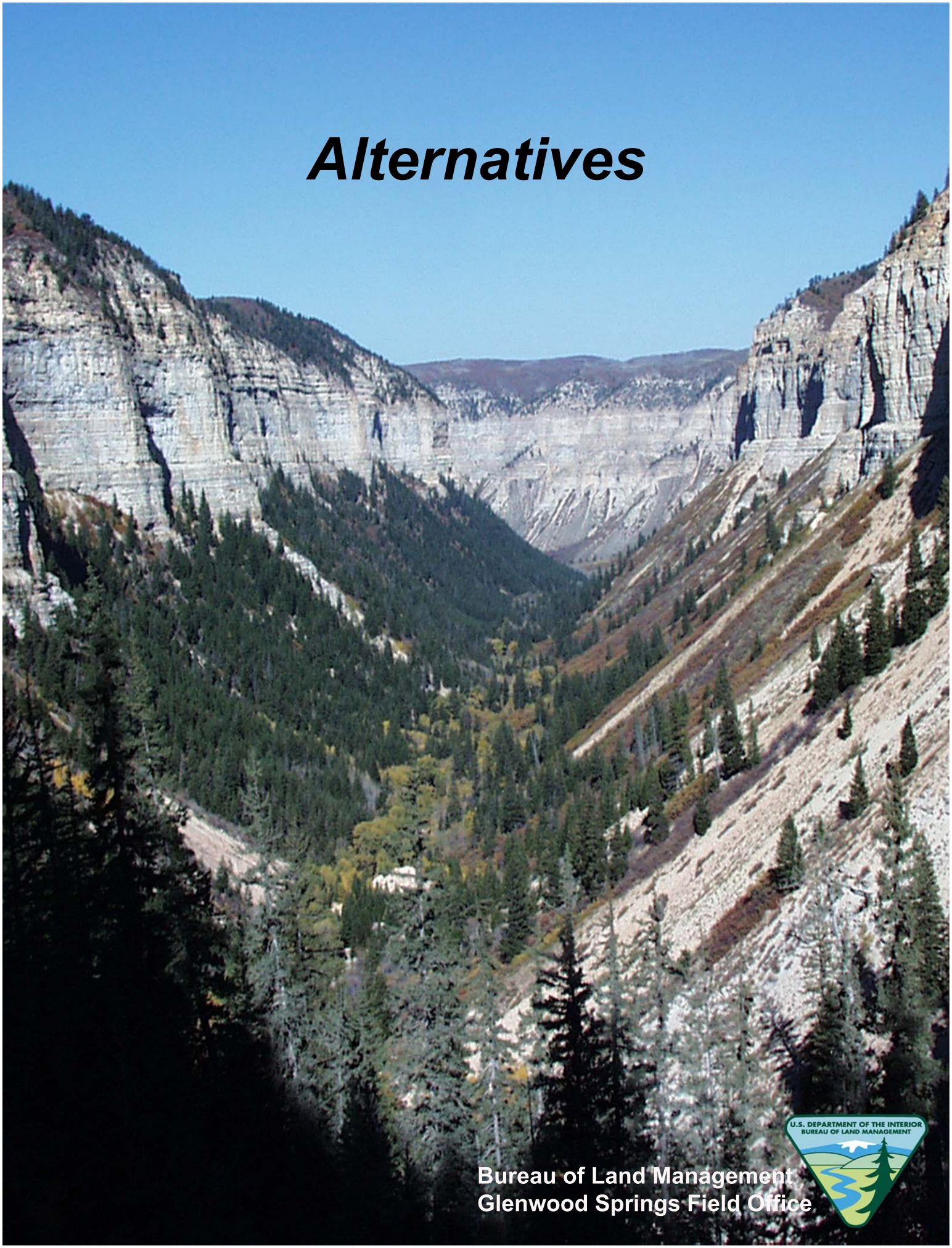
Alternatives



Bureau of Land Management
Glenwood Springs Field Office

2 ALTERNATIVES

2.1 INTRODUCTION

Chapter 2 describes the five alternatives evaluated in detail in this RMPA/EIS. The chapter also describes how the alternatives developed and briefly explains why some alternatives were considered but not analyzed in detail. Major management elements of the five alternatives analyzed are presented in the following subsections and depicted on maps provided in Appendix A. A comparison of the alternatives along with a table of detailed information about each alternative is presented in Table 2-1.

One of the goals for this RMPA/EIS process is to ensure a consistent, coordinated approach to managing lands within the Planning Area. Alternatives analyzed integrate management of the GSRA and WRRA and consider management techniques for the Planning Area that are successful in other parts of these areas. Objectives also express BLM's purpose for the RMPA/EIS by addressing multiple-use mandates as described in FLPMA and the transfer act.

2.2 ALTERNATIVES DEVELOPMENT AND SELECTION PROCESS

The alternatives selection process included a public scoping process that allowed interested members of the public, as well as resource and land use agencies, to comment on the appropriate scope of issues to consider in the planning process for the Planning Area. The formal scoping period began December 13, 2000, and ended January 31, 2001. At this time, BLM staff reviewed the issues identified during scoping, and collected pertinent resource information for the Planning Area. This resource information is found in BLM's Analysis of the Management Situation dated August 2002. In developing and refining alternatives, BLM sought to accomplish two things: (1) reduce the number of alternatives and the amount of overlap among alternatives to ensure clear and distinct choices while maintaining a reasonable range of potential actions; and (2) ensure that all of the alternatives would be consistent with Public Law 105-85 (the transfer act) of November 1997, which transferred NOSRs 1 and 3 from DOE to BLM and which states:

"The Secretary of the Interior shall enter into leases with one or more private entities for the purpose of exploration for, and development and production of, petroleum (other than in the form of oil shale) located on public domain lands in the Oil Shale Reserves Numbered 1 and 3 (including the developed tract of Oil Shale Reserves Numbered 3)."

It further states:

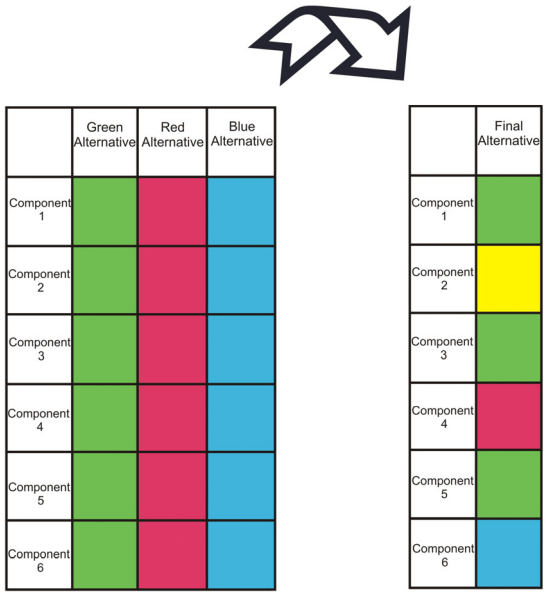
"The Secretary of the Interior, acting through the Bureau of Land Management, shall manage the lands transferred in accordance with the Federal Land Policy and Management Act of 1976 (FLPMA) and other laws applicable to the public lands."

Although the transfer act does not apply to other public lands within the Planning Area, the management of those lands is also directed by FLPMA and other applicable laws.

Resource management activities described for each alternative could have been combined in many different ways to create a large number of alternatives. The five alternatives analyzed in detail were selected to represent a reasonable range of implementable alternatives. The alternative adopted by BLM as the RMP Amendment arising from this process may differ substantially from any of the five alternatives presented in this Draft RMPA/EIS and may contain elements from any or all them. Thus, it is likely that the final RMP Amendment will represent a mix of components comprising the five alternatives described and analyzed in this Draft. Figure 2-1 illustrates such a possible

recombination of alternative components for a final RMP Amendment.

Figure 2-1. Example of How Alternative Components may be Recombined for the Final RMP Amendment



Based on an analysis of the issues and technical information available, a multidisciplinary team of BLM staff formulated six preliminary alternatives, described in Section 2.4. Those six preliminary alternatives have been modified and condensed into the five alternatives analyzed in this document. Other alternatives were also considered during this early stage but were dropped from further consideration because they would not comply with the intent of the transfer act, fulfill the requirements of FLPMA or other applicable laws, or reflect existing resource values.

2.3 ALTERNATIVES ANALYZED IN DETAIL

This section summarizes the five alternatives analyzed in detail as part of this RMPA/EIS process. These alternatives were developed to present a reasonable range of management actions for analysis to assist decision-makers and the public in understanding the potential consequences and benefits of alternative scenarios. Management prescriptions under each alternative would apply to all resource uses and management actions, whether or not specifically discussed in Chapter 2.

Considerations in the formulation of the five alternatives include the following:

- The five alternatives are intended to represent a wide range of reasonable alternatives and to encompass a broad array of management actions.
- No alternatives were analyzed that clearly would conflict with existing law or regulation.
- The No Action Alternative (Alternative I) may not be implementable without additional legislation. Each of the other four alternatives is considered by BLM to be implementable and practicable.
- Oil and gas leasing is considered consistent with the transfer act and FLPMA. No special designations for oil and gas resources (e.g., as a Strategic Petroleum Reserve) were considered, nor are any designations directed by legislation, executive order, or policy.
- BLM is not considering WSA designation in the Planning Area, and no WSAs have been proposed or are analyzed in this RMPA/EIS (see discussion in Section 1.3.8). However, management to protect and maintain wilderness character or specific wilderness values as identified through the inventory process is incorporated into two alternatives. Reclamation or enhancement of other areas in order to restore wilderness character was not considered or analyzed.
- Stream segments found through inventories to be eligible for a study to determine their suitability for designation as WSRs would be managed under some alternatives to protect and maintain those values until a suitability decision is made.
- ACECs were designated only where relevant and important values were found to be present. The extent of ACEC designation

differs among the alternatives to allow analysis of a range of protection.

- Alternative energy sources, including wind, solar, geothermal, and biomass, were considered but are not specifically addressed in detail in this document. Alternative energy developments would be allowed to the extent that they are consistent with the management prescriptions adopted in this RMP amendment process. If and when a proposal is made, and details of potential development provided, additional analysis may be required.

It is important to note that the actions described under each alternative would not specifically be permitted by adoption of any alternative through the planning process. For example, although some oil and gas development would be allowed under all of the alternatives, actual development would occur only after an area has been leased and proposed well locations, road and pipeline alignments, and other facilities have gone through a permitting process. Furthermore, while the assumptions associated with the alternatives represent reasonable projections of what could occur, it is impossible to predict with certainty the precise outcome of any of the alternatives due to the large number of variables involved. Actual development may differ substantially from the scenarios presented.

Using oil and gas development again as an example, the number of wells could be larger or smaller, drilling of wells could occur at a faster or slower rate, and directional drilling may or may not prove technically or economically feasible in some areas.

Additionally, it should be noted that the number of new wells assumed to be developed under each alternative was derived by subtracting the number of existing wells from the total number of wells that could be developed given the assumed surface and downhole spacing, annual drilling rates, and surface-use restrictions. This Draft RMPA/EIS uses the number of existing wells referenced in the RFD of February 2004 (Appendix H). However, some new wells have since been developed in areas of existing leases below the cliffs. Therefore, the impact analyses in Chapter 4 are conservative regarding future impacts below the cliffs, since a portion of the assumed new wells have already been drilled, and the number of new wells that could be drilled is thus smaller. Total impacts (i.e., existing plus future) are not affected by the ongoing development in areas of existing leases below the cliffs.

Under any of the alternatives, any action or development must be consistent with applicable Federal, State, and local laws and regulations. Nothing presented in this analysis should be construed as exempting activities from applicable legal or regulatory requirements.

Because of land use and resource management considerations, BLM would apply various stipulations and other restrictions on use to protect specific resource values in conjunction with management, development, or other activities, including those undertaken by oil and gas lessees. Terminology for oil and gas leases has specific definitions. The following oil and gas leasing terminology is taken from the *Uniform Format for Oil and Gas Lease Stipulations*, dated March 1989 (Appendix B):

- **No Surface Occupancy (NSO) –** Use or occupancy of the land surface for fluid mineral exploration or development is prohibited to protect identified resource values. This means that an area is protected from permanent structures or long-term ground-disturbing activities (i.e., lasting longer than two years). For example, an NSO designation would preclude construction of a well pad but not a pipeline (if revegetated within two years) and not the recovery of underlying fluid minerals if accessed from outside the area by directional drilling. Except for specified situations, individual NSOs may include exceptions by which a ground-disturbing activity would be allowed if it met specific, stated criteria. In situations where ground-disturbing activities are permitted by exceptions, the activities may be subject to the special mitigation measures described later in this section.

- **Timing Limitation (TL) –** Prohibits surface use during specified time period to protect identified resource values but does not apply to the operation and maintenance of production facilities unless the findings of analysis demonstrate the need for such mitigation and that less stringent, project-specific measures would be insufficient. This means that an area is subject to long-term impacts, but the impacts cannot occur during a specified season (e.g., raptor nesting, bald eagle winter roosting, and period of winter range by big game).

- **Controlled Surface Use (CSU) –** Use and occupancy are allowed (unless restricted by another stipulation), but identified resource values require special operational constraints and may modify the lease rights. For example, a CSU stipulation for a specific area would allow BLM to require that a proposed well pad or other facility be shifted by more than the standard distance of 200 meters to protect a specific resource, but without precluding the activity.

- **Standard Lease Terms –** Areas leased under standard lease terms are subject to restrictions and limitations related to environmental protection. Chapter 6 of the Sample Oil and Gas Lease (Appendix B, excerpted from the 1999 ROD) gives BLM the authority to require that oil and gas activities be conducted in a manner that minimizes adverse environmental impacts. Examples of measures that may be required under this authority, normally applied as lease notices or conditions of approval (see below), may include shifting the location of the proposed facility or activity by up to 200 meters, prohibiting activity within a period of up to 60 days, and requiring special mitigation measures to minimize impacts and facilitate restoration of temporarily disturbed areas.

- **Lease Notice (LN) –** Provides more detailed information concerning limitations that already exist in law, lease terms, regulations, or operational orders. An LN also addresses special items the lessee should consider when planning operations, but does not impose new or additional restrictions.

- **Condition of Approval (COA) –** Conditions or provisions (requirements) under which an Application for a Permit to Drill (APD) is approved (see Standard Lease Terms, above).

For lands leased for oil and gas development, and especially for areas with one or more CSU stipulations, BLM's goal is to encourage clustering, collocation, and consolidation of surface facilities and other ground-disturbing activities where appropriate to reduce habitat fragmentation, disruption of natural ecosystem processes, soil erosion, water quality impacts, air quality impacts, visual impacts, and disruption of other land uses such as recreation and livestock grazing. The desirability of these measures would be evaluated on a case-by-case basis, depending on the type of activity and portion of the Planning Area involved. Although generally considered beneficial, the clustering, collocation, or consolidation of facilities may not be so in all instances (i.e., some situations may exist in which a large, centralized facility has more impacts than multiple smaller facilities).

Regardless of the RMP Amendment adopted at the conclusion of this RMPA/EIS process, existing stipulations for existing oil and gas leases would continue to apply to those leases. New or additional stipulations would apply only to new lands leased pursuant to this RMPA/EIS. COAs developed through this Plan Amendment would apply to both new leases and, to the extent they do not infringe on existing rights, to existing leases.

The reader should note that:

1. Many of the new or additional stipulations applicable to new leases are based on existing stipulations, although they may differ somewhat in one or more details. For example, the existing NSO for steep slopes does not apply to pipelines, while the new NSO for steep slopes would.

2. Statements in this RMPA/EIS to the effect that certain existing stipulations would be applied, extended, retained, or dropped with regard to new leases under Alternatives II through V are meant to describe the extent to which these new stipulations would include the same types and levels of resource protection as current management. While correct as a practical matter, these statements are imprecise as a procedural matter because, as noted above, existing stipulations would not be applied to new leases, *per se*. Instead, new stipulations may mirror some of the existing stipulations.

3. For convenience, new stipulations based on existing stipulations retain the numbering system used for existing stipulations in the 1999 ROD and RMP Amendment.

4. Gaps in the numbering system for new stipulations described in this RMPA/EIS are an artifact of the planning process and will be corrected when the RMP Amendment arising from this process is prepared. At that time, all stipulations applicable to new leases will be renumbered sequentially.

Appendix C lists and describes the existing stipulations applicable to current leases and the proposed new stipulations applicable to new leases in the Planning Area.

The reader should also note that new stipulations resulting from this RMPA/EIS would be applied not only to new oil and gas leases, but also to other types of land uses and management actions in order to maintain or achieve the desired resource conditions and to ensure equitable treatment to all public land users. Examples of other land uses and management actions include livestock grazing, range improvement actions, recreation, travel management, and use of rights-of-way. The following terminology is used to refer to these generally applicable stipulations:

- **No Ground Disturbance (NGD)** – Essentially equivalent to NSO. For example, an NGD designation would preclude construction of a new stock pond or communications tower, unless specific exception criteria were met. As with NSO stipulations for oil and gas operations, application of NGDs does not preclude temporary ground disturbances such as construction of a pipeline, except for the constraint on excessive or protracted disturbance that could affect a seasonally sensitive wildlife use. Activities permitted within an NGD area may be subject to the special mitigation requirements listed below.

- **Site-Specific Relocation (SSR)** – Essentially equivalent to CSU. For example, an SSR designation would allow BLM to require that a proposed stock pond or communications tower be shifted by more than 200 meters from its proposed location to protect a specific resource. SSR areas also are subject to the special mitigation measures listed below.

- **Standard Restrictions and Limitations** – Essentially equivalent to Standard Lease Terms, which allows BLM to require that the activity be conducted in a manner that minimizes adverse impacts.

For all alternatives, BLM will require Best Management Practices (BMPs) as needed in specific situations to ensure adequate protection of resource values. BMPs would be applied to oil and gas operations as COAs and would include a variety of measures to minimize impacts over the short term or long term. Examples include:

- Reducing the footprint of roads to the smallest safe standard and using dust suppression to minimize impacts to air, water, vegetation, and wildlife
- Selection of appropriate color, shape, size, and location of surface facilities to reduce visual impacts
- Using centralized or automated facilities to reduce the length and frequency of travel
- Collocating utilities in common corridors and aligning them along roadways
- Using powerline pole designs to minimize the risk of raptor electrocution

Under Alternatives II through IV, BLM may also require **special mitigation measures** in addition to BMPs and the restrictions and limitations on surface uses applicable in a specific area. Special mitigation measures could be required in areas with NGD/NSO or SSR/CSU designations and in all areas with one or more special management designation. The latter include ACECs, WMAs, SRMAs, areas managed to preserve WSR eligibility, and areas managed to maintain wilderness characteristics.

Examples of special mitigation measures or BMPs that BLM may require in specific situations include the following:

- Using culverts at stream crossings (culverts would have to be adequately sized so as not to create a barrier to along-stream movement of aquatic species or impede runoff conveyance and channel/bank stability)
- Surfacing roads with gravel or implementing dust-suppression techniques to reduce dust and sediment generation
- Using protective fencing to exclude livestock from sensitive areas or areas being revegetated
- Using biodegradable erosion blankets to stabilize disturbed soil and enhance revegetation
- Seeding only with native species
- Including native shrubs in the reclamation seed mixes
- Planting containerized shrub "tubelings" during reclamation

Where appropriate, these or other special mitigation measures and BMPs would be applied at the time of permitting of oil and gas drilling or related operations (as COAs) or permitting of other activities (e.g., range improvements, road reclamation, etc.). For oil and gas, the potential for these requirements may be specified in the lease documents as LNs.

Table 2-1 provides a detailed comparison of the resource and management components of the five alternatives and summarizes the resource management goals, policies, and approaches under each. Table 4-1 in Chapter 4 summarizes the level of oil and gas development expected under Alternatives I through V based on the "filters" of land availability and resource management restrictions incorporated into each. Maps 1 through 10 depict the distribution of land availability and restrictions for the alternatives. The following subsections highlight the major components of each alternative.

2.3.1 Alternative I – Continuation of Current Management (No Action Alternative)

This alternative (Maps 1 and 2) represents the "no action" alternative required by the NEPA process. However, two considerations must be noted:

1. The alternative is "no action" in the sense of "no change from current management," but not in the sense of "no change from current conditions." The latter is not applicable because, for example, a portion of the Planning Area is currently under oil and gas lease and is subject to further development regardless of the outcome of the current planning process. In general, current uses and trends would continue. An exception is that travel management of NOSRs 1 and 3, restricting motorized and mechanized travel to designated routes, would be vacated, and the entire Planning Area would be open to cross-country OHV use.

2. Because of the specific language of the transfer act cited above, selecting an alternative that does not consider making a significant portion of NOSR 1 available for oil and gas leasing may require additional legislation.

The overall management objective for Alternative I is to "maintain present uses by continuing present management direction and activities." This objective would not allow oil and gas leasing on top of the plateau (NOSR 1)

and would be accomplished using current stipulations for oil and gas within the rest of the Planning Area. No special management designations would be created for the protection of other resource values.

Achieving this objective would be accomplished within the framework of the following land availability and development/use restrictions on oil and gas development (percentage of BLM lands within Planning Area in parentheses):

- Closed to Oil and Gas Leasing – 44,267 acres (60.1 percent)
- No Surface Occupancy (NSO) – 13,912 acres (18.9 percent)
- Controlled Surface Use (CSU) – 8,256 acres (11.2 percent)
- Timing Limitations (TLs) – 28,670 acres (39.0 percent) – may overlap with other restrictions
- Standard Lease Terms – 7,167 acres (9.7 percent)

Alternative I is assumed to result in up to 855 new wells on 254 well pads during the 20-year period of analysis. This would cause a total of 1,151 acres of long-term disturbance from pads, roads, and other facilities, representing 1.6 percent of the BLM lands. Less than 3 percent of the new oil and gas impacts would be on top of the plateau due to the small area available for leasing.

Oil shale and coal leases, and entry for exploration and development of locatable minerals, would be prohibited under this alternative. Salable minerals would be considered on a case-by-case basis, subject to NGD and SSR stipulations.

No ACECs or WMAs would be created under Alternative I, nor would any areas be managed specifically to preserve WSR eligibility or maintain wilderness characteristics.

Visual quality would be protected to the degree necessary to maintain current Visual Resource Management (VRM) objectives for each designated class, with emphasis on protecting the visual quality of the heavily traveled I-70 and SH 13 corridors. This includes 0 acres in VRM Class I and 24,039 acres in VRM Class II (see Appendix D for a discussion of VRM classes).

No SRMAs would be created for recreation, and existing uses would continue to be permitted to the extent consistent with protection of resources. This would include current OHV use of the Hubbard Mesa area and continued opportunities for non-motorized, mechanized, and motorized travel (see Appendix E).

A total area of 66,934 acres (comprising areas of BLM surface) would be open to cross-country travel, and the 259 miles of existing travel routes would also remain open. This differs from the current situation, in which motorized and mechanized travel in NOSRs 1 and 3 is restricted to designated routes under interim management announced in the Federal Register on July 3, 2000). As with the other alternatives, all new oil and gas access roads would be designated for administrative use only. After abandonment, all oil and gas roads would be reclaimed unless BLM deems it more appropriate to retain them for administrative or public use. Cross-country over-snow travel by snowmobile would be allowed.

The goal for ecological resources is to maintain or restore upland vegetation to at least a 40-percent Ecological Condition Rating (ECR) and manage riparian areas to meet a minimum condition rating of Proper Functioning Condition (PFC). See Appendix F and the BLM land use planning handbook (BLM 2001a) for a discussion of ECR and PFC.

Occupied habitat for special status species would be protected from direct disturbances consistent with existing laws, regulations, and policies. No special management areas would be designated to provide additional protection for potential habitat, ecosystem processes, and significant plant communities.

Wildlife management would continue as at present, including maintaining existing

populations and habitat quality for the Colorado River cutthroat trout, maintaining seclusion areas and movement corridors for big game (mule deer, American elk, mountain lion, and black bear), protecting raptor and waterfowl nesting and brood-rearing areas, and protecting bald eagle winter roosts. The existing 5-month TL stipulation, which closes more than 20,000 acres of mapped big game winter range to oil and gas construction in the period December through April, would be retained.

Livestock grazing would continue to be permitted on existing allotments, although subject to some increased management to meet the goals for upland vegetation, riparian areas, and aquatic habitats (see Appendix F).

Some small, isolated parcels (approximately 2,031 acres) would be eligible for disposal, and BLM would allow continued use of the utility rights-of-way along I-70 and SH 13.

2.3.2 Alternative II

Alternative II (Maps 3 and 4) would allow leasing for oil and gas development in slightly more than half of the portion of former NOSRs 1 and 3 that currently is unavailable for leasing. However, due to other constraints on surface use, the total amount of land available for oil and gas leasing within the Planning Area as a whole would be increased by only 36 percent compared to Alternative I, and the anticipated number of wells would be increased by only 6 percent.

The limited additional development under Alternative II is the result of extensive areas with NGD/NSO stipulations and implementation of a number of management actions and restrictions to protect and enhance certain resources and the natural processes on which they depend. These include (a) restrictions on motorized cross-country travel; (b) management to protect four ACECs, areas having wilderness character, WSR-eligible streams and watersheds, and Colorado River cutthroat trout habitat; management for higher ecological condition; (d) systematic noxious-weed management and range improvement; (e) more stringent revegetation standards, including use of native species and natural processes; (f) higher levels of visual resource protection; and (g) higher levels of cultural and paleontological resource inventory and protection.

These management actions and restrictions reflect the emphasis of Alternative II on conservation of the visual, natural, wilderness, geological, and ecological qualities of the Planning Area while allowing oil and gas development in some areas where it is precluded at present. This includes an emphasis on non-consumptive resource uses on top of the plateau and incorporation of appropriate management actions needed to meet, or make significant progress toward meeting, the required land health standards.

These objectives would be achieved within the framework of the following land availability or development/use restrictions (percentage of total BLM lands within the Planning Area shown in parentheses):

- Closed to Oil and Gas Leasing – 21,382 acres (29.0 percent)
- No Ground Disturbance/No Surface Occupancy (NGD/NSO) – 31,200 acres (42.4 percent)
- Site-Specific Relocation/Controlled Surface Use (SSR/CSU) – 7,015 acres (9.5 percent)
- Timing Limitations (TLs) – 28,670 acres (39.0 percent) – may overlap with other restrictions
- Standard Restrictions and Limitations – 14,006 acres (19.0 percent)

Alternative II is assumed to result in up to 905 new oil and gas wells on 310 new pads during the 20-year period of analysis. Resultant long-term disturbance would be 1,348 acres, or 1.8 percent of BLM lands within the Planning Area. Approximately 21 percent of the disturbance would be on top of the plateau.

Restrictions on oil shale and coal leases and entry for exploration and development of locatable minerals would be retained, as in

Alternative I. Mineral sales (e.g., construction materials such as rock and sand/gravel) would be permitted on a case-by-case basis.

Air quality monitoring will be conducted under Alternatives II to V. Mitigation measures will be applied as required to meet all applicable Federal and State air quality regulations and standards and any local standards.

Three areas having wilderness character would be managed to protect and maintain wilderness characteristics. These areas are the Northeast Cliffs, Southeast Cliffs, and East Fork Parachute Creek units, encompassing a combined area of 21,382 acres (Map 35). Appendix G presents the interim management prescriptions for these areas. Adjustments to the East Fork Parachute Creek Unit were made based on topography, existing routes, and natural features to develop manageable boundaries. The other units have small differences in acreage due to mapping calculations. Alternative II would also protect 7,883 acres of streams and stream corridors found to be eligible for WSR designation until a suitability decision is made.

Four ACECs would be designated (36,184 acres total): Anvil Points, Magpie Gulch, East Fork Parachute Creek, and Trapper Creek. Tables 2-2a-d summarize the resource management objectives by specific ACEC.

Visual Resource Management under Alternative II would protect and preserve the visual values and natural landscape within the ACECs, WSRs, areas having wilderness character, and areas of high and very high visual sensitivity, while allowing some change to existing landscape character outside special designation areas. A total of 37,024 acres would be managed as VRM Class I (see Appendix D).

Alternative II would designate an SRMA for OHVs on Hubbard Mesa (2,460 acres) as a means to manage and enhance intensive mechanized and motorized use. It would also provide opportunities for motorized and mechanized travel but would limit OHV use to preserve and protect natural areas. Appendix E presents the management objectives for this SRMA.

Travel would be limited to designated routes, with 173 miles of routes open to motorized and mechanized use. The remainder of the existing routes would include 43 miles open only to administrative use and 43 miles to be closed and reclaimed. All new oil and gas access roads would be designated for administrative use only. Upon abandonment, all oil and gas roads would be reclaimed unless BLM deems it more appropriate to retain them for administrative or public use. Over-snow travel by snowmobiles would be limited to designated routes.

Upland vegetation would be maintained or restored to at least a 70 percent ECR. Riparian areas would be managed to achieve or exceed PFC, and efforts would be focused toward achieving diverse native species composition. This alternative would also emphasize natural processes and promote healthy native plant communities to deter noxious weeds.

Occupied and potential habitat for special status species and the ecosystem processes that sustain them would be protected from ground-disturbing activities. This alternative would emphasize protection and enhancement of habitat for genetically pure populations of the Colorado River cutthroat trout, as well as protection of watershed areas that contribute to water volume and quality in the trout habitat. Raptor and waterfowl nesting and brood-rearing areas would also be protected, as would bald eagle winter roosts.

Wildlife management would continue the protective measures in Alternative I and extend them to appropriate habitats throughout the Planning Area. These include seclusion areas and movement corridors for big game (mule deer, American elk, mountain lion, and black bear), raptor and waterfowl nesting and brood rearing, bald eagle winter roosts, and nearly 25,000 acres subject to the 5-month timing limitation to protect crucial big game winter range.

Livestock management would emphasize administrative solutions to meet resource management objectives and progress towards meeting land health standards would be accelerated.

Soils would be managed in the same manner specified in Alternative I, but more stringent mitigation standards might apply.

Approximately 120 acres of isolated parcels would be eligible for disposal, and BLM would allow continued use of the utility rights-of-way along I-70 and SH 13.

2.3.3 Alternative III – Preferred Alternative

BLM has designated Alternative III as the "preferred alternative." However, it is important to remember that the five alternatives are not "set in concrete" and instead are subject to modification in response to further input from governmental agencies, the public, and representatives of interest groups. Thus, the selected alternative may be a hybrid of two or more of the alternatives described and analyzed in this Draft RMPA/EIS.

The goal of Alternative III (Maps 5 and 6) is to emphasize multiple resource use in the Planning Area. The most important ecological values would be protected with the development of management prescriptions that limit surface disturbance, implement active management, and mitigate effects of resource development. This alternative supports intensive management actions to meet land health standards on a landscape basis.

Achieving these objectives would be accomplished within the framework of the following land availability or development/use restrictions (percentage of BLM lands in parentheses):

- Closed to Oil and Gas Leasing – 0 acres
- Deferred Leasing – 34,758 acres (47.2 percent)(see discussion below)
- No Ground Disturbance/No Surface Occupancy (NGD/NSO) – 30,928 acres (42.0 percent)
- Site-Specific Relocation/Controlled Surface Use (SSR/CSU) – 29,594 acres (40.2 percent)
- Timing Limitations (TLs) – 28,670 acres (39.0 percent) – may overlap with other restrictions
- Standard Restrictions and Limitations – 13,080 acres (17.8 percent)

Implementation of Alternative III is assumed to result in up to 1,324 new wells on 402 well pads, with a total long-term disturbance of 1,761 acres (2.4 percent of BLM lands) through the 20-year period of analysis. During this period, only 9.4 percent of this disturbance would be on top of the plateau due to the deferral of oil and gas development there (see following discussion).

A unique feature of Alternative III is that although all BLM lands would be open to oil and gas leasing, lands above the rim would be leased only after a specified threshold of development below the rim has been reached. This provision was developed in response to ongoing input by cooperating agencies, including the Colorado Department of Natural Resources (CDNR) and local governments. The threshold for leasing above the rim is defined as the point at which 80 percent of anticipated wells below the rim under Alternative III during the 20-year life of the RMP Amendment have been effectively completed to total depth and a production test performed. A threshold number of 2,342 wells below the rim was calculated as 80 percent of the sum of projected Federal wells below the rim (1,273), projected private wells below the rim (1,244), and existing Federal and private wells below the rim (411). Thus, 0.8 x (1,273 + 1,244 + 411) = 2,342. The numbers of existing and projected new wells were derived from the RFD (Appendix H), which used data as of June 1, 2001. Figure 1-3 depicts the areas above and below the rim. Section 4.5.5.3 of this RMPA/EIS provides additional details on the deferral process.

While the exact time to reach the 80-percent threshold cannot be predicted precisely, a reasonable estimate is that 16 years would be required, based on the annual drilling rate assumed given the amount of land available for drilling and the various surface use restrictions. The actual time required could range from 10 years to more than 20 years, depending on technical, geological, and economic factors.

Research-scale lease tracts for oil shale would be considered within the Planning Area but would be subject to the NSO and CSU constraints identified for this alternative. Approval of research tracts would be based on the merits of the technologies proposed. Coal leases would also be allowed, but this use is not anticipated. All lands would be available to entry for locatable minerals and open for salable minerals without the constraint of the NSO and CSU stipulations on oil, gas, or oil shale.

Air quality monitoring will be conducted under Alternatives II to V. Mitigation measures will be applied as required to meet all applicable Federal and State air quality regulations and standards and any local standards.

A combined 9,006 acres would be managed in ways that will protect naturalness and roadlessness (Map 36). Associated NGD/NSO designations would not be subject to modification, waiver, or exceptions under this alternative. A combined 7,883 acres of streams and stream corridors found to be eligible as WSRs would be managed to maintain that eligibility until a suitability decision is made. If the eligible WSR segments are found not to be suitable, the NSO stipulation would remain in place to protect naturalness and roadlessness. Two ACECs would be designated — East Fork Parachute Creek and Trapper/Northwater Creek — with a combined area of 11,529 acres. Tables 2-2a-d summarize the resource management objectives for these ACECs. Including the two watershed-based areas atop the plateau but not the two ACECs along the cliffs is intended to provide a level of protection intermediate between Alternatives II and V (Alternative IV would be the same as Alternative III in this regard).

A WMA encompassing 29,073 acres would also be designated for the entire portion of the Parachute Creek drainage atop the plateau to protect water quality, as well as aquatic biota and other adjacent resources. Among these are core conservation populations (i.e., greater than 99 percent pure) of the Colorado River cutthroat trout. The entire WMA would be subject to application of the special mitigation measures described previously. The WMA prescriptions (Table 2-3) set a technically achievable standard designed to protect key values, minimize or preclude both site-specific and cumulative watershed impacts, and allow conditional human activity. The prescriptions are intended to apply throughout the Parachute Creek WMA and to result in conditions that meet or exceed the Standards for Public Land Health described in Appendix F.

Visual Resource Management under Alternative III includes only 920 acres of VRM Class I (the East Fork Parachute Creek waterfalls), with the bulk of the area (48,752 acres) in VRM Class II. Thus, the combined area in Class I and Class II would be comparable to that of Alternative II and much larger than Alternative I.

Alternative III would also designate an SRMA for OHV recreation on Hubbard Mesa and would provide for motorized and mechanized travel as opportunities allow. Appendix E presents the management objectives for the Hubbard Mesa SRMA.

Travel would be limited to designated routes throughout the Planning Area, excluding over-snow travel by snowmobile. Approximately 209 miles of existing routes open to motorized and mechanized travel; the remainder would include 24 miles open only to administrative use and 26 miles to be closed and reclaimed. All new oil and gas access roads would be designated for administrative use only. After abandonment, all oil and gas roads would be reclaimed unless BLM deems it more appropriate to retain them for administrative or public use.

The goal for ecological resources would be to achieve no less than a 50-percent ECR for upland vegetation and to manage riparian areas

to the same specifications as in Alternative II. Known populations of special status plant species would be protected from ground-disturbing activities to potential habitat and disturbance to ecosystem processes would be minimized to the extent possible.

Wildlife management would retain the same protective stipulations as for Alternatives I and II, including the 5-month TL stipulation for deer and elk winter range, except that big game seclusion areas would be protected by restrictions on travel rather than through NGD/NSO stipulations. Special status wildlife management would continue to focus on the Colorado River cutthroat trout and its habitat and on retention of surface-use limitations in raptor nesting, bald eagle winter roosting, and waterbird/shorebird nesting areas.

A combination of administrative solutions and rangeland projects would be used to manage livestock and make significant progress toward meeting land health standards.

2.3.4 Alternative IV

The goal of Alternative IV (Maps 7 and 8) is to emphasize multiple resource use in the Planning Area. The most important ecological values would be protected with the development of management prescriptions that limit surface disturbance, implement active management, and mitigate effects of resource development. This alternative supports intensive management actions to meet land health standards on a landscape basis.

Achieving these objectives would be accomplished within the framework of the following land availability or development/use restrictions (percentage of BLM lands in parentheses):

- Closed to Oil and Gas Leasing – 0 acres
- No Ground Disturbance/No Surface Occupancy (NGD/NSO) – 30,928 acres (42.0 percent)
- Site-Specific Relocation/Controlled Surface Use (SSR/CSU) – 27,486 acres (37.3 percent)
- Timing Limitations (TLs) – 28,670 acres (39.0 percent) – may overlap with other restrictions
- Standard Restrictions and Limitations – 15,188 acres (20.6 percent)
- Permit-Level TLs – 24,978 acres (33.9 percent) – may overlap with other restrictions

Implementation of Alternative IV is estimated to result in up to 1,324 new wells on 449 well pads, with a total long-term disturbance of 1,940 acres (2.6 percent of BLM lands) through the 20-year period of analysis. Of this total, approximately 28 percent of the impacts would be on top of the plateau.

Research-scale lease tracts for oil shale would be considered within the Planning Area but would be subject to the NSO and CSU constraints identified for this alternative. Approval of research tracts would be based on the merits of the technologies proposed. Coal leases would also be allowed, but this use is not anticipated. All lands would be available to entry for locatable minerals and open for salable minerals without the constraint of the NSO and CSU stipulations on oil and gas or oil shale.

Air quality monitoring will be conducted under Alternatives II to V. Mitigation measures will be applied as required to meet all applicable Federal and State air quality regulations and standards and any local standards.

Like Alternatives II and III, Alternative IV would protect 7,883 acres of streams and stream corridors found to be eligible as WSRs until a suitability decision is made. No areas would be managed specifically to protect and maintain wilderness characteristics.

Two ACECs would be designated — East Fork Parachute Creek and Trapper/Northwater Creek, with a combined area of 11,529 acres. Tables 2-2a-d summarize the resource management

objectives for these ACECs. Including the two watershed-based areas atop the plateau but not the two ACECs along the cliffs is intended to provide a level of protection intermediate between Alternatives II and IV.

A WMA would be designated for Trapper/Northwater Creek to protect core conservation populations (i.e., greater than 99-percent purity) of the Colorado River cutthroat trout in portions of both streams. The higher levels of environmental protection in the WMA would also provide additional protection for associated wildlife and vegetation resources. The WMA would be subject to the special mitigation measures described previously. The WMA prescriptions (Table 2-3) set a technically achievable standard designed to protect key values, minimize or preclude both site-specific and cumulative watershed impacts, and allow conditional human activity. The prescriptions are intended to apply throughout the Trapper/Northwater Creek WMA and to result in conditions that meet or exceed the Standards for Public Land Health described in Appendix F.

Visual Resource Management under Alternative IV includes only 920 acres of VRM Class I (the East Fork Parachute Creek waterfalls), with the bulk of the area (48,752 acres) in VRM Class II. Thus, the combined area in Class I and Class II would be the same as for Alternative III and much larger than current management under Alternative I.

This alternative would designate an SRMA for OHV use on Hubbard Mesa. The SRMA would be designated as "open" for motorized and mechanized travel, meaning that OHVs would not be limited to designated routes. Appendix E presents the management objectives for the Hubbard Mesa SRMA.

Travel would be limited to designated routes throughout the Planning Area, excluding over-snow travel by snowmobile. Approximately 209 miles of existing routes would be open to motorized and mechanized use; the remainder of the existing routes would include 24 miles open only to administrative use and 26 miles to be closed and reclaimed. All new oil and gas access roads would be designated for administrative use only. After abandonment, all oil and gas roads would be reclaimed unless BLM deems it more appropriate to retain them for administrative or public use.

The goal for ecological resources would be to achieve no less than a 50 percent Ecological Condition Rating for upland vegetation and to manage riparian areas to the same specifications established in Alternative II. Known populations of special status plant species would be protected from ground-disturbing activities to potential habitat and disturbance to ecosystem processes would be minimized to the extent possible.

Wildlife management would retain the same protective stipulations as for the previous alternatives, except that the big game seclusion areas would be protected by restrictions on travel rather than through NGD/NSO stipulations. Similarly, the 5-month TL stipulation for big game winter range in Alternatives I through III would be replaced with a 60-day TL (for the months of January and February), applied as a COA during the permit process. Management of special status wildlife would continue to focus on the Colorado River cutthroat trout and its habitat and on retention of surface-use limitations in raptor nesting, bald eagle winter roosting, and waterbird/shorebird nesting areas.

A combination of administrative solutions and rangeland projects would be used to manage livestock and make significant progress toward meeting land health standards.

2.3.5 Alternative V

Alternative V (Maps 9 and 10) accommodates energy and other non-renewable resource development throughout the Planning Area. This alternative permits ecological values and biological diversity to be modified by ground-disturbing activities related to resource development. Key resources would be protected on a site-specific basis through active management and mitigation to meet legal requirements and land health standards.

Achieving these objectives would be accomplished within the framework of the following land availability or use restrictions (percentage of BLM lands in parentheses):

- Closed to Oil and Gas Leasing – 0 acres
- No Ground Disturbance/No Surface Occupancy (NSG/NSO) – 21,609 acres (29.4 percent)
- Site-Specific Relocation/Controlled Surface Use (SSR/CSU) – 21,517 acres (29.2 percent)
- Standard Restrictions and Limitations – 30,746 acres (41.8 percent)
- Permit-Level Timing Limitations (TLs) – 3,692 acres (5 percent) – may overlap with other restrictions

Implementation of Alternative V is estimated to result in up to 1,582 new wells on 584 pads, with a total long-term disturbance of 2,495 acres (3.4 percent of BLM lands) through the 20-year period of analysis. Of the total oil and gas impacts, approximately 30 percent would occur on top of the plateau.

Stipulations regarding oil shale, coal, and both locatable and salable minerals would be the same as for Alternative IV. This includes research-scale lease tracts for oil shale, subject to the NSO and CSU stipulations for oil and gas. All lands would be open for salable minerals, also subject to NGD and SSR stipulations, while locatable minerals would not be subject to these stipulations.

Air quality monitoring will be conducted under Alternatives II to V. Mitigation measures will be applied as required to meet applicable Federal and State air quality regulations and standards and any local standards.

Alternative V includes no designation of ACECs and no designation of a WMA. Additionally, no areas would be managed specifically to protect and maintain wilderness characteristics.

For the purpose of analysis, Alternative V also presumes that the eligible streams and stream corridors would not be designated as WSRs. However, ground-disturbing activities would be prevented should the 7,883 acres be deemed suitable, with the corridors managed as NGD/NSO until a suitability decision is made.

Visual Resource Management under this alternative would include 0 acres in either VRM Class I or II. More than 63,000 acres (86 percent of BLM lands) would be managed to VRM Class III, which allows for a moderate level of change to the existing character (acceptable visual changes can "attract attention" but not "dominate the landscape").

Alternative V does not include designation of an SRMA in the Hubbard Mesa OHV area. Travel management would provide for non-motorized, mechanized, and motorized travel as opportunities allow. All OHV use would be limited to designated routes, with 259 miles of existing routes remaining open to motorized and mechanized travel. All new oil and gas access roads would be designated for administrative use only. After abandonment, oil and gas roads would be reclaimed unless BLM decides to retain them for administrative or public use. Over-snow travel by snowmobiles would be allowed throughout the Planning Area and would not be limited to designated routes.

The goal for ecological resources would consist of optimizing forage production and managing upland vegetation to no less than a 40-percent ECR while meeting land health standards. Riparian areas would be managed to achieve or maintain a minimum condition rating of at least PFC.

Known populations of threatened or endangered plant species would be protected from disturbance. Disturbance to BLM sensitive species and their habitats or to significant plant communities would be permitted but would require mitigation.

Raptor nesting, bald eagle winter roosting, and use by BLM sensitive species would continue to be protected by the restrictions described for Alternatives I through IV. No special management or mitigation measures would be

undertaken to protect or enhance big game winter range, including no lease-level or permit-level TLs. Fisheries management would concentrate on maintaining existing Colorado River cutthroat trout populations by protecting the occupied streams and adjacent slopes and mitigating impacts to watersheds.

Rangeland projects and land treatments would be emphasized as the preferred method for achieving resource management objectives and land health standards related to grazing.

2.4 ALTERNATIVES NOT ANALYZED IN DETAIL

As described in Section 2.2., a BLM interdisciplinary team formulated six preliminary alternatives during initial stages of this RMPA/EIS process. Other alternatives were considered but dropped prior to detailed analysis because they would not comply with the intent of the transfer act, fulfill the requirements of FLPMA, or adequately reflect existing resource values. The six preliminary alternatives formulated by BLM staff were described in a document dated October 14, 2002, which was mailed to interested parties and presented during public meetings in the towns of Rifle, Parachute, and Glenwood Springs. The document stated the alternatives were preliminary and that "…many management actions are interchangeable between alternatives, or could be presented in a different mix to alter an alternative to create a different alternative." The six preliminary alternatives were as follows:

- **Alternative A (No Action) –** Consisted of continuing current management of BLM lands within the Planning Area and is equivalent to Alternative I of this RMPA/EIS (see Section 2.3.1).
- **Alternative B –** Included designation of three WSAs (21,383 total acres) and four ACECs (36,145 total acres) and protection of streams eligible as WSRs.
- **Alternative C –** Designated two WSAs (10,993 total acres) and three ACECs (19,160 total acres) in addition to protecting the WSR-eligible streams.
- **Alternative D –** Designated two WSAs (10,993 total acres) and four ACECs (27,446 total acres) as well as protecting the WSR-eligible streams.
- **Alternative E –** Included no WSAs or ACECs but retained the protection of WSR-eligible streams.
- **Alternative F –** Designated three WSAs (21,383 total acres) and four ACECs (36,145 total acres), retained the protection of WSR-eligible streams, and precluded leasing for oil and gas development within 32,382 acres of a Special Recreation Management Area (SRMA) designated for primitive recreation atop the plateau.

In November 2002, following the 30-day comment period on the six preliminary alternatives, a meeting was held among BLM resource experts, land use planners, and legal advisors. BLM staff reviewed the comments on the preliminary alternatives, the resource data and planning criteria on which the alternatives were based, the goals and objectives of the RMP Amendment, and the applicable laws, regulations, and policies. Based on this review, BLM concluded that the alternatives included unnecessary overlap, were not always clearly differentiated, and might not satisfy the specific intent of the transfer act without additional legislation. Accordingly, the major components of Alternatives A through F were modified and recombined into the current Alternatives I through V, described above in Section 2.3 and analyzed in detail in Chapter 4.

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
GENERAL MANAGEMENT OBJECTIVES AND TECHNIQUES				
Maintain present uses by continuing present management direction and activities. Includes no oil and gas leasing on top of plateau.	Emphasize landscape management, visual aesthetics, natural values, wilderness character, geological features, ecological richness, and unique ecosystem values for rare and sensitive species. Encourage non-consumptive resource uses, while allowing for limited consumptive resource uses on top of the plateau.	Emphasize a variety of multiple resource uses, allowing for deferred oil and gas development atop the plateau. Protect resource values with management prescriptions while allowing mineral resource development with focused mitigation.	Emphasize a variety of multiple resource uses, specifically allowing for oil and gas development where feasible. Protect resource values by balancing development of mineral resources with focused mitigation.	Emphasize energy development and other non-renewable resources through leasing and allowing development. Protect key resource values on a site-specific basis by reducing impacts through mitigation, to meet the requirements of law, regulation, and policy.
Utilize current stipulations. No special management designations.	Emphasize highest natural values through extension of current stipulations, administrative and legislative designations. Designate four ACECs (Anvil Points, Magpie Gulch, East Fork Parachute Creek, and Trapper/ Northwater Creek). Manage streams eligible for a suitability study for possible designation as WSRs to protect values until suitability is determined.	Emphasize natural values through extension of current stipulations, administrative and legislative designations. Designate two ACECs (East Fork and Trapper/Northwater Creek). Protect important ecological values outside ACECs through site-specific mitigation. Designate Parachute Creek Watershed Management Area to protect ecosystem integrity and function related to the Colorado	Emphasize natural values through extension of current stipulations, administrative and legislative designations. Designate two ACECs (East Fork and Trapper/ Northwater Creek). Protect important ecological values outside ACECs through site-specific mitigation. Designate Trapper/ Northwater Creek Watershed Management Area to protect ecosystem integrity and function	Emphasize oil and gas development, while protecting key resources through extension of current resource area-wide stipulations (except for visual resources, wildlife seclusion areas, and timing limitations). No ACECs would be designated. Resources protections would meet all policy, legislative, and regulatory requirements. Assumes no streams would be found to be suitable for WSR designation. Eligible

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
	Manage a total of 21,382 acres in three areas (as provided by Section 202 of FLPMA) to protect and maintain wilderness characteristics. However, these areas would not be designated as WSAs.	River cutthroat trout and supporting factors through graduated stipulations. Apply critical big game winter range timing limitations 5 months of every year. Manage streams eligible for a suitability study for possible designation as WSRs to protect values until suitability is decided. Manage 9,006 acres for roadlessness and naturalness by allowing no modification, waiver, or exceptions to NSO/NGD stipulations that overlap wilderness units.	related to the Colorado River cutthroat trout and supporting factors through graduated stipulations. No stipulations for wildlife seclusion areas or big game winter range. Manage streams eligible for a suitability study for possible designation as WSRs to protect values until suitability is decided. No areas would be managed specifically to maintain and protect wilderness character.	streams would be managed to protect values until a suitability determination is made. No areas would be managed specifically to maintain and protect wilderness characteristics.
LAND HEALTH STANDARDS				
Ensure that all activities are authorized in a manner that would meet, or make progress towards meeting, Land Health Standards.	Implement appropriate management actions that result in meeting or making significant progress toward meeting all Land Health Standards with emphasis on natural processes.	Implement appropriate management actions on a landscape basis that would result in meeting Land Health Standards with emphasis on intensive management.	Same as Alternative III	Ensure that all activities authorized would meet Land Health Standards, with emphasis on intensive management, development, and mitigation.
GOALS, OBJECTIVES, AND CONSTRAINTS BY RESOURCE				
The following management objectives and prescriptions are presented by resource. Management constraints designed to protect a variety of resources and/or mitigate impacts are also presented. Stipulations, conditions, and mitigating measures will be applied to all similar public land uses in a similar manner. All discretionary actions and activities must meet the objectives and management prescriptions described for each				

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
resource. Several types of constraints apply. They include No Ground Disturbance/No Surface Occupancy (NGD/NSO), Site Specific Relocation/Controlled Surface Use (SSR/CSU), Timing Limitations (TL), and special mitigation. NSO, CSU, and TL are terms that apply specifically to oil and gas leasing, while NGD and SSR would apply to other activities. Special mitigation and other protective measures within BLM's authority to require would apply to all activities when authorized, including the permitting process for oil and gas activities.				
GEOLOGICAL RESOURCES				
Protect and preserve the scientific and historic values of the Anvil Points claystone cave and karst system. Allow no physical disturbance to the cave or karst system surrounding the cave. Restrict activities that could cause direct or indirect impacts such as collapse or dewatering.	Same as Alternative I	Same as Alternative I	Same as Alternative I	Same as Alternative I
PALEONTOLOGICAL RESOURCES				
Require paleontological clearances/mitigation prior to surface disturbance in Condition 1 and some Condition 2 areas. Significant resources would be avoided or recovered through the authorization process.	Same as Alternative I	Same as Alternative I	Same as Alternative I	Same as Alternative I
Protect Sharrard Park paleontological resources through SSR/CSU stipulation.	Same as Alternative I	Same as Alternative I	Same as Alternative I	Same as Alternative I

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
SOIL RESOURCES				
Manage to meet or exceed Land Health Standards for soils on a watershed scale. Small portions would be allowed not to meet the standard. Below the rim, continue stipulations of the 1999 FSEIS, described below. NGD/NSO on slopes greater than 50% to maintain site stability and site productivity. SR/CSU on erosive soils and slopes greater than 30%.	Similar to Alternative I, except that the stipulations developed in the 1999 Oil and Gas FSEIS would be applied to steep slopes and erosive soils throughout the Planning Area, higher standards of mitigation may apply, and more areas would be managed to surpass the Land Health Standards for soils. Natural processes would be emphasized.	Same as Alternative I, except that the stipulations developed in the 1999 Oil and Gas FSEIS would be applied to steep slopes and erosive soils throughout the Planning Area.	Same as Alternative III	Same as Alternative III
WATER QUALITY				
Meet all State and Federal water quality standards.	Meet or exceed all applicable Federal and State water quality standards, relying on natural processes.	Same as Alternative I	Same as Alternative I	Same as Alternative I

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
AIR QUALITY				
Implement monitoring and mitigation measures required to meet or exceed all applicable Federal and State air quality regulations and standards and any other applicable local standards.	Same as Alternative I	Same as Alternative I	Same as Alternative I	Same as Alternative I
GENERAL ECOLOGICAL VALUES				
Maintain current ecological values and processes, and biological diversity, with existing management direction and activities.	Protect ecological values and processes and biological diversity by designating four ACECs, managing areas for wilderness character and WSR eligibility, limiting surface disturbance, and promoting natural ecosystem processes and functions in all systems.	Protect core ecological values and natural processes by designating two ACECs and the Parachute Creek WMA, managing areas for WSR eligibility, designing and implementing management prescriptions that would limit surface disturbance, implementing site-specific mitigation, and limiting or mitigating effects of allowed disturbances.	Protect core ecological values and natural processes by designating two ACECs and the Trapper/Northwater Creek WMA, managing areas for WSR eligibility, designing and implementing management prescriptions that would limit surface disturbance, implementing site-specific mitigation, and limiting or mitigating effects of allowed disturbances.	Protect or lessen impacts to the most important/highest ecological values and processes by designing and implementing management prescriptions and mitigation that would limit surface disturbance, implementing site-specific mitigation, and limiting or mitigating effects of disturbances. Allow other ecological values, natural processes, and biological diversity to be modified by surface disturbance.
Rehabilitate areas affected by wildland fire and other surface-disturbing activities	Emphasize natural processes to rehabilitate or restore natural vegetative	Rehabilitate areas affected by wildland fire and other surface disturbing activities	Rehabilitate areas affected by wildland fire and other surface disturbing activities	Rehabilitate plant communities that are not meeting desired range of

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
to protect soil, water, vegetation and other resources and ensure overall watershed protection.	communities following wild land fires or other surface disturbing activities. Where seeding is needed to protect soil, water, and vegetation resources, only seed mixtures of native species will be used.	to protect soil, water, and vegetation resources and ensure overall watershed protection. Utilize seed mixtures containing forage-producing, native, and species preferred by wildlife.	to protect soil, water, and vegetation resources and ensure overall watershed protection. Utilize seed mixtures containing forage-producing, native, and species preferred by wildlife.	conditions due to dominance by annual or weedy species, or invasive juniper. Seed mixes would emphasize forage-producing perennials that support livestock production and other commodity values.
Maintain or improve the ecological condition and integrity of native stands of aspen, mountain shrubs, grasslands, conifers, where consistent with other resource objectives and uses.	Maintain or improve the ecological condition and integrity of native stands of aspen, mountain shrubs, grasslands, conifers. Utilize natural processes wherever practicable.	Same as Alternative I	Same as Alternative I	Same as Alternative I
Defer grazing use for 2 years following wildfire and/or prescribed fire or until monitoring data or professional judgment indicate that desired vegetative cover, composition and root reserves, and litter accumulation have recovered to levels adequate to support and protect watershed values.	Defer grazing use for 2 years following wildfire and/or prescribed fire, or until monitoring data indicate that desired vegetative cover, composition and root reserves, and litter accumulation have recovered to levels adequate to support and protect watershed values, and vegetative objectives.	Same as Alternative II	Same as Alternative II	Same as Alternative I
Improve ecological condition and increase forage production through	Emphasize natural values and processes associated with the diverse	Improve ecological condition and increase forage production through	Same as Alternative III	Improve ecological condition and increase forage production through

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
development and implementation of economically feasible grazing systems and range improvements.	composition and structure of native vegetation. Improve ecological condition and increase forage production where feasible through development and implementation of economically feasible grazing systems and range improvements.	development and implementation of economically feasible grazing systems and range improvements. Optimize forage production, given other uses and objectives.		development and implementation of economically feasible grazing systems and range improvements, Optimize forage production where practical given other resource uses.
Riparian/Wetland Communities				
Manage riparian/wetlands to achieve a minimum condition rating of PFC. The stipulations developed in the 1999 Oil and Gas FSEIS would be carried forward for protection of riparian zones and their associated hydrologic and wildlife values. These stipulations would only apply to streams and associated riparian areas below the rim and not to any lands on top of the plateau.	Manage riparian communities to achieve or exceed PFC while attaining potential natural condition or a late seral plant community stage. Concentrate on achieving diverse native species composition and productivity. The stipulations developed in the 1999 Oil and Gas FSEIS would be carried forward and extended to those streams and associated riparian areas above the rim.	Same as Alternative II	Same as Alternative II	Same as Alternative I, except that stipulations from the 1999 Oil and Gas FSEIS would apply throughout the Planning Area.

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
Avoid surface-disturbing activities that would disturb or destroy riparian vegetation. Mitigate or relocate activities within 500 feet of the outer edge of the riparian vegetation. Avoid surface-disturbing activities within a 0.5-mile buffer on either side of the Colorado River. Avoid or mitigate activities that could affect (cause a downward trend in the condition of riparian resources or functioning condition). Initiate activity plans and improvement projects to achieve desired conditions.	Authorize only those uses or activities that would result in no negative impacts (direct or indirect) on riparian/wetland systems, and would not impair their ability to achieve or exceed PFC.	Same as Alternative II	Same as Alternative II	Same as Alternative I, except that stipulations from the 1999 Oil and Gas FSEIS would apply throughout the Planning Area.
Riparian restoration projects would be initiated within those systems that have been identified as not functioning or functioning at risk with a downward or static trend.	Riparian restoration projects would be initiated within those systems that have been identified as functioning at a level below PFC or below late seral stage plant community.	Same as Alternative II	Same as Alternative II	Same as Alternative I
Determine grazing systems or exclusions on riparian/ wetland areas on a case-by-case basis to promote or maintain PFC.	Implement grazing systems and exclusions on riparian/wetland areas that would result in achieving or exceeding PFC.	Same as Alternative II	Same as Alternative II	Same as Alternative I

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
Relocate existing routes, wherever possible, and locate new routes outside riparian zones to reduce or eliminate negative impacts to the stream and/or riparian zone.	Close and reclaim routes that are negatively impacting the stream and/or riparian zones. New routes would be established outside of the riparian zone or must meet the objectives for maintaining riparian, fishery and watershed conditions.	Same as Alternative II	Same as Alternative II	Same as Alternative I
Noxious Weeds				
Apply approved noxious weed control methods in an integrated weed management program (including preventive management, as well as mechanical, biological, and chemical control techniques). Continue and expand public education efforts.	Emphasize prevention, inventory, detection, and monitoring and project actions as part of an integrated weed management program (which includes mechanical, biological, and chemical control techniques). Promote natural processes and healthy native plant communities to deter noxious weeds. Continue and expand public education.	Same as Alternative I	Same as Alternative I	Same as Alternative I
Big Game and Other Terrestrial Wildlife				
Maintain or enhance habitats capable of sustaining current	Maintain or enhance habitats capable of sustaining at least a 20% increase in existing mule	Within the constraints of other resource management objectives and activities, maintain or	Same as Alternative III	Allow limited habitat modifications that may lead to a limited decrease in some non-special status

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
populations of wildlife. Protect wildlife seclusion areas as identified in the 1999 Oil and Gas FSEIS from human disturbance. An NGD/NSO stipulation would apply. No planned management actions to enhance big game habitat, but site-specific actions to enhance wildlife habitat would be allowed.	deer populations (to meet current CDOW objectives). Provide habitat capable of sustaining existing populations of other species. Provide wildlife seclusion through ACEC designation and special management to protect unfragmented habitat. Reduce roads in wildlife seclusion areas. Allow no long-term (greater than two growing seasons) ground-disturbing activities in unroaded habitat below the rim. Accomplish habitat management largely via natural processes within special designations. Initiate management actions to enhance habitat where practical.	enhance habitats capable of sustaining existing or increasing populations of wildlife. Minimize loss of habitat connectivity and displacement of wildlife through management actions such as (1) applying travel restrictions on new routes within wildlife seclusion areas, and (2) clustering disturbances so they do not create fragmentation or loss of more than a 10% contiguous block of unroaded wildlife habitat below the rim. Initiate mitigation and vegetation management to maintain or enhance big game habitat where practical.		wildlife populations while mitigating to the extent practicable. Develop and apply mitigation where allowed surface-disturbing activities might impact wildlife seclusion habitat. No management actions to protect or enhance big game habitat planned.
Apply a winter TL to protect big game winter range from December 1 through April 30 below the rim.	Same as Alternative I	Same as Alternative I	In place of a winter TL , a COA would protect big game winter range from January through February below the rim.	No winter TL or COA.
Raptors				
In accordance with theMigratory Bird Treaty	In accordance with theMigratory Bird Treaty	In accordance with theMigratory Bird Treaty	In accordance with theMigratory Bird Treaty	In accordance with theMigratory Bird Treaty

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
Act and the Bald and Golden Eagle Act, protect raptor nests and nesting raptors from human disturbances to avoid destruction or abandonment of the nest or reduction in nesting productivity. The NGD/NSO and TL stipulations identified in the 1999 Oil and Gas FSEIS would apply below the rim only. No surface disturbances would be allowed within a 0.125-mile radius of a nest site for owls, ospreys, golden eagles, buteos, accipiters, and falcons except kestrels. The buffer for the peregrine falcon cliff nesting complex and bald eagle roost or nest sites would be a 0.25-mile radius. TL stipulations would apply during the roosting and nesting season of each species.	Act and the Bald and Golden Eagle Act, protect raptor nests and nesting raptors from human disturbances to avoid destruction or abandonment of the nest or reduction in nesting productivity. Same as Alternative I except that NGD/NSO and TL stipulations would apply throughout the Planning Area.	Act and the Bald and Golden Eagle Act, protect raptor nests and nesting raptors from human disturbances to avoid destruction or abandonment of the nest or reduction in nesting productivity. Same as Alternative I except that NGD/NSO and TL stipulations would apply throughout the Planning Area.	Act and the Bald and Golden Eagle Act, protect raptor nests and nesting raptors from human disturbances to avoid destruction or abandonment of the nest or reduction in nesting productivity. Same as Alternative I except that NGD/NSO and TL stipulations would apply throughout the Planning Area.	Act and the Bald and Golden Eagle Act, protect raptor nests and nesting raptors from human disturbances to avoid destruction or abandonment of the nest or reduction in nesting productivity. Same as Alternative I except that NGD/NSO and TL stipulations would apply throughout the Planning Area.
Aquatic Wildlife				
Maintain existing populations and habitat	Protect and enhance fishery and other aquatic	Maintain and enhance aquatic habitats on a site-	Maintain and enhance aquatic habitats on a site-	Maintain existing Colorado River cutthroat trout

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
quality for Colorado River cutthroat trout and other native fish species.	species habitat. Restore habitats important to Colorado River cutthroat trout and other native fish, consistent with the objectives of special management designations. Aquatic habitat condition would be determined more by natural processes than in other alternatives.	specific basis. Restore habitats important to Colorado River cutthroat trout and other native fish, consistent with other resource uses and objectives. Designate Parachute Creek WMA to protect ecosystem integrity and function related to the Colorado River cutthroat trout and supporting factors through graduated stipulations.	specific basis. Restore habitats important to Colorado River cutthroat trout and other native fish, consistent with other resource uses and objectives. Designate Trapper/Northwater Creek WMA to protect ecosystem integrity and function related to the Colorado River cutthroat trout and supporting factors through graduated stipulations.	populations and habitat quality. Apply mitigation to watersheds where allowed activities might otherwise have detrimental effects.
Special Status Plants and Significant Plant Communities				
Manage listed, proposed, or candidate threatened or endangered species to comply with the provisions of the Endangered Species Act (ESA). Manage special status plants and BLM recognized significant plant communities consistent with the Colorado Standards for Public Land Health and with BLM policy on Special Status Species Management (BLM Manual 6840) which directs BLM to prevent the need for listing of proposed, candidate and	Same as Alternative I	Same as Alternative I	Same as Alternative I	Same as Alternative I

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
sensitive species under the ESA and improve the condition of special status species and their habitats to a point where their special status recognition is no longer warranted.				
Protect and maintain occupied habitat for special status plants and significant plant communities. Avoid activities that could have a direct or indirect negative effect on special status plants and plant communities. NGD/NSO and SSR/CSU stipulations in the 1999 Oil and Gas FSEIS (which apply only below the rim) would be carried forward for the protection of special status plants.	Designate four ACECs and provide special management attention to preserve, restore, and enhance known/potential special status plant and significant plant community habitat and ecological processes. Avoid ground-disturbing activities in occupied and high-risk habitat for special status plants and significant plant communities or in potential habitat and areas important to ecosystem processes. To maintain ecosystem function and long-term viability of special status species and significant plant communities, implement some active habitat management measures and close selected routes.	Designate two ACECs and the Parachute Creek WMA and provide special management attention to preserve, restore, and enhance known/potential special status plant and significant plant community habitat and ecological processes. Avoid ground-disturbing activities in occupied and high-risk habitat for special status plants, significant plant communities, and high-risk plant habitat. Some disturbances may be allowed to potential habitat and ecological processes but relocation or mitigation would be required to minimize impacts. Close selected routes to protect special status species and significant plant communities.	Designate two ACECs and the Trapper/Northwater Creek WMA and provide special management attention to preserve, restore, and enhance known/potential special status plant and significant plant community habitat and ecological processes. Avoid ground-disturbing activities in occupied and high-risk habitat for special status plants, significant plant communities, and high-risk plant habitat. Some disturbances may be allowed to potential habitat and ecological processes but relocation or mitigation would be required to minimize impacts. Close selected routes to protect special status species and significant plant communities.	Protect and maintain occupied habitat for special status plants and significant plant communities. Avoid ground-disturbing activities in occupied habitat and immediately adjacent ecosystem processes. Disturbances to potential special status plant habitat and ecosystem processes would be allowed, but some mitigation would be applied to lessen impacts. Prohibit collection of rare plants or plant parts, except for scientific or research purposes.

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
	Protect and maintain the hydrologic and ecological processes that support rare plants and significant plant communities. Allow only activities within moderate risk plant habitat or high value watershed areas that would not disturb, alter, or interrupt the hydrologic or ecological processes. Within areas identified as moderate risk plant habitat, NGD/NSO would apply. Within the high value watershed, special mitigation or relocation of activities beyond 200 meters may be required. Future conditions would be determined largely by natural processes. Revegetate any allowed surface disturbance using locally adapted native species. Maintain the significant riparian plant communities in mid- to late-seral stage to maintain current ecological values.	Protect and maintain the immediately adjacent hydrologic and ecological processes that support rare plants and significant plant communities. Allow only activities that would not disturb, alter, or interrupt the hydrologic or ecological processes within habitat identified as moderate risk plant habitat. Mitigation or relocation of activities beyond 200 meters may be required. Within the high value watershed, special design and construction methods may be used to prevent disruption, alteration, or interruption of the hydrologic and ecological processes that support rare plants or significant plant communities. Revegetate any allowed surface disturbance using locally adapted native species. Maintain the significant riparian plant communities in mid- to late-seral stage to maintain current ecological values.	Protect and maintain the immediately adjacent hydrologic and ecological processes that support rare plants and significant plant communities. Allow only activities that would not disturb, alter, or interrupt the hydrologic or ecological processes within habitat identified as moderate risk plant habitat. Mitigation or relocation of activities beyond 200 meters may be required. Within the high value watershed, special design and construction methods may be used to prevent disruption, alteration, or interruption of the hydrologic and ecological processes that support rare plants or significant plant communities. Revegetate any allowed surface disturbance using locally adapted native species. Maintain the significant riparian plant communities in mid- to late-seral stage to maintain current ecological values.	

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
		Prohibit collection of rare plants or plant parts, except for scientific research.	Prohibit collection of rare plants or plant parts, except for scientific research.	
Special Status Fish and Wildlife Species				
Manage the Big River Fishes (Colorado pikeminnow, razorback sucker, bonytail chub, humpback chub), and bald eagle in accordance with existing recovery plans and consultations completed with the USFWS. Manage special status fish and wildlife consistent with the Colorado Standards for Public Land Health. Implement the strategy outlined in the "Conservation Agreement and Strategy for Colorado River Cutthroat Trout" in the States of Colorado, Utah, and Wyoming.	Same as Alternative I	Same as Alternative I	Same as Alternative I	Same as Alternative I
Protect and maintain special status fish and wildlife and their immediate habitats. Avoid activities that could have a direct or indirect negative effect on special status fish and	Designate four ACECs and provide special management attention to protect, preserve, restore, and enhance special status fish and wildlife species and their habitats. ACEC	Designate two ACECs to protect, maintain, and enhance habitat immediately adjacent to occupied Colorado River cutthroat trout streams. ACEC management	Designate two ACECs to protect, maintain, and enhance habitat immediately adjacent to occupied Colorado River cutthroat trout streams. ACEC management	Same as Alternative I

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
wildlife. Disturbance to sensitive bat habitat would be mitigated or relocated more than 200 meters. Enhancement and restoration efforts where necessary on a site-specific basis. Manage habitat conditions specific to the requirements of individual species versus ecosystem approaches.	management prescriptions are presented in Table 2-2. Protect Colorado River cutthroat trout from direct and indirect impacts. Allow no loss or degradation of high or moderate risk habitat and no long-term ground-disturbing activities in the remainder of watersheds supporting Colorado River cutthroat trout. Manage livestock grazing so that streambank damage along occupied cutthroat trout streams does not exceed 10% of the stream length. Protect and maintain habitat for sensitive bat species at the Anvil Points cave. Disturbance to habitat would be mitigated or relocated more than 200 meters. Allow natural processes to have significant influence on future conditions of special status species and their habitats. Some active management of habitat and	prescriptions are presented in Table 2-2. Designate Parachute Creek WMA to protect ecosystem integrity and function related to the Colorado River cutthroat trout and supporting factors through graduated stipulations. Allow no loss or degradation of high risk fish habitat. Require special measures including relocation of surface-disturbing activities more than 200 meters to minimize indirect impacts to Colorado River cutthroat trout within areas delineated as moderate risk habitat. Mitigate impacts in the remainder of watersheds supporting Colorado River cutthroat trout. Manage livestock grazing so that streambank damage along occupied cutthroat trout streams does not exceed 10% of the stream length. Protect and maintain habitat for sensitive bat	prescriptions are presented in Table 2-2. Designate Trapper/Northwater Creek WMA to protect ecosystem integrity and function related to the Colorado River cutthroat trout and supporting factors through graduated stipulations. Allow no loss or degradation of high risk fish habitat. Require special measures including relocation of surface-disturbing activities more than 200 meters to minimize indirect impacts to Colorado River cutthroat trout within areas delineated as moderate risk habitat. Mitigate impacts in the remainder of watersheds supporting Colorado River cutthroat trout. Manage livestock grazing so that streambank damage along occupied cutthroat trout streams does not exceed 10% of the stream length. Protect and maintain	

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
	closure of routes would occur. Emphasis on an ecosystem basis.	species at the Anvil Points cave. Disturbance to habitat would be mitigated or relocated more than 200 meters. Manage habitat conditions specific to the requirements of individual species and focus on needed mitigation. Parachute Creek WMA goals, objectives, and actions are presented in Table 2-3.	habitat for sensitive bat species atthe Anvil Points cave. Disturbance to habitat would be mitigated or relocated more than 200 meters. Manage habitat conditions specific to the requirements of individual species and focus on needed mitigation. Trapper/Northwater Creek WMA goals, objectives, and actions are presented in Table 2-3.	
VISUAL RESOURCES				
Restrictions based on visual resource management (VRM) would not apply to the existing utility corridors.	Same as Alternative I	Same as Alternative I	Same as Alternative I	Same as Alternative I
Allow changes in the landscape associated with maintaining current Visual Resource Management Classes throughout the Planning Area. Current VRM objectives emphasize maintaining and mitigating for visual integrity of VRM Class II areas. Current Class II areas	Protect and preserve visual values and a natural appearing landscape within areas managed to protect and maintain wilderness characteristics, ACECs, WSRs, and in areas of High Visual Sensitivity, while allowing for some changes to the existing landscape character outside these special	Allow only limited changes and retain the visual values in areas with high visual sensitivity, high scenic quality, or relevant and important resource values to maintain a natural appearing landscape. Emphasize protection and/or mitigation for those lands that receive the	Same as Alternative III	Allow for changes in visual values within the existing landscape character throughout the Planning Area. Allow for changes that attract attention, but do not dominate the landscape. Allow for changes to scenic quality and the existing character of the landscape.

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
consist of lands that receive the greatest amount of public viewing (high visual sensitivity) within the viewsheds of I-70, portions of the NE Cliffs, East Fork Parachute Creek Canyon, and all lands managed by the White River Resource Area. The stipulations developed in the 1999 Oil and Gas FSEIS will be carried forward for the protection of visual resources only on some of the lands below the rim and will not apply to any lands on top of the plateau. Apply NGD/NSO on slopes >30% having high visual sensitivity in the I-70 viewshed. Apply an SSR/CSU stipulation only to lands within VRM Class II areas available for lease. Lands managed as VRM Class III would partially retain the existing characteristic landscape. The level of change in the landscape due to	designation areas. Emphasize preservation and protection of areas with high scenic quality, sensitive viewsheds, and maintain a natural appearing landscape within areas with protective designations or management actions (ACECs, areas managed to protect and maintain wilderness characteristics and WSRs). These areas would be managed as VRM Class I which allows for very limited landscape modifications. Visual resources and sensitive viewsheds within the I-70, SH 13, and County Rd. 25 corridors, and within East Fork Parachute Creek Canyon, would be protected. All developments, land alterations, and vegetative manipulations would be designed to avoid or minimize visual impacts. An NGD/NSO stipulation would be applied to surface disturbances on slopes steeper than 30% with high visual sensitivity in the I-70	greatest amount of public viewing within the I-70 viewshed. Design all developments, land alterations, and vegetative manipulations within the I-70 viewshed to limit visual impacts. Apply NGD/NSO stipulations within the East Fork Parachute Creek Canyon and on slopes over 30% with high visual sensitivity in the I-70 viewshed. Special measures would be required to retain the overall landscape character in VRM Class II areas by SSR/CSUs stipulations. Lands managed as VRM Class III will partially retain the existing characteristic landscape through the use of special mitigation measures. The level of change in the landscape due to management activities may be moderate to evident. Lands managed as VRM Class IV will allow for high levels of modification in the	Same as Alternative III	No special provisions would be made that would necessarily preclude or relocate development, although some mitigation would be applied to lessen visual impacts. Manage the top of the plateau, cliffs, and sensitive viewsheds as Class III, and the remaining lands as Class IV. Lands managed as VRM Class III will partially retain the existing characteristic landscape through the use of special mitigation measures. The level of change in the landscape due to management activities may be moderate to evident. Lands managed as VRM Class IV will allow for high levels of modification in the landscape.

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
management activities may be moderate to evident. Lands managed as VRM Class IV allow for high levels of landscape modification. Disturbed areas (Class V) areas would be restored to meet VRM Class objectives for adjacent lands.	and SH 13 viewsheds. Special measures would be required to retain the overall landscape character in VRM Class II areas through SSR/CSU. Lands managed as VRM Class III will partially retain the existing characteristic landscape through the use of special mitigation measures. The level of change in the landscape due to management activities may be moderate to evident. Lands managed as VRM Class IV will allow for high levels of modification in the landscape. Class V areas will be managed under the VRM Class objectives for the areas immediately adjacent to the disturbance.	landscape. Class V areas will be managed under the VRM Class objectives adjacent to the disturbance.		

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
VRM Classes by acre: • Class I: 0 • Class II: 24,039 • Class III: 37,115 • Class IV: 10,340 • Class V: 2,096	VRM Classes by acre: • Class I: 37,240 • Class II: 13,428 • Class III: 14,607 • Class IV: 8,350 • Class V: 0	VRM Classes by acre: • Class I: 925 • Class II: 48,752 • Class III: 15,563 • Class IV: 8,350 • Class V: 0	VRM Classes by acre: • Class I: 925 • Class II: 48,752 • Class III: 15,563 • Class IV: 8,350 • Class V: 0	VRM Classes by acre: • Class I: 0 • Class II: 0 • Class III: 63,022 • Class IV: 10,568 • Class V: 0
Urban				
12 acres	12 acres	12 acres	12 acres	12 acres
Class I: Preservation of existing character of the landscape. (Typically results in NGD/NSO with very limited exceptions.)				
0 acres	37,240 acres (within four ACECs and three areas managed to protect and maintain wilderness characteristics)	925 acres (associated with waterfall and canyon)	925 acres (associated with waterfall and canyon)	0 acres
Class II: Retention of existing character of the landscape. Level of allowable change is low. (Typically results in NGD/NSO or SSR/CSU, reclamation and mitigation required.)				
24,039 acres	13,428 acres	48,752 acres	48,752 acres	0 acres
Class III: Level of change to the characteristic landscape can be moderate. (Reclamation and mitigation required.)				
10,340 acres	8,349 acres	15,563 acres	15,563 acres	10,568 acres
Class IV: Level of change to the characteristic landscape can be high. (Reclamation and mitigation required.)				
37,115 acres	14,607 acres	8,350 acres	8,350 acres	63,022 acres
Class V: Remaining disturbed areas, after reclassification after required reclamation and mitigation.				
2,096 acres	0 acres	0 acres	0 acres	0 acres

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
TRANSPORTATION AND TRAVEL MANAGEMENT				
Area Restrictions				
Provide opportunities for non-motorized, mechanized, and motorized travel, within the framework of existing decisions. No designated routes on transferred lands. Open to cross-country travel. (Present travel restrictions are temporary, subject to land use planning.)	Provide for non-motorized, mechanized, and motorized travel as opportunities allow. Limit off-road vehicle use to preserve and protect wilderness characteristics. Provide for responsible use by limiting travel to designated routes or areas throughout the Planning Area, including the Hubbard Mesa SRMA and over-snow travel by snowmobile.	Provide for non-motorized, mechanized, and motorized travel as opportunities allow. Limit off-road vehicle use to preserve and protect roadlessness and naturalness. Provide for responsible use by limiting travel to designated routes or areas throughout the Planning Area, including the Hubbard Mesa SRMA but excluding over-snow travel by snowmobile.	Provide for non-motorized, mechanized, and motorized travel as opportunities allow. Provide for responsible use by limiting travel to designated routes or areas throughout the Planning Area, except within the Hubbard Mesa SRMA and except for over-snow travel by snowmobile.	Provide for non-motorized, mechanized, and motorized travel, as opportunities allow. Provide for responsible use by limiting travel to designated routes throughout the Planning Area, except for over-snow travel by snowmobile.
As oil and gas or other development occurs, travel in areas (other than the SRMA in Alternatives II through IV) affected by oil and gas development may be limited, restricted, or closed to resolve conflicts, provide for public safety, and provide for orderly oil and gas operations. New routes associated with oil and gas will be designated dministrative access only, unless specific objectives	Same as Alternative I	Same as Alternative I	Same as Alternative I	Same as Alternative I

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
for other resources (e.g., recreational travel routes or access to recreational sites) are present that warrant other designations on a case-by-case basis.				
Open to cross-country travel: 66,934 acres (over-snow conveyances may travel cross-country).	Open to cross-country travel: 0 acres.	Open to cross-country travel: 0 acres (over-snow travel open on 66,934 acres).	Open to cross-country travel: 2,460 acres (over-snow travel open on 66,934 acres).	Same as Alternative III
Limited to designated routes: 0 acres	Limited to designated routes: 45,552 acres (includes over-snow travel).	Limited to designated routes: 66,934 acres (excludes over-snow travel.	Limited to designated routes: 64,474 acres (excludes Hubbard Mesa).	Same as Alternative III
As oil and gas or other development occurs, travel in areas (other than the SRMA in Alternatives II, III, and IV) that are affected by oil and gas development may be limited, restricted, or closed to resolve conflicts, provide for public safety, and provide for orderly oil and gas operations. New routes associated with oil and gas or other uses would be designated administrative access only, unless specific objectives for other resources (e.g. recreational travel routes or access to recreational sites) are	Same as Alternative I	Same as Alternative I	Same as Alternative I	Same as Alternative I

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
present that warrant other designations.				
Closed to motorized and mechanized travel: 0 acres	Closed to motorized and mechanized travel: 21,382 acres.	Closed to motorized and mechanized travel: 0 acres	Closed to motorized and mechanized travel: 0 acres	Closed to motorized and mechanized travel: 0 acres
Routes				
Open to motorized (public and administrative) and mechanized use: 259 miles Closed to motorized and mechanized use: 0 miles	Open to motorized and mechanized use: 173 miles (includes approximatley 35 miles of designated routes in Hubbard Mesa SRMA) Open only for administrative use: 43 miles Closed to motorized and mechanized use: 43 miles	Open to motorized and mechanized use: 209 miles Open only for administrative motorized use: 24 miles Closed to motorized and mechanized use: 26 miles Routes subject to closure or restrictions for public safety.	Same as Alternative III	Open to motorized (public and administrative) and mechanized use: 259 miles Closed to motorized and mechanized use: 0 miles Routes subject to closure or restrictions for public safety.
	Closed routes will be rehabilitated and may be designated/managed for foot and horse travel.	Same as Alternative II	Same as Alternative II	Same as Alternative II
The "JQS Road" (Garfield CR 242) is not suitable as a main access for oil and gas drilling equipment and other long/heavy equipment due to grades and switchbacks. It is assumed that oil and gas lessees will access the top of the plateau across private lands from the west	Same as Alternative I	Same as Alternative I	Same as Alternative I	Same as Alternative I

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
or via public access on "Cow Creek Road" (Rio Blanco CR 5 and Garfield CR 249) from the north. In Rio Blanco County, Cow Creek Road provides public access either across BLM land or through easements across private lands and is not a BLM road.				
As oil and gas or other development occurs, travel on routes (other than the Hubbard Mesa SRMA in Alternatives II through IV) that are affected by oil and gas development may be limited, restricted, or closed to resolve conflicts, provide for public safety, and provide for orderly oil and gas operations. New routes associated with oils and gas or other uses will be designated for administrative use only, unless specific objectives for other resources (e.g., recreational transportation routes or access to a recreational site of interest) exist, in which case other designations may be considered on a case-by-	Same as Alternative I	Same as Alternative I	Same as Alternative I	Same as Alternative I

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
case basis.				
LANDS AND REALTY				
Acquisitions of in-holdings and other areas with important resource values would be encouraged or allowed.	Same as Alternative I	Same as Alternative I	Same as Alternative I	Same as Alternative I
Maintain the current Oil Shale Withdrawal affecting the transferred lands.	The current Oil Shale Withdrawal affecting the transferred lands is proposed for revocation through this RMPA.	Same as Alternative II	Same as Alternative II	Same as Alternative II
BLM would continue to allow development in existing rights-of-way along SH 13 and I-70. No direction identified for transferred lands. Acquisition of in-holdings and areas of important resource values allowed. Disposal of 2,031 acres in previously isolated parcels. (With the transfer of the NOSR parcels, lands identified in the 1988 GSRA RMP may not be suitable for disposal as they are no longer isolated.) All lands are suitable for	Major utility corridors are identified for the public lands along SH 13 and north of I-70. This is an existing corridor and will continue to be made available for new pipelines and utilities rights-of-way. Retention of lands on top of the Plateau except for the possibility of an exchange to acquire in-holdings. Below the rim, lands would be considered on a case-by-case basis for exchange. No exchanges or disposals would occur within ACECs, areas managed to protect and	Major utility corridors are identified for the public lands along SH 13 and north of I-70. This is an existing corridor and will continue to be made available for new pipelines and utilities rights-of-way. Retention of lands on top of the Plateau except for the possibility of an exchange to acquire in-holdings. Below the rim, lands would be considered on a case-by-case basis for exchange. No exchanges or disposals would occur within ACECs or the SRMA. Use authorizations	Major utility corridors are identified for the public lands along SH 13 and north of I-70. This is an existing corridor and will continue to be made available for new pipelines and utilities rights-of-way. Retention of lands on top of the Plateau except for the possibility of an exchange to acquire in-holdings. Below the rim, lands would be considered on a case-by-case basis for exchange. No exchanges or disposals would occur within ACECs or the SRMA. Use authorizations	Major utility corridors are identified for the public lands along SH 13 and north of I-70. This is an existing corridor and will continue to be made available for new pipelines and utilities rights-of-way. Retention of lands on top of the Plateau except for the possibility of an exchange to acquire in-holdings. Below the rim, lands would be considered on a case-by-case basis for exchange. Use authorizations would have to meet the conditions or stipulations of the

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
consideration for the location of utility and communication facilities. Sensitive zones are identified for some lands where existing resource values must be mitigated prior to location of a proposed facility.	maintain wilderness characteristics, or the SRMA. Ue authorizations would have to meet conditions or stipulations of the alternative. Potential disposal or exchange of approximately 40 acres adjacent to gun range and bout 80 acres in other isolated parcels. Utility corridors would be allowed within 50 feet of centerline of BLM designated and administrative travel routes. BLM would continue to allow development in existing utility rights-of-way along SH 13 and I-70. Lands would be available for communication and other facilities (such as wind power generation) subject to the closures and conditions associated with areas managed to protect and maintain wilderness characteristics, protective stipulations, and other management constraints identified by alternative.	would have to meet the conditions or stipulations of the alternative. Potential disposal or exchange of approximately 40 acres adjacent to gun range, along with about 80 acres in other isolated parcels. Utility corridors would be allowed within 50 feet of centerline of BLM designated and administrative travel routes. BLM would continue to allow development in existing utility rights-of-way along SH 13 and I-70. Lands would be available for communication and other facilities (such as wind power generation) subject to the closures and conditions associated with protective stipulations, and other management constraints identified by alternative.	would have to meet the conditions or stipulations of the alternative. Potential disposal or exchange of approximately 40 acres adjacent to gun range, along with about 80 acres in other isolated parcels. Utility corridors would be allowed within 50 feet of centerline of BLM designated and administrative travel routes. BLM would continue to allow development in existing utility rights-of-way along SH 13 and I-70. Lands would be available for communication and other facilities (such as wind power generation) subject to the closures and conditions associated with protective stipulations, and other management constraints identified by alternative.	alternative. Potential disposal or exchange of approximately 40 acres adjacent to gun range, along with about 80 acres in other isolated parcels. Utility corridors would be allowed within 50 feet of centerline of BLM designated and administrative travel routes. BLM would continue to allow development in existing utility rights-of-way along SH 13 and I-70. Lands would be available for communication and other facilities (such as wind power generation) subject to the closures and conditions associated with protective stipulations, and other management constraints identified by alternative.

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
RECREATION				
Recreation Activities				
Provide dispersed recreation activity opportunities.	Same as Alternative I	Same as Alternative I	Same as Alternative I	Same as Alternative I
Recreation Setting				
Management direction for dispersed recreational activities would be consistent with the following ROS classes: **Acres** Urban 0 Rural 8,372 Front Country 14,319 Middle Country 24,113 Back Country 20,110 Primitive 0	Management direction for dispersed recreational activities would be consistent with the following ROS classes: **Acres** Urban 0 Rural 8,372 Front Country 36,635 Middle Country 21,345 Back Country 583 Primitive 0	Management direction for dispersed recreational activities would be consistent with the following ROS classes: **Acres** Urban 0 Rural 8,372 Front Country 57,925 Middle Country 684 Back Country 583 Primitive 0	Same as Alternative III	Management direction for dispersed recreational activities would be consistent with the following ROS classes: **Acres** Urban 0 Rural 8,372 Front Country 58,053 Middle Country 9 Back Country 500 Primitive 0
Special Recreation Management Areas (SRMAs)				
No SRMAs; manage as part of Glenwood Springs Extensive Recreation Management Area (ERMA).	Designate Hubbard Mesa SRMA for Off-Highway Vehicles (OHVs) to enhance/manage intensive mechanized/motorized use in the area (2,460 acres).	Same as Alternative II	Designate Hubbard Mesa SRMA for Off-Highway Vehicles (OHVs) to enhance and manage intensive mechanized and motorized use within the	Same as Alternative I

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
	Travel would be limited to designated routes. Remaining lands would be managed under the Glenwood Springs Extensive Management Area. Management objectives for the Hubbard Mesa SRMA are presented in Appendix E.		area (2,460 acres) Travel would not be limited to designated routes. Management objectives for the Hubbard Mesa SRMA are presented in Appendix E.	
GRAZING AND RANGELAND MANAGEMENT				
Continue the authorization of livestock grazing in a manner consistent with Public Land Health Standards and Guidelines for Livestock Grazing Management in Colorado.	Same as Alternative I	Same as Alternative I	Same as Alternative I	Same as Alternative I
Implement rangeland projects (fences, ponds, etc. to direct livestock use) and administrative solutions (season of use revisions, stocking level adjustments, pasture exclusions and utilization stipulations) to meet resource management objectives based on monitoring studies and land health assessment findings.	Emphasize administrative actions (season of use revisions, stocking level adjustments, pasture exclusions and utilization stipulations) as the preferred solution to meet resource management objectives based on monitoring studies and land health assessment findings. Accelerate progress towards meeting	Use a combination of administrative solutions (such as season of use revisions, livestock exclusion, and stocking level adjustments) and rangeland projects (fences, ponds, etc. to direct livestock use) to meet resource objectives while making significant progress towards meeting Land Health Standards.	Same as Alternative III Same as Alternative III	Emphasize rangeland projects (fences, ponds, etc. to direct livestock use) and vegetative treatments as the preferred solution to optimize forage availability and meet resource management objectives in coordination with other land uses. Make significant progress, where practical, towards meeting Land Health Standards.

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
Abandon and rehabilitate projects that do not function to meet management objectives.	Land Health Standards. Abandon and rehabilitate projects that do not function to maintain resource values and meet management objectives.	Abandon and rehabilitate projects that do not function to maintain resource values and meet management objectives.		Abandon and rehabilitate projects that longer meet management objectives and/or are in direct conflict with other land uses.
Conduct high-intensity monitoring on allotments with identified issues to ensure compliance with permit terms and conditions and progress toward Land Health Standards. Conduct low-intensity monitoring on other allotments to ensure compliance with authorization and maintenance of current conditions.	Conduct-high intensity monitoring on high-priority allotments to determine whether management objectives and Land Health Standards are being achieved. Conduct low-intensity monitoring on other allotments to ensure that livestock grazing is not in conflict with other natural resource processes.	Conduct high-intensity monitoring on allotments covered by allotment management plans and on allotments with management actions to make progress toward meeting Land Health Standards. Conduct low-intensity monitoring on remaining allotments to ensure compliance with authorization and maintain current conditions.	Same as Alternative III	Same as Alternative I
Develop allotment management plans within administrative units that do not meet, or have identified concerns in meeting, Land Health Standards.	Develop allotment management plans for units that do not meet standards or have identified conflicts with wildlife, watershed, wetland/riparian, botanical, or wilderness values.	Same as Alternative II	Same as Alternative II	Develop allotment management plans within administrative units that have identified issues in meeting Land Health Standards.

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
OIL AND GAS LEASING AND DEVELOPMENT				
Protection of Threatened, Endangered, or Special Status Species				
In addition to standard stipulations, all lands made available for lease under any alternative will have a special stipulation as follows: The lease area may now or subsequently contain threatened, endangered, or other special status species of plants or animals or their habitats. BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activity that will contribute to a need to list such species or their habitat under the Endangered Species Act (ESA), as amended (16 U.S.C. 1531 et seq.). BLM may require modifications to or disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. BLM will not approve any ground-disturbing activity that may affect any such species or critical habitat until it completes its obligations under applicable requirements of the ESA, including any required procedure for conference or consultation.				
Access for Exploration and Development				
The "JQS Road" (Garfield CR 242) is not suitable as a main access for oil and gas drilling equipment and other long or heavy equipment due to steep grades and switchbacks. It is assumed that holders of oil and gas leases will access the top of the plateau across private lands from the west or via public access on "Cow Creek Road" (Rio Blanco CR 5 and Garfield CR 249) from the north. In Rio Blanco County, CR 5 provides public access across BLM land or via easements on private lands and is not a BLM road.	Same as Alternative I	Same as Alternative I	Same as Alternative I	Same as Alternative I

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
Leasing and Permitting				
Oil and gas leasing will be conducted on leasable lands in accordance with the Mineral Leasing Act and the Federal Onshore Oil and Gas Reform Act of 1987 (Reform Act) and applicable regulations under 43 CFR 3100 and in accordance with the decisions made through application of FLMPA and other laws applicable to public lands. Regulations governing onshore oil and gas operations can be found at 43 CFR 3160.	Same as Alternative I	Same as Alternative I	Same as Alternative I	Same as Alternative I
BLM will issue oil and gas leases and provide for environmentally sound development such as upgrading existing roads and constructing well sites, new roads, and associated facilities for development of new or existing oil and gas leases. Although well pad densities may vary across the Planning Area, the objective will be to manage lease development to limit	Same as Alternative I	Same as Alternative I, but with a goal to limit average surface spacing density to one well pad per 160 acres. This may include, but is not necessarily limited to, relocation of drilling locations, inventories, special studies, onsite and offsite mitigation, and timing restrictions.	Same as Alternative III	Same as Alternative I

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
surface density consistent with lease rights granted. This will be achieved through clustering of wells and collocation of facilities based on site-specific considerations in response to ecological, visual, recreational, and other resource sensitivities. Prior to exploration and/or lease development, the operator must submit a Geographic Area Proposal identifying projected activity (including well locations, pipelines, and facilities) during the next 2 to 5 years and appropriate mitigation. The standard lease form along with standard terms and conditions is shown in Appendix B. Lease stipulations are described in Appendix C.				
Closed to Oil and Gas Leasing: This is the most restrictive prescription.				
44,267 acres (60.1%) (not leased within former NOSR 1 and three parcels)	21, 382 acres (29%) (within three areas managed for the maintenance and protection of wilderness characteristics)	0 acres	0 acres	0 acres

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
Deferred Lease for Oil and Gas: Threshold criterion for leasing and development atop the plateau would be the drilling and completion of 80% of the anticipated total number of wells below the rim during the 20-year period of analysis. This point could be reached in 10 to 20+ years.				
0 acres	0 acres	34,758 acres (47.2%)	0 acres	0 acres
No Surface Occupancy (NSO): Lands available for lease where NSO is the most restrictive stipulation. May overlap with less restrictive stipulations.				
13,912 acres (18.9%) NSO for slopes greater than 50%, threatened, endangered and federal proposed or candidate species, wildlife seclusion areas, raptors, peregrine falcon, bald eagles, I-70 viewshed, Anvil Points cave area, riparian and wetland zones, and major river corridors.	31,200 acres (42.4%) NSO for slopes greater than 50%, special status species (threatened, endangered, federal *proposed* candidate or sensitive species) populations, high risk plants habitat, significant or remnant plant communities, raptors, moderate risk plant habitat/ecological process, bald eagles, I-70 and SH 13 or County Road viewsheds, Class 1 VRM, high visual sensitivity, wildlife seclusion areas, fish high risk habitat, fish moderate risk habitat, fisheries high value watershed, peregrine falcon, Anvil Points cave area, riparian and wetland zones, four ACECs (see ACEC section), WSR eligibility, and major river corridors.	30,928 acres (42%) NSO for slopes greater than 50%, special status species, (threatened, endangered and federal proposed or candidate species, sensitive species) populations, high risk plants habitat, significant or remnant plant community, raptors, bald eagles, I-70 viewshed, Class 1 VRM/high visual sensitivity, fish high risk habitat, peregrine falcon, Anvil Points cave area, riparian and wetland zones, WSR eligibility, and major river corridors. NSO with no modification, waiver, or exceptions for the 9,006 acres with roadless and naturalness values.	Same as Alternative III	21,609 acres (29.4%) NSO for slopes greater than 50%, threatened, endangered and federal proposed or candidate species, raptors, bald eagles, peregrine falcon, Anvil Points cave area, fish high risk habitat, riparian and wetland zones and major river corridors.

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
Controlled Surface Use (CSU): Lands available for lease where CSU is the most restrictive stipulation. No NSO stipulations apply.				
8,256 acres (11.2%) CSU for sensitive species populations, some significant plant communities, erosive soils and slopes, VRM Class II areas, Sharrard Park paleontological resources, and riparian and wetland habitat below the rim.	7,015 acres (9.5%) CSU for sensitive species populations, some significant plant communities, erosive soils and slopes, VRM Class II areas, Sharrard Park paleontological resources, and riparian and wetland habitat below the rim.	29,594 acres (40.2%) CSU for sensitive species populations, some significant plant communities, erosive soils and slopes, VRM Class II areas, Sharrard Park paleontological resources, and riparian and wetland habitat below the rim.	27,486 acres (37.3%) CSU for sensitive species populations, some significant plant communities, erosive soils and slopes, VRM Class II areas, Hubbard Mesa SRMA, Sharrard Park paleontological resources, and riparian and wetland habitat below the rim.	21,517 acres (29.2%) CSU for sensitive species populations, some significant plant communities, erosive soils and slopes, VRM Class II areas, Sharrard Park paleontological resources, and riparian and wetland habitat below the rim.
Timing Limitation (TL): Lands available for lease with TLs on periods when construction and drilling activities are prohibited to protect important wildlife habitats. These limitations do not apply to the operation and maintenance of producing wells. Winter range TL is applied as a lease stipulation under Alternatives I through IV and as a COA under Alternative V. Raptor TL also includes bald eagle winter roosts.				
28,670 acres Big game winter range, raptor nesting, bald eagle, peregrine falcon, waterfowl, and shorebird nesting.	28,670 acres Big game winter range, raptor nesting, bald eagle, peregrine falcon, waterfowl, and shorebird nesting.	28,670 acres Big game winter range, raptor nesting, bald eagle, peregrine falcon, waterfowl, and shorebird nesting.	28,670 acres Big game winter range, raptor nesting, bald eagle, peregrine falcon, waterfowl, and shorebird nesting.	3,692 acres Raptor nesting, bald eagle, peregrine falcon, waterfowl, and shorebird nesting.
Areas with Protective Designations or Management Actions: Lands where exploration and development activities are subject to special mitigation measures. These will be in the form of conditions of approval, and will be developed through the permitting process.				
0 acres	65,449 acres (88.9%) Special mitigation measures to protect wildlife, vegetation, geological, watershed, fisheries, visual, and Hubbard Mesa SRMA values.	69,867 acres (94.9%) Special mitigation measures to protect wildlife, vegetation, geological, watershed, fisheries, visual, and Hubbard Mesa SRMA values.	33,631 acres (45.7%) Special mitigation measures to protect wildlife, vegetation, geological, watershed, fisheries, visual, and Hubbard Mesa SRMA values.	0 acres

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
Standard Terms and Conditions With or Without TLs: Lands where exploration and development activities are subject to standard lease terms and conditions plus a stipulation for the protection of species under the Endangered Species Act. Mitigation measures, which may be in the form of conditions of approval, will be developed through the impact analysis process.				
7,167 acres (9.7%)	14,006 acres (19%)	13,080 acres (17.8%)	15,188 acres (20.6%)	30,746 acres (41.8%)
OTHER MINERALS				
Oil Shale Leasing and Development				
No leasing	No leasing	At the discretion of the Secretary of the Interior, research and development (R&D) lease tracts will be considered in the Planning Area. Approval of research tracts will be based on the merits of the technology proposed. All leases and development (including R&D) will be subject to the NSO, CSU, and other constraints identified for this alternative. The Secretary could also propose research tract development to further the goals of a Federal energy policy. If the research technology demonstrates adequate reserve recovery, the Secretary has the discretion to expand the research tract into a	Same as Alternative III	Same as Alternative III

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
		commercial mineral lease. Additional NEPA analysis may be required prior to any lease offering, and appropriate stipulations and mitigation (within the constraints of this alternative) would be developed. Future leasing other than described above will be based on promulgation of oil shale regulations.		
Coal Leasing and Development				
No leasing	No leasing	Leasing would be allowed in limited areas. Although the potential for the occurrence of coal at depth (+6,000 to 9,000 feet) is high, development within the foreseeable future is considered low as the current economic mining limit is around 3,000 feet.	Same as Alternative III	Same as Alternative III
Locatable Minerals				
Under current management, the Oil Shale Withdrawal has closed the transferred lands to mineral entry under the mining law.	Under these alternatives the Oil Shale Withdrawal affecting the transferred lands would be proposed for revocation. All lands would be available for mining claim location.	Same as Alternative II	Same as Alternative II	Same as Alternative II

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
	Exploration/development activities will be subject to 43 CFR 3809 but not the NGD/NSO or SSR/CSU constraints identified by alternative. Rights granted under the mining law cannot be modified by NGD/NSO or SSR/CSU.			
Salable Minerals				
Allow for mineral material sales on a case-by-case basis subject to the closures associated with areas managed to protect and maintain wilderness characteristics and NGD/NSO and SSR/CSU constraints identified by alternative.	Same as Alternative I	Same as Alternative I	Same as Alternative I	Same as Alternative I
AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACECS) AND WATERSHED MANAGEMENT AREAS (WMAS)				
No ACECs would be designated. Management direction would be consistent with that provided by the overall objective for the alternative, and for specific resources.	Designate four ACECs where special management is applied to protect and prevent irreparable damage to relevant and important scenic, fisheries, wildlife, and botanical/ecological values. Risk of impacts to these significant values would be	Designate two ACECs where special management is applied to protect and prevent irreparable damage to relevant and important core vales: scenic, fisheries, wildlife, and botanical/ecological. Risk of impacts to these significant values would be	Designate two ACECs where special management is applied to protect and prevent irreparable damage to relevant and important core vales: scenic, fisheries, wildlife, and botanical/ecological. Risk of impacts to these significant values would be	Same as Alternative I.

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
	minimized through management prescriptions on 36,184 acres. Magpie Gulch: 5,885 acres (visual, wildlife, botanical/ecological) Anvil Points: 10,226 acres (visual, geological, wildlife, botanical/ecological) East Fork Parachute Creek: 9,777 acres (visual, fish/wildlife, botanical/ecological) Trapper/Northwater Creek: 10,296 acres (fish/wildlife, botanical/ecological) See Table 2-2 for detailed ACEC management prescriptions.	minimized through management prescriptions on 11,529 acres. East Fork Parachute Creek: 6,719 acres (visual, fisheries, botanical/ecological) Trapper/Northwater Creek : 4,810 acres (fisheries, botanical/ecological) Values outside the ACECs would be protected or mitigated through the use of stipulations or conditions on development. The Parachute Creek WMA would be designated. Special mitigation to protect watershed values associated with fisheries, botanical resources, and municipal water quality could be applied to 29,073 acres during permitting. See Table 2-3.	minimized through management prescriptions on 11,529 acres. East Fork Parachute Creek: 6,719 acres (visual, fisheries, botanical/ecological) Trapper/Northwater Creek: 4,810 acres (fisheries, botanical/ecological) Values outside the ACECs would be protected or mitigated through the use of stipulations or conditions on development. The Trapper/Northwater Creek WMA would be designated. Special mitigation to protect watershed values associated with fisheries, botanical resources, and municipal water quality could be applied to 14,219 acres during permitting. See Table 2-3.	
AREAS HAVING WILDERNESS CHARACTER				
Management direction would be consistent with that provided by the overall objective for the alternative,	Manage a total of 21,382 acres in three areas (as provided by section 202 of FLPMA) to protect and	Manage 9,006 acres to maintain roadlessness and naturalness within 3 units:	Same as Alternative I	Same as Alternative I

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
and other resources. No special protections would be provided for wilderness characteristics in those areas that have been found to contain them.	maintain wilderness characteristics (naturalness, roadlessness, and outstanding opportunities for solitude and unconfined types of rcreation) within 3 units: Northeast Cliffs: 5,801 acres Southeast Cliffs: 5,192 acres East Fork Parachute Creek: 10,389 acres See Appendix G.	Northeast Cliffs: 2,291 acres Southeast Cliffs: 3,014 acres East Fork Parachute Creek: 4,241 acres		
STREAMS ELIGIBLE FOR SUITABILITY STUDY UNDER WILD AND SCENIC RIVERS ACT				
Eligibility findings not applied.	Protect rivers and corridors totaling 7,883 acres within the Resource Area that are found to be eligible under the WSRA, by not allowing any surface disturbing activities that might impair values, until a suitability analysis has been completed.	Same as Alternative II	Same as Alternative II	BLM would allow no surface-disturbing activities that might impair values until a suitability analysis has been completed. For analysis purposes, 0 acres are assumed suitable. No NGD/NSO stipulations are shown. While 7,833 acres would remain eligible and be protected, the analysis does not consider this restriction. BLM would continue to WSR-eligible rivers and corridors.

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
FOREST PRODUCTS				
No special management actions identified. Manage to maintain and promote forest health consistent with other resource objectives.	Same as Alternative I	Same as Alternative I	Same as Alternative I	Same as Alternative I
FIRE				
Provide appropriate management response based on Fire Management Plan and fire management zone (FMZ) classification considering firefighter and public safety and social, economic, and environmental values.	Same as Alternative I	Same as Alternative I	Same as Alternative I	Same as Alternative I
FMZ for the Planning Area are as follows: B-140-02 (south side of plateau) C-140-02 (NE and SE cliffs) D-140-01 (top of plateau)	FMZs for the Planning Area are as follows: B-140-02 (south side of plateau) C-140-02 (NE and SE Cliffs and top of plateau)	Same as Alternative II	Same as Alternative II	Same as Alternative II
CULTURAL RESOURCES				
Proactive Cultural Resources Fieldwork By Alternative				
Least amount	Moderate amount	Same as Alternative II	Same as Alternative II	Low to moderate amount

Table 2-1. Summary of Management Components of Alternatives I through V

Alternative I (No Action)	Alternative II	Alternative III (Preferred)	Alternative IV	Alternative V
Cultural Resources Management Common to All Alternatives				
Comply with the National Historic Preservation Act, National Programmatic Agreement/State Protocol, WO-IB-2002-101, and other applicable laws, regulations, and policies. Goals are as follows: 1. Preserve and protect significant cultural resources and ensure that they are available for appropriate uses by present and future generations. (FLPMA Sec. 103(c), 201(a), 202(c); NHPA Sec. 110(a); ARPA Sec. 14(a).) 2. Reduce imminent threats from natural or human-caused deterioration or potential conflict with other uses by identifying priority geographic areas for new field inventory based on a probability for unrecorded significant resources (ARPA Sec. 14(a); NHPA Sec. 106, 110).				

Cultural Resources Fieldwork Actions by Sensitivity Area and Location (Same for All Alternatives)						
Sensitivity Zone	*Survey Management*			*Management of Cultural Resource Locations*		
	Project Location	*Areas Not Inventoried*	*Inventoried Areas (No Resources)*	*Sites Needing Data*	*NRHP Eligible Sites*	*NRHP Not Eligible Sites*
High	Atop the Plateau	Class III – 100% Inventory	Monitor [1]	Avoid or test [2]	Avoid or implement data recovery plan [3]	Monitor
	Below the Rim	Class III –100% Inventory	Monitor	Avoid or test [2]	Avoid or implement data recovery plan [3]	No further work
Moderate	Atop the Plateau	Class III – 100% Inventory	Monitor	Avoid or test [2]	Avoid or implement data recovery plan [3]	Monitor
	Below the Rim	Class II – Reconnaissance	No further work	Avoid or test [2]	Avoid or implement data recovery plan [3]	No further work
Low	Atop the Plateau	Class I – Records Search	No further work	Avoid or test [2]	Avoid or implement data recovery plan [3]	No further work
	Below the Rim	Class I – Records Search	No further work	Avoid or test [2]	Avoid or implement data recovery plan [3]	No further work

[1] *Monitor refers to having a qualified archaeologist on site during construction/maintenance activities as determined by the Cultural Resource Specialist.*

[2] *Test refers to evaluative testing and excavation of a site to determine NRHP eligibility.*

[3] *Data Recovery refers to large-scale excavation of the site for mitigation purposes.*

All authorizations for land and resource use will comply with Section 106 of the National Historic Preservation Act, consistent with and subject to the objectives established in the RMPA for the proactive use of cultural properties in the public interest (NHPA Sec. 106, 101(d)(6), 110(a)(2)(E); BLM-ACHP-NCSHPO Programmatic Agreement of March 1997).

Proposed activities will not be authorized until compliance with Section 106 of NHPA has been completed and documented, including, where applicable, consultation with the State Historic Preservation Officer and Indian tribes.

Native American Consultation for identification and protection of culturally sensitive properties and use areas will occur under all alternatives.

Level of proactive work and/or need for National Register District or ACEC based on Class I overview data and potential impacts of proposed actions.

Table 2-2a. Proposed Management Prescriptions for Areas of Critical Environmental Concern (ACECs)

ANVIL POINTS	Alternative II	Alternatives III and IV
	RELEVANT AND IMPORTANT RESOURCES	
Visual	**Objective:** Preserve the existing character of the landscape to meet Visual Resource Management (VRM) Class I objectives. **Management Action**: Maintain the natural character and scenic quality in the landscape to provide for natural ecological process while restricting anthropogenic (human-caused) landscape modifications. Limited activities may be allowed if the basic landscape elements (line, form, color, and texture) are repeated, are not evident, and appear natural. (NGD/NSO V-1)	No Anvil Points ACEC in Alternatives III or IV
Geological	**Objective:** Protect and preserve the scientific and historic values of the cave and karst system. Allow for no physical disturbance to the cave or karst system surrounding the cave. Restrict activities that could cause direct or indirect impact to the cave or karst system such as collapse or dewatering. **Management Action**: Allow for no physical disturbance to the cave or surrounding karst system. Restrict management activities that could cause direct or indirect impact to the cave and karst system such as collapse or dewatering. (NGD/NSO 19)	No Anvil Points ACEC in Alternatives III or IV
Wildlife	**Objective:** Protect identified raptor nest sites. **Management Actions**: For the protection of raptors, NGD/NSO within 0.125-mile radius of a nest site. Raptors include owls, osprey, golden eagle, buteos, accipiters, and falcons except American kestrel. (NGD/NSO 7) For the protection of peregrine falcon, NGD/NSO within 0.25-mile radius of cliff nesting complex. (NGD/NSO 9) NGD/NSO within the Roan Cliffs wildlife seclusion areas, which provide high wildlife value, including large mammals and raptors. (NGD/NSO 11)	No Anvil Points ACEC in Alternatives III or IV

Table 2-2a. Proposed Management Prescriptions for Areas of Critical Environmental Concern (ACECs)

ANVIL POINTS	Alternative II	Alternatives III and IV
Wildlife, *continued*	**Objective:** Maintain habitat connectivity and avoid displacement of wildlife. **Management Action**: Allow no new long-term (longer than two growing seasons) human use related ground disturbing activities within the unroaded wildlife habitat located below the rim. (NGD/NSO W-2) **Objective:** Protect and preserve bat habitat values of the Anvil Points caves / karst system. **Management Action**: Special design, construction, implementation, and/or mitigation measures including relocation by more than 200 meters may be required for species listed as sensitive by BLM and for significant natural plant communities. (SSR/CSU W-3) **Objective:** Protect and minimize disturbance to wintering big game, and allow for use of limited winter range habitats during the critical winter months. **Management Action**: Avoid drilling or other high-disturbance activities from December 1 through April 30 within winter habitat which includes big game severe winter range and other high value winter habitat as mapped by the CDOW. (TL-1) **Objective:** Prevent raptor nest abandonment and reductions in nesting productivity. **Management Actions**: Avoid drilling or other high-disturbance activities within a 0.25-mile buffer zone around the nest site from February 1 through August 15. (TL-6) Peregrine falcon: A 0.5-mile buffer area around the cliff-nesting complex from March 16 through July 31 to prevent abandonment and desertion of established territories. (TL-12)	No Anvil Points ACEC in Alternatives III or IV

Table 2-2a. Proposed Management Prescriptions for Areas of Critical Environmental Concern (ACECs)

ANVIL POINTS	Alternative II	Alternatives III and IV
Botanical / Ecological	**Objective:** Protect occupied habitat and the immediately adjacent ecosystem processes that support special status plants or significant plant communities. **Management Action**: No ground-disturbing activities within occupied habitat or within the immediately adjacent ecosystem processes that support rare plants or significant plant communities. (NGD/NSO P-1) **Objective:** Allow for the long-term viability and recovery of special status species, and protect and maintain potential habitat and the ecosystem processes that support them. **Management Actions**: No long-term ground disturbing activities within potential habitat/ecosystem processes for rare plants and significant communities. (NGD/NSO P-2)	No Anvil Points ACEC in Alternatives III or IV
	Special Management **Objective:** Maintain the current ecological integrity and function of the rare plants and significant plant communities. **Management Action**: Revegetate using locally adapted native species. (SM P-9) **Objective**: Allow natural ecosystem processes such as rockslides to continue. Control wildfire only when human safety or property is at risk. (SM P-10) **Management Action**: Manage significant grassland and shrubland communities to retain mid- to late-seral stage condition. (SM P-11) **Objective:** Minimize fragmentation of habitat and the risk of invasion by noxious weeds and other aggressive non-native species, which may compromise ecosystem function and the long-term viability of the rare plants and significant plant communities.	No Anvil Points ACEC in Alternatives III or IV

Table 2-2a. Proposed Management Prescriptions for Areas of Critical Environmental Concern (ACECs)

ANVIL POINTS	Alternative II	Alternatives III and IV
Botanical / Ecological, ***continued***	**Management Action**: Where practicable, restore to a naturally functioning state any existing human-caused disturbance that is impairing natural ecosystem processes affecting habitat for rare plant species or significant plant communities. (SM P-12) **Objective:** Ensure the long-term survival and reproductive capability of rare plants and significant plant communities. **Management Actions**: Prohibit collection of plants, plant materials, and seeds, except for scientific or research purposes. Such collection must have no detrimental impact on long-term survival and reproduction of rare species or significant communities. (SM P-13) Control noxious weeds using integrated techniques. Limit control in areas with significant plant communities or rare species to avoid damage to non-target species. (SM P-14) **Objective:** Maintain populations of rare plants and significant plant communities that are healthy, productive, and able to reproduce and sustain natural fluctuations and ecological processes. Provide adequate opportunities for recovery, regrowth, and seed dissemination and establishment. **Management Action**: Manage livestock grazing within occupied or potential habitat for rare plants or significant plant communities to promote plant health, maintain sufficient residual vegetation, and sustain overall watershed functions, as defined in the Colorado Livestock Grazing Management Guidelines (BLM 1997a). (SM P-15)	No Anvil Points ACEC in Alternatives III or IV
OTHER IMPORTANT RESOURCES		
Steep Slopes	**Objective:** Maintain site stability and productivity. **Management Action**: NGD/NSO on slopes greater than 50% to minimize impacts on site productivity, control surface runoff, reduce erosion, and enhance reclamation. (NGD/NSO 15)	No Anvil Points ACEC in Alternatives III or IV

Table 2-2a. Proposed Management Prescriptions for Areas of Critical Environmental Concern (ACECs)

ANVIL POINTS	Alternative II	Alternatives III and IV
Soils	**Objective:** Maintain site stability and minimize potential for erosion. **Management Action**: On slopes greater than 30%, special design, construction, operation, and reclamation measures will be required. (SSR/CSU 4)	No Anvil Points ACEC in Alternatives III or IV
Riparian Areas	**Objective:** Maintain proper hydrologic function and protect adjacent areas that provide habitat for special status fish and wildlife species, important riparian values, water quality, waterfowl shorebird production, amphibian habitat, and high scenic and recreation values. Allow continued access to and use of these habitats. **Management Actions**: Roads, transmission lines, storage facilities and similar human-induced surface disturbances are restricted to an area beyond the outer edge of the riparian vegetation. (NGD/NSO 2) For Colorado River corridor, NGD/NSO within 0.5 mile of either side of the high water mark (bankfull stage) to protect habitat for special-status fish and wildlife species, important riparian values, water quality/filtering values, waterfowl and shorebird production areas, valuable habitat for amphibians, and high scenic and recreation values. (NGD/NSO 3) SSR/CSU within 500 feet of the outer edge of riparian or wetland vegetation. (SSR/CSU 2)	No Anvil Points ACEC in Alternatives III or IV
Paleontologic Resources	**Objective:** Protect and preserve or recover scientific paleontological values within Sharrard Park. **Management Actions**: Within the Sharrard Park area, special survey, design, construction and reclamation measures may be required, including relocation of operation beyond 200 meters. (SSR/CSU 6)	No Anvil Points ACEC in Alternatives III or IV

Table 2-2b. Proposed Management Prescriptions for Areas of Critical Environmental Concern (ACECs)

MAGPIE GULCH	Alternative II	Alternatives III and IV
Visual	**Objective:** Preserve the existing character of landscape to meet VRM Class I objectives. **Management Action**: Maintain the natural character and scenic quality in the landscape that provides for ecological changes and restricts landscape modifications. Limited activities may be allowed if the basic landscape elements (line, form, color, and texture) are repeated, are not evident, and appear natural. (NGD/NSO V-1)	No Magpie Gulch ACEC in Alternatives III or IV
Wildlife	**Objective:** Protect identified raptor nest sites. **Management Action**: For the protection of raptors, NGD/NSO within 0.125-mile radius of a nest site. Raptors include owls, osprey, golden eagle, buteos, accipiters, and falcons except American kestrel. (NGD/NSO 7) **Objective:** Maintain habitat connectivity and avoid displacement of wildlife.	
	Management Action: Allow no new long-term (longer than two growing seasons) human use related ground disturbing activities within the unroaded wildlife habitat located below the rim. (NGD/NSO W-2) **Objective:** Protect and minimize disturbance to wintering big game and allow for use of limited winter range habitats during the critical winter months. **Management Action**: Avoid drilling or other high-disturbance activities within winter habitat which includes severe big winter range and other high value winter habitat as mapped by the CDOW (December 1 through April 30). (TL-1) **Objective:** Prevent raptor nest abandonment and reductions in nesting productivity. **Management Action**: Avoid drilling or	No Magpie Gulch ACEC in Alternatives III or IV

Table 2-2b. Proposed Management Prescriptions for Areas of Critical Environmental Concern (ACECs)

MAGPIE GULCH	Alternative II	Alternatives III and IV
	other high-disturbance activities within a 0.25-mile buffer zone around the nest site from February 1 through August 15. (TL-6)	
Botanical / Ecological	**Objective:** Protect the current extent, ecological integrity, and function of the old-growth Douglas-fir community. **Management Action**: NGD/NSO within old-growth Douglas-fir remnant community, including removal of any size-class trees. (NGD/NSO P-3)	No Magpie Gulch ACEC in Alternatives III or IV
	Special Management **Objective:** Maintain the current ecological integrity and function of the rare plants and significant plant communities. **Management Action**: Allow natural ecosystem processes such as rock slides to continue. Control wildfire only when human safety or property is at risk. (SM-P-10) **Objective:** Ensure the long-term survival and reproductive capability of rare plants and significant plant communities. **Management Actions**: Prohibit collection of plants, plant materials, and seeds except for scientific or research purposes. Collection must have no detrimental impact on long-term survival and reproduction of rare plant species or significant plant communities. (SM-P-13) Control noxious weeds using integrated techniques. Limit control in rare plant populations or significant plant communities to avoid damage to non-target species. (SM-P-14)	No Magpie Gulch ACEC in Alternatives III or IV

Table 2-2b. Proposed Management Prescriptions for Areas of Critical Environmental Concern (ACECs)

MAGPIE GULCH	Alternative II	Alternatives III and IV
Riparian Areas	**Objective:** Maintain proper hydrologic function and protect adjacent areas that provide habitat for special status fish and wildlife species, important riparian values, water quality, waterfowl shorebird production, amphibian habitat and high scenic and recreation values. To allow continued wildlife access and use of these habitats. **Management Actions**: Roads, transmission lines, storage facilities and similar human-induced surface disturbances, are restricted to an area beyond the outer edge of the riparian vegetation. (NGD/NSO 2) SSR/CSU within 500 feet of the outer edge of the riparian or wetland vegetation. (SSR/CSU 2)	No Magpie Gulch ACEC in Alternatives III or IV
Steep Slopes	**Objective:** Maintain site stability and productivity. **Management Action**: NGD/NSO on slopes greater than 50% to minimize impacts on site productivity, adequately control surface runoff, reduce accelerated erosion and increase likelihood of successful reclamation. (NGD/NSO 15)	No Magpie Gulch ACEC in Alternatives III or IV
Soils	**Objective:** Maintain site stability and minimize potential for erosion. **Management Action**: On slopes greater than 30%, special design, construction, operation, and reclamation measures will be required. (SSR/CSU 4)	No Magpie Gulch ACEC in Alternatives III or IV

Table 2-2c. Proposed Management Prescriptions for Areas of Critical Environmental Concern (ACECs)

EAST FORK PARACHUTE CREEK	Alternative II	Alternatives III and IV
	RELEVANT AND IMPORTANT RESOURCES	
Visual	**Objective**: Preserve the existing character of landscape to meet VRM Class I objectives. **Management Action**: Maintain the natural character and scenic quality of the landscape to provide for ecological changes and restricts landscape modifications. Limited activities may be allowed if the basic landscape elements (line, form, color, and texture) are repeated and changes are not evident, and appear natural. (NGD/NSO V-1)	**Objective**: Preserve the existing character of the landscape to meet VRM Class I objectives in areas designated as very high or high visual sensitivity. **Management Action**: Maintain the natural character and scenic quality of the landscape to provide for ecological changes and restrict landscape modifications in East Fork Falls and Box Canyon areas. Limited activities may be allowed if basic landscape elements (line, form, color, and texture) are repeated and changes are not evident and appear natural. (NGD/NSO V-2) **Objective**: In other parts of the ACEC, retain existing character of the landscape to meet VRM Class II objectives. **Management Action**: Manage all other portions of the ACEC to retain the existing character of the landscape and allow only limited changes. Special design, construction, implementation, and/or mitigation measures including relocation of operations more than 200 meters may be required. (SSR/CSU V-2)
Fish and Wildlife	**Objective:** Protect identified raptor nest sites. **Management Action**: NSO within 0.125-mile radius of a nest site for raptors, including owls, osprey, golden eagle, buteos, accipiters, and falcons except American kestrel. (NGD/NSO 7) **Objective:** Protect Colorado River cutthroat trout from direct impacts. **Management Action**: Allow no loss or degradation of high-risk habitat. (NGD/NSO W-4)	**Objective:** Protect identified raptor nest sites. **Management Action**: NSO within 0.125 mile of raptor nest, including owls, osprey, golden eagle, buteos, accipiters, and falcons except American kestrel. (NGD/NSO 7) **Objective:** Protect Colorado River cutthroat trout from direct impacts. **Management Action**: Allow no loss or degradation of high-risk habitat. (NGD/NSO W-4)

Table 2-2c. Proposed Management Prescriptions for Areas of Critical Environmental Concern (ACECs)

EAST FORK PARACHUTE CREEK	Alternative II	Alternatives III and IV
	Objective: Protect Colorado River cutthroat trout from indirect impacts. **Management Action**: Allow no loss or degradation of fish habitat that supports Colorado River cutthroat trout moderate risk habitat. (NGD/NSO W-5) **Objective:** Protect Colorado River cutthroat trout from both direct and indirect impacts within areas delineated as high value watersheds. **Management Action**: Allow no new long-term (greater than two growing seasons) ground-disturbing activities within the area mapped as high value watershed processes. (NGD/NSO W-6) **Objective:** Prevent raptor nest abandonment and reductions in nesting productivity. **Management Action**: No surface use within 0.25-mile radius of a nest site from February 1 to August 15, excepting operation and maintenance of production facilities. (TL-6)	**Objective:** Protect Colorado River cutthroat trout from most indirect impacts. **Management Action**: Special design, construction and implementation and/or mitigation measures including relocation of operations more than 200 meters may be required to minimize impacts to Colorado River cutthroat trout moderate risk habitat. (SSR/CSU W-7) **Objective:** Prevent raptor nest abandonment and reductions in nesting productivity. **Management Action**: No surface use within a 0.25-mile buffer zone around the nest site from February 1 to August 15. This does not apply to operation and maintenance of production facilities. (TL-6)
Fish and Wildlife, ***continued***	**Special Management** **Objective:** Minimize direct impacts to streambanks resulting from livestock grazing. **Management Action**: Manage livestock grazing within the ACEC so that streambank damage does not exceed 10% of the stream length. (SM-W-9)	**Management Action**: Manage livestock grazing within the ACEC so that streambank damage does not exceed 10% of the stream length. (SM-W-9)
Botanical / Ecological	**Objective:** Protect populations of rare plants and significant plant communities from most direct and some indirect impacts. (Within habitat identified as high risk plant habitat) **Management Action**: Allow no ground-disturbing activities in areas designated as high risk for rare plants or significant plant communities. (NGD/NSO P-4)	**Objective:** Protect populations of rare plants and significant plant communities from most direct and some indirect impacts. (Within habitat identified as high risk plant habitat) **Management Action**: Allow no ground-disturbing activities in areas designated as high risk for rare plants or significant plant communities. (NGD/NSO P-4)

Table 2-2c. Proposed Management Prescriptions for Areas of Critical Environmental Concern (ACECs)

EAST FORK PARACHUTE CREEK	Alternative II	Alternatives III and IV
	Objective: Protect and maintain the hydrological and ecological processes that support the rare plants and significant plant communities within habitat identified as moderate risk plant habitat. **Management Action**: Allow no ground-disturbing activities within the watershed that would disturb, alter, or interrupt the hydrologic or ecological processes that support rare plant species or significant plant communities (designated as moderate risk hydrologic value). (NGD/NSO P-5)	**Objective:** Allow only activities within the watershed that would not disturb, alter, or interrupt the hydrologic or ecological processes that support rare plant species or significant plant communities (designated as moderate risk hydrologic value). **Management Action**: Allow only activities that would not disturb, alter, or interrupt the hydrologic or ecological processes that support rare plant species or significant plant communities (designated as moderate risk hydrologic value). Special design, construction, implementation, and/or mitigation measures may be required to minimize impacts of disturbances, including relocation of operations more than 200 meters may be required. (SSR/CSU P-7)
Botanical / Ecological, *continued*	**Special Management** **Objective:** Maintain the current ecological integrity and function of the rare plants and significant plant communities. **Management Actions**: Revegetate any allowed surface disturbance using locally adapted native species. (SM-P-9) Allow natural ecosystem processes such as rockslides to continue. Control wildfire only when human safety or property is at risk. (SM-P-10) Maintain significant riparian plant communities in mid-to-late seral stage to retain current ecological values. (SM-P-16) **Objective:** Minimize habitat fragmentation and risk of invasion by noxious weeds and other aggressive non-native species, which may compromise ecosystem function and long-term viability of rare species and communities. **Management Action**: Where practicable, restore to a naturally functioning state any existing human-caused disturbance that is impairing natural ecosystem processes	**Special Management**: **Objective:** Design subsurface disturbance to protect the hydrologic regime that creates habitat that supports the rare plants and significant plant communities within habitat designated as high value watershed. **Management Action**: Special design, construction, implementation, or mitigation measures may be required to minimize impacts of disturbances within the area mapped as high value watershed processes. (SM-P-8) **Objective:** Maintain the current ecological integrity and function of the rare species and communities. **Management Actions**: Revegetate surface disturbances using locally adapted native species. (SM-P-9) Allow natural ecosystem processes such as rockslides to continue. Control wildfire only when human safety or property is at risk. (SM-P-10) Maintain the significant riparian plant communities in mid-to-

Table 2-2c. Proposed Management Prescriptions for Areas of Critical Environmental Concern (ACECs)

EAST FORK PARACHUTE CREEK	Alternative II	Alternatives III and IV
	affecting habitat for rare plant species or significant plant communities. (SM-P-12) **Objective:** Ensure the long-term survival and reproductive capability of rare plants and significant plant communities. **Management Action**: Prohibit collection of plants, plant materials, and seeds, except for scientific or research purposes. Such collection must have no detrimental impact on long-term survival and reproduction of rare plant species or significant plant communities. (SM-P-13)	late seral stage to maintain the current ecological values. (SM-P-16) **Objective:** Minimize habitat fragmentation of risk of invasion by noxious weeds and other aggressive non-native species, which may compromise ecosystem function and long-term viability of rare species and significant plant communities. **Management Action**: Where practicable, restore to a naturally functioning state any existing human-caused disturbance that is impairing natural ecosystem processes affecting habitat for rare plant species or significant plant communities. (SM-P-12)
Botanical / Ecological, ***continued***	**Objective:** Ensure the long-term survival and reproductive capability of rare plants and significant plant communities. **Management Action**: Control noxious weeds using integrated techniques. Limit control in rare plant populations or significant plant communities to avoid damage to non-target species. (SM-P-14) **Objective:** Maintain healthy populations of rare plants and significant plant communities, maintain sufficient residual vegetation to sustain overall watershed functions, and provide forage for wildlife species. **Management Action**: Manage livestock grazing within occupied or potential habitat for rare plants or significant plant communities to promote plant health, maintain sufficient residual vegetation, and sustain watershed functions, as defined in the Colorado Livestock Grazing Management Guidelines (BLM 1997a). (SM-P-15)	**Objective:** Ensure the long-term survival and reproductive capability of rare plants and significant plant communities. **Management Action**: Prohibit collection of plants, plant materials, and seeds, except for scientific or research purposes. Such collection must have no detrimental impact on long-term survival and reproduction of rare plant species or significant plant communities. (SM-P-13) **Objective:** Ensure the long-term survival and reproductive capability of rare plants and significant plant communities. **Management Action**: Control noxious weeds using integrated techniques. Limit control in rare plant populations or significant plant communities to avoid damage to non-target species. (SM-P-14) **Objective:** Maintain healthy populations of rare plants and significant plant communities, maintain sufficient residual vegetation to sustain overall watershed functions, and provide forage for wildlife species. **Management Action**: Manage livestock grazing within occupied or potential habitat for rare plants or significant plant

Table 2-2c. Proposed Management Prescriptions for Areas of Critical Environmental Concern (ACECs)

EAST FORK PARACHUTE CREEK	Alternative II	Alternatives III and IV
		communities to promote plant health, maintain sufficient residual vegetation, and sustain watershed functions, as defined in the Colorado Livestock Grazing Management Guidelines (BLM 1997a). (SM-P-15)
OTHER IMPORTANT RESOURCES		
Riparian Areas	**Objective:** Maintain proper hydrologic function and protect adjacent areas that provide habitat for special status fish and wildlife species, important riparian values, water quality, waterfowl shorebird production, amphibian habitat and high scenic and recreation values. To allow continued access and use of these habitats. **Management Actions**: Roads, transmission lines, storage facilities, and similar human-induced surface disturbances, are restricted to an area beyond the outer edge of the riparian vegetation. (NGD/NSO 2)	**Objective:** Maintain proper hydrologic function and protect adjacent areas that provide habitat for special status fish and wildlife species, important riparian values, water quality, waterfowl shorebird production, amphibian habitat and high scenic and recreation values. To allow continued access and use of these habitats. **Management Actions**: Roads, transmission lines, storage facilities, and similar human-induced surface disturbances, are restricted to an area beyond the outer edge of the riparian vegetation. (NGD/NSO 2)
Botanical / Ecological	SSR/CSU within 500 feet of the outer edge of the riparian or wetland vegetation. (SSR/CSU 2)	SSR/CSU within 500 feet of the outer edge of the riparian or wetland vegetation. (SSR/CSU 2)
Steep Slopes	**Objective:** Maintain site stability and site productivity. **Management Action**: NGD/NSO on slopes greater than 50% to minimize impacts on site productivity, control surface runoff, reduce erosion, and enhance reclamation. (NGD/NSO 15)	**Objective:** Maintain site stability and site productivity. **Management Action**: NGD/NSO on slopes greater than 50% to minimize impacts on site productivity, control surface runoff, reduce erosion, and enhance reclamation. (NGD/NSO 15)
Soils	**Objective:** Maintain site stability and minimize erosion. **Management Action**: On slopes greater than 30%, special design, construction, operation, and reclamation measures will be required. (SSR/CSU 4)	**Objective:** Maintain site stability and minimize erosion. **Management Action**: On slopes greater than 30%, special design, construction, operation, and reclamation measures will be required. (SSR/CSU 4)

Table 2-2d. Proposed Management Prescriptions for Areas of Critical Environmental Concern (ACECs)

TRAPPER / NORTHWATER CREEK	Alternative II	Alternative III
	RELEVANT AND IMPORTANT RESOURCES	
Fish and Wildlife	**Objective:** Protect identified raptor nest sites. **Management Action**: NGD/NSO within 0.125-mile radius of a nest site for raptors, including owls, osprey, golden eagle, buteos, accipiters, and falcons except American kestrel. (NGD/NSO 7) **Objective:** Protect Colorado River cutthroat trout from direct impacts. **Management Action**: Allow no loss or degradation of fish habitat that supports Colorado River cutthroat trout high risk habitat. (NGD/NSO W-4) **Objective:** Protect Colorado River cutthroat trout from indirect impacts. **Management Action**: Allow no loss or degradation of fish habitat that supports Colorado River cutthroat trout moderate risk habitat. (NGD/NSO W-5) **Objective:** Protect Colorado River cutthroat trout from both direct and indirect impacts within areas delineated as high value watersheds. **Management Action**: Allow no new long-term (greater than two growing seasons) ground-disturbing activities within the area mapped as high value watershed processes. (NGD/NSO W-6) **Objective:** Prevent raptor nest abandonment and reductions in nesting productivity. **Management Action**: Avoid drilling or similar activity within a 0.25-mile buffer zone around the nest site from February 1 to August 15. This does not apply to operation and maintenance of production facilities. (TL-6)	**Objective:** Protect identified raptor nest sites. **Management Action**: NGD/NSO within 0.125-mile radius of a nest site for raptors, including owls, osprey, golden eagle, buteos, accipiters, and falcons except American kestrel. (NGD/NSO 7) **Objective:** Protect Colorado River cutthroat trout from direct impacts. **Management Action**: Allow no loss or degradation of fish habitat that supports Colorado River cutthroat trout high risk habitat. (NGD/NSO W-5) **Objective:** Protect Colorado River cutthroat trout from most indirect impacts. **Management Action**: Special design, construction and implementation and/or mitigation measures including relocation of operations more than 200 meters may be required to minimize impacts to Colorado River cutthroat trout moderate risk habitat. (SSR/CSU W-8) **Objective:** Prevent raptor nest abandonment and reductions in nesting productivity. **Management Action**: Avoid drilling or similar activity within a 0.25-mile buffer zone around the nest site from February 1 to August 15. This does not apply to operation and maintenance of production facilities. (TL-6)

Table 2-2d. Proposed Management Prescriptions for Areas of Critical Environmental Concern (ACECs)

TRAPPER / NORTHWATER CREEK	Alternative II	Alternative III
Fish and Wildlife, *continued*	**Special Management** **Objective:** Minimize direct impacts to streambanks resulting from livestock grazing. **Management Action**: Manage livestock grazing within the ACEC so that streambank damage does not exceed 10% of the stream length. (SM-W-9)	**Special Management** **Objective:** Protect Colorado River cutthroat trout from some direct and indirect impacts within the areas delineated as high value watersheds. **Management Action**: Special design, construction, and implementation and/or mitigation measures may be required to minimize impacts of disturbances within the area mapped as high value watershed processes. (SM-W-9) **Objective:** Minimize direct impacts to streambanks resulting from livestock grazing. **Management Action**: Manage livestock grazing within the ACEC so that streambank damage does not exceed 10% of the stream length. (SM-W-9)
Botanical / Ecological	**Objective:** Protect populations of rare plants and significant plant communities from most direct and some indirect impacts (in habitat identified as high-risk plant habitat). **Management Action**: Allow no ground-disturbing activities in areas designated as high risk for rare plants or significant plant communities. (NSO P-4) **Objective:** Protect and maintain the hydrological and ecological processes that support the rare plants and significant plant communities within habitat identified as moderate risk plant habitat. **Management Action**: Allow no ground-disturbing activities within the watershed that would disturb, alter, or interrupt the hydrologic or ecological processes that support rare plant species or significant plant communities (designated as moderate risk hydrologic value). (NGD/NSO P-5)	**Objective:** Protect populations of rare plants and significant plant communities from most direct and some indirect impacts (in habitat identified as high risk plant habitat). **Management Action**: Allow no ground-disturbing activities in areas designated as high risk for rare plants or significant plant communities. (NSO P-4) **Objective:** Allow only activities within the watershed that would not disturb, alter, or interrupt the hydrologic or ecological processes that support rare plant species or significant plant communities (designated as moderate risk hydrologic value). **Management Action**: Allow only activities within the watershed that would not disturb, alter, or interrupt the hydrologic or ecological processes that support rare plant species or significant plant communities (designated as moderate risk hydrologic value). (SSR/CSU P-7)

Table 2-2d. Proposed Management Prescriptions for Areas of Critical Environmental Concern (ACECs)

TRAPPER / NORTHWATER CREEK	Alternative II	Alternative III
Botanical / Ecological, ***continued***	**Management Action**: Control noxious weeds using integrated techniques. Limit control in areas of rare plants or significant plant communities to protect non-target species. (SM-P-6) **Objective:** Maintain healthy populations of rare plants and significant plant communities, maintain sufficient residual vegetation to sustain overall watershed functions, and provide forage for wildlife species. **Management Action**: Manage livestock grazing within occupied or potential habitat for rare plants or significant plant communities to promote plant health, maintain sufficient residual vegetation, and sustain overall watershed functions, as defined in the Colorado Livestock Grazing Management Guidelines (BLM 1997a).	**Objective:** Ensure the long-term survival and reproductive capability of rare plants and significant plant communities. **Management Action**: Prohibit collection of plants, plant materials, and seeds, except for scientific or research purposes. Such collection must have no detrimental impact on long-term survival and reproduction of rare plant species or significant plant communities. (SM-P-5) **Objective:** Ensure the long-term survival and reproductive capability of rare plants and significant plant communities. **Management Action**: Control noxious weeds using integrated techniques. Limit eed control in rare plant populations or significant plant communities to avoid damage to non-target species. (SM-P-6) **Objective:** Maintain healthy populations of rare plants and significant plant communities, maintain sufficient residual vegetation to sustain overall watershed functions, and provide forage for wildlife species. **Management Action**: Manage livestock grazing within occupied or potential habitat for rare plants or significant plant communities to promote plant health, maintain sufficient residual vegetation, and sustain overall watershed functions, as defined in the Colorado Livestock Grazing Management Guidelines (BLM 1997a).
Visual	**Objective:** Preserve the existing character of landscape to meet VRM Class I objectives. **Management Action**: Maintain the natural character and scenic quality in the landscape that provides for ecological changes and restricts landscape modifications. Limited activities may be allowed if the basic landscape elements (line, form, color, and texture) are repeated, are not evident, and appear natural. (NGD/NSO V-1)	**Objective:** Retain the existing character of the landscape to meet Visual Resource Management Class II objectives. **Management Action**: Manage the ACEC to retain the existing character of the landscape and allow only limited changes. Special design, construction, implementation, and/or mitigation measures including relocation of operations more than 200 meters may be required. (SSR/CSU 5)

Table 2-2d. Proposed Management Prescriptions for Areas of Critical Environmental Concern (ACECs)

TRAPPER / NORTHWATER CREEK	Alternative II	Alternative III
Riparian Areas	**Objective:** Maintain proper hydrologic function and protect adjacent areas that provide habitat for special status fish and wildlife species, important riparian values, water quality, waterfowl shorebird production, amphibian habitat and high scenic and recreation values. To allow continued access and use of these habitats. **Management Actions**: Roads, transmission lines, storage facilities, and similar human-induced surface disturbances are restricted to an area beyond the outer edge of the riparian vegetation. (NGD/NSO 2) SSR/CSU within 500 feet of the outer edge of the riparian or wetland vegetation. (SSR/CSU 2)	**Objective:** Maintain proper hydrologic function and protect adjacent areas that provide habitat for special status fish and wildlife species, important riparian values, water quality, waterfowl shorebird production, amphibian habitat and high scenic and recreation values. To allow continued access and use of these habitats. **Management Actions**: Roads, transmission lines, storage facilities, and similar human-induced surface disturbances are restricted to an area beyond the outer edge of the riparian vegetation. (NGD/NSO 2) SSR/CSU within 500 feet of the outer edge of the riparian or wetland vegetation. (SSR/CSU 2)
Steep Slopes	**Objective:** Maintain site stability and productivity. **Management Action**: NGD/NSO on slopes greater than 50% to minimize impacts on site productivity, control surface runoff, reduce accelerated erosion, and increase likelihood of successful reclamation. (NGD/NSO 15)	**Objective:** Maintain site stability and productivity. **Management Action**: NGD/NSO on slopes greater than 50% to minimize impacts on site productivity, control surface runoff, reduce accelerated erosion, and increase likelihood of successful reclamation. (NGD/NSO 15)

Table 2-3. Proposed Management Goals, Objectives, and Actions for the Parachute Creek Watershed Management Area (Alternative III) and Trapper/Northwater Creek Watershed Management Area (Alternative IV)

Resource	Proposed Management Goal, Objective, and Action
Fisheries	**Goal:** Protect Colorado River cutthroat trout and their habitat by maintaining or improving current water quality and stream ecological function throughout the WMA. **Objective:** Prevent any increases in sedimentation from human activities that would result in direct, indirect, or cumulative adverse impacts to Colorado River cutthroat trout or their habitat. **Management Actions:** • Prior to approval of proposed surface disturbance in the WMA, conduct baseline studies to assess current local hydrological and ecological conditions in terms of indicator values for Public Land Health Standard #2 – Riparian Systems, #3 – Plant and Animal Communities, #4 – Special Status Species, and #5 – Water Quality. • Assess all activities for potential impacts that may increase sedimentation directly, indirectly, or cumulative to existing conditions and other human impacts or otherwise cause degradation of indicators for Public Land Health Standard #2 – Riparian Systems, #3 – Plant and Animal Communities, #4 – Special Status Species, and #5 – Water Quality. • Require project-specific design and mitigation plans prior to approval of proposed actions. Design projects such that proposed actions and site locations will not contribute to sedimentation or other degradation of water quality or stream ecological function for reaches containing cutthroat trout habitat, as well as for reaches upstream from occupied habitat. Required design components may include construction design, implementation of best management practices, mitigation, reclamation, revegetation, monitoring (to guide adaptive management), and erosion control. Project design will incorporate baseline study results. Require that designs and mitigation components be demonstrated effective under similar ecological conditions. • Evaluate and, as appropriate, grant exceptions short-duration, one-time events designed to provide long-term habitat protection, such as culvert or bridge installation or bank stabilization actions. Review project-specific design plans submitted by the proponent before approving proposed exceptions. • Move proposed locations of surface disturbance locations up to 200 meters as needed to minimize impacts.

Table 2-3. Proposed Management Goals, Objectives, and Actions for the Parachute Creek Watershed Management Area (Alternative III) and Trapper/Northwater Creek Watershed Management Area (Alternative IV)

Resource	Proposed Management Goal, Objective, and Action
Fisheries, ***continued***	**Goal:** Protect Colorado River cutthroat trout and their habitat by maintaining natural stream flows in the WMA. **Objective:** Maintain natural stream flows in the watershed for reaches containing cutthroat trout habitat, as well as for reaches upstream from occupied habitat. **Management Actions:** • Prior to approval of proposed surface disturbance in the WMA, conduct baseline studies to assess current local hydrological and ecological conditions in terms of indicator values for Public Land Health Standard #2 – Riparian Systems, #3 – Plant and Animal Communities, #4 – Special Status Species, and #5 – Water Quality. • Assess all activities for potential impacts that may negatively impact natural stream flows directly, indirectly, or cumulative to existing conditions and other human impacts or otherwise cause degradation of indicators for Public Land Health Standards #2 – Riparian Systems, #3 – Plant and Animal Communities, #4 – Special Status Species, and #5 – Water Quality • Require project-specific design and mitigation plans prior to approval of proposed actions. Design projects such that proposed actions and site locations will not contribute to reduction of natural stream flow volume or other degradation of water quality or stream ecological function for stream reaches containing cutthroat trout habitat as well as reaches upstream from occupied habitat. Required design components may include construction design, implementation of best management practices, mitigation, reclamation, revegetation, monitoring (to guide adaptive management), and erosion control. Incorporate baseline study results into project design. Require that designs and mitigation components be demonstrated effective under similar ecological conditions. • Evaluate and, as appropriate, grant exceptions for short-duration, one-time events designed to provide long-term habitat protection, such as culvert or bridge installation or bank stabilization actions. Review project-specific design plans submitted by the proponent before approving an exception. • Move proposed locations of surface disturbances up to 200 meters as needed to minimize adverse impacts to cutthroat trout. • Recognize valid existing water rights and design management actions so these rights are not negatively affected.

Table 2-3. Proposed Management Goals, Objectives, and Actions for the Parachute Creek Watershed Management Area (Alternative III) and Trapper/Northwater Creek Watershed Management Area (Alternative IV)

Resource	Proposed Management Goal, Objective, and Action
Botanical / Ecological Resources	**Goal:** Maintain the hydrologic regime and ecological integrity/function that provide existing habitat for special status plant populations and significant plant communities in the WMA (defined in Section 3.3.3). **Objective:** Prevent disruption, alteration, or interruption of surface and subsurface water flows that support rare and/or significant natural plant communities, and protect against invasion of noxious weeds or other aggressive exotic plants. **Management Actions:** • Prior to approval of proposed surface disturbance, conduct baseline studies of current local hydrological conditions as well as current ecological condition in terms of indicator values for Public Land Health Standard #3 – Plant and Animal Communities and #4 – Special Status Species. • Assess all activities for potential impacts that may change or reduce local surface or subsurface flow volumes directly, indirectly, or cumulative to existing conditions and other human impacts or otherwise cause degradation of indicators for Public Land Health Standards #3 – Plant and Animal Communities and #4 – Special Status Species. • Require project-specific design and mitigation plans prior to approval of proposed actions that may affect habitat for existing rare plant populations and significant plant communities. Design projects such that proposed actions and site locations will not contribute to reduction of natural stream flows or other degradation of water quality or stream ecological function for stream reaches containing cutthroat trout habitat as well as reaches upstream from occupied habitat. Required design components may include construction design, implementation of best management practices, mitigation, reclamation, revegetation, monitoring (to guide adaptive management), and erosion control. Incorporate baseline study results into project design. Require that designs and mitigation components be demonstrated effective under similar ecological conditions. • Consider exceptions for short duration, one-time events designed to provide long-term habitat protection, such as culvert or bridge installation or bank stabilization actions. Review project-specific design plans submitted by the proponent before approving an exception. • Move locations of proposed disturbances up to 200 meters as needed to minimize adverse impacts to rare plant populations and significant plant communities.

Table 2-3. Proposed Management Goals, Objectives, and Actions for the Parachute Creek Watershed Management Area (Alternative III) and Trapper/Northwater Creek Watershed Management Area (Alternative IV)

Resource	Proposed Management Goal, Objective, and Action
Municipal Water Quality	**Goal:** Protect and maintain aspects of the quality and quantity of the current and future water supply of the Town of Parachute that may be affected by conditions in the Parachute Creek WMA. **Objective:** Protect and maintain water quality and quantity in the Parachute Creek watershed in order to preclude any adverse effects on water quality that may measurably degrade the municipal water supply of the Town of Parachute **Management Actions:** • Prior to approval of proposed surface disturbance, and during new surface disturbing activities, conduct baseline studies of local hydrological conditions. Data parameters will include physical, chemical, and biological characteristics. • Require project-specific design and mitigation plans prior to approval of proposed actions that may measurably decrease water quality (including physical, chemical, or biological characteristics) at any collection or diversion point utilized by the Town of Parachute for municipal purposes. Design projects such that proposed actions and site locations will not contribute to reduction of natural stream flow volume or other degradation of water quality or stream ecological function for stream reaches containing cutthroat trout habitat as well as reaches upstream from occupied habitat. Required design components may include construction design, implementation of best management practices, mitigation, reclamation, revegetation, monitoring (to guide adaptive management), and erosion control. Incorporate baseline study results into project design. Require that designs and mitigation components be demonstrated effective under similar hydrologic conditions. Apply more stringent requirements where recommended by Sate of Colorado practices. • Monitor and evaluate mitigation efforts on a regular basis for ground-disturbing activities that disturb, either separately or in combination with other activities, an area greater than 5 acres. • Move locations of proposed disturbances up to 200 meters as needed to minimize adverse impacts.