisions would influence the ability to locate development facilities including oil and gas facilities, wind energy development, communication sites, and utilities. These actions in turn could have direct impacts on wild horses. For a full discussion of these impacts, please refer to the respective sections in the 2008 Rawlins RMP.

4.2.18 Wildlife and Fish

Existing conditions concerning wildlife and fish are described in Section 3.19. There would be little or no impacts to wildlife and fish from VRM decisions. VRM decisions would influence the ability to locate development facilities including oil and gas facilities, wind energy development, communication sites, and utilities. These actions in turn could have direct impacts on wildlife and fish. For a full discussion of these impacts, please refer to the respective sections in the 2008 Rawlins RMP.

4.2.19 Lands with Wilderness Characteristics

This section presents potential impacts to Lands with Wilderness Characteristics (LWC) from changes in VRM classifications. Existing conditions concerning Lands with Wilderness Characteristics are described in Section 3.20. **Table 4-10** summarizes VRM classes for all alternatives for LWCs. Of the 90 potential LWC units surveyed by the BLM in 2012, only four met the criteria for LWCs (BLM 2012c).

Table 4-10 VRM Classes of Lands with Wilderness Characteristics in the Planning Area by Alternative

LWC Unit	Alternative 1: No Action	Alternative 2: Development	Alternative 3: Protection	Alternative 4: Preferred
WY-030-411 Area C	I & III	I & III	I & II	I & II
WY-030-411 Area D	III	III	II	II
WY-030-411 Area E	III	III	II	II
WY-030-411 Area F	III	III	I & II	II
WY-030-27N80W3-2012	III, IV	III, IV	II, III	III, IV
WY-030-27N89W24-2012	III	III	I, II, IV	II, IV
WYD03-14N98W-2011	III	III	I & II	II

Table 4-10 VRM Classes of Lands with Wilderness Characteristics in the Planning Area by Alternative

LWC Unit	Alternative 1: No Action	Alternative 2: Development	Alternative 3: Protection	Alternative 4: Preferred
WY-030-27N84W3-2012	II, III	III, IV	II, III	II, IV
WY-03013N95W24-2012	III	III, IV	II, III	III

1

2

4.2.19.1 Impacts Under Alternative 1: No Action Alternative

Under this alternative, VRM designations would require more mitigation for landscape altering activities and visual intrusions in VRM Class I and Class II areas, whereas VRM Class III and Class IV would allow for more modification of the natural environment with fewer mitigation measures, which could affect any wilderness characteristics present in the LWC unit, including sufficient size, naturalness, solitude, outstanding primitive and unconfined recreation opportunities, and any supplemental values.

Existing VRM Classes of III and IV in the LWC inventory areas may not maintain the naturalness and solitude criteria found in these areas. LWC unit WY-030-27N80W3-2012 would consist of VRM Class III (4,975 acres) and VRM Class IV (49 acres), which allows for less mitigation associated with landscape altering activities and visual contrasts that affect LWC criteria. LWC unit WY-030-27N89W24-2012 consists of VRM Class III (5,262 acres), which allows for less mitigation associated with landscape altering activities and visual contrast that affect LWC criteria. LWC unit WY-030-27N84W3-2012 would consist of Class II (7,258 acres), which would require more mitigation for landscape altering activities and visual contrast that affect LWC criteria, and Class III (4,120 acres), which allows for less mitigation associated with landscape altering activities and visual contrast that affect LWC criteria LWC unit WY-030-13N95W24-2012 would consist of VRM Class III (6,106 acres), which allows for less mitigation associated with landscape altering activities and visual contrast that affect LWC criteria.

4.2.19.2 Impacts Under Alternative 2: Emphasis on Development of Resources

Under this alternative, an increase in VRM Class IV areas would allow for less mitigation measures associated with landscape altering activities and visual intrusions that modify the form, line, color, and texture of the landscape character to occur in the Planning Area. Any alteration to the naturalness of LWC areas could have adverse effects to the unique wilderness characteristics and the biological resources located there. LWC units WY-030-27N84W3-2012 and WY-030-13N95W24-2012 would change to a less restrictive classification, which could lead to landscape altering activities and visual intrusions that could preclude the potential future management of wilderness characteristics in these areas. This alternative would allow for the greatest acreage of VRM Class IV designation and therefore require the least amount of mitigation associated with opportunities for potential future landscape altering activities and visual intrusions.

Proposed VRM Classes of III and IV in the LWC inventory areas may not maintain the naturalness and solitude criteria found in these areas. This alternative would allow for less viewshed protection of LWC units than Alternative 1. LWC unit WY-030-27N80W3-2012 would increase VRM Class IV compared to Alternative 1 (VRM Class III—4,686 acres, VRM Class IV—338 acres), which allows for fewer mitigation measures associated with landscape altering activities and visual contrast that affect LWC criteria. Similar to Alternative 1, LWC unit WY-030-27N89W24-2012 would consist of VRM Class III (5,262 acres), which allows for fewer mitigation measures associated with landscape altering activities and visual contrast that affect LWC criteria. LWC unit WY-030-27N84W3-2012 would consist of Class III (11,318 acres) and Class IV (61 acres), which allows for fewer mitigation measures associated with landscape altering activities and visual contrast that affect LWC criteria LWC unit WY-030-13N95W24-2012 would slightly increase VRM Class IV compared to Alternative 1 (VRM Class III—6,091 acres, VRM Class IV—15 acres), which allows for fewer mitigation measures associated with landscape altering activities and visual contrast that affect LWC criteria.

4.2.19.3 Impacts Under Alternative 3: Emphasis on Protection of Resources

Under this alternative, there would be a decrease in VRM Class IV areas compared to Alternative 2. This decrease would result in greater mitigation measures being required for potential future landscape altering activities and visual intrusions to LWC areas. Total acreage within LWC units would require more mitigation compared to Alternative 1, which would reduce the potential for landscape altering activities and visual intrusions that could preclude the potential future management of wilderness characteristics in

these areas. Overall, this alternative decreases the amount of VRM Class IV acreage and associated impacts as compared to Alternative 2.

Proposed VRM Classes of III and IV in the LWC inventory areas may not maintain the naturalness and solitude criteria found in these areas; however, areas proposed for VRM Class I and II would require more mitigation and may maintain the naturalness and solitude criteria found in these areas. This alternative would allow for more viewshed protection of LWC units than Alternative 1. LWC unit WY-030-27N80W3-2012 would have more viewshed protection compared to Alternative 1 (VRM Class II—4,686 acres, VRM Class III—338 acres), which would require greater mitigation associated with landscape altering activities and visual contrast that affect LWC criteria. LWC unit WY-030-27N89W24-2012 would require greater mitigation associated with landscape altering activities as compared to Alternative 1 (VRM Class I—3,405 acres, VRM Class II—1,827 acres, and VRM Class IV—30 acres), which would require greater mitigation associated with landscape altering activities and visual contrast that affect LWC criteria. LWC unit WY-030-27N84W3-2012 would require greater mitigation associated with landscape altering activities as compared to Alternative 1, consisting of Class II (11,318 acres) and Class III (61 acres), which would require greater mitigation associated with landscape altering activities and visual contrast that affect LWC criteria LWC unit WY-030-13N95W24-2012 would have more viewshed protection compared to Alternative 1 (VRM Class II—6,091 acres, VRM Class III—15 acres), which could limit landscape altering activities and visual contrast that affect LWC criteria.

4.2.19.4 Impacts Under Alternative 4: Preferred Alternative

Under this alternative, there would be fewer mitigation measures required on landscape altering activities and visual intrusions than Alternative 3 as a result of increased VRM Class IV areas. Changes to LWC units vary compared to the No Action Alternative, but overall LWC unit WY-030-27N80W3-2012 is the only unit that would require fewer mitigation measures, which could lead to landscape altering activities and visual intrusions that could preclude the potential future management of wilderness characteristics in these areas. LWC unit WY-030-13N95W24-2012 would not change, and LWC units WY-030-27N89W24-2012 and WY-030-27N84W3-2012 would receive greater protection from future landscape altering activities and visual intrusions. Overall, this Alternative would be more restrictive than Alternative 2, but less than Alternatives 1 and 3.

Proposed VRM Classes of III and IV in the LWC inventory areas may not maintain the naturalness and solitude criteria found in these areas; however, areas proposed for VRM Class I and II would maintain the naturalness and solitude criteria found in these areas. This alternative would allow for more viewshed protection of LWC units than Alternative 1. LWC unit WY-030-27N80W3-2012 would have slightly less viewshed protection compared to Alternative 1 (VRM Class III—4,686 acres, VRM Class IV—338 acres), which allows for landscape altering activities and visual contrast that affect LWC criteria. LWC unit WY-030-27N89W24-2012 would have more viewshed protection compared to Alternative 1 (VRM Class II—5,232 acres and VRM Class IV—30 acres), which could limit landscape altering activities and visual contrast that affect LWC criteria. LWC unit WY-030-27N84W3-2012 would have more viewshed protection compared to Alternative 1, consisting of Class II (11,318 acres) and Class IV (61 acres), which could limit landscape altering activities and visual contrast that affect LWC criteria LWC unit WY-030-13N95W24-2012 would have the same viewshed protection compared to Alternative 1 (VRM Class III—6,106 acres), which allows for landscape altering activities and visual contrast that affect LWC criteria.

4.3 Analysis of Ferris Dunes/Blowout Penstemon Proposed ACEC Management Actions

The following discussion discloses potential impacts associated with changes to the boundary of the Blowout Penstemon ACEC and the incorporation of new management actions. Alternative 1 proposes maintaining the existing boundary at 17,185 acres. Alternative 2 proposes reducing the boundary to 14,916 acres. Alternative 3 proposes increasing the boundary to 49,200 acres, and Alternative 4 proposes increasing the boundary to 29,312 acres. The potential impacts associated with changes in the size of the ACEC are incorporated in the impact analyses below.

There would be little or no impact to the following resources from potential changes to the Blowout Penstemon ACEC alternatives: air quality, wild land fire and fuels, forestry, paleontology, other SD/MAs, socioeconomics, transportation and access, and wild horses. These resources are not discussed further in the following sections.

4.3.1 Cultural Resources: Impacts Common to All Alternatives

Surface disturbing activities have the potential to disturb or displace buried cultural deposits and result in unanticipated discoveries. Protections afforded to the ACEC (i.e., intensive management of surface disturbing activities) would indirectly protect cultural resources located in these areas by reducing the potential for unanticipated discoveries and subsequent loss of cultural information. Actions that promote sand erosion and movement have the potential to expose and disturb buried cultural materials, although the potential for well-preserved cultural materials in active dunal areas is low.

4.3.1.1 Impacts Under Alternative 1: No Action Alternative

Management actions for the ACEC, including the closure to mineral material disposals, restricting motor vehicle and OHV use to designated roads and vehicle routes, and NSO stipulations for oil and gas leasing, would reduce or eliminate surface disturbing activities that have the potential to disturb or displace cultural deposits. Protections afforded to the ACEC would indirectly protect cultural resources located in these areas by reducing the potential for unanticipated discoveries and subsequent loss of cultural information.

The area would be open to locatable mineral entry; however, plans of operation would be required for locatable federal mineral exploration and development regardless of the number of acres that would be disturbed. This action would provide an opportunity to fully evaluate cultural resources in these areas prior to any surface disturbance. Exclusion of wind development and avoidance by linear utility/transportation system corridors and communication sites would reduce the potential for visual impacts to those properties where setting is an important aspect of integrity. Intensive management of surface disturbing activities would also reduce visual impacts and provide indirect protections for cultural resources if the management actions reduce the surface disturbance and/or visibility of developments associated with the activities.

4.3.1.2 Impacts Under Alternative 2: Emphasis on Development of Resources

Management actions for the ACEC would be similar to those described in Alternative 1, except that surface disturbing activities would not be allowed within 0.25 mile of occupied habitat. This would limit those areas where cultural resources are indirectly protected from surface disturbing activities that may disturb or displace cultural deposits. Exclusion of wind energy development within 1.0 mile of occupied habitat would reduce the areas indirectly protected from visual impacts to those properties where setting is an important aspect of integrity as compared to Alternative 1.

4.3.1.3 Impacts Under Alternative 3: Emphasis on Protection of Resources

Management actions for the ACEC would be similar to Alternative 1, except that the area would be closed to locatable mineral entry, the area would be closed to new oil and gas leasing, an NSO would be applied within 0.25 mile of occupied habitat on existing leases, and intensive management of surface disturbing activities outside of the NSO would be implemented. These would provide indirect protections associated with the ACEC to cultural resources over a larger area; however, this would reduce the opportunities to identify cultural resources based on NHPA review.

4.3.1.4 Impacts Under Alternative 4: Preferred Alternative

Under Alternative 4, impacts to cultural resources from the ACEC would be similar to those identified in Alternative 1, but the area would be closed to new oil and gas leasing, an NSO would be applied within 0.25 mile of occupied habitat on existing leases, and intensive management of surface disturbing

activities outside of the NSO would be implemented. This would provide indirect protections associated with the ACEC to cultural resources over a larger area; however, this would reduce the opportunities to identify cultural resources based on NHPA review.

4.3.2 Lands and Realty: Impacts Common to All Alternatives

The impacts to the Lands and Realty program would be a potential shift in work load priorities in this area to land tenure adjustments, acquisitions, easement or exchanges, and a reduction in processing ROW action authorizations. The acquisition of public lands would increase the number of land tenure actions processed, which would potentially impact the placement of proposed ROW actions, resulting in relocation of proposed projects through the ROW authorization process. All proposed ROW projects would be designed and locations selected at least 0.25 mile from any occupied habitat. BLM-administered public lands that contain occupied habitat for the plant would not be exchanged or sold, which would potentially limit the BLM's ability for land exchanges or sales within the boundaries of the ACEC.

4.3.2.1 Impacts Under Alternative 1: No Action Alternative

Impacts to lands and realty would be similar to those described above in the Impacts Common to All Alternatives. The restriction of not allowing off-road motor vehicle use for necessary tasks except on a case-by-case basis would result in an increase in complexity of pre-authorization actions such as ROW staking; operators would not be allowed to use motorized vehicles for such actions. Exception requests for staking actions using a motor vehicle would be submitted prior to staking activities and authorized on a case-by-case basis.

4.3.2.2 Impacts Under Alternative 2: Emphasis on Development of Resources

Exclusion of wind energy development within 1.0 mile of occupied habitat would result in a reduction of relocation of proposed projects through the ROW authorization process. In addition, there would be less land pursued for land tenure adjustments.

4.3.2.3 Impacts Under Alternative 3: Emphasis on Protection of Resources

Impacts to the land and realty program would be similar to those as described in Alternative 1, except that surface disturbing activities would be intensively managed outside of 0.25 mile of occupied habitat within the ACEC. This would potentially limit the placement of ROW actions within the ACEC.

Roads that are not required for routine operations, maintenance of developed projects, or lead to abandoned projects will be reclaimed.

4.3.2.4 Impacts Under Alternative 4: Preferred Alternative

Impacts to the Lands and Realty program under Alternative 4 would be the same as those described in Alternative 1.

4.3.3 Livestock Grazing: Impacts Common to All Alternatives

In general, protection measures implemented within the ACEC (i.e., restrictions on surface disturbing activities) would help to maintain and improve vegetation conditions, thereby maintaining or improving forage for livestock. Within 1 mile of blowout penstemon occupied habitat, new water developments and mineral supplements locations (RMP 2008, Appendix I of Appendix 14 Blowout Penstemon Conservation Measures) would be prohibited. Limiting new water developments, supplemental feeding, and mineral placement locations would restrict flexibility in livestock management and reduce opportunities to improve the distribution of livestock use, possibly negating any improvement in vegetative conditions from other protective measures.

4.3.3.1 Impacts Under Alternative 1: No Action Alternative

Impacts to Livestock Grazing would be similar to those described above in Impacts Common to All Alternatives, except that surface disturbing activities would be intensively managed in areas that contain habitat for the blowout penstemon. These actions would increase the complexity of developing range improvements and limit changes to livestock distribution. Limiting off-road motor vehicle use for "necessary tasks" would further increase the time required to complete range improvement project maintenance.

4.3.3.2 Impacts Under Alternative 2: Emphasis on Development of Resources

Impacts to livestock grazing would be similar to those as described in Alternative 1. Off-road vehicle use would be allowed for authorized necessary tasks, except for within 1.0 mile of known populations. This action would increase the area available for range improvement project maintenance with the use of OHVs on non-existing roads. Livestock permits and leases would not be altered; therefore, management flexibility would be reduced.

Range improvement projects would not be authorized within 0.25 mile of occupied habitat. This would further reduce livestock management flexibility.

4.3.3.3 Impacts Under Alternative 3: Emphasis on Protection of Resources

Impacts to livestock grazing would be the same as those as described in Alternative 1. Off-road vehicle use would only be allowed for the performance of authorized necessary tasks specifically related to firefighting, hazardous material cleanup, existing ROW maintenance, and fence maintenance. This would restrict flexibility in livestock management and increase the time required for maintenance of existing infrastructure.

4.3.3.4 Impacts Under Alternative 4: Preferred Alternative

Impacts to livestock grazing would be similar to those described in Alternative 2, except that off-road vehicle use would only be allowed for the performance of authorized necessary tasks specifically related to firefighting, hazardous material cleanup, existing ROW maintenance, and fence maintenance. This would restrict flexibility in livestock management and increases time required for maintenance of existing infrastructure. The restrictions in use of OHVs would be the same as for Alternative 3.

4.3.4 Minerals: Impacts Common to All Alternatives

Leasable Minerals

The No Surface Occupancy (NSO) stipulation within 0.25 mile of occupied habitat would potentially result in the modification of oil-and-gas facility location, the need for directional drilling to avoid critical areas, the use of multi-well pads, the minimization of total acres of disturbance and other similar activities.

Mineral Material Disposal

Common variety minerals may be disposed of by sale or free-use permits to states, counties, cities, governmental entities, or eligible nonprofits. The ACEC would be closed to mineral material disposals which would eliminate these resources from being developed. This would potentially result in the importation of material for a project that would otherwise be locally available.

4.3.4.1 Impacts Under Alternative 1: No Action Alternative

Leasable Minerals

Impacts to the Minerals program would be the same as described above in Impacts Common to All Alternatives.

Restricting off road vehicle travel for necessary tasks would increase the pre-project survey time required to complete project components, and increase safety concerns during emergency situations that would require an exception request.

Locatable Minerals

The ACEC would require plans of operations for locatable federal mineral exploration and development (except casual use), regardless of the number of acres that would be disturbed. This would increase the planning required to develop locatable mineral resources.

4.3.4.2 Impacts Under Alternative 2: Emphasis on Development of Resources

The impacts to the minerals program would be the same as described above in the Impacts Common to All Alternatives.

4.3.4.3 Impacts Under Alternative 3: Emphasis on Protection of Resources

Leasable Minerals – Oil and Gas

The ACEC would be closed to new oil and gas leasing. An NSO stipulation would be required within 0.25 mile of occupied habitat on existing leases. Surface disturbing activities on existing leases outside of the NSO would be intensively managed. This would increase modification of oil-and-gas facility location, the need for directional drilling to avoid critical areas, the use of multi-well pads, the minimization of total acres of disturbance, and other similar activities.

Locatable Minerals and Mineral Material Disposals

The ACEC would be closed to locatable mineral entry and mineral material disposals. Withdrawal would be pursued. These management actions would preclude any future locatable mineral exploration and development activities in these areas.

4.3.4.4 Impacts Under Alternative 4: Preferred Alternative

Impacts to the minerals program would be similar to those described in Alternative 1, except that the ACEC would be closed to new oil and gas leasing. An NSO stipulation would be required within 0.25 mile of occupied habitat on existing leases, and surface disturbing activities on existing leases outside of the NSO would be intensively managed. This would increase modification of oil-and-gas facility location, the need for directional drilling to avoid critical areas, the use of multi-well pads, the minimization of total acres of disturbance, and other similar activities. This is the same as Alternative 3.

4.3.5 Off-highway Vehicles: Impacts Common to All Alternatives

Off-highway vehicle (OHV) use to retrieve big game kills or access camp sites would be prohibited near designated roads and vehicle routes which would reduce OHV use. Use of OHVs would be limited to existing (until designated) roads and vehicle routes, which would potentially reduce the creation of primitive routes and reduce accessibility for recreational and land use opportunities.

Closure of specific roads and vehicle routes would be considered on a case-by-case basis to meet the objectives of the ACEC, which would potentially reduce the number of roads and vehicle routes available for use by OHV users.

4.3.5.1 Impacts Under Alternative 1: No Action Alternative

Impacts to OHV management would be the same as described above in the Impacts Common to All Alternatives.

4.3.5.2 Impacts Under Alternative 2: Emphasis on Development of Resources

The use of OHVs for authorized necessary tasks would increase as a result of this Alternative.

4.3.5.3 Impacts Under Alternative 3: Emphasis on Protection of Resources

Off-road vehicle use would be limited to authorized necessary tasks specifically related to firefighting, hazardous material cleanup, existing ROW maintenance or inspection, and fence maintenance. This would reduce the area that could be accessed by OHVs and therefore reduce the possibility of potential habitat disturbance and fragmentation.

4.3.5.4 Impacts Under Alternative 4: Preferred Alternative

Impacts to OHV management would the same as those described in Alternative 1, except that OHV use would be limited to authorized necessary tasks specifically related to firefighting, hazardous material cleanup, existing ROW maintenance and inspection, and fence maintenance. This would reduce the area that could be accessed by OHVs and therefore reduce the possibility of potential habitat disturbance and fragmentation. These restrictions are the same as those in described in Alternative 3.

4.3.6 Recreation and Visitor Services: Impacts Common to All Alternatives

Management actions that minimize disturbance to the ACEC would often enhance recreation settings and experiences, but would potentially restrict dispersed recreational uses.

The ACEC would be managed to protect the endangered plant population and its associated habitat, which would maintain or enhance the recreational settings and experiences. However, they also would alter or preclude other recreational activities, which would displace some recreationists to other areas.

4.3.6.1 Impacts Under Alternative 1: No Action Alternative

Impacts to Recreation and Visitor Services would be similar to those described above in Section 4.3.6 introduction, except that no competitive events would be allowed within 1.0 mile of known populations, which would reduce flexibility in locations of off-road events.

4.3.6.2 Impacts Under Alternative 2: Emphasis on Development of Resources

Impacts to Recreation and Visitor Services would be the same as described in Alternative 1.

4.3.6.3 Impacts Under Alternative 3: Emphasis on Protection of Resources

There would be no OHV competitive events allowed within the ACEC under this Alternative. This would reduce flexibility in locations of off-road events. This would reduce the area that could be accessed by OHVs and therefore reduce the possibility of potential habitat disturbance and fragmentation.

4.3.6.4 Impacts Under Alternative 4: Preferred Alternative

There would be no OHV competitive events allowed within the ACEC under this Alternative. This would reduce flexibility in locations of off-road events and this would reduce the area that could be accessed by OHVs and therefore reduce the possibility of potential habitat disturbance and fragmentation.

4.3.7 Blowout Penstemon ACEC: Impacts Common to All Alternatives

The ACEC expands protection to potential habitat, beyond that provided by the ESA . Management actions, such as implementing protective conservation measures to protect the plant, pollinators, and the habitat would maintain the viability of the populations. Implementation of OHV use restrictions and road rehabilitation projects and the acquisition of habitat would provide increased protections for the plant.

These actions would minimize disturbance to potential habitat, maintain occupied habitat, and would result in protection measures being applied to those areas not previously under BLM jurisdiction.

Water developments, mineral supplement placement, and supplemental feed would not be allowed within 1 mile of occupied blowout penstemon habitat, which would reduce the potential for cattle or wildlife to trample or graze plant populations. Use of OHVs would be limited to designated roads and vehicle routes and would not be allowed for big game retrieval and access to campsites, which would reduce the potential for disturbance to the plant.

The pursuit of the acquisition of other lands that contain populations of and habitat for the plant would increase the area to which protection measures would be applied. Larger blocks of potential and occupied habitat would simplify management and make the objectives of the ACEC more attainable. Closure to mineral material disposal would protect potential habitat and afford the same protections as occupied habitat. BLM-administered public lands that contain occupied habitat would not be exchanged or sold, which would allow the BLM to retain management of the plant and its habitat on those lands. This would simplify management and make the objectives of the ACEC more attainable.

4.3.7.1 Impacts Under Alternative 1: No Action Alternative

Management actions afforded to the ACEC, including the closure to mineral material disposals, restricting motor vehicle and OHV use to designated roads and vehicle routes, intensive management of the ACEC, and NSO stipulations for oil and gas leasing would reduce or eliminate surface disturbing activities that have the potential to disturb or remove known habitat.

A plan of operations would be required for locatable federal mineral exploration and development regardless of the number of acres that would be disturbed; therefore, this management action would provide an opportunity to fully evaluate the potential blowout penstemon habitat in these areas prior to any surface disturbance.

Exclusion of the ACEC area by wind energy development, and avoidance by transmission and utility corridors, would eliminate the potential for habitat loss as a result of these actions within the ACEC.

Pursuing land tenure adjustments and the acquisition of lands, easements, or exchanges would increase the area of protection for the plant. BLM-administered lands within the ACEC that contain the blowout penstemon plant would not be exchanged or sold; this would ensure long-term protection for plant habitat within the ACEC.

Livestock grazing would potentially result in trampling and grazing of plants; such damage would be more likely in times of drought or intensive grazing. Direct impacts as a result of trampling and grazing would be greatest during active growth and seed production; however, indirect impacts from disturbance associated with livestock grazing may reduce competition from other vegetation and may also help maintain early successional habitat.

Off-road motor vehicle use for necessary tasks would not be allowed. Exceptions to this would be considered on a case-by-case basis. In addition, competitive events would not be allowed within 1.0 mile of known populations. These management actions would minimize the potential for damage and incidental obliteration of plants.

Except in cases of extreme ecological health threats (insect or weed outbreaks/infestations), herbicide treatment of noxious plants/weeds will be prohibited within 0.25 mile of known blowout penstemon populations and insecticide treatments will be prohibited within 1.0 mile of known blowout penstemon populations to protect pollinators. This action will result in increased potential for successful pollination.

Closure of specific roads and vehicle routes would be considered on a case-by-case basis to meet the objectives of the Blowout Penstemon ACEC, and further reduce the potential for disturbance to the plants.

4.3.7.2 Impacts Under Alternative 2: Emphasis on Development of Resources

Under Alternative 2, impacts to the Blowout Penstemon ACEC from proposed management actions would be similar to those identified in Alternative 1, except that the ACEC area would be smaller (14,916 acres) in size.

In addition, blowout penstemon populations located outside of the reduced area would not benefit from the same protections that are identified within the existing ACEC area. Wind energy developments outside of the 1.0 mile buffer of occupied habitat would potentially be allowed, which would result in changes to wind and moisture patterns that would indirectly affect sand dune habitat.

Re-vegetation projects would not be authorized within 0.25 mile of occupied habitat. This would potentially reduce competition from other vegetation and help to maintain occupied penstemon habitat.

The use of OHVs for authorized necessary tasks would increase as a result of this Alternative, which would result in increased damage to and incidental obliteration of plants.

Pesticide applications would be further restricted as compared to Alternative 1, which would further reduce management flexibility and slightly increase the potential for weed and/or insect infestations to expand should treatment be delayed. These restrictions would increase the protections for pollinators until the known effects of these insecticides were fully evaluated. Herbicide use restrictions would reduce the direct impacts to the plant until the effects of the herbicide were fully evaluated.

Roads near plants that are not required for routine operations or maintenance of developed projects, or lead to abandoned projects, will be reclaimed. This will further reduce the potential for disturbance to the plants.

4.3.7.3 Impacts Under Alternative 3: Emphasis on Protection of Resources

Under Alternative 3, impacts to the Blowout Penstemon ACEC from proposed management actions would be similar to those identified under Alternative 1, except the ACEC area would be larger (48,200 acres) which would provide both direct and indirect protections associated with the ACEC to the plant and its associated habitat over a larger area. Protection measures applicable to a larger ACEC would reduce or eliminate surface disturbing activities that have the potential to modify dune habitat located adjacent to occupied habitat.

Surface disturbing activities would not be authorized within 0.25 mile of occupied habitat, and intensively managed outside of 0.25 mile of occupied habitat within the ACEC. This would reduce disturbance to habitat, and reduce the potential for introduction of invasive weeds. New oil and gas leasing would be closed within the ACEC. Occupied habitat would be closed to locatable mineral entry and mineral material disposal, and withdrawals would be pursued. These actions would protect the sensitive dune habitat where the plant is found, and would increase the protection of the Wyoming population of the plant. If the plant were to move into potential habitat within the ACEC boundary, there would be additional occupied habitat that would be afforded these protection measures.

Off-road vehicle use would only be allowed for the completion of authorized necessary tasks specifically related to firefighting, hazardous material clean up, ROW maintenance or inspection, and fence maintenance. In addition, OHV competitive events would not be allowed within the ACEC area. These management actions would minimize the potential for damage and incidental obliteration of plants.

Re-vegetation projects would not be authorized within 0.25 mile of occupied habitat, which is the same as Alternative 2. This action would potentially reduce competition from other vegetation and help to maintain occupied penstemon habitat.

Pesticide applications would be further restricted as compared to Alternative 1, which would further reduce management flexibility and slightly increase the potential for weed and/or insect infestations to expand should treatment be delayed. These restrictions would increase the protections for pollinators until the known effects of these insecticides were fully evaluated. Herbicide use restrictions would reduce the direct impacts to the plant until the effects of the herbicide were fully evaluated.

Exclusion of the ACEC area by wind energy development and avoidance by transmission and utility corridors would reduce the potential for habitat loss.

Pursuing land tenure adjustments and the acquisition of lands, easements, or exchanges would increase the area of protection for the plant. BLM-administered lands within the ACEC that contain the blowout penstemon plant would not be exchanged or sold; this would ensure long-term protection for plant habitat in the ACEC.

Roads that are not required for routine operations or maintenance of developed projects, or lead to abandoned projects, would be reclaimed. This would further reduce the potential for disturbance to the plant.

4.3.7.4 Impacts Under Alternative 4: Preferred Alternative

Under Alternative 4, impacts to the Blowout Penstemon ACEC from proposed management actions would be similar to those identified under Alternative 1, except the ACEC area would be larger, 20,228 acres compared to 17, 126 acres, in size. This would still provide both direct and indirect protections associated with the ACEC to the plant and its associated habitat over a larger area. Protection measures applicable to a larger ACEC would reduce or eliminate surface disturbing activities that have the potential to modify dune habitat located adjacent to occupied habitat.

Surface disturbing activities would not be authorized within 0.25 mile of occupied habitat, and intensively managed outside of 0.25 mile of occupied habitat within the ACEC. This would reduce disturbance to habitat, and reduce the potential for introduction of invasive weeds. New oil and gas leasing would be closed within the ACEC. Occupied habitat would be closed to locatable mineral entry, and mineral material disposal, and withdrawals would be pursued. These actions would protect the sensitive dune habitat where the plant is found, and would increase the protection of the Wyoming population of the plant. If the plant were to move into potential habitat within the ACEC boundary, there would be additional occupied habitat that would be afforded these protection measures.

Exclusion of the ACEC area by wind energy development and avoidance by transmission and utility corridors would reduce the potential for habitat loss.

Off-road vehicle use would only be allowed for the completion of authorized necessary tasks specifically related to firefighting, hazardous material clean up, ROW maintenance or inspection, and fence maintenance. In addition, OHV competitive events would not be allowed within the ACEC area. These management actions would minimize the potential for damage and incidental obliteration of plants.

Re-vegetation projects would not be authorized within 0.25 mile of occupied habitat, which is the same as Alternative 2. This would potentially reduce competition from other vegetation and help to maintain occupied penstemon habitat.

Pesticide applications would be further restricted as compared to Alternative 1, which would further reduce management flexibility and slightly increase the potential for weed and/or insect infestations to

expand should treatment be delayed. These restrictions would increase the protections for pollinators until the known effects of these insecticides were fully evaluated. Herbicide use restrictions would reduce the direct impacts to the plant until the effects of the herbicide were fully evaluated.

Impacts associated with the reclamation of roads would be the same as described in Alternative 3.

4.3.8 Vegetation: Impacts Common to All Alternatives

The ACEC would be managed to protect the plant which would reduce or eliminate effects from other management activities upon vegetation. The exclusion of surface disturbance in occupied habitat would remove the potential to disturb other vegetation within occupied habitat.

Vegetation management treatments would emphasize maintenance and protection of the habitat to sustain an early successional active sand dune habitat. Therefore, maintenance of this habitat would retain sparsely vegetated, early successional, shifting sand dunes with crater-like blowout depressions created by wind erosion.

Habitat degradation may occur should treatment of invasive and noxious weeds not be authorized within 0.5 mile of occupied habitat. Weed expansion into native habitat would have indirect impacts to other species and habitats, and may result in weeds outcompeting native vegetation.

4.3.8.1 Impacts Under Alternative 1: No Action Alternative

The ACEC would be managed to protect the plant which would reduce or eliminate effects to vegetation from other management activities. Intensive management of surface disturbing activities in areas that contain habitat would reduce the potential to disturb vegetation.

Pesticide applications would be limited which would reduce management flexibility and slightly increase the potential for weed and/or insect infestations to expand should treatment be delayed.

4.3.8.2 Impacts Under Alternative 2: Emphasis on Development of Resources

Impacts to vegetation would be similar to Alternative I, except that re-vegetation projects would not be authorized within 0.25 mile of occupied habitat. This action would reduce the potential for re-establishment of some vegetation.

Pesticide applications would be further restricted as compared to Alternative 1, which would further reduce management flexibility and slightly increase the potential for weed and/or insect infestations to expand should treatment be delayed.

Wind energy developments outside of the 1.0 mile buffer of occupied habitat would potentially be allowed, which would result in changes to wind and moisture patterns that would indirectly affect vegetation associated with sand dunes.

4.3.8.3 Impacts Under Alternative 3: Emphasis on Protection of Resources

Impacts to vegetation would be similar to Alternative I, except that re-vegetation projects would not be authorized within 0.25 mile of occupied habitat. This would reduce the potential for re-establishment of some vegetation.

Pesticide applications would be further restricted as compared to Alternative 1, which would further reduce management flexibility and slightly increase the potential for weed and/or insect infestations to expand should treatment be delayed. This is the same as Alternative 2.

4.3.8.4 Impacts Under Alternative 4: Preferred Alternative

Impacts to vegetation would be similar to Alternative I, except that re-vegetation projects would not be authorized within 0.25 mile of occupied habitat. This would reduce the potential for re-establishment of some vegetation. Pesticide applications would be further restricted as compared to Alternative 1, which would further reduce management flexibility and slightly increase the potential for weed and/or insect infestations to expand should treatment be delayed. These impacts are the same as those described in Alternative 2.

4.3.9 Visual Resources: Impacts Commons to All Alternative

There are no visual resource impacts common to all alternatives.

4.3.9.1 Impacts Under Alternative 1: No Action Alternative

The exclusion of wind energy development within the ACEC would maintain the visual resources in the area.

4.3.9.2 Impacts Under Alternative 2: Emphasis on Development of Resources

Impacts to visual resources would be similar to Alternative 1, except that wind energy development would be authorized within 1.0 mile of occupied habitat. This would have direct impacts on the scenic quality of the area should wind energy development occur.

4.3.9.3 Impacts Under Alternative 3: Emphasis on Protection of Resources

Impacts to visual resources would the same as described in Alternative 1.

4.3.9.4 Impacts Under Alternative 4: Preferred Alternative

Impacts to visual resources would the same as those described in Alternative 1.

4.3.10 Water Quality, Watershed, and Soils: Impacts Common to All Alternatives

Protection measures afforded by the ACEC would indirectly reduce watershed and soil disturbance. The pursuit of the acquisition of other lands that contain populations of and habitat for the plant would increase the area that protection measures would be applied to, thereby indirectly maintaining soil and water resources.

Protections aimed at conserving vegetation communities, and limitations on surface disturbing activities, would benefit soil and water resources by reducing the area available to disturbance.

4.3.10.1 Impacts Under Alternative 1: No Action Alternative

Impacts to Water Quality, Watershed, and Soils would be the same as described above in the Impacts Common to All Alternatives. Intensive management of surface disturbing activities in areas that contain habitat would reduce the potential for sedimentation.

4.3.10.2 Impacts Under Alternative 2: Emphasis on Development of Resources

Under Alternative 2, a larger area of the existing ACEC would be available for surface disturbing activities as a result of a smaller ACEC boundary. This would potentially lead to an increase in accelerated erosion, sedimentation, changes to channel stability, and impacts to water quality. Although some areas would still be subject to limited development, this Alternative would result in the greatest impact to water resources.

4.3.10.3 Impacts Under Alternative 3: Emphasis on Protection of Resources

Management activities that result in surface disturbance would be reduced as a result of closing the ACEC to locatable mineral entry and mineral material deposits. A smaller area would potentially be impacted as a result of this Alternative, leading to reduced sedimentation and erosion. Management actions that limit the extent of surface disturbing activities would help minimize erosion, sediment loading to waterways, compaction of soils, loss of soil productivity, and reduction of vegetation. In addition, because this alternative expands the boundary of the ACEC to the greatest extent, it would result in the fewest impacts to water resources.

4.3.10.4 Impacts Under Alternative 4: Preferred Alternative

Impacts to water quality, watershed, and soils would be similar to those described in Alternative 1, except that the area would be closed to new oil and gas leasing, and there would be more restrictions on surface disturbing activities. A smaller area would potentially be impacted as a result of this Alternative, leading to reduced sedimentation and erosion. Management actions that limit the extent of surface disturbing activities would help minimize erosion, sediment loading to waterways, compaction of soils, loss of soil productivity, and reduction of vegetation.

4.3.11 Wildlife and Fish: Impacts Common to All Alternatives

Management actions, such as implementing protective conservation measures to protect the plant, pollinators, and the habitat, would both directly and indirectly protect other wildlife resources. These actions would maintain contiguous areas for hiding cover, nesting habitat, and forage, as well as improve vegetation health and vigor. The pursuit of the acquisition of other lands that contain populations of and habitat for the plant would increase the area that protection measures would be applied to, thereby benefiting wildlife species. Protections aimed at conserving vegetation communities and limitations on surface disturbing activities would benefit wildlife by enhancing overall habitat conditions. Road closures would result in a reduction of disturbance to wildlife and thereby improve animal condition.

4.3.11.1 Impacts Under Alternative 1: No Action Alternative

Impacts to Wildlife and Fish would be the same as described above in the Impacts Common to All Alternatives. Intensive management of surface disturbing activities in areas that contain habitat would reduce the potential to disturb wildlife habitat.

4.3.11.2 Impacts Under Alternative 2: Emphasis on Development of Resources

Under Alternative 2, impacts to wildlife resources from the Blowout Penstemon ACEC would be similar to those identified in Alternative 1, except that the ACEC area would be smaller in size. Wildlife resources located outside of the reduced area would not benefit from the same protections identified within the ACEC area. A smaller ACEC area would allow for activities that have the potential to fragment habitat located adjacent to the area, as well as displace wildlife resources.

4.3.11.3 Impacts Under Alternative 3: Emphasis on Protection of Resources

Impacts to wildlife resources from the Blowout Penstemon ACEC would be similar to those identified in Alternative 1. A larger ACEC would reduce or eliminate surface disturbing activities that have the potential to fragment habitat and/or displace wildlife resources located in these areas. Species dependent upon contiguous habitats at a larger landscape scale will usually benefit and maintain healthier populations.

4.3.11.4 Impacts Under Alternative 4: Preferred Alternative

Impacts to wildlife resources from the Blowout Penstemon ACEC would be similar to those identified in Alternative 1. A larger ACEC would reduce or eliminate surface disturbing activities that have the

potential to fragment habitat and/or displace wildlife resources located in these areas. Species dependent upon contiguous habitats at a larger landscape scale would usually benefit and maintain healthier populations.

4.4 Cumulative Impacts

Cumulative impacts are the effects on the environment that result from the implementation of any of the alternatives in combination with other actions outside the scope of this plan, either within the Planning Area or outside it. The CEQ regulations for implementing NEPA define cumulative impacts as follows:

> "…the impact on the environment, which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 CFR 1508.7)

The cumulative impact analysis evaluates the potential impacts associated with the issue-targeted Plan Amendment alternatives as presented in Chapter 2.0, in combination with the potential impacts associated with other relevant activities that have occurred, are occurring, or are likely to occur in the vicinity of the Planning Area. The cumulative effects of past and present actions and activities on resources are manifested in the current condition of the resource, which is described in Chapter 3.0 (Affected Environment) for resources on lands administered by the BLM within the Planning Area.

4.4.1 Cumulative Impact Assessment Methodology

Land use planning is the BLM's broadest level of decision-making. BLM planning-level decisions are programmatic decisions that tend to be allocations of resources and "zoning" of areas to emphasize certain management direction. Consequently, the cumulative impact analysis also is broad and general in nature. The planning level analyses present ranges and qualitative impact conclusions. BLM considers cumulative impacts in subsequent NEPA documents that analyze specific project or address specific program issues. The cumulative impact analysis area encompasses the RFO.

CEQ guidance directs cumulative impact analysis to focus on important issues of national, regional, or local significance. This analysis focuses on whether the issue-targeted Plan Amendment actions would collectively be of potential significance when combined with other past, present, and reasonably foreseeable future actions. Specific significance criteria from the 2008 Rawlins RMP were used in this issue-targeted Plan Amendment. The criteria provide thresholds beyond which impacts would be considered significant.

4.4.2 Reasonably Foreseeable Projects and Activities Considered

The Planning Area consists of sparse populations, rural characteristics, and natural resource-based economies. Projects and activities in the northern portion of the Planning Area, including Rawlins, Sinclair, Wamsutter, and Hanna, are largely influenced by the presence of I-80 and the UPRR mainline and has centered on commercial development associated with oil and gas, mining, and ranching activities. Projects and activities in the southern portion of the Planning Area are largely influenced by the presence of agricultural and ranching activity, proximity to the National Forest, and the presence of scenery and outdoor recreation opportunities (e.g., fishing, boating, big game hunting, OHV use, and dispersed recreation). The towns of Elk Mountain, Saratoga, Riverside, Encampment, and Baggs, as well as the Platte Valley, have capitalized on these activities by centering their economies on ranching, seasonal recreation, tourist services, fishing and hunting, second homes and retirement homes, and some commercial timber activity.

Regional energy and mineral development activities in the Planning Area include oil and gas development, wind energy projects, and utility corridor projects. Current oil and gas development

projects in the western portion of the Planning Area include Desolation Flats, Continental Divide/Wamsutter II, Creston Blue Gap, and Atlantic Rim. Current wind energy development occurs on private lands in the eastern portion of the Planning Area. Pending projects include the Continental Divide Creston oil and gas development; Gateway West, Gateway South, and TransWest Express transmission lines; and one pending wind energy application; the Sand Hills Wind Farm.

The BLM's VRM decisions analyzed in this issue-targeted Plan Amendment have the greatest likelihood to influence potential future projects and activities in the Planning Area (described above). Other BLM and federal, state, and local agency management decisions that influence the scope and location of future projects would result in cumulative impacts.

4.4.3 Cumulative Impact Analysis for VRM Proposed Alternatives

VRM classifications that limit surface disturbing activities and developments (VRM Class I) or influence the size, design, or location of surface disturbing activities and developments (VRM Class II and III) in the Planning Area favor resources and uses that value a natural setting. VRM Class IV would allow for larger developments such as wind energy, utility developments, mineral developments, and other management activities that require major modifications of the existing character of the landscape. The approved plan for the Medicine Bow-Routt National Forest also provides management actions, stipulations, and environmental constraints for activities occurring on USFS lands. BLM and USFS management actions, stipulations, and environmental constraints would cumulatively favor resources and uses that value a natural setting in combination with VRM Class I, II, and to a lesser degree Class III. Other BLM and USFS management actions would cumulatively favor larger developments that require major modifications of the existing character of the landscape in combination with VRM Class IV.

Projects and activities of other jurisdictions are influenced by State of Wyoming authority to regulate large industrial development. For example, Wyoming's Sage-Grouse Core Management Areas Version 3 (finalized June 29, 2010) and sagebrush habitat as specified in Wyoming State Executive Order 2011-5 preclude wind energy development. State of Wyoming legislation in combination with VRM Class I, II, and to a lesser degree Class III on public lands would cumulatively influence siting of projects and activities in the Planning Area, including pending wind energy applications on public lands (shown in **Figure 3-2**).

While outside the BLM's authority, county planning and zoning also influence where projects and activities occur within their jurisdiction. In addition, the custom and culture of area communities that drive public sentiment in the federal, state, and local approval processes also influence where projects and activities occur in the Planning Area. Depending on the type and location of project activities, outside influences could cumulatively favor resources and uses that value a natural setting in combination with VRM Class I and II. Conversely, larger developments that require moderate to major modifications of the existing character of the landscape would be consistent with VRM Class III and IV.

Although BLM and USFS environmental constraints do not apply to private and state lands, development on private and state lands in the checkerboard landownership could result in cumulative effects to BLM management. Large-scale and high-profile developments, such as wind turbines and communication towers, on private and state lands could cumulatively alter the landscape from a natural setting to a more industrialized setting, increasing the difficulty for the BLM to manage the prescribed VRM objectives on the surrounding public lands.

Alternative 3 would have the most cumulative influence on how and where projects and activities on public lands occur because this alternative considers the most VRM Class II area and slightly increases VRM Class I areas. Conversely, Alternative 2 would have the least cumulative influence on how and where projects and activities on public lands occur because this alternative considers the most VRM Class IV area. The VRM classes in Alternative 1 have more cumulative influence on how and where projects and activities on public lands occur because of the large areas of VRM Class III, as opposed to

Alternative 4. Alternatives 2 and 4, which manage the most area of checkerboard landownership as VRM Class IV, would have the least potential for conflicts with BLM's manageability of prescribed VRM objectives from potential developments on private and state lands.

4.4.4 Cumulative Impact Analysis for Ferris Dunes/ Blowout Penstemon Proposed ACEC

The following projects and actions are considered in the cumulative impacts analysis:

- Governor of Wyoming's Executive Order for Greater Sage-grouse Core Area Protection;
- Ferris Mountain prescribed fire activities;
- Ferris Mountain WSA;
- Oil and natural gas exploration and development;
- Locatable and salable mineral exploration and development;
- Right-of-way actions, including roads and pipelines;
- Recreational use; including OHVs;
- Grazing, including water developments; and
- Private/State/BOR land actions.

4.4.4.1 Cumulative Impacts of Alternative 1: No Action Alternative

This alternative is the continuation of existing management within the existing ACEC. Please see Section 4.3.2 for a discussion of direct impacts associated with the implementation of Alternative 1.

Cumulative impacts of the ACEC on the blowout penstemon include increased protection for the plant on public lands. This alternative meets the objectives of the ACEC, and would increase the potential for the plant to be removed from the threatened and endangered list.

The Governor of Wyoming's Executive Order for Greater Sage-grouse Core Area Protection requires the establishment of habitat protection areas (known as core areas) for the continued preservation of the greater sage-grouse. Information pertaining to the implementation of the Executive Order, and locations of official core areas, can be found at: http://wgfd.wyo.gov/web2011/wildlife-1000382.aspx. In general, the implementation of the Executive Order includes increased restrictions on surface disturbing activities in terms of both acreage and timing. Limited development and disturbance are allowed within core habitat, but are limited to 5% of the habitat area and requires the use of the Density Disturbance Calculation Tool (DDCT) prior to authorization.

The ACEC as proposed in Alternative 1 and some portions of designated core area overlap would result in additional restrictions on surface disturbing activities in these areas. However, additional restrictions within the ACEC would force the relocation of some surface disturbing activities into core area habitat, which would impact the goal of greater sage-grouse recovery in that area. In addition, it would result in additional analysis using the DDCT and would increase time and cost associated with the development of surface disturbing activities. As a result, fewer projects would be proposed and/or authorized in areas that overlap.

The goal of the Ferris Mountain Prescribed Fire is to restore aspen, mountain shrub, and riparian health by reducing conifer encroachment. In addition, a secondary goal is to diversify the age-class and structure of all vegetation communities likely to burn within the project area. The prescribed burn is intended to take place in stages over 29 years, and was initiated in 2011. For more information on the prescribed burn, please visit http://www.blm.gov/wy/st/en/field_offices/Rock_Springs/HDDFireFuels/highdesert/ferris.html. The existing ACEC overlaps portions of the prescribed burn, which may influence management of the prescribed fire within the ACEC. Fire suppression activities would be utilized to maintain early successional plant communities within the ACEC, which may or may not meet the objectives of the prescribed burn. Additional analysis would be required prior to burning the area to ensure that the action is meeting the goals of the ACEC and the prescribed fire objectives.

The existing ACEC has increased restrictions on surface disturbing activities compared to surrounding areas, which would result in relocations of surface disturbing activities to areas outside of the ACEC. This would result in increased disturbance to areas not within the ACEC, including private and state land holdings, and would potentially increase the travel times, costs, and complexity associated with projects, as described below.

Restrictions on surface disturbance associated with the exploration and development of oil and gas resources would result in increased directional drilling activities to avoid occupied penstemon habitat. This would lead to increased disturbance on adjacent land that is not part of the ACEC, including other public, private, and state lands. Intensive management of ROW actions associated with pipelines and roads would potentially result in more actions being authorized outside of the ACEC, which also would lead to increased disturbance on adjacent public, private, and state lands. In order to avoid occupied habitat, roads and other ROW actions would potentially be longer and more complex, resulting in increased costs associated with development of those ROWs.

The restrictions associated with locatable and salable minerals also would result in more proposals for such development on areas outside of the ACEC, thus increasing disturbance to public, private, and state land adjacent to the ACEC not subject to the same restrictions.

Restrictions on OHV use within the ACEC would result in increased use of OHVs in areas outside of the ACEC on public, private, and state land adjacent to the ACEC. This would potentially result in increased resource damage outside of the ACEC.

Restrictions on the development and maintenance of new range improvements would result in relocation of range projects to areas outside of the ACEC onto adjacent public, private, and state lands. This would lead to the relocation of range improvement projects, and potentially to increased resource damage if projects are relocated to unsuitable areas. Maintenance actions associated with existing range improvement projects and the limitation of OHV use to accomplish necessary tasks would potentially result in additional resource damage, as maintenance of projects would potentially not be completed as necessary. Increases in allotment numbers would not be allowed, which would potentially result in the relocation and concentration of livestock to other allotments, which would result in the increased use of other areas, and could potentially lead to overuse and could result in resource damage on public, private, and state land areas adjacent to the ACEC.

Development activities taking place on private, state, and BOR lands would have the potential to affect the visual resources of the ACEC. The level of impact would depend on the type of project being developed. For example, a wind energy development project located on private lands adjacent to the ACEC would result in increased disturbance to the viewshed and would affect the visual resources in the area. Oil and natural gas development also would affect the viewshed, but to a lesser extent.

Relocation of projects from the ACEC onto private land may result in increased damage to the plants because the plant is not afforded the same protections under the ESA as they are on federal land.

The eastern edge of the Ferris Mountain WSA is adjacent to the ACEC boundary under this alternative. Protection measures within the WSA are more comprehensive than those within the ACEC, particularly for surface disturbing activities. Visual resources will be maintained within the WSA, which will help to maintain the viewshed of the eastern portion of the WSA. However, the areas do not overlap and there would be few to no cumulative impacts associated with the designation of the ACEC adjacent to the WSA.

4.4.4.2 Cumulative Impacts of Alternative 2: Emphasis on Development of Resources

This alternative proposes reducing the size of the ACEC to 14,916 acres, with a focus on the development of resources. Please see Section 4.3.3 for a discussion of direct impacts associated with the implementation of Alternative 2.

Cumulative impacts associated with Alternative 2 include reduced acreage for protection of the blowout penstemon as compared to Alternative 1. This would reduce the potential for the plant to be protected under the ESA and may hinder preservation objectives.

Cumulative impacts associated with the greater sage-grouse initiative would be similar to those as described in Alternative 1, but because the area in Alternative 2 is smaller than the area in Alternative 1, there would be potentially less overlap of core area and therefore there would be fewer relocations and a smaller potential to affect core habitat areas.

The boundary of the Ferris Mountain prescribed burn would not overlap with the proposed ACEC in Alternative 2. Therefore, there would be no cumulative impacts to the prescribed fire or ACEC associated with this alternative.

Surface disturbing activities would have similar cumulative impacts as Alternative 1, but would be over a smaller area. Because this alternative incorporates a smaller area than Alternative 1, there would be the potential for fewer relocations. However, because surface disturbing activities within the proposed ACEC are more restrictive than Alternative 1, there is the potential for more relocations to be required within the smaller acreage, and also would potentially lead to more relocations to sites outside of the ACEC as compared to Alternative 1.

Cumulative impacts associated with livestock management would be similar to those described in Alternative 1; however, they would be over a smaller area. This alternative also increases restrictions on the use of OHVs for range improvement project maintenance, which would potentially result in additional resource damage due to the increased time and cost required to complete maintenance on projects.

Actions occurring on private, state, and BOR land would have the same cumulative impacts as described for Alternative 1.

The WSA does not border the ACEC in this alternative; therefore, there are no cumulative impacts associated with the WSA.

4.4.4.3 Cumulative Impacts of Alternative 3: Emphasis on Protection of Resources

This alternative proposes increasing the size of the ACEC to 48,200 acres, with a focus on the protection of resources. Please see Section 4.3.4 for a discussion of direct impacts associated with the implementation of Alternative 3.

Cumulative impacts associated with Alternative 3 include increased acreage for protection of the blowout penstemon as compared to Alternative 1. This would increase the potential for the plant to be protected under the ESA and would complement plant preservation objectives.

Cumulative impacts associated with the greater sage-grouse initiative would be similar to those as described in Alternative 1, but because the area in Alternative 3 is larger than the area in Alternative 1, there would be potentially more overlap of core area and therefore there would be more relocations and a greater potential to affect core habitat areas.

The boundary of the Ferris Mountain prescribed burn would not overlap with the proposed ACEC in Alternative 3. Therefore, there would be no cumulative impacts to the prescribed fire or ACEC associated with this alternative.

Surface disturbing activities would have similar cumulative impacts as Alternative 1, but would be over a larger area. Because this alternative incorporates a larger area than Alternative 1, there would be the potential for more relocations. In addition, because surface disturbing activities within the proposed ACEC are more restrictive than Alternative 1, there is the potential for more relocations to be required within the larger acreage, and also would potentially lead to more relocations to sites outside of the ACEC as compared to Alternative 1. This would potentially result in increased damage to plants on private lands, because the plant is not afforded the same protections under the ESA on private lands as they are on federal lands.

If there is the potential for locatable for mineral development within the ACEC, it would not be authorized. This would influence the development of the mineral site, particularly if it is developed on adjacent public, private, or state lands. There is the potential for increased disturbance on these adjacent lands, and also in terms of roads and transportation of minerals around the ACEC. This would result in increased traffic, expanded road lengths, and increased time and cost.

Cumulative impacts associated with livestock management would be similar to those described in Alternative 1; however, they would be over a larger area. This alternative also increases restrictions on the use of OHVs for range improvement project maintenance, which would potentially result in additional resource damage due to the increased time and cost required to complete maintenance on projects.

Actions occurring on private, state, and BOR would have the same cumulative impacts as described for Alternative 1.

The WSA does not border the ACEC in this alternative; therefore, there are no cumulative impacts associated with the WSA.

4.4.4.4 Cumulative Impacts of Alternative 4: Preferred Alternative

This alternative proposes increasing the size of the ACEC to 20,228 acres, and is the Preferred Alternative. Please see Section 4.3.5 for a discussion of direct impacts associated with the implementation of Alternative 4.

Cumulative impacts associated with Alternative 4 include increased acreage for protection of the blowout penstemon as compared to Alternative 1. This would increase the potential for the plant to be protected under the ESA and would complement plant preservation objectives.

Cumulative impacts associated with the greater sage-grouse initiative would be similar to those as described in Alternative 1, but because the area in Alternative 4 is larger than the area in Alternative 1, there would be potentially more overlap of core area and therefore there would be more relocations and a greater potential to affect core habitat areas.

The boundary of the Ferris Mountain prescribed burn would not overlap with the proposed ACEC in Alternative 4. Therefore, there would be no cumulative impacts to the prescribed fire or ACEC associated with this alternative.

Surface disturbing activities would have similar cumulative impacts as Alternative 1, but would be over a larger area. Because this alternative incorporates a larger area than Alternative 1, there would be the potential for more relocations. In addition, because surface disturbing activities within the proposed ACEC are more restrictive than Alternative 1, there is the potential for more relocations to be required within the larger acreage, and also would potentially lead to more relocations to sites outside of the

ACEC as compared to Alternative 1. This would potentially result in increased damage to plants on private lands, because the plant is not afforded the same protections under the ESA on private lands as they are on federal lands.

Cumulative impacts associated with livestock management would be similar to those described in Alternative 1; however, they would be over a larger area. This alternative also increases restrictions on the use of OHVs for range improvement project maintenance, which would potentially result in additional resource damage due to the increased time and cost required to complete maintenance on projects.

Actions occurring on private, state, and BOR would have the same cumulative impacts as described for Alternative 1.

The WSA does not border the ACEC in this alternative; therefore, there are no cumulative impacts associated with the WSA.

5.0 Consultation and Coordination

The BLM decision-making process is conducted in accordance with the requirements of the NEPA, CEQ regulations implementing NEPA, and Department of Interior and BLM policies and procedures implementing NEPA. The NEPA and the associated regulatory/policy framework require that all federal agencies involve the interested general public in their decision-making, consider a range of reasonable alternatives, and prepare environmental documents that disclose the potential impacts of the alternatives.

Public involvement, consultation, and coordination have been at the heart of the planning process leading to the RMP-A) and EA. This was accomplished through Federal Register notices, public and informal meetings, individual contacts, news releases, planning bulletins, the planning website, and public comments.

A NOI was published in the *Federal Register* on April 11, 2012, to formally announce that the BLM RFO was preparing a plan amendment and associated EA. The notice invited the participation of the affected and interested agencies, organizations, and members of the general public in determining the scope and significant issues to be addressed in the planning alternatives and analyzed in the EA. Additional public involvement was solicited to help identify issues to be addressed in developing a full range of resource management alternatives (see **Table 5-1** for a list of public involvement, coordination, and consultation events). This chapter describes this public involvement process as well as other key consultation and coordination activities undertaken for the preparation of a comprehensive EA.

Table 5-1 Public Involvement, Coordination, and Consultation Events

Date	Location	Type
December 6, 2011	Rawlins, Wyoming	Cooperators Kick-off Meeting
April 19, 2012	Conference Call	Cooperators Coordination during Scoping
April 30, 2012	Rawlins, Wyoming	Public Scoping Meeting
May 1, 2012	Baggs, Wyoming	Public Scoping Meeting
May 2, 2012	Saratoga Wyoming	Public Scoping Meeting
May 3, 2012	Laramie, Wyoming	Public Scoping Meeting
June 18, 2012	Rawlins, Wyoming	Cooperators Meeting/Alternatives Development Workshop
August 22, 2012	Rawlins, Wyoming	Present and refine the VRM and ACEC alternatives to Cooperators
May 17, 2013	Rawlins, Wyoming	Present revised VRM and ACEC alternatives to Cooperators
Fall 2013		NOA–Start of 60-day public comment period on the Rawlins Draft RMP-A/EA
Spring 2014		NOA- 30-day protest period and 60-day governor's consistency review

5.1 Consultation and Coordination

Title II, Section 202, of the FLPMA directs BLM to coordinate planning efforts with Native American Indian Tribes, other federal agencies, and agencies of the state and local governments as part of its land use planning process. This section documents the consultation and coordination efforts undertaken by BLM throughout the entire process of developing the Proposed Draft RMP-A/EA.

Coordination with other agencies and consistency with other plans were accomplished through frequent communications, meetings, and cooperative efforts among the BLM interdisciplinary team and involved federal, state, and local agencies and organizations. Coordination and consistency for the RMP-A/EA were primarily accomplished through the assistance of cooperating agencies formally involved in the project (see Section 5.1.1 for a list of cooperating agencies and a description of their involvement).

5.1.1 Cooperating Agencies

The BLM extended cooperating agency status to the State of Wyoming, City of Rawlins, Carbon County, Sweetwater County, and various Conservation Districts for the Rawlins RMP planning effort. These agencies were invited to participate because they have jurisdiction by law or could offer special expertise. The cooperating agencies that have actively participated in cooperating agency meetings leading up to the development of the Draft RMP-A/EA are:

- Board of Carbon County Commissioners;
- Board of Sweetwater County Commissioners;
- State of Wyoming (including 12 departments);
- SER Conservation District;
- Medicine Bow Conservation District;
- LSR Conservation District;
- Sweetwater County Conservation District;
- U.S. Fish and Wildlife Service;
- USFS (Medicine Bow-Routt National Forest and Thunder Basin National Grasslands); and
- City of Rawlins.

The cooperating agencies were formally invited to participate in the development of the alternatives and to provide existing data and other information relative to their agency responsibilities, goals, and mandates. The BLM conducted meetings with cooperating agencies throughout development of the RMP EIS. Cooperating agencies also participated in the review of the Draft RMP-A/EA before release to the public to capture their concerns regarding their jurisdiction and expertise.

5.1.2 Coordination and Consistency

Coordination with other agencies and consistency with other agency and local and state government plans were accomplished through frequent communications and cooperative efforts between BLM and involved federal, state, and local agencies. Agency involvement had occurred during the 2008 Rawlins RMP development and all agencies will have the opportunity to provide review and comment during the 60-day comment period for the Draft RMP-A/EA. In addition, the State of Wyoming will undertake a formal consistency review during the 30-day protest period of the Proposed RMP-A/EA. A list of agencies with jurisdictional responsibilities in the Planning Area includes the following:

- BOR
- USFWS
- U.S. Geological Survey
- Minerals Management Service
- U.S. Department of Agriculture
- USFS
- Animal and Plant Health Inspection Services - Wildlife Services
- USEPA
- State of Wyoming
- Wyoming Department of Environmental Quality
- Wyoming State Forestry, Emergency Management Agency, State Fire Marshal's Office
- Wyoming Game and Fish Department
- Wyoming Department of Transportation
- State Historic Preservation Office
- Carbon County
- Sweetwater County
- Medicine Bow Conservation District
- Little Snake River Conservation District
- Sweetwater County Conservation District

5.1.3 Native American Interests

Protective measures for culturally sensitive Native American resources are established through consultation and coordination with the appropriate Native American tribes. Pursuant to the NEPA, National Historic Preservation Act, FLPMA, American Indian Religious Freedom Act, and Executive Order 13007, the BLM has initiated consultation with Native American representatives for the planning process. Native American consultation is an ongoing process that will continue during plan implementation after the RMP-A is completed.

Under Executive Order 13084, the BLM is required to establish regular and meaningful consultation and collaboration with Native American tribal governments on development of regulatory policies and issuance of permits that could significantly or uniquely affect Tribal communities. On November 10, 2011, the BLM sent a letter to the eight Tribal Chairs described in **Table 5-2**, offering them cooperating agency status. Additional consultation letters were sent to these eight Tribal Chairs on June 21, 2013, in order to initiate government-to-government consultation and solicit comments from these Tribes. In addition, the letters ask for information concerning any pertinent historical information on the use and significance of the area, such as any places of traditional religious or cultural importance that the respective Tribe wishes the BLM to consider in determining tribal needs for use, access, or other special management.

5.1.4 Public Participation

Public participation in the BLM planning process includes a variety of efforts to identify and address public concerns and needs. The public involvement process assists the agencies in:

- Broadening the information base for decision-making.
- Informing the public about the RMP-A/EA and the potential impacts associated with various management decisions.
- Ensuring that public needs and viewpoints are brought to the attention of the BLM.

5.1.5 Scoping Period

The public is provided a scoping period to identify potential issues and concerns associated with the RMP-A/EA. Information obtained by the BLM during public scoping is combined with issues identified by the agencies to form the scope of the EA. Publication of an NOI on April 11, 2012, announced the BLM's intention of amending the 2008 Rawlins RMP.

5.1.5.1 Scoping Notice

The official 30-day scoping period began when a public scoping notice was prepared and mailed to federal, state, and local agencies; interest groups; and members of the general public on April 16, 2012. The notice invited the public to participate in the scoping process and requested input in identifying resource issues and concerns, management alternatives, and other information valuable in determining future land use decisions for the Planning Area. The scoping period ran from April 11 2012, through June 4, 2012.

5.1.5.2 Scoping Meetings

Public scoping meetings were held in Rawlins, Baggs, Saratoga, and Laramie, Wyoming, on April 30 and May 1-3, 2012, respectively. More than 50 people attended the four meetings. The meetings were structured in an open house format, with BLM specialists representing issues such as visual resources, cultural resources, recreation, and other resource-specific topics present. BLM specialists were available to provide information and respond to questions. The public also was provided with information on how to submit comments on the Draft RMP-A/EA. Comments from the public were collected during the scoping meetings and throughout the scoping period through a variety of methods – mail, fax, and e-mail.

Approximately 9,369 comment submittals were received through the various methods, 9,320 of which were form letters. Of the comment submittals, 214 unique comments were identified. Comments were categorized by topic for analysis purposes. The category receiving the most comments was "Alternatives." A majority of the comments were related to impacts associated with preserving land uses, protecting scenic viewsheds, managing cultural and historic areas, and evaluation of potential ACECs. The category receiving the second-highest number of comments was "Special Designations Management Areas." Although fewer in number, comments also were received dealing with Energy Development, Land Use, Recreation, Socioeconomics, and General Comments. A summary of all comments was then compiled and made available as the *Rawlins Resource Management Plan Amendment Environmental Assessment Scoping Report*, August 2012.

5.1.6 Mailing List

The mailing list for public scoping was developed initially from the RFO mailing list and supplemented throughout the planning process. Scoping meeting participants were given the option to be added to the mailing list. In addition, individuals were able to add themselves to the project mailing list by contacting BLM staff through e-mail or other means. The mailing list has been used as the basis for the distribution of the Draft RMP-A/EA (Section 5.3).

5.1.7 Newsletters

Newsletters are developed at key milestones to inform the public of the Rawlins RMP-A/EA planning process.

5.1.8 Website

Information about the RMP-A/EA has been added to the Rawlins RMP website, which can be found at http://www.blm.gov/wy/st/en/programs/Planning/rmps/rawlins.html. The site serves as a virtual repository for documents related to RMP development for the planning area, including announcements, baseline information, and draft, and final documents. These documents are available in pdf format to ensure that they are available to the widest range of users.

5.1.9 Notice of Availability and Public Comment

The public comment period for the Rawlins Draft RMP-A/EA is announced through the NOA Draft RMP-A published in the *Federal Register*. This notice initiates the 60-day public comment period. Hard copies and CDs were provided to cooperating agencies and tribal representatives and made available to the public. The Draft RMP-A/EA was made available through the project website and at information repositories or reading rooms in the BLM State Office in Cheyenne and the RFO as well as local public libraries.

Public meetings are being held during the comment period to provide an opportunity to ask questions and provide comment on the Rawlins Draft RMP-A/EA (**Table 5-1**)

5.2 Distribution List

Tribal Governments

Arapaho

Arapaho Tribal Business Council

Cheyenne

Cheyenne River Sioux Tribal Council

Cheyenne River Sioux Tribe Historic Preservation Officer

Crow

Crow Tribal Council

Crow Tribal Historic Preservation Officer

Eastern Shoshone Tribe

Eastern Shoshone Tribal Historic Preservation Officer

Eastern Shoshone Tribe of the Wind River

Northern Arapaho Tribe

Northern Arapaho Tribe

Northern Arapaho Tribal Historic Preservation Officer

Northern Cheyenne

Northern Cheyenne Tribal Council

Northern Cheyenne Tribal Historic Preservation Officer

Oglala

Oglala Sioux Tribal Council

Oglala Sioux Tribal Historic Preservation Officer

Rosebud Sioux Tribe

Rosebud Sioux Tribe

Rosebud Sioux Tribal Historic Preservation Officer

Ute Tribe

Ute Tribe of the Uintah and Ouray Reservation

Ute Tribe Cultural Rights and Protection

Ft. Peck Assiniboine and Sioux Tribes

Local Governments (Counties, Cities, Towns)

Albany County, Wyoming

- Albany County Commissioners
- City of Laramie
- Town of Rock River

Carbon County, Wyoming

- Carbon County Commissioners
  - Carbon County Board of County Commissioners
  - Carbon County Chamber of Commerce
  - Carbon County Coalition
  - Carbon County Cooperative
  - Carbon County Council of Governments
  - Carbon County Museum
  - Carbon County Planning and Zoning
  - Carbon County Power and Light
  - Carbon County Public Library
  - Carbon County Road and Bridge
  - Carbon County School District #1 and #2
  - Little Snake River Conservation District
  - Medicine Bow Conservation District
  - Saratoga-Encampment-Rawlins Conservation District
- City of Rawlins
- Rawlins Carbon County Chamber of Commerce
- Rawlins Chamber of Commerce
- Town of Baggs
- Town of Elk Mountain
- Town of Encampment
- Town of Hanna
- Town of Medicine Bow
- Town of Riverside
- Town of Saratoga
  - Saratoga Platte Valley Chamber of Commerce
- Town of Sinclair

Laramie County, Wyoming

- Laramie County Commissioners
  - Laramie County School District #1
- Cheyenne Board of Public Utilities
- City of Cheyenne

Sweetwater County, Wyoming

- Sweetwater County Commissioners
  - Sweetwater County Conservation District
  - Sweetwater County Planning
  - Sweetwater County Solid Waste District
  - Sweetwater Court House
- City of Green River
- City of Rock Springs
  - Rock Springs Chamber of Commerce
  - Rock Springs Library
  - Rock Springs School District #1
- Town of Wamsutter

Town of Walden, Colorado

Wheatland Irrigation District

State of Wyoming

- Senator Stan Cooper, Lincoln/Sublette/Sweetwater/Uinta
- Senator Fred Emerich
- Senator John Hastert, Sweetwater
- Senator Rae Lynn Job, Sweetwater/Fremont
- Senator Wayne H. Johnson, Laramie
- Senator Bill Landen
- Senator Phil Nicholas, Albany
- Senator Leslie Nutting
- Senator Chris Rothfuss
- Representative Stan Blake, Sweetwater
- Representative Donald Burkhart
- Representative Kermit C. Brown, Albany
- Representative James Byrd
- Representative Cathy Connolly
- Representative Bernadine Craft, Sweetwater
- Representative Kathy Davidson, Lincoln/Sublette/Sweetwater
- Representative Amy Edmonds, Laramie
- Representative John Eklund
- Representative Ken Esquibel, Laramie
- Representative John Freeman

- Representative Matt Green
- Representative Pete Illoway, Laramie
- Representative Allen Jaggi, Uinta/Sweetwater
- Representative Glenn Moniz
- Representative Bob Nicholas
- Representative Bryan Pedersen
- Representative William Steward, Carbon/Albany
- Representative Tim Stubson
- Representative Mary Throne, Laramie
- Representative Dan Zwonitzer, Laramie
- Representative Dave Zwonifzer, Laramie

Wyoming State Agencies

- Office of the Governor, Environmental Policy Division
- Wyoming Business Council
- Wyoming Department of Agriculture
- Wyoming Department of Employment
- Wyoming Department of Environmental Quality
  - Administration
  - Air Quality Division
  - Industrial Siting Division
  - Land Quality Division
  - Solid and Hazardous Waste
  - Water Quality
- Wyoming Department of Revenue
- Wyoming Department of State Parks and Cultural Resources
- Wyoming Department of Transportation
- Wyoming Game and Fish Department
  - Baggs, Cheyenne, Rock Springs, Sinclair, Wheatland
- Wyoming Governor's Policy Office
- Wyoming Office of State Lands and Investments
- Wyoming State Engineer's Office
- Wyoming State Geologic Survey
- Wyoming State Historic Preservation Office
- Wyoming State Natural Diversity Database
- Wyoming State Planning and Development

Wyoming State Boards/Commissions

- Cheyenne Board of Public Utilities
- Wyoming Oil and Gas Conservation Commission
- Wyoming Pipeline Authority
- Wyoming Public Service Commission
- Wyoming State Board of Outfitters and Professional Guides
- Wyoming State Forestry Division
- Wyoming State Grazing Board
- Wyoming State Trails Program
- Wyoming Water Development Commission

Associations/Councils

- Adventure Cycling Association
- American Horse Protection Association
- American Mustang Association
- American Sport Fishing Association
- American Wind Energy Association
- Congressional Sportsmen's Foundation
- ENC/Riverside Merchants Association
- Laramie Rivers Conservation District
- Mormon Trails Association
- Motorcycle Industry Council
- Motorized Recreation Council of Wyoming
- National Historic Landmark Stewards Association
- National Mustang Association
- National Pony Express Association
- National Rifle Association
- National Wild Horse Association
- North American Mustang Association
- Petroleum Association of Wyoming
- Rock Springs Grazing Association
- The Natural Resources Defense Council
- Tri-State Generation and Transportation Association
- Western Air Power Administration
- Wildlife Habitat Council
- Wyoming Association – Government Affairs Committee

- Wyoming Association of Municipalities
- Wyoming Association of Professional Archeologists
- Wyoming Association of Professional Historians
- Wyoming Conservation Alliance
- Wyoming Farm Bureau Federation
- Wyoming Outdoor Council
- Wyoming Sportsman's Association
- Wyoming Stockgrowers Association
  - Carbon County Stockgrowers Association
- Wyoming Travel and Tourism
- Wyoming Wilderness Association
- Wyoming Wind Energy Association
- Wyoming Woolgrowers Association

Clubs/Alliances/Societies/Groups

- 3-Shot Sage Grouse Foundation
- Alliance for Historic Wyoming
- American Lands Alliance
- American Wild Horse Preservation Campaign
- Animal Protection Institute
- Arch of Wyoming
- Atmosphere Mountainworks
- Biodiversity Conservation Alliance
- Boone and Crockett Club
- Bowhunting Preservation Alliance
- Center for Native Ecosystems
- Colorado River Basin Salinity Control Forum
- Colorado Wilderness Network
- Conservancy of the Phoenix
- Continental Divide National Scenic Trail
- Continental Divide Trail Alliance
- Defenders of Wildlife
- Doris Day Animal League
- Dream Catcher Wild Horse and Burro Sanctuary
- Earthjustice Legal Defense Fund, Inc.
- Environmental Defense Fund

- Foundation for the North American Wild Sheep
- Friends of the Americans
- Friends of the Red Desert
- Hooved Animal Humane Society
- Izaak Walton League
- Jews of the Earth
- National Outdoor Leadership School
- National Shooting Sports Foundation
- National Trails Intermountain Region
- National Wild Turkey Federation
- National Wildlife Federation
- National Wildlife Refuge
- North American Pronghorn Foundation
- Oil and Gas Accountability Project
- Page One of Wyoming, Inc.
- People for Wyoming
- Predator Project
- Public Lands Advocacy
- Public Lands Foundation
- Rawlins Downtown Development Authority
- Recreational Boating and Fishing Foundation
- Rocky Mountain Elk Foundation
- Rocky Mountain Timberland
- Ruckelshaus Institute
- Safari Club International
- Sierra Club
- Sonoran Institute
- Southwest Wyoming Mule Deer Foundation
- The Cloud Foundation
- The Fund for Animals
- The Nature Conservancy
- The Wilderness Society
- Theodore Roosevelt Conservation Partnership
- Trout Unlimited
- Western Ecosystems
- Western Land Exchange Project

- Western Watersheds Project
- Western Wyoming Mule Deer Foundation
- Whole Horse Institute
- Wild Horse Organized Assistance
- Wild Horse Spirit
- Wildland Center for Preventing Roads
- Wyoming Advocates for Animals
- Wyoming Business Alliance
- Wyoming Livestock Roundup
- Wyoming People for the USA
- Wyoming Wildlife Federation
- Wyoming Wildlife Fund

Congressional Delegation

- U.S. Senator John Barrasso
  - Casper, Cheyenne, Riverton, and Rock Springs offices
- U.S. Senator Mike Enzi
  - Washington, D.C., and Casper, Cheyenne, Gillette, and Jackson, Wyoming, offices
- U.S. Senator Larry S. Hicks
  - Baggs, Wyoming Office
- U.S. Representative Cynthia Lummis
  - Casper and Cheyenne offices

Department of the Interior Agencies

- Bureau of Indian Affairs
- Bureau of Land Management
  - Craig, Colorado Field Office
  - Rock Springs, Lander, Wyoming
  - Vernal, Utah
  - Dillon, Montana
  - Division of Decision Support
- Bureau of Reclamation
  - Washington, D.C., Provo, Utah, and Casper and Mills, Wyoming offices

- National Park Service
  - Washington, D.C., and Denver, Colorado offices
  - Long Distance Trails Office
- Office of Environmental Policy and Compliance
- U.S. Fish and Wildlife Service
  - Washington, D.C., Denver and Walden, Colorado; and Cheyenne, Wyoming offices
- U.S. Geological Survey
  - Washington, D.C., and Cheyenne and Laramie, Wyoming, offices

Other Federal Agencies

- Army Corp of Engineers
- Bridger-Teton National Forest
- Pinedale Ranger District
- Department of Agriculture
  - APHIS-Wildlife Services
  - Forest Service
  - National Resource Conservation Service
- Environmental Protection Agency
  - Office of Ecosystem Protection and Remediation
  - Region VIII
- Federal Highway Administration
- Federal Energy Regulatory Commission
- Medicine Bow/Routt National Forest
- National Trust for Historic Preservation
  - Denver, Colorado and Washington D.C. offices
- Shoshone National Forest

Other Governmental Agencies

- Colorado State Forest Service
- Platte River Power Authority
- State of Colorado, Department of Public Health and Environment

Media

- Casper Star Tribune
- KCNC-Western Inspirational Broadcast
- KCWY TV
- KFBC/Cowboy News Network

- KOWB
- KRAL/KIQZ
- KTWO TV/KTWO Radio
- KUWR
- Lander Journal
- Laramie Daily Boomerang
- Mount Rushmore Broadcasting
- Rawlins Daily Times
- Rocky Mountain Energy
- Rocky Mountain News
- Saratoga Sun
- The Denver Post
- Wyomedia KFNB-TV
- Wyoming State Tribune-Eagle

Libraries

- Colorado State University Libraries
- Hay Library
- Laramie County Library System
- Library of Congress
- Little Snake River Library
- Sweetwater County Library System
- University of Wyoming Library
- Utah State University—Merrill Library and Learning Resources Program
- Western Wyoming Community College Library
- White Mountain Library
- Wyoming State Library

Educational Institutes

- Laramie County Community College
- Metropolitan State College
- Mississippi State University
  - Department of Wildlife and Fisheries
- Northwestern University

- University of Wyoming
  - Collection and Development Office
  - Department of Geology and Geophysics
  - Department of Range Land Ecology
  - Department of Renewable Resources
  - Geology Museum
  - Trustees
- Utah State University
  - Documents and Maps
- Western Wyoming Community College
  - Archeological Services

Business

Anadarko Petroleum Corporation
Berger Ranch
Bjork, Lindley, & Little, PC
Blackdog LLC
BP America Production Company
Brad Communication Service
Carbon County Weed & Pest
Cornerstone Natural Resources, LLC
Crystal Solutions
D. R. Griffin & Associates
Devon Energy
Devon Energy Production Company LP
Double Eagle Petroleum
Elk Mountain TV Co.
Energy Analysts
Energy Laboratories
Energy Resources Properties Co.
Eugene Water and Electric
Fidelity Exploration & Production Company
Grouse Inc.
Idaho Power Company
Intermountain Resources
Kelley Land & Cattle Co

Kiewit New Mexico Co.
Kinder Morgan Operating LP
Level 3 Communications
Marathon Oil Company
MCI RL EST 0007/001
MCI Telecom Corp.
Mountain Gas Resources Inc.
Pacific Legal Foundation
PacifiCorp
Petroleum Association of Wyoming
Planning Information Corp.
Questar Gas Management Company
Qwest
Raftopoulos Brothers
Salisbury Livestock Company
Skyline Motors
Three Forks Ranch Corporation
Thunder Basin Consulting
U.S. Sprint
Union Telephone Co. Inc.
Visual Products Corp.
Wasatch Wind Development LLC
Western Area Power Administration
Western Land Services
WYSGALT
XH Ranch
Yampa Valley Electrical Association
Yates Petroleum Corp

Multiple Individuals

6.0 List of Preparers and Contributors

As required by NEPA regulations (40 CFR Part 1502.17), this section lists the people primarily responsible for preparing this RMP-A and EA and their qualifications. AECOM, a contractor selected to prepare the EA as directed by the BLM has, in accordance with 40 CFR 1506.5(c), certified that it does not have any financial or other interest in the outcome of decisions to be made pursuant to this document. In addition to the specific responsibilities listed, many BLM employees also contributed substantial time consulting with other agency personnel in preparing this document (Section 5.1). **Tables 6-1** and **6-2** list the people responsible for preparing, contributing, and reviewing this document.

Table 6-1 Bureau of Land Management Team

Rawlins Wyoming Field Office Team Member	Resource/Responsibility
Dennis Carpenter	Field Office Manager
John Spehar	Planning and Environmental Coordinator (retired)
Heather Schultz	RECO Project Manager
Jennifer Fleuret	Project Manager
Sheila Lehman	Planning and Environmental Coordinator
Serena Baker	DO Public Affairs
Frank Blomquist	Wildlife, Special Status Species
Mike Calton	Wild Horses
Chris Carlton	SO Planning/NEPA Coordinator
Jerry Dickinson	Oil and Gas
Alexandra Kienker	DO Resource Advisor
Susan Caplan	Air Resources
David Hullum	Recreation and Visual Resources
Patrick Lionberger	Fisheries
William Mack	Forest Management
Lynn McCarthy	GIS
Cheryl Newberry	Livestock Grazing
Mark Newman	Minerals, Paleontology
Chris Otto	Fire and Fuels Management
Kelly Owens	Water Quality
Mary Read	Wildlife, Special Status Species
Sherry Lahti	SO Visual Resource Specialist
Matt Simons	Lands and Realty
Patrick Walker	Cultural and Historic Resources
Andy Warren	Livestock Grazing, Vegetation

Table 6-2 AECOM Team

Name	Affiliation	Education and Experience	Role/Responsibility
Melanie Martin	AECOM	M.S. Natural Resource Management B.S. Agriculture 15 years experience	Project Manager, Alternatives Development
Anne Doud	AECOM	M.S. Ecology B.A. Biology 13 years experience	Assistant Project Manager
Chris Dunne	AECOM	B.S. Natural Resource Management 12 years experience	Wildland Fire and Fuels, Forest Management, Livestock and Grazing, Minerals and Geology, Vegetation, Wild Horses
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Glossary

Area of Critical Environmental Concern (ACEC)	Areas within the public lands where special management attention is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values; fish and wildlife resources; or other natural systems or processes, or to protect life and safety from natural hazards. The identification of a potential ACEC shall not, of itself, change or prevent change of the management or use of public lands.
Background Zone	The viewing area of a distance zone that lies beyond the foreground and middleground. Usually from a minimum of 3 to 5 miles to a maximum of about 15 miles from a travel route, use area, or other observer position. Atmospheric conditions in some areas may limit the maximum to about 8 miles or increase it beyond 15 miles.
Characteristic Landscape	The established landscape within an area viewed. The term does not necessarily mean a natural character, but may refer to features of the cultural landscape such as a farming community, an urban landscape, or other landscape that has an identifiable character.
Checkerboard Land Pattern	Alternating sections of federally owned lands and private or state lands on either side of the Union Pacific Railroad in southwestern Wyoming. This pattern of land ownership looks like a checkerboard on maps, using different colors to show land status.
Contrast	Opposition or unlikeness of different forms, lines, colors, or textures in a landscape.
Cultural Resources	Archaeological sites, architectural structures or features, objects, traditional use areas, and Native American sacred sites or special use areas.
Dispersed Recreation	Recreation activities of an unstructured type that are not confined to specific locations such as recreation sites. An example of these activities may be hunting, fishing, OHV use, hiking, and sightseeing.
Disruptive Activities	This term/phrase refers to those public land resource uses/activities that are likely to alter the behavior of, displace, or cause excessive stress to animal or human populations. This term/phrase does not apply to any physical disturbance of the features of the land surface. Examples of disruptive activities may include, among others: noise, human foot or vehicle traffic, or other human presence, regardless of the purpose of the activity. When administered as a land use restriction (e.g., No Disruptive Activities), or provision, this phrase prohibits or limits the physical presence of sound above ambient levels, lights, and the nearness of people and their activities. As a case in point, this restriction is often aimed at protecting wildlife during critical life stages, or during periods of severe winter weather conditions, although it could apply to any resource value on the

	public lands. Disruptive activities include both short- and long-term effects on species.
Distance Zones	Areas of landscapes denoted by specified distances from the observer, particularly on roads, trails, concentrated-use areas, rivers, etc. Used as one criterion in obtaining VRM classes (BLM) (see Background, Foreground-Middleground, and Seldom Seen).
Existing roads	Roads preexisting to the start of construction, including two-track trails that will need to be improved.
Fire Suppression	All work and activities associated with fire-extinguishing operations, beginning with discovery and continuing until the fire is completely extinguished.
Forage	All browse and herbaceous foods available to grazing animals that may be grazed or harvested for feeding.
Foreground-Middleground	The area visible from a travel route, use area, or other observer position to a distance of 3 to 5 miles. The outer boundary of this zone is defined as the point where the texture and form of individual plants are no longer apparent in the landscape and vegetation is apparent only in pattern or outline.
Forest Land	Lands that are capable of producing at least a 10 percent crown cover of both commercial and noncommercial forest vegetation and that are managed for other resource values.
Fugitive Dust	Airborne emissions of visible and nonvisible fine, dry particulate matter smaller than 100 micrometers (microns) that result from surface disturbance activities.
Greater Sage-grouse Core Area	Areas delineated by the State of Wyoming with the intent of protection of Greater Sage-grouse populations and habitat as established in State of Wyoming Executive Order 2011-05, Greater Sage-grouse Core Area Protection (June 2011).
Herd Management Area	An area that has been designated for continuing management of wild horses.
Historic	Period wherein nonnative cultural activities took place, based primarily on European roots, having no origin in the traditional Native American culture(s).
Invasive Weed	A species that is not native (or is alien) to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm or harm to human health (Executive Order 13112).
Jurisdiction	The legal right to control or regulate use of a transportation facility. Jurisdiction requires authority, but not necessarily ownership.
Key Observation Point (KOP)	One or a series of points on a travel route or at a use area or a potential use area, where the view of a management activity would

	be most revealing.
Landform	Any physical, recognizable form or feature of the Earth's surface, with a characteristic shape and produced by natural causes. Includes major features such as plains, plateaus, and mountains, and minor features, such as hills, valleys, slopes, canyons, arroyos, and alluvial fans.
Landscape	The landforms of a region in aggregate.
Landscape Character	The arrangement of a specific landscape as formed by the variety and intensity of the landscape features, as defined as the four basic elements (form, line, color, and texture). These factors give the area a distinctive quality that distinguishes it from its immediate surroundings.
Land Use Plan	A set of decisions that establishes management direction for land within an administrative area, as prescribed under the planning provisions of the FLPMA; an assimilation of land use plan level decisions developed through the planning process, regardless of the scale on which the decisions were developed.
Mineral	Any solid or fluid inorganic substance that can be extracted from the Earth for profit.
Mitigation	A method or process by which impacts from actions can be made less injurious to the environment through appropriate protective measures. Also called mitigative measure.
Multiple Use	Coordinated management of various surface and subsurface resources so that they are used in the combination that will best meet present and future needs.
National Natural Landmarks (NNL)	Outstanding examples of our country's natural history. The NPS' NNL program recognizes and encourages the conservation of these outstanding examples of our country's natural history. NNLs are the best examples of biological and geological features in both public and private ownership. NNLs are designated by the Secretary of the Interior, with the owner's concurrence. To date, fewer than 600 sites have been designated. The NPS administers the NNL Program, and if requested, assists NNL owners and managers with the conservation of these important sites.
National Register of Historic Places (NRHP)	The official register of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, and culture, established by the National Historic Preservation Act of 1966, as amended, and maintained by the National Park Service on behalf of the Secretary of the Interior.

Seldom Seen Zone	Portions of the landscape, which are generally not visible from KOPs, or portions, which are visible but more than 15 miles away.
Sensitivity Level	Measure of public concern for scenic quality. Lands are assigned high, medium, or low sensitivity levels based on consideration of the following factors: types of users, amount of use, public interest, adjacent land uses, special areas, and other factors.
Stipulation	A condition or requirement attached to a lease or contract, usually dealing with protection of the environment or recovery of a mineral.
Surface Disturbance	Any action created through mechanized or mechanical means that would cause soil mixing or result in alteration or removal of soil or vegetation and expose the mineral soil to erosive processes. Used in the literal context of actual, physical disturbance and movement or removal of the land surface and vegetation. Examples of surface disturbance include construction of well pads, pits, reservoirs, pipelines, and facilities (e.g., parking lot and tanks).
Viewshed	Total visible area from a single observer's position or the total visible area from multiple observer positions. Viewsheds are accumulated seen areas from highways, trails, campgrounds, towns, cities, or other view locations. Examples are corridors, feature, or basin view-sheds.
Visual Resource	Visible feature of the landscape, such as land, water, vegetation, and other features that make up the scenery of an area.
Visual Resource Inventory (VRI)	An inventory of visual resources in a defined area that serves as a baseline for BLM resource management decisions. The inventory determines the visual (scenic) values within a defined area at a specific point in time. The three primary components to a visual resource inventory include: scenic quality evaluation, sensitivity level analysis, and distances zones.
Visual Resource Inventory (VRI) Class	Recommendations resulting from the VRI that serve two purposes: 1) an inventory tool that portrays the relative, composite value of the visual resources; and 2) provide the basis for considering visual values in the RMP process. There are four VRI classes (I, II, III, and IV). Class I is assigned to those areas where a management decision has been made previously to maintain a natural landscape (the VRI only relies on visual quality without consideration of BLM management [such as requiring VRM Class I in WSAs]). Classes II, III, and IV are assigned based on a matrix combination of scenic quality, sensitivity level, and distance zones. VRI classes are informational in nature and provide the basis for considering visual values in the RMP process. They do not establish management direction and should not be used as a basis for constraining or limiting surface disturbing activities or VRM class alternatives.

Visual Resource Management (VRM)	The system by which the BLM classifies and manages scenic values and visual quality of public lands. The system is based on research that has produced ways of assessing aesthetic qualities of the landscape in objective terms. After inventory and evaluation, lands are given relative visual ratings (management classes) that determine the amount of modification allowed for the basic elements of the landscape.
Visual Resource Management (VRM) Classes	Classes established through the BLM planning process in consideration of: 1) multiple-use objectives; 2) the importance of the visual values; and 3) the impacts projects may have on these values. Classes that define the degree of acceptable visual change within a characteristic landscape. A class is based on the physical and sociological characteristics of any given homogeneous area and serves as a management objective. The four classes are described below: Class I provides for natural ecological changes only. This class includes primitive areas, some natural areas, some WSRs, and other similar areas where landscape modification activities should be restricted. Class II areas are those areas where changes in any of the basic elements (i.e., form, line, color, or texture) caused by management activity should not be evident in the characteristic landscape. Class III includes areas where changes in the basic elements (i.e., form, line, color, or texture) caused by a management activity may be evident in the characteristic landscape. However, the changes should remain subordinate to the visual strength of the existing character. Class IV applies to areas where changes may subordinate the original composition and character; however, they should reflect what could be a natural occurrence within the characteristic landscape.
Wetlands	Lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. Wetlands must have one or more of the following three attributes: 1) at least periodically, the land supports predominantly hydrophytes (plants specifically adapted to live in wetlands); 2) the substrate is predominantly undrained hydric (wetland) soil; and 3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year.
Wild And Scenic Rivers (WSRs)	A system of nationally designated rivers and their immediate environments that have outstanding scenic, recreational, geologic, fish and wildlife, historic, cultural, and other similar values and are preserved in a free-flowing condition. Types of streams include flowing bodies of water or estuaries or a section, portion, or tributary thereof, including rivers, streams, creeks, runs, kills, rills, and small lakes. The system consists of three types of streams:

	1) recreation – rivers or sections of rivers that are readily accessible by road or railroad and that may have some development along their shorelines and may have undergone some impoundments or diversion in the past; 2) scenic – rivers or sections of rivers free of impoundments with shorelines or watersheds still largely undeveloped but accessible in places by roads; and 3) wild – rivers or sections of rivers free of impoundments and generally inaccessible except by trails, with watersheds or shorelines essentially primitive and waters unpolluted.
Wilderness	A Congressionally designated area of undeveloped federal land retaining its primeval character and influence, without permanent improvements or human habitation, that is protected and managed to preserve its natural conditions and that: 1) generally appears to have been affected mainly by the forces of nature, with human imprints substantially unnoticeable; 2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; 3) has at least 5,000 acres or is large enough to make practical its preservation and use in an unimpaired condition; and 4) also may contain ecological, geological, or other features of scientific, educational, scenic, or historic value.
Wilderness Study Area (WSA)	Areas under study for possible inclusion as a wilderness area in the National Wilderness Preservation System.
Wildland Urban Interface (WUI)	The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.
Wildlife Habitat Management Area (WHMA)	Special management areas that are designed to protect or preserve certain qualities or uses for wildlife and plant species. The environment in these areas is unique in some respects, and it is therefore desirable to apply different management prescriptions to these areas from those of the surrounding public lands. The integration of different land management goals, objectives, and actions will be implemented to ensure that the integrity of these areas will be maintained. They will be directed toward habitat management rather than species management and encompass featured species and species diversity to ensure compliance with existing laws; prevent species from becoming threatened or endangered; and provide values and uses for the public. The BLM will implement site-specific management actions in coordination with other agencies to maintain and/or improve these unique wildlife habitat management areas.