



U.S. Department of the Interior
Bureau of Land Management
Uncompahgre Field Office
Montrose, Colorado

April 2020

Uncompahgre Field Office

Record of Decision and Approved Resource Management Plan



BLM MISSION

It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

BLM/CO/PL-20/009

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United States Department of the Interior

BUREAU OF LAND MANAGEMENT

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In Reply Refer To:
1610 (COS050)

Dear Reader:

The Bureau of Land Management (BLM) is pleased to announce that, after many years of hard work and collaboration, the BLM Uncompahgre Field Office (UFO) Approved Resource Management Plan (RMP) is complete. The Approved RMP will provide guidance for managing approximately 675,800 acres of BLM-administered public lands and 971,220 acres of federal mineral estate across Montrose, Gunnison, Ouray, Mesa, Delta, and San Miguel Counties.

The enclosed Record of Decision (ROD) and Approved RMP were prepared in accordance with the Federal Land Policy and Management Act of 1976, as amended, and the National Environmental Policy Act of 1969, as amended. The ROD's approval serves as the final decision for all land use planning and implementation decisions described in the enclosed Uncompahgre Approved RMP.

The Proposed RMP/Final Environmental Impact Statement (EIS) was subject to a 30-day protest period that ended on July 29, 2019. The BLM received 86 protest letters, and the BLM Director reviewed all protest issues for the proposed planning decisions. The Director concluded that the BLM Colorado State Director followed the applicable laws, regulations, and policies, and considered all relevant resource information and public input. The BLM Director denied the protests, and that decision is the final decision of the US Department of the Interior.

The 60-day Governor's consistency review period for the Proposed RMP/Final EIS, which promotes consistency with State government plans or policies, concluded on September 9, 2019. The Governor submitted a letter identifying some concerns in response to the consistency review. They included consistency with recently enacted State legislation and State wildlife plans. The BLM thoroughly reviewed the Governor's letter and confirmed that the Proposed RMP is consistent with existing State plans; however, as a result of the Governor's consistency review, the BLM adopted a new controlled surface use stipulation for fluid mineral leasing. Its purpose is to ensure the function and suitability of big game winter range, migration, and production areas. The stipulation requires the development of a mitigation plan, in coordination with Colorado Parks and Wildlife. The mitigation plan must demonstrate that the overall function and suitability of big game winter range, migration,

and production areas will not be impaired. Also, the BLM modified stipulations associated with Gunnison sage-grouse habitat to include consultation with Colorado Parks and Wildlife on any proposed exceptions, waivers, and modifications. In addition, the general fish and wildlife objective was revised to include infrastructure so as not to limit consideration of route density to only travel management.

The ROD and Approved RMP are available online at <https://go.usa.gov/xnpgD>. Limited printed copies or CD copies are available by request from the Montrose Public Lands Center, Uncompahgre Field Office, 2505 South Townsend Avenue, Montrose, Colorado 81401, or by calling (970) 240-5300.

The BLM greatly appreciates all those who contributed to the Uncompahgre RMP planning effort, particularly members of the public, who provided important feedback; our cooperating agencies, which included federal, state, and local governments; the Southwest Colorado Resource Advisory Council; and Native American Tribes. The extensive public interest and involvement in this planning process ensured that the Approved RMP will sustain the health, diversity, and productivity of BLM-administered lands for present and future generations to use and enjoy.

Sincerely,



Jamie E. Connell
Colorado State Director

Uncompahgre Field Office

Record of Decision and

Approved Resource Management Plan

Prepared by US Department of the Interior
Bureau of Land Management
Uncompahgre Field Office
Montrose, Colorado

Cooperating Agencies:

US Department of the Interior, Fish and Wildlife Service
US Department of the Interior, Bureau of Reclamation
US Department of Agriculture, Forest Service, Grand Mesa, Uncompahgre, and Gunnison National Forests
Colorado Department of Natural Resources (Division of Parks and Wildlife, Water Conservation Board, Natural Heritage Program, State Forest Service, Reclamation Division, Mining and Safety)
Delta Soil Conservation District
Delta County
Gunnison County
Montrose County
Ouray County
San Miguel County
City of Montrose
Town of Cedaredge
Town of Norwood
Town of Nucla
Town of Olathe
Town of Orchard City
Town of Paonia
Town of Ridgway

April 2020

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ACRONYMS AND ABBREVIATIONS

Full Phrase

ACEC	area of critical environmental concern
BLM	United States Department of the Interior, Bureau of Land Management
BMP	best management practice
CFR	Code of Federal Regulations
CPW	Colorado Department of Natural Resources, Parks and Wildlife
CSU	controlled surface use
Decision Area	public lands and federal mineral estate managed by the BLM
DOI	Department of the Interior
EIS	environmental impact statement
ERMA	extensive recreation management area
FLPMA	Federal Land Policy and Management Act of 1976
Forest Service	United States Department of Agriculture, Forest Service
GIS	geographic information systems
NEPA	National Environmental Policy Act
NGD	no ground disturbance
NSO	no surface occupancy
OHV	off-highway vehicle
Planning Area	Uncompahgre Field Office boundary, including all lands regardless of ownership, except Gunnison Gorge National Conservation Area Planning Area and Dominguez-Escalante National Conservation Area Planning Area
RMP	resource management plan
RMZ	recreation management zone
ROD	record of decision
ROW	right-of-way
SRMA	special recreation management area
SRP	special use permit
SSR	site-specific relocation
TL	timing limitation
UFO	Uncompahgre Field Office
USFWS	United States Department of the Interior, Fish and Wildlife Service
VRM	visual resource management
WSA	wilderness study area
WSR	Wild and Scenic River

I. RECORD OF DECISION

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I.1 INTRODUCTION

I.1.1 OVERVIEW

The Federal Land Policy and Management Act of 1976 (FLPMA) directs the United States Department of the Interior (DOI), Bureau of Land Management (BLM) to develop and periodically revise or amend its resource management plans (RMPs). These are the plans that guide the management of BLM-administered lands. This record of decision (ROD) approves the attached RMP to manage public lands administered by the BLM Uncompahgre Field Office (UFO) within the Uncompahgre RMP Planning Area (Planning Area; Figure 1 [Appendix A]). The background and rationale for approving the proposed decisions, as well as clarifications and modifications made to the Proposed RMP, are described in this ROD.

I.2 DECISION

The decision is hereby made to approve the attached RMP as the land use plan for the UFO. The BLM prepared this plan under the authority and regulations implementing FLPMA (43 Code of Federal Regulations [CFR] 1600). It includes broad land use plan decisions that provide the overall direction for managing resources and resource uses in the Decision Area (BLM-administered public lands and federal mineral estate). The BLM prepared an environmental impact statement (EIS) for this RMP in compliance with the National Environmental Policy Act of 1969 (NEPA). Land use plan decisions identified in the Approved RMP are final and become effective when this ROD is signed. The decisions in this ROD and Approved RMP supersede all previous BLM land use plans that guided management within the UFO boundaries, with the exception of the Gunnison Gorge National Conservation Area RMP and the Dominguez-Escalante National Conservation Area RMP.

I.3 ALTERNATIVES

I.3.1 INTRODUCTION

An RMP provides broad guidance for managing public lands. The FLPMA directs the BLM to develop RMPs as the primary means to identify and allow for appropriate uses of BLM-administered land. RMP decisions establish goals and objectives (desired outcomes) for resource management that guide future implementation decisions. In addition, the RMP also identifies measures necessary for achieving the outcomes, expressed as management actions (proactive management techniques) and allowable uses (lands that are open or closed to certain uses), including any restrictions on uses.

NEPA requires the development and consideration of a reasonable range of alternatives, including a no action alternative, to analyze impacts and guide decision-makers in developing and selecting the Approved RMP. The BLM developed five full alternatives and one sub-alternative and analyzed them in detail in the Proposed RMP/Final EIS.

I.3.2 ALTERNATIVES ANALYZED IN DETAIL

Alternative A: No Action meets the requirement that a no action alternative be considered. It would continue current management direction and prevailing conditions derived from existing planning documents. Goals and objectives for resources and resource uses are based on the portions of the San Juan/San Miguel RMP (BLM 1985) that are geographically applicable to the UFO, and the entire Uncompahgre Basin RMP (BLM 1989), along with associated amendments, activity and implementation level plans, and other management decision documents. Laws, regulations, and BLM policies that supersede RMP decisions would apply.

Alternative B emphasizes improving, rehabilitating, and restoring resources and sustaining the ecological integrity of habitats for all priority plant, wildlife, and fish species, while allowing appropriate development scenarios for allowable uses, such as mineral leasing, locatable mineral development, recreation, rights-of-way (ROWs), and livestock grazing. Goals and objectives focus on environmental and social outcomes achieved by sustaining relatively unmodified physical landscapes and natural and cultural resource values for current and future generations.

Sub-Alternative B.I is a partial alternative specific to oil and gas leasing and development in the North Fork and Smith Fork drainages of the Gunnison River (referred to as the North Fork), primarily in portions of Delta and Gunnison Counties. This partial alternative is treated as a subset of Alternative B because it is most closely related to Alternative B. Alternative B.I would close certain areas to oil and gas leasing and would also impose development setbacks with strict surface use restrictions in places where leasing may be allowed. Management actions and allowable uses under Alternative B that are not superseded by those in Alternative B.I would also apply to the North Fork area.

Under **Alternative C**, appropriate and allowable uses and restrictions would emphasize maximizing resource use, while mitigating impacts on land health. Management direction would recognize and expand existing uses and accommodate new uses to the greatest extent possible. The appropriate development scenarios for allowable uses, such as mineral leasing, locatable mineral development, ROWs, renewable energy, and livestock grazing, would emphasize maximizing resource production in an environmentally responsible manner, while maintaining the basic protection needed to sustain resources.

Alternative D is the BLM's preferred alternative from the Draft RMP/EIS. It emphasizes balancing resources and resource use among competing human interests, land uses, and natural and cultural resource values conservation, while sustaining and enhancing ecological integrity across the landscape, including plant, wildlife, and fish habitats.

Alternative E: Agency Proposed is the BLM's Proposed RMP, which is a reasonable combination of goals, objectives, allowable uses, and management actions from the alternatives presented in the Draft RMP/EIS. The Proposed RMP would provide comprehensive, long-range decisions for the use and management of resources in the Planning Area administered by the UFO, focusing on the principles of multiple use and sustained yield.

I.3.3 ENVIRONMENTALLY PREFERABLE ALTERNATIVE

When considering the human social and economic environment and natural environment, the BLM has determined that Alternative B is the environmentally preferable alternative. The Department of the Interior defines the environmentally preferable alternative as the one that causes the least damage to the

biological and physical environment and best protects, preserves, and enhances historical, cultural, and natural resources.

Section 101 of NEPA, 42 US Code 4331, identifies six broad policy goals for all federal plans, functions, programs, and resources, to allow the nation to:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations
- Ensure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings
- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences
- Preserve important historic, cultural, and natural aspects of the national heritage and maintain, wherever possible, an environment that supports diversity and a variety of individual choice
- Achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities
- Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources

I.3.4 IMPLEMENTATION DECISIONS

Implementation decisions are actions that the BLM takes to implement land use plan decisions and are generally appealable to the Interior Board of Land Appeals under 43 CFR 4.410 (see **Section I.10**, Appeal). This decision approves both the RMP (land use plan decisions) and all implementation actions identified in the RMP.

Most implementation decisions will require further NEPA review to determine whether the analysis in the EIS is adequate, or if further analysis is warranted. In some cases, however, implementation decisions have been analyzed in the Final EIS and are made in the ROD and Approved RMP. The BLM will implement management decisions that involve closures or use restrictions, such as camping and shooting restrictions and closed travel areas, through supplemental rules that allow enforcement measures. The Uncompahgre Approved RMP does not contain any implementation decisions subject to appeal.

I.3.5 CLARIFICATIONS AND MODIFICATIONS SINCE THE PROPOSED RMP

As a result of ongoing internal review and cooperating agency consultation, the BLM clarified or modified language between the Proposed RMP/Final EIS and the Approved RMP, where appropriate. Minor grammatical and editorial corrections are not identified, but other changes since the Proposed RMP/Final EIS are the following. All changes, including new and modified stipulations, are within the range of alternatives considered in the EIS.

- Policies considered during RMP development included, among those discussed in the Draft RMP/EIS and Proposed RMP/Final EIS, BLM Instruction Memorandum 2012-169, Resource Management Plan Alternative Development for Livestock Grazing (BLM 2012a).
- In this Approved RMP, there are gaps in numbering for each type of stipulation, such as no surface occupancy (NSO), controlled surface use (CSU), and timing limitation (TL). The

stipulation numbers were retained from the Proposed RMP/Final EIS for simplicity of future tiering to the Proposed RMP/Final EIS. Some stipulations considered in the Proposed RMP/Final EIS applied to alternatives other than the Proposed RMP, namely Alternatives A, B, C, or D, and only the Proposed RMP (Alternative E) stipulations were carried forward into this Approved RMP. This resulted in gaps in the stipulation numbering in this Approved RMP, which aligns with the Proposed RMP/Final EIS.

- NSO-9/SSR-11, Hydrology River, is included in the Approved RMP. This stipulation was considered in Proposed RMP/Final EIS Alternative D.
- CSU-10/SSR-10, Hydrology River, was omitted from the Approved RMP because its area is covered by NSO-9/SSR-11.
- NSO-11/SSR-13, Hydrology Features, is included in the Approved RMP. This stipulation was considered in Proposed RMP/Final EIS Alternative D.
- CSU-12/SSR-13, Hydrology Features, was omitted from the Approved RMP because its area is covered by NSO-11/SSR-13.
- As a result of the Governor's consistency review, the exception, modification, and waiver criteria in NSO-31, Gunnison Sage-Grouse Breeding Habitat and Critical Habitat, were modified to include consultation with Colorado Department of Natural Resources, Parks and Wildlife (CPW) on any proposed exceptions, waivers, and modifications.
- As a result of the Governor's consistency review, the following was added to the end of CSU-29/SSR-34, Gunnison Sage-Grouse Potential Habitat: "Sound levels at leks, due to new project noise individually or cumulatively from anthropogenic sources, should not exceed 10 decibels above baseline sound levels at the perimeter of a lek during the breeding season (March 1 to May 15), 6 PM to 8 AM. Baseline sound levels should be determined prior to project initiation. Sound level measurement and monitoring protocols will be coordinated with CPW."
- As a result of the Governor's consistency review, CSU-62, Wildlife Big Game Winter Migration and Production Area, is included in the Approved RMP.
- As a result of the Governor's consistency review, the general fish and wildlife objective (F&W-OBJ-01) includes infrastructure and does not limit consideration of route density to only travel management.
- The following was added to the end of NSO-69: "If public water providers develop source water protection plans, apply this NSO to cover the appropriate designated area in the protection plan (typically Zone 2) and apply these protection measures to all public water supplies that use a groundwater well or groundwater under the direct influence of surface water."
- The following was added to the end of CSU-59, Domestic Water Wells: "Also within 305 meters (1,000 feet) of all domestic water wells: Extend surface casing through the freshwater aquifer. Require freshwater mud for drilling the surface casing."
- The following was added to the planning criteria: "The Conservation Agreement or Strategy for Colorado River Cutthroat Trout (*Oncorhynchus clarki pleuriticus*) will be incorporated."
- The Final Wild and Scenic River Suitability Report for the Uncompahgre Planning Area (Appendix P to the Proposed RMP/Final EIS) was modified to reflect the water court's issuance of a decree for an instream flow water right on the Dolores River. The revised Final Wild and

Scenic River Suitability Report for the Uncompahgre Planning Area is available on the project website, <https://go.usa.gov/xnpgD>.

I.4 MANAGEMENT CONSIDERATIONS AND DECISION RATIONALE

The Approved RMP reflects statutory, regulatory, and national policy considerations. The decision is also based on review and substantive comments from federal, tribal, state, and local governments and agencies, the public, industry, and the 18 cooperating agencies that participated in the planning process.

The Approved RMP provides the best combination of management decisions to meet the purpose of and need for the RMP in consideration of the planning issues and management concerns identified through the planning process. It fulfills the purpose by providing goals and objectives for public lands management and by resolving multiple-use conflicts or issues associated with those requirements that drive the preparation of the RMP. It fulfills the need by addressing current resource conditions, changes in circumstances, such as evolving demands on resources, and new or revised national-level policies (43 CFR 1610.5-6) since preparation of the 1985 San Juan/San Miguel RMP (BLM 1985), 1989 Uncompahgre Basin RMP (BLM 1989), and subsequent amendments.

The Approved RMP provides the most comprehensive framework for addressing the diverse management needs of BLM-administered lands in the Decision Area.

The Approved RMP includes stipulations for fluid mineral leasing, which apply as identified to other surface-disturbing activities. Stipulations are designed to provide resource-specific protections. NSO stipulations restrict fluid mineral activities by requiring surface-disturbing activities to be located outside of the boundary of the NSO area. No ground disturbance (NGD) applies to non-fluid mineral activities. CSU allows fluid mineral leasing but can require imposing special operational constraints or moving the activity more than 200 meters (565 feet) to protect identified values. Areas identified for TLs are closed to fluid mineral exploration and development, surface-disturbing activities, and intensive human activity during identified time frames that may exceed 60 days. The BLM may modify the operations of surface and other disturbance activities caused by the presence of humans and require additional specific or specialized mitigation. These stipulations, as well as other restrictions and management actions, such as ROW exclusion, are designed to sustain water and other resource conditions.

The BLM interdisciplinary team reviewed BLM-administered lands in the Planning Area to determine whether new areas should be considered for designation as ACECs and whether existing ACECs should continue to be managed as ACECs to protect the identified values. The BLM determined that management actions and restrictions as applied under the Proposed RMP, Alternative E, are adequate to protect the relevant and important values of the potential ACECs that were not carried forward for designation.

I.5 APPLICATION OF THE RESOURCE MANAGEMENT PLAN TO EXISTING PROJECTS

Numerous rights and privileges have been established on BLM-administered lands under law, regulation, or planning decisions. The decisions included in this ROD and Approved RMP supersede the 1985 San Juan/San Miguel RMP (BLM 1985), the 1989 Uncompahgre Basin RMP (BLM 1989), and their subsequent amendments. Beyond the revised decisions in the Approved RMP, all BLM-administered lands and federal mineral estate in the UFO remain subject to valid existing rights and to the stipulations and conditions of approval associated with the given right at the time it was granted. This includes the right of reasonable access to surface and subsurface parcels leased for the development of the mineral interest. Oil and gas lease stipulations and lease notices in the Approved RMP will apply to all new leases and terminated leases that are reinstated. On existing leases, the BLM would seek voluntary compliance or would develop conditions of approval for applications for permits to drill or other authorizations, consistent with valid existing rights, to achieve resource objectives of lease stipulations contained in this RMP.

Any activity-level or project-specific authorization or management action must conform with the Approved RMP (i.e., be specifically provided for in the RMP or consistent with the terms, conditions, and decisions in the Approved RMP; 43 CFR 1601.0-5(b)). A land use plan amendment may be necessary to consider monitoring and evaluation findings; substantive new data; new or revised policy; changes in circumstances; or a proposed action that may result in a change in the scope of resource uses or a change in the terms, conditions, and decisions of the Approved RMP.

Projects that require a decision to extend an existing authorization or permit may require modification to conform to the RMP before approval, such as ROW grant and grazing permit renewals. Projects for which site-specific decisions have not yet been signed, but for which preparation of NEPA documents began before the ROD's effective date, may also require modification to conform to the RMP.

I.6 MITIGATION MEASURES

Commensurate with a landscape level of planning, practicable means to avoid, minimize, reduce, or rectify environmental harm have been provided in the Approved RMP and appendices. In developing the alternatives, the BLM used a variety of management methods and tools, including identifying allowable uses; temporal, spatial, and methodological restrictions on uses; areas where specific uses would be prohibited or restricted; and specific actions needed to achieve RMP goals and objectives. Restrictions on uses include seasonal closures, surface disturbance limitations, and best management practice (BMP) application. The BLM included appropriate mitigation measures in the design of each of the alternatives. Approved RMP **Appendix B** provides the specifics of each stipulation. Other mitigation is identified in the Approved RMP, such as ROW avoidance and exclusion areas.

Approved RMP **Appendix C** lists the BMPs applicable to land use activities authorized on BLM-administered lands in the Decision Area. BMPs are state-of-the-art mitigation measures applied on a site-specific basis to avoid, minimize, reduce, or rectify adverse environmental or social impacts of land use activities. The BMPs in the Approved RMP are not intended to be a complete list, but rather to provide examples of commonly used practices that the UFO may require to reduce impacts of surface-

disturbing activities, use, or occupancy. More specific BMPs based on local conditions and resource-specific concerns could be developed once a specific proposal is evaluated through the environmental analysis process. Additional BMPs can be recommended by proponents of proposed activities on BLM-administered lands.

I.7 PLAN MONITORING

Land use plan decision monitoring is a continuous process occurring over the life of the RMP. The aim is to maintain a dynamic RMP. Monitoring data are collected, examined, and used to draw conclusions about the following:

- Whether planned actions have been implemented in the manner prescribed by the RMP (implementation monitoring)
- Whether RMP allowable use and management action decisions and the resultant implementation actions are effective in achieving program-specific objectives or desired outcomes (effectiveness monitoring)

The BLM uses conclusions drawn from monitoring to make recommendations on whether to continue current management or identify changes that need to be made to implementation practices to better achieve RMP goals. Indicators, methods, locations, units of measure, frequency, and action triggers can be established by national policy guidance, in RMPs, or by technical specialists in order to address specific issues. If implementation of land use plans does not achieve anticipated desired outcomes, adaptive management may be necessary. RMP monitoring and adaptive management are further addressed in Approved RMP Sections II.5.4 and II.5.5, respectively.

Based on staffing and funding levels, monitoring is annually prioritized to be consistent with the goals and objectives of the RMP. The BLM may work in cooperation with local, state, and other federal agencies, or it may use data collected by other agencies and sources when appropriate and available.

I.8 PUBLIC INVOLVEMENT

I.8.1 COMMUNITY ASSESSMENT MEETINGS

In 2008, as part of the planning process for the RMP revision, the BLM conducted a community assessment to gather input from counties, cities, towns, and local governments and organizations in the Planning Area. The purposes of the community assessment process were to start a dialogue between the BLM and local communities and to begin identifying issues of importance to these communities before starting the RMP revision process. The BLM, assisted by a community facilitator and contractor staff, held 22 community assessment meetings from late October to mid-December 2008. Targeted participants were county, city, and town governmental staff representatives; elected officials; planning or commission members; local chamber of commerce representatives; members of the BLM Southwest Resource Advisory Council; organizations engaged with the UFO; and individuals active in BLM management concerns.

A total of 166 individuals from these groups participated in the meetings. The community assessment yielded the important insight that, while these communities are different and unique and have their own individual values, issues, and concerns, many of them have common concerns. Based on the degree of similarity of identified values and issues, certain geographical areas in the RMP Planning Area could be grouped together for similar or common management approaches. These proposed socioeconomic management units were used as a starting point in the RMP revision process. Results are provided in the Community Assessment of the Uncompahgre Planning Area (BLM 2009a).

I.8.2 PUBLIC SCOPING

On December 24, 2009, the BLM mailed a newsletter to more than 390 individuals, announcing the start of the scoping period for the Uncompahgre RMP/EIS. The newsletter provided the dates and venues for the original six scoping open houses, in Hotchkiss, Delta, Montrose, Ridgway, Norwood, and Naturita, Colorado, scheduled in January 2010.

Seven open houses were held in January and February 2010 to provide the public with opportunities to become involved, to learn about the project and the planning process, to meet the Uncompahgre RMP team members, and to offer comments. The BLM added a seventh open house in Telluride, Colorado, in response to a special request from the San Miguel County Commissioners. The scoping meetings were attended by 369 individuals.

In addition to the newsletter, the BLM in a press release, dated January 5, 2010, provided information about the scoping period, the original six scoping open houses, and how to submit scoping comments; it posted the press release on the project website. The BLM also publicized the information with display advertisements in six local newspapers in December 2009 and January 2010 and posted a flyer in various public locations throughout the Planning Area.

Although public scoping meetings began in January 2010, the formal scoping period began with publication of the Notice of Intent in the *Federal Register* on February 25, 2010 (75 Federal Register 8739-8740, February 25, 2010). The Notice of Intent notified the public of the BLM's intent to develop an RMP for the UFO. The scoping period for receipt of public comments ended March 29, 2010.

During the scoping period, the BLM received 214 unique written submissions and 13 different form letters, containing a total of 2,496 unique comments. The largest proportion of public comments during scoping centered around three issues: special designation areas (30.5 percent), notably wilderness, wilderness study areas, and Wild and Scenic Rivers (WSRs); recreation and travel management (25 percent); and nonrenewable energy development (10.3 percent). Detailed information about the comments received and the public outreach process can be found in the Uncompahgre RMP Revision Scoping Summary Report (BLM 2010a).

I.8.3 SOCIOECONOMIC WORKSHOPS

In 2010, the UFO hosted six economic strategy workshops in Montrose, Delta, Hotchkiss, Ridgway, Norwood, and Naturita, Colorado. In total, 90 citizens, local government representatives, and local interest group representatives attended. These workshops provided an opportunity for stakeholders from local communities to participate in the planning process. The attendees discussed economic trends in the region, viewed current and historical socioeconomic data, and developed visions for the economic

future of their communities. The attendees also discussed how BLM management of public lands is tied to the economy of local communities and of the region as a whole.

Workshop participants identified important current land uses of public lands as they relate to the local economy. Key uses identified were recreation, big game hunting, livestock grazing, mining, and quality of life. The Socioeconomic Baseline Assessment Report provides more information, including the social values of affected groups and individuals (BLM 2010b).

I.8.4 WILD AND SCENIC RIVER STAKEHOLDER MEETINGS

As required by the Wild and Scenic Rivers Act of 1968, the BLM reviewed rivers and tributary streams in the Planning Area for potential inclusion in the National Wild and Scenic Rivers System. BLM Manual 6400, Wild and Scenic Rivers, Policy and Program Direction for Identification, Evaluation, Planning, and Management (BLM 2012b) identifies 13 criteria for use in the study and designation of watercourses under the Wild and Scenic Rivers Act. This manual guides the BLM in evaluating rivers and streams, using a three-step public process: eligibility, suitability, and congressional action. BLM staff identified 174 river segments within 7 hydrologic units for review. After evaluating these segments, it determined 22 rivers and tributary streams, separated into 29 segments, to be free-flowing and possessed one or more outstandingly remarkable values necessary for eligibility for inclusion in the National Wild and Scenic Rivers System. The Wild and Scenic River Eligibility Report (BLM 2010c) was available for public review and comment as part of the scoping phase of the Uncompahgre RMP revision, from December 2009 to March 2010.

Eligible segments were subject to a suitability evaluation during development of the Draft RMP/Draft EIS, based on the revised BLM Manual 6400. During the suitability process, the BLM and stakeholder groups weighed protective measures for eligible river segments and the corresponding corridor in relation to current and potential identified uses. The group also considered possible environmental and economic consequences of, management issues resulting from, and reasonable alternatives to inclusion in the National Wild and Scenic Rivers System. Preliminary segment boundaries and classifications were reevaluated, in response to public input on the Wild and Scenic River Eligibility Report (BLM 2010c).

Stakeholder group input was critical in evaluating each segment's suitability. Separate stakeholder processes were initiated for segments in the Gunnison River Basin and those in the Dolores and San Miguel River Basins.

Overall, the BLM identified 16 of the 29 segments in the UFO Planning Area as suitable for National Wild and Scenic Rivers System consideration. The BLM published the findings in the 2012 Wild and Scenic River Suitability Report and used the findings to develop the preferred alternative for the Uncompahgre Draft RMP. The preferred alternative was carried forward without change into the Proposed RMP. This ROD/Approved RMP will be used to make National Wild and Scenic Rivers System recommendations to Congress.

I.8.4.1 Gunnison River Basin Stakeholders

The Colorado River District sponsored the Gunnison River Basin stakeholder group, which held nine public meetings pertaining to Gunnison Basin segments outside of the Dominguez-Escalante National Conservation Area. The Gunnison Basin stakeholder group was unable to reach a consensus on suitability recommendations; however, it did reach consensus that management of the Monitor Creek,

Potter Creek, and Roubideau Creek segments recommended as suitable in the Uncompahgre Draft RMP/EIS agency-preferred alternative should maintain certain attributes.

Because the group could not reach consensus, and based on local interdisciplinary team input, the BLM identified three segments in the Gunnison River Basin as suitable (out of seven eligible segments) in the 2012 Wild and Scenic River Suitability Report. That report was then used to develop the agency-preferred alternative for the Uncompahgre Draft RMP.

I.8.4.2 Dolores and San Miguel River Basin Stakeholders

The Dolores-San Miguel stakeholder group focused on the San Miguel and Dolores Rivers and their tributaries. In the 11 public meetings that it held, the stakeholder group made suitability recommendations and reached consensus. Based on those recommendations, the BLM identified 13 segments in the Dolores and San Miguel River Basin as suitable (out of 21 eligible segments) in the 2012 Wild and Scenic River Suitability Report. That report was then used to develop the agency-preferred alternative for the Uncompahgre Draft RMP.

I.8.4.3 County Input

All of the stream segments that were preliminarily proposed as suitable in the Gunnison River Basin are in Montrose County. During the Uncompahgre Draft RMP/EIS public comment period, Montrose County's comments on WSRs requested that activities next to WSR segments be restricted only "when such segments have received a WSR designation through Congress;" however, in order to provide Congress with the opportunity to designate a segment, the BLM is required under the Wild and Scenic Rivers Act to manage suitable segments to maintain their outstandingly remarkable values. Representatives of the adjacent Delta County commented that they do "not support any recommendation of these waterways as suitable."

Gunnison County supports all suitability determinations in the agency-preferred alternative (Alternative D) in the Draft RMP/EIS, in the Proposed RMP (Alternative E) in the Proposed RMP/Final EIS, and in the Approved RMP. San Miguel County supports the suitability determinations in the Dolores and San Miguel Basin to preserve fisheries habitat and recreational fishing, as presented in the agency-preferred alternative (Alternative D) in the Draft RMP/EIS, in the Proposed RMP (Alternative E) in the Proposed RMP/Final EIS, and in the Approved RMP.

I.8.5 RECREATION FOCUS GROUP WORKSHOPS

The BLM gathered data from members of the public on their preferences for recreation management of BLM-administered lands in the UFO. There were six focus group meetings at locations across the UFO, with over 130 participants attending at least one of the meetings. Participants responded in discussions and in writing to a variety of questions regarding special places and outstanding recreation opportunities on BLM-administered lands. Some also asked about the San Miguel River Basin Special Recreation Management Area, BLM management activities that enhance or diminish the quality of the identified special places, sources of information about BLM-administered lands, and partnership opportunities to keep the public involved in the management process. The BLM received a total of 123 written responses and developed them into a database for analysis.

Participants identified 161 different special places and 114 outstanding recreation areas. A total of 78 unique activities were associated with special places, and 73 activities were associated with outstanding

recreational opportunity locations. Although participants identified many locations in their written comments, fewer than 10 locations received the largest share of responses. Similarly, a wide variety of activities were identified in both the special places and outstanding recreation opportunities; however, there was remarkable consistency in the most frequently mentioned activities: hiking, off-highway vehicle riding, fishing, hunting, camping, and mountain biking.

Participants offered a wide variety of place-specific suggestions for BLM management activities to enhance or diminish these places. They also offered a rich set of possibilities for public/private partnerships to help manage the land. The BLM UFO Recreation Focus Group Report provides detailed results of the extensive focus group data collection, both the written responses and group discussions with public land users concerning recreation on BLM-administered lands in the UFO (Mesa State College 2010).

I.8.6 NORTH FORK ADVOCACY GROUP

On February 26, 2013, the BLM received a letter from an advocacy group with preliminary documents depicting the North Fork Alternative Plan for Oil and Gas Leasing/Development. The group provided the BLM with a more refined concept on April 2, 2013, and provided a final concept in December 2013. The BLM analyzed the concept, which is called Alternative B.1 in the Uncompahgre Proposed RMP/Final EIS.

I.8.7 SHOOTING SPORTS ROUNDTABLE

The BLM UFO contacted the 40 private organizations participating in the Federal Lands Hunting, Fishing, and Shooting Sports Roundtable Memorandum of Understanding (BLM Instruction Memorandum 2007-041; BLM 2007). The agency notified them of the availability of the draft RMP/EIS and the comment opportunity. Staff from the BLM UFO met with representatives of the local Rod and Gun Club and other interested firearm shooters on March 13 and April 10, 2013. The purpose of the meeting was to discuss potential management alternatives in the RMP, including areas with limits on or closures to target shooting.

I.8.8 PUBLIC COMMENT ON THE DRAFT RMP/EIS

A notice of availability announcing the release of the Uncompahgre Draft RMP/EIS was published in the *Federal Register* on June 3, 2016, initiating the formal 90-day public comment period. In response to public requests, the comment period was extended for an additional 60 days, to November 1, 2016. The extension of the comment period was announced via a press release on July 21, 2016.

All contacts on the mailing list at the time of the Draft RMP/EIS received a newsletter announcing its availability. The newsletter also notified the public of upcoming Draft RMP/EIS meetings and announced the public review period. The Draft RMP/EIS was made available through the RMP project website and at the BLM State Office (Denver/Lakewood) and the BLM UFO (Montrose). Notification of the Draft RMP/EIS was also provided to cooperating agencies and tribal representatives. The BLM provided a paper or compact disc copy of the Draft RMP/EIS to tribal and local governments and agencies. All documents were available via the project website, <https://go.usa.gov/xnpgD>.

Six public open houses were held across the Planning Area during a 2-week period during the public comment period on the Draft RMP/EIS. These public meetings were structured in an open house

format. The BLM provided attendees with a brief overview of the plan, tips on how to navigate the Draft RMP/EIS, and helpful information about making effective comments. A total of 294 people attended the open houses.

During the Uncompahgre Draft RMP/EIS comment period, the BLM received 783 unique written submissions, 565 of which were received via email, as well as 51,300 copies of form letters submitted on 90 different forms. In total, 2,566 unique substantive comments were contained within all types of submission. In the Proposed RMP/Final EIS, the BLM responded to all substantive comments on the Draft RMP/EIS that it received during the 150-day comment period.

I.8.9 REVIEW AND PROTEST OF THE PROPOSED RMP/FINAL EIS

Pursuant to the BLM's planning regulations (43 CFR 1610.5-2), any person who participated in the Uncompahgre RMP planning process and had an interest that might be adversely affected by the planning decisions could protest approval of the proposed plan. The protest period was within 30 days from the date the US Environmental Protection Agency published the Notice of Availability in the *Federal Register*, from June 28 to July 29, 2019.

The BLM received 86 protest letters during the protest period. The agency dismissed 69 protest letters because they were comments and not protests. The BLM dismissed four protest letters because the parties did not have standing.

The BLM received 13 protest letters from parties with standing during the 30-day protest period. Issues raised by protestors included those associated with the following:

- ACECs
- Consistency with other plans
- Unnecessary or undue degradation
- Purpose of and need for the RMP
- Range of alternatives
- Best available information
- Cooperating agencies
- Impact analysis for air quality, carbon/greenhouse gas emissions, climate change, bighorn sheep, fish, Gunnison sage-grouse (*Centrocercus minimus*), fluid minerals, uranium mining, selenium, water quality, wilderness characteristics, human health, renewable energy, socioeconomics, and mitigation

The BLM Director and staff at the BLM Washington Office reviewed all of the protest issues. After review, the protests were denied by the BLM Director, whose decision is the final decision for the US DOI. The BLM Director concluded that the BLM Colorado State Director followed the applicable laws, regulations, and policies and considered all relevant resource information and public input in developing the Proposed RMP. The BLM Director also concluded that the Proposed RMP did not require changes. The Director's resolution report is available on the BLM's Protest Resolution website, at <https://www.blm.gov/programs/planning-and-nepa/public-participation/protest-resolution-reports>.

I.8.10 GOVERNOR'S CONSISTENCY REVIEW

In a letter dated July 10, 2019, and as required by its regulations (43 CFR 1610.3-2(e)) to promote consistency with state government plans or policies, the BLM initiated the Colorado Governor's Consistency Review for the Uncompahgre Proposed RMP/Final EIS. The consistency review period concluded on September 9, 2019.

The Governor submitted a letter identifying some concerns in response to the consistency review. These concerns included consistency with recently enacted State legislation and State wildlife plans. The BLM thoroughly reviewed the Governor's response letter and determined that the Proposed RMP is consistent with existing State plans; however, as a result of the Governor's consistency review, the BLM adopted a new CSU stipulation for fluid mineral leasing. Its purpose is to ensure the function and suitability of big game winter range, migration, and production areas. The stipulation will require the development of a mitigation plan in coordination with CPW, or the BLM Authorized Officer's determination, after coordination with CPW, that a mitigation plan is unnecessary. The mitigation plan must demonstrate that the overall function and suitability of big game winter ranges, migration, and production areas will not be impaired. Also, the BLM modified stipulations associated with Gunnison sage-grouse habitat to include consultation with CPW on any proposed exceptions, waivers, and modifications. In addition, the general fish and wildlife objective (F&W-OBJ-01) was modified to include infrastructure and does not limit consideration of route density to only travel management. The Governor's letter and the BLM's response are on the project website at <https://go.usa.gov/xnpgD>.

I.9 CONSULTATION AND COORDINATION

BLM land use planning regulations (43 CFR 1610.3), FLPMA (43 US Code 1712), and regulations for implementing NEPA (40 CFR 1501.5 and 1501.6) guide the BLM in coordinating and cooperating with other federal and state agencies, local governments, and Native American tribes during the land use planning process. This collective guidance instructs the BLM as follows:

- Stay informed of federal, state, local, and tribal plans
- Ensure that it considers these plans in its own planning
- Seek ways to resolve inconsistencies between such plans and BLM planning
- Cooperate with other agencies and tribal governments in developing RMPs and NEPA analyses

I.9.1 COOPERATING AGENCIES COLLABORATION

The BLM invites agency cooperation early in the RMP process using the process outlined in 43 CFR 1501.6. A cooperating agency is any federal, state, or local government agency or Indian tribe that enters into a formal agreement with the lead federal agency to help develop an environmental analysis. More specifically, cooperating agencies "work with the BLM, sharing knowledge and resources, to achieve desired outcomes for public lands and communities within statutory and regulatory frameworks" (BLM Land Use Planning Handbook H-1601-1; BLM 2005). The primary role of cooperating agencies during the planning process is to provide input on issues for which they have a special expertise or jurisdiction.

On January 23, 2009, the BLM invited 39 local, state, federal, and tribal representatives to participate as cooperating agencies for the Uncompahgre RMP revision; it invited one additional agency in March 2013.

The following 18 agencies participated in the RMP as designated cooperating agencies, all of which signed memoranda of understanding with the UFO:

- US DOI, Fish and Wildlife Service (USFWS)
- US DOI, Bureau of Reclamation
- US Department of Agriculture, Forest Service (Forest Service), Grand Mesa, Uncompahgre, and Gunnison National Forests
- Colorado Department of Natural Resources (CPW, Water Conservation Board, Natural Heritage Program, State Forest Service, Reclamation Division, Mining and Safety)
- Delta Soil Conservation District
- Delta County
- Gunnison County
- Montrose County
- Ouray County
- San Miguel County
- City of Montrose
- Town of Cedaredge
- Town of Norwood
- Town of Nucla
- Town of Olathe
- Town of Orchard City
- Town of Paonia
- Town of Ridgway

From May 2010 to March 2018, the BLM conducted 12 meetings with cooperating agencies that signed memoranda of understanding with the BLM. These agencies were engaged throughout the planning process, including during alternatives development.

I.9.2 SOUTHWEST RESOURCE ADVISORY COUNCIL COLLABORATION

A resource advisory council is a committee established by the Secretary of the Interior to provide advice to or recommendations on BLM management (BLM Land Use Planning Handbook H-1601-1; BLM 2005). The Colorado Southwest Resource Advisory Council is composed of 15 members of the public, representing different areas of expertise appointed to provide input on issues related to the management of BLM-administered lands. The council's recommendations are based on consensus building and collaboration.

The Colorado Southwest Resource Advisory Council was involved in developing the preliminary planning issues for the Uncompahgre RMP. In addition, a resource advisory council subgroup participated in the planning process and in particular to assist the BLM with creating a range of reasonable alternatives for the EIS. Eleven meetings of the resource advisory council subgroup were held for the Uncompahgre RMP. On June 22, 2012, the subgroup approved the range of alternatives. The subgroup's recommendations were formally presented for discussion at the October 26, 2012, public

meeting of the full Southwest Resource Advisory Council. On October 26, 2013, the council passed a resolution approving the range of alternatives. Minutes from subgroup meetings are available on the project website, <https://go.usa.gov/xnpgD>.

In addition to these meetings, the subgroup facilitated nine public meetings in Norwood, Naturita, Placerville, and Telluride, Colorado, in November 2010, December 2010, and January 2011. The purpose of the meetings was to discuss WSR suitability for rivers and streams in the Dolores River Basin. The meetings were designed to increase public understanding of and to seek public input on the WSR process and eligibility. The meetings also were meant to solicit comments on segments in the Dolores and San Miguel River watersheds.

I.9.3 TRIBAL GOVERNMENT-TO-GOVERNMENT CONSULTATION

Consultation with American Indian tribes is part of the BLM's planning process. Tribal consultation for cultural resources for the Uncompahgre RMP began through the Ute Ethnohistory Project. It involved three BLM field offices—Uncompahgre, Grand Junction, and Colorado River Valley—that were preparing RMPs at that time. Cultural representatives from the Ute Indian Tribe of the Uintah and Ouray Reservation (Ute Indian Tribe) and Ute Mountain Ute Tribe attended a general planning meeting in November 2007. Representatives from the Southern Ute Indian Tribe were invited but were unable to attend. Subsequent consultation meetings at which RMP issues were discussed occurred in March, April, and August 2008, in July and November 2009, and in April 2010.

The BLM consulted with the Navajo Nation, Ute Indian Tribe of the Uinta and Ouray Reservation, Southern Ute Indian Tribe, and Ute Mountain Ute Tribe regarding the Uncompahgre RMP. It received no written comments from any Native American tribes or tribal agencies during the scoping period or the Draft RMP/EIS public comment period. Tribes typically presented their concerns or issues orally. Government-to-government consultation continued throughout the RMP process to ensure that the concerns of tribal groups were considered in developing the RMP.

I.9.4 US FISH AND WILDLIFE SERVICE SECTION 7 CONSULTATION

The BLM coordinated with the USFWS early in the planning process as a cooperating agency. The USFWS provided input on planning issues, data collection and review, and alternatives development. To comply with Section 7(c) of the Endangered Species Act of 1973, the BLM initiated consultation with the USFWS for the RMP and prepared a biological assessment after public comments were received on the Draft RMP/EIS. The two agencies consulted while the BLM developed the biological assessment. The BLM submitted the biological assessment to the USFWS in August 2018.

On December 17, 2018, the USFWS issued the biological opinion for the UFO RMP that concurred with the following conclusions on the implementation of the UFO RMP:

- It may affect, but is not likely to adversely affect, the greenback cutthroat trout (*Oncorhynchus clarki stomias*), Mexican spotted owl (*Strix occidentalis*), western yellow-billed cuckoo (*Coccyzus americanus*), Colorado pikeminnow (*Ptychocheilus lucius*), razorback sucker (*Xyrauchen texanus*), bonytail chub (*Gila elegans*), and humpback chub (*Gila cypha*).

- It may affect, and is likely to adversely affect, Colorado hookless cactus (*Sclerocactus glaucus*), clay-loving wild buckwheat (*Eriogonum pelinophilum*), including designated critical habitat, and Gunnison sage-grouse, including designated critical habitat.

The biological opinion also included measures to avoid adverse modifications to critical habitat.

On September 20, 2019, the BLM notified the USFWS of changes that it had made to the Proposed RMP (Alternative E) after USFWS concurrence on December 17, 2018. The BLM UFO biological staff determined that these changes would not affect species or habitat that the agency consulted the USFWS about in 2018. These conclusions are applicable to a revised proposed RMP drafted after the USFWS issued the biological opinions because changes were not made to management actions relevant to threatened and endangered species. The biological opinion is available on the RMP project website: <https://go.usa.gov/xnpgD>.

I.9.5 STATE HISTORIC PRESERVATION OFFICE SECTION 106 CONSULTATION

The BLM consulted with the State Historic Preservation Officer in 2006. This resulted in the Colorado Protocol, Section IV, which requires State Historic Preservation Officer involvement in BLM planning processes. It describes the opportunities for the State Historic Preservation Officer to participate in BLM planning processes and review development-stage projects.

On December 24, 2009, the UFO sent an interested party letter to the State Historic Preservation Officer regarding the Uncompahgre RMP revision, but the Officer did not respond. The BLM provided the Draft RMP/EIS to the State Historic Preservation Officer concurrently with its release to the public. It will continue to work with the State Historic Preservation Officer on site-specific projects in the UFO.

The BLM communicated with the State Historic Preservation Officer on March 5, 2018, about the cultural resource inventory of the proposed North Delta Off Highway Vehicle Open Area (Report #18UN-02), an Open area included in the Approved RMP. In a concurrence letter to the BLM, dated March 16, 2018, the State Historic Preservation Officer cited no objections to the inventory. In this letter, the Officer referenced a historic property in the area of potential effect and requested further consultation on this property. The BLM responded to the Officer on May 17, 2018, addressing these concerns. On May 25, 2018, the BLM received a concurrence letter from the State Historic Preservation Officer citing no objections.

I.10 APPEAL


Implementation decisions may be appealed to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR 4. The Uncompahgre Approved RMP does not contain any implementation decisions subject to appeal.

I.11 APPROVAL

The decision is hereby made to approve the attached Resource Management Plan. This Record of Decision serves as the final decision for the Resource Management Plan and becomes effective on the date it is signed by the BLM State Director.

FIELD MANAGER RECOMMENDATION

Having considered a full range of alternatives, associated impacts, and public and agency input, I recommend the adoption and implementation of the Uncompahgre Resource Management Plan.


Gregory Larson
Manager, BLM Uncompahgre Field Office

4/2/2020
Date

DISTRICT MANAGER CONCURRENCE


I concur with the adoption and implementation of the Uncompahgre Resource Management Plan.


Stephanie Connolly
Manager, BLM Colorado Southwest District

4/2/2020
Date

STATE DIRECTOR APPROVAL

In consideration of the foregoing, I approve the Uncompahgre Resource Management Plan.


Jamie E. Connell
BLM Colorado State Director

4/2/2020
Date

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II. APPROVED RESOURCE MANAGEMENT PLAN

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II.1 INTRODUCTION

The US Department of the Interior (DOI), Bureau of Land Management (BLM), Uncompahgre Field Office (UFO) prepared the Uncompahgre Resource Management Plan (RMP). The intent is to provide comprehensive current and future management of BLM-administered lands in the UFO. This is the Approved Resource Management Plan for the public lands administered by the BLM UFO.

The BLM prepared the RMP in compliance with its planning regulations, Title 43, Code of Federal Regulations (CFR), 1600, under the authority of the Federal Land Policy and Management Act of 1976 (FLPMA). This document also meets the requirements of the National Environmental Policy Act of 1969 (NEPA), the Council on Environmental Quality Regulations for Implementing the NEPA (40 CFR 1500-1508), the BLM's NEPA regulations (43 CFR 46), and requirements of the BLM's NEPA Handbook, 1790-1 (BLM 2008a).

II.1.1 PURPOSE OF AND NEED FOR THE RESOURCE MANAGEMENT PLAN

The resource management planning process is a key tool that the BLM uses, in collaboration with interested public parties, to ensure a coordinated and consistent approach to managing BLM-administered lands. An RMP is a set of comprehensive long-range decisions concerning the use and management of resources administered by BLM. In general, the purpose of an RMP is twofold: first, it provides an overview of goals, objectives, and needs associated with public lands management; second, it resolves multiple-use conflicts or issues associated with those requirements that drive the preparation of the RMP.

BLM regulations require that existing land use plans be revised when necessary to address current resource conditions, changes in circumstances, such as evolving demands on resources, and new or revised policy on the national level (43 CFR 1610.5-6). Management direction for lands in the Uncompahgre Planning Area was contained in the 1985 San Juan/San Miguel RMP (BLM 1985) and the 1989 Uncompahgre Basin RMP (BLM 1989). Although the 1985 and 1989 RMPs have been subsequently amended, they do not satisfactorily address new and emerging issues. Laws, regulations, policies, and issues regarding management of BLM-administered lands have changed during the life of the plans. The BLM needs to revise the 1985 and 1989 RMPs to ensure compliance with current laws and policies and to address issues that have arisen since their preparation.

II.1.2 LANDS IN THE UNCOMPAHGRE PLANNING AREA AND DECISION AREA

II.1.2.1 Planning Area

The Planning Area includes public lands administered by the BLM, the US Department of Agriculture Forest Service (Forest Service), and the US DOI, National Park Service. It also includes State of Colorado and privately owned lands. It totals approximately 3.1 million acres in Delta, Gunnison, Mesa, Montrose, Ouray, and San Miguel Counties in southwestern Colorado (**Figure 1**, below). The Planning Area also includes 2,234,670 acres of federal mineral estate (**Figure 2 [Appendix A]**).

The UFO administrative boundary includes lands within the Gunnison Gorge National Conservation Area and Dominguez-Escalante National Conservation Area. However, this RMP does not make any decisions for the Gunnison Gorge National Conservation Area or the Dominguez-Escalante National

Conservation Area, which are managed under separate RMPs. Although it is within UFO boundaries (until legislatively changed), the Curecanti National Recreation Area is withdrawn to the US DOI Bureau of Reclamation and managed by the US DOI, National Park Service, under a memorandum of understanding between the agencies. Locatable minerals are not withdrawn and are managed by the BLM.

II.1.2.2 Decision Area

Management direction and actions in this RMP apply only to BLM-administered lands and federal mineral estate under BLM jurisdiction; this is known as the Decision Area. The Uncompahgre RMP Decision Area consists of 675,800 acres of BLM-administered lands, including withdrawn lands. There are over 2.2 million acres of federal mineral estate in the Planning Area, 971,220 acres of which are in the Decision Area. Federal mineral estate in the Decision Area includes mineral estate underlying BLM-administered lands, privately owned lands, city lands, and state-owned lands. Although minerals beneath National Forest System lands are part of the federal mineral estate, they are not part of the RMP Decision Area. The BLM typically adopts the leasing recommendations of the federal surface-managing agency when leasing federal mineral estate in the Planning Area. To lease minerals beneath National Forest System lands, the BLM must receive consent to lease from the Forest Service and incorporate any accompanying stipulations required by forest land use plans or forest-wide programmatic leasing analyses.

II.1.3 SCOPING AND ISSUES

As stated in the Record of Decision (ROD), the formal scoping period began with publication of the Notice of Intent in the *Federal Register* on February 25, 2010 (75 Federal Register 8739-8740, February 25, 2010). The scoping period ended March 29, 2010.

II.1.3.1 Issues Addressed

A planning issue is a major controversy or dispute regarding management of resources or uses on BLM-administered lands; it can be addressed in a variety of ways.

In September 2008, the BLM completed a preparation plan for the RMP revisions/environmental impact statement (EIS). The BLM interdisciplinary team used this plan to initiate the planning process to highlight anticipated planning issues that the team developed internally. Based on the lands and resources managed in the Planning Area, preliminary issues fell into six categories. The UFO analyzed comments received during the public scoping process and finalized a scoping summary report in July 2010 (BLM 2010a). Issues raised during scoping were consistent with the planning issues developed during the internal planning phase.

The BLM developed a planning issue statement for each of the six planning issue categories. Each planning issue statement summarizes the issues and concerns heard for each category during scoping. The six planning issue statements are presented in **Table II-I**, below.

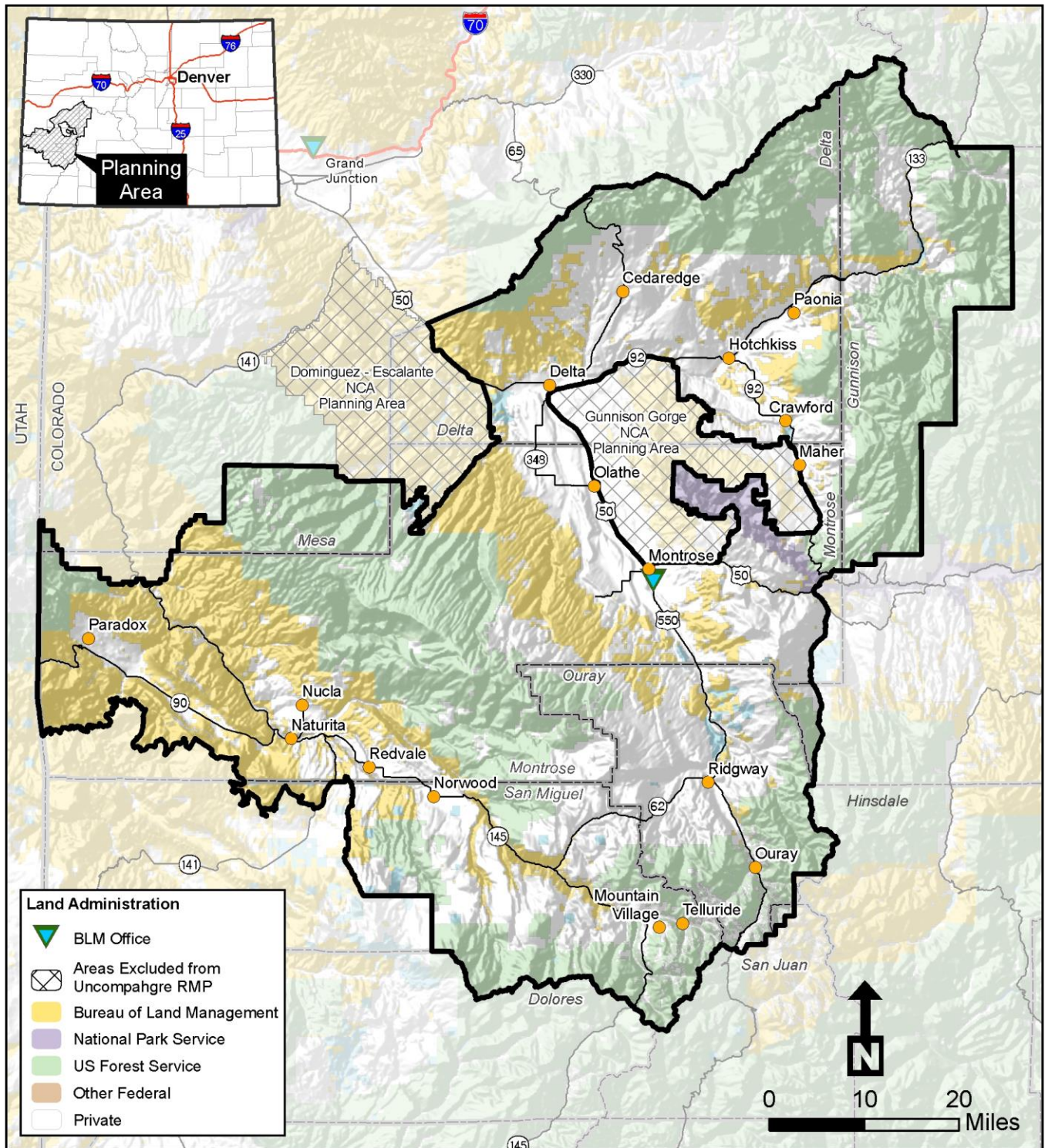


Figure I - Uncompahgre RMP Planning Area

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**Table II-I
Planning Issue Statements**

Issue	Resource Category	Planning Issue Statement
1.	<ul style="list-style-type: none"> • Soil, air, and water resources • Special management areas • Vegetation (including riparian and wetland areas and noxious weeds) • Fish and wildlife • Special status species • Drought management and climate change 	How will vegetation resources, terrestrial and aquatic habitat, water resources, and special management areas be managed, while maintaining biological diversity and native species populations?
2.	<ul style="list-style-type: none"> • Nonrenewable energy development • Renewable energy development • Minerals and mining 	How will energy and mineral resources be managed?
3.	<ul style="list-style-type: none"> • Recreation • Travel management • Livestock grazing • Visual resources • Noise • Forestry • Wildland fire management 	How will human activities and uses be managed?
4.	<ul style="list-style-type: none"> • Lands and realty 	How will land tenure, withdrawals, and utility and energy corridors be managed or adjusted?
5.	<ul style="list-style-type: none"> • Cultural resources • Paleontological resources • Native American religious concerns 	How will cultural, historical, and paleontological resources and Native American Religious Concerns be managed and protected?
6.	<ul style="list-style-type: none"> • Socioeconomic and environmental justice concerns • Public health and safety 	How do population growth and an expanding urban interface affect the management of BLM-administered lands and resources, including authorized permitted land uses, while considering community values and needs?

II.1.3.2 Issues Considered but Not Further Analyzed

During scoping, participants raised several concerns regarding issues that would not be addressed in the RMP, including administrative, policy, and implementation issues; issues outside the scope of the RMP; and issues that have already been addressed through other BLM activities. The Uncompahgre RMP Scoping Summary Report (BLM 2010a) provides a comprehensive list of issues outside the scope of the RMP.

II.1.4 PLANNING CRITERIA AND LEGISLATIVE CONSTRAINTS

FLPMA is the primary authority for the BLM's management of public lands. This law provides the policy by which BLM-administered lands will be managed and establishes provisions for land use planning, land

acquisition and disposition, administration, range management, rights-of-way (ROWs), designated management areas, and the repeal of certain statutes.

NEPA provides the basic national charter for environmental responsibility. It requires the consideration and public availability of information regarding the environmental impacts of major federal actions significantly affecting the quality of the human environment. In concert, FLPMA and NEPA provide the overarching guidance for administering all BLM activities.

Planning criteria are the standards, rules, and guidelines that help to guide data collection and alternative formulation and selection in the RMP development process. In conjunction with the planning issues, planning criteria ensure that the planning process is focused. The criteria also help guide the final plan selection and provide a basis for judging the responsiveness of the planning options.

The planning criteria are as follows:

- The proposed RMP will comply with FLPMA and all other applicable laws, regulations, and policies.
- Impacts from the management alternatives considered in the revised RMP will be analyzed in an EIS developed in accordance with regulations at 43 CFR 1610 and 40 CFR 1500.
- Lands covered in the RMP will be public land and split-estates managed by the BLM. No decisions will be made relative to non-BLM-administered lands, except when decisions involve federal mineral estate.
- For program-specific guidance of land use planning level decisions, the process will follow the Land Use Planning Manual 1601 (BLM 2000) and Handbook H-1601-I, Appendix C (BLM 2005), as amended.
- Broad-based public participation will be an integral part of the planning and EIS processes.
- The planning team will cooperate with the State of Colorado, tribal governments, county and municipal governments, other federal agencies, the BLM Colorado Southwest Resource Advisory Council, cooperating agencies, and all other interested groups, agencies, and individuals.
- Decisions in the RMP will strive to be compatible with the existing plans and policies of local, state, and federal agencies in the Planning Area, to the extent that the decisions are consistent with the purposes, policies, and programs of federal law and regulations applicable to public lands.
- The BLM will consult with Colorado Parks and Wildlife (CPW) and will recognize in the RMP the State's responsibility and authority to manage wildlife.
- The BLM will recognize the Office of Surface Mining's responsibility and authority to regulate coal activities.
- The BLM will recognize the State's responsibility for permitting oil and gas activities and for regulating air quality impacts.
- The BLM will recognize the State's responsibility for permitting uranium, coal, and sand and gravel activities and for regulating water quality impacts.
- The BLM National Sage-Grouse Habitat Conservation Strategy (BLM 2004) requires that impacts on sagebrush habitat and sagebrush-dependent wildlife species be analyzed and

considered in BLM land use planning efforts for public lands with sagebrush habitat in the Planning Area.

- In the RMP, the BLM will recognize valid existing rights.
- The planning process will incorporate BLM Colorado Standards for Public Land Health and Guidelines for Livestock Grazing Management (BLM 1997).
- The BLM will follow guidance in Instruction Memorandum 2012-169, Resource Management Plan Alternative Development for Livestock Grazing (BLM 2012a), when developing a range of alternatives for livestock grazing.
- The BLM will continue to manage wilderness study areas (WSAs) according to BLM Manual 6330, Management of Wilderness Study Areas (BLM 2012c). This will continue until Congress either designates all or portions of the WSAs as wilderness or releases the lands from further wilderness consideration. It is no longer BLM policy to designate additional WSAs through the RMP process or to manage any lands other than existing WSAs in accordance with BLM Manual 6330 (BLM 2012c).
- The planning process will involve American Indian tribal governments and will provide strategies for protecting recognized traditional uses.
- Any location-specific information pertaining to cultural resources—maps, descriptions, or photos—is confidential BLM information. Such information will not become the property of any contractors working on the EIS nor be attached to any paper or electronic document. The Archaeological Resources Protection Act restricts the release of such information under the Freedom of Information Act.
- The RMP will include adaptive management criteria and protocol to deal with future issues.
- A reasonably foreseeable development scenario for fluid minerals, mineral potential reports for coal and other minerals, and a renewable energy potential report will be developed. For this, the BLM will use the analyses of past activities, productions, and other sources, which will aid in developing alternatives and in the environmental consequences analysis.
- The BLM will consider data in the Colorado Plateau Rapid Ecological Assessment, as appropriate.
- The BLM will incorporate in the RMP the Conservation Agreement and Strategy for Colorado River Cutthroat Trout (*Oncorhynchus clarki pleuriticus*).

All management direction and actions developed as part of the BLM planning process are subject to valid existing rights and must meet the objectives of the BLM's multiple-use management mandate and responsibilities (FLPMA Section 202[c] and [e]). Valid existing rights include all valid leases, permits, ROWs, or other land use rights or authorizations in effect on the date that this RMP is approved. Although the courts may adjudicate Revised Statute 2477 ROWs as valid existing rights, current BLM policy does not allow the BLM to consider unadjudicated Revised Statute 2477 claims. Claims under Revised Statute 2477 are therefore legal issues beyond the scope of this planning effort.

II.1.5 PLANNING PROCESS

The BLM uses a multistep planning process when developing RMPs, as required by 43 CFR 1600 and illustrated in the BLM's Land Use Planning Handbook, H-1601-1 (BLM 2005). The planning process is designed to help the BLM identify the uses desired by the public of BLM-administered lands. During this

process, the BLM considers these uses to the extent they are consistent with the laws established by Congress and the policies of the executive branch of the federal government. The planning process is issue driven. The BLM used the public scoping process to identify planning issues (noted above) to direct the development of the Uncompahgre RMP. It used the scoping process to introduce the public to planning criteria.

Title II, Section 202, of FLPMA directs the BLM to coordinate planning efforts with Native American tribes, other federal departments, and agencies of the state and local governments as part of its land use planning process. The BLM is also directed to integrate NEPA requirements with other environmental review and consultation requirements, to reduce paperwork and delays (40 CFR 1500.4-5). The BLM coordinated with Native American tribes and other agencies through ongoing communications, meetings, and collaboration with an interdisciplinary team of BLM specialists and federal, state, and local agencies.

II.1.6 RELATED PLANS

The BLM considered federal, state, local, and tribal plans that are germane to the development of the RMP/EIS. The BLM worked closely with federal, state, local, and tribal governments during preparation of the RMP/EIS. A list of all plans BLM considered can be found in Section I.7 of the Proposed RMP/Final EIS. Chapter 5 of the Proposed RMP/Final EIS describes coordination that has occurred throughout the development of the RMP.

II.1.7 POLICY

This RMP is consistent with and incorporates requirements identified in various laws, regulations, and policies. These include executive orders, legislative designations, and court settlements and rulings. The policies and decisions that existed before this RMP are outside its scope; however, they have influenced the decisions and constrained the alternatives and are needed to understand management of the Decision Area.

II.2 MANAGEMENT DECISIONS

This section of the Approved RMP presents the goals, objectives, actions, allowable uses, and stipulations established for BLM-administered lands in the Decision Area. Most of the desired future conditions are long range and are assumed to require a period of time to achieve. These management decisions are presented by program area under four category headings: resources, resource uses, special designations, and social and economic (see **Table II-2**, below). Not all types of decisions were identified for each program. Types of management decisions are presented in **Table II-3**, and management decisions are presented in **Table II-4**.

Table II-2
RMP Program Categories and Abbreviations

RMP Program Category	Abbreviation
General management	GM
Resources	
Air quality	AIR
Climate	CLIM

RMP Program Category	Abbreviation
Land health	LH
Soils and geology	SOIL
Water resources	WTR
Vegetation, general	VEG
Vegetation – Uplands	VEG–UPL
Vegetation – Riparian	VEG–RPN
Vegetation – Weeds	VEG–WDS
Fish and wildlife, general	F&W
Fish and wildlife – Fish and Aquatic	F&W–FIS
Fish and wildlife – Terrestrial	F&W–TER
Fish and Wildlife – Terrestrial – Big game species (mule deer, elk, pronghorn, bighorn sheep, moose, black bear, mountain lion)	F&W–BGS
Fish and wildlife – Terrestrial – Upland game birds (wild turkey)	F&W–UGB
Fish and Wildlife – Terrestrial – Migratory birds	F&W–MIG
Special status species, general	SSS
Special Status Species – Plants	SSS–PLN
Special Status Species – Fish and aquatic	SSS–FIS
Special Status Species – Terrestrial	SSS–TER
Special Status Species – Terrestrial – Yellow-billed cuckoo	SSS–YBC
Special Status Species – Terrestrial – Canada lynx	SSS–LNX
Special Status Species – Terrestrial – Gunnison sage-grouse	SSS–GSG
Special Status Species – Terrestrial – Raptors (also includes non-special status raptors)	SSS–RPT
Special Status Species – Terrestrial – Gunnison’s and white-tailed prairie dog	SSS–DOG
Special Status Species – Terrestrial – Kit Fox	SSS–FOX
Special Status Species – Terrestrial – Bats	SSS–BAT
Special Status Species – Terrestrial – Waterfowl and shorebirds	SSS–WSB
Wild horses	WHS
Wildland fire ecology and management	FIR
Cultural resources	CUL
Paleontological resources	PAL
Visual resources	VIS
Protected lands with wilderness characteristics	LWC
Resource Uses	
Forestry and woodland products	FOR
Livestock grazing	GRZ
Solid leasable minerals (coal)	COA
Fluid leasable minerals (oil and gas and geothermal resources)	FLD
Locatable minerals, mineral materials, and nonenergy solid leasable materials	
Locatable Minerals	LOC
Mineral materials (salable minerals)	SAL
Nonenergy solid leasable minerals	NEL

RMP Program Category	Abbreviation
Recreation and visitor services	REC
Special recreation management areas	REC–SRMA
Extensive recreation management areas	REC–ERMA
Comprehensive travel and transportation management	TRV
Lands and realty, land tenure adjustments	L&R
Lands and Realty – Land tenure adjustments – Disposal	L&R–DIS
Lands and Realty – Land Tenure Adjustments – Retention	L&R–RET
Lands and Realty – Land Tenure Adjustments – Acquisition	L&R–ACQ
Lands and Realty – Withdrawals	L&R–WTH
Special Designations	
Areas of critical environmental concern (ACECs)	ACEC
Wilderness and WSAs	WIL
Wild and Scenic Rivers	WSR
National Trails	NTR
National and BLM Byways	BYW
Watchable Wildlife Viewing Sites	WWV
Social and Economic	
Native American tribal interests	TRB
Public health and safety	PHS

Decisions are presented in **Table II-4**, and each is numbered, for ease of identification. The numbering sequences for the decisions are by program, each of which has an identified abbreviation (**Table II-2**), and each decision in that program is numbered in coordination with the program abbreviation (**Table II-2**), type of decision (**Table II-3**), and decision number.

Table II-3
RMP Types of Decisions and Abbreviations

Type of Decision	Abbreviation
Goal	GOAL
Objective	OBJ
Management action	MA
Allowable use (stipulation)	AU
Lease notice	LN

An example is as follows:

- AIR-GOAL-01: First air program goal
 - AIR-OBJ-01: First air program objective
 - AIR-MA-01: First air program management action decision
 - AIR-MA-02: Second air program management action decision

All acreages and maps presented in the Approved RMP are estimations, based on current data. Calculations depend on the quality and availability of data, and most calculations in this RMP are rounded

to the nearest 10 acres or 0.1 mile. Given the scale of the analysis, the compatibility constraints between datasets and lack of data for some resources, all calculations are approximate; they are for comparison and analytic purposes only. Likewise, the figures in **Appendix A** are provided for illustrative purposes and subject to the limitations discussed above. Updating these data is considered plan maintenance, which will occur over time as the Approved RMP is implemented, additional surveys are completed, and information is revised.

Table II-4 lists supporting information for the decisions contained in the Approved RMP. Maps depicting resource information and stipulations applicable to surface-disturbing activities in the Approved RMP are provided in **Appendix A**. **Appendices B** through **J** contain supporting information for decisions outlined in the Approved RMP. Supporting appendices are as follows:

Appendix A	Figures
Appendix B	Restrictions Applicable to Fluid Minerals Leasing and Other Surface-disturbing Activities
Appendix C	Best Management Practices and Standard Operating Procedures
Appendix D	Uncompahgre Field Office Drought Management Detection and Monitoring Plan
Appendix E	Description of Recreation Management Areas
Appendix F	Livestock Grazing Allotments and Allotment Levels
Appendix G	Bighorn/Domestic Sheep Risk of Association Modeling
Appendix H	Coal Screening Criteria for the Uncompahgre Planning Area
Appendix I	Travel Management
Appendix J	Legal Descriptions for Lands Identified for Disposal

II.2.1 LINKS TO APPROVED RMP DECISIONS

[Air Quality](#)

[Areas of Critical Environmental Concern](#)

[Climate](#)

[Comprehensive Travel and Transportation
Management](#)

[Cultural Resources](#)

[Fish and Wildlife](#)

[Wildlife – General](#)

[Fish and Aquatic](#)

[Wildlife – Terrestrial](#)

[Big Game](#)

[Raptors](#)

[Upland Game Birds](#)

[Migratory Birds](#)

[Fluid Leasable Minerals \(Oil and Gas and
Geothermal Resources\)](#)

[Forestry and Woodland Products](#)

[General Management](#)

[Land Health](#)

[Lands with Wilderness Characteristics](#)

[Lands and Realty](#)

[Communication Sites](#)

[Utility Corridors](#)

[Land Tenure Adjustments](#)

[Disposal](#)

[Retention](#)

[Acquisition](#)

[Withdrawals](#)

[Renewable Energy](#)

[Livestock Grazing](#)

[Locatable Minerals, Mineral Materials, and](#)

[Nonenergy Leasable Minerals](#)

[Locatable Minerals](#)

[Mineral Materials](#)

[Nonenergy Solid Leasable Minerals](#)

[National Trails and Byways](#)

[Native American Tribal Interests](#)

[Paleontological Resources](#)

[Public Health and Safety](#)

[Recreation and Visitor Services](#)

[Special Recreation Management Areas](#)

[Extensive Recreation Management
Areas](#)

[Soils and Geology](#)

[Solid Leasable Minerals \(Coal\)](#)

[Special Status Species](#)

[General](#)

[Plants](#)

[Fish and Aquatic](#)

[Terrestrial](#)

[Gunnison Sage-Grouse](#)

[Vegetation](#)

[General](#)

[Riparian](#)

[Weeds](#)

[Visual Resources](#)

[Watchable Wildlife Viewing Sites](#)

[Water Resources](#)

[Wild and Scenic Rivers](#)

[Wild Horses](#)

[Wilderness and Wilderness Study Areas](#)

[Wildland Fire Ecology and Management](#)

Table II-4
Approved RMP Decisions

GENERAL MANAGEMENT	
GM-MA-01	Comply with state and federal laws, regulations, policies, and standards, including FLPMA multiple use mandates.
GM-MA-02	Implement actions originating from laws, regulations, and policies and conform to day-to-day management, monitoring, and administrative functions not specifically addressed.
GM-MA-03	Preserve valid existing rights, which include any leases, claims, or other use authorizations established before a new or modified authorization, change in land designation, or new or modified regulation is approved. Existing fluid mineral leases are managed through conditions of approval outlined in the RMP.
GM-MA-04	Apply conditions of approval, BMPs, standard operating procedures (shown in Appendix C), other site-specific mitigation, and/or off-site mitigation measures to all resource uses to promote rapid reclamation, maximize resource protection, and minimize soil erosion.
GM-MA-05	Seek to enhance collaborative opportunities, partnerships, and communications with other agencies and interested parties to implement the RMP, including education and outreach and project-specific activities (such as monitoring and trail development).
RESOURCES	
AIR QUALITY	
AIR-GOAL-01	GOAL: Protect air resources and related values, including visibility, from significant adverse impacts associated with BLM-authorized/ permitted actions in accordance with the methodology and provisions outlined in the Colorado BLM Comprehensive Air Resource Protection Protocol (Proposed RMP/Final EIS Appendix H; BLM 2015).
AIR-OBJ-01	Objective: Limit air quality and related values degradation from authorized activities on BLM-administered lands (or related to BLM subsurface mineral development) through appropriate analyses of impacts on air quality, with reference to applicable Colorado and National Ambient Air Quality Standards, applicable federal, state, and local air quality laws, rules, regulations, and implementation plans, and applicable guidance documents (e.g., Federal Land Managers' Air Quality Related Values Work Group Phase I Report—Revised [2010] [Forest Service et al. 2010]).
AIR-MA-01	Action: Participate in, conduct, or require air modeling analyses as described in the Colorado BLM Comprehensive Air Resource Protection Protocol (Proposed RMP/Final EIS Appendix H; BLM 2015) as part of a comprehensive strategy to minimize the potential for BLM-permitted activities to cause or contribute to conditions that exceed ambient air quality standards or cause significant adverse impacts on air quality-related values.
AIR-LN-02	LEASE NOTICE. Attach Lease Notice CO-56 to new oil and gas leasing agreements to provide notice to operators of air quality analysis and mitigation that may be required on a case-by-case basis at the permitting/development stage.

	AIR QUALITY
AIR-MA-02	<p>Action: Develop Conditions of Approval for project-specific surface-disturbing activities to minimize the potential for BLM-permitted activities to cause or contribute to conditions that exceed ambient standards or cause significant adverse impacts on air quality-related values (on both a project level and contemporaneous cumulative basis). Conditions of Approval will be developed using information from the BLM Air Resources Annual Report.</p>
AIR-MA-03	<p>Action: Work cooperatively with local, state, federal, and tribal agencies to enhance air-monitoring efforts in order to provide a broader measure of spatially distributed air pollutant concentrations for the purposes of evaluating atmospheric conditions with respect to ambient air quality standards and air quality-related values. Conduct air quality and meteorological monitoring siting analyses to determine locations needed to support future air quality assessments and regional modeling analysis.</p>
AIR-MA-04	<p>Action: Implement the adaptive management strategy for protecting air resources as described in the Colorado BLM Comprehensive Air Resource Protection Protocol (Proposed RMP/Final EIS Appendix H; BLM 2015). Provide an annual activity summary report of BLM-authorized actions (track project-specific emissions) for comparison against the most recent regional air quality model results to provide cumulative context for any analyzed contemporaneous development period. Produce the annual report as required in the Colorado BLM Comprehensive Air Resource Protection Protocol (Proposed RMP/Final EIS Appendix H; BLM 2015) to track progress toward meeting the defined goal and objectives. Include mitigation requirements in project approval decisions if determined to be appropriate, based on updated analysis, using information in the BLM Colorado Air Resources Annual Report or other air quality and related values impacts analysis tools.</p>
AIR-MA-05	<p>Action: Conduct greenhouse gas and climate change analyses (e.g., quantify greenhouse gas emissions and assess potential impacts on climate for proposed actions) consistent with current policy/guidance, while following the overall BLM Colorado Air Resources adaptive management approach for protecting air resources and related values utilizing the most current data/information, trends, and climate modeling studies.</p>

	CLIMATE
CLIM-GOAL-01	GOAL: Manage native vegetation and wildlife species, soil and water resources, and wildlife habitats to maintain productivity, viability, and natural processes in response to stresses induced by climate change.
CLIM-OBJ-01	Objective: Reduce impacts from climate change on soil and water resources, native vegetation and wildlife species and communities, and wildlife habitats.
CLIM-MA-01	Action: Address climate change effects on soil and water resources, vegetation, and habitats and apply appropriate management to protect these resource values. Where feasible, coordinate with local or regional scientists and organizations in addressing climate change.
CLIM-MA-02	Action: Plant 1- to 2-year-old seedlings or seed local native species into new habitats where needed to improve restoration and revegetation success and to improve long-term survival of plant populations. Emphasize providing habitat for pollinators and butterflies, especially monarchs.

	LAND HEALTH
LH-GOAL-01	GOAL: Manage soils, riparian-wetland areas, native plant and animal communities, special status species, and water quality to meet land health standards.
LH-OBJ-01	Objective: Manage ACECs, WSAs, lands managed to minimize impacts on wilderness characteristics, and wild and scenic river (WSR) segments to achieve BLM Colorado Public Land Health Standards (BLM 1997) on greater than 80 percent of upland and riparian vegetation communities with 80 percent confidence. On the remaining BLM-administered lands, manage to achieve BLM Colorado Public Land Health Standards on greater than 70 percent of upland and riparian vegetation communities with 80 percent confidence. Measure BLM Colorado Public Land Health Standards on uplands using foliar cover, species composition, canopy gap, soil stability, and other appropriate indicators, and use best available science to determine benchmarks for achieving standards. For aquatic and riparian systems, measure bank stability, floodplain connectivity, aquatic health, water quality, and other appropriate indicators, and use best available science to determine benchmarks for achieving standards.
LH-MA-01	Action: Apply land and stream health improvement projects in areas likely to be stabilized or improved to a higher health condition, regardless of land health status. This would apply to ACECs, WSAs, lands managed to minimize impacts on wilderness characteristics, and WSR segments with a vegetation outstandingly remarkable value. For remaining lands, streams, and wetlands, apply land and stream health improvement projects in areas rated as <i>not meeting</i> BLM Colorado Public Land Health Standards (BLM 1997).

	LAND HEALTH
LH-MA-02	<p>Action: Limit, modify, or manage the cause, where an activity has been demonstrated to be causing land health problems, to improve land health of lands, streams, and wetlands rated as <i>not meeting</i> the BLM Colorado Public Land Health Standards (BLM 1997). Activities could include the following:</p> <ul style="list-style-type: none"> • Grazing • Plant material and wood collection • Noncommercial mineral material collection (e.g., moss rock collection and decorative stone collection) • Travel • Camping and other recreational activities
LH-MA-03	<p>Action: Require that new projects and land use authorizations identify BMPs or conditions of approval that minimize conflicts with health-improvement measures for lands, streams, and wetlands rated as <i>not meeting</i> the BLM Colorado Public Land Health Standards (BLM 1997).</p>
	SOILS AND GEOLOGY
SOIL-GOAL-01	<p>GOAL: Manage for soil stability and productivity to maintain overall watershed health. Manage erosion to minimize downstream impacts from soil-related issues (e.g., sediment runoff, selenium, and salinity).</p>
SOIL-OBJ-01	<p>Objective: Manage activities in the Colorado River Basin to minimize the yield of sediment, salt, and selenium contributions from BLM-administered lands to water resources.</p>
SOIL-MA-01	<p>Action: Improve water quality and overall watershed health by managing the soil for adequate watershed cover and a healthy soil surface on soils high in salinity/selenium. This could include the following:</p> <ul style="list-style-type: none"> • Modifying livestock grazing practices to reduce sediment yield • Managing recreational uses • Planning and implementing comprehensive travel management
SOIL-MA-02	<p>Action: When feasible, inventory and assess stock ponds, check dams, and contour furrows and rehabilitate, repair, or remove those structures with severe/active erosion. Combine efforts with other projects (e.g., range water projects, road maintenance, and recreation projects) where feasible to increase efficiency.</p>

	SOILS AND GEOLOGY
SOIL-AU-01	<p>Allowable Use:</p> <p>STIPULATION Controlled Surface Use (CSU)-3/Site-Specific Relocation (SSR)-3: <i>Geology Soil: Saline/Selenium Soils</i>. Surface occupancy or use may be restricted and SSR restrictions applied on lands within mapped soils with the following special characteristics: saline/selenium soils. Special design, construction, and implementation measures, including relocation of operation by more than 200 meters (656 feet), may be required. Prior to authorizing activities in this area, the operator may be required to submit an engineering/ reclamation plan to avoid and minimize potential effects on soil productivity. (Refer to Appendix B; Figures 7 and 9, Appendix A.)</p>
SOIL-MA-03	<p>Action:</p> <p>Manage 390 acres of rare biological soil crust (<i>Lecanora gypsicola</i> and <i>Gypsoplaca macrophylla</i>) in the Biological Soil Crust ACEC as a ROW avoidance area.</p>
SOIL-AU-02	<p>Allowable Use:</p> <p>STIPULATION CSU-6/SSR-6: <i>Geology Soil; Potential Biological Soil Crust</i>. Surface occupancy or use may be restricted and SSR restrictions applied on lands within mapped soils with the following special characteristics: biological soil crust only when high levels of crust development are found. Determine the level of crust development using best available techniques. Special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required. Prior to authorizing activities in this area, the operator may be required to submit an engineering/ reclamation plan to mitigate potential effects on soil productivity. (Refer to Appendix B; Figures 7 and 9, Appendix A.)</p>
SOIL-AU-03	<p>Allowable Use:</p> <p>STIPULATION CSU-8/SSR-7: <i>Geology: Slope Greater than 40 Percent</i> and CSU-9/SSR-9: <i>Geology: Slopes of 30 to 39 Percent</i>. Surface occupancy may be restricted and SSR restrictions applied on steep slopes equal to or above 30 percent. Special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required. Prior to authorizing activities in this area, the operator may be required to submit an engineering/ reclamation plan to mitigate potential effects on slope stability. (Refer to Appendix B; Figures 7 and 9, Appendix A.)</p>
	WATER RESOURCES
WTR-GOAL-01	<p>GOAL:</p> <p>Protect, restore, and enhance watershed function in the capture, retention, and release of water in quantity, quality, and timing, thereby ensuring aquatic and terrestrial ecosystem health and public uses. Maintain and restore the physical, chemical and biological integrity of the aquatic system, including stream banks and bottom configurations; maintain and restore the sediment regime under which aquatic ecosystems evolved; maintain and restore the timing, variability, and duration of floodplain inundation and water table elevation in wetlands, seeps and springs.</p>

	WATER RESOURCES
WTR-OBJ-01	<p>Objective: Maintain and improve water quality by ensuring streams are in compliance with the Clean Water Act for greater than 80 percent of stream segments in ACECs, WSAs, suitable WSR segments, and lands managed to minimize impacts on wilderness characteristics, and greater than 70 percent of stream segments on the remaining BLM-administered lands, with 80 percent confidence. Where not meeting these water quality goals, work toward meeting them in accordance with Land Health Standards.</p>
WTR-MA-01	<p>Action: Manage lands to improve water quality and promote the delisting of state impaired water bodies (303[d]-listed water bodies only) in areas where BLM management actions are contributing to impaired water quality. Develop a water and aquatic monitoring plan using the BLM aquatic AIM protocol, if necessary, to determine areas where adaptive management is needed.</p>
WTR-AU-01	<p>Allowable Use: STIPULATION No Surface Occupancy (NSO)-9/SSR-11: <i>Hydrology River</i>. Prohibit surface occupancy and use and apply SSR restrictions within 400 meters (1,312 feet) of the ordinary high-water mark (bank-full stage) or within 100 meters (328 feet) of the 100-year floodplain (whichever area is greatest) on the following major rivers:</p> <ul style="list-style-type: none"> • Gunnison • North Fork Gunnison • San Miguel • Uncompahgre • Dolores Rivers <p>(Refer to Appendix B; Figures 7 and 9, Appendix A.)</p>
WTR-MA-02	<p>Action: Designate as ROW avoidance areas a 400-foot buffer along the Gunnison, North Fork Gunnison, San Miguel, Uncompahgre, and Dolores River corridors.</p>
WTR-MA-03	<p>Action: Manage a 50-foot buffer along perennial streams as ROW avoidance areas.</p>
WTR-AU-02	<p>Allowable Use: STIPULATION NSO-11/SSR-13: <i>Hydrology Features</i>. Prohibit surface occupancy and use and apply SSR restrictions within 100 meters (328 feet) from the mapped extent of perennial and intermittent streams; riparian areas, fens, and/or wetlands; and water impoundments. For streams, measure the buffer from ordinary high-water mark (bank-full stage); for wetland features, measure the buffer from the edge of the mapped extent. (Refer to Appendix B; Figures 7 and 9, Appendix A.)</p>
WTR-OBJ-02	<p>Objective: Manage lands within municipal watersheds and public water supply areas to provide clean drinking water to local communities.</p>

	WATER RESOURCES
WTR-MA-04	<p>Action: Manage as ROW avoidance areas those lands within 1,000 feet of either side of a classified surface water supply-stream segment (as measured from the average high-water mark of a water body) for a distance of 5 miles upstream of a public water supply intake.</p>
WTR-AU-03	<p>Action: Apply the restrictions or closures specified below on the following lands:</p> <ul style="list-style-type: none"> • Within 1,000 feet on either side of a classified surface water-supply stream segment (as measured from the average high-water mark) for a distance of 5 miles upstream of a public water supply intake classified by the State as a “water supply.” • Within a 2,640-foot (0.50-mile) buffer of all public water supplies that use a groundwater well and groundwater under the direct influence of surface water. <p>Apply the following restrictions or closures on these lands:</p> <ul style="list-style-type: none"> • Close to mineral materials disposal (e.g., sand and gravel). • Close to nonenergy solid mineral leasing (e.g., potash, sodium, and phosphate). • Minimize impacts from livestock grazing on these lands. • Require a mine plan for locatable mineral development. • Allowable Use: STIPULATION NSO-69: <i>Public Water Supplies</i>. Prohibit surface occupancy and use within 305 meters (1,000 feet) on either side of a classified surface water-supply stream segment (as measured from the average high-water mark) for a distance of 5 miles upstream of a public water supply intake classified by the State of Colorado as a “water supply,” and within a 2,640-foot (0.50-mile) buffer of all public water supplies that use a groundwater well or groundwater under the direct influence of surface water. Also prohibit directional drilling within 457 vertical meters (1,500 vertical feet) below a surface Public Water Supply or 457 vertical meters (1,500 vertical feet) below the depth of a Public Water Supply that use a groundwater well or groundwater under the direct influence of surface water. If public water providers develop source water protection plans, apply this NSO to cover the appropriate designated area in the protection plan (typically Zone 2) and apply these protection measures to all public water supplies that use a groundwater well or groundwater under the direct influence of surface water. (Refer to Appendix B; Figure 2-7, Appendix A.) • Allowable Use: STIPULATION CSU-13: <i>Hydrology Source</i>. Surface occupancy or use may be restricted on lands located greater than 305 meters (1,000 feet) but less than 805 meters (2,640 feet) (0.50-mile) of a classified surface water supply stream segment (as measured from the average high-water mark) for a distance of 8.05 kilometers (5 miles) miles upstream of a public water supply intake classified by the State as a “water supply,” and all public water supplies that use a groundwater well or spring. Special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required. Prior to authorizing activities in this area, the operator may be required to submit a coordinated water resources monitoring plan to mitigate potential effects on the source water protection areas of public water supply. (Refer to Appendix B; Figure 7, Appendix A.)

	WATER RESOURCES
WTR-OBJ-03	Objective: Provide sufficient water quantity on BLM-administered lands for multiple use management and functioning, healthy riparian, and aquatic ecosystems.
WTR-MA-05	Action: Make recommendations to the Colorado Water Conservation Board for protection or enlargements of instream flows on appropriate stream segments. Assist the Conservation Board in instream flow assessments and monitoring of current BLM instream flow stream reaches for compliance.
WTR-MA-06	Action: Maintain current water rights to benefit wildlife and livestock. Object to proposals that could jeopardize existing rights. File for new surface water rights on perennial and seasonal streams and new water rights for groundwater sources (i.e., springs/seeps, wells, reservoirs, streams) in adequate quantities to protect Planning Area resource needs and sustainability.
WTR-OBJ-04	Objective: Protect groundwater resources and recharge areas to maintain functioning condition of all parameters within the hydrologic cycle, including groundwater quantity and quality.
WTR-AU-04	Allowable Use: STIPULATION CSU-59: <i>Domestic Water Wells</i> . Surface occupancy or use may be restricted on lands located within 305 meters (1,000 feet) of all domestic water wells. Special engineering design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required. Also within 305 meters (1,000 feet) of all domestic water wells: <ul style="list-style-type: none"> • Extend surface casing through the freshwater aquifer. • Require freshwater mud for drilling the surface casing. Also prohibit directional drilling within 457 vertical meters (1,500 vertical feet) below the depth of a domestic water well. (Refer to Appendix B; Figure 7, Appendix A.)
WTR-OBJ-05	Objective: Protect soil, water, and vegetation resources during periods of drought.
WTR-MA-07	Action: Implement drought management guidelines, outlined in Appendix D, Uncompahgre Field Office Drought Management Detection and Monitoring Plan, during drought to maintain or achieve long-term resource productivity.
	VEGETATION
	<i>VEGETATION – GENERAL</i>
VEG-GOAL-01	GOAL: Manage vegetation for a mix of productive and resilient plant and biological soil crust communities that sustain native plant and animal species, including pollinators and butterflies, especially monarchs, at viable population levels. Manage shrub and woodland communities within the Historic Range of Natural Variability, maintaining successional processes and sustaining all

	VEGETATION
	structural stages across the landscape. Manage riparian and wetland systems to function properly, have the ability to recover from disturbance, and sustain native species at viable population levels.
VEG-OBJ-01	Objective: Maximize native vegetation and natural processes by ensuring upland vegetation communities are within the range of natural variability, with an appropriate mix of plant functional groups, cover, and diversity, according to best available science on greater than 80 percent of vegetation communities in ACECs, WSAs, suitable WSR segments, and lands managed to minimize impacts on wilderness characteristics and on greater than 70 percent of vegetation communities on the remaining BLM-administered lands, over 10 years with 80 percent confidence.
VEG-MA-01	Action: Use locally derived native species for revegetation. If locally derived native species are not available, are cost prohibitive, or are not likely to succeed, allow use of native species from outside the area or nonnative species that are not invasive when all other native revegetation options have been determined to be ineffective.
VEG-MA-02	Action: On ACECs, WSAs, and lands managed to minimize impacts on wilderness characteristics, restore areas of degraded vegetation, including burned areas, where there is a high probability of success. Use test plots first for more difficult areas. On other lands, revegetate areas that are impacted by wildfire or resource use and development to basic levels of ecologic functionality as on-site or off-site mitigation.
VEG-OBJ-02	Objective: Provide the public with commonly available and renewable native plant materials through the sale of native seed collecting permits, commercial and institutional seed-collecting permits, and permits for the collection of other plant products, while protecting other resources.
VEG-MA-03	Action: Make 631,060 acres available for permits for seed collection, wildings, and other plant materials. Except for research and revegetation purposes, close the following areas to permits: <ul style="list-style-type: none"> • WSAs • Occupied threatened and endangered plant habitat; collection of Endangered Species Act-listed taxa will not be permitted • Occupied special status plant species habitat

	VEGETATION
	<i>VEGETATION – UPLANDS</i>
VEG-UPL-OBJ-01	<p>Objective: On ACECs, WSAs, and lands managed to minimize impacts on wilderness characteristics manage vegetation structure to emphasize naturalness of vegetation age class distribution across the landscape and to support sensitive species habitat, with resource production, big game habitat, and fuels reduction as secondary outcomes.</p> <p>On the remaining areas, manage vegetation structure to emphasize resource production and fuels reduction and to support big game species habitat, with naturalness and sensitive species habitat as secondary outcomes.</p>
VEG-UPL-MA-01	<p>Action: Update the vegetation mosaic objectives in the Fire Management Plan to meet RMP objectives for upland vegetation. Vegetation treatments must be consistent with these mosaic objectives and must meet multiple interdisciplinary objectives.</p>
	<i>VEGETATION – RIPARIAN</i>
VEG-RPN-OBJ-01	<p>Objective: Manage naturally occurring riparian and wetland areas to maintain or improve stream banks and floodplains to a stable and Proper Functioning Condition, similar to reference condition or expected condition for greater than 80 percent of stream segments in ACECs, WSAs, suitable WSR segments, and lands managed to minimize impacts on wilderness characteristics and greater than 70 percent of stream segments on remaining BLM-administered lands, over 10 years with 80 percent confidence where not meeting these vegetation community goals, work toward meeting them in accordance with Land Health Standards.</p>
VEG-RPN-MA-01	<p>Action: Manage naturally occurring riparian and wetland areas, seeps, and springs, as well as a 50-foot buffer from their edge, as ROW avoidance areas unless it can be determined that a project would maintain Proper Functioning Condition.</p>
VEG-RPN-MA-02	<p>Action: Allow vegetation treatments in riparian areas that are compatible with and promote natural riparian/wetland function and improvement.</p>
VEG-RPN-MA-03	<p>Action: Pursue opportunities to enhance and restore wetland and riparian areas impacted by historic land use and flow regime modification.</p>
VEG-RPN-AU-01	<p>Allowable Use: STIPULATION NSO-11/SSR-13: <i>Hydrology Features</i>. Prohibit surface occupancy and use and apply SSR restrictions within 100 meters (328 feet) from the mapped extent of perennial and intermittent streams; riparian areas, fens, and/or wetlands; and water impoundments. For streams, measure the buffer from ordinary high-water mark (bank-full stage); for wetland features, measure the buffer from the edge of the mapped extent. (Refer to Appendix B; Figures 7 and 9, Appendix A.)</p>

	VEGETATION
	<i>VEGETATION – WEEDS</i>
VEG-WDS-GOAL-01	GOAL: Through Integrated Weed Management, suppress and eradicate, where possible, noxious and invasive species to support healthy native plant communities.
VEG-WDS-OBJ-01	Objective: Manage lands under Integrated Weed Management strategies to support BLM Colorado Public Land Health Standards (BLM 1997).
VEG-WDS-MA-01	Action: Implement Integrated Weed Management using the UFO Weed Management Strategy, including Strategy by Species (BLM 2010d). Apply appropriate integrated noxious weed control methods (e.g., targeted grazing, physical, mechanical, educational, biological, herbicide, and fire) to noxious/invasive weed infestations.
VEG-WDS-MA-02	Action: Prioritize for weed treatment ACECs; WSAs; lands managed to minimize impacts on wilderness characteristics; VSR segments with a vegetation outstandingly remarkable value; and high-use areas with recreational, livestock, or mineral developments and maintained routes.
VEG-WDS-MA-03	Action: Maintain all quarry pits weed-free of all state-listed A, B, and C noxious weed species.
VEG-WDS-MA-04	Action: Require that all seed used on BLM-administered lands meet the Colorado Noxious Weed Seed requirements of prohibited and restricted seed. In addition to BLM policy of weed-free seed use, seed lots shall contain less than 250 seeds per pound of cheatgrass (<i>Bromus tectorum</i>) and/or Japanese brome (<i>Bromus japonicus</i>) (in combination). Other species determined to be noxious or invasive may be added to this list. All seed must be of certified quality or source identified.
VEG-WDS-MA-05	Action: Require all hay, straw, or mulch that is used or stored on BLM-administered lands be certified as weed free.
	FISH AND WILDLIFE
	<i>WILDLIFE – GENERAL</i>
F&W-GOAL-01	GOAL: Manage terrestrial and aquatic habitats and species to promote ecosystem diversity, productivity, viability, and natural processes.
F&W-OBJ-01	Objective: (See also <i>Vegetation and Water Quality Objectives</i> .) Restore, enhance, conserve, and promote aquatic and terrestrial species conservation and ecosystem integrity and values. Emphasis is on native species (mammals, reptiles, amphibians, birds, fish, invertebrates, and plants) management, including

	FISH AND WILDLIFE
	<p>objectives and improvements for ensuring habitat diversity, productivity, viability, and natural processes throughout the ecosystem, and striving for stable, sustainable wildlife populations.</p> <p>Provide for effective wildlife and fish habitat throughout the Decision Area with abundance and distribution commensurate with the capability of the land to sustain wildlife and fish populations. Habitat continuity and travel corridors exist and persist to facilitate species movement and establishment into newly suitable areas as a result of changing habitats. Consider route and infrastructure densities to support CPW wildlife population objectives.</p> <p>Utilize current conservation plans, agreements, and strategies, including state habitat and species management and action plans, to direct management.</p> <p>Protect endangered species and migratory birds to the extent required by the Endangered Species Act and the Migratory Bird Treaty Act of 1918.</p> <p>Protect breeding habitats of migratory birds by managing for ecosystem diversity, productivity, viability and natural processes through use of the vegetation mosaic objectives (refer to the <i>Vegetation</i> section).</p>
F&W-MA-01	<p>Action: Allow augmentation and reintroduction to expand the current range of aquatic and terrestrial species or to expand population numbers to improve genetic viability of native terrestrial and aquatic species, in coordination with CPW.</p>
	WILDLIFE – FISH and AQUATIC
F&W-FIS-MA-01	<p>Action: Pursue opportunities to enhance, protect, or restore native aquatic species habitat, in consultation with CPW, including modification or removal of special status fish migration barriers and structural and vegetation improvements commensurate with other resource objectives.</p> <p>Quantity and quality of aquatic habitats are maintained or enhanced to provide for the long-term sustainability of biological diversity and population viability of all native and/or desired nonnative vertebrate species.</p>
F&W-FIS-MA-02	<p>Action: Maintain or improve fisheries habitat where consistent with maintaining native species populations. Prioritize systems based on CPW conservation and management objectives.</p>
F&W-FIS-AU-01	<p>Allowable Use: STIPULATION Timing Limitation (TL)-5: <i>Wildlife Native and Sport Fish</i>. Prohibit in-stream channel work within occupied fisheries as mapped in the RMP, BLM's geographic information systems (GIS) database, or other data provided by local, state, federal, or tribal agencies that are analyzed and accepted by the BLM, during the following period:</p>

	FISH AND WILDLIFE
	<ul style="list-style-type: none"> Spring spawning period: April 1 to July 15 — native cutthroat trout [<i>Oncorhynchus clarkia</i>], rainbow trout [<i>Oncorhynchus mykiss</i>], and native warm water fish (flannemouth sucker [<i>Catostomas latipinnis</i>], bluehead sucker [<i>Catostomus discobolus</i>], and roundtail chub [<i>Gila robusta</i>]) (Refer to Appendix B; Figure 8, Appendix A.)
	WILDLIFE – TERRESTRIAL
F&W–TER-MA-01	<p>Action: Key habitats include big game winter range, winter raptor concentration areas, bighorn sheep, pronghorn, and aquatic/riparian habitats. Maintain and improve vegetation conditions.</p> <p>Protect, maintain, and enhance the following:</p> <ul style="list-style-type: none"> Critical habitats for big game, upland game birds, and waterfowl Crucial habitats for nongame species of special interest or concern to state and other federal agencies (BLM 1985) <p>Comply with the FLPMA to maintain, enhance, and protect fish habitat on BLM-administered lands.</p> <p>Manage 2,500 acres in Camel Back Ridge and Upper Roubideau Creek drainages along the southeastern portion of the Camel Back WSA to maintain the area's capability to support wintering deer, elk (<i>Cervus canadensis</i>), and bighorn sheep.</p>
F&W–TER-MA-02	<p>Action: Restore, enhance, conserve, and promote aquatic and terrestrial species conservation and ecosystem integrity and values in coordination with CPW. Emphasize the management of native species (mammals, reptiles, amphibians, birds, fish, invertebrates, and plants), including objectives and improvements for ensuring habitat diversity, productivity, viability, and natural processes throughout the ecosystem, and striving for stable, sustainable wildlife populations.</p> <p>Design land treatment projects and other facilities to improve the quality and quantity of wildlife habitats.</p>
F&W–TER-MA-03	<p>Action: Coordinate with CPW during implementation to achieve desired habitat conditions for native species and to achieve BLM Colorado Public Land Health Standards (BLM 1997). Review this strategy every 5 years.</p>
	<p><i>Terrestrial Wildlife – Big Game (Mule Deer [Odocoileus hemionus], Elk, Pronghorn [Antilocapra americana], Bighorn Sheep, Moose [Alces alces], Black Bear [Ursus americanus], Mountain Lion [Puma concolor])</i></p> <p>Note: Bighorn sheep include both Rocky Mountain and desert subspecies, unless otherwise designated as one or the other.</p>
F&W–BGS-AU-01	<p>Allowable Use:</p> <p>STIPULATION CSU-62: <i>Wildlife Big Game Winter Migration and Production Area</i>. Surface occupancy or use may be restricted in big game winter, migration, and production areas, as mapped in the RMP, BLM's GIS database, or other maps constituting the best available information as provided by local, state, federal, or tribal agencies that are accepted by the BLM.</p>

	FISH AND WILDLIFE
	<p><SPECIES></p> <p>Prior to surface disturbance within big game severe winter range/winter concentration areas, migration, and production areas, the BLM will require the applicant to develop a mitigation plan in coordination with BLM and CPW, in conformance with applicable state requirements, rules, and regulations, as a component of the Application for Permit to Drill–Surface Use Plan of Operations. The operator shall not initiate surface-disturbing activities unless the BLM Authorized Officer has approved the mitigation plan (with conditions, as appropriate) or has determined, after coordination with CPW, that a mitigation plan is unnecessary. The mitigation plan must demonstrate, to the Authorized Officer’s satisfaction, that the overall function and suitability of big game winter ranges, migration, and production areas will not be impaired. This may include special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet). Measures included in the Surface Use Plan of Operations may include, but are not limited to, limitations to surface disturbance density through efficient planning of facilities, roads, and well locations; minimization of routine truck traffic associated with well/facility visits through use of remote sensing/control and pipelines to transport liquids; avoidance of visits during certain hours during the winter season; and limitations on noise.</p> <p>On the following lands:</p> <p><LEGAL_DESCRIPTION></p> <p>(Refer to Appendix B; Figure 7 and 9, Appendix A.)</p>
F&W–BGS-AU-02	<p>Allowable Use:</p> <p>STIPULATION TL-8: Wildlife Big Game Winter. Prohibit surface use and surface-disturbing and disruptive activities during the following time period(s) in big game crucial winter habitat as mapped in the RMP, BLM’s GIS database, or other data provided by local, state, federal, or tribal agencies that are analyzed and accepted by the BLM: crucial winter range, severe winter range, and winter concentration areas.</p> <ul style="list-style-type: none"> • Elk, mule deer, and moose: December 1 to April 15 • Pronghorn: January 1 to March 31 • Rocky Mountain bighorn sheep (<i>Ovis canadensis</i>) and desert bighorn sheep (<i>Ovis canadensis nelsoni</i>): November 1 to April 15 <p>(Refer to Appendix B; Figure 8, Appendix A.)</p>
F&W–BGS-AU-03	<p>Allowable Use:</p> <p>STIPULATION TL-11: Wildlife Big Game Production. Prohibit surface use and surface-disturbing and disruptive activities during the following time period(s) in big game production areas as mapped in the RMP, BLM’s GIS database, or other maps provided by local, state, federal, or tribal agencies that are analyzed and accepted by the BLM:</p> <ul style="list-style-type: none"> • Elk and moose: May 15 to June 30 • Desert bighorn sheep: February 1 to May 1 • Rocky Mountain bighorn sheep: April 15 to June 30 <p>(Refer to Appendix B; Figure 8, Appendix A.)</p>

	FISH AND WILDLIFE
F&W-BGS-MA-01	<p>Action: To protect elk calving areas, prohibit motorized and mechanized travel from May 15 to June 30 in elk production/calving areas.</p> <p>Add other areas as appropriate through future site-specific travel management analyses.</p> <p>Where needed, extend seasonal closures to include pedestrian or equestrian traffic.</p> <p>The Field Manager may modify the size and timeframes upon consultation with CPW if monitoring information indicates that plant seasonal cycles or animal use patterns are inconsistent with dates established.</p>
F&W-BGS-MA-02	<p>Action: Allow for restoring wild sheep populations 1) in areas where the domestic/bighorn sheep risk of contact model or currently accepted model indicates that existing sheep allotments are not at high or moderate risk for disease transmission and 2) in suitable and historic wild sheep habitat not currently stocked with domestic sheep and goats.</p>
F&W-BGS-AU-04	<p>Allowable Use: STIPULATION CSU-18/SSR-19: <i>Desert and Rocky Mountain Bighorn Sheep Summer Range</i>. Surface occupancy or use may be restricted or prohibited and SSR restrictions applied to reduce impacts of surface-disturbing activities and operations on bighorn sheep summer range. (Refer to Appendix B; Figures 7 and 9, Appendix A.)</p> <p>Special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet) from bighorn sheep, crucial bighorn sheep habitat, or specific habitat features may be required. Specific habitat features may include, but are not limited to, water areas, mineral licks, and lambing areas. (Refer to Appendix B; Figures 7 and 9, Appendix A.)</p>
	<i>Terrestrial Wildlife – Upland Game Birds (Wild Turkey)</i>
F&W-UGB-AU-01	<p>Allowable Use: STIPULATION TL-12: <i>Wildlife Turkey</i>. Prohibit surface use and surface-disturbing and disruptive activities within wild turkey (<i>Meleagris gallopavo</i>) habitat (as mapped in the RMP, BLM's GIS database, or other data provided by local, state, federal, or tribal agencies that are analyzed and accepted by the BLM) during the following time period:</p> <ul style="list-style-type: none"> • Wild turkey winter habitat from December 1 to April 1. <p>(Refer to Appendix B; Figure 8, Appendix A.)</p>
	<i>Terrestrial Wildlife – Migratory Birds</i>
F&W-MIG-MA-01	<p>Action: Use adaptive management to conserve and avoid impacts on populations of Birds of Conservation Concern, Partners-in-Flight priority species, and other species of concern.</p>

	FISH AND WILDLIFE
F&W-MIG-LN-01	LEASE NOTICE LN-UFO-1: <i>Migratory Birds</i>. The lessee is hereby notified that prior to and during all lease operations, including development and utilization of oil and gas resources, the lessee must comply year-round with applicable provisions of the Migratory Bird Treaty Act of 1918, 16 US Code 703–712, and other state and local statutes, rules, and regulations, now in existence or as may be modified in the future, consistent with lease rights. Migratory birds nest throughout the UFO, and seasonal timing restrictions for ground-disturbing activities may occur within the April 1 to July 15 period when migratory birds may be nesting in the area.
F&W-MIG-MA-02	Action: Using best available science, apply appropriate restrictions and mitigation to minimize impacts on migratory birds. Focus protection efforts on US DOI, Fish and Wildlife Service (USFWS) Birds of Conservation Concern, Partners-in-Flight species, and habitat for other conservation priority bird species. This is to protect breeding and nesting migratory bird species and to comply with the Migratory Bird Treaty Act of 1918.
	SPECIAL STATUS SPECIES
	<i>SPECIAL STATUS SPECIES – GENERAL</i>
SSS-GOAL-01	GOAL: Protect and enhance special status species and habitats to promote their conservation, recovery, and persistence.
SSS-OBJ-01	Objective: (See also <i>Vegetation and Water Quality Objectives</i> .) Restore, enhance, preserve, and promote special status species (aquatic and terrestrial) conservation and ecosystem integrity and values. Emphasis is on special status species habitat and population (mammals, reptiles, amphibians, birds, fish, invertebrates and plants) management, including objectives and improvements for ensuring population and habitat diversity, productivity, viability, and natural processes throughout the ecosystem, and striving for stable, sustainable wildlife populations. Manage all federally threatened, endangered, candidate, and BLM sensitive species as key/priority species. Provide for effective special status species habitat throughout the Planning Area with abundance and distribution commensurate with the capability of the land to sustain special status species populations. Habitat continuity and travel corridors exist and persist to facilitate species movement and establishment into newly suitable areas as a result of changing habitats. Utilize current conservation (recovery) plans, agreements, and strategies, including state habitat and species management and action plans to direct management. (See Proposed RMP/Final EIS Section 1.7, Related Plans and Authorities, bullet 1.7.4 for examples of other plans.)

	SPECIAL STATUS SPECIES
	Design land treatment projects and other facilities to improve the quality and quantity of special status species (aquatic and terrestrial) habitats. Management actions maintain or improve habitat conditions for special status species, contributing to the stability and/or recovery of these species.
SSS-MA-01	Action: Recognize the following as key/priority habitats for special status terrestrial wildlife: <ul style="list-style-type: none"> • USFWS-designated critical habitats • Occupied and suitable habitat for USFWS endangered, threatened, proposed, and candidate species • Occupied and suitable habitat for BLM sensitive species
SSS-MA-02	Action: Pursue opportunities to enhance, protect, or restore federally threatened and endangered species habitats.
SSS-MA-03	Action: Promote BLM-sensitive species conservation to reduce the likelihood and need for species to be listed pursuant to the Endangered Species Act (BLM Manual 6840).
SSS-AU-01	Allowable Use: STIPULATION <i>Exhibit CO-34 ESA Section 7 Consultation:</i> The lease area may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or other special status species. The 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 a species or their habitat. 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 Endangered Species Act as amended, 16 US Code § 1531 et seq., including completion of any required procedure for conference or consultation.
SSS-MA-04	Action: To protect key wildlife species, special status species, and their habitats, surveys conducted by qualified individuals may be required during the period appropriate to the species and before surface disturbance, habitat treatments, or similar activities.
SSS-MA-05	Action: Designate occupied habitat of known populations of federally threatened and endangered species as ROW avoidance. Surveys may be required before surface disturbance.
	SPECIAL STATUS PLANTS
SSS-PLN-MA-01	Action: Close all federally threatened, endangered, and proposed plant species' occupied habitat (plant with a 200 meter/656 foot buffer) to mineral materials disposal and nonenergy solid mineral leasing.

	SPECIAL STATUS SPECIES
SSS-PLN-AU-01	<p>Allowable Use:</p> <p>STIPULATION CSU-19/SSR-20: <i>BLM Sensitive Plant Species</i>. Surface occupancy or use may be restricted and SSR restrictions applied within 100 meters (328 feet) of BLM-sensitive plant species. Special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required. Prior to authorizing activities in this area, the operator may be required to submit a plan of development that would demonstrate that habitat would be preserved to maintain sensitive plant species. (Refer to Appendix B; Figures 7 and 9, Appendix A.)</p>
SSS-PLN-AU-02	<p>Allowable Use:</p> <p>STIPULATION NSO-22/SSR-21: <i>Plant Endangered Species Act-Listed Species</i>. Prohibit surface occupancy and use and apply SSR restrictions within a 200-meter (656-foot) buffer of the edge of habitat of federally listed, proposed, or candidate threatened or endangered plant species as mapped in the RMP, BLM's GIS database, or other data provided by local, state, federal, or tribal agencies that are analyzed and accepted by the BLM. (Refer to Appendix B; Figures 7 and 9, Appendix A; see Glossary for definitions of clay-loving wild buckwheat and Colorado hookless cactus habitats.)</p>
	<p>SPECIAL STATUS FISH AND AQUATIC WILDLIFE (see also WILDLIFE – FISH AND AQUATIC)</p>
SSS-FIS-MA-01	<p>Action:</p> <p>Partner with CPW, Forest Service, USFWS, and others to remove nonnative trout and other fishes from occupied native cutthroat trout habitat.</p>
SSS-FIS-AU-01	<p>Allowable Use:</p> <p>STIPULATION NSO-24/SSR-22: <i>Wildlife Endangered Species Act -Listed Species (Occupied Federally Listed Fish Habitat)</i>. Prohibit surface occupancy and use and apply SSR restrictions within 2,500 feet of the ordinary high-water mark of the Lower Gunnison River, below the confluence with the Uncompahgre River, along occupied federally listed fish habitat. (Refer to Appendix B; Figures 7 and 9, Appendix A.)</p>
SSS-FIS-AU-02	<p>Allowable Use:</p> <p>STIPULATION NSO-26/SSR-25: <i>Occupied Native Cutthroat Trout Habitat</i>. Prohibit surface occupancy and use and apply SSR restrictions within 325 feet of the edge of the ordinary high-water mark (bank-full stage) of occupied habitat for conservation populations (90 percent Lineage Greenback Cutthroat Trout) of native cutthroat trout. (Refer to Appendix B; Figures 7 and 9, Appendix A.)</p>
	<p>SPECIAL STATUS TERRESTRIAL WILDLIFE</p>
SSS-TER-AU-01	<p>Allowable Use:</p> <p>STIPULATION NSO-29/SSR-28: <i>Federally Wildlife Endangered Species Act-Listed Species (Wildlife and Bird Species' Occupied Habitat)</i>. Prohibit surface occupancy and use and apply SSR restrictions within habitat for federally listed, proposed, or candidate threatened or endangered species. (Refer to Appendix B; Figures 7 and 9, Appendix A.)</p>
	<p><i>Special Status Terrestrial Wildlife – Yellow Billed Cuckoo</i></p>
SSS-YBC-AU-01	<p>STIPULATION CSU-25/SSR-29: <i>Wildlife Endangered Species Act-Listed Species (Yellow-Billed Cuckoo Habitat)</i>. Surface occupancy or use may be restricted or prohibited and SSR restrictions applied within habitat for the following federally listed,</p>

	SPECIAL STATUS SPECIES
	<p>proposed, or candidate threatened or endangered wildlife species, as mapped in the RMP, BLM's GIS database, or other maps provided by local, state, federal, or tribal agencies that are analyzed and accepted by the BLM: within yellow-billed cuckoo habitat. Special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required.</p> <p>The lease area may now or hereafter contain habitat for wildlife listed as threatened or endangered or identified as candidates for listing under the Endangered Species Act. An inventory of habitat may be required before drilling and construction may commence. The operator may be required to submit a plan of development that demonstrates how the proposed activities will avoid or minimize disruption of threatened and endangered species by siting or prioritizing vegetation clearing, facility construction, and concentrated operational activities (e.g., drilling, completion, and utility installation). The 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, result in the destruction or adverse modification of designated or proposed critical habitat, or contribute to a need to list a proposed or candidate threatened and endangered species. The 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 Endangered Species Act, including completion of any required procedure for conference or consultation.</p> <p>(Refer to Appendix B; Figures 7 and 9, Appendix A.)</p>
	<i>Special Status Terrestrial Wildlife – Canada Lynx</i>
SSS-LNX-MA-01	<p>Action:</p> <p>Follow management actions from the 2013 Lynx Conservation Assessment and Strategy or most recent guidance.</p>
SSS-LNX-AU-01	<p>Allowable Use:</p> <p>STIPULATION: CSU-27/ SSR-31: <i>Wildlife Endangered Species Act-Listed Species (Canada Lynx Habitat).</i></p> <p>Surface occupancy or use may be restricted or prohibited and SSR restrictions applied within habitat for the following federally listed, proposed, or candidate threatened or endangered wildlife species, as mapped in the RMP, BLM's GIS database, or other data provided by local, state, federal, or tribal agencies that are analyzed and accepted by the BLM: in mapped or identified Lynx Linkage Corridors and Canada lynx (<i>Lynx canadensis</i>) habitat within Lynx Analysis Units and to any activities that would negatively alter connectivity between and within Lynx Analysis Units. Special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required.</p> <p>An inventory of habitat may be required before drilling and construction may commence. The operator may be required to submit a plan of development that demonstrates how the proposed activities will avoid or minimize disruption of threatened and endangered species by siting or prioritizing vegetation clearing, facility construction, and concentrated operational activities (e.g., drilling, completion, and utility installation). The 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, result in the destruction or adverse modification of designated or proposed critical habitat, or contribute to a need to list a proposed or candidate threatened and endangered species. The BLM will not approve any ground-disturbing activity</p>

	SPECIAL STATUS SPECIES
	that may affect any such species or critical habitat until it completes its obligations under applicable requirements of the Endangered Species Act, including completion of any required procedure for conference or consultation. (Refer to Appendix B; Figures 7 and 9, Appendix A.)
	<i>Special Status Terrestrial Wildlife – Gunnison Sage-Grouse</i>
SSS–GSG-AU-01	Allowable Use: STIPULATION TL-16: <i>Gunnison Sage-Grouse Winter Habitat</i> . Prohibit surface use and surface-disturbing and disruptive activities in mapped important Gunnison sage-grouse winter habitat, including, but not limited to, all USFWS designated critical habitat and areas also defined by the BLM, USFWS, and CPW, from December 1 to March 15. (Refer to Appendix B; Figure 8, Appendix A.)
SSS–GSG-AU-02	Allowable Use: STIPULATION TL-18: <i>Gunnison Sage-Grouse Breeding Habitat and Gunnison Sage-Grouse Critical Habitat</i> . Prohibit surface use and surface-disturbing and disruptive activities in USFWS designated occupied critical habitat, nesting habitat mapped and defined by the BLM, USFWS, and CPW, and within 4.0 miles of active Gunnison sage-grouse leks (if nesting habitat is not mapped) from March 1 to July 15. (Refer to Appendix B; Figure 8, Appendix A.)
SSS–GSG-AU-03	Allowable Use: STIPULATION NSO-31/SSR-32: <i>Gunnison Sage-Grouse Breeding Habitat</i> . Prohibit surface occupancy and use and apply SSR restrictions in USFWS Gunnison sage-grouse occupied critical habitat and nondesignated occupied breeding habitat as mapped and defined by the BLM, USFWS, and CPW (including federal minerals). (Refer to Appendix B; Figures 7 and 9, Appendix A.)
SSS–GSG-AU-04	Allowable Use: STIPULATION NSO-31/SSR-32: <i>Gunnison Sage-Grouse Breeding Habitat and Critical Habitat</i> . Prohibit surface occupancy and use and apply SSR restrictions in USFWS Gunnison sage-grouse occupied critical habitat and nondesignated occupied breeding habitat as mapped and defined by the BLM, USFWS, and CPW (including federal minerals). (Refer to Appendix B; Figures 7 and 9, Appendix A.)
SSS–GSG-AU-05	Allowable Use: STIPULATION CSU-29/ SSR-34: <i>Gunnison Sage-Grouse Potential Habitat</i> . Surface occupancy or use may be restricted and SSR restrictions applied in USFWS Gunnison sage-grouse unoccupied critical habitat or to protect Gunnison sage-grouse potential habitats as mapped and defined by the BLM, USFWS, and CPW (including federal minerals). Conservation measures may be imposed as necessary. Special design, construction, and implementation measures, including relocation of operations from identified habitat features (e.g., seeps or relatively mesic zones critical to brood rearing) to maintain high-quality Gunnison sage-grouse habitat, reduce fragmentation or loss of habitat within or between population areas, reduce cumulative effects within population areas, and reduce disturbance to sage-grouse use in the area.

	SPECIAL STATUS SPECIES
	Sound levels at leks, due to new project noise individually or cumulatively from anthropogenic sources, should not exceed 10 decibels above baseline sound levels at the perimeter of a lek during the breeding season (March 1 to May 15), 6 PM to 8 AM. Baseline sound levels should be determined prior to project initiation. Sound level measurement and monitoring protocols will be coordinated with CPW. (Refer to Appendix B; Figures 7 and 9, Appendix A.)
SSS-GSG-MA-01	Action: Manage Gunnison sage-grouse lek habitat (lek area plus 0.6-mile radius) (1,330 acres) as ROW exclusion and critical habitat (12,840 acres) as ROW avoidance.
	<i>Raptors</i>
	<p><i>This section includes both special status raptors and non-special status raptors from the Terrestrial Wildlife – Raptors section.</i></p> <p><i>Special status raptors, including Birds of Conservation Concern, are Mexican spotted owl, American peregrine falcon (Falco peregrinus anatum), northern goshawk (Accipiter gentilis), ferruginous hawk (Buteo regalis), burrowing owl (Athene cunicularia), bald eagle (Haliaeetus leucocephalus), golden eagle (Aquila chrysaetos), and prairie falcon (Falco mexicanus), and flammulated owl (Psiloscoops flammeolus).</i></p> <p><i>Non-special status raptors are American kestrel (Falco sparverius), osprey (Pandion haliaetus), red-tailed hawk (Buteo jamaicensis), Swainson's hawk (Buteo swainsoni), Cooper's hawk (Accipiter cooperii), sharp-shinned hawk (Accipiter striatus), rough-legged hawk (Buteo lagopus), northern harrier (Circus cyaneus), merlin (Falco columbarius), barn owl (Tyto alba), boreal owl (Aegolius funereus), northern pygmy owl (Glaucidium californicum), northern saw-whet owl (Aegolius acadicus), short-eared owl (Asio flammeus), western screech owl (Megascops kennicottii), and great-horned owl (Bubo virginianus).</i></p>
SSS-RPT-AU-01	<p>Allowable Use:</p> <p>STIPULATION TL-20: <i>Wildlife Sensitive Raptor Nest</i>. Prohibit surface use and surface-disturbing and disruptive activities within an 805-meter (0.50-mile) radius of active raptor nests as mapped in the RMP, BLM's GIS database, or other data provided by local, state, federal, or tribal agencies that are analyzed and accepted by the BLM, during the following time periods, or until fledging and dispersal of young:</p> <ul style="list-style-type: none"> • Bald Eagle: November 15 to July 31 • Golden Eagle: December 15 to July 15 • Ferruginous Hawk : February 1 to August 15 • American Peregrine Falcon and Prairie Falcon: March 15 to July 31 • Northern Goshawk: March 1 to August 31 • Burrowing Owl: March 15 to August 15 <p><i>Wildlife Raptor Nest</i>. Prohibit surface use within a 402-meter (0.25-mile) radius of active raptor nests as mapped in the RMP, BLM's GIS database, or other data provided by local, state, federal, or tribal agencies that are analyzed and accepted by the BLM, during the following time period(s), or until fledging and dispersal of young:</p>

	SPECIAL STATUS SPECIES
	<ul style="list-style-type: none"> • Osprey: April 1 to August 31 • Red-Tailed Hawk: February 15 to August 15 • Swainson's Hawk, Cooper's Hawk, Sharp-Shinned Hawk, and Northern Harrier: April 1 to August 15 • Great-horned Owl: February 1 to August 15 • Other owls and raptors (excluding kestrel): March 1 to August 15 <p>(Refer to Appendix B; Figure 8, Appendix A.)</p>
SSS-RPT-AU-02	<p>Allowable Use:</p> <p>STIPULATION NSO-36/ SSR-36: <i>Raptor Nest Sites (Except Mexican Spotted Owl)</i>. Prohibit surface occupancy and use and apply SSR restrictions in the following areas:</p> <ul style="list-style-type: none"> • Bald Eagle: Within 0.25-mile of active and inactive nest sites or within 100 meters (328 feet) of abandoned nests (i.e., unoccupied for 5 consecutive years but with all or part of the nest remaining) • Golden Eagle: Within 0.25-mile of active and inactive nest sites or within 100 meters (328 feet) of abandoned nests (i.e., unoccupied for 5 consecutive years but with all or part of the nest remaining) • Ferruginous Hawk, American Peregrine Falcon, Prairie Falcon, and Northern Goshawk: Within 0.50-mile of active and inactive nest sites • All other Special Status and Non-Special Status Raptors (except Mexican spotted owl): Within 0.25-mile of active and inactive nest sites <p>(Refer to Appendix B; 7 and 9, Appendix A.)</p>
SSS-RPT-AU-03	<p>Allowable Use:</p> <p>STIPULATION CSU-32/ SSR-37: <i>Raptor Breeding Habitat (Accipiters, Falcons [Except Kestrel], Buteos, and Owls [Except Mexican Spotted Owl])</i>. Apply CSU and SSR restrictions within 1.0 mile of nest sites. (Refer to Appendix B; Figures 7 and 9, Appendix A.)</p>
SSS-RPT-AU-04	<p>Allowable Use:</p> <p>STIPULATION NSO-38/ SSR-38: <i>Bald Eagle Winter Roost Sites</i>. Prohibit surface occupancy and use and apply SSR restrictions within 0.25-mile of bald eagle winter roost sites. (Refer to Appendix B; Figures 7 and 9, Appendix A.)</p>
SSS-RPT-AU-05	<p>Allowable Use:</p> <p>STIPULATION TL-21: <i>Bald Eagle Winter Roost Sites</i>. Prohibit surface use and surface-disturbing activities within an 805-meter (0.50-mile) radius of an active bald eagle winter roost as mapped in the RMP, BLM's GIS database, or other data provided by local, state, federal, or tribal agencies that are analyzed and accepted by the BLM, from November 15 to March 15. (Refer to Appendix B; Figure 8, Appendix A.)</p>
SSS-RPT-AU-06	<p>Allowable Use:</p> <p>STIPULATION CSU-33/SSR-38: <i>Bald Eagle Habitat (Winter Concentration and Communal Roosts)</i>. Surface occupancy or use may be restricted or prohibited and SSR restrictions applied in bald eagle habitat to protect winter concentration areas and</p>

	SPECIAL STATUS SPECIES
	communal roost sites. Incorporate applicable conservation measures from the USFWS National Bald Eagle Management Guidelines. (Refer to Appendix B; Figures 7 and 9, Appendix A.)
SSS-RPT-AU-07	Allowable Use: STIPULATION TL-22: <i>Bald Eagle Winter Concentration Areas</i> . Prohibit surface use and surface-disturbing and disruptive activities within bald eagle winter concentration areas from November 15 to April 1. (Refer to Appendix B; Figure 8, Appendix A.)
SSS-RPT-AU-08	Allowable Use: STIPULATION TL-23: <i>Wildlife: Mexican Spotted Owl Timing Limitation (Suitable Breeding Habitat)</i> . Prohibit surface use and surface-disturbing and disruptive activities in mapped suitable Mexican spotted owl breeding habitat as mapped in the RMP, BLM's GIS database, or other data provided by local, state, federal, or tribal agencies, including as defined in the Mexican spotted owl recovery plan, that are analyzed and accepted by the BLM, from March 1 to August 31. (Refer to Appendix B; Figure 8, Appendix A.)
SSS-RPT-AU-09	Allowable Use: STIPULATION CSU-34/SSR-40: <i>Mexican Spotted Owl Suitable Breeding Habitat</i> . Surface occupancy or use may be restricted or prohibited, and SSR restrictions applied, to Mexican spotted owl breeding habitat as defined in the Mexican spotted owl recovery plan. Manage in accordance with the current Mexican spotted owl recovery plan. Field Manager may require the proponent/ applicant to submit a plan of development that demonstrates that impacts on Mexican spotted owl habitat have been avoided to the extent practicable. (Refer to Appendix B; Figures 7 and 9, Appendix A.)
SSS-RPT-AU-10	Allowable Use: STIPULATION NSO-40/SSR-41: <i>Mexican Spotted Owl</i> . Prohibit surface occupancy and use and apply SSR restrictions on lands identified as Protected Activity Centers for Mexican spotted owl. (Refer to Appendix B; Figures 7 and 9, Appendix A.)
	<i>Special Status Terrestrial Wildlife- Gunnison's and White-Tailed Prairie Dog</i>
SSS-DOG-AU-01	Allowable Use: STIPULATION CSU-35/ SSR-42: <i>Wildlife BLM Sensitive Species (Gunnison and White-Tailed Prairie Dogs)</i> . Surface occupancy or use may be restricted and SSR restrictions applied within habitat for the following BLM sensitive wildlife species: Within 150 feet of active Gunnison's prairie dog (<i>Cynomys gunnisoni</i>) and white-tailed prairie dog (<i>Cynomys leucurus</i>) towns. Special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required. The operator may be required to submit a plan of development that reduces or eliminates threats to BLM identified sensitive species by siting or prioritizing vegetation clearing, facility construction, and concentrated operational activities (e.g., drilling, completion, and utility installation). (Refer to Appendix B; Figures 7 and 9, Appendix A.)
SSS-DOG-AU-02	Allowable Use: STIPULATION TL-24: <i>Gunnison and White-Tailed Prairie Dog</i> . Prohibit surface use and surface-disturbing and disruptive activities within 300 feet of active prairie dog colonies from March 1 to June 15. (Refer to Appendix B; Figure 8, Appendix A.)

	SPECIAL STATUS SPECIES
SSS-DOG-MA-01	<p>Action: If requested by CPW, develop and manage prairie dog release areas on BLM-administered lands where private interest groups could be permitted to relocate prairie dogs from areas threatened by development on private lands, subject to site-specific analysis.</p>
	<i>Special Status Terrestrial Wildlife – Kit Fox</i>
SSS-FOX-AU-01	<p>Allowable Use: STIPULATION CSU-37/SSR-44: <i>Wildlife BLM Sensitive Species (Active Kit Fox Dens)</i>. Surface occupancy or use may be restricted and SSR restrictions applied within habitat for the following BLM sensitive wildlife species: Within 200 meters (656 feet) of active kit fox (<i>Vulpes macrotis</i>) dens. Special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required. The operator may be required to submit a plan of development that reduces or eliminates threats to BLM identified sensitive species by siting or prioritizing vegetation clearing, facility construction, and concentrated operational activities (e.g., drilling, completion, and utility installation). (Refer to Appendix B; Figures 7 and 9, Appendix A.)</p>
SSS-FOX-AU-02	<p>Allowable Use: STIPULATION TL-27: <i>Active Kit Fox Dens</i>. Prohibit surface use and surface-disturbing and disruptive activities within 0.25-mile of active dens from February 1 to May 1. (Refer to Appendix B; Figure 8, Appendix A.)</p>
	<i>Special Status Terrestrial Wildlife – Bats</i>
SSS-BAT-MA-01	<p>Action: Maintain the Cory Lode Mine (17.7 acres) as withdrawn from locatable mineral entry to protect sensitive bats (BLM sensitive bat species and Colorado State Species of Concern bat species). Recommend to the Secretary of the Interior for withdrawal from locatable mineral entry for sensitive bat species' significant maternity roost or hibernaculum, as defined by CPW or USFWS.</p>
SSS-BAT-MA-02	<p>Action: In the event of a disease outbreak such as White-nose Syndrome, caves and other structures utilized by bats will be closed to public access, except for permitted scientific research or permitted recreational activities. Permits for scientific research or recreational access to these areas will follow current quarantine and sterilization procedures.</p>
SSS-BAT-AU-01	<p>Allowable Use: STIPULATION CSU-39/SSR-47: <i>Wildlife Bat: Bat Roost Sites and Winter Hibernacula (Colorado State Species of Concern)</i>. Surface occupancy or use may be restricted and SSR restrictions applied within 0.25-mile radius of the entrance of maternity roosts or hibernacula of Colorado State Species of Concern bat species, as mapped in the BLM's GIS database or other maps provided by local, state, federal, or tribal agencies that are analyzed and accepted by the BLM. (Refer to Appendix B; Figures 7 and 9, Appendix A.)</p>

	SPECIAL STATUS SPECIES
	<i>Special Status Terrestrial Wildlife – Waterfowl and Shorebirds</i>
SSS-WSB-AU-01	<p>Allowable Use:</p> <p>STIPULATION NSO-9/SSR-11: <i>Hydrology River.</i> Prohibit surface occupancy and use and apply SSR restrictions within 400 meters (1,312 feet) of the ordinary high-water mark (bank-full stage) or within 100 meters (328 feet) of the 100-year floodplain (whichever area is greatest) on the following major rivers:</p> <ul style="list-style-type: none"> • Gunnison • North Fork Gunnison • San Miguel • Uncompahgre • Dolores Rivers <p>(Refer to Appendix B; Figures 7 and 9, Appendix A.)</p>
	WILD HORSES
WHS-GOAL-01	<p>GOAL:</p> <p>Manage the Naturita Ridge Herd Area to maintain an ecological balance of resources and uses.</p>
WHS-OBJ-01	<p>Objective:</p> <p>Continue herd area designation for Naturita Ridge and maintain the closure to wild horses.</p>
WHS-MA-01	<p>Action:</p> <p>Do not reintroduce wild horses to the Naturita Ridge Wild Horse Area.</p>
	WILDLAND FIRE ECOLOGY AND MANAGEMENT
FIR-GOAL-01	<p>GOAL:</p> <p>Manage wildland fire and fuels with the protection of human life as the highest priority while also protecting social and economic values, achieving resource management objectives, and enhancing natural ecosystem processes and ecological sustainability.</p>
FIR-OBJ-01	<p>Objective:</p> <p>Collaborate with other federal agencies; state, county, and city governments; and fire protection districts regarding prevention, mitigation, and fire management activities.</p>
FIR-MA-01	<p>Action:</p> <p>Maintain a Fire Management Plan that supports interagency fire management across the Planning Area (including the BLM, Forest Service, US DOI National Park Service, and Colorado State Forest Service).</p>

	WILDLAND FIRE ECOLOGY AND MANAGEMENT
FIR-OBJ-02	Objective: Utilize fire-protection and fuels-management activities to prevent or reduce negative impacts on social and resource values, including human life, private property and improvements, public utility lines, communication sites, developed recreation sites, cultural resources, special status species habitat, areas with mineral and energy development, renewable energy projects, municipal watersheds, public water supplies, and, to the extent practical, air quality.
FIR-MA-02	Action: Respond to all fires. Take actions necessary to address threats to social, economic, or resource values, while considering risks to firefighters.
FIR-MA-03	Action: Modify fuel complexes to meet the objective using mechanical treatment, prescribed fire, seeding, and herbicide in the most ecologically appropriate manner to reduce fire behavior and resistance to control.
FIR-OBJ-03	Objective: Manage fire and fuels/vegetation to achieve specific resource management objectives, which include: <ul style="list-style-type: none"> • Restore and enhance wildlife habitat. • Improve vegetation condition for stand health, forage production, and watershed enhancement. • Maintain and restore woodland and forest productivity. • Maintain appropriate vegetation/age class mosaics and fuel complexes across the landscape. • Work to restore Fire Regime Condition Classes 2 and 3 towards Class I, and maintain areas of Class I, consistent with fire and biological objectives.
FIR-MA-04	Action: Design habitat, vegetation, and fuels projects to meet multiple interdisciplinary objectives.
FIR-MA-05	Action: Use mechanical treatment, prescribed fire, seeding, herbicide, and pollinators in the most ecologically appropriate manner to achieve resource objectives.
FIR-MA-06	Action: Use managed fire throughout the Planning Area, except as precluded by other decisions in the RMP, as a natural process and to meet resource objectives using an ignition-by-ignition decision process.
FIR-OBJ-04	Objective: In all fire-management activities, utilize appropriate strategies and tactics commensurate with values at risk.
FIR-MA-07	Action: Use minimum-impact suppression tactics, where values at risk dictate, to minimize the construction of mechanical control line so that resource conditions are not degraded, particularly relative to soils, watersheds, ACECs, no ground disturbance (NGD) areas, WSAs, lands managed to minimize impacts on wilderness characteristics, areas with ancient or rare vegetation, and exotic or noxious species.

	WILDLAND FIRE ECOLOGY AND MANAGEMENT
FIR-OBJ-05	Objective: Revegetate or manage lands affected by wildland fire to maintain vegetation appropriate to ecological site potential within the natural range of variability.
FIR-MA-08	Action: Implement Emergency Stabilization and Rehabilitation techniques on wildfires, or portions of wildfires, as necessary to meet BLM Colorado Public Land Health Standards (BLM 1997), vegetation and habitat objectives, or where human life or property are at risk from post-fire impacts.

	CULTURAL RESOURCES																					
CUL-GOAL-01	GOAL: Identify, preserve, and protect significant cultural resources to ensure that they are available for appropriate purposes by present and future generations (i.e., for research, education, and preservation of cultural heritage).																					
CUL-OBJ-01	Objective: Preserve the nature and value of cultural resources, focusing on high-priority sites¹. ¹High-priority sites are eligible properties whose eligibility is under threat due to natural or human-caused alterations.																					
CUL-MA-01	Action: Allocate cultural resources currently recorded, or projected to occur on the basis of existing data synthesis, to use allocations according to their nature and relative preservation value (BLM Manual 8110.42). Cultural use allocations include: <table><tr><td><u>Use Allocation</u></td><td><u>Management Action</u></td><td><u>Desired Outcome</u></td></tr><tr><td>a. Scientific use</td><td>Permit appropriate research including data recovery.</td><td>Preserved until research or data recovery potential is realized</td></tr><tr><td>b. Conservation for future use</td><td>Propose protective measures/designation</td><td>Preserved until conditions for use are met</td></tr><tr><td>c. Traditional use</td><td>Consult with tribes, determine limitations</td><td>Long-term preservation</td></tr><tr><td>d. Public use</td><td>Determine permitted use</td><td>Long-term preservation, on-site interpretation</td></tr><tr><td>e. Experimental use</td><td>Determine nature of experiment</td><td>Protected until used</td></tr><tr><td>f. Discharge from management</td><td>Remove protective measures</td><td>No use after recordation; not preserved</td></tr></table>	<u>Use Allocation</u>	<u>Management Action</u>	<u>Desired Outcome</u>	a. Scientific use	Permit appropriate research including data recovery.	Preserved until research or data recovery potential is realized	b. Conservation for future use	Propose protective measures/designation	Preserved until conditions for use are met	c. Traditional use	Consult with tribes, determine limitations	Long-term preservation	d. Public use	Determine permitted use	Long-term preservation, on-site interpretation	e. Experimental use	Determine nature of experiment	Protected until used	f. Discharge from management	Remove protective measures	No use after recordation; not preserved
<u>Use Allocation</u>	<u>Management Action</u>	<u>Desired Outcome</u>																				
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e. Experimental use	Determine nature of experiment	Protected until used																				
f. Discharge from management	Remove protective measures	No use after recordation; not preserved																				
CUL-MA-02	Action: Assign use category allocations to all current and newly discovered cultural resource sites and/or areas upon completion of site evaluation, and apply appropriate management actions to achieve the desired outcome.																					

	CULTURAL RESOURCES
CUL-MA-03	<p>Action:</p> <p>Use category allocations may be revised in response to changing site conditions or as additional data and information are obtained. Criteria allowing for revising allocation are 1) environmental change or human-caused impacts that alter the significance or scientific potential; 2) changes brought about by mitigation and/or data recovery; 3) new discovery that adds to the site's potential and changes its eligibility for listing on the National Register of Historic Places; 4) new information or techniques that reveal a new scientific value that was not previously recognized; and 5) new information shared through Native American consultation.</p>
CUL-MA-04	<p>Action:</p> <p>Prioritize Scientific Use sites and/or areas and Conservation Use sites for listing on the National Register of Historic Places and develop a Cultural Resource Project Plan for Scientific Use sites that outlines specific management objectives and actions for protection. Scientific Use sites include stratified open occupations and rock shelters, site complexes, and sites within landscape-based prehistoric and historic use areas.</p>
CUL-MA-05	<p>Action:</p> <p>Prioritize Conservation Use sites for listing on the National Register of Historic Places, and within 2 years from the listing develop a Cultural Resource Project Plan for Conservation Use sites that outlines specific management objectives and actions for protection. Conservation use sites include rock art sites, prehistoric structures, and historic buildings and/or structures, such as the Hanging Flume, Paradox Rock art, historic Ute wickiups, and important historic mining operations.</p>
CUL-MA-06	<p>Action:</p> <p>Set aside cultural resource sites and/or areas (Traditional Use category) for long-term preservation because of their cultural and religious value to Native American Tribes. Sites/areas are identified as traditional cultural properties and sacred sites in consultation with Native American Tribes.</p>
CUL-AU-01	<p>Allowable Use:</p> <p>STIPULATION NSO-46/SSR-49: <i>Allocation to Traditional Use.</i> Prohibit surface occupancy and use and apply SSR restrictions within 200 meters (656 feet) around eligible or potentially eligible sites allocated to Traditional Use. In addition, consider visual impacts that projects may have on sites allocated to this use, and apply appropriate mitigation, which may include redesign. (Refer to Appendix B.)</p>
CUL-MA-07	<p>Action:</p> <p>Assign historical sites in the Uravan Mining Belt (e.g., the Wild Steer complex, Long Park, Monogram Mesa, and the Uravan area), historical buildings that may be suitable for adaptive use, historical roads and trails (e.g., Old Spanish National Historic Trail, Tabeguache Trail), The Hanging Flume (National Register of Historic Places) and select rock art sites after consultation with the appropriate tribal entities (e.g., the Paradox Rock art Complex, Dolores Canyon, Uncompahgre Plateau) to Public Use for environmental and heritage education.</p>

	CULTURAL RESOURCES
CUL-MA-08	<p>Action: Develop a Cultural Resource Project Plan that develops site-specific management actions for all Public Use sites. In the plan, outline specific management objectives and actions for Heritage Tourism including retrieval of scientific information, hardening for public use, interpretation, and long-term protection.</p>
CUL-MA-09	<p>Action: Manage and protect cultural resources allocated to Public Use, including traditional cultural properties with a secondary allocation to Public Use by implementing the following actions, including but not limited to:</p> <ul style="list-style-type: none"> • Developing heritage tourism at sites designated to Public Use using Best Management Practices • Interpreting sites • Organizing and conducting ongoing educational programs for tribal groups, the public, school groups, vocational archaeology groups, project proponents, permittees, contractors, and others about cultural resource ethics, and encouraging their assistance in reporting new discoveries and vandalism incidents • Consulting with tribes when appropriate
CUL-MA-10	<p>Action: Develop a Cultural Resource Project Plan to outline research objectives for allowable use on all Experimental Use sites.</p>
CUL-MA-11	<p>Action: Develop and annually update a list of sites to allocate to the Discharge Use category; reevaluate as needed and compile supporting documentation. Submit for consultation with the State Historic Preservation Office.</p>
CUL-GOAL-02	<p>GOAL: Seek to reduce imminent threats and resolve potential conflicts from natural or human-caused deterioration or potential conflict with other resource uses (FLPMA Sec. 103(c); National Historic Preservation Act Section 106, 110(a)(2)) by ensuring that all authorizations for land use and resource use will comply with Section 106 of the National Historic Preservation Act.</p>
CUL-OBJ-02	<p>Objective: Manage individual cultural resources in accordance with the use allocation finding for each cultural and historic property.</p>

	CULTURAL RESOURCES
CUL-MA-12	<p>Action: Evaluate all cultural resources for use allocation and desired outcome (scientific use, conservation for future use, traditional use, public use, experimental use, or discharged from management). Prioritize the following areas for inventory and evaluation:</p> <ul style="list-style-type: none"> • Roc Creek (Anasazi rock art) • Uravan historic mining district • Paradox Valley • Dolores River Canyon • Uncompahgre Plateau • Tabeguache/Dolores Canyons • Hanging Flume
CUL-MA-13	<p>Action: Develop and protect suitable cultural resource properties for public enjoyment through such practices as interpretive signing and stabilization. Priority areas include the Hanging Flume, Paradox Valley Rock Art Complex, and Roc Creek rock art.</p>
CUL-MA-14	<p>Action: Identify, inventory, and evaluate individual sites within the Dolores River Canyon WSA for eligibility for listing on the National Register of Historic Places.</p>
CUL-MA-15	<p>Action: In Wilderness Areas and WSAs allow the use of cultural resource properties only for religious or research purposes, or for stabilization of “at risk” properties, and only when such use will not degrade wilderness values.</p>
CUL-AU-02	<p>Allowable Use: STIPULATION CSU-43/SSR-53: <i>Cultural</i>. Surface occupancy or use may be restricted and SSR restrictions applied due to historic properties and/or resources protected under the National Historic Preservation Act, American Indian Religious Freedom Act, Native American Graves Protection and Repatriation Act, Executive Order 13007, or other statutes and executive orders. Special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required. The BLM will not approve any ground-disturbing activities that may affect any such properties or resources until it completes its obligations (e.g., State Historic Preservation Office and tribal consultation) under applicable requirements of the National Historic Preservation Act and other authorities. The BLM may require modification to exploration or development proposals to protect such properties, including indirect effects including audible, atmospheric and setting impacts on the significant qualities of a historic property and visual impacts as determined through consultation with SHPO and the appropriate tribal entities, or disapprove any activity that is likely to result in adverse effects that cannot be successfully avoided, minimized, or compensated.</p>
CUL-MA-16	<p>Action: Manage sites listed on or eligible for listing on the National Register of Historic Places as ROW avoidance.</p>

	CULTURAL RESOURCES
CUL-MA-17	<p>Action: Develop a cultural resource management plan to guide research and long term protection of cultural properties associated with the Paradox Rock Art Complex, Uravan Mineral Belt, Dolores Canyon, the Uncompahgre Plateau and other areas as determined by new information, research strategies and resource protection needs.</p>
CUL-MA-18	<p>Action: Nominate individual sites that meet National Register of Historic Places criteria to the National or State Registers of Historic Places.</p>
CUL-MA-19	<p>Action: Manage 1,080 acres in the Paradox Rock Art Complex area as a National Register District to protect unique cultural resource values. (Refer to the <i>Areas of Critical Environmental Concern</i> section, Paradox Rock Art ACEC.)</p>
CUL-AU-03	<p>Allowable Use: STIPULATION NSO-50: <i>National Register District</i>. Prohibit surface occupancy and use in National Register Districts. (Refer to Appendix B; Figure 7, Appendix A.)</p>
CUL-MA-20	<p>Action: Attach the following standard stipulations to any BLM-issued permit in which there may be ground-disturbing activities or the potential for the inadvertent discovery or effects on any National Register of Historic Places or otherwise eligible historic or archaeological cultural property:</p> <ul style="list-style-type: none"> • If historic or archaeological materials are uncovered during permitted activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials and must immediately contact the BLM Authorized Officer. Within 5 working days, the BLM Authorized Officer will inform the operator as to whether the materials appear eligible for the National Register of Historic Places and what mitigation measures the operator will likely have to undertake before the construction may proceed. • The permittee is responsible for informing all persons who are associated with the project that they will be subject to prosecution for knowingly disturbing archaeological sites or for collecting artifacts. <p>In accordance with 43 CFR 10.4(g), the holder of the authorization must notify the BLM Authorized Officer, by telephone, with written confirmation, immediately after the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, in accordance with 43 CFR 10.4(c) and (d), the holder of the authorization must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the BLM Authorized Officer. (Refer to Appendix B.)</p>

	PALEONTOLOGICAL RESOURCES
PAL-GOAL-01	GOAL: Identify, protect, and manage paleontological resources for the preservation, interpretation, and scientific uses by present and future generations.
PAL-OBJ-01	Objective: Manage paleontological resources for their scientific, educational, and recreational values.
PAL-MA-01	Action: Require that land use authorizations consider actions on public lands according to their Potential Fossil Yield Classification.
PAL-MA-02	Action: Develop a Paleontological Site Management Plan for known localities, including: <ul style="list-style-type: none"> • Potter Creek • San Miguel Canyon • Placerville Jurassic Fish Locality • Dolores River Canyon • Atkinson Mesa/Mesa Creek area
PAL-MA-03	Action: In Potential Fossil Yield Classification Class 4 and 5 areas, conduct paleontological inventories to identify and document significant paleontological resources and potential threats.
PAL-LN-01	LEASE NOTICE LN-UFO-3: High Potential Paleontological Resources: The lessee/operator is given notice that lands in this lease have been identified as having high potential for paleontological resources. Planned projects should be consistent with the Paleontological Resources Preservation Act and BLM Manual and Handbook H-8270-I, Chapter III (A) and III (B), to avoid areas where significant fossils are known or predicted to occur or to provide for other mitigation of possible adverse effects (RX, NF, ESR). Mitigation of impacts on scientifically important paleontological resources may include avoidance, monitoring, collection, excavation, or sampling. Mitigation of discovered scientifically important paleontological resources may require the relocation of the surface disturbance activity over 200 meters (656 feet). Inventory and any subsequent mitigation shall be conducted by a BLM permitted paleontologist. Modifications to the Surface Use Plan of Operations may be required in order to protect paleontological resources from surface-disturbing activities in accordance with Section 6 of the lease terms and 43 CFR 3101.1-2.
PAL-MA-04	Action: Where project development threatens significant paleontological resources, require proponents to avoid by project redesign or to conduct scientific data recovery excavation.

	PALEONTOLOGICAL RESOURCES
PAL-LN-02	LEASE NOTICE LN-UFO-4: <i>Paleontological Areas</i>. Require an accredited paleontologist approved by the BLM Authorized Officer to perform an inventory of areas of surface-disturbing activities in Potential Fossil Yield Classification Class 4 and 5 (previously known as Class I and II) paleontological areas, in accordance with BLM Instruction Memorandum No. 2008-009: Potential Fossil Yield Classification System for Paleontological Resources on Public Lands (BLM 2007b). (Refer to Appendix B.)
	VISUAL RESOURCES
VIS-GOAL-01	GOAL: Maintain the scenic quality and natural aesthetics of river canyons, open space landscapes, cultural landscapes, and other areas with high-quality visual resources that are considered important as social, economic, and environmental values.
VIS-OBJ-01	Objective: Manage visual resources for overall multiple use in accordance with visual resource management (VRM) classifications.
VIS-MA-01	Action: Designate VRM classes, as mapped, as follows (Figure 3, Appendix A): <ul style="list-style-type: none"> • BLM surface: <ul style="list-style-type: none"> o VRM Class I = 46,440 acres o VRM Class II = 105,490 acres o VRM Class III = 370,600 acres o VRM Class IV = 153,260 acres • Recommend the following VRM classes for private or state surface/ federal mineral estate: <ul style="list-style-type: none"> o VRM Class I = 0 acres o VRM Class II = 92,680 acres o VRM Class III = 172,500 acres o VRM Class IV = 30,250 acres o Undesignated = 0 acres

	VISUAL RESOURCES
VIS-MA-02	<p>Action: Manage 46,440 as VRM Class I (Figures 3, Appendix A):</p> <ul style="list-style-type: none"> • Tabeguache Area • WSAs • Suitable WSR segments classified as “wild” with a scenic outstandingly remarkable value (see Table II-5 [Summary of Wild and Scenic River Study Segments]) or within a WSA or the Tabeguache Area <ul style="list-style-type: none"> o Roubideau Creek Segment 1 o San Miguel River Segment 2 o Tabeguache Creek Segment 1 o Dolores River Segment 1a o La Sal Creek Segment 3
VIS-MA-03	<p>Action: Manage 105,490 acres, as mapped, as VRM Class II, including the following (Figure 3, Appendix A):</p> <ul style="list-style-type: none"> • SRMAs <ul style="list-style-type: none"> o Dolores River Canyon recreation management zones (RMZs) 1 and 2 (if released from WSA designation) o Roubideau RMZ 1 (if released from WSA designation [Camel Back WSA]) o San Miguel River RMZ 3 o Spring Creek RMZ 2 o Dry Creek RMZ 5 • ACECs <ul style="list-style-type: none"> o Needle Rock o Adobe Badlands • Suitable WSR segments classified as “wild” without a scenic outstandingly remarkable value and not within a WSA or the Tabeguache Area <ul style="list-style-type: none"> o Monitor Creek o Potter Creek o Saltado Creek • Suitable WSR segments classified as “scenic” and suitable WSR segments classified as “recreational” with a scenic outstandingly remarkable value (see Table II-5 [Summary of Wild and Scenic River Study Segments]) • Lands within 0.5-mile of National Historic Trails, except for the Old Spanish National Historic Trail • Lands within 0.5-mile of the following National and BLM Byways <ul style="list-style-type: none"> o Grand Mesa Scenic Byway o Portion of West Elk Scenic Byway from Northeast UFO boundary to Gunnison County Road 12

	VISUAL RESOURCES
VIS-MA-04	<p>Action: Manage 370,600 acres, as mapped, as VRM Class III, including, but not limited to, the following (Figure 3, Appendix A):</p> <ul style="list-style-type: none"> • Extensive recreation management areas (ERMAs) <ul style="list-style-type: none"> o Burn Canyon o Kinikin Hills o Paradox Valley • SRMAs <ul style="list-style-type: none"> o Dolores River Canyon RMZ 3 o Dry Creek RMZ 1-4 o Jumbo Mountain o Ridgway Trails o Roubideau RMZs 2-4 (portions of RMZ 2 overlapping the Camel Back WSA would be managed as VRM III if WSA is released from designation) o San Miguel River RMZs 1, 2 and 4 o Spring Creek RMZs 1 and 3 • ACECs <ul style="list-style-type: none"> o Fairview South (BLM Expansion) o San Miguel River • Lands within 0.5-mile of the Old Spanish National Historic Trail • Lands within 0.50-mile of the following National and BLM Byways <ul style="list-style-type: none"> o Portion of the West Elk Scenic Byway west of Gunnison County Road 12 o San Juan Skyway o Unaweep/ Tabeguache Byway <p>Other areas as mapped including:</p> <ul style="list-style-type: none"> • Oak Ridge • McDonald Creek area • Youngs Peak • Smith Fork (40s) • Billy Creek area • Wray Mesa • Lion Creek • North of County Road 12 outside of West Elk Scenic Highway buffer

	VISUAL RESOURCES
VIS-MA-05	Action: Manage 153,260 acres, as mapped, as VRM Class IV, as follows (Figure 3, Appendix A): <ul style="list-style-type: none"> • North Delta SRMA • Private edge-holdings and inholdings on National Forest System lands that do not have a Visual Resource Inventory • All other areas not identified as VRM Class I, II, or III
VIS-OBJ-02	Objective: Maintain dark night sky conditions in areas that are generally unaffected by man-made light sources.
VIS-MA-06	Action: Prohibit permanent artificial outdoor lighting in VRM Class I areas.
VIS-LN-01	LEASE NOTICE LN-UFO-6: Night Skies. Require that permanent and temporary artificial outdoor lighting be shielded and downward-facing (“full cut-off” fixtures) to minimize impacts on naturally dark night skies. An exception, with mitigation, may be granted for temporary lighting if the requirement will create a hazard. (Refer to Appendix B.)
VIS-LN-02	LEASE NOTICE LN-UFO-6: Night Skies. Require that permanent artificial outdoor lighting be turned off when it is not needed. (Refer to Appendix B.)
	LANDS WITH WILDERNESS CHARACTERISTICS
LWC-GOAL-01	GOAL: Provide protection when possible to preserve inventoried wilderness characteristics of areas determined to possess wilderness characteristics (e.g., appearance of naturalness, outstanding opportunities for primitive and unconfined recreation, or solitude), while allowing for competing resource uses.
LWC-OBJ-01	Objective: Through project analysis, analyze and disclose impacts on lands inventoried and found to possess wilderness characteristics, and minimize impacts on those values.
LWC-MA-01	Action: Manage 18,320 acres to minimize impacts on wilderness characteristics, while managing for other uses. <ul style="list-style-type: none"> • Camel Back WSA Adjacent (6,950 acres) • Dry Creek Basin (7,030 acres) • Roc Creek/Carpenter Ridge (4,340 acres) Conserve wilderness characteristics where possible through relocation, design criteria, and/or mitigation. Maintain an ongoing, up-to-date inventory of lands with wilderness characteristics.

	LANDS WITH WILDERNESS CHARACTERISTICS
LWC-AU-01	<p>Allowable Use:</p> <p>STIPULATION CSU-60: <i>Lands Identified as Having Wilderness Characteristics While Managing for Other Uses.</i> On lands identified as possessing wilderness characteristics, special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required. Prior to authorizing disturbance activities in the following areas, the proponent may be required to submit a plan of development that demonstrates that identified wilderness characteristics will be conserved:</p> <ul style="list-style-type: none"> • Camel Back WSA Adjacent (6,950 acres) • Dry Creek Basin (7,030 acres) • Roc Creek/Carpenter Ridge (4,340 acres)
LWC-MA-02	<p>Action:</p> <p>Inventory acquired lands for wilderness characteristics.</p> <ul style="list-style-type: none"> • If acquired lands are found to possess wilderness characteristics, determine whether to manage wilderness characteristics on a case-by-case basis consistent with BLM Manual 6310, Conducting Wilderness Characteristics Inventory on BLM Lands, and BLM Manual 6320, Considering Lands with Wilderness Characteristics in the BLM Land Use Planning Process. • Consider adjacent other federal lands to determine whether the acquired lands if combined with the other federal lands constitute a piece that possesses wilderness characteristics. In the case of acquired lands inventoried and determined to possess wilderness characteristics, the BLM Authorized Officer must determine if these lands warrant specific management or protection not already provided for by the RMP. If the BLM Authorized Officer determines that protection is warranted for the area, then determine whether existing resource protection measures are sufficient to mitigate impacts from any proposed activity (on a case-by-case basis) or if planning-level decisions are necessary to protect the area. The BLM Authorized Officer will consider potential adverse impacts on lands with wilderness characteristics through the NEPA process for a proposed project. A NEPA process considering potential impacts on an area not previously considered for protection in a land use planning process should analyze alternative management options for the area, including an alternative that analyzes protection of wilderness characteristics.

RESOURCE USES	
	FORESTRY AND WOODLAND PRODUCTS
FOR-GOAL-01	<p>GOAL: Provide forest and woodland products on a sustainable basis to meet local needs and promote ecological health.</p>
FOR-OBJ-01	<p>Objective: Manage forests and woodlands within the historic range of natural variability while ensuring ecological diversity, maintaining successional processes, maintaining sustainability (including the desired mix of structural stages and landscape/watershed functions), and providing for native plant and wildlife habitats.</p>
FOR-MA-01	<p>Action: Designate 675,800 acres of forest management units (Figure 22, Appendix A):</p> <ul style="list-style-type: none"> • North Fork (132,300 acres) • Paradox (175,880 acres) • San Miguel (189,030 acres) • Storm King (41,700 acres) • Uncompahgre Plateau (136,890 acres) <p>Of those acres, 503,830 acres are available for commercial wood harvest and 444,220 acres are open to general wood cutting. Forest management units with total acres and acres available for commercial harvest and general wood cutting are:</p> <ul style="list-style-type: none"> • North Fork – 132,300 acres <ul style="list-style-type: none"> o General <ul style="list-style-type: none"> - Open to general wood collection – 83,890 acres - Closed to general wood collection – 48,410 acres o Commercial <ul style="list-style-type: none"> - Open to commercial wood collection – 98,260 acres - Closed to commercial wood collection – 34,040 acres • Paradox – 175,880 acres <ul style="list-style-type: none"> o General <ul style="list-style-type: none"> - Open to wood collection – 123,710 acres - Closed to wood collection – 52,170 acres o Commercial <ul style="list-style-type: none"> - Open to commercial wood collection – 135,890 acres - Closed to commercial wood collection – 39,990 acres • San Miguel – 189,030 acres <ul style="list-style-type: none"> o General <ul style="list-style-type: none"> - Open to wood collection – 119,300 acres - Closed to wood collection – 69,730 acres o Commercial

	FORESTRY AND WOODLAND PRODUCTS
	<ul style="list-style-type: none"> - Open to commercial wood collection – 130,110 acres - Closed to commercial wood collection – 58,920 acres ● Storm King – 41,700 acres <ul style="list-style-type: none"> ○ General <ul style="list-style-type: none"> - Open to wood collection – 23,020 acres - Closed to wood collection – 18,680 acres ○ Commercial <ul style="list-style-type: none"> - Open to commercial wood collection – 28,760 acres - Closed to commercial wood collection – 12,940 acres ● Uncompahgre Plateau – 136,890 acres <ul style="list-style-type: none"> ○ General <ul style="list-style-type: none"> - Open to wood collection – 94,300 acres - Closed to wood collection – 42,590 acres ○ Commercial <ul style="list-style-type: none"> - Open to commercial wood collection – 110,810 acres - Closed to commercial wood collection – 26,080 acres
FOR-MA-02	<p>Action: Allow harvest of minor (noncommercial timber) forest and woodland products in the following forest management units (units are shown on Figure 22, Appendix A):</p> <ul style="list-style-type: none"> ● Pinyon-juniper <ul style="list-style-type: none"> ○ North Fork ○ Paradox ○ San Miguel ○ Storm King ○ Uncompahgre Plateau ● Ponderosa pine <ul style="list-style-type: none"> ○ Paradox ○ Uncompahgre Plateau ● Aspen <ul style="list-style-type: none"> ○ Storm King ● Spruce and subalpine fir <ul style="list-style-type: none"> ○ Storm King ● Douglas fir <ul style="list-style-type: none"> ○ San Miguel ○ Storm King

	FORESTRY AND WOODLAND PRODUCTS
FOR-MA-03	<p>Action: Allow commercial timber harvest of pinyon-juniper only; permit such harvest in all forest management units where consistent with land health and vegetation mosaic objectives.</p> <p>Exception: Commercial harvest activities may be used for other forest cover types to improve forest health, to restore ecology, or to meet identified resource objectives.</p>
FOR-MA-04	<p>Action: Close the following areas (171,970 acres) to commercial wood product sales and/or harvest (unless there is an exception shown below; Figure 22, Appendix A):</p> <ul style="list-style-type: none"> ● ACECs (refer to the <i>Areas of Critical Environmental Concern</i> section for specific restrictions and allowed wood product use or harvest) <ul style="list-style-type: none"> ○ Fairview South (BLM Expansion) ○ Needle Rock ○ San Miguel River ● Steep slopes (greater than 40 percent) ● Riparian areas ● The reserved federal timber (123 acres) on 168 acres of land deeded to Ouray County ● Ancient woodlands and forest ● Exemplary, ancient, and rare vegetation ● SRMAs (refer to Appendix E, [Description of Recreation Management Areas] for specific restrictions and allowed wood product use or harvest): <ul style="list-style-type: none"> ○ Dolores River Canyon ○ Dry Creek RMZs 1 and 2 ○ Jumbo Mountain RMZ 1 ○ North Delta ○ Ridgway Trails RMZ 1 ○ Roubideau RMZs 1 and 2 ○ San Miguel River ○ Spring Creek RMZ 2 ● Tabeguache Area ● WSAs <p>Exception: Allow wood product sales and/or harvest to enhance resource values for which a given unit is designated, to improve forest and land health conditions, or to achieve vegetation mosaic objectives.</p>

	FORESTRY AND WOODLAND PRODUCTS
FOR-MA-05	Action: Prohibit personal use firewood and other special forest product harvest from December 31 to April 30. Subject commercial activities to spatial TLs, as described in Appendix B.
FOR-MA-06	Action: In appropriate forest cover types, allow biomass production and use where compatible with vegetation mosaics and other resource uses. Make byproducts from forest management activities and woodlands affected by insect and disease available for biomass.
FOR-MA-07	Action: Encourage, where feasible, the harvest of woodland products in areas of proposed or existing vegetative treatments to lessen the need for additional treatment or land disturbance and in areas that need restoration for ecological benefits.
FOR-MA-08	Action: Manage forest and woodlands where compatible to achieve other resource objectives.
FOR-MA-09	Action: Before removing any commercial or noncommercial forest and woodland products as a result of permitted activities (e.g., mining, oil and gas production, sodium mining, and ROW), appraise and require the proponent to purchase the woodland products. The BLM could waive this requirement if the quantity of woodland product is of a small enough quantity to make the requirement unfeasible.
FOR-MA-10	Action: When carrying out projects to restore forest and woodlands, fully maintain or contribute toward the restoration of the structure and composition of historic stand composition according to the pre-fire suppression conditions characteristic of the forest type, taking into account the contribution of the stand to landscape fire adaptation and watershed health and retaining the large trees contributing to old-growth structure in appropriate forest/woodland types.
	LIVESTOCK GRAZING
GRZ-GOAL-01	GOAL: Provide adequate forage for livestock while attaining healthy rangelands, in accordance with land health standards and in balance with other resources and uses, and to support local agricultural communities.
GRZ-OBJ-01	Objective: Using best available science and monitoring data, at the implementation level, design grazing systems that will meet or make progress toward meeting BLM Colorado Standards for Public Land Health and Guidelines for Livestock Grazing Management (BLM 1997). Seek appropriate opportunities to increase, decrease, or maintain grazing permitted use (AUMs) at permit renewal.
GRZ-MA-01	Action: Make 616,640 acres available for livestock grazing (Figure 5, Appendix A). Provide 35,520 AUMs of livestock forage commensurate with BLM Colorado Public Land Health Standards (BLM 1997). Periodically evaluate acres available and active

	LIVESTOCK GRAZING
	grazing permitted use (e.g., AUMs, periods of use, and class of livestock) and adjust as needed based on monitoring and land health conditions. Refer to Appendix F, Livestock Grazing Allotments and Allotment Levels.
GRZ-MA-02	Action: Make 59,160 acres unavailable for livestock grazing, which includes allotments, portions of allotments, and un-allotted land. The purpose includes steep slopes, conflict with BLM recreation sites, or avoidance of sensitive resources, such as those described in the Fairview South Area of Critical Environmental Concern section. Refer to Appendix F, Livestock Grazing Allotments.
GRZ-MA-03	Action: Make approximately 2,680 acres available for livestock trailing by reactivating the previously closed Camel Back pasture in the Winter-Monitor allotment. This availability is for trailing only. Provide no additional AUMs of grazing permitted use. Trailing in the entire canyon is limited by time and is managed within the riparian objective and the BLM Colorado Guidelines for Livestock Grazing Management (BLM 1997).
GRZ-MA-04	Action: Limit livestock trailing use to established roads and trails to the extent possible. Permit trailing livestock to overnight or bed in riparian zones in areas identified by and only with prior approval.
GRZ-MA-05	Action: Exclude livestock grazing on disturbed areas (e.g., fire, reclamation of disturbed lands, seedings, and surface-disturbing vegetation treatments) to the extent needed to comply with BLM Colorado Standards for Public Land Health and Guidelines for Livestock Grazing Management (BLM 1997).
GRZ-MA-06	Action: Periodically evaluate allotments or portions of allotments to identify grazing issues. Base potential closure to livestock grazing and/or reduction in permitted use on the following criteria, when management is insufficient to remedy the problem: <ul style="list-style-type: none"> • Areas identified as BLM disposal tracts • Small percentage (less than 10 percent) of BLM-administered lands in allotment • Areas unsuitable for livestock grazing (such as steep slopes) • Major impact on wildlife or threatened and endangered species (such as competition for forage, winter range, Gunnison sage-grouse habitat), or sensitive fish habitat, as determined by data analysis • Public health and safety • High-intensity recreation areas/facilities • Resource objectives for municipal watersheds • Conflicts with adjoining private land development • Impacts on cultural resource Areas with high soil selenium concentrations

	LIVESTOCK GRAZING
GRZ-MA-07	<p>Action: Adjust grazing management (e.g., AUMs, periods of use, allotments, class of livestock, and distribution) using an interdisciplinary process when the following data indicate that change is needed:</p> <ul style="list-style-type: none"> • Utilization levels or patterns of use in uplands and riparian areas and/or apparent trend data • Long-term trend data • Land Health Assessment data • Other pertinent information, including that obtained from consultation with permittees, interested publics, and other agencies
GRZ-MA-08	<p>Action: Implement allotment management actions through “terms and conditions” on grazing permits, resource activity plans (such as joint management area plans, coordinated resource management plans, wildlife habitat management plans), and guidance from existing or new allotment management plans. Base actions on resource monitoring, including data provided via partners or cooperators (e.g., Colorado Cattlemen’s and Colorado Wool Growers Associations, Colorado Department of Agriculture, and livestock grazing permittees/lessees). Other data may include BLM Land Health Assessments in compliance with the BLM Colorado Standards for Public Land Health and Guidelines for Livestock Grazing Management (BLM 1997).</p>
GRZ-MA-09	<p>Action: When developing grazing management strategies, place greater emphasis on improving rangeland health and forage quality and quantity. Include other considerations, such as water availability, vegetation potential, topography and elevation, operators’ needs and capability, and implementation costs or mitigation of resource conflicts.</p>
GRZ-MA-10	<p>Action: Allocate increases in forage (AUMs) where applicable and feasible to livestock, wildlife, land health, or a combination of these. Consider sustainability, multiple use management objectives, and other pertinent information. These increases could come from, but are not limited to, wildfire rehabilitation areas, prescribed burn areas, and vegetation treatment areas.</p>
GRZ-MA-11	<p>Action: Construct, modify, or remove range improvement projects and land treatments as appropriate to support livestock grazing management and other resource objectives.</p>
GRZ-MA-12	<p>Action: To provide for increased management options, allow for establishment of forage reserves on vacated or relinquished allotments and evaluate combining vacated or relinquished allotments with active allotments, as guided by BLM Colorado Standards for Public Land Health and Guidelines for Livestock Grazing Management (BLM 1997).</p>
GRZ-OBJ-02	<p>Objective: Manage grazing allotments to maintain desert and Rocky Mountain bighorn sheep populations, in cooperation with CPW.</p>
GRZ-MA-13	<p>Action: Until current science can mitigate risk associated with disease transmission:</p> <ul style="list-style-type: none"> • Exclude domestic goat grazing in occupied and suitable desert and Rocky Mountain bighorn sheep habitat.

	LIVESTOCK GRAZING
	<ul style="list-style-type: none"> Manage domestic sheep grazing to minimize contact between domestic sheep and desert and Rocky Mountain bighorn sheep, using currently accepted peer-reviewed modeling techniques and best available data, in accordance with BLM policy (currently Manual 1730, Management of Domestic Sheep and Goats to Sustain Wild Sheep [BLM 2016]). (Refer to Appendix G for the bighorn/domestic sheep risk of contact modeling, management criteria, and maps.) <p>The bighorn/domestic sheep risk of contact modeling (Appendix G) is the preliminary assessment for RMP analysis. At permit renewal, these assessments will be reviewed with more detailed on-the-ground data to assess the probability of interaction for each individual allotment; results will direct management for permit renewal.</p>
GRZ-MA-14	<p>Action:</p> <p>Until current science can mitigate the risk of disease transmission to bighorn sheep, prohibit conversion of cattle grazing allotments to domestic sheep/goat grazing unless effective separation results in a high confidence that there will be a low to no risk of contact with wild sheep.</p> <p>The bighorn/domestic sheep risk of contact modeling (Appendix G) is the preliminary assessment for RMP analysis. At permit renewal, these assessments will be reviewed with more detailed on-the-ground data to assess the probability of interaction for each individual allotment; results will direct management for grazing permit renewal.</p>
GRZ-MA-15	<p>Action:</p> <p>Manage domestic sheep and goat trailing to minimize contact between domestic sheep/goats and desert and Rocky Mountain bighorn sheep, in accordance with BLM Manual 1730, Management of Domestic Sheep and Goats to Sustain Wild Sheep (BLM 2016). Where allotments are predicted to have an unacceptable likelihood for disease transmission, limit trailing to 1 to 2 days.</p>
	SOLID LEASABLE MINERALS (COAL)
COA-GOAL-01	<p>GOAL:</p> <p>Provide opportunities for environmentally sound exploration and development of coal resources.</p>
COA-OBJ-01	<p>Objective:</p> <p>In areas identified as suitable for additional coal exploration and/or leasing, allow federal exploration and/or leasing while providing protective stipulations to limit impacts on other resource values.</p>
COA-MA-01	<p>Action:</p> <p>Manage 1,910 acres (including 580 acres of split-estate) in the coal resource development potential area as closed to coal leasing, in accordance with congressional mandates (Figure 6, Appendix A):</p> <ul style="list-style-type: none"> • Tabeguache Area (Public Law 103-77)¹ • Curecanti National Recreation Area (43 CFR 3400.2[a][8])² • Congressionally designated National Trails (i.e., Old Spanish National Historic Trail; 43 CFR 3400.2[a][4]; 200-meter [656 feet] buffer from center line). <p>¹A portion of the area is within the coal resource development potential area ²Not within the coal resource development potential area</p>

	SOLID LEASABLE MINERALS (COAL)
COA-MA-02	<p>Action: Manage 371,250 acres (Figure 6, Appendix A) in the coal resource development potential area as acceptable for further consideration of leasing and development.</p> <ul style="list-style-type: none"> • BLM surface/federal mineral estate: 215,050 acres • Private or state surface/federal mineral estate: 156,200 acres
COA-MA-03	<p>Action: Manage 2,500 acres in the coal resource development potential area identified in Screen 2 criteria, set forth in 43 CFR 3461.5, as unsuitable for surface mining and surface mining operations (Appendix H, Coal Screening Criteria for the Uncompahgre Planning Area; Figure 6, Appendix A):</p> <ul style="list-style-type: none"> • BLM surface/federal mineral estate: 2,170 acres • Private or state surface/federal mineral estate: 330 acres
COA-MA-04	<p>Action: Manage 44,570 acres as follows:</p> <ul style="list-style-type: none"> • BLM surface/federal mineral estate: 42,530 acres • Private or state surface/federal mineral estate: 2,040 acres <p>(Figure 6, Appendix A) in the coal resource development potential area as unacceptable for further consideration of leasing and development, in accordance with Screen 3, set forth in 43 CFR 3420.1 (Appendix H, Coal Screening Criteria for the Uncompahgre Planning Area). These areas include:</p> <ul style="list-style-type: none"> • State parks • State wildlife areas • Municipal parks • SRMAs <ul style="list-style-type: none"> ○ Dolores River Canyon ○ Dry Creek ○ Jumbo Mountain ○ North Delta ○ Ridgway Trails ○ Roubideau ○ San Miguel River ○ Spring Creek • ACECs <ul style="list-style-type: none"> ○ Adobe Badlands ○ San Miguel River • Suitable WSR segments • WSAs

SOLID LEASABLE MINERALS (COAL)	
COA-AU-01	<p>Allowable Use:</p> <p>STIPULATION CSU-48: <i>Geology Coal Mine</i>. Surface occupancy or use may be restricted due to surface or underground coal mines. Special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required. Operations proposed within the area of an approved surface or underground coal mine will be relocated outside the area to be mined or to accommodate room and pillar and long wall mining operations. This stipulation does not apply to operations that vent, pipe, or capture mine methane for miner safety or for beneficial use. (Refer to Appendix B; Figure 7, Appendix A.)</p>
COA-LN-01	<p>LEASE NOTICE LN-UFO-5: <i>Coal Areas</i>. The portions of the coal potential area where the overburden above the coal is less than 3,500 feet will be managed primarily for the exploration and development of coal resources. Oil and gas operators anticipating exploration or development operations are required to consult and coordinate their activities with the BLM Authorized Officer to first determine the status of the coal resource then what course of action is in the public's interest. Under no circumstances would the BLM approve any oil and gas operations that compromises maximum economic coal recovery or the safety of underground mining operations. Where the coal is in place but is neither licensed for exploration nor leased for mining, oil and gas operators may expect the BLM to scrutinize and adjust well placement and hydraulic fracturing activities to avoid ruining coal resources. Where the coal is either licensed for exploration or leased for mining the oil and gas, operators must consult with the affected coal operators on proposed oil and gas exploration or development. In the event that the oil and gas and coal operators are unable to agree on any proposal, the BLM Authorized Officer would intervene and use all pertinent lease terms, regulations, and policy to determine what course of action is in the public's interest. This applies even if actual exploration and mining has ceased. Where the BLM has determined the coal to be completely mined out and all licenses and leases terminated, the oil and gas operator is required to become informed about historic mine maps and mine-related drill holes. (Refer to Appendix B.)</p>
FLUID LEASABLE MINERALS (<i>Oil and Gas and Geothermal Resources</i>)	
FLD-GOAL-01	<p>GOAL: Provide opportunities to develop fluid minerals consistent with other resource goals and uses to support local and national energy needs.</p>
FLD-OBJ-01	<p>Objective: Lease federal fluid mineral and geothermal resources to facilitate economically and environmentally responsible exploration, development, and reclamation using the best available technology.</p>
FLD-MA-01	<p>Action: NO LEASING (NL): <i>BLM Surface/Federal Mineral Estate</i>. Manage 44,220 acres of the federal mineral estate underlying BLM-administered surface as closed to fluid mineral leasing and geophysical exploration:</p> <ul style="list-style-type: none"> • Tabeguache Area • WSAs <p>(Refer to Appendix B; Figure 7, Appendix A.)</p>

	FLUID LEASABLE MINERALS (Oil and Gas and Geothermal Resources)
FLD-MA-02	<p>Action: LEASING</p> <p>Manage 871,810 acres of the federal mineral estate as open to fluid mineral leasing and geophysical exploration, subject to standard lease terms and conditions (stipulations may apply) to protect existing resources:</p> <ul style="list-style-type: none"> • BLM surface/federal fluid mineral estate: 631,580 acres • Private or state surface/federal fluid mineral estate: 240,230 acres <p>(Refer to Figure 2-7, Appendix A.)</p>
FLD-AU-01	<p>Allowable Use:</p> <p>STIPULATION NSO (all NSOs): Prohibit surface occupancy on 136,080 acres of the federal mineral estate:</p> <ul style="list-style-type: none"> • BLM surface/federal fluid mineral estate: 97,830 acres • Private or state surface/federal fluid mineral estate: 38,250 acres that are open to fluid mineral leasing: • Within 400 meters (1,312 feet) of the ordinary high-water mark (bank-full stage) or within 100 meters (328 feet) of the 100-year floodplain (whichever area is greatest) on the following major rivers: Gunnison, North Fork Gunnison, San Miguel, Uncompahgre, and Dolores Rivers • Within 100 meters (328 feet) from the mapped extent of perennial, intermittent, and ephemeral streams; riparian areas, fens, and/or wetlands; and water impoundments. For streams, measure the buffer from the ordinary high-water mark (bank-full stage); for wetland features, measure the buffer from the edge of the mapped extent. • Within 305 meters (1,000 feet) on either side of a classified surface water-supply stream segment (as measured from the average high high-water mark) for a distance of 5 miles upstream of a public water supply intake classified by the State of Colorado as a “water supply,” and within a 2,640-foot (0.50-mile) buffer of all public water supplies that use a groundwater well or groundwater under the direct influence of surface water. Also prohibit directional drilling within 457 vertical meters (1,500 vertical feet) below a surface public water supply or 457 vertical meters (1,500 vertical feet) below the depth of a public water supply that use a groundwater well or groundwater under the direct influence of surface water. • Within 2,500 feet of the ordinary high-water mark of the Lower Gunnison River, below the confluence with the Uncompahgre River, along occupied federally listed fish habitat • Within 325 feet of the edge of the ordinary high water mark (bank-full stage) of occupied habitat for conservation populations (90 percent lineage green cutthroat trout) of native cutthroat trout • Within occupied habitat for federally threatened endangered and proposed wildlife and bird species, except for Canada lynx, Mexican spotted owl, and yellow-billed cuckoo • Gunnison sage-grouse breeding (lek) habitat • Gunnison sage-grouse critical habitat • Within 0.25-mile of active and inactive bald eagle nest sites or within 100 meters (328 feet) of abandoned nests (i.e., unoccupied for 5 consecutive years but with all or part of the nest remaining) • Within 0.25-mile of active and inactive golden eagle nest sites or within 100 meters (328 feet) of abandoned nests (i.e., unoccupied for 5 consecutive years but with all or part of the nest remaining)

	FLUID LEASABLE MINERALS (<i>Oil and Gas and Geothermal Resources</i>)
	<ul style="list-style-type: none"> ● Within 0.50-mile of active and inactive ferruginous hawk, American peregrine falcon, prairie falcon, and northern goshawk nest sites ● Within 0.25-mile of active and inactive nest sites of all other special status raptors and those that are not special status (except Mexican spotted owl) ● Within 0.25-mile of bald eagle winter roost sites ● Lands identified as Protected Activity Centers for Mexican spotted owl ● Within 200 meters (656 feet) of cultural resource sites allocated to Traditional Use ● Paradox Rock Art Complex ● SRMAs <ul style="list-style-type: none"> ○ Dolores River Canyon RMZs 1, 2, 3 ○ San Miguel River RMZs 1, 2, 3, 4 ● Curecanti National Recreation Area ● State parks ● State wildlife areas ● Municipal Parks ● Within 1,500 feet of a US DOI, Bureau of Reclamation dam (i.e., Ridgway, Crawford, and Paonia dams) or their appurtenant structures ● ACEC <ul style="list-style-type: none"> ○ Adobe Badlands ○ Fairview South (BLM Expansion) ○ Needle Rock ○ San Miguel River ○ Biological Soil Crust ○ Paradox Rock Art ● Suitable VSR segments classified as “wild” or “scenic” (see Table II-5 (Summary of Wild and Scenic River Study Segments)) ● US Department of Energy Uranium Mill Tailings Remedial Action Area ● Within 305 meters (1,000 feet) from building units. ● Nominated National Register District ● Plant Endangered Species Act-listed species (200 meter buffer from the edge of the mapped habitat) <p>(Refer to Appendix B; Figure 7, Appendix A.)</p>

	FLUID LEASABLE MINERALS (Oil and Gas and Geothermal Resources)
FLD-AU-02	<p>Allowable Use:</p> <p>STIPULATION CSU (all CSUs): Apply CSU restrictions on 641,750 acres of the federal mineral estate:</p> <ul style="list-style-type: none"> • BLM surface/federal fluid mineral estate: 492,920 acres • Private or state surface/federal fluid mineral estate: 148,830 acres that are open to fluid mineral leasing: • Bat roost sites and winter hibernacula • Saline/selenium soils • Potential biological soil crust • Steep slopes over 40 percent • Slopes of 30 to 39 percent • Within a distance greater than 1,000 feet but less than 2,640 feet of a classified surface water-supply stream segment (as measured from the average high water mark) for a distance of 5 miles upstream of a public water supply intake classified by the State as “water supply,” and all public water supplies that use a groundwater well or spring • Within 1,000 feet of domestic water wells • Desert and Rocky Mountain bighorn sheep summer range • Within 328 feet of BLM sensitive plant species • Yellow-billed cuckoo habitat • Canada lynx habitat • Gunnison sage-grouse breeding (lek) and critical habitat • Gunnison sage-grouse potential habitat • Within 1.0 mile of accipiter, falcon (except kestrel), buteo, and owl (except Mexican spotted owl) nest sites • Bald eagle habitat (winter concentration and communal roosts) • Mexican spotted owl suitable breeding habitat • Within 150 feet of active Gunnison and white-tailed prairie dog towns • Within 200 meters (656 feet) of active kit fox dens • Lands inventoried with identified wilderness characteristics that are managed for multiple uses, while minimizing impacts on wilderness characteristics <ul style="list-style-type: none"> o Camel Back WSA Adjacent (6,950 acres) o Dry Creek Basin (7,030 acres) o Roc Creek (4,340 acres) • SRMAs <ul style="list-style-type: none"> o Dry Creek RMZs, 1-5 o Jumbo Mountain RMZs 1 and 2 o Roubideau RMZs 1–4 o North Delta SRMA o Ridgway Trails RMZs 1 and 2

	FLUID LEASABLE MINERALS (Oil and Gas and Geothermal Resources)
	<ul style="list-style-type: none"> o Spring Creek RMZs 1, 2, and 3 • ERMA's • Geology: coal mine • Suitable WSR segments classified as "recreational" (see Table II-5 [Summary of Wild and Scenic River Study Segments]) • Within 0.5-mile of either side of the Old Spanish National Historic Trail • National Recreation Trails • Within 0.5-mile of scenic byways • Protected cultural resources <p>(Refer to Appendix B; Figure 7, Appendix A.)</p>
FLD-AU-03	<p>Allowable Use:</p> <p>STIPULATION TLs (all TLs): Prohibit surface occupancy and surface-disturbing activities on 635,430 acres of the federal mineral estate (see the specific resource section and Appendix B for dates):</p> <ul style="list-style-type: none"> • BLM surface/federal fluid mineral estate: 494,340 acres • Private or state surface/federal fluid mineral estate: 141,090 acres that are open to fluid mineral leasing: • Coldwater sport and native fish • Big game crucial winter range (severe winter range and winter concentration areas) • Big game reproduction areas (elk, pronghorn, Rocky Mountain and desert bighorn sheep, and moose calving/fawning/lambing areas) • Wild turkey winter habitat • Gunnison sage-grouse winter range habitat • Gunnison sage-grouse breeding (lek and non-lek) and critical habitat • 0.5-mile radius around active nests of bald and golden eagle, ferruginous hawk, American peregrine falcon, prairie falcon, northern goshawk, and burrowing owl • 0.25-mile radius around active nests of osprey; red-tailed, Swainson's, Cooper's, and sharp-shinned hawk; northern harrier; great horned owl; and other owls and raptors (except burrowing owl and kestrel) • Bald eagle winter roost sites • Bald eagle winter concentration areas • Mexican spotted owl suitable breeding habitat • Within 300 feet of active Gunnison and white-tailed prairie dog colonies • Within 0.25-mile of active kit fox dens <p>(Refer to Appendix B; Figure 8, Appendix A.)</p>

	FLUID LEASABLE MINERALS (Oil and Gas and Geothermal Resources)
FLD-AU-04	<p>Allowable Use:</p> <p>STIPULATION NSO-54: <i>Recreation Park</i>. Prohibit surface occupancy and use within the boundaries of:</p> <ul style="list-style-type: none"> • Curecanti National Recreation Area • State parks • State wildlife areas • Municipal parks <p>(Refer to Appendix B; Figure 7, Appendix A.)</p>
FLD-AU-05	<p>Allowable Use:</p> <p>STIPULATION NSO-55: <i>Bureau of Reclamation Dams or Appurtenant Structures</i>. Prohibit surface occupancy and use within 1,500 feet of a US DOI, Bureau of Reclamation dam (i.e., Ridgway, Crawford, and Paonia dams) or their appurtenant structures. Also, prohibit directional drilling within 1,500 vertical feet below a US DOI, Bureau of Reclamation dam or its appurtenant structures. (Directional drilling could be conducted more than 1,500 feet below these dams and structures from outside the 1,500-foot radius of the structures; refer to Appendix B; Figure 7, Appendix A.)</p>
FLD-MA-03	<p>Action:</p> <p>Require operators to meet the current BLM Gold Book standards for soil and water protection and plans for surface reclamation, plus other BMPs (Appendix C), as applicable, for all permitted fluid minerals (i.e., oil and gas and geothermal) actions.</p>
	LOCATABLE MINERALS, MINERAL MATERIALS, and NONENERGY LEASABLE MATERIALS
LOC/SAL/NEL- GOAL-01	<p>GOAL:</p> <p>Provide opportunities to develop locatable minerals, mineral materials, and nonenergy leasable minerals consistent with other resource goals and uses to support local and national energy and mineral needs.</p>
	<i>LOCATABLE MINERALS</i>
LOC-OBJ-01	<p>Objective:</p> <p>Facilitate environmentally responsible exploration and development of locatable minerals.</p>
LOC-MA-01	<p>Action:</p> <p>Maintain the following areas as withdrawn from locatable mineral entry (28,060 acres¹; Figure 10, Appendix A):</p> <ul style="list-style-type: none"> • Tabeguache Area (8,060 acres) • Cory Lode mine for bat roosting (20 acres; BLM 2008b) • US DOI, Bureau of Reclamation withdrawals (9,010 acres) • Federal Energy Regulatory Commission withdrawals (1,610 acres) • US Department of Energy lease tracts (9,620 acres; BLM 1985) <p>¹The total sum includes overlapping acres.</p>

	LOCATABLE MINERALS, MINERAL MATERIALS, and NONENERGY LEASABLE MATERIALS
LOC-MA-02	<p>Action: Recommend to the Secretary of the Interior withdrawal from mineral entry the following areas totaling 15,790 acres (Figure 10, Appendix A):</p> <ul style="list-style-type: none"> • BLM surface/federal mineral estate: 15,790 acres • Private or state surface/federal mineral estate: 0 acres • Recreational sites (100-foot buffer) • ACECs <ul style="list-style-type: none"> o Needle Rock o Biological Soil Crust o Paradox Rock Art • Suitable VWSR segments classified as “wild” (see Table II-5 [Summary of Wild and Scenic River Study Segments])
LOC-MA-03	<p>Action: Allow locatable mineral exploration and development on the remaining 853,460 acres under the General Mining Law of 1872:</p> <ul style="list-style-type: none"> • BLM surface/federal mineral estate: 633,070 acres • Private or state surface/ federal mineral estate: 220,390 acres • Require a Plan of Operations for locatable mineral development in state classified surface water supply segments • To avoid further cumulative effects within the San Miguel or Dolores Rivers, when an individual or group intends to conduct suction dredging activities, the activity will constitute casual use, as defined in 43 CFR 3809.5(1), when suction dredging is used only in the following manner: 1) Below the existing water surface, and 2) is conducted outside the period from April 1 to July 15 (for spring spawning of native cutthroat trout, rainbow trout and native warm water fish (flannemouth sucker, bluehead sucker and roundtail chub)). If suction dredging activities are proposed outside of these parameters, then the activity will not constitute casual use and the individual or group must contact the Uncompahgre Field Office a minimum of 15 calendar days before beginning activities in order to determine whether a notice or plan needs to be submitted. • The following management practices ordinarily result in no or negligible disturbance and qualify as casual use: <ol style="list-style-type: none"> 1. Conduct all activities within stream channels at least two feet away from stream banks and inter-river islands with established vegetation. 2. Do not disturb material too large to be moved by hand or hand tools. 3. Do not disturb more than two cubic yards of material per day. 4. If using an anchoring system, do not span waterways or restrict the free passage of watercraft. 5. Fill all excavations (including those within the stream channel) within 14 days of completing activities. 6. Ensure that suction dredging equipment does not exceed a 4-inch diameter intake nozzle and a 10-horsepower motor. 7. Conduct dredging activities at least 100 feet away from bridge supports.

	LOCATABLE MINERALS, MINERAL MATERIALS, and NONENERGY LEASABLE MATERIALS
	<i>MINERAL MATERIALS (SALABLE MINERALS)</i>
SAL-OBJ-01	Objective: Facilitate environmentally responsible exploration and development of mineral materials.
SAL-MA-01	Action: Close 125,780 acres of federal mineral estate to mineral materials disposal (Figure 11, Appendix A): <ul style="list-style-type: none"> • BLM surface/federal mineral estate: 121,740 acres • Private or state surface/federal mineral estate: 4,040 acres • Lands within 1,000 feet of either side of a classified surface water-supply stream segment (as measured from the average high water mark) for a distance of 5 miles upstream of a public water supply intake classified by the State as “water supply” • Lands within a 1,000-foot buffer of all public water supplies that use a groundwater well or spring • Lands within 100 feet of riparian areas • Federally threatened, endangered, and proposed plant species’ occupied habitat • SRMAs <ul style="list-style-type: none"> o Dolores River Canyon o Dry Creek RMZs 1, 2, and 4¹ o Jumbo Mountain¹ o Ridgway Trails¹ o Roubideau RMZs 1-3 o San Miguel River RMZ 2-4 o Spring Creek RMZs 1 and 2 • ACECs • Tabeguache Area • WSAs • Suitable VSR segments • Lands within 50 meters (164 feet) of congressionally designated National Trails • US Department of Energy Uranium Mill Tailings Remedial Action Area ¹ Only closed to commercial sales of mineral materials
SAL-MA-02	Action: Allow disposal of mineral materials on 770,410 acres of federal mineral estate: <ul style="list-style-type: none"> • BLM surface/federal mineral estate: 554,060 acres • Private or state surface/federal mineral estate: 216,350 acres (Refer to Figure 11, Appendix A.)
SAL-MA-03	Action: Manage 120,260 acres as a common use area for moss rock (refer to Figure 23, Appendix A).

	LOCATABLE MINERALS, MINERAL MATERIALS, and NONENERGY LEASABLE MATERIALS
	<i>NONENERGY SOLID LEASABLE MINERALS (e.g., sodium and potassium)</i>
NEL-Obj-01	Objective: Facilitate environmentally responsible exploration and development of nonenergy solid leasable minerals.
NEL-MA-01	Action: Close 167,330 acres in the following areas to nonenergy leasable mineral exploration and/or development (Figure 12, Appendix A): <ul style="list-style-type: none"> • BLM surface/federal mineral estate: 163,300 acres • Private or state surface/federal mineral estate: 4,030 acres • Tabeguache Area • WSAs <ul style="list-style-type: none"> o SRMAs o ACECs o Suitable WSR segments (see Table II-5 [Summary of Wild and Scenic River Study Segments]) o Within 1,000 feet on either side of a classified surface water-supply stream segment (as measured from the average high-water mark) for a distance of 5 miles upstream of a public water supply intake classified by the State as a “water supply.” o Within 2,640 feet (0.50-mile) buffer of all public water supplies that use a groundwater well and groundwater under the direct influence of surface water.
NEL-MA-02	Action: Manage 728,860 acres as open for consideration of nonenergy solid leasable mineral exploration and/or development, subject to stipulations in Appendix B: <ul style="list-style-type: none"> • BLM surface/federal mineral estate: 512,500 acres • Private or state surface/federal mineral estate: 216,360 acres
	RECREATION AND VISITOR SERVICES
REC-GOAL-01	GOAL: Produce a diversity of quality recreational opportunities that support outdoor-oriented lifestyles and add to participants’ quality of life, enhance the quality of local communities, and foster protection of natural and cultural resources.
REC-Obj-01	Objective: Provide quality recreational opportunities and increase awareness, understanding, and a sense of stewardship in recreational users so their conduct safeguards cultural and natural resources as defined by Colorado Standards for Public Land Health and area-specific (e.g., ACECs and WSRs) objectives. Increase collaboration with community partners to maintain appropriate activity-based recreation opportunities in community growth areas (BLM-administered lands adjacent to, between, and surrounding communities; also referred to as wildland-urban interface areas).

	RECREATION AND VISITOR SERVICES
REC-MA-01	<p>Action: Close the following areas to dispersed camping:</p> <ul style="list-style-type: none"> • SRMAs <ul style="list-style-type: none"> o San Miguel River RMZs 1, 3, and 4 o Dolores River Canyon RMZ 3 • Within 200 meters (656 feet) of Scenic Byways • ACECs <ul style="list-style-type: none"> o Paradox Rock Art
REC-MA-02	<p>Action: Close the following areas to overnight use:</p> <ul style="list-style-type: none"> • San Miguel Recreation Sites: Upper Beaver, Deep Creek, and Specie Creek • SRMAs <ul style="list-style-type: none"> o Dry Creek RMZ 4 o Jumbo Mountain RMZs 1 and 2 o Ridgway Trails o Spring Creek RMZ 1 • ACECs <ul style="list-style-type: none"> o Biological Soil Crust ACEC o Fairview South (BLM Expansion) ACEC o Needle Rock ACEC
REC-MA-03	<p>Action: Provide new and maintain existing facilities where needed to meet management objectives.</p>
REC-MA-04	<p>Action: Allow casual use mining.</p>
REC-MA-05	<p>Action: Recommend to the Secretary of the Interior to withdraw from locatable mineral entry all developed recreational sites plus a 100-foot buffer.</p>
REC-OBJ-02	<p>Objective: Ensure that visitors are not exposed to unhealthy or unsafe human-created conditions, and achieve a minimum level of conflict between recreation participants and between recreation and other resource uses.</p>
REC-MA-06	<p>Action: Issue special recreation permits (SRPs) and competitive events as a discretionary action unless otherwise restricted. Issue SRPs for a wide variety of uses that are consistent with resource/program objectives and within budgetary/workload constraints. Prohibit vending permits outside of special events on BLM-administered lands. Apply cost-recovery procedures for issuing SRPs, where appropriate.</p>

	RECREATION AND VISITOR SERVICES
REC-MA-07	<p>Action: Unless otherwise restricted through other RMP actions, issue SRPs as a discretionary action to manage commercial, competitive, vending, special area use, organized groups, and event permits under current policies and BLM Handbook H-2931-I, Recreation Permit Administration.</p> <p>Prohibit all competitive events in the following special recreation management areas (SRMAs):</p> <ul style="list-style-type: none"> • Dolores River Canyon Zone 1 and 2 • San Miguel River RMZs 2 <p>Prohibit motorized competitive events (at the discretion of the BLM Authorized Officer, and allow for nonmotorized competitive events if compatible with experiences and benefits for SRMA) in the following SRMAs:</p> <ul style="list-style-type: none"> • Ridgway Trails RMZ 1 and 2 • Roubideau RMZs 1, 2, and 3 • San Miguel River RMZs 1, 3, and 4 • Spring Creek RMZ 1
REC-MA-08	<p>Action: Unless otherwise restricted or allowed through other RMP actions, require the organizer to obtain organized group permits for groups with 16 or more people in a VSA, wilderness, or Tabeguache Area, and groups with 75 or more people in all other areas. An additional restriction for SRMAs is:</p> <ul style="list-style-type: none"> • Dolores River: Group size limit is 16 people, including guides.
REC-MA-09	<p>Action: Allow hunting in accordance with CPW regulations.</p>
REC-MA-10	<p>Action: <i>Target Shooting.</i> The purpose of the limits and closures is for visitor and public safety and to protect facilities from damage.</p> <p>Limit target shooting within the following areas:</p> <ul style="list-style-type: none"> • If within the range of the firearm, do not target shoot toward or in the direction of any developed site or facility (e.g., recreation site, communication site, and power substation). • Do not target shoot towards an intended target that is located across a designated route (roads and designated trails). <p>Prohibit (close) target shooting in the following areas: (310 acres) (Figure 24, Appendix A):</p> <ul style="list-style-type: none"> • Do not shoot within 150 yards of any developed recreation site.
REC-MA-11	<p>Action: The discharge of firearms for recreational target shooting is permitted on BLM-administered lands, considering areas with firearm use restrictions or closures, provided that the firearm is discharged toward a proper backstop sufficient to stop the</p>

	RECREATION AND VISITOR SERVICES
	projectile's forward progress beyond the intended target. Targets shall be constructed of wood, cardboard, and paper or similar unbreakable materials. Discharge of firearms at any appliance, television, object containing glass, or other target material that can shatter and cause a public safety hazard is prohibited. To reduce the probability of igniting a fire, avoid shooting any hard objects or against backstops surrounded by dry grass, especially with steel or copper ammunition. All shooting materials are considered litter and must be removed and properly disposed of. When fire danger is high, the BLM may issue public use closures and prevention measures that must be followed.
	<i>PUBLIC LANDS NOT DESIGNATED AS RECREATION MANAGEMENT AREAS</i>
REC-OBJ-03	Objective: Provide for a diversity of quality, sustainable recreational opportunities consistent with other resources and uses, and contribute to local economies.
REC-MA-12	Action: Manage 488,880 acres as public lands not designated as recreation management areas (i.e., ERMA's or SRMA's; Figure 13, Appendix A).
	<i>SPECIAL RECREATION MANAGEMENT AREAS (SRMA's; Refer to Appendix E for details on settings and complete list of actions)</i>
REC-SRMA-OBJ-01	Objective: Manage administratively designated areas (SRMA's) to provide for targeted recreation, experiences, and settings for personal, community, environmental, and economic activities.
REC-SRMA-MA-01	Action: Manage 122,130 acres as SRMA's to provide targeted recreation opportunities, experiences, and benefits listed below (Figure 13, Appendix A; also refer to Appendix E, Description of Recreation Management Areas, for settings and actions of each SRMA): <ul style="list-style-type: none"> • Dolores River Canyon 13,410 acres) • Dry Creek (42,180 acres) • Jumbo Mountain (1,600 acres) • Ridgway Trails (1,130 acres) • Roubideau (25,350 acres) • San Miguel River (29,530 acres) • Spring Creek (4,980 acres) • North Delta (3,950 acres) Refer to Appendix E, Description of Recreation Management Areas.
REC-SRMA-MA-02	Action: Within SRMA's, allow activities that benefit biological values (including fire) if consistent with SRMA objectives in the long term.

	RECREATION AND VISITOR SERVICES
	<i>Dolores River Canyon SRMA (Refer to Appendix E for prescribed setting character conditions)</i>
REC-SRMA- OBJ-02	<p>Zone 1 Objective: <i>Within 5 to 7 years of RMP approval, the mean (average) response is at least a “moderate” (i.e., 3.0 on a probability scale where 1 = not at all, 2 = somewhat, 3 = moderate, 4 = complete/total realization) attainment of the following experiences and benefits. The RMZ would provide opportunities primarily for visitors to engage in nonmotorized water-based activity, challenging whitewater boating, and similar activities in a primitive backcountry setting.</i></p> <p><u>Target the following Activities</u> – Whitewater rafting, boating, fishing, and camping</p> <p><u>Experiences</u> – Opportunities to develop skills and abilities, enjoy strenuous outdoor physical exercise, and gain a greater sense of self-confidence; these opportunities help produce desired outcomes such as improved health and self-confidence, stronger family connections, and stewardship of private and public lands</p> <p><u>Benefits</u> – Personal: Improved skills and abilities, greater competence, greater confidence, improved cardiovascular and muscle strength, improved capacity for outdoor physical activity, improved understanding of our community’s dependence and impact on public lands and adjoining private lands</p> <p><u>Community/Social:</u> Enhanced outdoor-oriented lifestyle, bonding with friends and family, opportunity to contribute to stewardship efforts that benefit society</p> <p>Environmental: Improved stewardship of public and privately owned lands</p> <p><u>Economic:</u> Reduced health maintenance costs, economic activity from visitor purchases</p>
REC-SRMA- OBJ-03	<p>Zone 2 Objective: <i>Within 5 to 7 years of RMP approval, the mean (average) response is at least a “moderate” (i.e., 3.0 on a probability scale where 1 = not at all, 2 = somewhat, 3 = moderate, 4 = complete/total realization) attainment of the following experiences and benefits. The RMZ would provide opportunities to experience spectacular natural scenery, camping, and other quiet use activities in a Middle to Front Country setting.</i></p> <p><u>Target the following Activities</u> – Boating, camping, and educational programs</p> <p><u>Experiences</u> – Opportunities to enjoy high-quality canyon landscapes, learning more about things here; greater sensitivity to and awareness of natural beauty, and enjoy exploring</p> <p><u>Benefits</u> – Restored mind from unwanted stress; improved skills for outdoor enjoyment; greater awareness of outdoor ethics (e.g., “leave no trace”); improved appreciation of nature’s splendor; greater retention of distinctive natural landscape features; and increased awareness and protection of natural landscapes</p>
REC-SRMA- OBJ-04	<p>Zone 3 Objective: <i>Within 5 to 7 years of RMP approval, the mean (average) response is at least a “moderate” (i.e., 3.0 on a probability scale where 1 = not at all, 2 = somewhat, 3 = moderate, 4 = complete/total realization) attainment of the following experiences and benefits. The RMZ would provide opportunities to experience spectacular natural scenery, camping, and other quiet use activities in a Middle to Front Country setting.</i></p> <p><u>Target the following Activities</u> – Camping and educational programs</p>

	RECREATION AND VISITOR SERVICES
	<p><u>Experiences</u> – Opportunities to enjoy high-quality canyon landscapes, learning more about things here; these opportunities help produce desired outcomes such as greater sensitivity to and awareness of natural beauty and enjoying exploring</p> <p><u>Benefits</u> – Restored mind from unwanted stress; improved skills for outdoor enjoyment; greater awareness of outdoor ethics (e.g., “leave no trace”); improved appreciation of nature’s splendor; greater retention of distinctive natural landscape features; and increased awareness and protection of natural landscapes</p>
	<i>Dry Creek SRMA (Refer to Appendix E for prescribed setting character conditions)</i>
REC–SRMA- OBJ-05	<p>Zone 1 Objective: <i>Through the life of the plan, manage Zone 1 for visitors to engage in motorized and mechanized technical riding activities so that they report an average 4.0 realization of the following targeted experiences and benefit outcomes (4.0 on a probability scale, where 1=not at all realized to 5=totally realized):</i></p> <p><u>Target the following Activities</u> – Rock Crawling and Trials Bike Riding</p> <p><u>Experiences</u> – Developing skills and abilities; being able to tell others about the trip; enjoying risk-taking adventure; talking to others about equipment; relishing group affiliation and togetherness; enjoying meeting new people with similar interests; and enjoying easy access to natural landscapes</p> <p><u>Benefits</u> – Restored mind from unwanted stress; improved skills for outdoor enjoyment; greater understanding of the importance of recreation and tourism to the community; a more outdoor-oriented lifestyle; greater sense of adventure; improved understanding of the community’s dependence and impact on public lands; enhanced quality of life; positive contributions to local/regional economic stability; and increased local tourism revenue</p>
REC–SRMA- OBJ-06	<p>Zone 2 Objective: <i>Through the life of the plan, manage Zone 2 for visitors to engage in rock climbing and observing natural landscapes activities so that they report an average 4.0 realization of the following targeted experiences and benefit outcomes (4.0 on a probability scale, where 1=not at all realized to 5=totally realized):</i></p> <p><u>Target the following Activities</u> – Rock climbing for beginners, overlook viewing, and picnicking</p> <p><u>Experiences</u> – Developing skills and abilities; gaining a greater sense of self-confidence; enjoying risk-taking adventure; relishing group affiliation and togetherness; enjoying easy access to natural landscapes; enjoying getting some needed physical exercise; and enjoying access to close-to-home outdoor amenities.</p> <p><u>Benefits</u> – Improved mental well-being; improved skills for outdoor enjoyment; improved outdoor knowledge and self-confidence; a more outdoor-oriented lifestyle; greater sense of adventure; improved appreciation of nature’s splendor; improved understanding of the community’s dependence and impact on public lands; enhanced quality of life; and improved local economic stability</p>

	RECREATION AND VISITOR SERVICES
REC-SRMA- OBJ-07	<p>Zone 3 Objective: <i>Through the life of the plan, manage Zone 3 for visitors to engage in quality multi-use trail riding opportunities so that they report an average 4.0 realization of the following targeted experiences and benefit outcomes (4.0 on a probability scale, where 1=not at all realized to 5=totally realized):</i></p> <p><u>Target the following Activities</u> – Off-highway vehicle (OHV) use, mountain biking, hiking, and horseback riding</p> <p><u>Experiences</u> – Enjoying exploring; enjoying access to close-to-home outdoor amenities; enjoying being able to frequently participate in desired activities and settings; just knowing this attraction is here; and encouraging visitors to help safeguard lifestyle and quality of life</p> <p><u>Benefits</u> – Improved mental well-being; improved skills for outdoor enjoyment; a more outdoor-oriented lifestyle; improved appreciation of nature’s splendor; improved understanding of the community’s dependence and impact on public lands; improved physical fitness and health maintenance; enhanced quality of life; improved local economic stability; positive contributions to local/regional economic stability; and increased awareness and protection of natural landscapes</p>
REC-SRMA- OBJ-08	<p>Zone 4 Objective: <i>Through the life of the plan, manage Zone 4 for visitors of all abilities to engage in close to town nonmotorized activities, including natural surfaced, disabled accessible trails so that they report an average 4.0 realization of the following targeted experiences and benefit outcomes (4.0 on a probability scale, where 1=not at all realized to 5=totally realized):</i></p> <p><u>Target the following Activities</u> – Mountain biking, running, hiking, horseback riding, and accessible trails through the use of current and emerging adaptive equipment</p> <p><u>Experiences</u> – Developing skills and abilities; enjoying going exploring; learning more about things here; enjoying easy access to natural landscapes; enjoying getting some needed physical exercise; enjoying being able to frequently participate in desired activities and settings; escaping everyday responsibilities for a while; and increasing the quality of life</p> <p><u>Benefits</u> – Improved mental well-being; improved skills for outdoor enjoyment, a more outdoor-oriented lifestyle, greater opportunity for people with different skills to exercise in the same place, enhanced quality of life, and improved economic stability</p>

	RECREATION AND VISITOR SERVICES
REC-SRMA- OBJ-09	<p>Zone 5 Objective: <i>Through the life of the plan, manage Zone 5 for visitors to engage in hunting and canyon viewing in a natural appearing setting through minimal quality trail activities so that they report an average 4.0 realization of the following targeted experiences and benefit outcomes (4.0 on a probability scale, where 1=not at all realized to 5=totally realized):</i></p> <p><u>Target the following Activities</u> – Hunting and scenic viewing</p> <p><u>Experiences</u> – Enjoying going exploring; developing skills and abilities; enjoying easy access to natural landscapes; enjoying some needed physical exercise; enjoying being able to frequently participate in desired activities in desired settings; releasing or reducing some built-up mental tensions</p> <p><u>Benefits</u> – Improved mental well-being; improved skills for outdoor enjoyment; improved outdoor knowledge and self-confidence; a more outdoor-oriented lifestyle; improved appreciation of nature’s splendor; greater respect for private property and local lifestyles; improved physical fitness and health maintenance; enhanced quality of life; improved local economic stability; increased desirability as a place to live or retire; and increased awareness and protection of natural landscapes</p>
	<i>Jumbo Mountain SRMA (Refer to Appendix E for prescribed setting character conditions)</i>
REC-SRMA- OBJ-10	<p>Zone 1 Objective: <i>Through the life of the plan, manage Zone 1 for visitors to engage in day-use stacked loop family friendly (easy) single track trail activities including challenging natural surfaced disabled accessible trails so that they report an average 4.0 realization of the following targeted experiences and benefit outcomes (4.0 on a probability scale, where 1=not at all realized to 5=totally realized):</i></p> <p><u>Target the following Activities</u> – Day use mountain biking, running, hiking, and accessible trails through the use of current and emerging adaptive equipment and educational programs</p> <p><u>Experiences</u> – Developing skills and abilities; learning more about things here; enjoying access to hands-on environmental learning; enjoying easy access to natural landscapes; enjoying getting some needed physical exercise; enjoying access to close-to-home outdoor amenities; enjoying being able to frequently participate in desired activities and settings; releasing or reducing some built-up mental tensions; escaping everyday responsibilities for a while; and increasing/maintaining the quality of life here</p> <p><u>Benefits</u> – Restored mind from unwanted stress; improved mental well-being; improved skills for outdoor enjoyment; improved outdoor knowledge and self-confidence; greater understanding of the importance of recreation and tourism to the community; a more outdoor-oriented lifestyle; improved understanding of the community’s dependence and impact on public lands; greater respect for private property and local lifestyles; improved physical fitness and health maintenance; improved capacity for outdoor physical activity; greater opportunity for people with different skills to exercise in the same place; enhanced quality of life; improved local economic stability; positive contributions to local/regional economic stability; and increased desirability as a place to live or retire</p>

	RECREATION AND VISITOR SERVICES
REC-SRMA- OBJ-11	<p>Zone 2 Objective: <i>Through the life of the plan, manage Zone 2 for visitors to engage in day-use stacked loop technical (intermediate to difficult) single track trail activities so that they report an average 4.0 realization of the following targeted experiences and benefit outcomes (4.0 on a probability scale, where 1=not at all realized to 5=totally realized):</i></p> <p><u>Target the following Activities</u> – Day-use mountain biking, running, and hiking</p> <p><u>Experiences</u> – Developing skills and abilities; enjoying getting some needed physical exercise; enjoying being able to frequently participate in desired activities and settings; releasing or reducing some built-up mental tensions; escaping everyday responsibilities for a while; and increasing/maintaining the quality of life here</p> <p><u>Benefits</u> – Restored mind from unwanted stress; improved mental well-being; improved skills for outdoor enjoyment; improved outdoor knowledge and self-confidence; improved outdoor recreation skills; greater understanding of the importance of recreation and tourism to the community; a more outdoor-oriented lifestyle; improved physical fitness and health maintenance; improved capacity for outdoor physical activity; enhanced lifestyle; improved local economic stability; and positive contributions to local/regional economic stability</p>
	<i>North Delta SRMA (Refer to Appendix E for prescribed setting character conditions)</i>
REC-SRMA- OBJ-12	<p>Zone 1 Objective: <i>Through the life of the plan, manage North Delta SRMA for visitors to engage in motorized activities so that they report an average 4.0 realization of the following targeted experiences and benefit outcomes (4.0 on a probability scale, where 1=not at all realized to 5=totally realized):</i></p> <p><u>Target the following Activities</u> – OHV use and educational trainings and programs</p> <p><u>Experiences</u> – Talking to others about equipment; relishing group affiliation and togetherness; enjoying learning ethical and proper riding skills; enjoying access to close-to-home outdoor amenities; enjoying being able to frequently participate in desired activities and settings; escaping everyday responsibilities for a while; just knowing this attraction is here; safeguarding the lifestyle and quality of life</p> <p><u>Benefits</u> – Restored mind from unwanted stress; improved skills for outdoor enjoyment; greater understanding of the importance of recreation and tourism to the community; a more outdoor-oriented lifestyle; greater opportunity for people with different skills to enjoy the same place; enhanced quality of life; improved local economic stability; positive contributions to local/regional economic stability; greater community ownership and stewardship of recreation and natural resources</p>

	RECREATION AND VISITOR SERVICES
	<i>Ridgway Trails SRMA (Refer to Appendix E for prescribed setting character conditions)</i>
REC-SRMA- OBJ-13	<p>Zone 1 Objective: <i>Through the life of the plan, manage Zone 1 for visitors of all abilities to engage in day use nonmotorized and educational activities, including disabled accessible trails, so that they report an average 4.0 realization of the following targeted experiences and benefit outcomes (4.0 on a probability scale, where 1=not at all realized to 5=totally realized):</i></p> <p><u>Target the following Activities</u> – Day use outdoor living classroom, biking, accessible trails, running, and hiking</p> <p><u>Experiences</u> – Enjoying meeting new people with similar interests; learning more about things here; enjoying access to hands-on environmental learning; enjoying easy access to natural landscapes; enjoying some needed physical exercise; enjoying access to close-to-home outdoor amenities; enjoying being able to frequently participate in desired activities in desired settings; and releasing or reducing some built-up mental tensions</p> <p><u>Benefits</u> – Improved mental well-being; enhanced awareness and understanding of nature; greater environmental awareness and sensitivity; a more outdoor-oriented lifestyle; greater cultivation of a natural resource stewardship ethic; improved physical fitness and health maintenance; enhanced quality of life; improved local economic stability; more positive contributions to local/regional economy; and increased local tourism revenue</p>
REC-SRMA- OBJ-14	<p>Zone 2 Objective: <i>Through the life of the plan, manage Zone 2 for visitors to engage in day use, stacked loop, single-track trail activities, including challenging, natural surfaced, disabled accessible trails so that they report an average 4.0 realization of the following targeted experiences and benefit outcomes (4.0 on a probability scale, where 1=not at all realized to 5=totally realized):</i></p> <p><u>Target the following Activities</u> – Day use mountain biking, running, and hiking</p> <p><u>Experiences</u> – Developing skills and abilities; enjoying easy access to natural landscapes; enjoying some needed physical exercise; enjoying being able to frequently participate in desired activities in desired settings; increasing/maintaining quality of life; releasing or reducing some built-up mental tensions</p> <p><u>Benefits</u> – Improved mental well-being; improved skills for outdoor enjoyment; a more outdoor-oriented lifestyle; improved understanding of the community's dependence and impact on public lands; improved physical fitness and health maintenance; enhanced quality of life; improved local economic stability; more positive contributions to local/regional economy; increased local tourism revenue; increased desirability as a place to live or retire; greater community ownership and stewardship of park, recreation, and natural resources</p>

	RECREATION AND VISITOR SERVICES
	<i>Roubideau SRMA (Refer to Appendix E for prescribed setting character conditions)</i>
REC-SRMA- OBJ-15	<p>Zone 1 Objective: <i>Through the life of the plan, manage Zone 1 for visitors to engage in nonmotorized/ nonmechanized backcountry activities so that they report an average 4.0 realization of the following targeted experiences and benefit outcomes (4.0 on a probability scale, where 1=not at all realized to 5=totally realized):</i></p> <p><u>Target the following Activities</u> – Backcountry educational programs, backcountry hiking/ backpacking, hunting, and horseback riding</p> <p><u>Experiences</u> – Gaining a greater sense of self-confidence; enjoying going exploring; learning more about things here; savoring the total sensory—sight, sound, and smell—experience of a natural landscape; enjoying getting some needed physical exercise; feeling good about solitude; enjoying an escape from crowds of people; increasing/ maintaining quality of life; knowing that things are not going to change too much; and enjoy being able to participate in traditional use opportunities in desired settings</p> <p><u>Benefits</u> – Improved mental well-being; improved skills for outdoor enjoyment; improved outdoor knowledge and self-confidence; enhanced awareness and understanding of nature; a more outdoor-oriented lifestyle; greater sense of adventure; improved appreciation of nature’s splendor; improved physical fitness and health maintenance; enhanced quality of life; greater retention of distinctive natural landscape features; reduced wildlife harassment by recreation users; reduced wildlife disturbance from recreation facility development; increased awareness and protection of natural landscapes; and greater protection of fish, wildlife, and plant habitat from growth, development, and public use impacts</p>
REC-SRMA- OBJ-16	<p>Zone 2 Objective: <i>Through the life of the plan, manage Zone 2 for visitors to engage in nonmotorized/ nonmechanized canyon viewing activities so that they report an average 4.0 realization of the following targeted experiences and benefit outcomes (4.0 on a probability scale, where 1=not at all realized to 5=totally realized):</i></p> <p><u>Target the following Activities</u> – Horseback riding, day use hiking, and overnight backpacking</p> <p><u>Experiences</u> – Gaining a greater sense of self-confidence; developing skills and abilities; enjoying exploring; savoring the total sensory—sight, sound, and smell—experience of a natural landscape; enjoying getting some needed physical exercise; feeling good about solitude; enjoying an escape from crowds of people; and enjoy being able to participate in traditional use opportunities in desired settings</p> <p><u>Benefits</u> – Improved mental well-being; improved skills for outdoor enjoyment; improved outdoor knowledge and self-confidence; a more outdoor-oriented lifestyle; greater sense of adventure; improved appreciation of nature’s splendor; improved physical fitness and health maintenance; enhanced quality of life; greater retention of distinctive natural landscape features; reduced wildlife harassment by recreation users; reduced wildlife disturbance from recreation facility development; greater protection of fish, wildlife, and plant habitat from growth, development, and public use impacts</p>

	RECREATION AND VISITOR SERVICES
REC-SRMA- OBJ-17	<p>Zone 3 Objective: <i>Through the life of the plan, manage Zone 3 for visitors to engage in quiet use nonmotorized recreation, with the exception of a few existing motorized trails, so that they report an average 4.0 realization of the following targeted experiences and benefit outcomes (4.0 on a probability scale, where 1=not at all realized to 5=totally realized):</i></p> <p><u>Target the following Activities</u> – Hunting, scenic viewing, and horseback riding</p> <p><u>Experiences</u> –Enjoying exploring; developing skills and abilities, and enjoy being able to participate in traditional use opportunities in desired settings</p> <p><u>Benefits</u> – Improved mental well-being; improved skills for outdoor enjoyment; a more outdoor-oriented lifestyle; improved appreciation of nature’s splendor; enhanced quality of life; more positive contributions to local/regional economy</p>
REC-SRMA- OBJ-18	<p>Zone 4 Objective: <i>Through the life of the plan, manage Zone 4 for visitors to engage in canyon viewing activities so that they report an average 4.0 realization of the following targeted experiences and benefit outcomes (4.0 on a probability scale, where 1=not at all realized to 5=totally realized):</i></p> <p><u>Target the following Activities</u> – Motorized and nonmotorized scenic viewing, camping, and environmental learning</p> <p><u>Experiences</u> – Enjoying exploring; enjoying some needed physical rest; learning more about things here; enjoying easy access to natural landscapes; encouraging visitors to help safeguard the lifestyle and quality of life; and enjoying access to environmental learning</p> <p><u>Benefits</u> – Improved mental well-being; improved outdoor knowledge and self-confidence; greater sensitivity to and awareness of outdoor aesthetics; enhanced awareness and understanding of nature; improved appreciation of nature’s splendor; improved understanding of the community’s dependence and impact on public lands; enhanced quality of life; more positive contributions to local/regional economy; increased desirability as a place to live or retire; greater retention of distinctive natural landscape features; increased awareness and protection of natural landscapes</p>

	RECREATION AND VISITOR SERVICES
	<i>San Miguel River SRMA (Refer to Appendix E for prescribed setting character conditions)</i>
REC–SRMA- OBJ-19	<p>Zone 1 Objective: <i>Through the life of the plan, manage Zone 1 for visitors to engage in motorized and nonmotorized scenic touring and nonmotorized water-based activities so that they report an average 4.0 realization of the following targeted experiences and benefit outcomes (4.0 on a probability scale, where 1=not at all realized to 5=totally realized):</i></p> <p><u>Target the following Activities</u> – Rafting, kayaking, fishing, hiking, mountain biking, camping, nonmotorized trail use, educational programs, and scenic driving</p> <p><u>Experiences</u> – Developing skills and abilities; seeking challenge and adventure; socializing with friends and family; learning more about things here; enjoying easy access to natural landscapes; enjoying outdoor exercise; enjoying being able to frequently participate in desired activities in desired settings; and releasing or reducing some built-up mental tensions</p> <p><u>Benefits</u> – Improved mental well-being; improved outdoor knowledge and self-confidence; improved outdoor recreation skills; greater sensitivity to and awareness of outdoor aesthetics; greater environmental awareness and sensitivity; a more outdoor-oriented lifestyle; greater sense of adventure; greater personal enrichment through involvement with other people; greater cultivation of natural resource stewardship ethic; increased appreciation of area’s cultural history; improved understanding of the community’s dependence and impact on public lands; improved physical fitness and health maintenance; greater opportunity for people with different skills to exercise in the same place; enhanced lifestyle; enlarged sense of community dependency on public lands; improved local economic stability; more positive contributions to local/regional economy; increased awareness and protection of natural landscapes; improved respect for privately owned lands; and greater community ownership and stewardship of park, recreation, and natural resources</p>
REC–SRMA- OBJ-20	<p>Zone 2 Objective: <i>Through the life of the plan, manage Zone 2 for visitors to engage in nonmotorized/ nonmechanized canyon exploring, with the exception of a few designated motorized routes, so that they report an average 4.0 realization of the following targeted experiences and benefit outcomes (4.0 on a probability scale, where 1=not at all realized to 5=totally realized):</i></p> <p><u>Target the following Activities</u> – Backcountry hunting, hiking, and backpacking, and fishing</p> <p><u>Experiences</u> – Enjoying exploring; savoring the total sensory—sight, sound, and smell—experience of a natural landscape; enjoying getting some needed physical exercise; feeling good about solitude</p> <p><u>Benefits</u> – Improved physical fitness and health maintenance; improved outdoor knowledge and self-confidence; greater sense of adventure; improved appreciation of nature’s splendor; greater retention of distinctive natural landscape features; greater protection of fish, wildlife, and plant habitat from growth, development, and public use impacts; increased awareness and protection of natural landscapes; and restored mind from unwanted stress</p>

	RECREATION AND VISITOR SERVICES
REC-SRMA- OBJ-21	<p>Zone 3 Objective: <i>Through the life of the plan, manage Zone 3 for visitors to engage in nonmotorized/ nonmechanized remote river canyon viewing activities so that they report an average 4.0 realization of the following targeted experiences and benefit outcomes (4.0 on a probability scale, where 1=not at all realized to 5=totally realized):</i></p> <p><u>Target the following Activities</u> – Hiking, backpacking, rafting, kayaking, fishing, and camping</p> <p><u>Experiences</u> – Developing skills and abilities; enjoying going exploring; enjoying getting some needed physical exercise; escaping everyday responsibilities for a while; just knowing this attraction is here; knowing that things are not going to change too much</p> <p><u>Benefits</u> – Improved mental well-being; improved skills for outdoor enjoyment; improved outdoor knowledge and self-confidence; greater sense of adventure; improved appreciation of nature’s splendor; improved physical fitness and health maintenance; greater retention of distinctive natural landscape features; and increased awareness and protection of natural landscapes</p>
REC-SRMA- OBJ-22	<p>Zone 4 Objective: <i>Through the life of the plan, manage Zone 4 for visitors to engage in scenic viewing through camping and nonmotorized water-based activities so that they report an average 4.0 realization of the following targeted experiences and benefit outcomes (4.0 on a probability scale, where 1=not at all realized to 5=totally realized):</i></p> <p><u>Target the following Activities</u> – Rafting, kayaking, fishing, camping, and educational programs</p> <p><u>Experiences</u> – Developing skills and abilities; relishing group affiliation and togetherness; learning more about things here; enjoying easy access to natural landscapes; enjoying getting some needed physical exercise; enjoying some needed physical rest</p> <p><u>Benefits</u> – Improved mental well-being; improved skills for outdoor enjoyment; improved outdoor knowledge and self-confidence; a more outdoor-oriented lifestyle; greater respect for private property and local lifestyles; improved physical fitness and health maintenance; increased awareness and protection of natural landscapes; enhanced awareness and understanding of nature; and more positive contributions to local/regional economy</p>

	RECREATION AND VISITOR SERVICES
	<i>Spring Creek SRMA (Refer to Appendix E for prescribed setting character conditions)</i>
REC-SRMA- OBJ-23	<p>Zone 1 Objective: <i>Through the life of the plan, manage Zone 1 for visitors to engage in day use, nonmotorized, single-track, stacked loop, trail activities and accessible trails through the use of current and emerging adaptive equipment so that they report an average 4.0 realization of the following targeted experiences and benefit outcomes (4.0 on a probability scale, where 1=not at all realized to 5=totally realized):</i></p> <p><u>Target the following Activities</u> – Day use mountain biking, running, hiking, and educational programs</p> <p><u>Experiences</u> – Developing skills and abilities; enjoying easy access to natural landscapes; enjoying learning outdoor social skills; enjoying some needed physical exercise; and enjoying being able to frequently participate in desired activities in desired settings</p> <p><u>Benefits</u> – Improved mental well-being; improved skills for outdoor enjoyment; improved outdoor knowledge and self-confidence; greater sensitivity to and respect for other visitors; enlarged understanding of the responsibility to help care for this community and keep it clean; a more outdoor-oriented lifestyle; greater respect for private property and local lifestyles; improved understanding of the community's dependence and impact on public lands; improved physical fitness and health maintenance; enhanced quality of life; increased desirability as a place to live or retire; greater community ownership and stewardship of park, recreation, and natural resources</p>
REC-SRMA- OBJ-24	<p>Zone 2 Objective: <i>Through the life of the plan, manage Zone 2 for visitors to engage in canyon viewing through quality single-track trail activities so that they report an average 4.0 realization of the following targeted experiences and benefit outcomes (4.0 on a probability scale, where 1=not at all realized to 5=totally realized):</i></p> <p><u>Target the following Activities</u> – Motorcycle riding, mountain biking, hiking, and horseback riding</p> <p><u>Experiences</u> – Enjoying going exploring; developing skills and abilities; enjoying easy access to natural landscapes; enjoying some needed physical exercise; enjoying being able to frequently participate in desired activities in desired settings; releasing or reducing some built-up mental tensions</p> <p><u>Benefits</u> – Improved mental well-being; improved skills for outdoor enjoyment; improved outdoor knowledge and self-confidence; a more outdoor-oriented lifestyle; improved appreciation of nature's splendor; greater respect for private property and local lifestyles; improved physical fitness and health maintenance; enhanced quality of life; improved local economic stability; increased desirability as a place to live or retire; and increased awareness and protection of natural landscapes</p>

	RECREATION AND VISITOR SERVICES
REC-SRMA- OBJ-25	<p>Zone 3 Objective: <i>Through the life of the plan, manage Zone 3 for visitors to engage in camping and scenic viewing activities so that they report an average 4.0 realization of the following targeted experiences and benefit outcomes (4.0 on a probability scale, where 1=not at all realized to 5=totally realized):</i></p> <p><u>Target the following Activities</u> – Scenic viewing and camping</p> <p><u>Experiences</u> – Enjoying access to close-to-home outdoor amenities; enjoying some needed physical rest; increasing or maintaining quality of life</p> <p><u>Benefits</u> – Improved mental well-being; a more outdoor-oriented lifestyle; improved appreciation of nature’s splendor; enhanced quality of life; improved local economic stability; increased desirability as a place to live or retire; greater community ownership and stewardship of park, recreation, and natural resources; and increased awareness and protection of natural landscapes</p>
REC-SRMA- AU-01	<p>Allowable Use: STIPULATION NSO-56: <i>Recreation SRMA</i>. Prohibit surface occupancy and use within the following SRMAs:</p> <ul style="list-style-type: none"> • Dolores River Canyon RMZs 1, 2, 3 • San Miguel River RMZs 1, 2, 3, 4 <p>(Refer to Appendix B; Figure 7, Appendix A.)</p>
REC-SRMA- AU-02	<p>Allowable Use: STIPULATION CSU-50: <i>Recreation SRMAs</i>. Apply CSU restrictions in the following SRMAs:</p> <ul style="list-style-type: none"> • Dry Creek RMZs 1, 2, 3, 4, 5 • Jumbo Mountain RMZs 1 and 2 • North Delta • Ridgway Trails RMZs 1 and 2 • Roubideau RMZs 1, 2, 3, 4 • Spring Creek RMZs 1, 2, 3 <p>(Refer to Appendix B; Figure 7, Appendix A.)</p>
	EXTENSIVE RECREATION MANAGEMENT AREAS (ERMAs)
REC-ERMA- OBJ-01	<p>Objective: Manage administratively designated areas (ERMAs) to provide for targeted recreation opportunities.</p>
REC-ERMA- MA-01	<p>Action: Manage 64,790 acres as ERMAs to specifically address local recreation issues (Figure 13, Appendix A; also refer to Appendix E, Description of Recreation Management Areas, for actions of each ERMA):</p> <ul style="list-style-type: none"> • Burn Canyon (9,160 acres) • Kinikin Hills (10,810 acres) • Paradox Valley (44,820 acres)

	RECREATION AND VISITOR SERVICES
	<i>Burn Canyon ERMA</i>
REC-ERMA- OBJ-02	Objective: Focus recreation and visitor services on protecting and facilitating visitor opportunities to provide a variety of quality sustainable motorized and nonmotorized trails (e.g., all-terrain vehicle and motorcycle riding, mountain biking, and hiking).
REC-ERMA- MA-02	Action: Provide a recreation setting commensurate with other uses that: 1) retains a natural-appearing landscape while allowing for activities that would maintain biological values and functional wildlife habitat; 2) provides the necessary recreation facilities (e.g., trails, trailheads, and staging areas) to facilitate activity participation; 3) provides basic, on-site visitor services (e.g., signs and maps), and 4) clearly posts conditions of use throughout the area.
	<i>Kinikin Hills ERMA</i>
REC-ERMA- OBJ-03	Objective: Focus recreation and visitor services on protecting and facilitating visitor opportunities to provide a variety of quality and sustainable motorized and nonmotorized trail activities (e.g., OHV riding, mountain biking, and hiking).
REC-ERMA- MA-03	Action: Provide a recreation setting commensurate with other uses that: 1) retains a natural-appearing landscape while allowing for activities that would maintain biological values and functional wildlife habitat; 2) provides the necessary recreation facilities (e.g., trails, trailheads, staging areas, and camping) to facilitate activity participation; 3) provides basic, on-site visitor services (e.g., signs and maps), and 4) clearly posts conditions of use throughout the area.
	<i>Paradox Valley ERMA</i>
REC-ERMA- OBJ-04	Objective: Focus recreation and visitor services on protecting and facilitating visitor opportunities to provide a variety of established recreation activities (e.g., OHV riding, mountain biking, hiking, rock climbing and bouldering, rafting, scenic touring, and hunting).
REC-ERMA- MA-04	Action: Provide a recreation setting commensurate with other uses that: 1) retains a natural-appearing landscape while allowing for activities that would benefit biological values; 2) provides the necessary recreation facilities (e.g., trails, trailheads, staging areas, and camping) to facilitate activity participation; 3) provides basic, on-site visitor services (e.g., signs and maps), and 4) clearly posts conditions of use throughout the area.
REC-ERMA- AU-01	Allowable Use: STIPULATION CSU-51: <i>Recreation ERMA</i> s. Apply CSU restrictions in ERMA's. (Refer to Appendix B; Figure 7, Appendix A.)
	COMPREHENSIVE TRAVEL AND TRANSPORTATION MANAGEMENT
TRV-GOAL-01	GOAL: Manage travel to support the BLM's mission, achieve resource management objectives and provide appropriate, sustainable public and administrative access.

	COMPREHENSIVE TRAVEL AND TRANSPORTATION MANAGEMENT
TRV-OBJ-01	<p>Objective: Maintain and improve land health while promoting responsible use through active travel management. Within in each Travel Management Area, designate a comprehensive travel management system that achieves resource management objectives, provides appropriate, sustainable public and administrative access, communicates with the public about opportunities, and monitors the effects of use. (Refer to Appendix I, Travel Management, for further information.)</p>
TRV-MA-01	<p>Action: Manage 3,950 acres as Open to OHV use (Figure I4, Appendix A):</p> <ul style="list-style-type: none"> • Portion of North Delta SRMA (3,950 acres)
TRV-MA-02	<p>Action: Manage 880 acres as closed to motorized travel (Figure I4, Appendix A), except for administrative and permitted vehicular access (which would be limited to authorized routes), and with mechanized travel limited to designated routes:</p> <ul style="list-style-type: none"> • SRMAs <ul style="list-style-type: none"> ◦ Ridgway Trails RMZ I ◦ Spring Creek RMZ I
TRV-MA-03	<p>Action: Manage 55,770 acres as closed to motorized and mechanized travel (Figure I4, Appendix A), except for administrative and permitted vehicular access, which would be limited to authorized routes:</p> <ul style="list-style-type: none"> • SRMAs <ul style="list-style-type: none"> ◦ Dolores River Canyon RMZ I and 2 ◦ Roubideau RMZs I and 2 ◦ Portion of San Miguel River RMZ 2 (Saltado Canyon; 2,490 acres) ◦ San Miguel River RMZ 3 • ACECs <ul style="list-style-type: none"> ◦ Adobe Badlands ◦ Fairview South (BLM Expansion) • Tabeguache Area • WSAs
TRV-MA-04	<p>Action: Manage the remaining portion of the Planning Area (615,200 acres and including landing strips; Figure I4, Appendix A) as limited to designated routes for motorized and mechanized travel. Until travel management plans to designate routes are completed, limit areas to existing routes and existing route widths, as shown on Figure I4, Appendix A.</p>
TRV-MA-05	<p>Action: Prohibit travel seasonally, except for administrative and permitted vehicular access, on 28,550 acres, as follows (Figure I4, Appendix A):</p>

	COMPREHENSIVE TRAVEL AND TRANSPORTATION MANAGEMENT
	<ul style="list-style-type: none"> • Jumbo Mountain SRMA Zone 2 • Area closures identified in Dry Creek Travel Management Plan and Environmental Assessment (BLM 2009b) <ul style="list-style-type: none"> ◦ December 1 to April 15 (11,010 acres) ◦ December 1 to March 31 (11,810 acres) • Add other areas as appropriate through future site-specific travel management analyses.
TRV-MA-06	<p>Action: Prohibit all travel (including motorized, mechanized, foot, and equestrian) seasonally in Ridgway Trails SRMA RMZ 2 from December 1 to April 30, except for administrative and permitted access (1,100 acres).</p>
TRV-MA-07	<p>Action: The BLM Field Manager may modify the size and time frames for seasonal travel limitations upon consultation with CPW:</p> <ul style="list-style-type: none"> • If monitoring information indicates that plant seasonal cycles or animal use patterns are inconsistent with dates established. • Where necessary, extend seasonal closures to include pedestrian or equestrian traffic.
TRV-MA-08	<p>Action: Use the following guidance for areas that are limited to existing routes until travel management plans to designate routes are completed:</p> <ul style="list-style-type: none"> • Unless otherwise restricted, limit recreational motorized and mechanized travel to existing routes, and aircraft to existing routes and backcountry air strips, as displayed on Figure 14 (Appendix A) and the BLM's 2009 aerial photography (on file at the UFO) until route-by-route analysis is complete. • Permit pedestrian or equestrian travel year-round on existing routes and cross-country travel on public lands throughout the Planning Area where available for public use. • Prohibit motorized or mechanized modes of travel on existing routes if the following would result: <ul style="list-style-type: none"> ◦ Convert or upgrade a single-track route (maximum of 36 inches wide) to a two-track route, such as driving an all-terrain vehicle or full-size passenger vehicle on a route consisting of a single track used by hikers, horseback riders, motorcycles, mountain bikes, game, or livestock. ◦ Convert or upgrade a route (maximum of 50 inches wide) used by and established for use by an all-terrain vehicle to a wider two-track route, such as would occur if a full-size passenger vehicle were used to travel along a route narrower than its wheelbase. • Address any BLM administrative functions related to resource management objectives that require cross-country travel using motorized vehicles or equipment at the project level on a case-by-case basis and potentially require additional environmental documentation and analysis for certain administrative functions. • Subject the use of motorized or mechanized modes of travel (including over snow travel) during the execution of BLM-issued authorizations or permits to the terms and conditions or stipulations of each individual authorization on a case-by-case basis.

	COMPREHENSIVE TRAVEL AND TRANSPORTATION MANAGEMENT
	<ul style="list-style-type: none"> • Avoid impacts on known eligible cultural properties, or minimize or mitigate such impacts in consultation with the State Historical Preservation Office. Where National Register of Historic Places-eligible sites are known to be in danger or are currently being impacted by travel activities, close routes to travel as necessary until the appropriate mitigation has been implemented. • To mitigate impacts on Colorado hookless cactus (<i>Sclerocactus glaucus</i>) and clay-loving wild buckwheat (<i>Eriogonum pelinophilum</i>) or other special status species listed in the future, apply appropriate protections to especially sensitive areas where travel-related impacts are occurring on these species. • Further restrict travel and use by vehicle type or season on any route in order to protect natural or other resources or infrastructure from being impacted by vehicle use in the event of extreme winters and wet conditions to reduce safety hazards, or in other unforeseeable situations, or to better manage or protect other values, such as wetlands, riparian areas, rare plant communities and species, big game, nesting raptors, or other important resources. These actions could include permanent or seasonal route closures or relocations. Take these actions following appropriate emergency closure or other procedures and/or after appropriate site-specific NEPA analysis. • Over time, changes to the route network may be necessary, including adding, designating, relocating, closing, maintaining, and/or changing seasonal or other use restrictions on routes, as well as adding necessary travel management support facilities. Document such changes using appropriate BLM land use planning regulations and NEPA procedures. • Require that travel modes adhere to the following width restrictions on existing routes: <ul style="list-style-type: none"> o Single track: 36 inches or less all-terrain vehicle/utility-terrain vehicle: 50 inches or less o Roads: wider than 50 inches • Prohibit cross-country motorized/mechanized travel for big game retrieval. Allow electric, hand-held, wheeled game retrieval carts off routes only during CPW-authorized big game and mountain lion hunting seasons, at the discretion of the BLM Authorized Officer. • Unless otherwise restricted, allow users to park motorized or mechanized vehicles next to and parallel to available existing routes.
TRV-MA-09	<p>Action:</p> <p>Where motorized and mechanized vehicles or aircraft are causing or will cause considerable adverse effects on soil, roads, trails, vegetation, wildlife, wildlife habitat, cultural resources, historical resources, threatened or endangered species, wilderness suitability, other authorized uses, or other resources, immediately close the affected areas to the type(s) of vehicle causing the adverse effect until the adverse effects are eliminated and measures implemented to prevent recurrence. Prohibit travel in areas where soils are saturated or that demonstrate rutting of 3 inches or more. The BLM Authorized Officer would determine when soil conditions are appropriate for activities to resume.</p>
TRV-MA-10	<p>Action:</p> <p>Bring forward the decisions from the Dry Creek Travel Management Plan (BLM 2009b) in the Dry Creek Travel Management Area, the Ridgway Travel Management Plan (BLM 2013), and the Burn Canyon Travel Management Plan (BLM 2014).</p>

	COMPREHENSIVE TRAVEL AND TRANSPORTATION MANAGEMENT
TRV-MA-11	<p>Action: Establish Travel Management Areas and initiate comprehensive travel management plans within each the following Travel Management Areas and in the following order unless a change is deemed necessary by the BLM Authorized Officer (Figure 26, Appendix A):</p> <ol style="list-style-type: none"> 1. North Fork (71,020 acres) 2. South Montrose (66,180 acres) 3. North Delta (61,270 acres) 4. San Miguel (74,960 acres) 5. West End (289,960 acres) <p>Refer to Appendix I, Travel Management, for information and guidance on comprehensive travel management planning. Travel Management Areas are a planning and management tool and may be altered. At the time of comprehensive travel management planning, the Travel Management Area may be broken down into subareas to address different resource management objectives.</p> <p>A travel management plan is not intended to provide evidence bearing on or addressing the validity of any Revised Statute 2477 assertions. Revised Statute 2477 rights are determined through a process that is entirely independent of the BLM's planning process. Consequently, travel management planning should not take into consideration Revised Statute 2477 assertions or evidence. Travel management planning should be founded on an independently determined purpose and need that is based on resource uses and associated access to public lands and waters. At such time as a decision is made on Revised Statute 2477 assertions, the BLM will adjust its travel routes accordingly.</p>
TRV-MA-12	<p>Action: Develop facilities as needed to support the travel management plan goals and objectives, including staging areas, hardened camping areas, trailheads, and portal signs. Facilities could include restrooms, loading and unloading ramps, kiosks, hardened graveled parking areas and camping spurs, fencing, hitching rails, picnic tables and cabanas, vehicular control devices, native landscape islands, erosion and drainage control devices, hardened access trails, and limited hardened egress, ingress, and winch points where needed for all technical four-wheel-drive routes.</p>
TRV-MA-13	<p>Action: Prohibit motorized off-route travel in riparian and wetland areas, including for camping and collecting rock, wood products, and other plant products.</p>
TRV-MA-14	<p>Action: Any administrative motorized vehicle or equipment use off designated routes on BLM-administered lands would require prior notification of and approval from the BLM Authorized Officer. Any emergency motorized vehicle or equipment use off designated routes on BLM-administered lands would require notification of the BLM Authorized Officer within 72 hours following emergency entry.</p>

	COMPREHENSIVE TRAVEL AND TRANSPORTATION MANAGEMENT
TRV-MA-15	<p>Action: In cooperation with the local communities, counties, and other partners, secure access to and manage a network of roads and trails that ensure management objectives are met and provide connectivity to the surrounding communities.</p>
	LANDS AND REALTY
L&R-GOAL-01	<p>GOAL: Meet public needs for land use authorizations (i.e., ROWs, communication sites, utility corridors, leases, permits, and renewable energy resources), land tenure adjustments, withdrawals, and easements in an environmentally responsible manner.</p>
L&R-OBJ-01	<p>Objective: Make lands available for land use authorizations and apply stipulations to ensure the compatibility of multiple use with resource protection.</p>
L&R-MA-01	<p>Action: ROW Exclusion Areas (including renewable energy sites): Manage 53,040 acres as ROW exclusion areas that are closed to land use authorizations (Figure 15, Appendix A):</p> <ul style="list-style-type: none"> • ACECs <ul style="list-style-type: none"> ◦ Fairview South (BLM Expansion) • Tabeguache Area • WSAs • Gunnison sage-grouse lek and brooding habitat • Suitable WSR segments classified as “wild” (see Table II-5 [Summary of Wild and Scenic River Study Segments]). <p>The following exceptions would apply to ROW exclusions:</p> <ul style="list-style-type: none"> • Designated West-wide Energy Corridors (Section 368 corridors) • Designated utility corridors • 100-foot buffer from the center-line of county roads and highways (these areas would be managed as ROW avoidance) <p>Allow ROWs for private in-holdings or edge-holdings for reasonable access and utilities (these areas would be managed as ROW avoidance).</p> <p>Recognize the valid existing rights of grant holders to continue to operate, maintain, and improve/upgrade facilities.</p>
L&R-MA-02	<p>Action: ROW Avoidance Areas (including renewable energy sites): Manage 66,030 acres as ROW avoidance areas (Figure 15, Appendix A):</p> <ul style="list-style-type: none"> • Lands within 1,000 feet of either side of a classified surface water-supply stream segment (as measured from the average high-water mark) for a distance of 5 miles upstream of a public water supply intake

	LANDS AND REALTY
	<ul style="list-style-type: none"> • Lands within a 50-foot buffer along perennial streams • Lands within a 50-foot buffer from the edge of riparian and wetland areas, seeps, and springs unless it can be determined that the project would not diminish hydrologic or vegetation conditions • Within 0.25-mile along major river corridors (i.e., Gunnison, North Fork Gunnison, San Miguel, Uncompahgre, and Dolores) • Occupied habitat of known populations of federally threatened and endangered species • Gunnison sage-grouse critical habitat • Gunnison sage-grouse lek habitat (lek area plus 0.6-mile radius) • Sites listed on or eligible for listing on the National Register of Historic Places • Lands managed to minimize impacts on wilderness characteristics • SRMAs <ul style="list-style-type: none"> o Dolores River Canyon o Dry Creek RMZ 5 o North Delta o Roubideau RMZs 2 and 3 o San Miguel River RMZs 2 and 3 o Spring Creek RMZ 2 • ACECs <ul style="list-style-type: none"> o Adobe Badlands o Needle Rock o Paradox Rock Art o Biological Soil Crust • Suitable WSR segments classified as “scenic” (see Table II-5 [Summary of Wild and Scenic River Study Segments]) • Lands within 100 meters (328 feet) of either side of centerline of National Trails • Old Spanish Trail • Plants – Endangered Species Act listed species <p>The following exceptions would apply to ROW avoidance areas:</p> <ul style="list-style-type: none"> • Designated West-wide Energy Corridors (Section 368 corridors) • Designated utility corridors (allow all compatible uses in designated corridors) <p>Recognize the valid existing rights of grant holders to continue to operate, maintain, and improve/upgrade facilities.</p>
L&R-MA-03	<p>Action:</p> <p>Provide reasonable access and utilities to private landowners in an environmentally responsible manner. New ROWs would not be permitted if there is other reasonable access.</p>

	LANDS AND REALTY
L&R-MA-04	<p>Action:</p> <p>Limit applications for filming permits and still photography involving motorized, mechanized, or other intensive uses to existing highways and pullouts; designated routes, roads, and trails; and previously disturbed or cleared areas.</p> <p>Accept applications for filming permits, and encourage applicants to adhere to the following criteria:</p> <ul style="list-style-type: none"> ● Project will not impact sensitive species. ● Project will not impact cultural resources or traditional cultural properties and natural resources of importance to Native Americans. ● Project will not involve use of pyrotechnics. ● Project will not involve more than minimum impacts on land, air, or water. (Minimum is defined as temporary impact only and does not include permanent impacts or surface disturbance that cannot be raked out or rehabilitated so that there is no sign of activity at the end of the filming.) ● Project will not involve use of explosives. ● Project will not involve use of exotic plant or animal species that could cause danger of introduction into the area. ● Project will not involve surface disturbance within WSAs or lands managed for wilderness characteristics. ● Project will not involve adverse impacts on sensitive surface resource values including paleontological sites; sensitive soils; relict environments; wetlands or riparian areas; or ACECs. ● Project will not involve substantial restriction of public access. ● Project will not involve substantial use of domestic livestock. ● Project will not exceed 10 production vehicles within sensitive areas. ● Project will not involve 60 or more people within sensitive areas. ● Filming activity within sensitive areas will not continue in excess of 10 days. ● Refueling will not occur within sensitive areas. ● Aircraft/Drone use in area with wildlife concerns is not proposed during crucial wildlife periods. ● Aircraft/Drone use in area with no wildlife concerns will be limited to such duration and frequency that it will not meaningfully interfere with other multiple uses of public lands. ● Use of aircraft/drone is not proposed within 0.5-mile of a designated campground located within a sensitive area, and the number of low-elevation passes will not exceed four passes per day. ● Filming activities are not proposed in developed recreation sites on weekends or during times of anticipated high use.
	RENEWABLE ENERGY
L&R-MA-05	<p>Action:</p> <p>Allow renewable energy projects (such as wind, solar under 20 megawatts, and hydropower) development and operation, except in ROW exclusion areas and areas identified as exclusion in Table II-6 (Renewable Energy Exclusion and Avoidance Areas¹). The ROD for the Solar Energy Development Programmatic EIS was signed on October 12, 2012 and excluded all lands within the UFO for solar development for projects 20 megawatts or greater.</p>

	LANDS AND REALTY
	<i>COMMUNICATION SITES (LAND USE AUTHORIZATIONS)</i>
L&R-MA-06	<p>Action: Manage existing communication sites. Designate all existing sites for low-power uses (i.e., 1,000 watts effective radiated power or less), except for high-power uses that currently exist. Evaluate and allow new low- or high-power communication site locations on a case-by-case basis.</p>
	<i>UTILITY CORRIDORS (LAND USE AUTHORIZATIONS)</i>
L&R-MA-07	<p>Action: Manage the designated West-wide Energy Corridor (26,880 acres) according to existing policy (Appendix B of the West-wide Energy Corridor Programmatic EIS [US Department of Energy and BLM 2009]) (Figure 16, Appendix A).</p> <p>Designate and manage an additional 14 corridors (37,420 acres) for public utilities and facilities (Figure 16, Appendix A):</p> <ul style="list-style-type: none"> ● Dry Creek: 2,500 feet wide ● Highway 90: 2,500 feet wide ● Highway 92: 1,320 feet wide (from the northern edge of highway) ● Highway 141: 2,500 feet wide ● Highway 145/62: 2,500 feet wide ● Hotchkiss-Crawford: 2,500 feet wide ● Hotchkiss-North Fork: 2,500 feet wide ● North Delta: generally 2,500 feet wide, except 1,320 feet wide on small parcels next to the WSA ● Oxbow-Hubbard Creek: 1,300 feet wide ● South Canal: 200 feet wide (from western edge of canal) ● Spring Creek Mesa: 2,500 feet wide ● Stevens Gulch Road: 600 feet wide ● Western Area Power Association Curecanti-Hayden: 2,500 feet wide ● Western Area Power Association Curecanti-Shiprock: 2,500 feet wide

	LANDS AND REALTY
L&R-MA-08	<p>Action: Allow ROW development and operation except in ROW exclusion areas. Preferred locations are next to existing facilities and routes.</p> <p>The following exceptions would apply to ROW exclusions:</p> <ul style="list-style-type: none"> • Designated West-wide Energy Corridors (Section 368 corridors) • Designated utility corridors • 100-foot buffer from the center line of county roads and highways (these areas would be managed as ROW avoidance) • Allow ROWs for private in-holdings or edge-holdings for reasonable access and utilities (these areas would be managed as ROW avoidance) <p>Recognize the valid existing rights of grant holders to continue to operate, maintain, and improve/upgrade facilities.</p>
	LAND TENURE ADJUSTMENTS – DISPOSAL
L&R-DIS-OBJ-01	<p>Objective: Consider disposal of lands that would consolidate public ownership for greater management efficiency while serving the public interest, including communities and their expanding needs.</p>
L&R-DIS-MA-01	<p>Action: Desert Land Entry Act/Carey Act Applications: Do not accept new Desert Land Entry or Carey Act applications.</p>
L&R-DIS-MA-02	<p>Action: Identify 1,980 acres as available for disposal by any method, including exchanges, state selections, boundary adjustments, Recreation and Public Purposes Act leases and patents, leases under Section 302 of FLPMA, sales under Sections 203 and 209 of FLPMA, and sales authorized by other Congressional Acts and special legislation (Figure 17, Appendix A) (refer to Appendix J, Legal Descriptions of Lands Identified for Disposal).</p>
L&R-DIS-MA-03	<p>Action: Consider other lands suitable for disposal by any method, including exchanges, state selections, boundary adjustments, Recreation and Public Purposes Act leases and patents, FLPMA Section 302 leases, FLPMA Sections 203 and 209 sales, and sales authorized by other congressional acts and special legislation, if they enhance management goals, meet one or more of the following criteria, and do not meet the criteria for retention:</p> <ul style="list-style-type: none"> • Are lands suitable for public purposes adjacent to or of special importance to local communities and to state or federal agencies for purposes such as community expansion, extended community services, or economic development. • Are isolated parcels that are small or so located as to make effective and efficient management impractical. • Are unintentional occupancy trespasses where disposal is the best tool to meet management objectives. • Are not parcels containing or integral to significant habitat for special status species; these parcels may be disposed of only if the habitat for the species of concern can be maintained and if USFWS and CPW concur.

	LANDS AND REALTY
	<ul style="list-style-type: none"> • Are not parcels containing or integral to National Register of Historic Places-eligible cultural resources; these parcels may be disposed of only if the resources can be mitigated through data recovery and if the SHPO concurs with the proposed mitigation. • Additional lands may be identified for disposal in urbanizing areas on a case-by-case basis to meet community expansion needs and where the public interest will be well served. • Are lands without legal public access.
L&R-DIS-MA-04	Action: Do not dispose of lands within existing withdrawals, power-site classifications, or power-site reserves (19,710 acres) (Figure 27, Appendix A) without concurrence from the managing agency (e.g., US DOI, Bureau of Reclamation and US Department of Energy).
	LAND TENURE ADJUSTMENTS – RETENTION
L&R-RET-OBJ-01	Objective: Retain lands in public ownership when it will serve the public interest, protect valuable resources, or achieve management goals.
L&R-RET-MA-01	Action: Retain public lands not identified for disposal (673,870 acres), except for those lands that meet the criteria for disposal, for long-term management (Figure 17, Appendix A).
L&R-RET-MA-02	Action: Retain lands that meet one or more of the following criteria: <ul style="list-style-type: none"> • Lands containing valuable resources (e.g., recreational, cultural, special status species, riparian, fragile soils, and rare biological soil crusts); • Lands within or next to special designation areas (i.e., Tabeguache Area, WSAs, lands managed to protect wilderness characteristics, National Conservation Areas, ACECs, WSRs. (Lands within SRMAs must meet the criteria for disposal and would be managed with similar objectives to current use to be considered for disposal); • Lands near communities that would better serve the public interest as open space • Lands that provide public or administrative access • Lands that consolidate BLM ownership • Lands suitable for trail construction to link communities • Lands containing National Historic Trail segments

	LANDS AND REALTY
	<i>LAND TENURE ADJUSTMENTS – ACQUISITION</i>
L&R-ACQ-OBJ-01	Objective: Allow acquisition of nonfederal lands and easements to facilitate resource goals and objectives.
L&R-ACQ-MA-01	Action: As opportunities arise, acquire lands or easements as follows: <ul style="list-style-type: none"> • Access to Jumbo Mountain near Paonia • Access to Ridgway SRMA • Private inholding in Camel Back WSA (Section 3 of Township 49 North, Range 12 West; 160 acres) • Easement to Paradox Rock Art ACEC • Between Bedrock and the Dolores River Canyon WSA
L&R-ACQ-MA-02	Action: Consider acquiring lands or easements that meet the following criteria: <ul style="list-style-type: none"> • Lands containing valuable resources (e.g., recreational, cultural, special status species, riparian, fragile soils, and rare biological soil crusts) • Lands suitable for trail construction to link communities • Lands that enhance recreation opportunities <ul style="list-style-type: none"> o Lands within or next to areas with special designations (e.g., WSAs, National Conservation Areas, ACECs, and WSRs) o Lands managed to protect wilderness characteristics o Lands that provide public or administrative access o Lands that consolidate BLM ownership and/or enhance management goals
L&R-ACQ-MA-03	Action: Reserve public access easements on lands transferred from public ownership (patents) when it would benefit management goals or the public.
	<i>WITHDRAWALS</i>
L&R-WTH-OBJ-01	Objective: Meet resource and other agency needs by withdrawing lands from the public land laws and/or mining laws.
L&R-WTH-MA-01	Action: Continue to manage approximately 28,060 acres as withdrawn from mineral entry; including US Department of Energy, Federal Energy Regulatory Commission, and US DOI, Bureau of Reclamation withdrawals (Figure 10, Appendix A). Refer to the <i>Locatable Minerals</i> section for withdrawals.
L&R-WTH-MA-02	Action: Where applicable, issue ROWs, leases, other authorizations, or agreements in lieu of withdrawals.

	LANDS AND REALTY
L&R–WTH-MA-03	<p>Action: Review withdrawals, as needed, and recommend their extension, continuation, termination, or revocation, as per applicable legislation, order, regulation, or agencies' needs. Continue all existing withdrawals initiated by other agencies unless the initiating agency requests that the withdrawal be terminated. Following revocation of a withdrawal and issuance of an opening order, manage the lands in a manner consistent with adjacent or comparable public land within the Planning Area.</p> <p>Existing US DOI, Bureau of Reclamation withdrawals include: US DOI, Bureau of Reclamation Project Land</p> <ul style="list-style-type: none"> • Aspinall Unit • Bostwick Park Project • Dallas Creek Project • Fruitgrowers Project • Paonia Project • Smith Fork Project • Uncompahgre Valley Project • Paradox Valley Unit <p>US DOI, Bureau of Reclamation Nonproject Land¹</p> <ul style="list-style-type: none"> • Dominguez Project • Fruitland Mesa Project <p>¹<i>Projects not authorized for construction</i></p>
L&R–WTH-MA-04	<p>Action: Maintain existing power site classifications and power site reserves pending determination of potential for power or reservoir-related projects.</p>

SPECIAL DESIGNATIONS	
	AREAS OF CRITICAL ENVIRONMENTAL CONCERN
ACEC-GOAL-01	GOAL: Manage ACECs to protect significant resource values and prevent damage to important natural, biological, cultural, recreational, or scenic resources and values, or to protect life and safety from natural hazards. Refer to Proposed RMP/Final EIS Appendix O, Summary of Areas of Critical Environmental Concern Report.
ACEC-OBJ-01	Objective: Manage the following areas (30,190 acres) as ACECs (Figure 18, Appendix A): <ul style="list-style-type: none"> • Adobe Badlands ACEC (6,370 acres) • Biological Soil Crust ACEC (390 acres) • Fairview South (BLM Expansion) ACEC (610 acres) • Needle Rock ACEC (80 acres) • Paradox Rock Art ACEC (1,080 acres) • San Miguel River (21,660 acres)
	ADOBE BADLANDS ACEC/OUTSTANDING NATURAL AREA
ACEC-MA-01	Action: Manage 6,370 acres as the Adobe Badlands ACEC to protect federally listed (endangered, threatened, proposed, and candidate) and BLM-sensitive species and habitats, scenic values, and highly erodible soils; provide for semiprimitive, nonmotorized, recreation opportunities and use, and reduce active erosion. Management actions are as follows: <ul style="list-style-type: none"> • Close to motorized and mechanized travel. • Manage as VRM Class II. • Provide such facilities as informational and interpretive signs, designated trail systems for nonmotorized and nonmechanized travel, restrooms, barricades, and fences as needed to protect resources. • Prohibit campfires. • Manage as ROW avoidance. • Close to coal leasing. • Close to mineral materials disposal. • Close to nonenergy solid mineral leasing.
ACEC-AU-01	Allowable Use: STIPULATION NSO-58: <i>Special Designation ACEC</i> . Prohibit surface occupancy and use in the ACEC. (Refer to Appendix B.)

	AREAS OF CRITICAL ENVIRONMENTAL CONCERN
	FAIRVIEW SOUTH ACEC/RESEARCH NATURAL AREA
ACEC-MA-02	<p>Action: Manage 610 acres as the Fairview South (BLM Expansion) ACEC to protect clay-loving wild buckwheat. Management actions are as follows:</p> <ul style="list-style-type: none"> • Continue monitoring studies in cooperation with Colorado Natural Areas Program. • Close to sheep grazing. • Close to cattle grazing. • Provide facilities such as informational and interpretive signs, designated trail systems for nonmotorized and nonmechanized travel, restrooms, barricades, fences, etc. as needed for resource protection. • Close to motorized and mechanized travel. • Manage as day use only; prohibit camping. • Prohibit campfires. • Manage as VRM Class III. • Manage as ROW exclusion. • Close to mineral materials disposal. • Close to nonenergy solid mineral leasing.
ACEC-AU-02	<p>Allowable Use: STIPULATION NSO-58/ SSR-57: <i>Special Designation ACEC</i>. Prohibit surface occupancy and use and apply SSR restrictions in the ACEC. (Refer to Appendix B.)</p>
	NEEDLE ROCK ACEC/OUTSTANDING NATURAL AREA
ACEC-MA-03	<p>Action: Manage 80 acres as the Needle Rock ACEC Instant Study Area to protect the scientific, interpretive, and scenic qualities of this site. Management actions are as follows:</p> <ul style="list-style-type: none"> • Close to livestock grazing. • Limit motorized and mechanized travel to designated routes. • Manage as VRM Class II. • Provide such facilities as informational and interpretive signs and maintain existing trails as needed to provide enhanced visitor use, enjoyment, and safety. Maintain existing trail systems and interpretive signs. • Provide adequate protection (signing, use stipulations, barricades, and fences, as needed) to protect sensitive species and their habitats. • Manage for day use only; prohibit camping. • Prohibit open campfires; require use of stoves or grills. • Prohibit wood collecting. • Close to wood product sales and/or harvest. • Prohibit rock climbing.

	AREAS OF CRITICAL ENVIRONMENTAL CONCERN
	<ul style="list-style-type: none"> • Manage as ROW avoidance. • Close to mineral materials disposal. • Close to nonenergy solid mineral leasing. • Recommend to the Secretary of the Interior for withdrawal from locatable mineral entry.
ACEC-AU-03	<p>Allowable Use:</p> <p>STIPULATION NSO-58/ SSR-57: <i>Special Designation ACEC</i>. No surface occupancy or use is allowed, and SSR restrictions are applied, in the ACEC. (Refer to Appendix B.)</p>
	SAN MIGUEL RIVER ACEC
ACEC-MA-04	<p>Action:</p> <p>Manage 21,660 acres as the San Miguel River ACEC to protect unique riparian resources, bird habitat, and scenic values. Management actions are as follows:</p> <ul style="list-style-type: none"> • Manage as VRM Class III. • Allow on-site collection of dead and downed wood for campfires (fire pans, stoves, or grills required), unless monitoring indicates a need for change. • Close to wood product sales and/or harvest. • Limit camping to designated sites and areas. • Limit camping to no longer than 7 consecutive days at any 1 location; after the 7 days has been reached, prohibit campers from returning to that location for 30 days and/or require them to move out of the ACEC. • Limit campfires to existing fire pans, stoves, or grills in designated campsites. • Limit motorized and mechanized travel to designated routes. • Where possible, locate facility development outside the 100-year floodplain. • Provide such facilities as informational and interpretive signs, designated trail systems and restrooms, barricades, and fences, as needed for enhanced visitor use, enjoyment, and safety and to protect sensitive species and their habitats. • Close to coal leasing. • Close to nonenergy solid mineral leasing. • Close to mineral materials disposal.
ACEC-AU-04	<p>Allowable Use:</p> <p>STIPULATION NSO-58: <i>Special Designation ACEC</i>. Prohibit surface occupancy and use in the ACEC. (Refer to Appendix B.)</p>

	AREAS OF CRITICAL ENVIRONMENTAL CONCERN
	BIOLOGICAL SOIL CRUST/ EAST PARADOX ACEC
ACEC-MA-05	<p>Action: Manage 390 acres as the Biological Soil Crust ACEC to protect biological soil crusts. Management actions are as follows:</p> <ul style="list-style-type: none"> • Emphasize management and long-term preservation of the biological soil crust community. • Allow surface-disturbing activities associated with research for biological soil crust and gypsipherous plant communities. Conduct a complete inventory for biological soil crust and gypsipherous plant communities. • Locate livestock salt/mineral supplement sites and water sites farther than 0.25-mile from the boundary of the gypsipherous soils (gypsum land and gypsiorthorids). • Allow existing livestock watering reservoirs closer than 0.25-mile from the gypsipherous soils to remain; prohibit new reservoirs within 0.25-mile of the gypsipherous soils. • Limit motorized and mechanized travel to designated routes. • Manage for day use only; prohibit camping. • Manage as ROW avoidance. • Recommend to the Secretary of the Interior for withdrawal from locatable mineral entry. • Close to mineral materials disposal. • Close to nonenergy solid mineral leasing.
ACEC-AU-05	<p>Allowable Use: STIPULATION NSO-58/ SSR-57: <i>Special Designation ACEC</i>. Prohibit surface occupancy and use and apply SSR restrictions in the ACEC. (Refer to Appendix B.)</p>
	PARADOX ROCK ART ACEC
ACEC-MA-06	<p>Action: Manage 1,080 acres in the area of Paradox Rock Art Complex as an ACEC to protect unique cultural resource values, including numerous prehistoric petroglyphs and pictographs in the area. Management actions are as follows:</p> <ul style="list-style-type: none"> • Manage as VRM Class II. • Limit motorized and mechanized travel to designated routes. • Manage as ROW avoidance. • Provide such facilities as informational and interpretive signs, designated trail systems and camping areas, and restrooms, as needed for resource protection. • Provide adequate protection (signs, use stipulations, barricades, and fences, as needed) to protect sensitive sites. • Allow camping only in designated sites and areas. • Permit rock climbing in designated areas only. • Issue no SRPs for competitive events. • Allow organized SRPs for groups up to 25 people. • If resource damage occurs, limit the appropriate public activity at or near the locality where the damage occurs. • Recommend to the Secretary of the Interior for withdrawal from locatable mineral entry.

	AREAS OF CRITICAL ENVIRONMENTAL CONCERN
	<ul style="list-style-type: none"> • Close to mineral materials disposal. • Close to nonenergy solid mineral leasing.
ACEC-AU-06	Allowable Use: STIPULATION NSO-50: <i>National Register District</i> . Prohibit surface occupancy and use in National Register Districts. (Refer to Appendix B.)
ACEC-AU-07	Allowable Use: STIPULATION NSO-58: <i>Special Designation ACEC</i> . Prohibit surface occupancy and use in the ACEC. (Refer to Appendix B.)
	WILDERNESS AND WILDERNESS STUDY AREAS
WIL-GOAL-01	GOAL: Preserve the wilderness character of the Tabeguache Area.
WIL-OBJ-01	Objective: Provide protection and management of the Tabeguache Area (8,060 acres) to maintain wilderness character and potential for inclusion in the National Wilderness Preservation System as directed by Congress in the Colorado Wilderness Act of 1993 (Public Law 103-77, August 13, 1993).
WIL-MA-01	Action: Apply the following management actions to the Tabeguache Area (8,060 acres) (Figure 19, Appendix A): <ul style="list-style-type: none"> • Manage as VRM Class I. • Close to motorized and mechanized travel. • Manage as ROW exclusion. • Closed to wood cutting and wood product sales and harvest • Withdrawn from locatable mineral entry. • Close to coal leasing. • Close to nonenergy solid mineral leasing. • Close to mineral materials disposal.
WIL-NL-01	Action: Apply the following management actions to the Tabeguache Area (8,060 acres) (Figure 19, Appendix A): <ul style="list-style-type: none"> • NO LEASING NL-17: <i>Tabeguache Area</i>. Close to fluid mineral leasing and geophysical exploration. (Refer to Appendix B; Figure 7, Appendix A.)
WIL-AU-01	Allowable Use: STIPULATION SSR-58: <i>Tabeguache Area</i> . Apply SSR restrictions. (Refer to Appendix B; Figure 9, Appendix A.)
WIL-GOAL-02	GOAL: Preserve the wilderness characteristics of WSAs.

	WILDERNESS AND WILDERNESS STUDY AREAS
WIL-OBJ-02	Objective: Preserve wilderness characteristics in WSAs in accordance with nonimpairment standards, as defined in BLM Manual 6330, Management of Wilderness Study Areas (BLM 2012c) until Congress either designates these lands as wilderness or releases them for other purposes.
WIL-MA-02	Action: Manage 36,160 acres in the following WSAs according to BLM Manual 6330, Management of Wilderness Study Areas until Congress either designates them as wilderness or releases them for other uses (Figure 19, Appendix A): <ul style="list-style-type: none"> • Adobe Badlands (10,320 acres) • Camel Back (10,680 acres) • Dolores River Canyon (13,340 acres) • Needle Rock Instant Study Area (80 acres) • Sewemup Mesa (1,740 acres)
WIL-MA-03	Action: Apply the following management prescriptions to all WSAs: <ul style="list-style-type: none"> • Manage as VRM Class I. • Manage as ROW exclusion. • Closed to wood cutting and wood product sales and harvest. • Close to coal leasing. • Close to nonenergy solid mineral leasing.
WIL-AU-02	Allowable Use: NO LEASING/STIPULATION NL-18/NGD-27: WSAs: Close to fluid mineral leasing and geophysical exploration and prohibit surface-disturbing activities. (Refer to Appendix B; Figures 7 and 9, Appendix A.)
WIL-MA-04	Action: In addition to the above, apply the following management prescriptions to all WSAs: <ul style="list-style-type: none"> • Close to mineral materials disposal.
WIL-MA-05	Action: Close WSAs to motorized and mechanized travel: <ul style="list-style-type: none"> • Adobe Badlands • Camel Back • Dolores River Canyon • Sewemup Mesa Limit motorized and mechanized travel in Needle Rock Instant Study Area to designated routes.

	WILDERNESS AND WILDERNESS STUDY AREAS
WIL-GOAL-03	GOAL: Implement management strategies for lands within WSAs, should Congress release one or more of these areas from wilderness consideration.
WIL-OBJ-03	Objective: If Congress releases one or more WSAs from wilderness consideration, manage those lands consistent with underlying land use designations.
WIL-MA-06	Action: If Congress releases Sewemup Mesa WSA from wilderness consideration, manage the UFO portion to be consistent with the Grand Junction Field Office portion of the WSA: <ul style="list-style-type: none"> • Manage as VRM Class II. • Close to motorized travel, including over-the-snow travel. • Limit mechanized travel to designated routes. • Close to nonenergy solid mineral leasing. • Close to mineral materials. • Issue no SRPs for competitive events. • Prohibit wood cutting. • Open to livestock grazing. • Manage as ROW avoidance.
WIL-AU-03	If Congress releases Sewemup Mesa WSA from wilderness consideration, manage the UFO portion to be consistent with the Grand Junction Field Office portion of the WSA: Allowable Use: STIPULATION NSO-53/SSR-56. <i>Lands with Wilderness Characteristics</i> . Prohibit surface occupancy and use and apply SSR restrictions on identified lands being managed to protect inventoried wilderness characteristics. (Refer to Appendix B.)
WIL-MA-07	Action: If Congress releases Dolores River Canyon WSA from wilderness consideration, manage the lands consistent with the underlying land use designations (i.e., suitable Dolores River Segment 1a, suitable LaSal Creek Segment 3, and Dolores River Canyon SRMA).
WIL-MA-08	Action: If Congress releases Camel Back WSA from wilderness consideration, manage those lands consistent with the underlying land use designations (i.e., suitable Roubideau Creek Segment I, suitable Monitor Creek, suitable Potter Creek, and Roubideau SRMA).
WIL-MA-09	Action: If Congress releases Adobe Badlands WSA from wilderness consideration, manage those lands consistent with the underlying land use designation (i.e., Adobe Badlands ACEC).

	WILDERNESS AND WILDERNESS STUDY AREAS
WIL-MA-10	<p>Action:</p> <p>If Congress releases Needle Rock Instant Study Area from wilderness consideration, manage those lands consistent with the underlying land use designation (i.e., Needle Rock ACEC).</p>
	WILD AND SCENIC RIVERS
WSR-GOAL-01	<p>GOAL:</p> <p>Evaluate eligible river segments to determine suitability for inclusion in the National Wild and Scenic Rivers System, protecting them in accordance with the WSR Act and BLM guidance (BLM Manual 6400).</p>
WSR-OBJ-01	<p>Objective:</p> <p>Preserve the recommended classification of each suitable segment by maintaining the level of development allowed under the recommended classification. In addition, maintain the free-flowing condition, water quality, and outstandingly remarkable values associated with suitable segments.</p>
WSR-MA-01	<p>Action:</p> <p>Determine that the following 16 stream segments are suitable for inclusion in the National Wild and Scenic Rivers System (Figure 20, Appendix A). See Table II-5 (Summary of Wild and Scenic River Study Segments) (a description of each segment is provided in the Final Wild and Scenic River Suitability Report for the Uncompahgre Planning Area):</p> <ul style="list-style-type: none"> ● Segments classified as wild: <ul style="list-style-type: none"> ○ Monitor Creek ○ Potter Creek ○ Roubideau Creek Segment 1 ○ Saltado Creek ○ San Miguel River Segment 2 ○ Tabeguache Creek Segment 1 ○ Dolores River Segment 1 ○ La Sal Creek Segment 3 ● Segments classified as scenic: <ul style="list-style-type: none"> ○ Lower Dolores River ● Segments classified as recreational: <ul style="list-style-type: none"> ○ Beaver Creek ○ San Miguel River Segments 1, 3, 5, and 6 ○ Dolores River Segment 2 ○ La Sal Creek Segment 2 <p>Determine that the following 13 stream segments are not suitable for inclusion in the National Wild and Scenic Rivers System:</p>

	WILD AND SCENIC RIVERS
	<ul style="list-style-type: none"> • Dry Creek • Roubideau Creek Segment 2 • Deep Creek • West Fork Terror Creek • Naturita Creek • Ice Lake Creek Segment 2 • Lion Creek Segment 2 • Gunnison River Segment 2 • Tabeguache Creek Segment 2 • Dolores River Segment 1b • North Fork Mesa Creek • La Sal Creek Segment 1 • Spring Creek <p>For eligible streams in which only a portion was determined to be suitable, stream miles and acreage that are not within the mapped boundary of the suitable stream segment are determined to be not suitable.</p> <p>All stream miles and acreage determined to be not suitable are released from further protection under the provisions of the WSR Act.</p>
WSR-MA-02	<p>Action:</p> <p>Establish the following interim protective management guidelines for all suitable segments pending congressional action (all interim protective management is subject to valid existing rights):</p> <ul style="list-style-type: none"> • Approve no actions altering the free-flowing nature of eligible segments through impoundments, diversions that have the effect of impounding water, channeling, or riprapping. • Approve no action that would have an adverse effect on an eligible segment's identified outstandingly remarkable value(s). Enhance identified outstandingly remarkable value(s) to the extent practicable. • Approve no action that would modify an eligible segment or its corridor to the degree that its eligibility or tentative classification would be affected. • Approve no action that would diminish water quality to the point that the water quality would no longer support the outstandingly remarkable value(s). • Manage wild segments with scenic outstandingly remarkable value or within a WSA or the Tabeguache Area as VRM Class I. • Manage wild segments without a scenic outstandingly remarkable value and not within a WSA or the Tabeguache Area as VRM Class II. • Manage scenic segments as VRM Class II.

	WILD AND SCENIC RIVERS
	<ul style="list-style-type: none"> • Manage recreational segments with a scenic outstandingly remarkable value as VRM Class II. • Manage recreational segments without a scenic outstandingly remarkable value according to the background VRM class in that area. • Manage wild segments as ROW exclusion areas. • Manage scenic segments as ROW avoidance areas. • Close to nonenergy solid mineral leasing • Close all segments to mineral materials disposal. • Close all segments to coal leasing. • Recommend to the Secretary of the Interior to withdraw wild segments from locatable mineral entry.
WSR-AU-01	<p>Allowable Use:</p> <p>STIPULATION NSO-60: <i>Special Designation WSR</i> (“Wild” or “Scenic”). Prohibit surface occupancy and use within the WSR study corridor, as defined in Appendix B of the Final Wild and Scenic River Suitability Report for the Uncompahgre Planning Area, of segments determined to be suitable for inclusion in the National Wild and Scenic Rivers System with the classification of “Wild” or “Scenic.” (Refer to Appendix B; Figure 7, Appendix A.)</p>
WSR-AU-02	<p>Allowable Use:</p> <p>STIPULATION CSU-54: <i>Special Designation WSR</i> (“Recreational”). Surface occupancy or use may be restricted within the WSR study corridor, as defined in Appendix B of the Final Wild and Scenic River Suitability Report for the Uncompahgre Planning Area, of segments determined to have the classification of “Recreational.” (Refer to Appendix B; Figure 7, Appendix A.)</p>
WSR-AU-03	<p>Allowable Use:</p> <p>STIPULATION SSR-61: <i>Special Designation WSR</i>. Apply SSR restrictions within the WSR study corridor, as defined in Appendix B of the Final Wild and Scenic River Suitability Report for the Uncompahgre Planning Area. (Refer to Appendix B; Figure 7, Appendix A.)</p>
	NATIONAL TRAILS AND BYWAYS
	<i>NATIONAL TRAILS</i>
NTR-GOAL-01	<p>GOAL:</p> <p>Enhance, promote, and protect the scenic, natural, and cultural resource values associated with current and future designated National Scenic, Historic, and Recreation Trails.</p>
NTR-OBJ-01	<p>Objective:</p> <p>Identify and manage National Historic Trails. Identify the nature and purposes of National Historic Trails, and, to the greatest extent possible, manage the trails in a manner so as to safeguard the nature and purpose of the trail and in a manner that protects the values for which the trail was designated. Management will be consistent with the Old Spanish National Historic Trail Comprehensive Management Strategy (2017).</p>

	NATIONAL TRAILS AND BYWAYS
NTR-MA-01	Action: Identify known historic trails and/or trail segments (e.g., Old Spanish National Historic Trail-northern branch, Ute Trail, Rivera Expedition trail, Dominguez/Escalante Trail, Loring Military Expedition Trail, and Gunnison Expedition Trail [Figure 28, Appendix A]).
NTR-MA-02	Action: Establish the National Trail Management Corridor for the Old Spanish National Historic Trail. Class III inventory has identified the Old Spanish National Historic Trail corridor in the UFO as roughly centered along US Highway 50. The congressionally designated Old Spanish National Historic Trail route is based on completed field inventories; however, additional Class III inventory may be required to locate and document existing traces located outside the corridor on all BLM-administered parcels. Pursue partners for grant funding where practical to conduct surveys on adjacent lands with landowner permission. The National Historic Trail designation allows for small location changes without congressional authorization (as approved by the Trail Administrators, US DOI, National Park Service-BLM). If the location of the trail changes as a result of Class III inventory, then the management actions in this RMP would apply to the newly mapped location(s) and may be modified to better address the inventory findings. That land no longer identified as trail location, as proven through the archaeological survey, would be managed for similar purposes and with similar VRM class to the adjacent public land.
NTR-MA-03	Action: Manage all National Trails as ROW avoidance areas (100-meter [328 feet] corridor). Class III cultural resource inventory will be required for all ROW applications within these corridors, with avoidance of existing traces being the preferred mitigation.
NTR-MA-04	Action: Manage all National Historic Trails (except the Old Spanish National Historic Trail) as VRM Class II within 0.5-mile of either side of centerline. Manage the Old Spanish National Historic Trail as VRM Class III within 0.5-mile of either side of the centerline of US Highway 50.
NTR-MA-05	Action: Close all congressionally designated National Trails to coal leasing (43 CFR 3400.2[a][4]). Close all National Trails to mineral materials disposal and nonenergy solid mineral leasing (50-meter [164 feet] buffer).
NTR-AU-01	Allowable Use: STIPULATION CSU-55: <i>Special Designation Trail (Old Spanish National Historic Trail)</i> . Surface occupancy or use may be restricted up to (0.5 mile) of the centerline of the following: Old Spanish National Historic Trail. Special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required. (Refer to Appendix B; Figure 7, Appendix A.)

	NATIONAL TRAILS AND BYWAYS
NTR-OBJ-02	<p>Objective: Manage the Tabeguache and Paradox Trails to provide for the ever-increasing outdoor recreation needs of an expanding urban population and to promote the preservation of public access to, travel within, and enjoyment and appreciation of the scenic, natural, and cultural resources.</p>
NTR-MA-06	<p>Action: Proposed to the Secretary of Interior to designate the Tabeguache and Paradox Trails as National Recreation Trails, as described in the National Trails System Act of 1968 (Public Law 90-543; Figure 28, Appendix A).</p>
NTR-AU-02	<p>Allowable Use: STIPULATION CSU-61: <i>Special Designation Trail (National Recreation Trails)</i>. Surface occupancy or use may be restricted within 200 meters (656 feet) of the center line of designated National Recreation trails. Special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet) of the center line of designated National Recreation trails may be required. (Refer to Appendix B; Figure 7, Appendix A.)</p>
	NATIONAL AND BLM BYWAYS
BYW-GOAL-01	<p>GOAL: Enhance, promote, and protect the scenic, natural, and cultural resource values associated with current and future designated byways.</p>
BYW-OBJ-01	<p>Objective: Support efforts of designated byway corridor management plans and aid in the development of byway facilities:</p> <ul style="list-style-type: none"> • Grand Mesa Scenic and Historic Byway • San Juan Skyway (National Scenic Byway and All-American Road) • Unaweep-Tabeguache Scenic and Historic Byway (Colorado Scenic and Historic Byway) • West Elk Scenic and Historic Byway (Colorado Scenic and Historic Byway) <p>(Refer to Figure 28, Appendix A.)</p>
BYW-MA-01	<p>Action: Within 0.5-mile of either side of centerline, designate:</p> <ul style="list-style-type: none"> • Grand Mesa Scenic Byway as VRM Class II • West Elk Scenic Byway, from Northeast UFO boundary to Gunnison County Road 12, as VRM Class II • Remaining portion of West Elk Scenic Byway as VRM Class III • San Juan Skyway as VRM Class III • Unaweep/Tabeguache Byway as VRM Class III
BYW-AU-01	<p>Allowable Use: STIPULATION CSU-58: <i>Special Designation Byway (Scenic Byways)</i>. Surface occupancy or use may be restricted within 805 meters (0.50-mile) of designated scenic byways. Special design, construction, and implementation measures, including</p>

	NATIONAL TRAILS AND BYWAYS
	relocation of operations by more than 200 meters (656 feet), may be required to protect the scenic (visual) values. (Refer to Appendix B; Figure 7, Appendix A.)
	WATCHABLE WILDLIFE VIEWING SITES
WWV-GOAL-01	GOAL: Provide opportunities for publics to see and enjoy native wildlife.
WWV-OBJ-01	Objective: Designate and provide information to the public on Watchable Wildlife Viewing Sites.
WWV-MA-01	Action: Designate the following as Watchable Wildlife Viewing Sites; focus management on enhancing wildlife habitat in these areas and providing opportunities for the public to view and learn about the wildlife of these areas: <ul style="list-style-type: none"> • Uncompahgre Riverway • Billy Creek • San Miguel River ACEC (Important Bird Area) (Refer to Figure 21, Appendix A.)
WWV-MA-02	Action: Where feasible, complete wildlife habitat improvements to enhance fish/wildlife viewing opportunities, while maintaining protection of fish/wildlife.
WWV-MA-03	Action: Manage 20 acres of Uncompahgre Riverway Watchable Wildlife Viewing Site to protect and enhance migratory and breeding bird and native fish habitat.
WWV-MA-04	Action: Manage 2,990 acres of Billy Creek Watchable Wildlife Viewing Site, in coordination with CPW, to protect and enhance migratory and breeding bird and big game habitat.
WWV-MA-05	Action: Manage 22,780 acres of San Miguel Watchable Wildlife Viewing Site to protect and enhance migratory and breeding bird and native fish habitat.
WWV-MA-06	Action: In coordination with CPW and local wildlife-related organizations (e.g., Black Canyon Audubon, Colorado Breeding Bird Atlas, Colorado Natural Areas Program, and hunting groups), evaluate known wildlife concentration areas or areas with special wildlife interest for possible additional designation as Watchable Wildlife Viewing Sites.
WWV-MA-07	Action: Provide such facilities as informational and interpretive signs, designated trail systems, and restrooms, as needed for enhanced visitor use, enjoyment, and safety. Provide adequate protection (e.g., signs, use stipulations, barricades, and fences), as needed to protect sensitive species and their habitats.

SOCIAL AND ECONOMIC	
NATIVE AMERICAN TRIBAL INTERESTS	
TRB-GOAL-01	GOAL: Manage public lands to reduce hazardous risks to protect lives, resources, and property. Enhance public health in cooperation with local communities. Provide a process for Native American involvement in the federal decision making process.
TRB-OBJ-01	Objective: Consult on a government-to-government basis with all appropriate federally recognized tribes regarding developments or projects on public lands that may affect historic properties, sacred sites, traditional cultural properties, or traditional use areas of interest or concern to them.
TRB-MA-01	Action: Follow current management practices, as guided by directives contained in BLM Manual 8120 (Tribal Consultation under Cultural Resources), BLM Handbook H-8120-1 (General Procedural Guidance for Native American Consultation), American Indian Religious Freedom Act (42 US Code, 1996), Native American Graves Protection and Repatriation Act (25 US Code, 3001), Executive Order 13007 (Indian Sacred Sites), and Executive Order 13084 (Tribal Consultation).
TRB-MA-02	Action: During project planning, consult with tribes regarding visual resources in connection with Native American religious values and practices. If the visual resources in the project area are important to traditional and religious tribal values, consider modifying or mitigating the project. Consultations with tribes would include proposed programs of avoidance and mitigation, including off-site mitigation. If the project modification, mitigation, or treatment measures cannot be accomplished to the satisfaction of the concerned parties, consider canceling the project at the discretion of the BLM Authorized Officer.
TRB-MA-03	Action: Continue and expand consulting and educational program partnerships with the Northern Ute Tribe, Southern Ute Indian Tribe, and Ute Mountain Ute tribes.
TRB-MA-04	Action: Continue government-to-government consultation with Indian tribes to identify traditional cultural properties, sacred/religious sites, or traditional use areas through face-to-face meetings, letters, phone calls, emails, and on-site visits. If any areas are identified or become known through the Native American notification or consultation process, address their concerns through site- and project-specific modification and/or mitigation.
TRB-MA-05	Action: Protect and preserve Native American cultural and sacred sites and Native American access to these sites whenever possible. Take no action that would adversely affect these areas or locations without consultation with the appropriate Native American tribes (Executive Orders 13007 and 13084).
TRB-MA-06	Action: In cooperation with tribal entities, allow qualified Native Americans appropriate access to public lands in order to practice spiritual traditions and beliefs and to gather resources needed for these practices.

	PUBLIC HEALTH AND SAFETY
PHS-GOAL-01	GOAL: Manage public lands to reduce hazardous risks to protect lives, resources, and property. Enhance public health in cooperation with local communities.
PHS-OBJ-01	Objective: Reduce risks from potential hazard sites and pursue the reduction of hazards.
PHS-MA-01	Action: Post caution signs for the public in the North Delta unexploded ordnance area.
PHS-MA-02	Action: Continue to work with the Army National Guard to remedy unexploded ordnance in support of land use and management specified in this RMP.
PHS-MA-03	Action: Require project proponents in the North Delta unexploded ordnance area to clear the affected project area on a project-specific basis. Clear and dispose of identified unexploded ordnance in accordance with applicable US Army policies and procedures.
PHS-LN-01	LEASE NOTICE LN-UFO-2: Unexploded Ordnance. The lease area is known to contain unexploded ordnance. The Colorado National Guard and Army Reserve used the lease area as a practice area for military training in the past. Periodic surface searches for ordnance may not have located and removed all of the ordnance. Prior to any new activity on the lease area, a survey for surface and subsurface unexploded ordnance is required to avoid impacts on health and safety. Lessees must contact the UFO prior to any surface activities associated with this lease. The lessee will be required to coordinate with the Colorado National Guard, Army Reserve, and the Colorado Department of Public Health and Environment to conduct additional surveys to ensure that there is no unexploded ordnance present on the proposed disturbance sites and appropriate actions are taken to be sure the sites are safe for use. The BLM may recommend modifications to exploration and development proposals to avoid impacts on health and safety. The lease holder agrees to indemnify the United States against any liability arising from the lease holder's and its agents' activities on the lease area.
PHS-MA-04	Action: To the extent possible, conduct hazardous material response and reclaim sites in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 300) and the Comprehensive Environmental Response, Compensation, and Liability Act.
PHS-MA-05	Action: Close the US Department of Energy Uranium Mill Tailings Remedial Action Area to mineral materials disposal.
PHS-AU-01	Allowable Use: STIPULATION NSO-66/NGD-30: <i>US Department of Energy Uranium Mill Tailings Remedial Action Area.</i> Prohibit surface occupancy and use and surface-disturbing activities in the supplemental standard area around Uravan associated with the US Department of Energy Uranium Mill Tailings Remedial Action Area. (Refer to Appendix B; Figures 7 and 9, Appendix A.)

	PUBLIC HEALTH AND SAFETY
PHS-AU-02	Allowable Use: STIPULATION NSO-67: <i>Dwellings and High Occupancy Buildings</i> . Prohibit surface occupancy and use within 305 meters (1,000 feet) of occupied dwellings and building units (as defined by the State of Colorado). (Refer to Appendix B; Figure 7, Appendix A.)
PHS-MA-06	Action: Manage new and abandoned mine lands projects to include rehabilitation to reduce active erosion. Consider closing routes as part of comprehensive travel management planning.
PHS-MA-07	Action: Provide for public safety in the event of a burning or smoldering coal seam.

Table II-5
Summary of Wild and Scenic River Study Segments

River or Creek	Total Segment Length (miles)	Length on BLM Land (miles)	Total Study Corridor (acres)	Area on BLM Land (acres)	Preliminary Classification	Outstandingly Remarkable Values
Monitor Creek	9.4	9.4	2,540	2,540	Wild	Fish, Vegetation
Potter Creek	9.8	9.8	2,810	2,810	Wild	Fish, Vegetation
Roubideau Creek Segment 1	10.0	10.0	2,680	2,680	Wild	Recreational, Wildlife, Cultural, Vegetation
Beaver Creek	14.3	14.2	4,170	3,640	Recreational	Vegetation
Saltado Creek	5.6	4.1	1,640	1,340	Wild	Vegetation
San Miguel River Segment 1	27.2	17.3	8,360	6,680	Recreational	Scenic, Recreational, Wildlife, Historic, Vegetation, Paleontology
San Miguel River Segment 2	4.0	3.6	1,260	1,100	Wild	Scenic, Recreational, Wildlife, Vegetation
San Miguel River Segment 3	4.5	4.5	1,350	1,350	Recreational	Recreational, Fish, Wildlife, Vegetation
San Miguel River Segment 5	7.5	1.3	2,340	1,740	Recreational	Recreational, Fish, Historic, Vegetation
San Miguel River Segment 6	2.1	2.1	390	390	Recreational	Recreational, Fish, Historic, Vegetation
Tabeguache Creek Segment 1	3.4	3.4	1,010	1,010	Wild	Vegetation
Lower Dolores River	4.2	4.2	630	630	Scenic	Scenic, Recreational, Geologic, Fish, Wildlife
Dolores River Segment 1a	8.7	8.7	1,950	1,950	Wild	Recreational, Scenic, Fish, Wildlife, Geology, Ecologic, Archaeology
Dolores River Segment 2	5.3	5.3	1,230	1,230	Recreational	Scenic, Recreational, Geologic, Fish, Wildlife, Vegetation
La Sal Creek Segment 2	3.3	3.3	790	790	Recreational	Fish, Vegetation
La Sal Creek Segment 3	3.4	3.4	800	800	Wild	Scenic, Recreational, Fish, Cultural, Vegetation

Sources: BLM 2010c; BLM and Forest Service 2007

Table II-6
Renewable Energy Exclusion and Avoidance Areas¹

ACECs	<p>Adobe Badlands, Biological Soil Crust, Needle Rock, Paradox Rock Art: Wind: Avoid Solar: Avoid Hydropower: Avoid</p> <p>Fairview South (BLM Expansion): Wind: Exclude Solar: Exclude Hydropower: Exclude</p>
Within 50 feet of all perennial streams and naturally occurring riparian and wetland areas, springs, and seeps, unless it can be determined that the project would maintain Proper Functioning Condition	<p>Wind: Avoid Solar: Avoid Hydropower: Avoid</p>
Suitable WSR Segments	<p>Lower Dolores River: Wind: Avoid Solar: Avoid Hydropower: Avoid</p> <p>Dolores River Segment 1a, La Sal Creek Segment 3, Monitor Creek, Potter Creek, Roubideau Creek Segment 1, Saltado Creek, San Miguel River Segment 2, Tabeguache Creek Segment 1: Wind: Exclude Solar: Exclude Hydropower: Exclude</p>
Wilderness Study Areas and Tabeguache Area	<p>Wind: Exclude Solar: Exclude Hydropower: Exclude</p>
Within 200 meters (656 feet) of occupied habitat of federally listed, candidate, and proposed plant species	<p>Wind: Avoid Solar: Avoid Hydropower: Avoid</p>
Within 1.0 mile of occupied federally listed fish habitat	<p>Wind: Avoid Solar: Avoid Hydropower: Avoid</p>

Within known occupied habitat for federally listed wildlife and bird species	Wind: Avoid Solar: Avoid Hydropower: Avoid
In all Gunnison sage-grouse breeding habitat (lek and non-lek) plus a 0.6-mile radius	Wind: Avoid Solar: Avoid Hydropower: Avoid
Within Gunnison sage-grouse designated critical habitat	Wind: Avoid Solar: Avoid Hydropower: Avoid
Lands with Wilderness Characteristics	Lands managed to minimize impacts on wilderness characteristics: Wind: Avoid Solar: Avoid Hydropower: Avoid
National Historic Trails, within 100-meter buffer on either side of centerline	Wind: Avoid Solar: Avoid Hydropower: Avoid
Total Acres – Open	Wind: 434,300 Solar: 434,300 Hydropower: 434,300
Total Acres – Avoid (Includes other ROW Avoidance)	Wind: 175,530 Solar: 175,530 Hydropower: 175,530
Total Acres – Exclude (Includes other ROW Exclusion)	Wind: 65,970 Solar: 65,970 Hydropower: 65,970

Sources: BLM 2012c, 2018, 2019

'An area restricted by "Exclusion" is closed to the type of renewable energy project. An area restricted by "Avoidance" allows some use and occupancy of BLM-administered lands while protecting identified resources or values. These areas are potentially open to renewable energy projects, but the restriction allows the BLM to require special constraints, or the activity can be shifted to protect the specified resource or value based on site specific analysis.

Notes: Geothermal development would follow stipulations shown under Fluid Minerals. Solar energy projects are allowed for fewer than 20 megawatts only.

II.3 PUBLIC INVOLVEMENT

The BLM will continue to work with existing partners, to cultivate new partnerships, and to seek the views of the public. It will use such techniques as news releases and website postings to ask for participation and to inform the public of new and ongoing management actions and site-specific planning. The public is encouraged to contact the BLM (UFO at 2465 South Townsend Avenue, Montrose, Colorado 81401) and request that their names be placed in the UFO mailing list, along with their specific area of interest (e.g., wildlife, cultural resources, or socioeconomics) for plan implementation. The public may also make this request by calling (970) 240-5300.

The BLM will also continue to coordinate, both formally and informally, with the numerous federal and state agencies, Native American tribes, local agencies, and officials interested and involved in the management of public lands in the UFO.

II.4 MANAGEMENT PLAN IMPLEMENTATION

The BLM will develop an implementation plan to identify actions to achieve the desired outcomes of the Approved RMP. The implementation plan will assist BLM managers and staff to prepare budget requests and to schedule work priorities. The BLM will prepare supplementary rules to provide full authority to BLM Law Enforcement to enforce management decisions made in the Approved RMP pursuant to the BLM's authority under 43 CFR 8365.1-6.

The BLM will issue implementation decisions to fully implement the RMP. During implementation of the RMP, the BLM will prepare additional documentation for site-specific actions to comply with NEPA. This can vary from a simple statement of conformance with the RMP and adequacy of existing NEPA analysis to more complex EAs or EISs that analyze several alternatives.

II.5 RMP EVALUATION, AMENDMENT, MAINTENANCE, MONITORING, AND ADAPTIVE MANAGEMENT

The BLM will monitor and periodically evaluate implementation of the RMP based on guidance in the BLM's Land Use Planning Handbook, H-1601-1 (BLM 2005), as amended.

II.5.1 RMP EVALUATION

Evaluation is the process of reviewing the land use plan and the periodic plan monitoring reports to determine whether the land use plan decisions and NEPA analysis are still valid and how effectively the plan is being implemented. In accordance with the BLM's Land Use Planning Handbook (H-1601-1; BLM 2005), the BLM will periodically evaluate an approved RMP to determine whether the land use plan decisions and NEPA analysis are still valid and whether the plan is being implemented effectively. Land use plan evaluations determine whether:

- The decisions remain relevant to current issues

- Decisions are effective in achieving or making progress toward achieving the desired outcomes specified in the RMP
- Any decisions need revision, amendment, or deletion
- Any new decisions are needed

In making these determinations, the BLM's evaluation will consider whether mitigation measures such as those described in the Approved RMP are effective in mitigation impacts, whether there are significant changes in the related plans of other entities, or whether there is significant new information. In addition to periodic evaluations, special evaluations may also be required to review unexpected management actions or significant changes in the related plans of Native American tribes, other federal agencies, and state and local governments, or to evaluate legislation or litigation that has the potential to trigger an amendment or revision to the RMP. Evaluations may identify resource needs, as well as the means for correcting deficiencies and addressing issues through plan maintenance, amendments, or revisions. Evaluations should also identify where new and emerging issues and other values have surfaced.

II.5.2 RMP AMENDMENT

RMP decisions are subsequently changed through either a plan amendment or another RMP revision. The process for conducting plan amendments is basically the same as the land use planning process used in developing or revising RMPs. The primary difference is that circumstances may allow for completing a plan amendment through the environmental assessment process, rather than through an EIS. Plan amendments (43 CFR 1610.5-5) change one or more of the terms, conditions, or decisions of an approved land use plan. Plan amendments are most often prompted by the need to consider a proposal or action that does not conform to the plan; implement new or revised policy that changes land use plan decisions; respond to new, intensified, or changed uses on BLM land; and consider significant new information from resource assessments, monitoring, or scientific studies that change land use plan decisions.

II.5.3 RMP MAINTENANCE

BLM regulations in 43 CFR 1610.5-4 stipulate that RMP decisions and supporting actions can be maintained to reflect minor data changes. Maintenance is limited to further refining, documenting, or clarifying a previously approved decision incorporated in the RMP. Maintenance must not expand the scope of resource uses or restrictions or change the terms, conditions, and decisions of the approved RMP. Some examples of maintenance actions are:

- Correcting minor data, typographical, mapping, or tabular data errors, such as updating acreage figures shown throughout the RMP. Acreages are based on GIS data, which are subject to constant refinement.
- Refining baseline information as a result of new inventory data (e.g., refining the known habitat of special status species, or adjusting the boundary of a fire management unit based on updated fire regime condition class inventory, fire occurrence, monitoring data, and/or demographic changes)

Plan maintenance will be documented in supporting records. Plan maintenance does not require formal public involvement, interagency coordination, or the NEPA analysis required for making new land use plan decisions.

II.5.4 RMP MONITORING

Monitoring is the process of tracking and documenting the implementation (or the progress of implementation) of land use plan decisions. Land use plan decision monitoring is a continuous process occurring over the life of the RMP. The aim is to maintain a dynamic RMP. Monitoring data are collected, examined, and used to draw conclusions about 1) whether planned actions have been implemented in the manner prescribed by the RMP (implementation monitoring) identified in **Section II.2, Management Decisions**, 2) whether RMP allowable use and management action decisions and the resultant implementation actions are effective in achieving program-specific objectives or desired outcomes (effectiveness monitoring), and 3) calculating the cost of delivering a service or product (efficiency monitoring by program elements). Implementation monitoring tracks the completion of land use plan decisions, whereas effectiveness monitoring helps determine whether completion of land use plan decisions achieves anticipated desired outcomes. If implementation of land use plans does not achieve anticipated desired outcomes, adaptive management may be necessary.

The BLM uses conclusions drawn from monitoring to make recommendations on whether to continue current management or to determine what changes need to be made to implementation practices to better achieve RMP goals. Indicators, methods, locations, units of measures, frequency, and action triggers can be established by national policy guidance, in RMPs, or by technical specialists in order to address specific issues.

Based on staffing and funding levels, monitoring is annually prioritized consistently with the goals and objectives of the RMP. The BLM may work in cooperation with local, state, and other federal agencies, or it may use data collected by other agencies and sources when appropriate and available.

II.5.5 ADAPTIVE MANAGEMENT

Adaptive management is a system of management practices based on clearly identified outcomes, monitoring to determine if management actions are meeting outcomes, and, if not, facilitating management changes that will best ensure that outcomes are met or to reevaluate the outcomes. The UFO will implement the adaptive management process for decisions appropriate to be adapted in order to meet resource goals and objectives. These include, but are not limited to, air resources, water resources, fish and wildlife, soils, and livestock grazing. For air resources, refer to Section IV of the Comprehensive Air Resources Protection Protocol (Proposed RMP/Final EIS Appendix H; BLM 2015). The BLM will implement an adaptive management strategy to account for changing resource conditions and to minimize adverse impacts on resources from BLM-authorized activities. The strategy includes evaluating conditions on an ongoing basis and, if necessary, implementing appropriate mitigation measures to meet the identified RMP objectives and targets. Monitoring, reports, documents, and timelines associated with the adaptive management process will be subject to UFO budget and staffing constraints.

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II.7 GLOSSARY

100-year floodplain. The area inundated by a flood event with a one percent chance of occurring in any given year.

2920 permits. Land use authorizations processed under 43 CFR 2920 that can include agricultural, industrial, commercial, or residential uses, such as commercial filming, advertising displays, apiaries, commercial or noncommercial croplands, or temporary or permanent facilities for commercial purposes. Section 302 of the Federal Land Policy and Management Act provides BLM's authority to issue these types of leases and permits.

Abandoned nest. A nest that was occupied by breeding birds earlier in the breeding season but was abandoned at some point during breeding (e.g., failed eggs, death of young).

Acquisition. Acquisition of lands can be pursued to facilitate various resource management objectives. Acquisitions, including easements, can be completed through exchange, purchase, or donation.

Active nest site. A raptor nest site that is currently occupied by a pair of breeding raptors.

Active movement. Livestock movement from one grazing area to another, which involves the deliberate intent to keep livestock traveling, by the use of riding and herding, until they reach the next grazing area. Both crossing and trailing are forms of active movement. See also *Crossing* and *Trailing*.

Activity plan. A type of implementation plan (see *Implementation plan*); an activity plan usually describes multiple projects and applies best management practices to meet land use plan objectives. Examples of activity plans include interdisciplinary management plans, habitat management plans, recreation area management plans, and grazing plans.

Actual use. The amount of animal unit months consumed by livestock based on the numbers of livestock and grazing dates submitted by the livestock operator and confirmed by periodic field checks by the BLM.

Adaptive equipment. Devices that are used to assist with completing activities of daily living.

Adaptive management. A type of natural resource management in which decisions are made as part of an ongoing science-based process. Adaptive management involves testing, monitoring, and evaluating applied strategies, and incorporating new knowledge into management approaches that are based on scientific findings and the needs of society. Results are used to modify management policy, strategies, and practices.

Administrative access. Administrative access pertains to travel on routes that are limited to authorized users (typically motorized access). These are existing routes that lead to developments that have an administrative purpose, where the BLM or a permitted user must have access for regular maintenance or operation.

Air basin. A land area with generally similar meteorological and geographic conditions throughout. To the extent possible, air basin boundaries are defined along political boundary lines and include both the source and receptor areas.

Air pollution. Degradation of air quality resulting from unwanted chemicals or other materials occurring in the air.

Air quality classes. Classifications established under the Prevention of Significant Deterioration portion of the Clean Air Act, which limits the amount of air pollution considered significant within an area. Class I applies to areas where almost any change in air quality would be significant; Class II applies to areas where the deterioration normally accompanying moderate well-controlled growth would be insignificant; and Class III applies to areas where industrial deterioration would generally be insignificant.

Airshed. A subset of air basin, the term denotes a geographical area that shares the same air because of topography, meteorology and climate.

Allotment. An area of land in which one or more livestock operators graze their livestock. Allotments generally consist of BLM lands but may include other federally managed, state-owned, and private lands. An allotment may include or more separate pastures. Livestock numbers and periods of use are specified for each allotment.

Allotment management plan. A concisely written program of livestock grazing management, including supportive measures if required, designed to attain specific, multiple-use management goals in a grazing allotment. An AMP is prepared in consultation with the permittee(s), lessee(s), and other affected interests. Livestock grazing is considered in relation to other uses of the range and to renewable resources, such as watershed, vegetation, and wildlife. An AMP establishes seasons of use, the number of livestock to be permitted, the range improvements needed, and the grazing system.

Allowable cut. The amount of timber, which can be harvested on an annual or decadal basis consistent with the principle of sustained yield. The allowable cut includes all planned timber harvest volumes exclusive of such products as Christmas trees, branches, and cones.

Allowable sale quantity. The quantity of timber that may be sold from an area covered by a land management plan during a period specified by the plan, usually expressed as the average annual allowable sale quantity.

All-terrain vehicle. A motorized vehicle that is less than 50 inches in width and is capable of operating on roads, trails, or designed areas that are not maintained. A wheeled vehicle, other than a snowmobile, that has a wheelbase and chassis of 50 inches in width or less, generally has a dry weight of 800 to 1200 pounds or less, and travels on three or more low-pressure tires.

Alluvial soil. A soil developing from recently deposited alluvium and exhibiting essentially no horizon development or modification of the recently deposited materials.

Alluvium. Clay, silt, sand, gravel, or other rock materials transported by moving water. Deposited in comparatively recent geologic time as sorted or semi-sorted sediment in rivers, floodplains, lakes, and shores, and in fans at the base of mountain slopes.

Alternate nest (inactive nest) site. A raptor nest site that has been used in the past by and within the territory of a breeding pair of raptors. The nest site still maintains the characteristics of a nest structure and habitat features of a nest site but is not currently in use.

Ambient air quality. The state of the atmosphere at ground level as defined by the range of measured and/or predicted ambient concentrations of all significant pollutants for all averaging periods of interest.

Ambient noise. The all-encompassing noise level associated with a given environment, being a composite of sounds from all sources.

Amendment. The process for considering or making changes in the terms, conditions, and decisions of approved Resource Management Plans or management framework plans. Usually only one or two issues are considered that involve only a portion of the planning area.

Analysis of the Management Situation. Assessment of the current management direction. It includes a consolidation of existing data needed to analyze and resolve identified issues, a description of current BLM management guidance, and a discussion of existing problems and opportunities for solving them.

Ancient (vegetation). Very old woodlands or forests (450 years or more) with old growth stand structure that has persisted through multiple droughts.

Animal unit month (AUM). The amount of forage necessary to sustain one cow, five sheep, or five goats for a period of one month.

Application for a permit to drill. An application by which an oil and gas operator with a valid lease applies to the BLM or the Colorado Oil and Gas Conservation Commission to begin drilling. Onshore Oil and Gas Order No. 1 specifies what must be included in BLM applications for permit to drill.

Aquatic. Living or growing in or on the water.

Area of Critical Environmental Concern (ACEC). Special Area designation established through the BLM's land use planning process (43 CFR 1610.7-2) where special management attention is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes, or to protect life and safety from natural hazards. The level of allowable use within an ACEC is established through the collaborative planning process. Designation of an ACEC allows for resource use limitations in order to protect identified resources or values.

Assets. Term utilized to describe roads, primitive roads, and trails that comprise the transportation system. Also the general term utilized to describe all BLM constructed "Assets" contained within the Facility Asset Management System.

Associated settings. The geographic extent of the resources, qualities, and values or landscape elements within the surrounding environment that influence the trail experience and contribute to resource protection. Settings associated with a National Scenic or Historic Trail include scenic, historic, cultural, recreation, natural (including biological, geological, and scientific), and other landscape elements (see *resources, qualities, and values*).

Atmospheric deposition. Air pollution produced when acid chemicals are incorporated into rain, snow, fog, or mist and fall to the earth. Sometimes referred to as "acid rain" and comes from sulfur oxides and nitrogen oxides, products of burning coal and other fuels and from certain industrial processes. If the acid chemicals in the air are blown into the area where the weather is wet, the acids can fall to earth in the rain, snow, fog, or mist. In areas where the weather is dry, the acid chemicals may become incorporated into dust or smoke.

Attainment area. A geographic area in which levels of a criteria air pollutant meet the health-based National Ambient Air Quality Standard for that specific pollutant.

Attenuation. The reduction of sound intensity and energy as a function of distance traveled.

Avoidance area. See "*right-of-way avoidance area*" definition.

Backcountry. Lands which are remote from development and typically difficult to access.

Backcountry byway. Vehicle routes that traverse scenic corridors using secondary or backcountry road systems. National backcountry byways are designated by the type of road and vehicle needed to travel the byway.

Badland. A type of dry terrain where softer sedimentary rocks and clay-rich soils have been extensively eroded by wind and water. An example of badland terrain in the UFO is the Adobe Badlands Wilderness Study Area.

Bank-full stage. The water surface elevation that just fills the active channel to the top of its banks and at a point where the water begins to overflow onto a floodplain.

Beneficial outcomes. Also referenced as “recreation benefits;” improved conditions, maintenance of desired conditions, prevention of worse conditions, and realization of desired experiences.

Best management practice (BMP). A method, process, or activity, or usually a combination of these, that are determined by a State or a designated planning agency to be the most effective and practicable means (including technological, economic, and institutional considerations) of managing or controlling particular conditions or circumstances. BMPs are a suite of voluntary, accepted measures that may or may not be applied to or enforced for any given project.

Big game. Indigenous, ungulate (hoofed) wildlife species that are hunted, such as elk, deer, bison, bighorn sheep, and pronghorn.

Biodiversity (biological diversity). The variety of life and its processes, and the interrelationships within and among various levels of ecological organization.

Biological Opinion. A document prepared by the United States Department of Interior, Fish and Wildlife Service stating their opinion as to whether or not a federal action will likely jeopardize the continued existence or adversely modify the critical habitat of a listed threatened or endangered species.

Biological soil crust. A complex association between soil particles and cyanobacteria, algae, microfungi, lichens, and bryophytes that live within or atop the uppermost millimeters of soil.

BLM Sensitive Species. Those species that are not federally listed as endangered, threatened, or proposed under the Endangered Species Act of 1973, but that are designated by the BLM State Director under 16 USC 1536(a)(2) for special management consideration. By national policy, federally listed candidate species are automatically included as sensitive species. Sensitive species are managed so they will not need to be listed as proposed, threatened, or endangered under the Endangered Species Act.

Breccia. A coarse-grained clastic composed of angular fragments of other rocks held together by cement or other fine-grained matrix. Can have a sedimentary breccia, fault breccia, collapse breccia, or volcanic breccia.

Burned area rehabilitation. Efforts undertaken within three years of containment of a wildfire to repair or improve fire-damaged lands unlikely to recover naturally to management approved conditions, or to repair or replace minor facilities damaged by fire.

Candidate species. Taxa for which the United States Department of Interior, Fish and Wildlife Service has sufficient information on their status and threats to propose the species for listing as endangered or threatened under the Endangered Species Act of 1973, but for which issuance of a proposed rule is currently precluded by higher priority listing actions. Separate lists for plants, vertebrate animals, and

invertebrate animals are published periodically in the Federal Register (BLM Manual 6840, Special Status Species Manual).

Categorical Exclusion. A category of actions (identified in agency guidance) that do not individually or cumulatively have a significant effect on the human environment, and for which neither an environmental assessment nor an environmental impact statement is required (40 CFR 1508.4), but a limited form of NEPA analysis is performed.

Chemical vegetation treatment. Application of herbicides to control invasive species/noxious weeds and/or unwanted vegetation. To meet resource objectives the preponderance of chemical treatments would be used in areas where cheatgrass or noxious weeds have invaded sagebrush steppe.

Chert. A hard, dense microcrystalline sedimentary rock formed of microscopic, interlocking crystals of quartz. Can form concretions, nodules, or be bedded.

Citizen Wilderness Proposal. Areas that have been inventoried and proposed for Wilderness designation by citizens.

Classified surface water supply segment. A “public water system,” as defined by the State of Colorado, beginning at the surface water point of intake and extending 5 miles upstream.

Clastic. A sedimentary rock composed of fragments of other rocks that are transported mechanically to their place of deposition. Shale, siltstone, sandstone, conglomerate are all classic rocks.

Clay-loving wild buckwheat. A habitat specialist occupying a specific soil type derived from Mancos shale. Often the species is further specialized, occupying a narrow range of slopes and aspects that facilitate moisture capture and retention. For the purposes of implementing NSO-22/SSR-21 for clay-loving wild buckwheat, “habitat” is defined as the specific soils, slopes, and aspects where a population of clay-loving wild buckwheat occur.

Clean Air Act (as amended). Federal legislation governing air pollution control.

Climate change. Any significant change in measures of climate (such as temperature, precipitation, or wind) lasting for an extended period (decades or longer). Climate change may result from:

- natural factors, such as changes in the sun's intensity or slow changes in the Earth's orbit around the sun;
- natural processes within the climate system (e.g., changes in ocean circulation); and
- human activities that change the atmosphere's composition (e.g., driving automobiles) and the land surface (e.g., deforestation, reforestation, urbanization, desertification, etc.).

Climax vegetative community. The final vegetation community and highest ecological development of a plant community that emerges after a series of successive vegetational stages. The climax community perpetuates itself indefinitely unless disturbed by outside forces.

Closed area. An area where one or more uses are prohibited either temporarily or over the long term. Areas may be closed to uses such as, but not limited to, off-road vehicles, mineral leasing, mineral or vegetative material collection, or target shooting. In off-road vehicle use closed areas, motorized and mechanized off-road vehicle use is prohibited. Use of motorized and mechanized off-road vehicles in closed areas may be allowed for certain reasons; however, such use shall be made only with the approval of the authorized officer (43 CFR 8340.0-5).

Collaboration. A cooperative process in which interested parties, often with widely varied interests, work together to seek solutions with broad support for managing public and other lands. Collaboration may take place with any interested parties, whether or not they are a cooperating agency.

Collaborative partnerships. Refers to people working together, sharing knowledge and resources, to achieve desired outcomes for public lands and communities within statutory and regulatory frameworks.

Colorado hookless cactus. A habitat generalist that occupies nearly all ecological sites that support the salt desert ecosystem, from Roubideaux Canyon to the Bookcliffs. For the purposes of implementing NSO-22/SSR-21 for Colorado hookless cactus, “habitat” is defined as an individual plant or population plus 10 feet.

Commercial wood collection. Any type of wood collection producing merchantable material at least equal to the value of the cost of harvesting. Managed under a contract of sale for a prescribed volume of material generally in number of board feet and or biomass. The material is sold under a contract and the harvest and removal of material is managed or overseen by a BLM agency representative.

Commercial wood product. Larger timber materials that will be sent to a mill for further processing and resale.

Common use area. Areas designated to sell various mineral materials (gravel, moss rock, etc.) to the public through purchase of a permit from the BLM Field Office.

Comprehensive trails and travel management. The proactive interdisciplinary planning; on-the-ground management and administration of travel networks (both motorized and nonmotorized) to ensure public access, natural resources, and regulatory needs are considered. It consists of inventory, planning, designation, implementation, education, enforcement, monitoring, easement acquisition, mapping and signing, and other measures necessary to provide access to public lands for a wide variety of uses (including uses for recreational, traditional, casual, agricultural, commercial, educational, landing strips, and other purposes).

Concession leases. Authorize the operation of recreation-oriented services and facilities by the private sector, on BLM-administered lands, in support of BLM recreation programs. The concessionaire is authorized through a concession lease administered on a regular basis. The lease requires the concessionaire to pay fees to the BLM in exchange for the opportunity to carry out business activity. BLM Handbook H-2930-I, Recreation Permit Administration, provides consistent and explicit direction to supplement the BLM Recreation Permit Administration Manual 2930 and regulations set forth in 43 CFR 2930.

Condition class (fire regimes). Fire regime condition classes are a measure describing the degree of departure from historical fire regimes, possibly resulting in alterations of key ecosystem components, such as species composition, structural stage, stand age, canopy closure, and fuel loadings. One or more of the following activities may have caused this departure: fire suppression, timber harvesting, livestock grazing, introduction and establishment of exotic plant species, introduced insects or disease, or other management activities.

Condition of approval. Condition or provision (requirement) under which an application for a permit to drill, sundry notice, or other authorization is approved.

Conformance. A proposed action shall be specifically provided for in the land use plan or, if not specifically mentioned, shall be clearly consistent with the goals, objectives, or standards of the approved land use plan.

Conservation agreement. A formal signed agreement between the United States Department of Interior, Fish and Wildlife Service or National Oceanographic and Atmospheric Administration-Fisheries and other parties that implement specific actions, activities, or programs designed to eliminate or reduce threats to, or otherwise improve the status of, a species. Conservation agreements can be developed at a state, regional, or national level and generally include multiple agencies at both the state and federal level, as well as tribes. Depending on the types of commitments the BLM makes in a conservation agreement and the level of signatory authority, plan revisions or amendments may be required before the conservation agreement is signed or subsequently in order to implement the conservation agreement.

Conservation strategy. A strategy outlining current activities or threats that are contributing to the decline of a species, along with the actions or strategies needed to reverse or eliminate such a decline or threats. Conservation strategies are generally developed for species of plants and animals that are designated as BLM sensitive species or that have been determined by the United States Department of Interior, Fish and Wildlife Service or National Oceanographic and Atmospheric Administration-Fisheries to be federal candidates under the Endangered Species Act of 1973.

Controlled surface use (CSU). CSU is a category of moderate constraint stipulations that allows some use and occupancy of public land while protecting identified resources or values and is applicable to fluid mineral leasing and all activities associated with fluid mineral leasing (e.g., truck-mounted drilling and geophysical exploration equipment off designated routes, construction of wells and/or pads). CSU areas are open to fluid mineral leasing but the stipulation allows the BLM to require special operational constraints, or the activity can be shifted more than 200 meters (656 feet) to protect the specified resource or value.

Cooperating Agency. Assists the lead federal agency in developing an environmental assessment or environmental impact statement. These can be any agency with jurisdiction by law or special expertise for proposals covered by NEPA (40 CFR 1501.6). Any tribe or Federal, State, or local government jurisdiction with such qualifications may become a cooperating agency by agreement with the lead agency.

Corridor. A strip of land that aids in the movement of species between disconnected core areas of their natural habitat.

Council on Environmental Quality. An advisory council to the President of the US established by the National Environmental Policy Act of 1969. It reviews federal programs to analyze and interpret environmental trends and information.

Criteria pollutant. The US EPA uses six “criteria pollutants” as indicators of air quality, and has established for each of them a maximum concentration above which adverse effects on human health may occur. These threshold concentrations are called National Ambient Air Quality Standards. The criteria pollutants are ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter and lead.

Critical habitat. An area: A) designated by the United States Department of Interior, Fish and Wildlife Service that is occupied by a threatened or endangered species “on which are found those physical and biological features (1) essential to the conservation of the species, and (2) which may require special management considerations or protection;” or B) on which are found those physical and biological features essential to the conservation of a species that may require special management consideration or protection.

Crossing. Active movement of livestock from one location to another, which is permitted under a crossing permit in accordance with §4130.6-3. A crossing permit may be issued by the BLM Authorized Officer to any applicant showing a need to cross BLM-administered land or other land under BLM control, or both, with livestock for proper and lawful purposes. A temporary use authorization for trailing livestock contains terms and conditions for the temporary grazing use that will occur as deemed necessary by the BLM Authorized Officer.

Crucial habitat types. The environment essential to plant or animal biodiversity and conservation at the landscape level. Crucial habitats include, but are not limited to, ecological emphasis areas, severe winter range, winter concentration areas, reproduction areas, and movement corridors.

Crucial winter range. As defined by CPW, that part of the overall range where 90 percent of the individuals are located during the average five winters out of 10 from the first heavy snowfall to spring green-up, or during a site-specific period of winter as defined for each Colorado Parks and Wildlife Data Analysis Unit.

Cultural resource high priority sites. Those sites which have been identified as being in some danger of modification (e.g., vandalism, erosion, heavy visitation, etc.) which would alter the site's eligibility for listing on the National Register of Historic Places.

Cultural resources. Locations of human activity, occupation, or use. Cultural resources include archaeological, historic, or architectural sites, structures, or places with important public and scientific uses, and locations of traditional cultural or religious importance to specified social and/or cultural groups.

Cultural resources inventory. An inventory to assess the potential presence of cultural resources. There are three classes of surveys:

- **Class I.** An existing data survey. This is an inventory of a study area to (1) provide a narrative overview of cultural resources by using existing information, and (2) compile existing cultural resources site record data on which to base the development of the BLM's site record system.
- **Class II.** A sampling field inventory designed to locate, from surface and exposed profile indications, all cultural resource sites within a portion of an area so that an estimate can be made of the cultural resources for the entire area.
- **Class III.** An intensive field inventory designed to locate, from surface and exposed profile indications, all cultural resource sites in an area. Upon its completion, no further cultural resources inventory work is normally needed.

Cumulative effects. The direct and indirect effects of a proposed project alternative's incremental impacts when they are added to other past, present, and reasonably foreseeable actions, regardless of who carries out the action.

Cyanobacteria. A blue-green algae or bacteria that obtain its energy through photosynthesis.

Decision Area. Lands and federal mineral estate within the planning area that are administered by the BLM.

Deferred rotation. Rotation grazing with regard to deferring pastures beyond the growing season, if they were used early the prior year, or that have been identified as needing deferment for resource reasons.

Degraded vegetation. Areas where the plant community is not complete or is under threat. Examples include missing components such as perennial forbs or cool season grasses, weed infestations, or lack of regeneration of key species such as sagebrush or cottonwoods trees.

Designated roads and trails. Specific roads and trails identified by the BLM (or other agency) where some type of motorized/nonmotorized use is appropriate and allowed, either seasonally or year-long (BLM Handbook H-1601-I, BLM Land Use Planning Handbook).

Desired future condition. For rangeland vegetation, the condition of rangeland resources on a landscape scale that meet management objectives. It is based on ecological, social, and economic considerations during the land planning process. It is usually expressed as ecological status or management status of vegetation (species composition, habitat diversity, and age and size class of species) and desired soil qualities (soil cover, erosion, and compaction). In a general context, desired future condition is a portrayal of the land or resource conditions that are expected to result if goals and objectives are fully achieved.

Desired outcomes. A type of land use plan decision expressed as a goal or objective.

Direct impacts. Direct impacts are caused by an action or implementation of an alternative and occur at the same time and place.

Directional drilling. A drilling technique whereby a well is deliberately deviated from the vertical in order to reach a particular part of the oil- or gas-bearing reservoir. Directional drilling technology enables the driller to steer the drill stem and bit to a desired bottom hole location. Directional wells initially are drilled straight down to a predetermined depth and then gradually curved at one or more different points to penetrate one or more given target reservoirs. This specialized drilling usually is accomplished with the use of a fluid-driven downhole motor, which turns the drill bit. Directional drilling also allows multiple production and injection wells to be drilled from a single surface location such as a gravel pad, thus minimizing cost and the surface impact of oil and gas drilling, production, and transportation facilities. It can be used to reach a target located beneath an environmentally sensitive area.

Disposal lands. Transfer of public land out of federal ownership to another party through sale, exchange, Recreation and Public Purposes Act of 1926, Desert Land Entry or other land law statutes.

Disruptive activities. Human-caused disturbances that induce stress on a population, community, or ecosystem and cause potential loss of species fitness (survival, reproduction, and recruitment) within crucial habitats or other sensitive areas during specified time periods; may or may not entail surface disturbance. This does not include regular background levels of activity, such as hiking, cross country skiing or livestock grazing, that individuals would be accustomed to. Examples of disruptive activities include:

- Commercial recreation activities, especially large groups;
- Abnormally loud or sustained noise; and
- Road maintenance.

Diversity. The relative abundance of wildlife species, plant species, communities, habitats, or habitat features per unit of area.

Domestic well. A well serving up to three single-family dwellings, irrigating one acre or less of lawn and garden, and providing water for the individual's domestic animals and livestock.

Early detection. As applied to invasive species, is a comprehensive, integrated system of active or passive surveillance to find and verify the identity of new invasive species as early after entry as possible, when eradication and control are still feasible and less costly. It may be targeted at areas where introductions are likely (such as near to pathways of introduction) and in sensitive ecosystems where impacts are likely to be great or invasion is likely to be rapid.

Easement. A right afforded a person or agency to make limited use of another's real property for access or other purposes.

Ecologic functionality. These levels include successional processes that are in place, energy and nutrients that are being cycled effectively, and soil that is being appropriately stabilized. An area can be functioning at a basic level of ecologic functionality without meeting land health standards.

Ecological emphasis area. The central and primary area of habitat for a population of a given species or group of species. These areas include corridors, which are strips of land that aid in the movement of species between disconnected emphasis areas of their natural habitat. Emphasis areas may be divided into smaller geographical zones.

Ecosystem diversity. The variety of habitats, living communities, and ecological processes in the living world. Ecosystem diversity refers to the diversity of a place at the level of ecosystem. Inherent in ecosystem diversity are both biotic (living) and abiotic (non-living) components. The term differs from biodiversity, which refers to variation in species rather than ecosystems.

Element Occurrence Record. A record of an individual plant or plant population present at a specific geographic location at a specific time.

Eligible river. A river or river segment found to meet criteria found in Sections 1(b) and 2(b) of the Wild and Scenic Rivers Act of being free flowing and possessing one or more outstandingly remarkable value (BLM Manual 6400, Wild and Scenic Rivers – Policy and Program Direction for Identification, Evaluation, Planning, and Management).

Emergency stabilization. Planned actions to stabilize and prevent unacceptable degradation to natural and cultural resources, to minimize threats to life or property resulting from the effects of a fire, or to repair/replace/construct physical improvements necessary to prevent degradation of land or resources. Emergency stabilization actions must be taken within one year following containment of a wildfire.

Endangered species. Any species that is in danger of extinction throughout all or a significant portion of its range (BLM Manual 6840, Special Status Species Manual). Under the Endangered Species Act of 1973 in the US, "endangered" is the more-protected of the two categories. Designation as endangered (or threatened) is determined by United States Department of Interior, Fish and Wildlife Service as directed by the Endangered Species Act.

Endangered Species Act of 1973 (ESA) (as amended). Designed to protect critically imperiled species from extinction as a consequence of economic growth and development untempered by adequate concern and conservation. The Act is administered by two federal agencies, United States Department of Interior, Fish and Wildlife Service and the National Oceanic and Atmospheric Administration. The purpose of the Act is to protect species and also the ecosystems upon which they depend (16 US Code 1531-1544).

Enhance. Increase or improve in value, quality or desirability.

Environmental assessment. A concise public document prepared to provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact. It includes a brief discussion of the need for the proposal, alternatives considered, environmental impact of the proposed action and alternatives, and a list of agencies and individuals consulted.

Environmental impact statement (EIS). A detailed statement prepared by the responsible official in which a major federal action that significantly affects the quality of the human environment is described, alternatives to the proposed action are provided, and effects are analyzed (BLM National Management Strategy for OHV Use on Public Lands).

Evaluation (plan evaluation). The process of reviewing the land use plan and the periodic plan monitoring reports to determine whether the land use plan decisions and National Environmental Policy Act of 1969 analysis are still valid and whether the plan is being implemented.

Exchange. A transaction whereby the federal government receives land or interests in land in exchange for other land or interests in land.

Exclusion area. See “right-of-way exclusion area” definition.

Exemplary (vegetation). An area of vegetation that does not show signs of degradation and which may serve as a comparison to illustrate what the vegetation potential is for a given type of environment. Exemplary vegetation meets A-ranked viability criteria as described by the Colorado Natural Heritage Program.

Existing routes. The roads, trails, or ways that are used by motorized vehicles (jeeps, all-terrain vehicles, motorized dirt bikes, etc.), mechanized uses (mountain bikes, wheelbarrows, game carts), pedestrians (hikers), and/or equestrians (horseback riders) and are, to the best of BLM’s knowledge, in existence at the time of RMP/EIS publication.

Extensive recreation management area (ERMA). Administrative units that require specific management consideration in order to address recreation use, demand, or Recreation and Visitor Services program investments. ERMA’s are managed to support and sustain the principal recreation activities and the associated qualities and conditions of the ERMA. ERMA management is commensurate and considered in context with the management of other resources and resource uses.

Extremely rare vegetation communities. Unique combinations of plant species as identified by terminology and a classification system from the Colorado Natural Heritage Program. These are identified as Potential Conservation Areas with moderate or better Biodiversity Significance and fair or better Viability.

Federal Land Policy and Management Act of 1976 (FLPMA). Public Law 94-579, October 21, 1976, often referred to as the BLM’s “Organic Act,” which provides most of the BLM’s legislated authority, direction policy, and basic management guidance.

Federal mineral estate. Subsurface mineral estate owned by the US and administered by the BLM.

Fire frequency. A general term referring to the recurrence of fire in a given area over time.

Fire management plan. A plan that identifies and integrates all wildland fire management and related activities within the context of approved land/resource management plans. It defines a program to manage wildland fires (wildfire, prescribed fire, and wildland fire use). The plan is supplemented by operational plans including, but not limited to, preparedness plans, preplanned dispatch plans, and

prevention plans. Fire Management Plans assure that wildland fire management goals and components are coordinated.

Fire Regime Condition Classification System. Measures the extent to which vegetation departs from reference conditions, or how the current vegetation differs from a particular reference condition.

Fire severity. Degree to which a site has been altered or disrupted by fire; loosely, a product of fire intensity and residence time.

Fire suppression. All work and activities connected with control and fire-extinguishing operations, beginning with discovery and continuing until the fire is completely extinguished.

Fluid minerals. Oil, gas, coal bed natural gas, and geothermal resources.

Fluvial. Of or pertaining to rivers or produced by the action of rivers or streams.

Forage. All browse and herbaceous foods that are available to grazing animals.

Forage base. The amount of vegetation available for wildlife and livestock use.

Forage reserve. A parcel of land for which a term livestock grazing permit has not been issued but is available for livestock grazing authorization under special circumstances. Those circumstances may include but are not limited to instances where livestock grazing on permitted allotments is not available in a given year due to drought conditions or post fire rehabilitation and/or vegetation treatment grazing deferrals.

Forest health. The condition in which forest ecosystems sustain sufficient complexity, diversity, resiliency, and productivity to provide for specified human needs and values (BLM and Forest Service 1997).

Forest product disposal. A term used in old BLM RMPs for the permitted or contractual sale of forest products.

Four-wheel drive vehicle. A passenger vehicle or truck having power available to all wheels. Any motorized vehicle that has generally higher clearance than a passenger car and has traction on all four wheels.

Fragile soils. Soils having a shallow depth to bedrock, minimal surface layer of organic material, textures that are more easily detached and eroded, or are on slopes over 35 percent.

Fugitive dust. Significant atmospheric dust arises from the mechanical disturbance of granular material exposed to the air. Dust generated from these open sources is termed "fugitive" because it is not discharged to the atmosphere in a confined flow stream. Common sources of fugitive dust include unpaved roads, agricultural tilling operations, aggregate storage piles, and heavy construction operations.

Functional/structural group. A group of species that because of similar shoot or root structure, rooting depth, woody or non-woody stems, plant height, photosynthetic pathways, nitrogen fixing ability, or life cycle perform similar roles or functions in the ecosystem and are grouped together on an ecological site basis.

Functioning at risk. Riparian-wetland areas that are in functional condition, but that have an existing soil, water, or vegetation attribute that makes them susceptible to degradation.

Game fish. Fish species such as trout, bass, pike, sunfish, and perch species that are pursued for sport by recreational anglers.

General wood collection. Managed under a contract of sale for a prescribed volume amount of material generally in number of cords. These contracts or sales does not require a BLM agency representative on site to manage collection of products and products are not available for resale on the open market.

Geographic Information System (GIS). A system of computer hardware, software, data, people, and applications that capture, store, edit, analyze, and display a potentially wide array of geospatial information.

Geologic hazard, high. Active mudflows, earthflows, and landslides, and areas prone to avalanche.

Geologic hazard, moderate. Failed slopes that are no longer active (stabilized earthflows, mudflows, and landslides); those slopes adjacent to failed slopes or active earthflows, mudflows or landslides and avalanche chutes; areas of rockfall; flash flood zones; and areas with potential mining-related problems (e.g., subsidence and acid drainage).

Geomorphic balance. Stream channel size, sinuosity, slope, and substrate are appropriate for its landscape setting and geology.

Geophysical exploration. Efforts to locate deposits of oil and gas resources and to better define the subsurface.

Geothermal energy. Natural heat from within the Earth captured for production of electric power, space heating, or industrial steam.

Goal. A broad statement of a desired outcome; usually not quantifiable and may not have established timeframes for achievement.

Grandfathered right. The right to use in a non-conforming manner due to existence prior to the establishment of conforming terms and conditions.

Grazing district. The specific area within which public lands are administered under Taylor Grazing Act Section 3. All Taylor Grazing Act Section 3 permits are contained in grazing districts.

Grazing lease. A document that authorizes grazing use of public lands under Taylor Grazing Act Section 15; it specifies grazing preference and the terms and conditions under which lessees make grazing use during the lease term. Public lands outside grazing district boundaries are administered under Taylor Grazing Act Section 15.

Grazing permit. A document that authorizes grazing use of public lands under Taylor Grazing Act Section 3; it specifies grazing preference and the terms and conditions under which permittees make grazing use during the term of the permit.

Grazing permitted use. Grazing permitted use or preference means the total number of animal unit months on public lands apportioned and attached to base property owned or controlled by a permittee, lessee, or an applicant for a permit or lease. Grazing permitted use includes active use and use held in suspension. Grazing permitted use holders have a superior or priority position against others for the purpose of receiving a grazing permit or lease (43 CFR 4100.0-5).

Grazing preference. The total number of livestock grazing AUMs on BLM-administered lands apportioned and attached to base property owned or controlled by a permittee or lessee.

Grazing system. Scheduled grazing use and non-use of an allotment to reach identified goals or objectives by improving the quality and quantity of vegetation. Include, but are not limited to, developing pastures, utilization levels, grazing rotations, timing and duration of use periods, and necessary range improvements.

Green completion. Methods that minimize the amount of natural gas and oil vapors that are released to the environment when a well is being flowed during the completion phase of a well.

Groundwater. Water held underground in soil or permeable rock, often feeding springs and wells.

Guidelines. Actions or management practices that may be used to achieve desired outcomes, sometimes expressed as BMPs. Guidelines may be identified during the land use planning process, but they are not considered a land use plan decision unless the plan specifies that they are mandatory. Guidelines for grazing administration must conform to 43 CFR 4180.2.

Guzzler. General term covering guzzler, wildlife drinker, or tenaja. A natural or artificially constructed structure or device to capture and hold rain water, and make it accessible to small and/or large animals. Most guzzlers involve above or below ground piping, storage tanks, and valves. Tenajas are natural depressions in rock, which trap and hold water. To some guzzlers, steps or ladders are sometimes added to improve access and reduce mortality from drowning.

Habitat. An environment that meets a specific set of physical, biological, temporal, or spatial characteristics that satisfy the requirements of a plant or animal species or group of species for part or all of their life cycle.

Habitat management plan. A written and approved activity plan for a geographical area which identifies habitat management activities to be implemented in achieving specific objectives of planning decisions.

Hazardous material. A substance, pollutant, or contaminant that, due to its quantity, concentration, or physical or chemical characteristics, poses a potential hazard to human health and safety or to the environment if released into the workplace or the environment.

Healthy aquatic community. Varies by species and numbers of target species present, and channel type, and is characterized by: proper amounts of sediment/silt; a diversity of instream habitat complexity; the development/maintenance of undercut bank habitats; adequate canopy cover; appropriate holding habitat (pools/minimum pools depth) commensurate with the identified Rosgen channel type; reduced diurnal water temperature fluctuations; appropriate width to depth ratios; and represented by a healthy biological community (fish and macroinvertebrate diversity and abundance reflect water quality attaining a biological minimum).

Herd management area. Public land under the jurisdiction of the BLM that has been designated for special management emphasizing the maintenance of an established wild horse or burro herd.

High-power communication site. Sites that include broadcast types of uses (e.g., television, AM/FM radio, cable television, broadcast translator).

High wind event. The period of time and location covered by National Weather Service high wind warning; or when there are sustained surface winds greater than 40 miles per hour lasting more than an hour or winds over 58 miles per hour that are occurring for an unspecified period of time.

Historic range of variability. The range of conditions that are likely to have occurred prior to settlement of the project area by Euro-Americans (approximately the mid-1800's) which would have varied within certain limits over time (BLM and US Forest Service 1997).

Historic resources. Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places.

Horizontal drilling. A more-specialized type of directional drilling that allows a single well bore at the surface to penetrate oil- or gas-bearing reservoir strata at angles that parallel or nearly parallel the dip of the strata. The well bore is then open and in communication with the reservoir over much longer distances. In development wells, this can greatly increase production rates of oil and gas or volumes of injected fluids. Horizontal drilling may involve underbalanced drilling, coiled tubing, bit steering, continuous logging, multilateral horizontals, and horizontal completions. Lateral step-outs are directional wells that branch off a main borehole to access more of the subsurface.

Impact. The effect, influence, alteration, or imprint caused by an action.

Impairment. The degree to which a distance of clear visibility is degraded by man-made pollutants.

Implementation decisions. Decisions that take action to implement land use planning; generally appealable to Interior Board of Land Appeals under 43 CFR 4.410.

Implementation plan. An area or site-specific plan written to implement decisions made in a land use plan. Implementation plans include both activity plans and project plans.

Inactive nest site. See "*alternate nest (inactive nest) site*" definition.

Incompatible use. An activity that affects (hinders or obstructs) the nature and purposes of a designated National Trail (see *substantial interference*).

Indian Trust Assets. Legal interests in property, physical assets, or intangible property rights held in trust by the United States for Indian tribes or individual Indians.

Indicators. Factors that describe resource condition and change and can help the BLM determine trends over time.

Indirect impacts. Indirect impacts result from implementing an action or alternative but usually occur later in time or are removed in distance and are reasonably certain to occur.

Intermittent stream. An intermittent stream is a stream that flows only at certain times of the year when it receives water from springs or from some surface sources such as melting snow in mountainous areas. During the dry season and throughout minor drought periods, these streams will not exhibit flow. Geomorphological characteristics are not well defined and are often inconspicuous. In the absence of external limiting factors, such as pollution and thermal modifications, species are scarce and adapted to the wet and dry conditions of the fluctuating water level.

Introduced fish. See "*nonnative fish*" definition.

Invertebrate. An animal lacking a backbone or spinal column, such as insects, snails, and worms. The group includes 97 percent of all animal species.

K factor. A soil erodibility factor used in the universal soil loss equation that is a measure of the susceptibility of soil particles to detachment and transport by rainfall and runoff. Estimation of the factor takes several soil parameters into account, including soil texture, percent of sand greater than 0.10

millimeter, soil organic matter content, soil structure, soil permeability, clay mineralogy, and coarse fragments. K factor values range from .02 to .64, the greater values indicating the highest susceptibilities to erosion.

Key/priority habitat. Habitat types or elements with unique or significant value to wildlife species. A priority habitat may consist of a unique vegetation type (e.g., shrub-steppe) or dominant plant species (e.g., juniper savannah), a described successional stage (e.g., old-growth forest), or a specific habitat feature (e.g., cliffs).

Key/priority species. A species that require protective measures for their survival due to their population status, and/or are sensitive to habitat alternation. Priority species include federally listed (endangered, threatened, sensitive, and candidate) and BLM-sensitive species.

Lacustrine. Pertaining to, produced by, or inhabiting a lake environment.

Land classification. When, under criteria of 43 CFR 2400, a tract of land has the potential for retention for multiple use management or for some form of disposal or for more than one form of disposal. The relative scarcity of the values involved and the availability of alternative means and sites for realization of those values will be considered. Long-term public benefits will be weighed against more immediate or local benefits. The tract will then be classified in a manner that will best promote the public interest.

Land health condition. BLM Regulation and policy direct lands to be classified in terms of Land Health (BLM Manual Section 4180). The UFO has subdivided the basic classifications of “Meeting Land Health Standard(s)” and “Not Meeting Land Health Standard(s)” into the following subcategories:

- Meeting Land Health Standard(s): Lands for which health indicators are currently in acceptable condition such that basic levels of ecological processes and functions are in place. This rating includes the following subcategories:
 - Fully Meeting Standard(s): Lands for which there are no substantive concerns with health indicators
 - Exceeding Standard(s): Lands for which health indicators are in substantially better conditions than acceptable levels.
 - Meeting Standard(s) with Problems: Lands which have one or more concerns with health indicators to the degree that they are categorized as meeting the Land Health Standards, but have some issues which make them at risk of becoming “not meeting.”
- Not Meeting Land Health Standard(s): Lands for which one or more health indicators are in unacceptable conditions such that basic levels of ecological processes and functions are no longer in place.

Land health trend is used to describe these classes further. It includes these categories: upward, static, and downward.

- Upward Trend: lands which have shown improving indicator conditions over time.
- Static Trend: lands which have shown no clear improvement or decline in indicator conditions over time.
- Downward Trend: lands which have shown declining indicator conditions over time.

Land health improvement projects. Activities which are directed at increasing the levels and/or vigor of desirable species within the plant community so that it reaches a higher level of functioning. Activities include restoration or revegetation of areas of degraded vegetation; removal of weeds, and repair or retirement and rehabilitation of developments which are contributing to vegetation degradation.

Landscape scale. An approach that examines or considers issues at an extensive scale rather than the individual site scale. The term landscape refers to the scale of the approach (landscape as an area), rather than as a topic of interest.

Land tenure adjustments. Land ownership or jurisdictional changes. To improve the manageability of the BLM lands and their usefulness to the public, the BLM has numerous authorities for repositioning lands into a more consolidated pattern, disposing of lands, and entering into cooperative management agreements. These land pattern improvements are completed primarily through the use of land exchanges but also through land sales, through jurisdictional transfers to other agencies, and through the use of cooperative management agreements and leases.

Land treatment. All methods of artificial range improvement and soil stabilization such as reseeding, brush control (chemical and mechanical), pitting, furrowing, water spreading, etc.

Land use allocation. The identification in a land use plan of the activities and foreseeable development that are allowed, restricted, or excluded for all or part of the planning area, based on desired future conditions (BLM Handbook H-1601-I, BLM Land Use Planning Handbook).

Land use plan. A set of decisions that establish management direction for land within an administrative area, as prescribed under the planning provisions of FLPMA; an assimilation of land use plan level decisions developed through the planning process outlined in 43 CFR 1600, regardless of the scale at which the decisions were developed. The term includes both RMPs and management framework plans (BLM Handbook H-1601-I, BLM Land Use Planning Handbook).

Land use plan boundary. The geographic extent of a resource management plan or management framework plans.

Land use plan decision. Establishes desired outcomes and actions needed to achieve them. Decisions are reached using the planning process in 43 CFR 1600. When they are presented to the public as proposed decisions, they can be protested to the BLM Director. They are not appealable to Interior Board of Land Appeals.

Land utilization project lands. Privately owned submarginal farmlands incapable of producing sufficient income to support the family of a farm owner and purchased under Title III of the Bankhead-Jones Farm Tenant Act of July 22, 1937. These acquired lands became known as land utilization projects and were subsequently transferred from jurisdiction of the US Department of Agriculture to the US Department of the Interior. They are now administered by the BLM.

Late season. Late summer or fall grazing.

Leasable minerals. Those minerals or materials designated as leasable under the Mineral Leasing Act of 1920. These include energy-related mineral resources such as oil, natural gas, coal, and geothermal, and some nonenergy minerals, such as phosphate, sodium, potassium, and sulfur. Geothermal resources are also leasable under the Geothermal Steam Act of 1970.

Lease. Section 302 of the Federal Land Policy and Management Act of 1976 provides the BLM's authority to issue leases for the use, occupancy, and development of public lands. Leases are issued for

purposes such as a commercial filming, advertising displays, commercial or noncommercial croplands, apiaries, livestock holding or feeding areas not related to grazing permits and leases, native or introduced species harvesting, temporary or permanent facilities for commercial purposes (does not include mining claims), residential occupancy, ski resorts, construction equipment storage sites, assembly yards, oil rig stacking sites, mining claim occupancy if the residential structures are not incidental to the mining operation, and water pipelines and well pumps related to irrigation and nonirrigation facilities. The regulations establishing procedures for processing these leases and permits are found in 43 CFR 2920.

Lease notice. Provides more-detailed information concerning limitations that already exist in law, lease terms, regulations, or operational orders. A lease notice also addresses special items that lessees should consider when planning operations but does not impose additional restrictions. Lease notices are not an RMP-level decision, and new lease notices may be added to fluid mineral leases at the time of sale. Lease notices apply only to leasable minerals (e.g., oil, gas, geothermal) and not to other types of leases, such as livestock grazing.

Lease stipulation. A modification of the terms and conditions on a standard lease form at the time of the lease sale.

Lek. An assembly area where birds, especially sage-grouse, carry on display and courtship behavior.

Lentic. Pertaining to standing water such as lakes and ponds.

Limited area. An area restricted at certain times, in certain areas, and/or to certain vehicular use. These restrictions may be of any type, but can generally be accommodated within the following type of categories: Numbers of vehicles; types of vehicles; time or season of vehicle use; permitted or licensed use only; use on existing roads and trails; use on designated roads and trails; and other restrictions (43 CFR 8340.0-5).

Lithic site. An archaeological site containing debris left from the manufacture, use, or maintenance of flaked stone tools.

Livestock trailing. Temporary herding of livestock from one location to another using a designated route.

Locally derived. Seeds or cuttings from native species that are collected close to the area in which they will be used for planting. For example, from the same ecoregion, or major watershed, and from similar elevational zones and soil textures as the planting site. This increases the chance that genetic characteristics will be best suited for the planting area and will not disrupt the genetic structure of nearby populations.

Locatable minerals. Minerals subject to exploration, development, and disposal by staking mining claims as authorized by the Mining Law of 1872, as amended. This includes deposits of gold, silver, and other uncommon minerals not subject to lease or sale.

Long-term effect. The effect could occur for an extended period after implementation of the alternative. The effect could last several years or more.

Low-power communication site. Sites that include to non-broadcast uses (e.g., commercial or private mobile radio service, cellular telephone, microwave, local exchange network, passive reflector).

Low productivity forest lands. Woodlands and forest stands producing less than 20 cubic feet per acre per year.

Ma. Millions of years ago.

Managed fire. Management of a wildfire (unplanned ignition) to meet the objectives of the RMP. Objectives could include protection of high-value resources such as subdivisions or cultural resources through suppression, enhancement of resources such as wildlife habitat by utilizing the fire, or managing the fire as a natural process on the landscape. Multiple objectives could apply to any single wildfire.

Management decision. A decision made by the BLM to manage public lands. Management decisions include both land use plan decisions and implementation decisions.

Master development plan. Information common to multiple planned wells, including drilling plans, Surface Use Plans of Operations, and plans for future production.

Mechanical transport. Any vehicle, device, or contrivance for moving people or material in or over land, water, snow, or air that has moving parts.

Mechanical vegetation treatment. Includes mowing, chaining, chopping, drill seeding, and cutting vegetation to meet resource objective. Mechanical treatments generally occur in areas where fuel loads or invasive species need to be reduced prior to prescribed fire application; when fire risk to resources is too great to use naturally started wildland fires or prescribed fires; or where opportunities exist for biomass utilization or timber harvest. Mechanical treatments may also be utilized to improve wildlife habitat conditions.

Mechanized uses. Equipment that is mechanized, including but not limited to mountain bikes, wheelbarrows, and game carts.

Mexican spotted owl suitable breeding habitat. Vegetation characteristics described in the current Mexican spotted owl recovery plan in areas where Mexican spotted owl breeding has been confirmed.

Mineral. Any naturally formed inorganic material, solid or fluid inorganic substance that can be extracted from the earth, any of various naturally occurring homogeneous substances (as stone, coal, salt, sulfur, sand, petroleum, water, or natural gas) obtained usually from the ground. Under federal laws, considered as locatable (subject to the general mining laws), leasable (subject to the Mineral Leasing Act of 1920), and salable (subject to the Materials Act of 1947).

Mineral entry. The filing of a claim on public land to obtain the right to any locatable minerals it may contain.

Mineral estate. The ownership of minerals, including rights necessary for access, exploration, development, mining, ore dressing, and transportation operations.

Mineralize. The process where a substance is converted from an organic substance to an inorganic substance.

Mineral materials (salable minerals, salable mineral materials). Common varieties of mineral materials such as soil, sand and gravel, stone, pumice, pumicite, and clay that are not obtainable under the mining or leasing laws but that can be acquired under the Materials Act of 1947, as amended.

Mineral patent. A claim on which title has passed from the federal government to the mining claimant under the Mining Law of 1872.

Minimum impact suppression tactics. The use of fire management tactics commensurate with the fire's potential or existing behavior while producing the least impact on the resource being protected.

Mining claim. A parcel of land that a miner takes and holds for mining purposes, having acquired the right of possession by complying with the Mining Law and local laws and rules. A mining claim may contain as many adjoining locations as the locator may make or buy. There are four categories of mining claims: lode, placer, millsite, and tunnel site.

Mining Law of 1872. Provides for claiming and gaining title to locatable minerals on public lands. Also referred to as the “General Mining Laws” or “Mining Laws.”

Minor wood products. Materials that are sold under the rules of commercial wood collection that are not considered as saw logs or timber. Commercial fire wood, posts, and poles are minor wood products available through commercial wood collection.

Mitigation. Alleviation or lessening of possible adverse effects on a resource by applying appropriate protective measures or adequate scientific study. Mitigation may be achieved by avoidance, minimization, rectification, reduction, and compensation.

Modification. A change to the provisions of a lease stipulation, either temporarily or for the term of the lease. Depending on the specific modification, the stipulation may or may not apply to all sites within the leasehold to which the restrictive criteria are applied.

Monitoring (plan monitoring). The process of tracking the implementation of land use plan decisions and collecting and assessing data necessary to evaluate the effectiveness of land use planning decisions.

Motorcycle. A motorized vehicle with two tires and with a seat designed to be straddled by the operator.

Motorized vehicles or uses. Vehicles that are motorized, including but not limited to jeeps, all-terrain vehicles (all-terrain vehicles, such as four-wheelers and three-wheelers), trail motorcycles or dirt bikes, and aircrafts.

Multiple-use. The management of the public lands and their various resource values so that they are used in the combination that will best meet the present and future needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to changing needs and conditions; the use of some land for less than all of the resources; a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values; and harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output (FLPMA).

Municipal watershed. A watershed area that provides water for use by a municipality as defined by the community and accepted by the State.

National Environmental Policy Act of 1969 (NEPA). Public Law 91-190. Establishes environmental policy for the nation. Among other items, NEPA requires federal agencies to consider environmental values in decision-making processes.

National Historic Trail. A congressionally designated trail that is an extended, long-distance trail, not necessarily managed as continuous, that follows as closely as possible and practicable the original trails

or routes of travel of national historic significance. The purpose of a National Historic Trail is the identification and protection of the historic route and the historic remnants and artifacts for public use and enjoyment. A National Historic Trail is managed in a manner to protect the nationally significant resources, qualities, values, and associated settings of the areas through which such trails may pass, including the primary use or uses of the trail.

National Register District. A geographically definable area, urban or rural, possessing a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united by past events or aesthetically by plan or physical development. Consists of contributing and non-contributing properties.

National Register of Historic Places. A listing of architectural, historical, archaeological, and cultural sites of local, state, or national significance, established by the Historic Preservation Act of, 1966 and maintained by the National Park Service.

National Wild and Scenic Rivers System (NWSRS). A system of nationally designated rivers and their immediate environments that have outstanding scenic, recreational, geologic, fish and wildlife, historic, cultural, and other similar values and are preserved in a free-flowing condition. The system consists of three types of streams: (1) recreation—rivers or sections of rivers that are readily accessible by road or railroad and that may have some development along their shorelines and may have undergone some impoundments or diversion in the past; (2) scenic—rivers or sections of rivers free of impoundments with shorelines or watersheds still largely undeveloped but accessible in places by roads; and (3) wild—rivers or sections of rivers free of impoundments and generally inaccessible except by trails, with watersheds or shorelines essentially primitive and waters unpolluted.

Native cutthroat trout. Native populations include what current science and genetics tell us are Colorado River cutthroat or greenback cutthroat trout.

Native fish. Any species of fresh water fish that is found naturally among the waterways of the UFO, such as cutthroat trout (*Oncorhynchus clarki*), mottled sculpin (*Cottus bairdii*), bluehead sucker (*Catostomus discobolus*), roundtail chub (*Gila robusta*), and flannelmouth sucker (*Catostomus latipinnis*).

Native nongame species. Any species of freshwater fish that is found naturally among the waterways of the UFO that is not pursued for sport by recreational anglers.

Native vegetation. Plant species which were found here prior to European settlement, and consequently are in balance with these ecosystems because they have well developed parasites, predators, and pollinators.

Naturalness. Consistent with what would occur without human intervention. For vegetation structure, naturalness implies a pattern similar to what fire and climate would produce across the landscape.

Natural processes. Fire, drought, insect and disease outbreaks, flooding, and other events which existed prior to European settlement, and shaped vegetation composition and structure.

Nature and purposes. The term used to describe the character, characteristics, and congressional intent for a designated National Trail, including the resources, qualities, values, and associated settings of the areas through which such trails may pass; the primary use or uses of a National Trail; and activities promoting the preservation of, public access to, travel within, and enjoyment and appreciation of National Trail.

No ground disturbance (NGD). Areas restricted by NGD are closed to all surface-disturbing activities. Activities that are not considered surface disturbing include, but are not limited to, livestock grazing, cross-country hiking or equestrian use, installing signs, minimum impact filming, vehicular travel

on designated routes, and use of the land by wildlife. An NGD stipulation cannot be applied to operations conducted under the 1872 Mining Law without a withdrawal. A withdrawal is not considered a land use planning decision because it must be approved by the Secretary of Interior. Therefore, unless withdrawn, areas identified as NGD are open to operations conducted under the mining laws subject only to TL and CSU stipulations that are consistent with the rights granted under the mining laws. In addition, the following actions or activities are not subject to the NGD stipulation because specific laws and program terminology constrain them. However, these actions or activities may be subject to SSR or TL stipulations: right-of-way location; coal leasing; nonenergy solid mineral leasing; and mineral material disposal.

Nonenergy leasable minerals. Those minerals or materials designated as leasable under the Mineral Leasing Act of 1920. Nonenergy minerals include resources such as phosphate, sodium, potassium, and sulfur.

Nonfunctional condition. Riparian-wetland areas that clearly are not providing adequate vegetation, landform, or woody debris to dissipate energies associated with flow events, and thus are not reducing erosion, improving water quality, etc.

Nonnative fish. Fish species that are introduced, alien, exotic, or nonindigenous to the UFO, such as brown trout (*Salmo trutta*), northern pike (*Esox lucius*), smallmouth bass (*Micropterus dolomieu*), and channel catfish (*Ictalurus punctatus*).

North Fork area. North Fork Alternative Plan area (63,390 acres of BLM-administered surface estate and 159,820 acres of federal mineral estate).

No surface occupancy (NSO). A major constraint where use or occupancy of the land surface for fluid mineral exploration or development and all activities associated with fluid mineral leasing (e.g., truck-mounted drilling and geophysical exploration equipment off designated routes, construction of wells and/or pads) are prohibited to protect identified resource values. Areas identified as NSO are open to fluid mineral leasing, but surface occupancy or surface-disturbing activities associated with fluid mineral leasing cannot be conducted on the surface of the land. Access to fluid mineral deposits would require horizontal drilling from outside the boundaries of the NSO area.

Noxious weeds. A plant species designated by federal or state law as generally possessing one or more of the following characteristics: aggressive and difficult to manage; parasitic; a carrier or host of serious insects or disease; or nonnative, new, or not common to the US.

Objective. A description of a desired outcome for a resource. Objectives can be quantified and measured and, where possible, have established timeframes for achievement.

Off-highway vehicle (OHV) (off-road vehicle). Any motorized vehicle capable of, or designated for travel on or immediately over land, water or other natural terrain, excluding: (1) any non-amphibious registered motorboat; (2) any military, fire, emergency, or law enforcement vehicle while being used for emergency purposes; (3) any vehicle whose use is expressly authorized by the authorized officer, or otherwise officially approved; (4) vehicles in official use; and (5) any combat or combat support vehicle when used for national defense emergencies (43 CFR 8340.0-5).

Off-highway vehicle area designations. BLM-administered lands in the CFO are designated as Open, Limited, or Closed for OHV use.

- **Open.** An area where all types of vehicle use is permitted at all times, anywhere in the area subject to the operating regulations and vehicle standards set forth in 43 CFR subparts 8341 and 8342 (43 CFR 8340.0-5).
- **Limited.** An area restricted at certain times, in certain areas, and/or to certain vehicular use. These restrictions may be of any type, but can generally be accommodated within the following type of categories: Numbers of vehicles; types of vehicles; time or season of vehicle use; permitted or licensed use only; use on existing roads and trails; use on designated roads and trails; and other restrictions (43 CFR 8340.0-5).
- **Closed.** An area where off-road vehicle use is prohibited. Use of off-road vehicles in closed areas may be allowed for certain reasons; however, such use shall be made only with the approval of the authorized officer (43 CFR 8340.0-5).

Old-growth forest stands. Stands composed of trees that are generally in the late successional stages of development. The desired attributes of old-growth stands are older, large trees for the species and site; signs of decadence (broken or deformed tops or boles and some root decay); multiple layers of canopy; standing and down dead trees; a variation in tree age, size, and spacing; and gaps or patchiness in the canopy and understory (Mehl 1992).

Open. Generally denotes that an area is available for a particular use or uses. Refer to specific program definitions found in law, regulations, or policy guidance for application to individual programs. For example, 43 CFR 8340.0-5 defines the specific meaning of “open” as it relates to OHV use.

Open area. See “Off-highway vehicle area designations – Open” definition.

Ordinary high water mark. That line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Organizer. Any person who advertises for an activity on public lands whether via Internet or any other technology, flyers, club meetings, or other means.

Outstandingly remarkable value (ORV). Values among those listed in Section 1(b) of the Wild and Scenic Rivers Act of 1968: “scenic, recreational, geological, fish and wildlife, historical, cultural, or other similar values...” Other similar values that may be considered include ecological, biological, or botanical.

Overstory. That portion of a plant community consisting of the taller plants on the site; the forest or woodland canopy.

Ozone. A faint blue gas produced in the atmosphere from chemical reactions of burning coal, gasoline, and other fuels and chemicals found in products such as solvents, paints, and hairsprays.

Paleontological resources. The physical remains or other physical evidence of plants and animals preserved in soils and sedimentary rock formations. Paleontological resources are important for correlating and dating rock strata and for understanding past environments, environmental change, and the evolution of life.

Particulate matter (PM). One of the six “criteria” pollutants for which the US EPA established National Ambient Air Quality Standards. Particulate matter is defined as two categories, fine particulates, with an aerodynamic diameter of 10 micrometers (PM₁₀) or less, and fine particulates with an aerodynamic diameter of 2.5 micrometers or less (PM_{2.5}).

Passenger vehicle. Two-wheel-drive, low-clearance vehicles.

Patent. Instrument that conveys title to lands from federal ownership to another entity.

Perennial stream. A stream that flows continuously. Perennial streams are generally associated with a water table in the localities through which they flow.

Permitted access. See “*administrative access*” definition.

Permitted use. The forage allocated by, or under the guidance of, an applicable land use plan for livestock grazing in an allotment under a permit or lease and expressed in AUMs (43 CFR 4100.0-5) (from BLM Handbook H-4180-I, BLM Rangeland Health Standards).

Permittee. A person or company permitted to graze livestock on public land.

Petroglyph. A form of rock art created by incising, scratching or pecking designs into rock surfaces.

Physiography. The study and classification of the surface features of the earth.

Pictograph. A form of rock art created by applying mineral based or organic paint to rock surfaces.

Planning Area. The geographical area for which resource management plans are developed and maintained. The Uncompahgre planning area boundary defines the area assessed in this RMP. The planning area encompasses 3.1 million acres in Delta, Gunnison, Mesa, Montrose, Ouray, and San Miguel counties in southwestern Colorado. The BLM administers about 675,760 acres (less than 1 percent) of the planning area, and 2.1 million acres of federal mineral estate.

Planning criteria. The standards, rules, and other factors developed by managers and interdisciplinary teams for their use in forming judgments about decision making, analysis, and data collection during planning. Planning criteria streamlines and simplifies the resource management planning actions.

Planning issues. Concerns, conflicts, and problems with the existing management of public lands. Frequently, issues are based on how land uses affect resources. Some issues are concerned with how land uses can affect other land uses, or how the protection of resources affects land uses.

Point bar. A depositional feature of streams, point bars are found in abundance in mature or meandering streams. They are crescent-shaped and located on the inside of a stream bend, being very similar to, though often smaller than, towheads (river islands).

Potential Fossil Yield Classification (PFYC) system. A system used by the BLM to classify geologic units based on the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts, with a higher class number indicating a higher potential.

Potential vegetation group. Potential vegetation types grouped on the basis of a similar general moisture or temperature environment.

Prehistoric resources. Any material remains, structures, and items used or modified by people before Euro-Americans established a presence in the region.

Prescribed fire. A wildland fire originating from a planned ignition to meet specific objectives identified in a written, approved, prescribed fire plan.

Prevention of significant deterioration. An air pollution permitting program intended to ensure that air quality does not diminish in attainment areas.

Primary use(s). Authorized mode or modes of travel, and/or activities identified in the National Trails System Act of 1968 (Public Law 90-543), enabling legislation, or legislative history, through the trailwide Comprehensive Plan or approved Resource Management Plan.

Primitive and unconfined recreation. Nonmotorized, nonmechanized (except as provided by law), and undeveloped types of recreational activities. Bicycles are considered mechanical transport, so their use is not considered primitive and unconfined recreation.

Primitive route. Any transportation linear feature located within areas that have been identified as having wilderness characteristics and not meeting the wilderness inventory road definition (BLM Manual 6310, Conducting Wilderness Characteristics Inventory on BLM Lands).

Probable sale quantity. The probable sale quantity is the amount of timber, measured in thousand board feet, that could be produced on BLM lands where commercial forest uses are considered appropriate. Calculations are based on species, growth, mortality, land base, and sustainability. The probable sale quantity does not include volume removed for other purposes from other areas (such as recreation sites where hazard trees are removed). The probable sale quantity also is not a commitment to offer for sale a specific level of timber volume.

Proper functioning condition. A term describing stream health that is based on the presence of adequate vegetation, landform and debris to dissipate energy, reduce erosion and improve water quality.

Proper functioning condition for lentic areas. A riparian-wetland areas are functioning properly when adequate vegetation, landform, or debris is present to: dissipate energies associated with wind action, wave action, and overland flow from adjacent sites, thereby reducing erosion and improving water quality; filter sediment and aid floodplain development; improve flood-water retention and ground-water recharge; develop root masses that stabilize islands and shoreline features against cutting action; restrict water percolation; develop diverse ponding characteristics to provide the habitat and the water depth, duration, and temperature necessary for fish production, waterbird breeding, and other uses; and support greater biodiversity.

Proper functioning condition for lotic areas. A riparian-wetland area is considered to be in proper functioning condition when adequate vegetation, landform, or large woody debris is present to:

- dissipate stream energy associated with high waterflow, thereby reducing erosion and improving water quality;
- filter sediment, capture bedload, and aid floodplain development;
- improve flood-water retention and ground-water recharge;
- develop root masses that stabilize streambanks against cutting action;
- develop diverse ponding and channel characteristics to provide the habitat and the water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses;
- support greater biodiversity.

Proposed critical habitat. Those areas officially proposed for designations as critical habitat by the Secretary of Interior or Commerce.

Proposed species. A species for which a proposed rule to add the species to the federal list of threatened and endangered species has been published in the Federal Register.

Public land. Any land and interest in land owned by the US within the several states and administered by the Secretary of the Interior through the BLM, without regard to how the US acquired ownership, except lands located on the Outer Continental Shelf and lands held for the benefit of Indians, Aleuts, and Eskimos (FLPMA).

Public water supply. As defined by the state of Colorado, a “public water system” is a system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has a least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

Pyroclastic. Fragments of rocks formed during volcanic eruptions or aerial expulsion from a volcanic vent.

Range improvement project. An authorized physical modification or treatment which is designed to improve production of forage; change vegetation composition; control patterns of use; provide water; stabilize soil and water conditions; restore, protect and improve the condition of rangeland ecosystems to benefit livestock, wild horses and burros, and fish and wildlife. This definition includes, but is not limited to: structures, treatment projects and use of mechanical devices, or modifications achieved through mechanical means.

Rapid response. A systematic effort to eradicate, contain or control invasive species while the infestation is still localized. It may be implemented in response to new introductions or to isolated infestations of a previously established, nonnative organism. Preliminary assessment and subsequent monitoring may be part of the response. It is based on a system and infrastructure, organized in advance so that the response is rapid and efficient.

Raptor. Bird of prey with sharp talons and strongly curved beaks, such as hawks, owls, falcons, and eagles.

Rare vegetation. Unique combinations of plant species as identified by terminology and a classification system from the Colorado Natural Heritage Program. These are defined using Colorado Natural Heritage Program’s Global Rarity Ranks denoting scarcity on a global level and include the rankings of G1 and G2.

Reasonable foreseeable development scenario. The prediction of the type and amount of oil and gas activity that would occur in a given area. The prediction is based on geologic factors, past history of drilling, projected demand for oil and gas, and industry interest.

Recharge areas. Headwaters of perennial streams, contributing watersheds to springs and/or seeps, floodplains, all stream channels, municipal watersheds, and source water protection areas.

Reclamation. Returning disturbed lands to a form and productivity that will be ecologically balanced and in conformity with a predetermined land management plan.

Recreation management area. Includes special recreation management areas (SRMAs) and extensive recreation management areas (ERMAs); see SRMA and ERMA definitions.

Recreational river. Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

Recreation and Public Purposes Act of 1926. Provides for the lease and sale of public lands determined valuable for public purposes. The objective of the R&PP Act is to meet the needs of state and local government agencies and nonprofit organizations by leasing or conveying public land required for recreation and public purpose uses. Examples of uses made of R&PP lands are parks and greenbelts, sanitary landfills, schools, religious facilities, and camps for youth groups. The act provides substantial cost-benefits for land acquisition and provides for recreation facilities or historical monuments at no cost.

Recreation experiences. Psychological outcomes realized either by recreation-tourism participants as a direct result of their on-site leisure engagements and recreation-tourism activity participation or by nonparticipating community residents as a result of their interaction with visitors and guests within their community or interaction with the BLM and other public and private recreation-tourism providers and their actions.

Recreation management zones. Subunits within an SRMA managed for distinctly different recreation products. Recreation products are composed of recreation opportunities, the natural resource and community settings within which they occur, and the administrative and service environment created by all affecting recreation-tourism providers, within which recreation participation occurs.

Recreation niche. The place or position within the strategically targeted recreation-tourism market for each SRMA that is most suitable (i.e., capable of producing certain specific kinds of recreation opportunities) and appropriate (i.e., most responsive to identified visitor or resident customers), given available supply and current demand, for the production of specific recreation opportunities and the sustainable maintenance of accompanying natural resource or community setting character.

Recreation opportunities. Favorable circumstances enabling visitors' engagement in a leisure activity to realize immediate psychological experiences and attain more lasting, value-added beneficial outcomes.

Recreation opportunity spectrum. One of the existing tools for classifying recreation environments (existing and desired) along a continuum, ranging from primitive, low-use, and inconspicuous administration to urban, high-use, and a highly visible administrative presence. This continuum recognizes variation among various components of any landscape's physical, social, and administrative attributes. Resulting descriptions of existing conditions and prescriptions of desired future conditions define recreation setting character.

Recreation setting character conditions. The distinguishing recreational qualities of any landscape, objectively defined along a continuum, ranging from primitive to urban landscapes, expressed in terms of the nature of the component parts of its physical, social, and administrative attributes. These recreational qualities can be both classified and mapped. This classification and mapping process should be based on variation that either exists (for example, setting descriptions) or is desired (for example, setting prescriptions) among component parts of the various physical, social, and administrative attributes of any landscape. The recreation opportunity spectrum is one of the tools for doing this.

Recreation settings. The collective distinguishing attributes of landscapes that influence and sometimes actually determine what kinds of recreation opportunities are produced.

Recreation use permits. Authorizations for use of developed facilities that meet the fee criteria established by the Land and Water Conservation Fund Act of 1964, as amended or subsequent authority (such as the pilot fee demonstration program).

Rehabilitate. Returning disturbed lands as near to its predisturbed condition as is reasonably practical or as specified in approved permits.

Renewable Energy. Energy resources that constantly renew themselves or that are regarded as practically inexhaustible. These include solar, wind, geothermal, hydro, and biomass. Although particular geothermal formations can be depleted, the natural heat in the Earth is a virtually inexhaustible reserve of potential energy.

Research Natural Area. A land management status which reserves the area for uses that are compatible with the resource of interest and research for which the area was designated.

Resource Advisory Council. A council established by the Secretary of the Interior to provide advice or recommendations to BLM management. The Southwest Colorado RAC covers issues within the UFO.

Resource management plan (RMP). A land use plan as prescribed by the Federal Land Policy and Management Act that establishes, for a given area of land, land-use allocations, coordination guidelines for multiple-use, objectives, and actions to be achieved.

Resources, qualities, and values. The significant scenic, historic, cultural, recreation, natural (including biological, geological, and scientific), and other landscape areas through which such trails may pass as identified in the National Trails System Act of 1968 (Public Law 90-543) (see *associated settings*).

Restore/restoration. The process of returning disturbed areas to a natural array of native plant and animal associations.

Rest rotation. A grazing rotation strategy that normally involves a multi-pasture system, where one pasture is given 12 months of nonuse each year, while the remaining pastures absorb all the grazing use. This grazing strategy can provide periodic rest for all pastures in the rotation system, or for pastures that have been identified as needing rest for resource reasons.

Retard. Measurably slow attainment of any identified objective level that is worse than the objective standard. Degradation of the physical/biological process or conditions that determine objective standards would be considered to retard attainment of specific objective standard.

Revegetate/revegetation. The process of putting vegetation back in an area where vegetation previously existed, which may or may not simulate natural conditions.

Revision. The process of completely rewriting the land use plan due to changes in the planning area affecting major portions of the plan or the entire plan.

Right-of-way (ROW). Public lands authorized to be used or occupied for specific purposes pursuant to a right-of-way grant, which are in the public interest and which require ROWs over, on, under, or through such lands.

Right-of-way avoidance area. An area identified through resource management planning to be avoided but may be available for ROW location with special stipulations. A ROW avoidance area is comparable to the SSR restriction applied to other resources.

Right-of-way exclusion area. An area identified through resource management planning that is not available for ROW location under any conditions. A ROW exclusion area is comparable to the NGD stipulation applied to other resources.

Riparian/aquatic system. Interacting system between aquatic and terrestrial situations. Identified by a stream channel and distinctive vegetation that requires or tolerates free or unbound water.

Riparian area. A form of wetland transition between permanently saturated wetlands and upland areas. Riparian areas exhibit vegetation or physical characteristics that reflect the influence of permanent surface or subsurface water. Typical riparian areas include lands along, adjacent to, or contiguous with perennially and intermittently flowing rivers and streams, glacial potholes, and the shores of lakes and reservoirs with stable water levels. Excluded are ephemeral streams or washes that lack vegetation and depend on free water in the soil.

Riparian zone. An area encompassing riparian and adjacent vegetation.

Road. A linear route declared a road by the owner, managed for use by low-clearance vehicles having four or more wheels, and maintained for regular and continuous use.

Roadless. The absence of roads that have been constructed and maintained by mechanical means to ensure regular and continuous use.

Rock art. Petroglyphs (carvings) or pictographs (painting) used by native persons to depict their history and culture.

Rotation. Grazing rotation between pastures in the allotment for the permitted time.

Routes. Multiple roads, trails and primitive roads; a group or set of roads, trails, and primitive roads that represents less than 100 percent of the BLM transportation system. Generically, components of the transportation system are described as "routes."

Sale (public land). A method of land disposal pursuant to Section 203 of FLPMA, whereby the US receives a fair-market payment for the transfer of land from federal ownership. Public lands determined suitable for sale may be offered on the initiative of the BLM. Lands suitable for sale must be identified in the RMP. Any lands to be disposed of by sale that are not identified in the current RMP, or that meet the disposal criteria identified in the RMP, require a plan amendment before a sale can occur.

Salinity. Refers to the solids such as sodium chloride (table salt) and alkali metals that are dissolved in water.

Saturated soils. Occur when the infiltration capacity of the soil is exceeded from above due to rainfall or snowmelt runoff. Soils can also become saturated from groundwater inputs.

Scenic byways. Highway routes that have roadsides or corridors of special aesthetic, cultural, or historical value. An essential part of the highway is its scenic corridor. The corridor may contain outstanding scenic vistas, unusual geologic features, or other natural elements.

Scenic river. A river or section of a river that is free of impoundments and whose shorelines are largely undeveloped but accessible in places by roads.

Scoping process. An early and open public participation process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action.

Season of use. The time during which livestock grazing is permitted on a given range area, as specified in the grazing lease.

Seeding. Seeding is a vegetation treatment that includes the application of grass, forb, or shrub seed, either aurally or from the ground. In areas of gentle terrain, ground applications of seed are often accomplished with a rangeland drill. Seeding allows the establishment of native species or placeholder species and restoration of disturbed areas to a perennial-dominated cover type, thereby decreasing the risk of subsequent invasion by exotic plant species. Seeding would be used primarily as a follow-up treatment in areas where disturbance or the previously described treatments have removed exotic plant species and their residue.

Setting character. The condition of any recreation system, objectively defined along a continuum, ranging from primitive to urban in terms of variation of its component physical, social, and administrative attributes.

Severe winter range. As defined by CPW, that part of the overall range where 90 percent of the individuals are located when the annual snowpack is at its maximum and/or temperatures are at a minimum in the two worst winters out of ten. Severe winter range is defined for each Colorado Division of Wildlife Data Analysis Unit.

Short-term effect. The effect occurs only during or immediately after implementation of the alternative.

Significant fossils. Any vertebrate fossil remains or site with fossils of exceptional preservation or context.

Site-specific relocation (SSR). An SSR restriction is similar to a CSU restriction in that it allows some use and occupancy of public land while protecting identified resources or values. SSR areas are potentially open to surface-disturbing activities but the restriction allows the BLM to require special constraints, or the activity can be shifted to protect the specified resource or value. Right-of-way location authorizations are not subject to the SSR restriction because it is constrained in other ways. The action may be subject to TL stipulations.

Slash. Downed vegetation.

Sole-source aquifer. Defined by the US EPA as an aquifer supplying at least 50 percent of the drinking water consumed in the area overlying the aquifer, where the surrounding area has no alternative drinking water source(s) that could physically, legally, and economically supply all those who depend upon the aquifer for drinking water.

Solitude. The state of being alone or remote from habitations; isolation. A lonely or secluded place. Factors contributing to opportunities for solitude may include size, natural screening, topographic relief, vistas, physiographic variety, and the ability of the user to find a secluded spot.

Source water protection area. The area delineated by a state for a public water supply or including numerous suppliers, whether the source is ground water or surface water or both.

Special recreation management area (SRMA). An administrative public lands unit identified in land use plans where the existing or proposed recreation opportunities and recreation setting characteristics are recognized for their unique value, importance, and/or distinctiveness, especially as compared to other areas used for recreation.

Special recreation permit (SRP). Authorization that allows for recreational uses of public lands and related waters. Issued as a means to control visitor use, protect recreational and natural resources, and provide for the health and safety of visitors. Commercial SRPs are also issued as a mechanism to provide a fair return for the commercial use of public lands.

Special status species. BLM special status species are: (1) species listed, candidate, or proposed for listing under the Endangered Species Act of 1973; and (2) species requiring special management consideration to promote their conservation and reduce the likelihood and need for future listing under the Endangered Species Act that are designated as BLM sensitive by the BLM State Director(s). All federally listed candidate species, proposed species, and delisted species in the five years following delisting are conserved as BLM sensitive species.

Split estate. Lands on which the mineral estate is owned by someone other than the surface estate owner. For example, the surface is in private ownership and the mineral resources are publicly held and managed by the federal government.

Split season. Removing livestock from the allotment and returning them later in the year within the permitted time.

Sport fish. See “game fish” definition.

Stabilize. The process of stopping further damage from occurring.

Stacked loop. Several interconnected, looped trails.

Standard. A description of the physical and biological conditions or degree of function required for healthy, sustainable lands (e.g., land health standards). To be expressed as a desired outcome (goal).

Standard lease terms and conditions. Areas may be open to leasing with no specific management decisions defined in a Resource Management Plan; however, these areas are subject to lease terms and conditions as defined on the lease form (Form 3100-11, Offer to Lease and Lease for Oil and Gas; and Form 3200-24, Offer to Lease and Lease for Geothermal Resources).

State-listed noxious weed species. Noxious weed species listed by the State of Colorado:

- List A species are designated by the Commissioner (Colorado Department of Agriculture) for eradication.
- List B weed species are species for which the Commissioner (Colorado Department of Agriculture), in consultation with the state noxious weed advisory committee, local governments, and other interested parties, develops and implements state noxious weed management plans designed to stop the continued spread of these species.
- List C weed species are species for which the Commissioner (Colorado Department of Agriculture), in consultation with the state noxious weed advisory committee, local governments, and other interested parties, will develop and implement state noxious weed management plans designed to support the efforts of local governing bodies to facilitate more effective integrated weed management on private and public lands. The goal of such plans will not be to stop the continued spread of these species but to provide additional education, research, and biological control resources to jurisdictions that choose to require management of List C species.

State implementation plan. A detailed description of the programs a state will use to carry out its responsibilities under the Clean Air Act. State implementation plans are collections of the regulations used by a state to reduce air pollution.

Stationary source. Refers to a stationary source of emissions. Prevention of Significant Deterioration permits are required for major new stationary sources of emissions that emit 100 tons or more per year of carbon monoxide, sulphur dioxide, nitrogen dioxide, ozone, or particulate matter.

Stipulation (general). A term or condition in an agreement or contract.

Stipulation (oil and gas). A provision that modifies standard oil and gas lease terms and conditions in order to protect other resource values or land uses and is attached to and made a part of the lease. Typical lease stipulations include No Surface Occupancy (NSO), Timing Limitations (TL), and Controlled Surface Use (CSU). Lease stipulations are developed through the land use planning (RMP) process.

Streamside management zone. Land adjacent to a waterbody where activities on land are likely to affect water quality.

Substantial interference. Determination that an activity or use affects (hinders or obstructs) the nature and purposes of a designated National Trail (see nature and purposes).

Suitable river. An eligible river segment found through administrative study to meet the criteria for designation as a component of the National System, as specified in Section 4(a) of the Wild and Scenic Rivers Act (BLM Manual 6400, Wild and Scenic Rivers – Policy and Program Direction for Identification, Evaluation, Planning, and Management).

Surface-disturbing activities. Surface-disturbing activities are those that normally result in more than negligible (immeasurable, not readily noticeable) disturbance to vegetation and soils on public lands and accelerate the natural erosive process. Surface disturbances could require reclamation and normally involve use and/or occupancy of the surface, causing disturbance to soils and vegetation. They include, but are not limited to: the use of mechanized earth-moving equipment; truck-mounted drilling, stationary drill rigs in unison, and geophysical exploration equipment off designated routes; off-road vehicle travel in areas designated as limited or closed to off-road vehicle use; construction of facilities such as range facilities and/or improvements, power lines, pipelines, oil and gas wells and/or pads; recreation sites; new road and trail construction; and use of pyrotechnics and explosives. Surface disturbance is not normally caused by casual-use activities. Activities that are not considered surface-disturbing include, but are not limited to, livestock grazing, cross-country hiking or equestrian use, dispersed camping, installing signs, minimum impact filming, vehicular travel on designated routes, and general use of the land by wildlife.

Sustained yield. The achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the public lands consistent with multiple uses.

Technical. Designated to challenge riders.

Terrestrial. Living or growing in or on the land.

Threatened species. Any species that is likely to become endangered within the foreseeable future throughout all or a significant portion of its range (BLM Manual 6840, Special Status Species Management). Under the Endangered Species Act of 1973 in the US, “threatened” is the lesser-protected of the two categories. Designation as threatened (or endangered) is determined by United States Department of Interior, Fish and Wildlife Service as directed by the Endangered Species Act.

Timber. Standing trees, downed trees, or logs which are capable of being measured in board feet.

Timing Limitation (TL). The TL stipulation, a moderate constraint, is applicable to fluid mineral leases, all activities associated with fluid mineral development (e.g., truck-mounted drilling and geophysical exploration equipment off designated routes, construction of wells and/or pads), and other surface-disturbing activities (i.e., those not related to fluid mineral development). Areas identified for TL are closed to fluid mineral exploration and development, surface-disturbing activities, and intensive human activity during identified time frames. This stipulation does not apply to operation and basic maintenance activities, including associated vehicle travel, unless otherwise specified. Construction, drilling, completions, and other operations considered to be intensive in nature are not allowed. Intensive maintenance, such as workovers on wells, is not permitted. TLs can overlap spatially with NSO, NGD, CSU, SSR, as well as with areas that have no other restrictions.

Total dissolved solids. Salt, or an aggregate of carbonates, bicarbonates, chlorides, sulfates, phosphates, and nitrates of calcium, magnesium, manganese, sodium, potassium, and other cations that form salts.

Total maximum daily load. An estimate of the total quantity of pollutants (from all sources: point, nonpoint, and natural) that may be allowed into waters without exceeding applicable water quality criteria.

Traditional cultural properties. A property that derives significance from traditional values associated with it by a social or cultural group, such as an Indian tribe or local community. A traditional cultural property may qualify for the National Register of Historic Places if it meets the criteria and criteria exceptions at 36 CFR 60.4 (see National Register Bulletin 38).

Traditional use. Longstanding, socially conveyed, customary patterns of thought, cultural expression, and behavior, such as religious beliefs and practices, social customs, and land or resource uses. Traditions are shared generally within a social and/or cultural group and span generations. Usually traditional uses are reserved rights resulting from treaty and/or agreements with Native American groups.

Trail. A linear route managed for human-power (e.g., hiking or bicycling), stock (e.g., equestrian), or off-highway vehicle forms of transportation or for historical or heritage values. Trails are not generally managed for use by four-wheel drive or high-clearance vehicles.

Trailing. Used in the Uncompahgre Draft RMP/EIS to refer to movement of livestock between grazed areas. Since publication of the Uncompahgre Draft RMP/EIS, the BLM has clarified policy and corresponding terminology. Trailing is now defined as the active movement of livestock from one location to another, which is permitted under an existing grazing permit and is conducted by the permit holder within the dates specified in the permit, and is subject to all other terms and conditions of that permit. For active movement through a grazing allotment outside of the terms and conditions of an existing grazing permit, see also *Crossing*.

Transmission. The movement or transfer of electric energy over an interconnected group of lines and associated equipment between points of supply and points at which it is transformed for delivery to consumers, or is delivered to other electric systems. Transmission is considered to end when the energy is transformed for distribution to the consumer.

Transportation linear features. “Linear features” represents the broadest category of physical disturbance (planned and unplanned) on BLM land. Transportation related linear features include engineered roads and trails, as well as user-defined, non-engineered roads and trails created as a result

of the public use of BLM land. Linear features may include roads and trails identified for closure or removal as well as those that make up the BLM's defined transportation system.

Transportation system. The sum of the BLM's recognized inventory of linear features (roads, primitive roads, and trails) formally recognized, designated, and approved as part of the BLM's transportation system.

Travel management areas. Polygons or delineated areas where a rational approach has been taken to classify areas open, closed or limited, and have identified and/or designated a network of roads, trails, ways, landing strips, and other routes that provide for public access and travel across the planning area. All designated travel routes within travel management areas should have a clearly identified need and purpose as well as clearly defined activity types, modes of travel, and seasons or timeframes for allowable access or other limitations (BLM Handbook H-1601-I, Land Use Planning Handbook).

Trespass. Any unauthorized use of public land.

Tribal interests. Native American or Native Alaskan economic rights such as Indian trust assets, resource uses and access guaranteed by treaty rights, and subsistence uses.

Tuff. A pyroclastic volcanic rock composed of ash-sized fragments.

Unalloted. Lands that currently are not committed to livestock grazing use.

Understory. That portion of a plant community growing underneath the taller plants on the site.

Upland game birds. Non-waterfowl game birds usually hunted with pointing breed, flushing spaniels, and retrievers. Upland game birds include grouse, chukar, quail, snipe, doves, pigeons, ptarmigan, and wild turkey.

Utility corridor. Tract of land varying in width forming passageway through which various commodities such as oil, gas, and electricity are transported.

Valid existing rights. Documented, legal rights or interests in the land that allow a person or entity to use said land for a specific purpose and that are still in effect. Such rights include but are not limited to fee title ownership, mineral rights, rights-of-way, easements, permits, and licenses. Such rights may have been reserved, acquired, leased, granted, permitted, or otherwise authorized over time.

Vegetation manipulation. Planned alteration of vegetation communities through use of mechanical, chemical, seeding, and/or prescribed fire or managed fire to achieve desired resource objectives.

Vegetation structure. The stage of plant community development, encompassing age of stand, height of vegetation, and spatial distribution of plants.

Vegetation treatments. Management practices which change the vegetation structure to a different stage of development. Vegetation treatment methods include managed fire, prescribed fire, chemical, mechanical, and seeding.

Vegetation type. A plant community with immediately distinguishable characteristics based upon and named after the apparent dominant plant species.

Vertebrate. An animal having a backbone or spinal column. Includes jawless fishes, bony fishes, sharks and rays, amphibians, reptiles, mammals, and birds.

Viewshed. The panorama from a given viewpoint that encompasses the visual landscape, including everything visible within a 360-degree radius.

Visibility (air quality). A measure of the ability to see and identify objects at different distances.

Visitor day. Twelve visitor hours that may be aggregated by one or more persons in single or multiple visits.

Visitor use. Visitor use of a resource for inspiration, stimulation, solitude, relaxation, education, pleasure, or satisfaction.

Visual resource management (VRM). The inventory and planning actions taken to identify visual resource values and to establish objectives for managing those values, and the management actions taken to achieve the visual resource management objectives.

Visual resource management classes. Define the degree of acceptable visual change within a characteristic landscape. A class is based on the physical and sociological characteristics of any given homogeneous area and serves as a management objective. Categories assigned to public lands are based on scenic quality, sensitivity level, and distance zones. Each class has an objective that prescribes the amount of change allowed in the characteristic landscape (from BLM Handbook H-1601-I, BLM Land Use Planning Handbook). The four classes are described below:

- **Class I** provides for natural ecological changes only. This class includes primitive areas, some natural areas, some wild and scenic rivers, and other similar areas where landscape modification activities should be restricted.
- **Class II** areas are those areas where changes in any of the basic elements (form, line, color, or texture) caused by management activity should not be evident in the characteristic landscape.
- **Class III** includes areas where changes in the basic elements (form, line, color, or texture) caused by a management activity may be evident in the characteristic landscape. However, the changes should remain subordinate to the visual strength of the existing character.
- **Class IV** applies to areas where changes may subordinate the original composition and character; however, they should reflect what could be a natural occurrence within the characteristic landscape.

Visual resources. The visible physical features on a landscape, (topography, water, vegetation, animals, structures, and other features) that comprise the scenery of the area.

Visual sensitivity. Visual sensitivity levels are a measure of public concern for scenic quality and existing or proposed visual change.

Volatile organic compounds. Chemicals that produce vapors readily at room temperature and at normal atmospheric pressure. Volatile organic compounds include gasoline, industrial chemicals such as benzene, solvents such as toluene and xylene, and tetrachloroethylene (perchloroethylene, the principal dry cleaning solvent).

Waiver. A permanent exemption from a lease stipulation. The stipulation no longer applies anywhere within the leasehold.

Water body. An area of open, standing water. Includes ponds and lakes.

Watershed. Topographical region or area delineated by water draining to a particular watercourse or body of water.

Watershed condition indicators. An integrated suite of aquatic, riparian, and hydrologic condition measures that are intended to be used at the watershed scale.

Way. Roadlike feature used by vehicles having four or more wheels but not declared a road by the owner and which receives no maintenance to guarantee regular and continuous use.

Wild and scenic study river. Rivers identified in Section 5 of the Wild and Scenic Rivers Act of 1968 for study as potential additions to the National Wild and Scenic Rivers System. The rivers will be studied under the provisions of Section 4 of the act (BLM Manual 6400, Wild and Scenic Rivers – Policy and Program Direction for Identification, Evaluation, Planning, and Management).

Wilderness. A congressionally designated area of undeveloped federal land retaining its primeval character and influence, without permanent improvements or human habitation, that is protected and managed to preserve its natural conditions and that (1) generally appears to have been affected mainly by the forces of nature, with human imprints substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least 5,000 acres or is large enough to make practical its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historic value. The definition is contained in Section 2(c) of the Wilderness Act of 1964 (78 Stat. 891).

Wilderness characteristics. Wilderness characteristics attributes include the area's size, its apparent naturalness, and outstanding opportunities for solitude or a primitive and unconfined type of recreation. They may also include supplemental values. Lands with wilderness characteristics are those lands that have been inventoried and determined by the BLM to contain wilderness characteristics as defined in section 2(c) of the Wilderness Act.

Wilderness inventory road. For the purpose of inventorying wilderness characteristics only, any route outside of WSAs, designated wilderness, and the Tabeguache Area that has been *improved and maintained by mechanical means* to insure *relatively regular and continuous use*. A way maintained solely by the passage of vehicles does not constitute a road. Refer to BLM Manual 6310, Conducting Wilderness Characteristics Inventory on BLM Lands.

- *Improved and maintained* – Actions taken physically by people to keep the road open to vehicle traffic. “Improved” does not necessarily mean formal construction. “Maintained” does not necessarily mean annual maintenance.
- *Mechanical means* – Use of hand or power machinery or tools.
- *Relatively regular and continuous use* – Vehicular use that has occurred and will continue to occur on a relatively regular basis.

Wilderness Study Area (WSA). A designation made through the land use planning process of a roadless area found to have wilderness characteristics, as described in Section 2(c) of the Wilderness Act of 1964.

Wilderness Study Area (WSA) Ways. Existing vehicle routes identified during the BLM's original wilderness inventory; does not include illegal routes created in the interim. The continued use of these routes is based on user compliance and non-impairment of wilderness values.

Wildland fire. Wildland fire is a general term describing any non-structure fire that occurs in the wildland. Wildland fires are categorized into two distinct types:

- Wildfires: Unplanned ignitions or prescribed fires that are declared wildfires.
- Prescribed fires: Planned ignitions.

Wildland fire use. *A term no longer used; the new terminology is “managed fire” (see “managed fire” definition).*

Wildland-urban interface (WUI): The line, area or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.

Wild river. Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and unpolluted. These represent vestiges of primitive America.

Winter concentration area: As defined by CPW, that part of winter range where densities are at least 200 percent greater than the surrounding winter range density during the same period used to define winter range in the average five winters out of ten. Winter concentration areas are defined for each Colorado Division of Wildlife Data Analysis Unit.

Withdrawal. An action that restricts the use of public land and segregates the land from the operation of some or all of the public land and mineral laws. Withdrawals are also used to transfer jurisdiction of management of public lands to other federal agencies.

Wood product sales/harvest. Any wood-collection activity other than incidental use involving the severance and/or removal of any vegetative material for personal use requiring a permit or commercial use requiring a contract.

Xeroriparian area. An area or vegetative community that exists in arid environments and is characterized by dry washes exposed to only intermittent flows of water (ephemeral streams) associated with discrete precipitation events.

II.8 APPENDICES

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- C Best Management Practices and Standard Operating Procedures
- D Uncompahgre Field Office Drought Detection and Monitoring Plan
- E Description of Recreation Management Areas
- F Livestock Grazing Allotments and Allotment Levels
- G Bighorn/Domestic Sheep Risk of Association Modeling
- H Coal Screening Criteria for the Uncompahgre Planning Area
- I Travel Management
- J Legal Descriptions for Lands Identified for Disposal

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Appendix A

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APPENDIX A

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27	Land Withdrawals and Powersite Classifications
28	National Scenic, Historic, and Recreational Trails and State and BLM Byways

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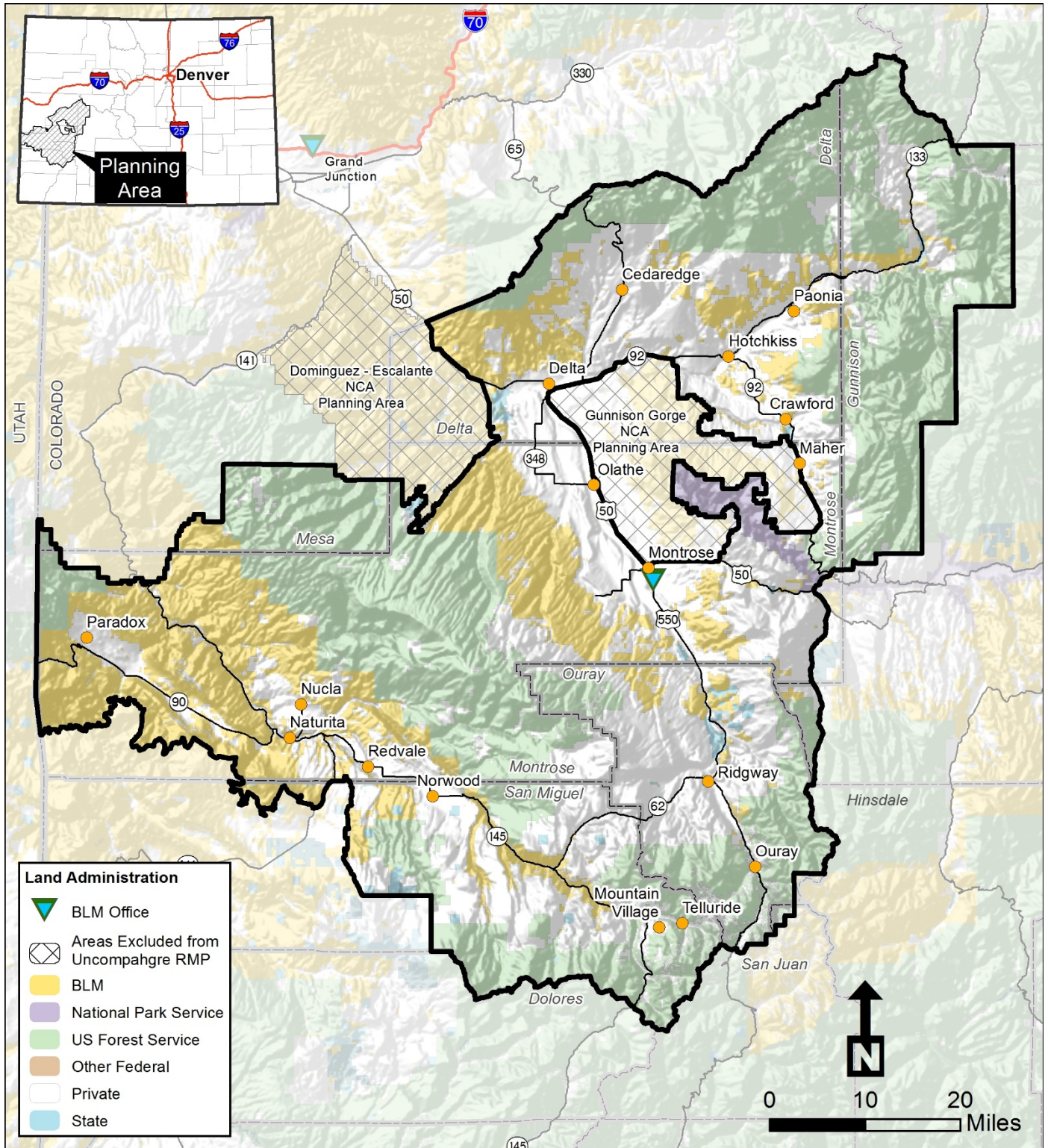


Figure I: Uncompahgre RMP Planning Area

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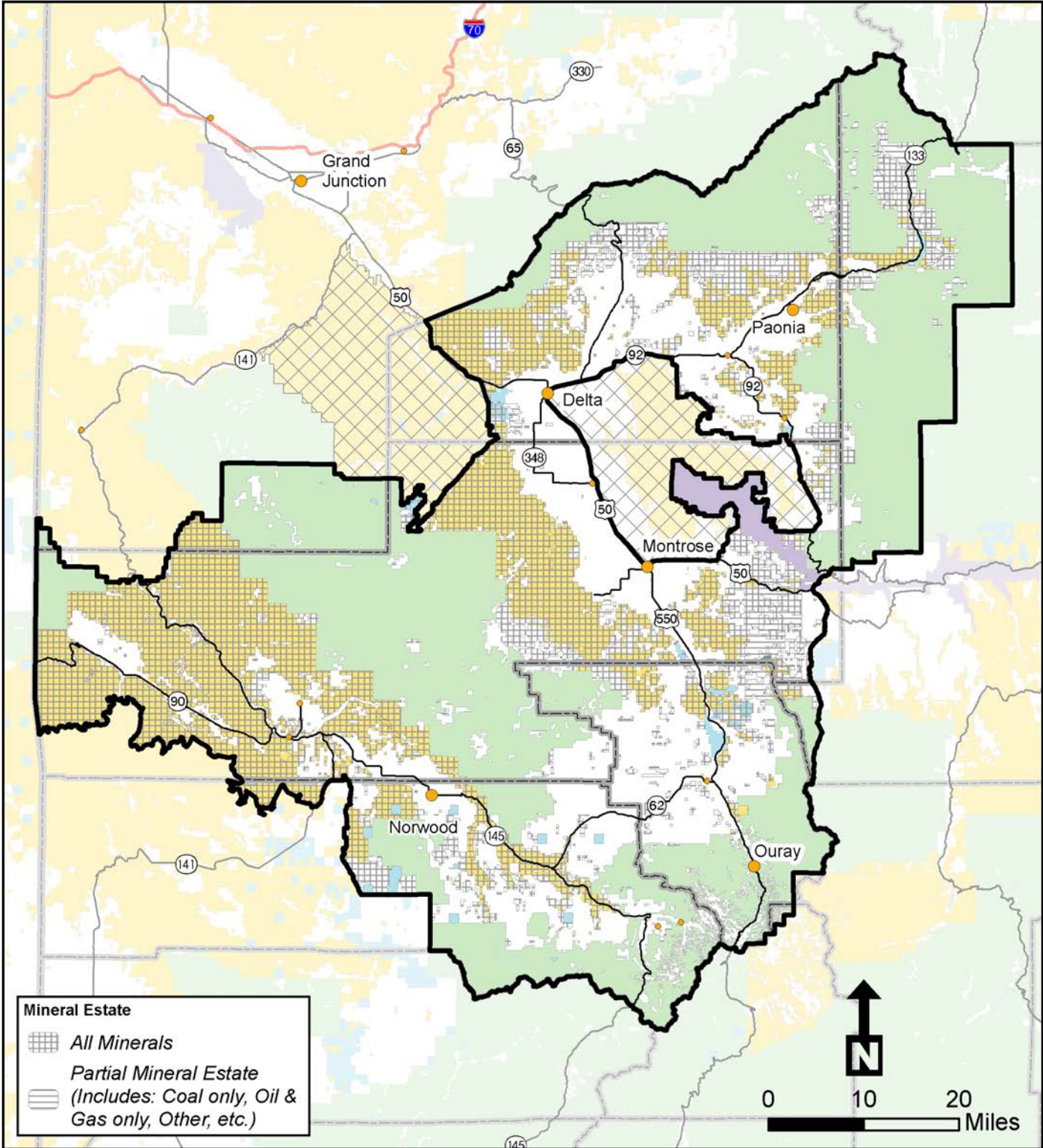


Figure 2: Federal Mineral Estate

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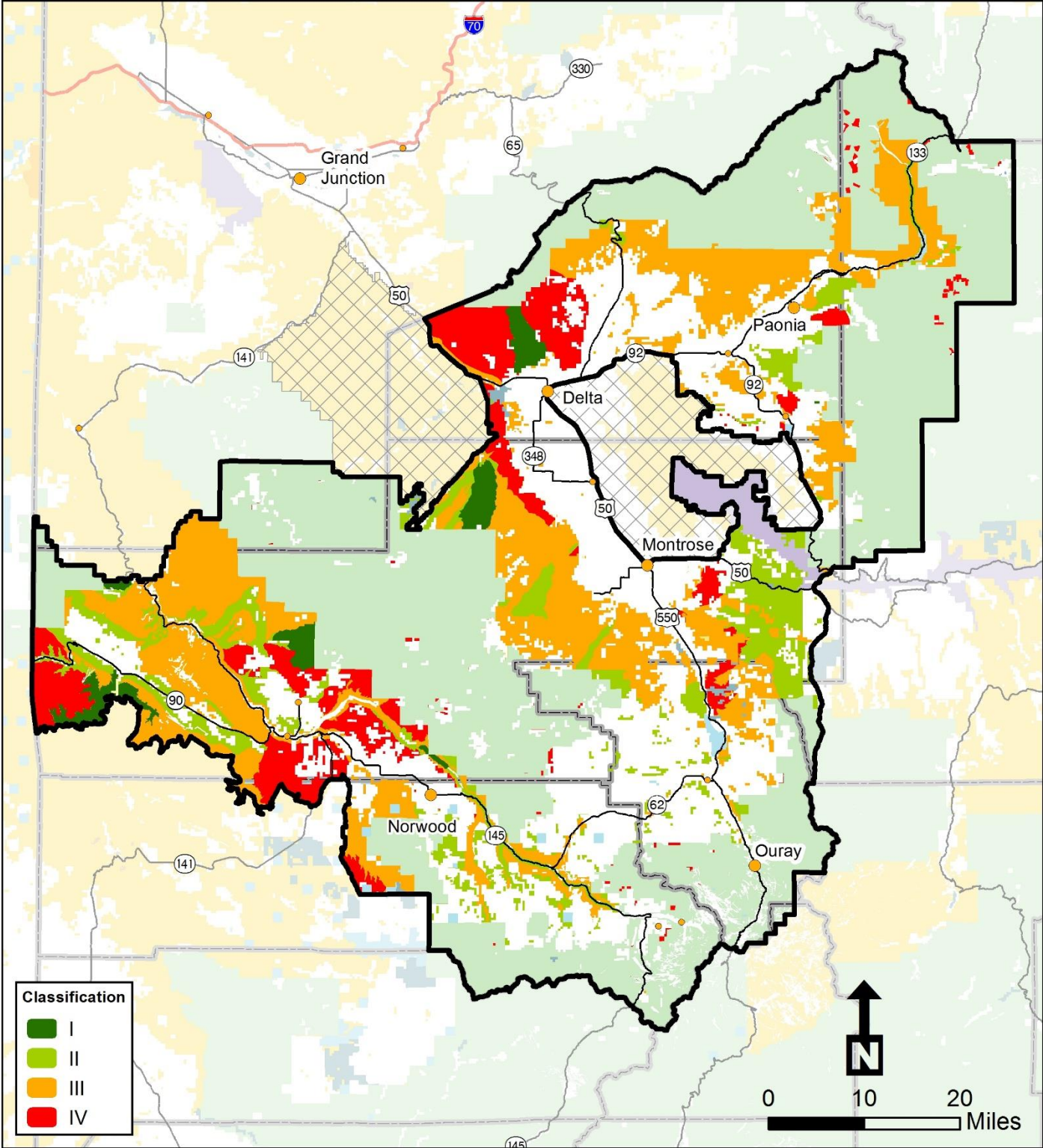


Figure 3: Visual Resource Management

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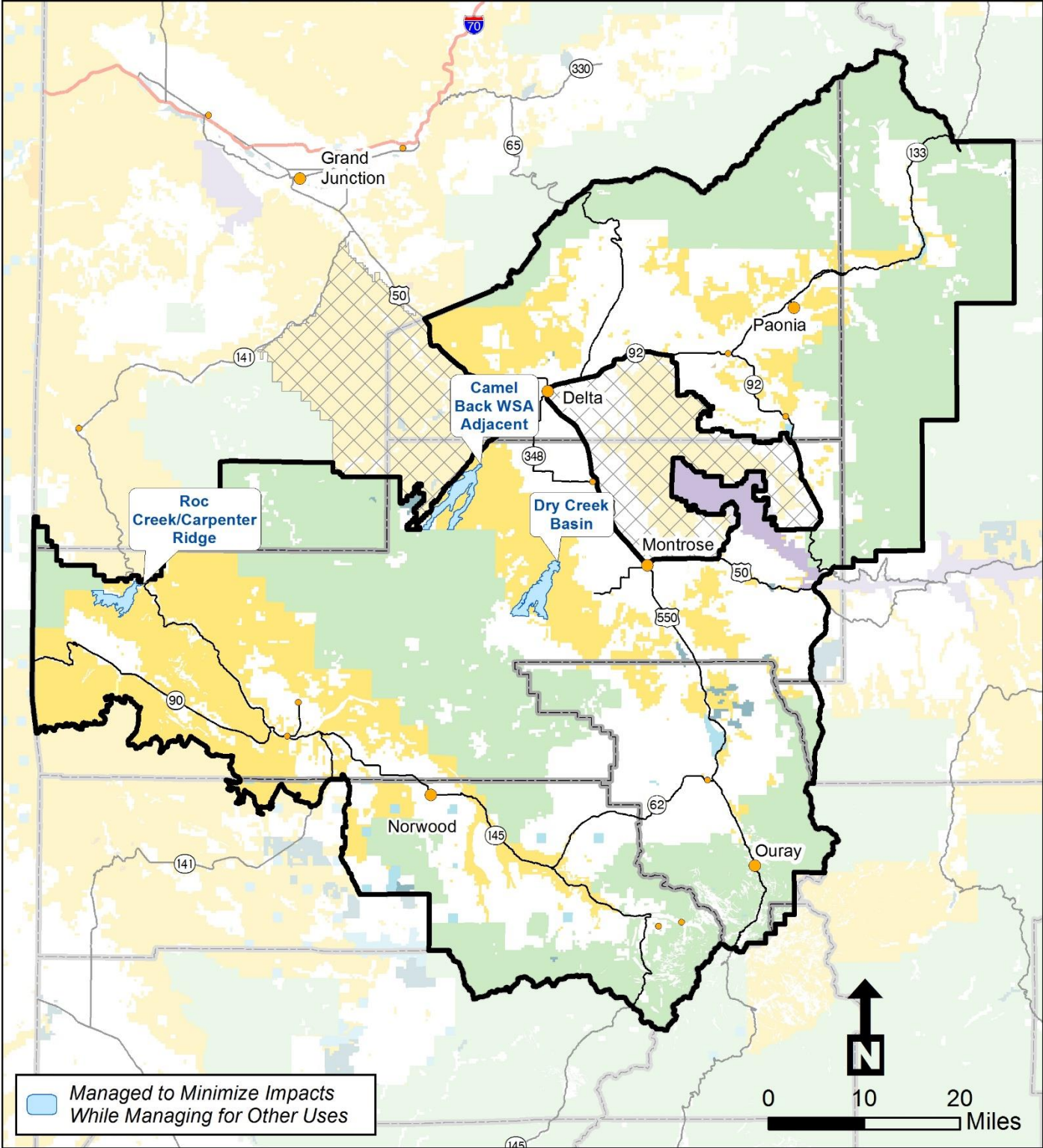


Figure 4: Lands Managed to Minimize Impacts on Wilderness Characteristics

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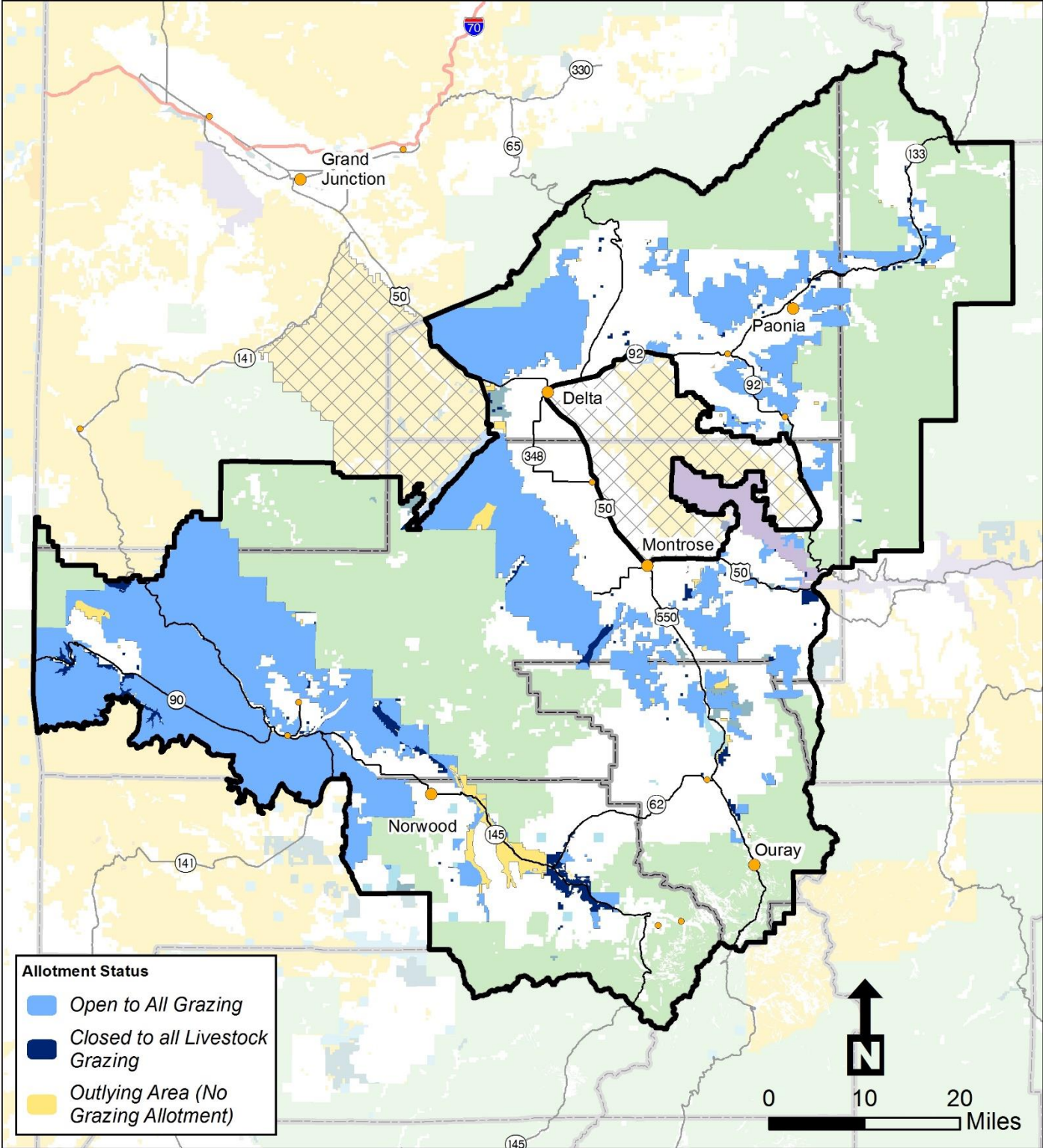


Figure 5: Grazing Allotments

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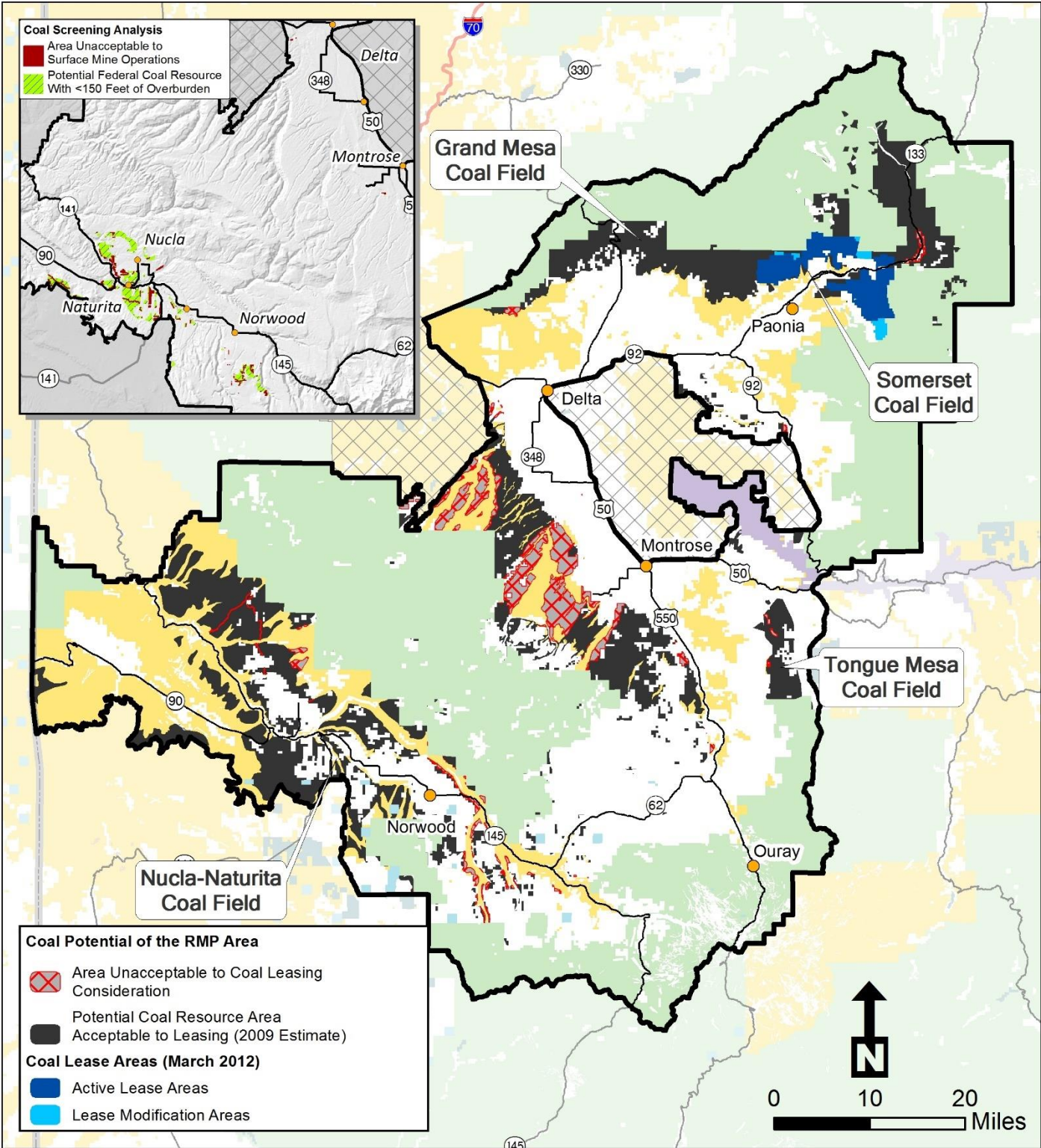


Figure 6: Coal Leasing

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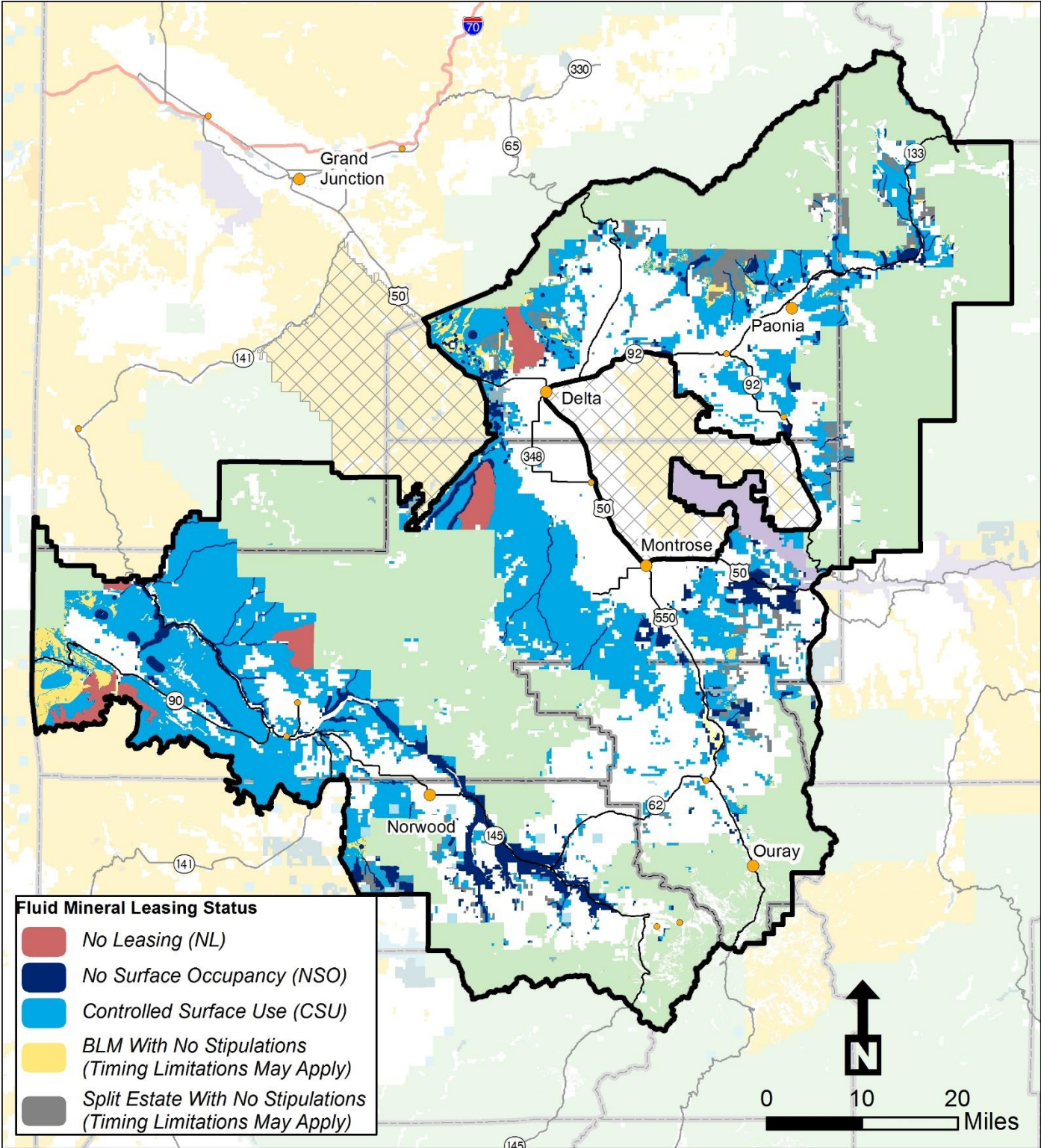


Figure 7: Fluid Minerals Leasing

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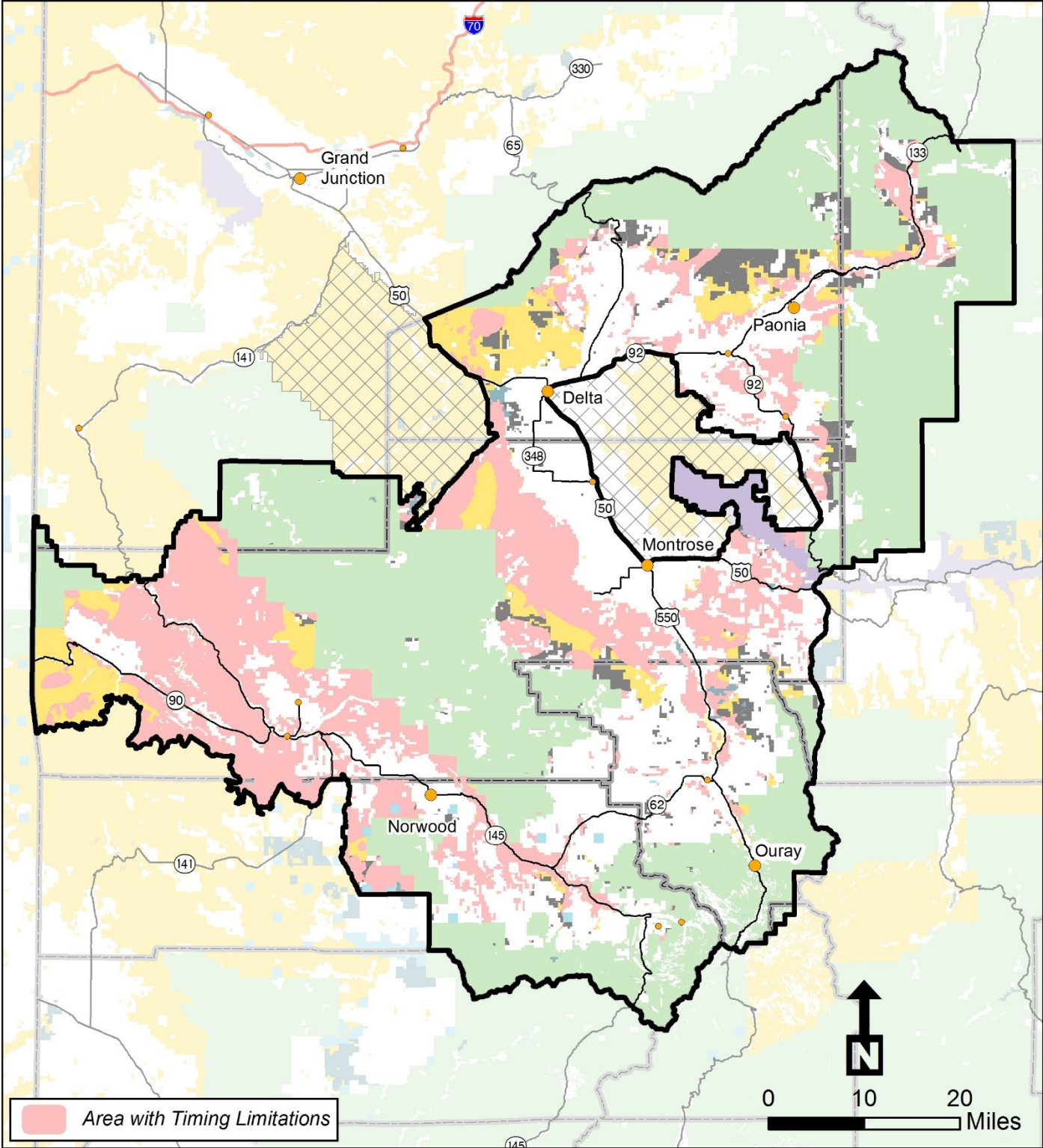


Figure 8: Timing Limitation Stipulations for Fluid Mineral Leasing and Other Surface-disturbing Activities

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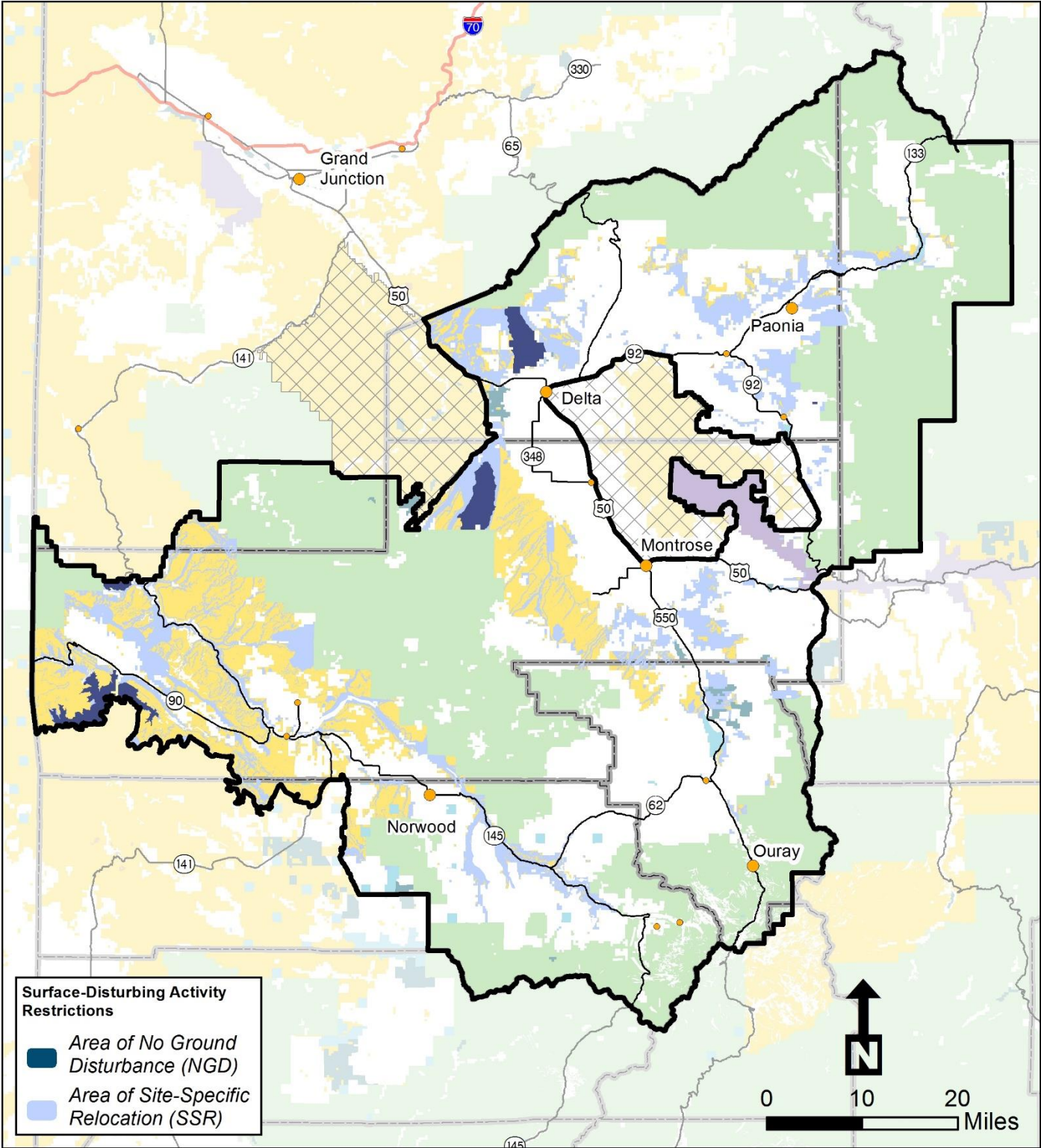


Figure 9: Restrictions for Other Surface-disturbing Activities

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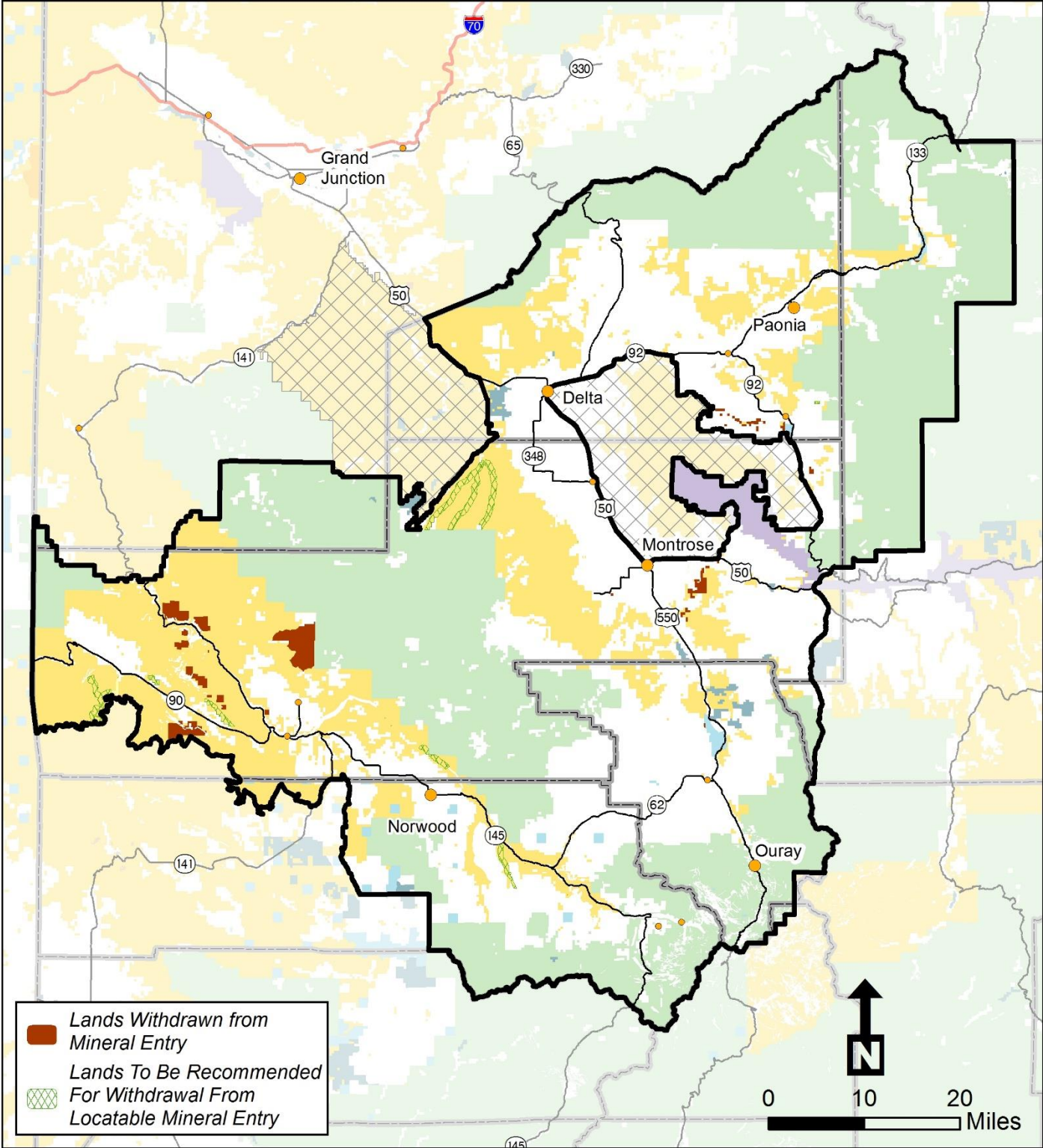


Figure 10: Lands Withdrawn and to be Recommended for Withdrawal from Locatable Mineral Entry

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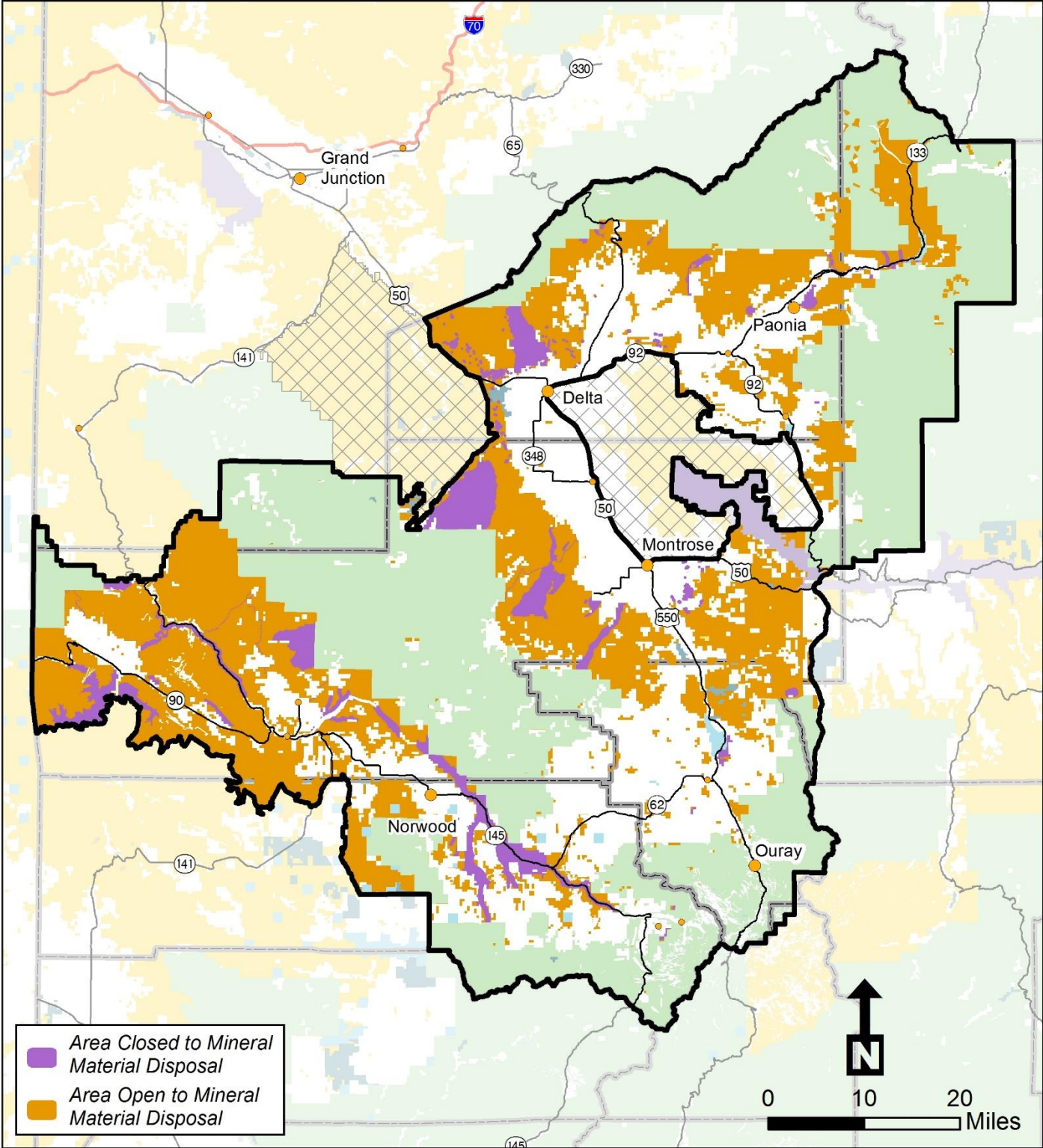


Figure 11: Mineral Materials

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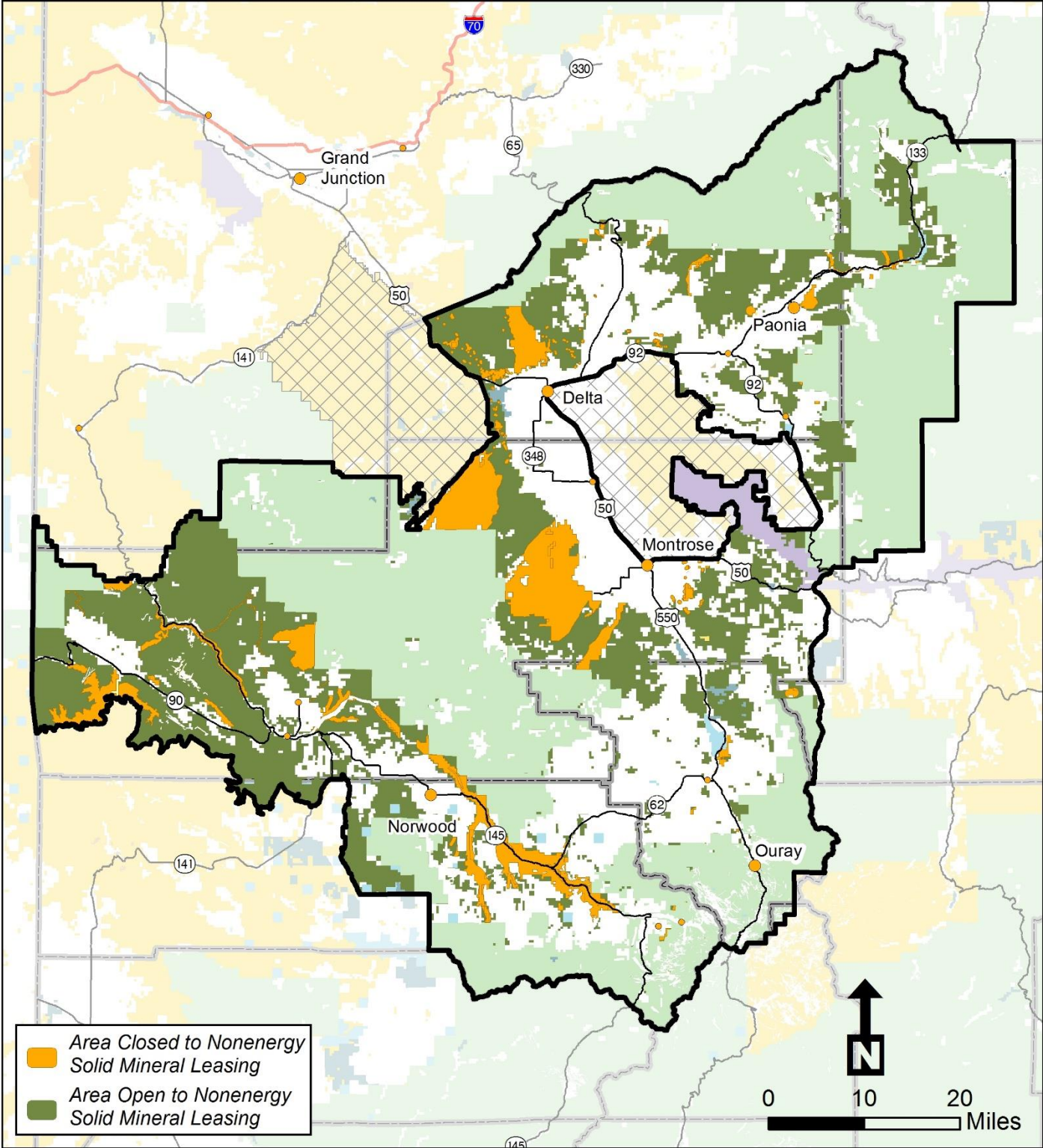


Figure 12: Nonenergy Solid Leasable Minerals

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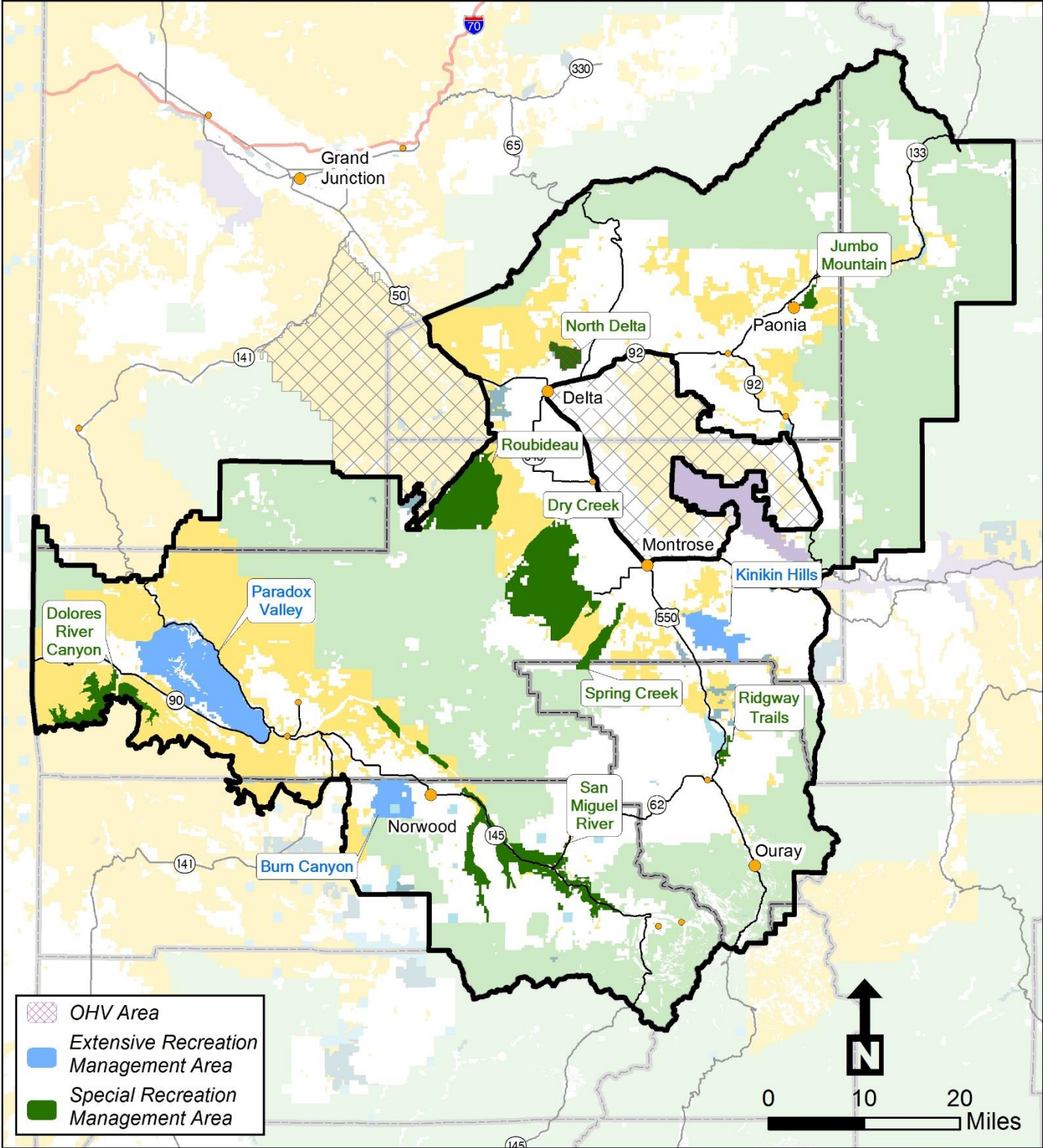


Figure 13: Recreation Management Areas

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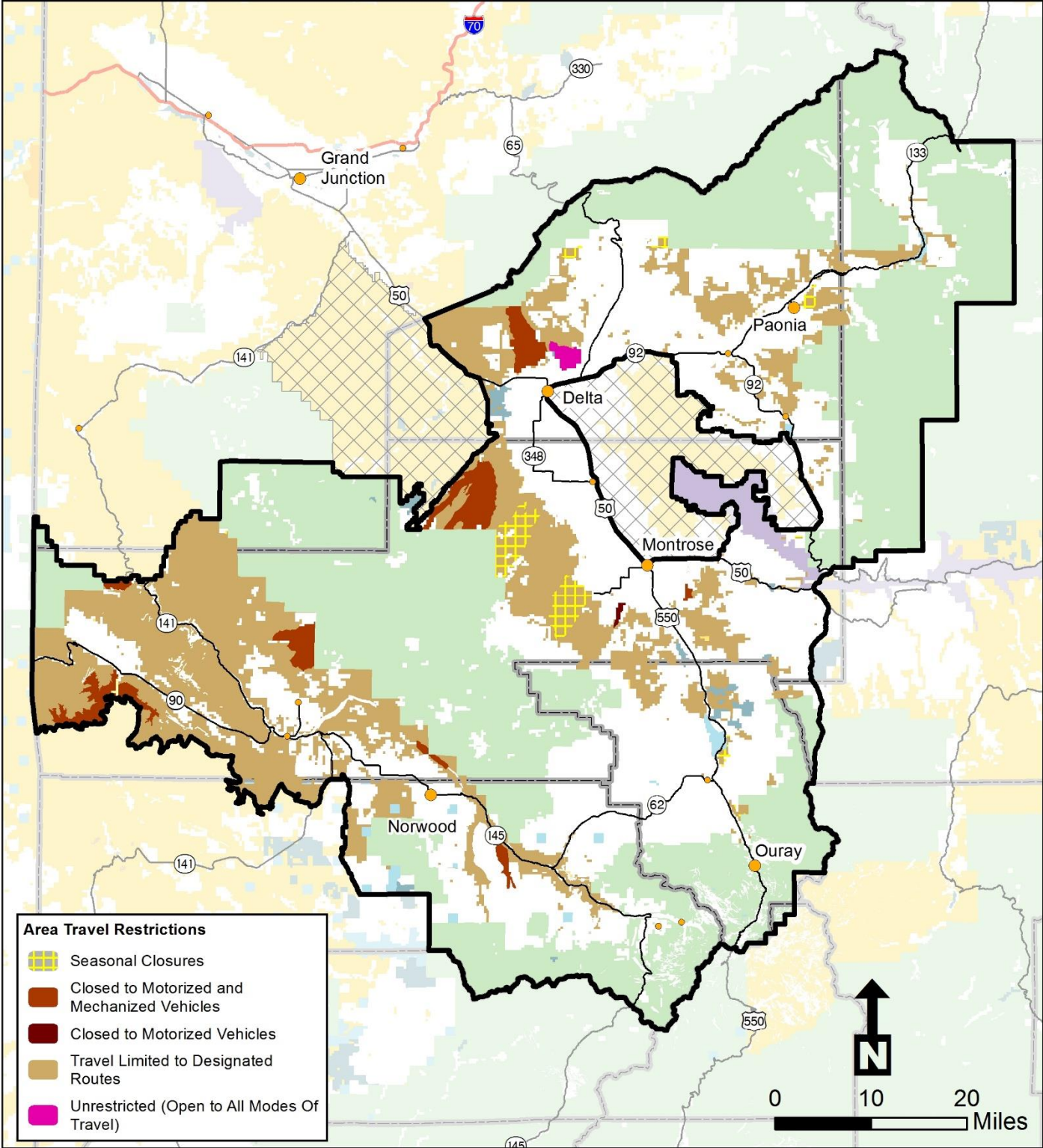


Figure 14: Comprehensive Travel and Transportation Management

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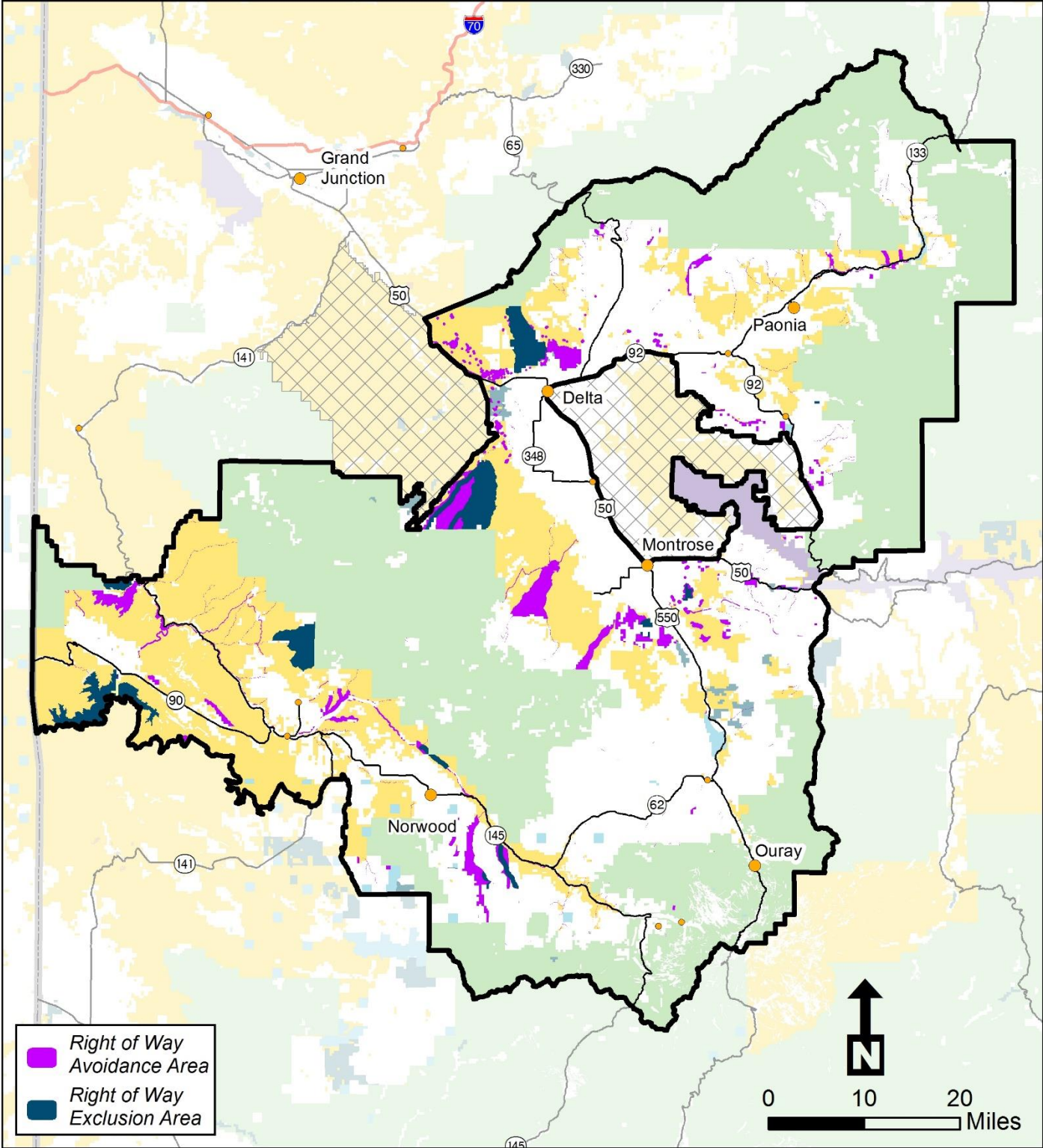


Figure 15: Right-of-Way Exclusion and Avoidance Areas

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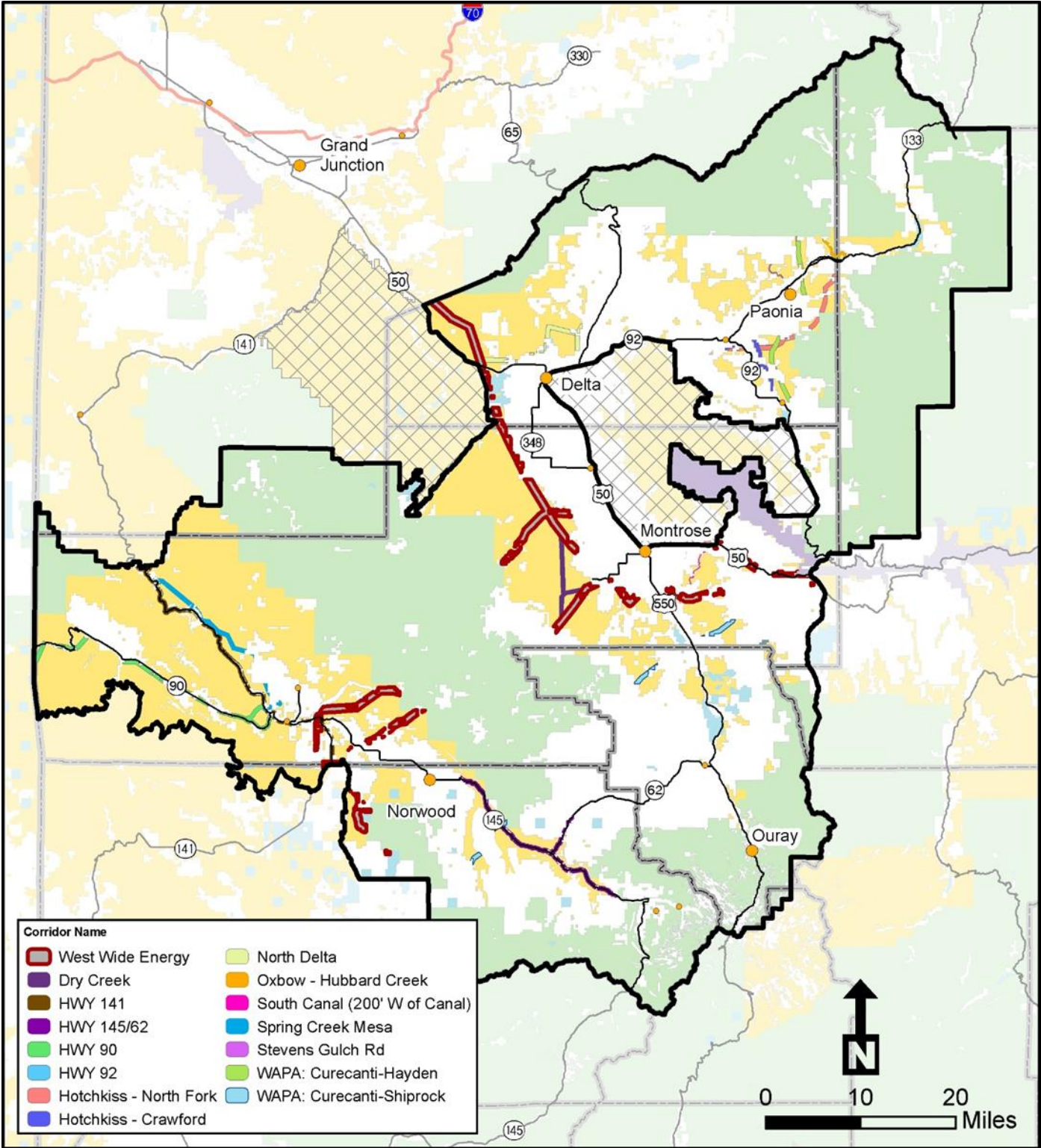


Figure 16: Designated Utility Corridors

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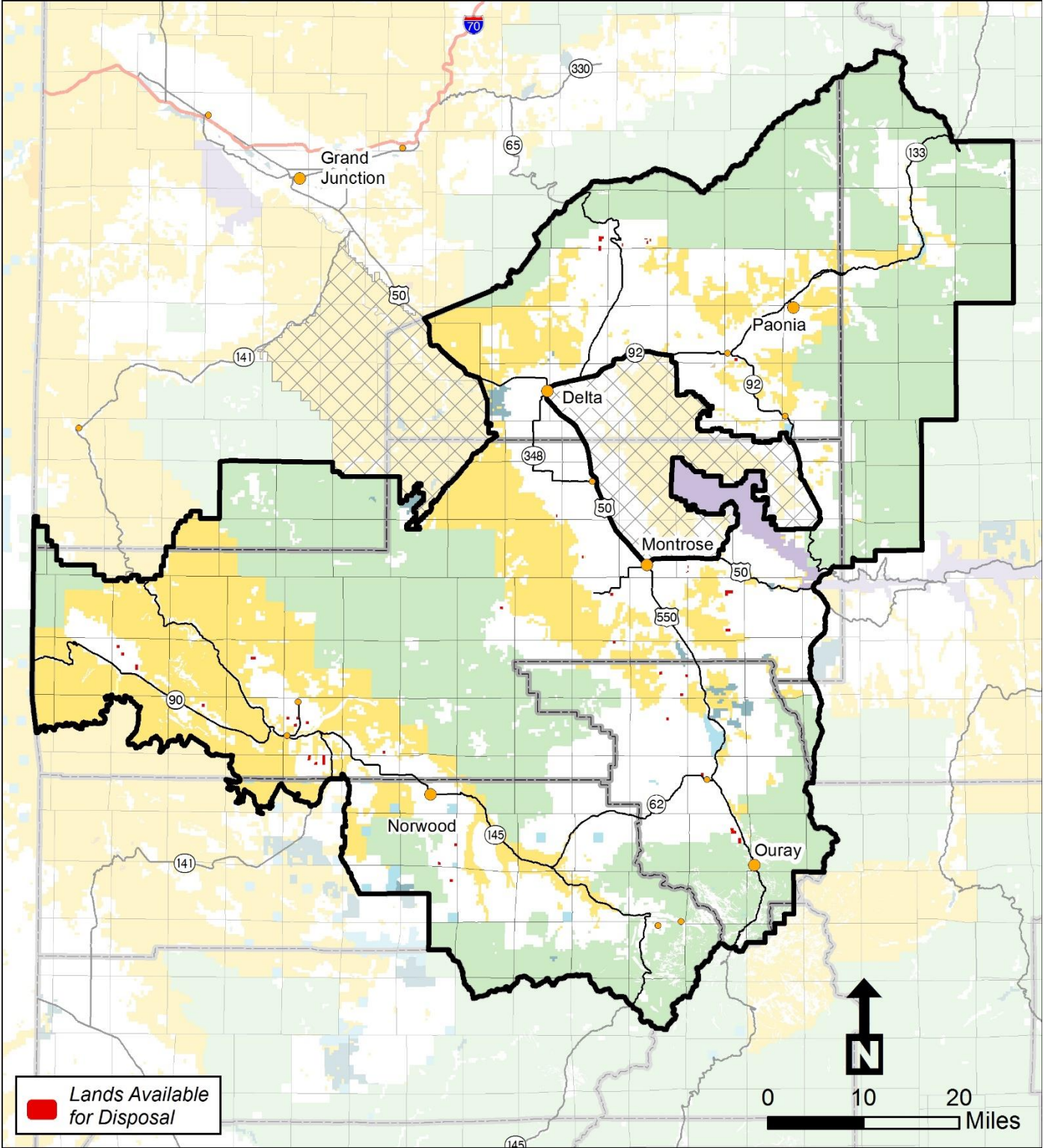


Figure 17: Lands Identified for Disposal

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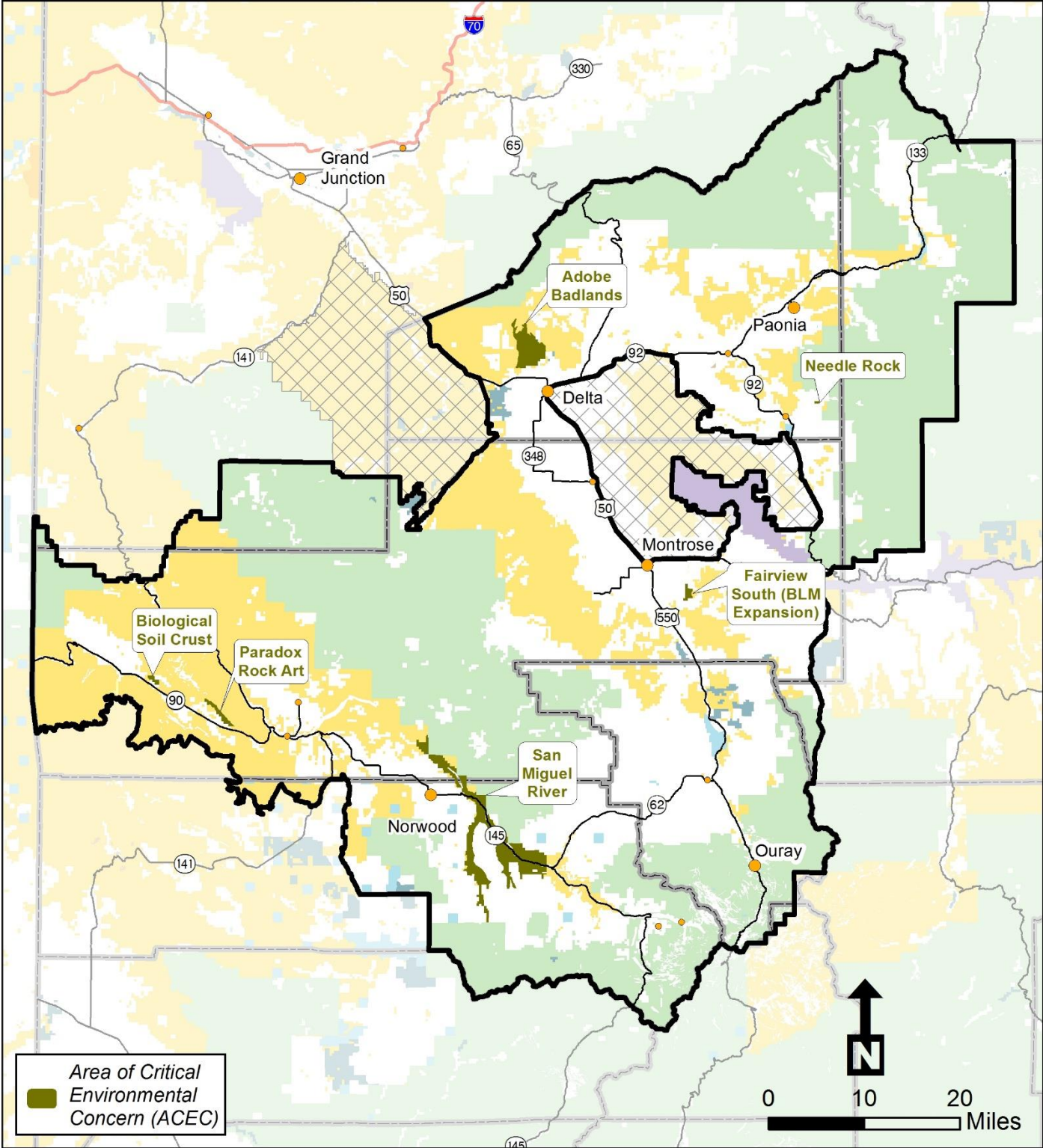


Figure 18: Areas of Critical Environmental Concern

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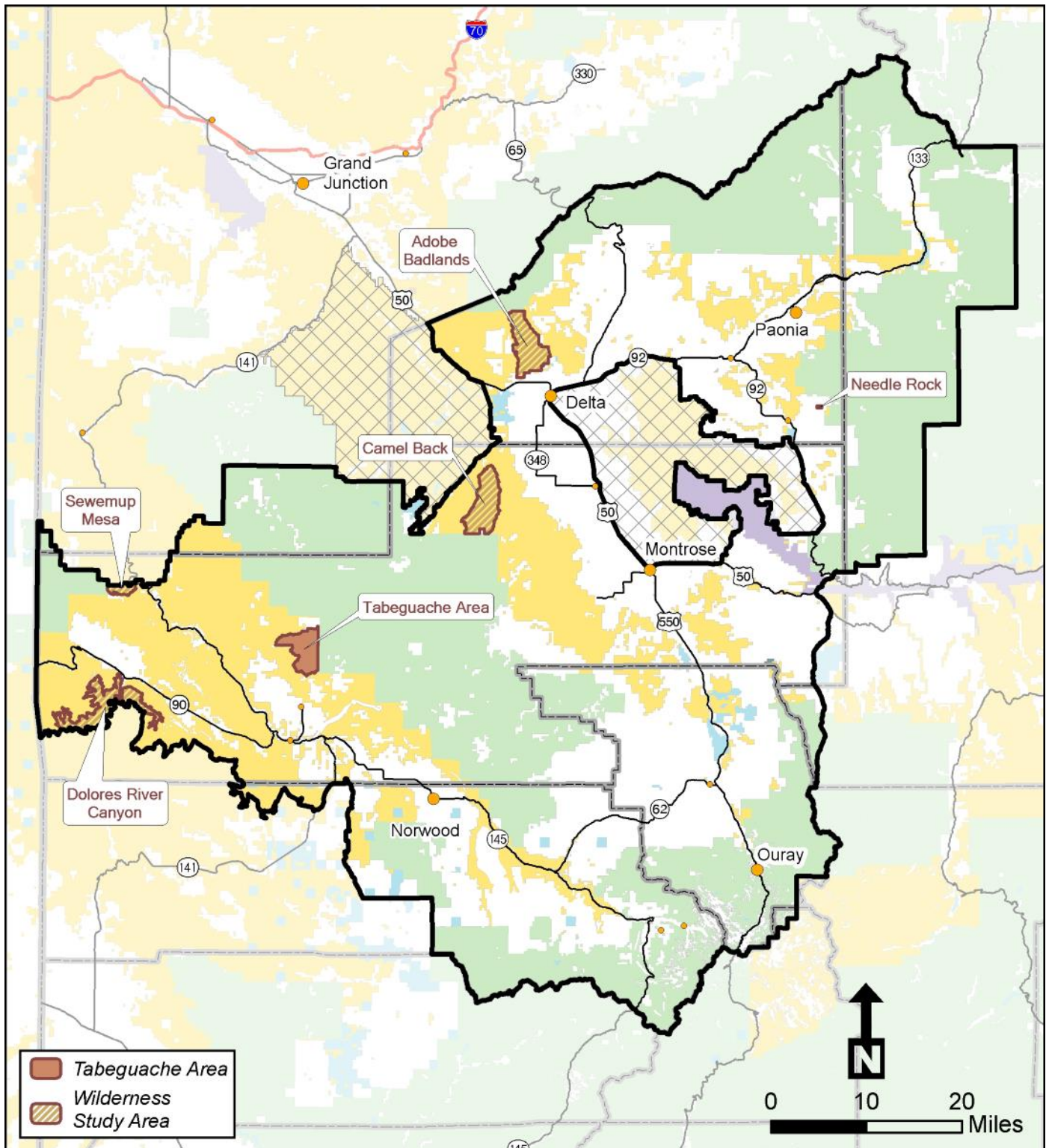


Figure 19: Tabeguache Area and Wilderness Study Areas

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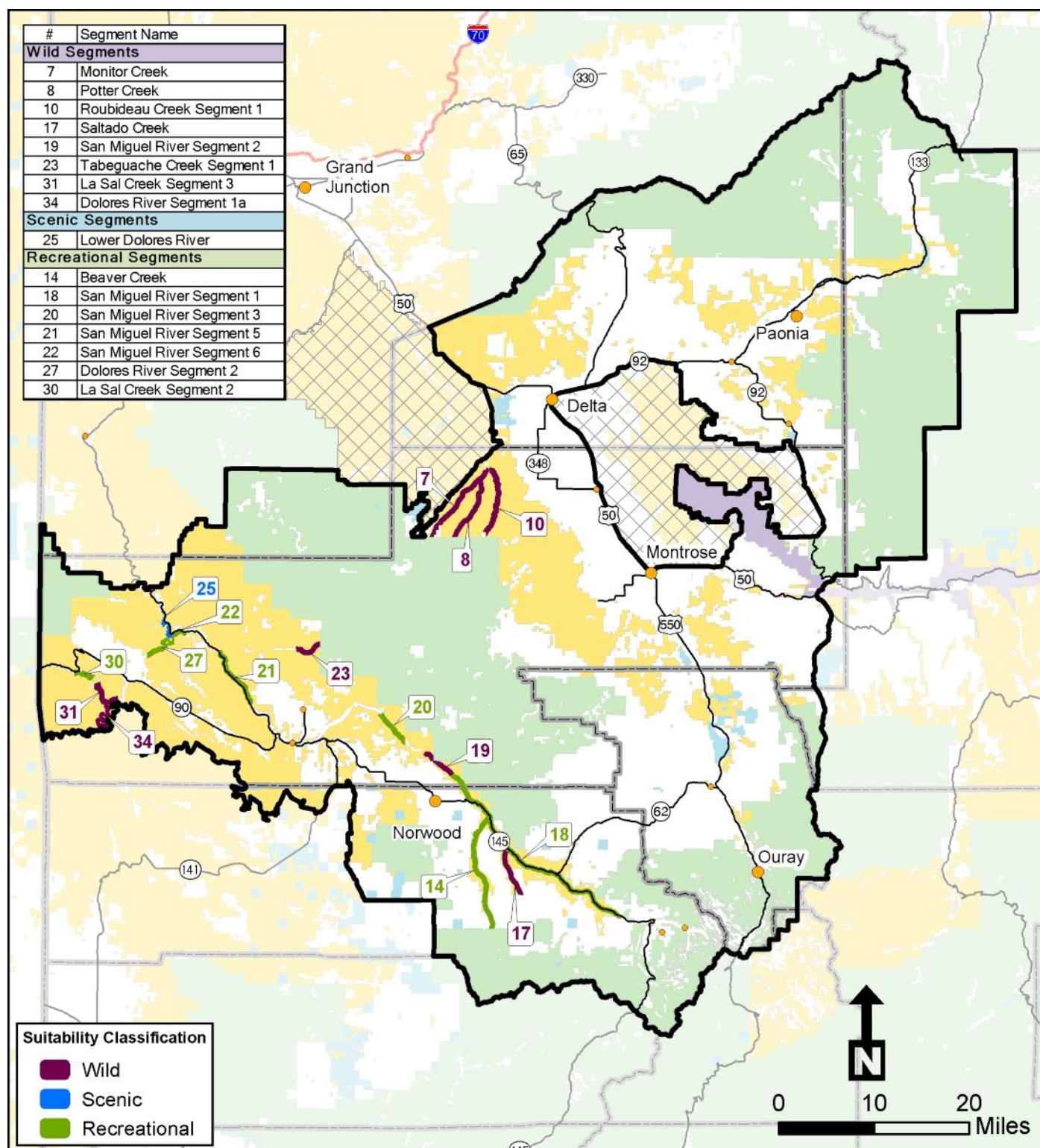


Figure 20: Segments Suitable for Inclusion in the National Wild and Scenic Rivers System

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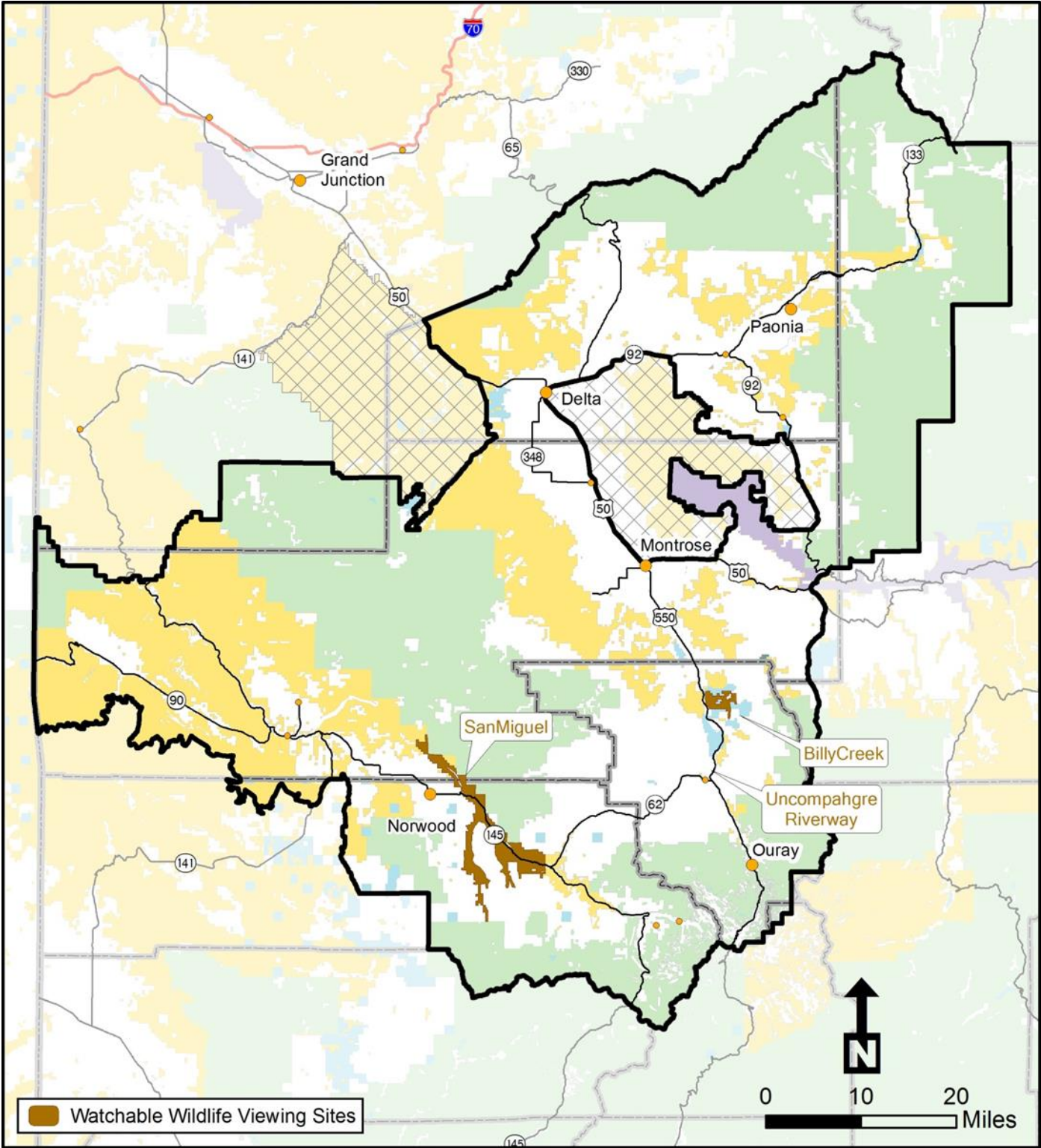


Figure 21: Watchable Wildlife Viewing Sites

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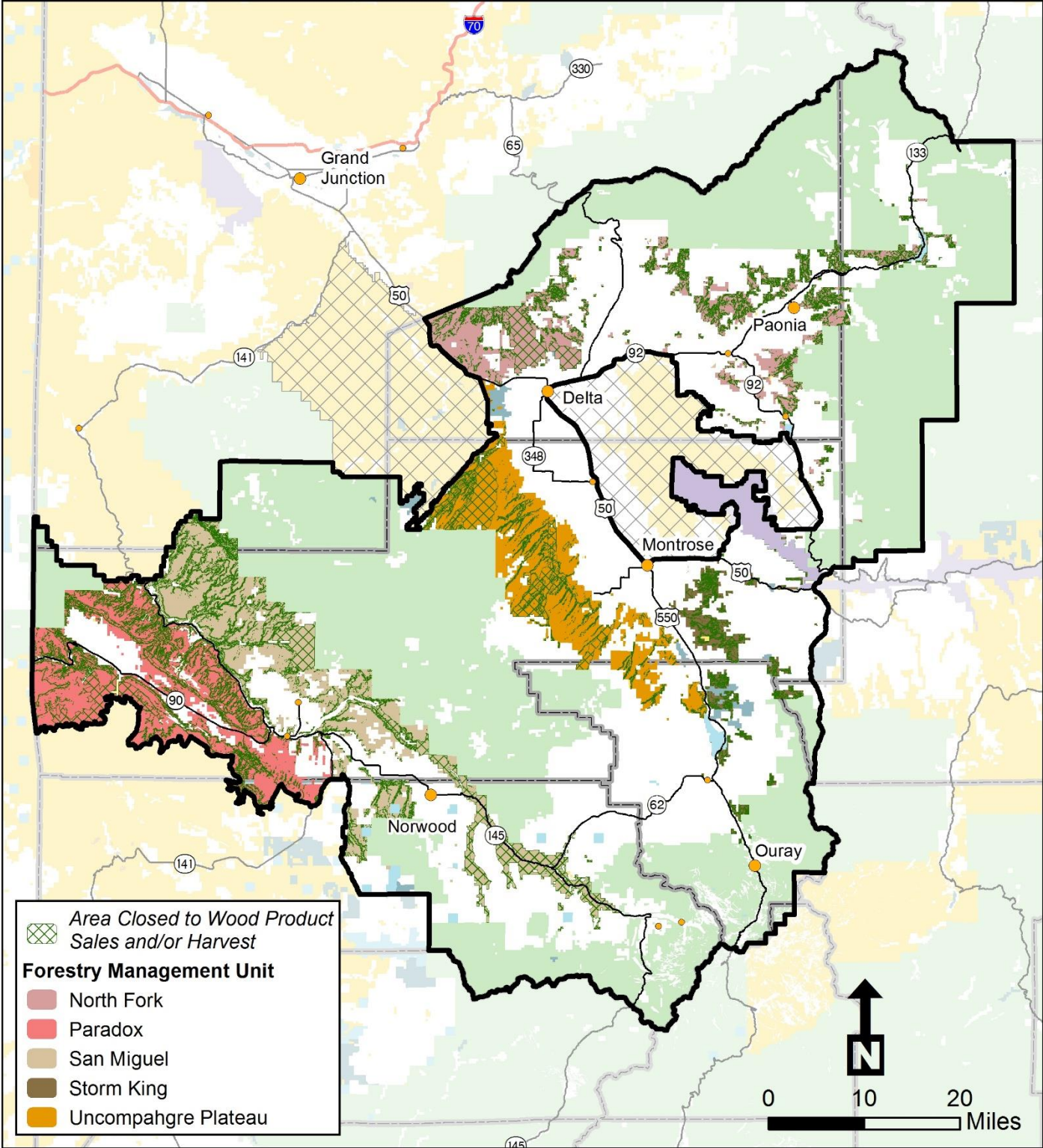


Figure 22: Forest Management

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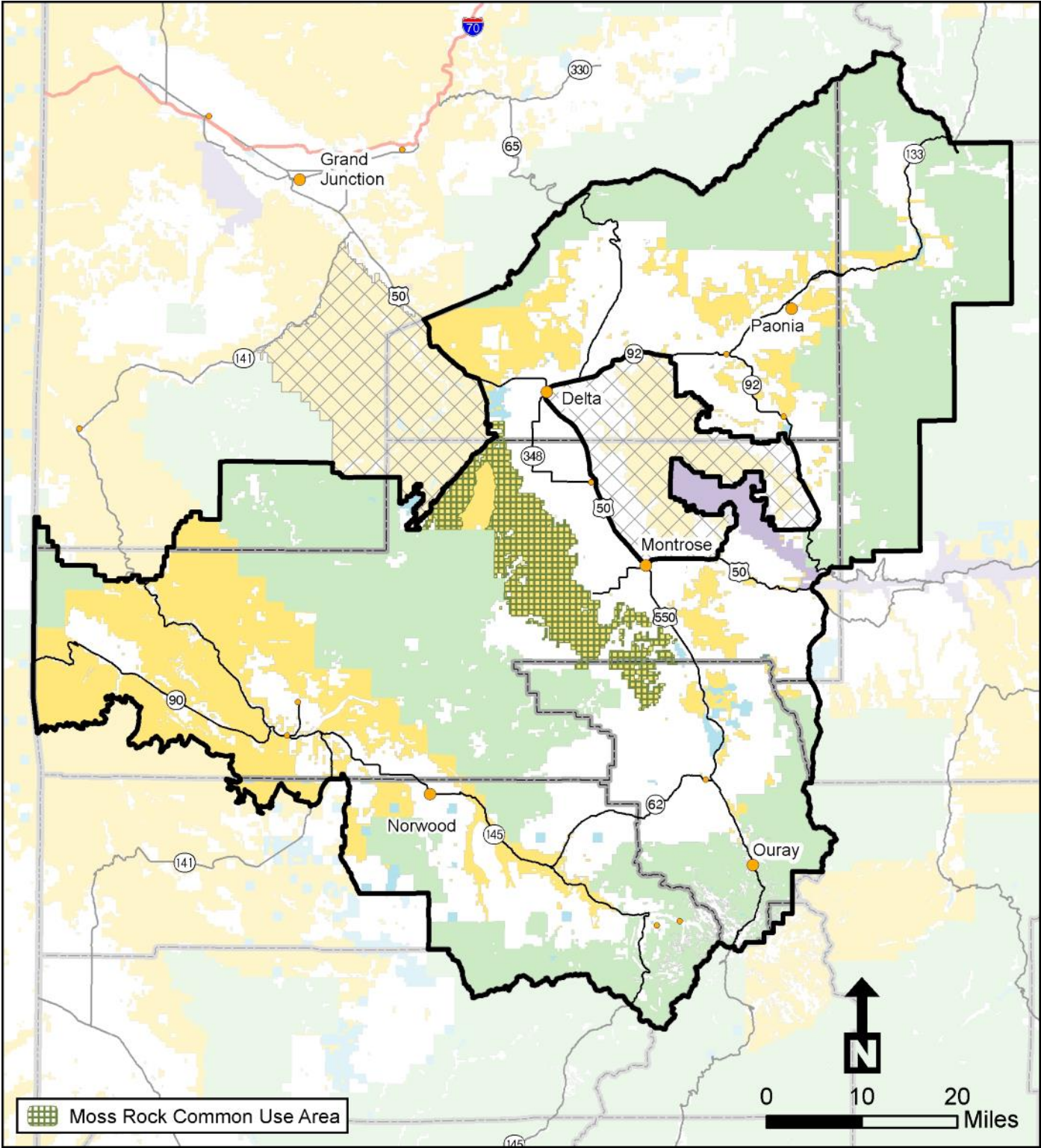


Figure 23: Moss Rock Common Use Areas

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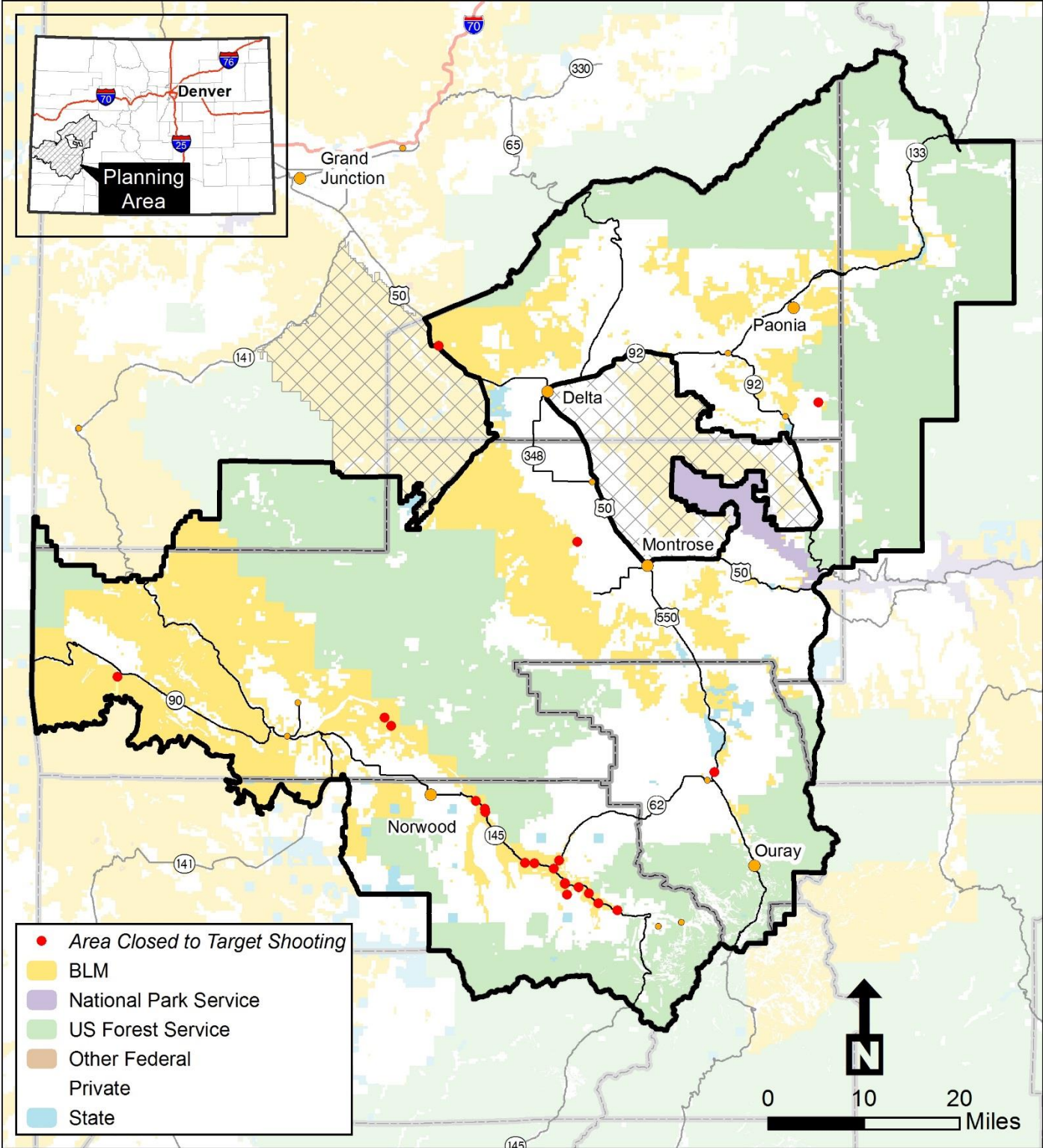


Figure 24: No Target Shooting Areas

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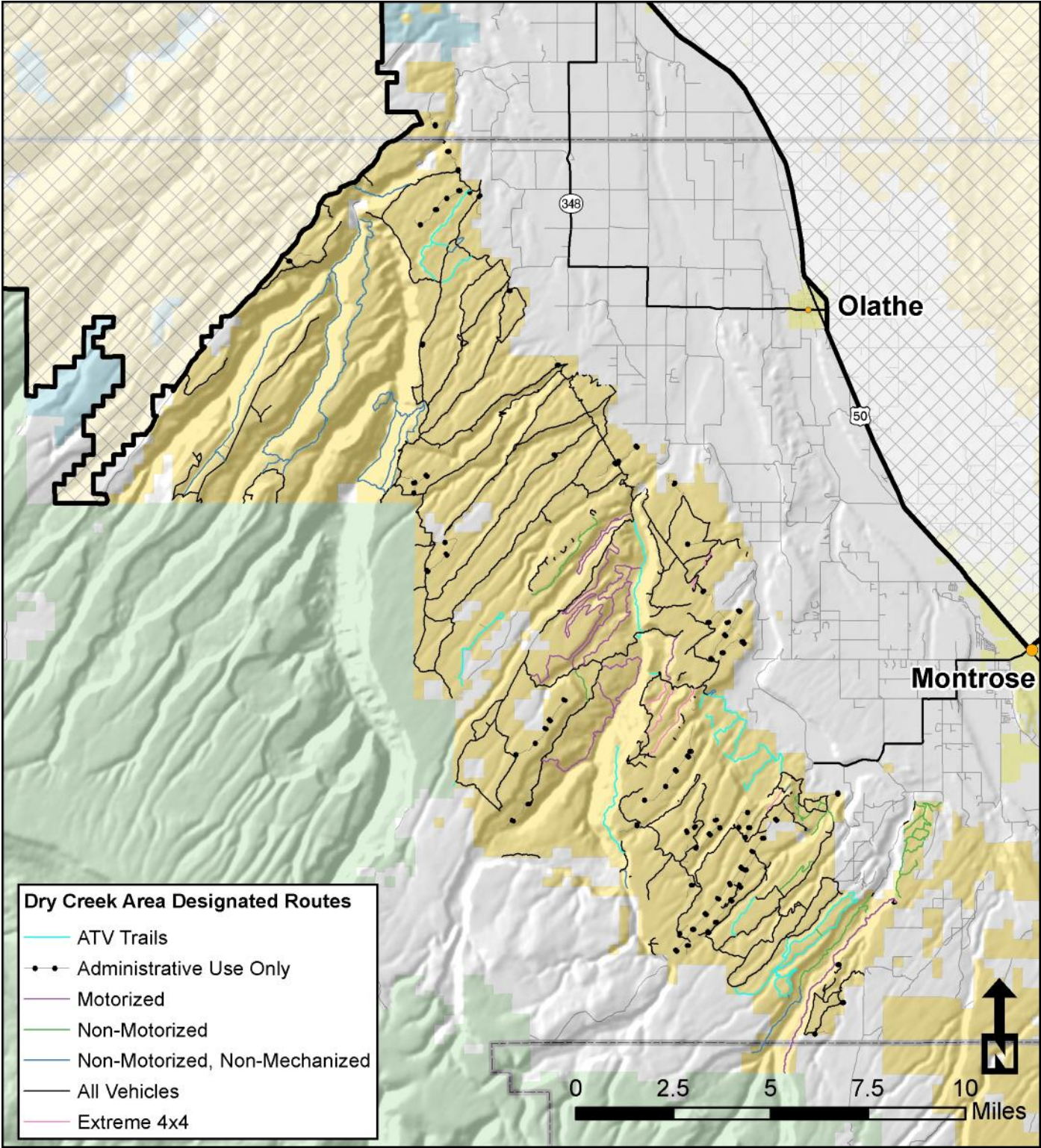


Figure 25: Designated Routes in the Dry Creek Travel Management Area

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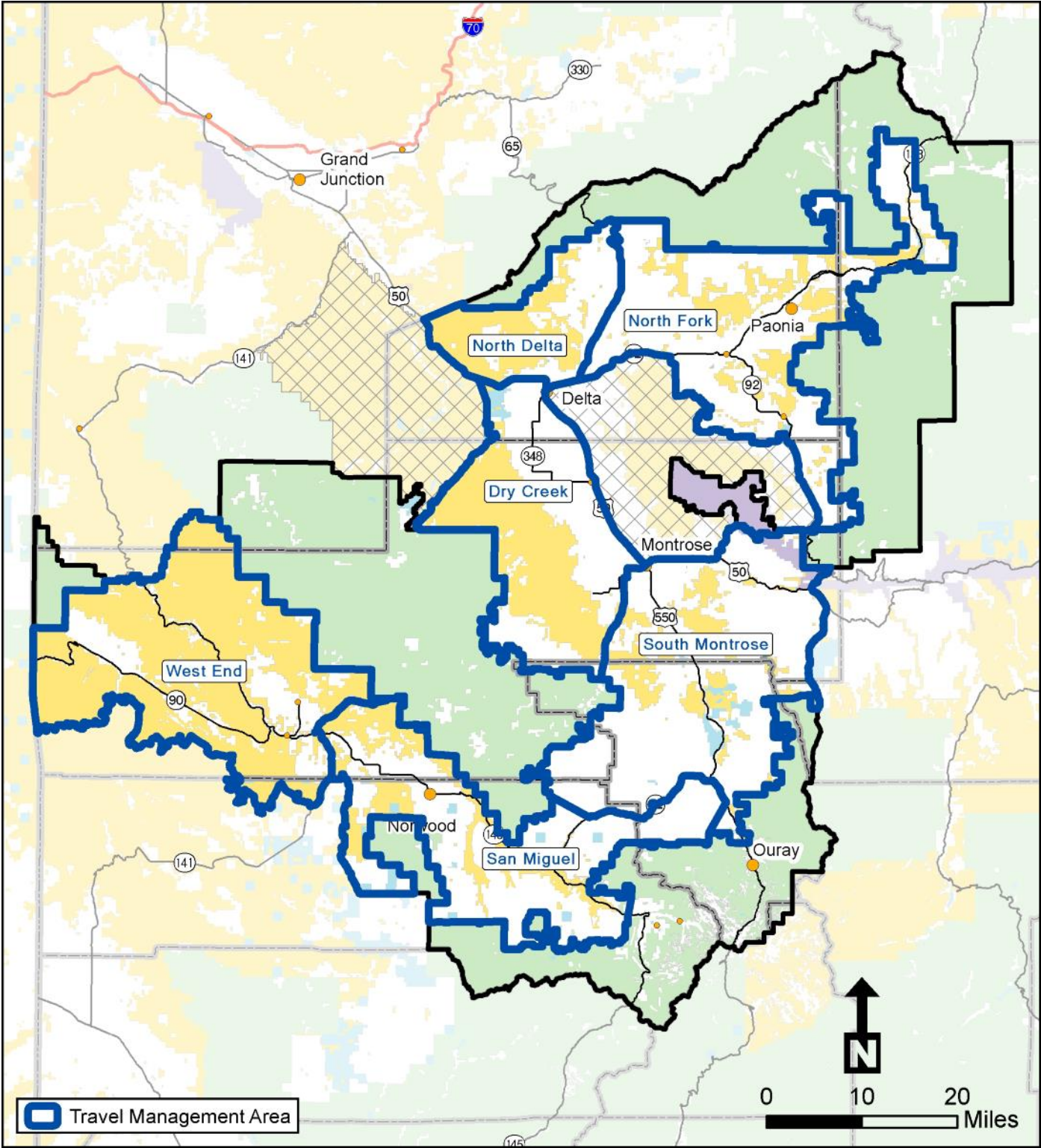


Figure 26: Travel Management Areas for Future Route Designation

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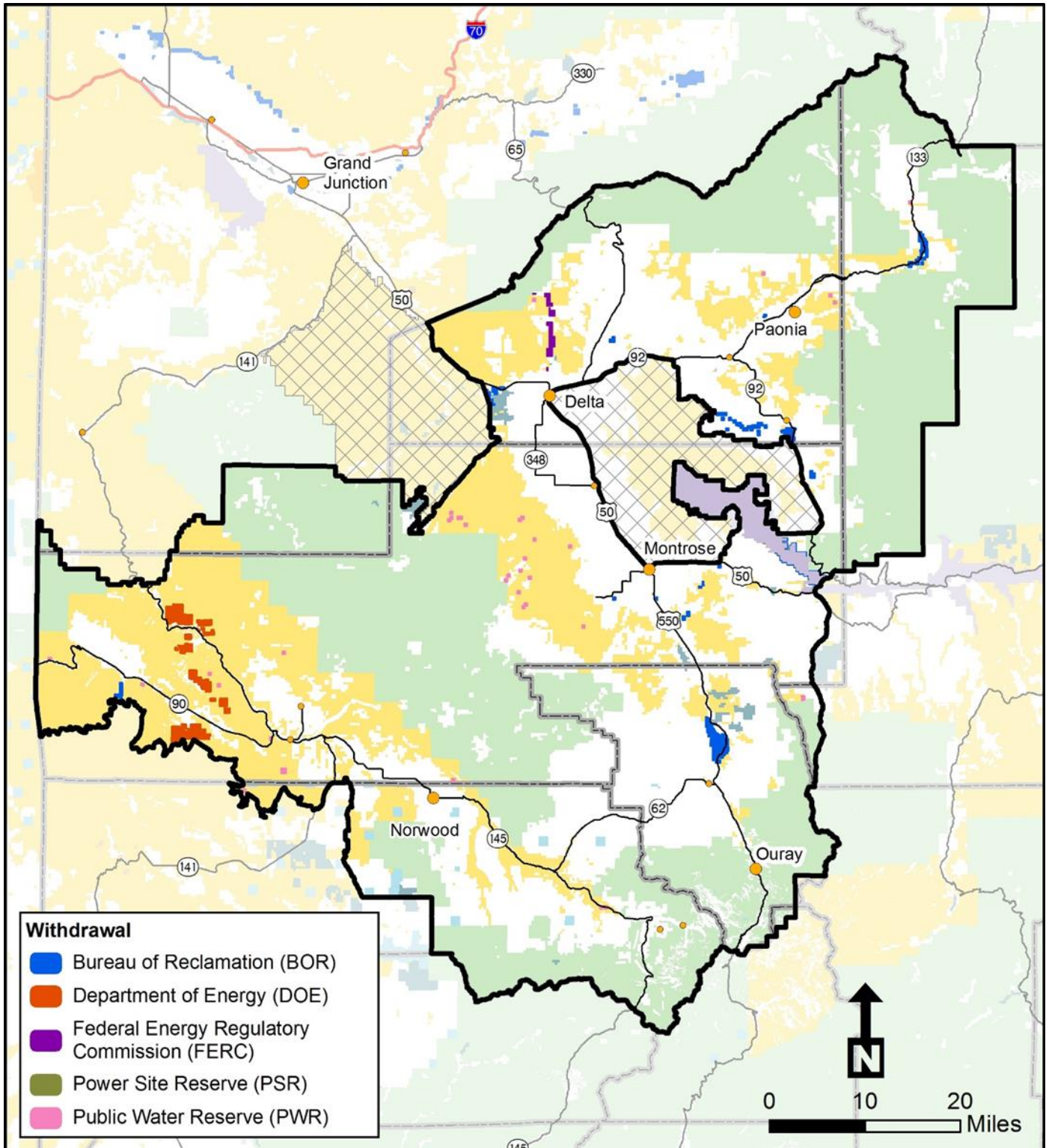


Figure 27: Land Withdrawals and Powersite Classifications

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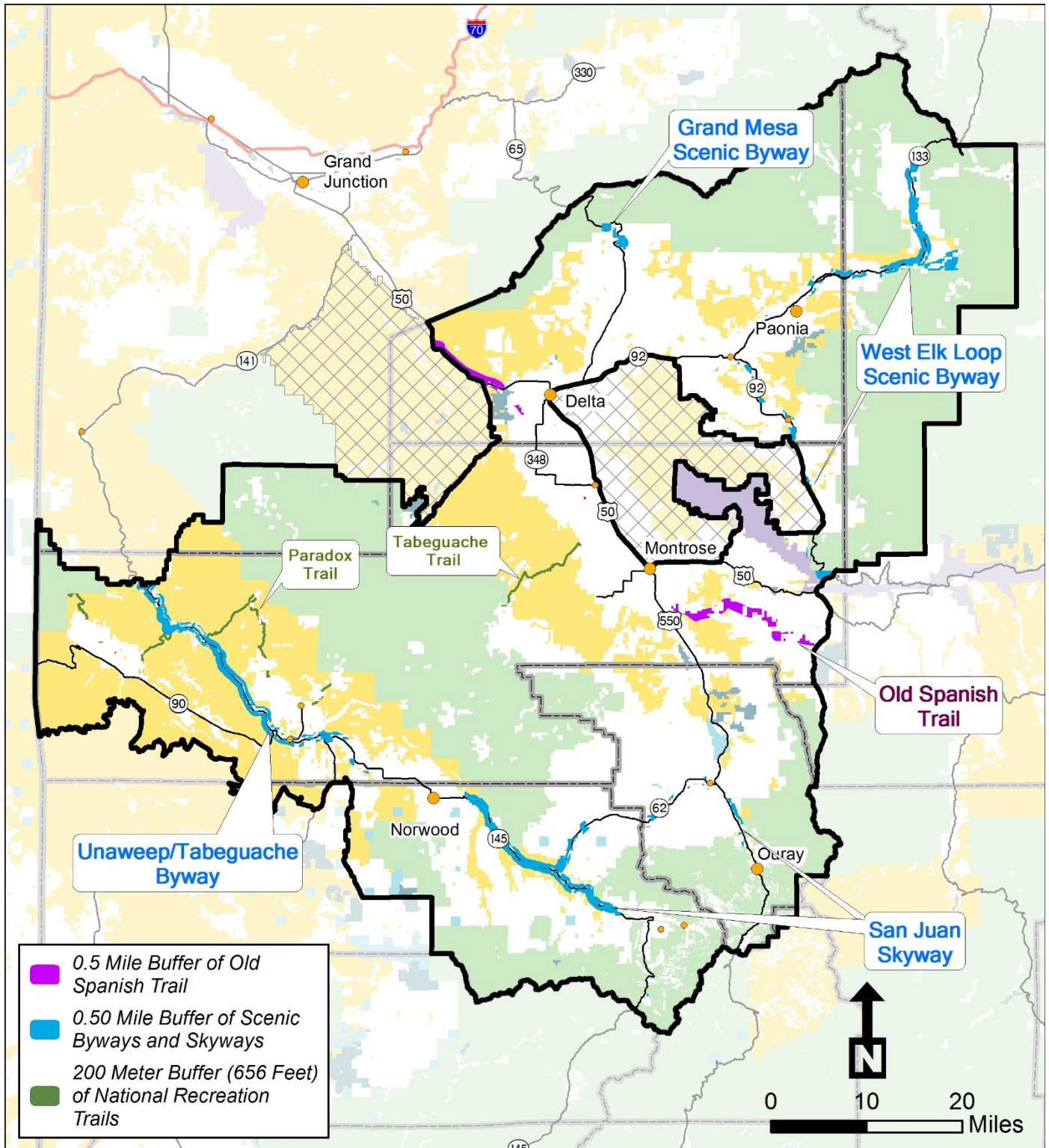


Figure 28: National Scenic, Historic, and Recreational Trails and State and BLM Byways

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Appendix B

Restrictions Applicable to Fluid Minerals Leasing and
Other Surface-disturbing Activities

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APPENDIX B

RESTRICTIONS APPLICABLE TO FLUID MINERALS LEASING AND OTHER SURFACE-DISTURBING ACTIVITIES

This appendix lists the stipulations for fluid mineral leasing (e.g., oil, gas, and geothermal) referred to throughout this Approved RMP. Stipulations also apply, where appropriate, to all surface-disturbing activities (and occupancy) associated with land use authorizations, permits, and leases issued on BLM-administered lands. The stipulations do not apply to activities and uses where they are contrary to laws, regulations, or specific program guidance, including operation of mining claims under the 1872 Mining Law.

In the “stipulations number” columns of the tables below, there are gaps in numbering for each type of stipulation, such as no surface occupancy (NSO), controlled surface use (CSU), and timing limitation (TL). The stipulation numbers were retained from the Proposed RMP/Final EIS for simplicity of future tiering to the Proposed RMP/Final EIS. Some stipulations considered in the Proposed RMP/Final EIS applied to alternatives other than the Proposed RMP, namely Alternatives A, B, C, or D, and only the Proposed RMP (Alternative E) stipulations were carried forward into this Approved RMP. This resulted in gaps in the stipulation numbering in this Approved RMP, which aligns with the Proposed RMP/Final EIS.

NSO, CSU, and TL are stipulation decisions and apply to fluid mineral leasing and development of fluid mineral estate underlying BLM-administered lands, privately owned lands, and state-owned lands, but not National Forest System lands. To lease minerals beneath surface lands administered by the US Department of Agriculture, Forest Service (Forest Service), the BLM must receive consent to lease from the Forest Service, and incorporate any accompanying stipulations required by forest land use plans or forest-wide programmatic leasing analyses.

Federal fluid mineral estate acres are greater than BLM surface acres. Within the planning area, the BLM administers 675,800 acres of surface estate and 240,230 acres of split-estate (i.e., where the surface rights are in private or state ownership and the mineral resources are publicly held and managed by the federal government [BLM]). Acreages reflect federal mineral estate

overlain by BLM, private, and state-owned land. Acreages are calculated based on current information and may be adjusted in the future through plan maintenance as conditions warrant.

No ground disturbance (NGD), site-specific relocation (SSR), and TL are restriction decisions and apply to other surface-disturbing activities on BLM-administered surface lands.

Surface-disturbing activities are those that normally result in more than negligible (immeasurable, not readily noticeable) disturbance to vegetation and soils on public lands and accelerate the natural erosive process. Surface disturbances could require reclamation and normally involve use and/or occupancy of the surface, causing disturbance to soils and vegetation. They include, but are not limited to: the use of mechanized earth-moving equipment; truck-mounted drilling, stationary drill rigs in unison, and geophysical exploration equipment off designated routes; off-road vehicle travel in areas designated as limited or closed to off-road vehicle use; construction of facilities such as range facilities and/or improvements; recreation sites; new road and trail construction; and use of pyrotechnics and explosives. Surface disturbance is not normally caused by casual-use activities. Activities that are not considered surface-disturbing include, but are not limited to, livestock grazing, cross-country hiking or equestrian use, dispersed camping, installing signs, minimum impact filming, vehicular travel on designated routes, and general use of the land by wildlife.

B.1 CLOSED TO FLUID MINERAL LEASING

Although not a stipulation, areas that are closed to fluid mineral leasing (NL) are detailed in **Table B-1**. In areas closed to leasing, the resource would not be available for exploration or development. All other areas not identified in **Table B-1** are open to fluid mineral leasing, subject to standard terms and conditions and NSO, CSU, or TL stipulations if applicable.

B.2 DESCRIPTION OF STIPULATIONS AND RESTRICTIONS APPLICABLE TO FLUID MINERAL LEASING AND DEVELOPMENT

Tables B-2 through **B-4** provide details of the stipulations and protected resources. Three types of stipulations could be applied to fluid mineral leases: 1) NSO; 2) CSU; and 3) TL.

Lease stipulations and lease notices would be applied, as applicable, to all new leases and to expired leases that are reissued. On existing leases, the BLM would develop Conditions of Approval for Applications for Permit to Drill to achieve resource objectives of lease stipulations contained in this RMP. New development on existing leases must comply with current management direction. This direction is consistent with Interior Board of Land Appeals decisions (*Yates Petroleum Corp.*, 176 Interior Board of Land Appeals 144 [2008] and *William P. Maycock*, 180 Interior Board of Land Appeals 1 [2010]) that BLM has discretion to modify surface operations to add specific mitigation measures supported by site-specific NEPA analysis undertaken during the development phase on existing leases (BLM 2010). Any additional mitigation measures would need to be justifiable, still provide for lease development, and be incorporated in a site-specific document.

B.2.1 Standard Terms and Conditions for Fluid Mineral Leasing

Oil and gas development is subject to standard terms and conditions of the lease. Onshore Oil and Gas Order No. 1 (Onshore Oil and Gas Operations; Federal and Indian Oil and Gas Leases; Approval of Operations) regulations (43 Code of Federal Regulations, 3160) give the BLM the

ability to relocate proposed operations up to 200 meters (656 feet) and prohibit surface-disturbing operations for a period not to exceed 60 days.

B.2.2 No Surface Occupancy (NSO)

Use or occupancy of the land surface for fluid mineral exploration or development and all activities associated with fluid mineral leasing (e.g., truck-mounted drilling, stationary drill rigs in unison, geophysical exploration equipment off designated routes, construction of wells and/or pads) are prohibited to protect identified resource values. Refer to **Table B-2**.

The NSO stipulation is a category of major constraints. NSO areas are open to fluid mineral leasing, but surface occupancy or surface-disturbing activities associated with fluid mineral leasing cannot be conducted on the surface of the land. Access to fluid mineral deposits would require directional drilling and/or drilling from outside the boundaries of the NSO area. This differs from areas identified as closed to leasing (NL) in which neither the surface area nor mineral estate is available for fluid mineral leasing.

B.2.3 Controlled Surface Use (CSU)

CSU is a category of moderate constraint stipulations that allows some use and occupancy of public land, while protecting identified resources or values, and is applicable to fluid mineral leasing and all activities associated with fluid mineral leasing (e.g., truck-mounted drilling, stationary drill rigs in unison, geophysical exploration equipment off designated routes, and construction of wells and/or pads). CSU areas are open to fluid mineral leasing, but the stipulation allows the BLM to require special operational constraints, or the activity can be shifted more than 200 meters (656 feet) to protect the specified resource or value. Refer to **Table B-3**.

B.2.4 Timing Limitations (TL)

Areas identified for Timing Limitations (TL), a moderate constraint, are closed to fluid mineral exploration and development, surface-disturbing activities, and intensive human activity during identified time frames that may exceed 60 days. This stipulation does not apply to operation and basic maintenance activities, including associated vehicle travel, unless otherwise specified. Construction, drilling, completions, and other operations considered to be intensive in nature are not allowed. Intensive maintenance, such as workovers on wells, is not permitted. Administrative activities are allowed at the discretion of the BLM Authorized Officer. Refer to **Table B-4**.

B.2.5 Lease Notice (LN)

A Lease notice (LN) provides more-detailed information concerning limitations that already exist in law, lease terms, regulations, or operational orders. A lease notice also addresses special items that lessees should consider when planning operations but does not impose additional restrictions. Lease notices are not an RMP-level decision and new lease notices may be added to fluid mineral leases at the time of sale. Lease notices apply only to leasable minerals (e.g., oil, gas, geothermal) and not to other types of leases, such as livestock grazing or coal leases. Refer to **Table B-5**.

B.2.6 Condition of Approval (COA)

Conditions of Approval are conditions or provisions (requirements) under which an Application for Permit to Drill is approved, after a lease is issued. Conditions of Approval are based on site-specific analysis and are designed to minimize, mitigate, or prevent impacts on resource values or other uses of public lands. The application of a particular Condition of Approval is not an RMP-level decision.

B.2.7 Project Mitigation and Monitoring

Stipulations are designed to provide resource-specific protections. Permit holders shall be responsible for the monitoring and reporting deemed necessary to document and maintain mandated protective measures. Also, the BLM retains the right to modify the operations of all surface and other disturbance activities caused by the presence of humans and to require additional specific or specialized mitigation following the submission of a detailed plan of development or other project proposal, a monitoring report, and an environmental analysis of such.

B.3 DESCRIPTION OF RESTRICTIONS APPLICABLE TO SURFACE-DISTURBING ACTIVITIES

Tables B-6 and B-7 provide details of the restrictions and protected resources. Three types of restrictions could be applied to land use authorizations: 1) no ground disturbance (NGD); 2) site-specific relocation (SSR); and 3) timing limitation (TL). **Section B.2.1**, No Ground Disturbance (NGD), and **Section B.2.2**, Site-specific Relocation (SSR), list actions and activities that are not subject to NGD and/or SSR.

Restrictions applicable to surface-disturbing activities apply to other activities besides fluid mineral leasing, including those conducted by the BLM. Because the BLM does not have jurisdiction over split-estate lands for surface-disturbing activities not related to fluid mineral leasing and development, NGD and SSR restrictions apply only to the 675,800 acres of BLM surface in the decision area.

B.3.1 No Ground Disturbance (NGD)

Areas restricted by NGD are closed to all surface-disturbing activities. Activities that are not considered surface disturbing include, but are not limited to, livestock grazing, cross-country hiking or equestrian use, installing signs, minimum impact filming, vehicular travel on designated routes, and general use of the land by wildlife. Fire suppression activities using *minimum-impact suppression tactics* are allowed in areas with and NGD stipulation with approval from the BLM Authorized Officer.

An NGD stipulation cannot be applied to fluid minerals leasing. Fluid minerals are subject to NSO and CSU.

An NGD stipulation cannot be applied to operations conducted under the 1872 Mining Law (i.e., locatable mineral development) without a withdrawal. A withdrawal is not considered a land use planning decision because it must be approved by the Secretary of Interior. Therefore, unless withdrawn, areas identified as NGD are open to operations conducted under the mining laws subject only to TL and SSR restrictions that are consistent with the rights granted under the mining laws.

In addition, the following actions or activities are not subject to the NGD stipulation because specific laws and program terminology constrain them. However, these actions or activities may be subject to SSR or TL restrictions:

- Right-of-way (ROW) location: instead of identifying areas as NGD, areas can be identified as “ROW exclusion” areas.
- Coal leasing: instead of identifying areas as NGD, areas can be identified as open or closed to coal leasing.
- Nonenergy solid mineral leasing: instead of identifying areas as NGD, areas can be identified as open or closed to nonenergy solid mineral leasing.
- Mineral material disposal: instead of identifying areas as NGD, areas can be identified as open or closed to mineral material disposal.

B.3.2 Site-specific Relocation (SSR)

An SSR restriction is similar to a CSU restriction in that it allows some use and occupancy of BLM-administered lands while protecting identified resources or values. SSR areas are potentially open to surface-disturbing activities but the restriction allows the BLM to require special constraints, or the activity can be shifted to protect the specified resource or value. Activities that are not considered surface disturbing include, but are not limited to, livestock grazing, cross-country hiking or equestrian use, installing signs, minimum impact filming, vehicular travel on designated routes, and general use of the land by wildlife.

Right-of-way location authorizations are not subject to the SSR restriction because it is constrained in other ways. Instead of identifying areas as SSR, areas can be identified as “ROW avoidance” areas. The action may be subject to TL stipulations.

An SSR stipulation cannot be applied to fluid mineral leasing. Fluid minerals are subject to CSU and NSO stipulations.

B.3.3 Timing Limitations (TL)

The timing limitation (TL) restriction for surface-disturbing activities is the same as the TL stipulation for fluid mineral leasing and associated activities. Refer to **Section B.1.4**, Timing Limitations (TL).

B.4 EXCEPTIONS, MODIFICATIONS, AND WAIVERS APPLICABLE TO FLUID MINERAL LEASING AND OTHER SURFACE-DISTURBING ACTIVITIES

Stipulations could be excepted, modified, or waived by the BLM Authorized Officer. Exceptions, modifications, and waivers provide a viable and effective means of applying adaptive management techniques to fluid mineral leasing or other surface-disturbing activities.

B.4.1 Standard Exception, Modification, and Waiver

The standard exception, modification, and waiver apply to all NSOs, CSUs, TLs, NGDs, and SSRs. In the following paragraphs, “leasehold” refers to fluid mineral leases, and “project” or “project area” refers to other surface-disturbing projects, as described in Section B.2.

An exception is a one-time exemption for a particular site within the leasehold or project area; exceptions are determined on a case-by-case basis; the stipulation continues to apply to all other sites within the leasehold or project area. The BLM Authorized Officer may grant an exception to a stipulation if it is determined that the factors leading to its inclusion in the lease or project have changed sufficiently such that: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the RMP; or 2) proposed operations would not cause unacceptable impacts. The BLM Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may consult with other government agencies and/or the public in order to make this determination.

A modification is a change to the provisions of a lease stipulation or project either temporarily or for the lease term or length of the project. Depending on the specific modification, the stipulation may or may not apply to all sites within the leasehold or project area to which the restrictive criteria are applied. The BLM Authorized Officer may modify a stipulation or the area subject to the stipulation if it is determined that the factors leading to its inclusion in the lease or project area have changed sufficiently. The BLM Authorized Officer may modify a stipulation as a result of new information if: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the RMP; 2) the protection provided by the stipulation is no longer sufficient to meet resource objectives established in the RMP; or 3) proposed operations would not cause unacceptable impacts. The BLM Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may consult with other government agencies and/or the public in order to make this determination.

A waiver is a permanent exemption from a lease or project stipulation. When a waiver is granted, the stipulation no longer applies anywhere within the leasehold or project area. The BLM Authorized Officer may waive a stipulation if it is determined that the factors leading to its inclusion in the lease or project no longer exist. The BLM Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination.

The environmental analysis document prepared for site-specific proposals such as oil and gas development (e.g., Applications for Permit to Drill and Sundry Notices) or other surface projects also needs to include and address any proposal to except, modify, or waive a surface stipulation.

Table B-1
Areas Closed to Fluid Mineral Leasing (NL)

Allocation Number Protected Resource Acres/Miles Affected ¹	Description
	<p>The following No Lease areas are nondiscretionary because they are closed to fluid mineral leasing per congressional mandate or Bureau policy:</p> <ul style="list-style-type: none"> • NL-17: Tabeguache Area (Colorado Wilderness Act of 1993) • NL-18: Wilderness Study Areas (BLM Manual 6330, Management of Wilderness Study Areas; BLM 2012b)
	Wilderness and Wilderness Study Areas
NL-17 <i>Tabeguache Area</i> BLM Surface: 8,060 acres	<p>Close the Tabeguache Area to fluid mineral leasing and geophysical exploration.</p> <p>PURPOSE: To protect the wilderness character of the Tabeguache Area, in compliance with the Colorado Wilderness Act of 1993.</p>
NL-18/NGD-27 <i>Wilderness Study Areas</i> BLM Surface: 36,240 acres	<p>Close Wilderness Study Areas to fluid mineral leasing and geophysical exploration and prohibit surface-disturbing activities.</p> <p>PURPOSE: To preserve unimpaired the wilderness characteristics of Wilderness Study Areas until such time as Congress acts to designate them as Wilderness Areas, or releases them for other uses, and to comply with BLM Manual 6330, Management of Wilderness Study Areas.</p>

¹The sum of acres closed to leasing in this table may add up to more than the total acres closed to fluid mineral leasing presented in the Approved RMP, as some areas may overlap.

Table B-2
No Surface Occupancy (NSO) Stipulations Applicable to Fluid Mineral Leasing

Stipulation Number Protected Resource Acres/Miles Affected ¹	Stipulation Description
NSO-9/SSR-11 <i>Hydrology River</i> BLM Surface: 26,990 acres Split-estate: 1,060 acres	<p>STIPULATION: Prohibit surface occupancy and use and apply SSR restrictions within 400 meters (1,312 feet) of the ordinary high-water mark (bank-full stage) or within 100 meters (328 feet) of the 100-year floodplain (whichever area is greatest) on the following major rivers: Gunnison, North Fork Gunnison, San Miguel, Uncompahgre, and Dolores Rivers.</p> <p>PURPOSE: To protect rivers and adjacent aquatic habitat that provide: a) <i>special status</i> or <i>critical</i> fish and wildlife species habitat: b) important riparian values: c) water quality/filtering values: d) waterfowl and shorebird production values: e) valuable amphibian habitat: f) 100-year floodplain, and g) high scenic and recreation values of major rivers. Minimizing potential deterioration of water quality, high scenic and recreation values, maintain natural hydrologic function and condition of stream channels, banks, floodplains, and riparian communities, and preserve wildlife habitat including designated critical habitat for federally listed fish species. The buffers are sized to accommodate the rivers' larger floodplains and wider riparian zones.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>
NSO-11/SSR-13 <i>Hydrology Features</i> BLM Surface: 26,050 acres Split-estate: 12,730 acres	<p>STIPULATION: Prohibit surface occupancy and use and apply SSR restrictions within 100 meters (328 feet) from the mapped extent of perennial and intermittent streams; riparian areas, fens, and/or wetlands; and water impoundments. For streams, measure the buffer from the ordinary high-water mark (bank-full stage); for wetland features, measure the buffer from the edge of the mapped extent.</p> <p>PURPOSE: To maintain the proper functioning condition, including the vegetation, hydrologic and geomorphic functionality of wetland features. Protect water quality, riparian zones, fens, fish habitat, aquatic habitat, and provide a clean, reliable source of water for downstream users. Buffers are expected to indirectly benefit migratory birds, wildlife habitat, amphibians, and other species.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>

Stipulation Number Protected Resource Acres/Miles Affected ¹	Stipulation Description
	Special Status Plants
NSO-22/SSR-21 <i>Plant Endangered Species</i> <i>Act-Listed Species</i> BLM Surface: 8,270 acres Split-estate: 390 acres	<p>STIPULATION: Prohibit surface occupancy and use and apply SSR restrictions within a 200-meter (656-foot) buffer from the edge of habitat of federally listed, proposed, or candidate threatened or endangered plant species, as mapped in the RMP, BLM's GIS database, or other maps provided by local, state, federal, or tribal agencies that are analyzed and accepted by the BLM.</p> <p>PURPOSE: To protect federally listed, proposed, or candidate threatened or endangered plant species and habitat, and promote recovery of the species. Clay-loving wild buckwheat "habitat" is defined as the specific soils, slopes, and aspects where a population of clay-loving wild buckwheat occur. Colorado hookless cactus "habitat" is defined as an individual plant or population plus 10 feet.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>
	Special Status Fish and Aquatic Wildlife
NSO-24/SSR-22 <i>Wildlife Endangered</i> <i>Species Act-Listed Species</i> <i>(Occupied Federally Listed</i> <i>Fish Habitat)</i> BLM Surface: 270 acres Split-estate: 260 acres	<p>STIPULATION: Prohibit surface occupancy and use and apply SSR restrictions within 2,500 feet of the ordinary high-water mark of the Lower Gunnison River, below the confluence with the Uncompahgre River, along occupied federally listed fish habitat.</p> <p>PURPOSE: To maintain the integrity of habitat for federally listed species and promote recovery of the species.</p> <p>EXCEPTION, NSO-24: Standard exception applies.</p> <p>EXCEPTION, SSR-22: In addition to the standard exception, this stipulation may be excepted for essential future actions in which implementation of a professionally engineered design, construction, maintenance, and reclamation plan can mitigate to the fullest extent practicable all potential resource damage associated with the proposed action.</p> <p>Standard MODIFICATIONS and WAIVER apply.</p>
NSO-26/SSR-25 <i>Occupied Native Cutthroat</i> <i>Trout Habitat</i> BLM Surface: 13,260 acres Split-estate: 10,390 acres	<p>STIPULATION: Prohibit surface occupancy and use and apply SSR restrictions within 325 feet of the edge of the ordinary high-water mark (bank-full stage) of occupied habitat for conservation populations (90 percent Lineage Greenback Cutthroat Trout) of native cutthroat trout.</p> <p>PURPOSE: To protect occupied habitat for a federally threatened species.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>

Stipulation Number Protected Resource Acres/Miles Affected ¹	Stipulation Description
	Special Status Terrestrial Wildlife
NSO-29/SSR-28 <i>Federally Listed Species</i> No Data	<p>STIPULATION: Prohibit surface occupancy and use and apply SSR restrictions within habitat for federally listed, proposed, or candidate threatened or endangered wildlife and bird species, except for those species already covered by this RMP, as mapped in the RMP, BLM's GIS database, or other maps provided by local, state, federal, or tribal agencies that are analyzed and accepted by the BLM.</p> <p>PURPOSE: To maintain the integrity of habitat for federally listed, proposed, or candidate, threatened or endangered wildlife species and promote recovery of the species.</p> <p>Standard EXCEPTION and WAIVER apply.</p> <p>MODIFICATION, NSO-29: Standard modification applies.</p> <p>MODIFICATION, SSR-28: In addition to standard modifications, for unavoidable habitat losses, modification of the NSO area may be issued provided the following criteria are all satisfied:</p> <ol style="list-style-type: none"> 1. Endangered Species Act Section 7 consultation is completed and USFWS recommended conservation measures are fully applied; 2. No direct "take" of protected species occurs as a result of the action; and 3. Lost or degraded habitat is fully restored through on-site or off-site mitigation, as determined by the BLM.
NSO-31/SSR-32 <i>Gunnison Sage-grouse Breeding Habitat and Critical Habitat</i> BLM Surface: 5,950 acres Split-estate: 16,940 acres	<p>STIPULATION: Prohibit surface occupancy and use and apply SSR restrictions in USFWS Gunnison sage-grouse occupied critical habitat and nondesignated occupied breeding habitat as mapped and defined by the BLM, USFWS, and CPW (including federal minerals).</p> <p>PURPOSE: To maintain integrity of habitat surrounding leks that are used during the breeding period.</p> <p>EXCEPTION and MODIFICATION, NSO-31: Exceptions or modifications may be considered if, in consultation with the State of Colorado, it can be demonstrated that there is no impact on Gunnison sage-grouse based on one of the following:</p> <ul style="list-style-type: none"> • Topography/areas of nonhabitat create an effective barrier to impacts; • No additional impacts would be realized above those created by existing major infrastructure (for example, a State Highway); or • The exception or modification precludes or offsets greater potential impacts if the action were proposed on adjacent parcels (for example, due to landownership patterns). <p>*In order to approve exceptions or modifications to this lease stipulation, the BLM Authorized Officer must obtain agreement, including written justification, between the BLM District Manager and CPW that the proposed action satisfies at least one of the criteria listed above.</p>

Stipulation Number Protected Resource Acres/Miles Affected ¹	Stipulation Description
	<p>EXCEPTION, SSR-32: An exception may be granted by the BLM UFO Field Manager, in cooperation with the CPW, if an environmental analysis determines that the action, as proposed or conditioned, would not impair the function or utility of the site for current or subsequent reproductive display, including daytime loafing/staging activities.</p> <p>WAIVER, NSO-31: No waivers are authorized unless the area or resource mapped as possessing the attributes protected by the stipulation is determined, through collaboration with the State of Colorado, to lack those attributes or potential attributes. A 30-day public notice and comment period is required before waiver of a stipulation. Waivers would require BLM State Director approval.</p> <p>This lease is subject to NSO and does not guarantee the lessee the right to occupy the surface of the lease for the purpose of producing oil and natural gas. In areas open to fluid mineral leasing with NSO stipulations, fluid mineral leasing activities are permitted, but surface-disturbing activities cannot be conducted on the surface of the land unless an exception, modification, or waiver is granted.</p> <p>MODIFICATION and WAIVER, SSR-32: Standard modification and waiver apply to SSR-32.</p>
<p>NSO-36/SSR-36 <i>Raptor Nest Sites (Except Mexican Spotted Owl)</i></p> <p>BLM Surface: 8,440 acres</p> <p>Split-estate: 1,390 acres</p>	<p>STIPULATION: Prohibit surface occupancy and use and apply SSR restrictions in the following areas:</p> <ul style="list-style-type: none"> • Bald Eagle: within 0.25-mile of active and inactive nest sites or within 100 meters (328 feet) of abandoned nests (i.e., unoccupied for 5 consecutive years but with all or part of the nest remaining) • Golden Eagle: within 0.25-mile of active and inactive nest sites or within 100 meters (328 feet) of abandoned nests (i.e., unoccupied for 5 consecutive years but with all or part of the nest remaining) • Ferruginous Hawk, Peregrine Falcon, Prairie Falcon, and Northern Goshawk: within 0.50-mile of active and inactive nest sites • All other Special Status and Non-Special Status Raptors (except Mexican spotted owl): within 0.25-mile of active and inactive nest sites <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>
<p>NSO-38/SSR-38 <i>Bald Eagle Winter Roost Sites</i></p> <p>BLM Surface: 4,570 acres</p> <p>Split-estate: 370 acres</p>	<p>STIPULATION: Prohibit surface occupancy and use and apply SSR restrictions within 0.25-mile of bald eagle winter roost sites.</p> <p>PURPOSE: To maintain the integrity of active winter roost sites and surrounding habitat.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>

Stipulation Number Protected Resource Acres/Miles Affected ¹	Stipulation Description
NSO-40/SSR-41 <i>Mexican Spotted Owl</i> <i>No Data</i>	<p>STIPULATION: Prohibit surface occupancy and use and apply SSR restrictions on lands identified as Protected Activity Centers for Mexican spotted owl.</p> <p>PURPOSE: To maintain the integrity of the breeding and brood rearing complex.</p> <p>EXCEPTION, NSO-40: Standard exception applies.</p> <p>EXCEPTION, SSR-41: An exception can be granted if an environmental analysis of the proposed action and subsequent consultation indicates that the nature or conduct of the activity could be conditioned so as not to impair the utility of Protected Activity Center for current or subsequent reproductive activity or occupancy.</p> <p>Standard MODIFICATION and WAIVER apply.</p>
	Cultural Resources
NSO-46/SSR-49 <i>Allocation to Traditional Use</i> <i>No Data</i>	<p>STIPULATION: Prohibit surface occupancy and use and apply SSR restrictions within 200 meters (656 feet) around eligible or potentially eligible sites allocated to Traditional Use. In addition, consider visual impacts that projects may have on sites allocated to this use, and apply appropriate mitigation, which may include redesign.</p> <p>PURPOSE: For the protection of traditional cultural uses, values and resources.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply. Grants of exceptions, modifications and waivers may be subject to consultation with the appropriate Native American tribal entities.</p>
NSO-50 <i>National Register District</i> BLM Surface: 1,080 acres	<p>STIPULATION: Prohibit surface occupancy and use in the following areas nominated as National Register District:</p> <ul style="list-style-type: none"> • Paradox Rock Art Complex <p>PURPOSE: For the protection of cultural values and resources.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>

Stipulation Number Protected Resource Acres/Miles Affected ¹	Stipulation Description
	Lands with Wilderness Characteristics
NSO-53/SSR-56 <i>Lands with Wilderness Characteristics</i> BLM Surface: 1,740 acres	<p>STIPULATION: Prohibit surface occupancy and use and apply SSR restrictions on identified lands being managed to protect inventoried wilderness characteristics:</p> <ul style="list-style-type: none"> • Lands encompassed by Sewemup Mesa Wilderness Study Area, if released from wilderness consideration by Congress (1,740 acres) <p>PURPOSE: To preserve inventoried wilderness characteristics and their locally, regionally, or nationally significant recreational, social, economic, and environmental values.</p> <p>EXCEPTION, NSO-53: Standard exception applies.</p> <p>EXCEPTION, SSR-56: In addition to the standard exception, this stipulation may be excepted for projects that enhance wilderness characteristics over the long run, and that do not eliminate wilderness characteristics in the short term.</p> <p>Standard MODIFICATION and WAIVER apply.</p>
	Fluid Minerals
NSO-54 <i>Recreation Park</i> BLM Surface: 9,210 acres Split-estate: 7,270 acres	<p>STIPULATION: Prohibit surface occupancy and use within the boundaries of:</p> <ul style="list-style-type: none"> • Curecanti National Recreation Area <ul style="list-style-type: none"> ◦ BLM Surface: 7,120 acres ◦ Split-estate: 0 acres • State Parks <ul style="list-style-type: none"> ◦ BLM Surface: 2,090 acres ◦ Split-estate: 810 acres • State wildlife areas <ul style="list-style-type: none"> ◦ BLM Surface: 0 acres ◦ Split-estate: 5,900 acres • Municipal Parks: <ul style="list-style-type: none"> ◦ BLM Surface: 0 acres ◦ Split-estate: 560 acres <p>PURPOSE: To protect the resources of wildlife areas and park units, such as county parks, state parks and wildlife areas, and federal parks.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>

Stipulation Number Protected Resource Acres/Miles Affected ¹	Stipulation Description
NSO-55 <i>Bureau of Reclamation Dams or Appurtenant Structures</i> BLM Surface: 300 acres Split-estate: 180 acres	STIPULATION: Prohibit surface occupancy and use within 1,500 feet of Ridgway, Crawford, and Paonia dams or their appurtenant structures. Also, prohibit directional drilling within 1,500 vertical feet below a Bureau of Reclamation dam or its appurtenant structures. (Directional and/or horizontal drilling could be conducted more than 1,500 feet below these dams and structures from outside the 1,500-foot radius of the structures.) PURPOSE: To protect the integrity of US Bureau of Reclamation dams and associated structures. Standard EXCEPTION, MODIFICATION, and WAIVER apply.
	Recreation and Visitor Services
NSO-56 <i>Recreation SRMAs</i> BLM Surface: 42,940 acres	STIPULATION: Prohibit surface occupancy and use within the following SRMAs: <ul style="list-style-type: none"> • Dolores River Canyon RMZs 1, 2, and 3 • San Miguel River RMZs 1, 2, 3, and 4 PURPOSE: To protect specific recreation-tourism visitors and/or community customer markets to be served, and maintain the specific setting character and/or service delivery system conditions that are essential to achievement of the experiences and benefits identified in management objectives for the SRMA. Standard EXCEPTION, MODIFICATION, and WAIVER apply.
	Areas of Critical Environmental Concern
NSO-58/NGD-26/SSR-57 <i>Special Designation ACEC</i> BLM Surface: 31,310 acres	STIPULATION: Prohibit surface occupancy and use and apply SSR/NGD restrictions in the following ACECs: <ul style="list-style-type: none"> • Adobe Badlands (6,370 acres) (<i>NSO only</i>) • Biological Soil Crust (390 acres) (<i>NSO/SSR</i>) • Fairview South (BLM Expansion) (610 acres) (<i>NSO/SSR</i>) • Needle Rock (80 acres) (<i>NSO/SSR</i>) • Paradox Rock Art (1,080 acres) (<i>NSO only</i>) • San Miguel River (22,780 acres) (<i>NSO only</i>) PURPOSE: To protect and prevent irreparable damage to resources described in the relevance and importance criteria for the designated ACEC. Standard EXCEPTION, MODIFICATION, and WAIVER apply.

Stipulation Number Protected Resource Acres/Miles Affected ¹	Stipulation Description
	Wild and Scenic Rivers
NSO-60 <i>Special Designation WSR</i> <i>("Wild" or "Scenic")</i> BLM Surface: 14,850 acres Split-estate: 70 acres	<p>STIPULATION: Prohibit surface occupancy and use within the WSR study corridor, as defined in the Uncompahgre Wild and Scenic River Suitability Report, of the following segments identified as suitable for inclusion in the National Wild and Scenic Rivers System with the classification of "wild" or "scenic:"</p> <ul style="list-style-type: none"> • Monitor Creek • Potter Creek • Roubideau Creek Segment 1 • Beaver Creek • Saltado Creek • San Miguel River Segment 2 • Tabeguache Creek Segment 1 • Lower Dolores River • Dolores River Segment 1a • La Sal Creek Segment 2 • La Sal Creek Segment 3 <p>PURPOSE: To protect WSR outstandingly remarkable values, free-flowing nature, and water quality of eligible or suitable river segments and their consequent recreational, social, economic, and environmental significance.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>
	Public Health and Safety
NSO-66/NGD-30 <i>US Department of Energy</i> <i>Uranium Mill Tailings</i> <i>Remedial Action Area</i> BLM Surface: 20 acres Split-estate: 5 acres	<p>STIPULATION: Prohibit surface occupancy and use and surface-disturbing activities in the supplemental standard area around Uravan associated with the US Department of Energy Uranium Mill Tailings Remedial Action Area.</p> <p>PURPOSE: To protect humans from potentially contaminated soils.</p> <p>EXCEPTION: In addition to the standard exception, concurrence must be obtained from the applicable regulatory agency for these areas (e.g., US Department of Energy, Nuclear Regulatory Commission, Colorado Department of Public Health and Environment, and/or US Environmental Protection Agency).</p> <p>Standard MODIFICATION and WAIVER apply.</p>
NSO-67 <i>Dwellings and High-</i> <i>Occupancy Buildings</i> BLM Surface: 7,510 acres Split-estate: 790 acres	<p>STIPULATION: Prohibit surface occupancy and use within 305 meters (1,000 feet) of occupied dwellings and building units (as defined by the State of Colorado).</p> <p>PURPOSE: To protect residential developments within unincorporated communities (towns and subdivisions).</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER.</p>

Stipulation Number Protected Resource Acres/Miles Affected ¹	Stipulation Description
NSO-69 <i>Public Water Supplies</i> BLM Surface: 13,060 acres Split-estate: 5,970 acres	<p>STIPULATION: Prohibit surface occupancy and use within 305 meters (1,000 feet) on either side of a classified surface water-supply stream segment (as measured from the average high high-water mark) for a distance of 5 miles upstream of a public water supply intake classified by the State of Colorado as a “water supply,” and within 2,640 feet (0.50-mile) buffer of all public water supplies that use a groundwater well or groundwater under the direct influence of surface water. Also prohibit directional drilling within 457 vertical meters (1,500 vertical feet) below a surface public water supply or 457 vertical meters (1,500 vertical feet) below the depth of a public water supply that use a groundwater well or groundwater under the direct influence of surface water. If public water providers develop source water protection plans, apply this NSO to cover the appropriate designated area in the protection plan (typically Zone 2) and apply these protection measures to all public water supplies that use a groundwater well or groundwater under the direct influence of surface water.</p> <p>PURPOSE: To protect public water supplies, water quality, aquatic habitat, and human health.</p> <p>EXCEPTION, MODIFICATION, and WAIVER: None; no exceptions, modifications, or waivers would be allowed.</p>

¹The sum of acres with NSO stipulations in this table may add up to more than the total acres with NSO stipulations presented in the Approved RMP, as some areas may overlap.

Table B-3
Controlled Surface Use (CSU) Stipulations Applicable to Fluid Mineral Leasing

Stipulation Number Protected Resource Acres/Miles Affected ¹	Stipulation Description
	<i>Other</i>
Exhibit CO-34 <i>Endangered Species Act</i> <i>Section 7 Consultation</i>	STIPULATION: The lease area may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or other special status species. The 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 a species or their habitat. 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 Endangered Species Act as amended, 16 U.S.C. § 1531 et seq., including completion of any required procedure for conference or consultation.
	<i>Soils and Geology</i>
CSU-3/SSR-3 <i>Geology Soil:</i> <i>Saline/Selenium Soils</i> BLM Surface: 107,170 acres	STIPULATION: Surface occupancy or use may be restricted and SSR restrictions applied on lands within mapped soils with the following special characteristics: saline/selenium soils. Special design, construction, and implementation measures, including relocation of operation by more than 200 meters (656 feet), may be required. Prior to authorizing activities in this area, the operator may be required to submit an engineering/reclamation plan to avoid, minimize, and mitigate potential effects to soil productivity. PURPOSE: To improve reclamation potential, maintain soil stability and productivity of sensitive areas, and minimize contributions of salinity, selenium, and sediments likely to affect downstream water quality, fisheries, and other downstream aquatic habitats. Standard EXCEPTION, MODIFICATION, and WAIVER apply.

Stipulation Number Protected Resource Acres/Miles Affected ¹	Stipulation Description
<p>CSU-6/SSR-6 <i>Geology Soil: Potential Biological Soil Crust</i></p> <p><i>No Data</i></p>	<p>STIPULATION: Surface occupancy or use may be restricted and SSR restrictions applied on lands within mapped soils with the following special characteristics: in areas mapped as having potential biological soil crust only when high levels of crust development are found. Determine the level of crust development using best available techniques. Special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required. Prior to authorizing activities in this area, the operator may be required to submit an engineering/reclamation plan to mitigate potential effects to soil productivity.</p> <p>PURPOSE: To proactively protect potential biological soil crust. To improve reclamation potential, maintain soil stability and productivity of sensitive areas, and minimize contributions of salinity, selenium, and sediments likely to affect downstream water quality, fisheries, and other downstream aquatic habitats.</p> <p>EXCEPTION, CSU-6: Standard exception applies.</p> <p>EXCEPTION, SSR-6: This stipulation may be excepted for soil research purposes.</p> <p>Standard MODIFICATION and WAIVER apply.</p>
<p>CSU-8/SSR-7 <i>Geology: Slope Greater than 40 Percent</i> BLM Surface: 115,080 acres Split-estate: 23,990 acres</p>	<p>STIPULATION: Surface occupancy or use may be restricted and SSR restrictions applied on steep slopes over 40 percent. Special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required. Prior to authorizing activities in this area, the operator may be required to submit an engineering/reclamation plan to mitigate potential effects to slope stability.</p> <p>PURPOSE: Slopes greater than 40 percent are typically considered steep slopes. To minimize the risk of mass wasting and sedimentation, reduce reclamation costs, protect soil productivity, rare, or sensitive biota, minimize risk to water bodies, fisheries, and aquatic species habitats, and protect human health and safety (e.g., from landslides and mass wasting).</p> <p>EXCEPTION, CSU-8: Standard exception applies.</p> <p>EXCEPTION, SSR-7: This stipulation may be excepted for equestrian or pedestrian trails and fences built to BLM standards.</p> <p>Standard MODIFICATION and WAIVER apply.</p>

Stipulation Number Protected Resource Acres/Miles Affected ¹	Stipulation Description
<p>CSU-9/SSR-9</p> <p><i>Geology: Slopes of 30 to 39 Percent</i></p> <p>BLM Surface: 60,200 acres</p> <p>Split-estate: 22,760 acres</p>	<p>STIPULATION: Surface occupancy or use may be restricted and SSR restrictions applied on steep slopes of 30 to 39 percent. Special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required. Prior to authorizing activities in this area, the operator may be required to submit an engineering/reclamation plan to mitigate potential effects to slope stability.</p> <p>PURPOSE: Slopes greater than 30 percent are typically considered steep slopes. To minimize the risk of mass wasting and sedimentation, reduce reclamation costs, protect soil productivity, rare, or sensitive biota, minimize risk to water bodies, fisheries, and aquatic species habitats, and protect human health and safety (e.g., from landslides and mass wasting).</p> <p>EXCEPTION, CSU-9: Standard exception applies.</p> <p>EXCEPTION, SSR-9: This stipulation may be excepted for equestrian or pedestrian trails and fences built to BLM standards.</p> <p>Standard MODIFICATION and WAIVER apply.</p>
<p>CSU-13</p> <p><i>Hydrology Source</i></p> <p>BLM Surface: 9,470 acres</p> <p>Split-estate: 3,060 acres</p>	<p>STIPULATION: Surface occupancy or use may be restricted on lands located greater than 305 meters (1,000 feet) but less than 805 meters (2,640 feet) (0.50-mile) of a classified surface water supply stream segment (as measured from the average high-water mark) for a distance of 8.05 kilometers (5 miles) miles upstream of a public water supply intake classified by the State as a “water supply,” and all public water supplies that use a groundwater well or spring. Special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required. Prior to authorizing activities in this area, the operator may be required to submit a coordinated water resources monitoring plan to mitigate potential effects to the source water protection areas of public water supply.</p> <p>If public water providers develop source water protection plans, apply this stipulation to cover the appropriate designated area in the protection plan and apply these protection measures.</p> <p>PURPOSE: To protect public water supplies, water quality, aquatic habitat, and human health.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>

Stipulation Number Protected Resource Acres/Miles Affected ¹	Stipulation Description
	Terrestrial Wildlife
CSU-62 <i>Wildlife Big Game Winter Migration and Production Area</i> BLM Surface: 527,050 acres Split-estate: 121,000 acres	<p>STIPULATION: Surface occupancy or use may be restricted in big game winter, migration, and production areas, as mapped in the RMP, BLM's GIS database, or other maps constituting the best available information as provided by local, state, federal, or tribal agencies that are accepted by the BLM.</p> <p><SPECIES></p> <p>Prior to surface disturbance within big game severe winter range/winter concentration areas, migration, and production areas, the BLM will require the applicant to develop a mitigation plan in coordination with BLM and CPW, in conformance with applicable state requirements, rules, and regulations, as a component of the Application for Permit to Drill–Surface Use Plan of Operations. The operator shall not initiate surface-disturbing activities unless the BLM Authorized Officer has approved the mitigation plan (with conditions, as appropriate) or has determined, after coordination with CPW, that a mitigation plan is unnecessary. The mitigation plan must demonstrate, to the Authorized Officer's satisfaction, that the overall function and suitability of big game winter ranges, migration, and production areas will not be impaired. This may include special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet). Measures included in the Surface Use Plan of Operations may include, but are not limited to, limitations to surface disturbance density through efficient planning of facilities, roads, and well locations; minimization of routine truck traffic associated with well/facility visits through use of remote sensing/control and pipelines to transport liquids; avoidance of visits during certain hours during the winter season; and limitations on noise.</p> <p>On the following lands:</p> <p><LEGAL_DESCRIPTION></p> <p>PURPOSE: To ensure the function and suitability of big game winter range, migration, and production areas.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>

Stipulation Number Protected Resource Acres/Miles Affected ¹	Stipulation Description
CSU-18/SSR-19 <i>Desert and Rocky Mountain Bighorn Sheep Summer Range</i> BLM Surface: 39,530 acres Split-estate: 1,990 acres	<p>STIPULATION: Apply CSU/SSR restrictions to reduce impacts of surface-disturbing activities and operations on bighorn sheep summer range.</p> <p>Special design, construction, and implementation measures, including relocation of operations by more the 200 meters (656 feet) from bighorn sheep, their crucial habitats, or specific habitat features, may be required. Specific habitat features may include, but are not limited to, water areas, mineral licks, and lambing areas.</p> <p>PURPOSE: To reduce impacts on crucial summer range for bighorn sheep.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>
	Special Status Plants
CSU-19/SSR-20 <i>BLM Sensitive Plant Species</i> BLM Surface: 3,240 acres Split-estate: 200 acres	<p>STIPULATION: Surface occupancy or use may be restricted and SSR restrictions applied within 100 meters (328 feet) of BLM-sensitive plant species. Special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required. Prior to authorizing activities in this area, the operator may be required to submit a plan of development that would demonstrate that habitat would be preserved to maintain sensitive plant species.</p> <p>PURPOSE: To reduce or eliminate threats to BLM sensitive plant species to minimize the likelihood of and need for listing of these species under the Endangered Species Act.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p> <p>EXCEPTION, SSR-20: In addition to the standard exception, operations may be authorized if the BLM Authorized Officer determines that the activity would not impair values associated with the maintenance or viability of the species and would minimize or eliminate threats affecting the status of the species.</p>

Stipulation Number Protected Resource Acres/Miles Affected ¹	Stipulation Description
CSU-25/SSR-29 <i>Wildlife Endangered Species Act-Listed Species (Yellow-billed Cuckoo Habitat)</i> BLM Surface: 6,080 acres Split-estate: 1,370 acres	<p>STIPULATION: Surface occupancy or use may be restricted or prohibited and SSR restrictions applied within habitat for the following federally listed, proposed, or candidate threatened or endangered wildlife species, as mapped in the RMP, BLM's GIS database, or other maps provided by local, state, federal, or tribal agencies that are analyzed and accepted by the BLM: within yellow-billed cuckoo habitat. Special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required.</p> <p>The lease area may now or hereafter contain habitat for wildlife listed as threatened or endangered or identified as candidates for listing under the Endangered Species Act. An inventory of habitat may be required before drilling and construction may commence. The operator may be required to submit a plan of development that demonstrates how the proposed activities will avoid or minimize disruption of threatened and endangered species by siting or prioritizing vegetation clearing, facility construction, and concentrated operational activities (e.g., drilling, completion, and utility installation).</p> <p>The 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, result in the destruction or adverse modification of designated or proposed critical habitat, or contribute to a need to list a proposed or candidate threatened and endangered species. The 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 Endangered Species Act, including completion of any required procedure for conference or consultation.</p> <p>PURPOSE: To maintain the integrity of habitat for a federal candidate species.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>

Stipulation Number Protected Resource Acres/Miles Affected ¹	Stipulation Description
CSU-27/SSR-31 <i>Wildlife Endangered Species Act-Listed Species (Canada Lynx Habitat)</i> BLM Surface: 3,860 acres Split-estate: 2,840 acres	<p>STIPULATION: Surface occupancy or use may be restricted or prohibited and SSR restrictions applied within habitat for the following federally listed, proposed, or candidate threatened or endangered wildlife species, as mapped in the RMP, BLM's GIS database, or other maps provided by local, state, federal, or tribal agencies that are analyzed and accepted by the BLM: in mapped or identified Lynx Linkage Corridors and Canada lynx habitat in Lynx Analysis Units and to any activities that would negatively alter connectivity between and within Lynx Analysis Units. Special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required.</p> <p>The lease area may now or hereafter contain habitat for wildlife listed as threatened or endangered or identified as candidates for listing under the Endangered Species Act. An inventory of habitat may be required before drilling and construction may commence. The operator may be required to submit a plan of development that demonstrates how the proposed activities will avoid or minimize disruption of threatened and endangered species by siting or prioritizing vegetation clearing, facility construction, and concentrated operational activities (e.g., drilling, completion, and utility installation).</p> <p>The 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, result in the destruction or adverse modification of designated or proposed critical habitat, or contribute to a need to list a proposed or candidate threatened and endangered species. The 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 Endangered Species Act, including completion of any required procedure for conference or consultation.</p> <p>PURPOSE: To maintain the integrity of habitat for federally listed species (Canada lynx) and promote recovery of the species.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>

Stipulation Number Protected Resource Acres/Miles Affected ¹	Stipulation Description
CSU-29/SSR-34 <i>Gunnison Sage-Grouse Potential Habitat</i> BLM Surface: 14,700 acres Split-estate: 14,930 acres	<p>STIPULATION: Surface occupancy or use may be restricted and SSR restrictions applied in USFWS Gunnison sage-grouse unoccupied critical habitat or to protect Gunnison sage-grouse mapped potential habitats, as mapped and defined by the BLM, USFWS, and CPW (including federal minerals). Conservation measures may be imposed as necessary.</p> <p>Special design, construction, and implementation measures, including relocation of operations from identified habitat features (e.g., seeps or relatively mesic zones critical to brood rearing) to maintain high-quality Gunnison sage-grouse habitat, reduce fragmentation or loss of habitat within or between population areas, reduce cumulative effects within population areas, and reduce disturbance to Gunnison sage-grouse use in the area.</p> <p>Sound levels at leks, due to new project noise individually or cumulatively from anthropogenic sources, should not exceed 10 decibels above baseline sound levels at the perimeter of a lek during the breeding season (March 1 to May 15), 6 PM to 8 AM. Baseline sound levels should be determined prior to project initiation. Sound level measurement and monitoring protocols will be coordinated with CPW.</p> <p>PURPOSE: Maintain the integrity of important Gunnison sage-grouse habitat to maintain sustainable local populations.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>
CSU-32/SSR-37 <i>Raptor Breeding Habitat (Accipiters, Falcons [Except Kestrel], Buteos, and Owls [Except Mexican Spotted Owl])</i> BLM Surface: 21,790 acres Split-estate: 6,750 acres	<p>STIPULATION: Apply CSU/SSR restrictions within 1.0-mile of nest sites.</p> <p>PURPOSE: To protect special status raptor nests and surrounding habitat components, structure, and integrity. To comply with the Migratory Bird Treaty Act.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>

Stipulation Number Protected Resource Acres/Miles Affected ¹	Stipulation Description
CSU-33/SSR-39 <i>Bald Eagle Habitat</i> <i>(Winter Concentration and Communal Roosts)</i> BLM Surface: 10,180 acres Split-estate: 1,720 acres	<p>STIPULATION: Apply CSU/SSR restrictions within bald eagle habitat to protect winter concentration areas and communal roost sites. Incorporate applicable conservation measures from the USFWS National Bald Eagle Management Guidelines.</p> <p>PURPOSE: Maintain long-term availability of suitable bald eagle habitat.</p> <p>EXCEPTION, CSU-33: Standard exception applies.</p> <p>EXCEPTION, SSR-39: The BLM UFO Field Manager may grant an exception to this stipulation if an environmental analysis indicates that the proposed or conditioned activities would not affect the long term suitability or utility of habitat features or diminish opportunities for natural floodplain functions. Surface disturbance and occupation may also be authorized in the event that established impacts on habitat values would be compensated or offset to the satisfaction of the BLM.</p> <p>Standard MODIFICATION and WAIVER apply.</p>
CSU-34/SSR-40 <i>Mexican Spotted Owl</i> <i>Suitable Breeding Habitat</i> No Data	<p>STIPULATION: Apply CSU/SSR restrictions to Mexican spotted owl breeding habitat as defined in the Mexican spotted owl recovery plan. Manage in accordance with the current Mexican spotted owl recovery plan. The BLM UFO Field Manager may require the proponent/applicant to submit a plan of development that would demonstrate that impacts on Mexican spotted owl habitat have been avoided to the extent practicable.</p> <p>PURPOSE: To avoid impacts on habitat and maintain the availability of suitable breeding and brood rearing habitat as defined in the Mexican Spotted Owl recovery plan to promote recovery.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>
CSU-35/SSR-42 <i>Wildlife BLM Sensitive Species (Gunnison and White-tailed Prairie Dogs)</i> BLM Surface: 6,480 acres Split-estate: 710 acres	<p>STIPULATION: Surface occupancy or use may be restricted and SSR restrictions applied within habitat for the following BLM sensitive wildlife species: within 150 feet of active Gunnison and white-tailed prairie dog towns. Special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required. The operator may be required to submit a plan of development that reduces or eliminates threats to BLM identified sensitive species by siting or prioritizing vegetation clearing, facility construction, and concentrated operational activities (e.g., drilling, completion, and utility installation).</p> <p>PURPOSE: To reduce or eliminate threats to BLM sensitive wildlife species to minimize the likelihood of and need for listing under the Endangered Species Act.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>

Stipulation Number Protected Resource Acres/Miles Affected ¹	Stipulation Description
CSU-37/SSR-44 Wildlife BLM Sensitive Species (Active Kit Fox Dens) No Data	<p>STIPULATION: Surface occupancy or use may be restricted and SSR restrictions applied within habitat for the following BLM sensitive wildlife species: within 200 meters (656 feet) of active kit fox dens. Special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required. The operator may be required to submit a plan of development that reduces or eliminates threats to BLM identified sensitive species by siting or prioritizing vegetation clearing, facility construction, and concentrated operational activities (e.g., drilling, completion, and utility installation).</p> <p>PURPOSE: To reduce or eliminate threats to BLM sensitive wildlife species to minimize the likelihood of and need for listing under the Endangered Species Act.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>
CSU-39/SSR-47 Wildlife Bat: Bat Roost Sites and Winter Hibernacula (Colorado State Species of Concern) BLM Surface: 2,900 acres	<p>STIPULATION: Surface occupancy or use may be restricted and SSR restrictions applied within 0.25-mile radius of the entrance of maternity roosts or hibernacula of Colorado State Species of Concern bat species, as mapped in the BLM's GIS database or other maps provided by local, state, federal, or tribal agencies that are analyzed and accepted by the BLM.</p> <p>PURPOSE: Protection of known sensitive bat species' maternity roosts and hibernacula.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>
Cultural Resources	
CSU-43/SSR-53 Cultural No Data	<p>STIPULATION: Surface occupancy or use may be restricted and SSR restrictions applied due to historic properties and/or resources protected under the National Historic Preservation Act, American Indian Religious Freedom Act, Native American Graves Protection and Repatriation Act, Executive Order 13007, or other statutes and executive orders. Special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required.</p> <p>This lease or project area may be found to contain historic properties and/or resources protected under the National Historic Preservation Act, American Indian Religious Freedom Act, Native American Graves Protection and Repatriation Act, Executive Order 13007, or other statutes and executive orders. The BLM will not approve any ground-disturbing activities that may affect any such properties or resources until it completes its obligations (e.g., State Historic Preservation Officer and tribal consultation) under applicable requirements of the National Historic Preservation Act and other authorities.</p> <p>The BLM may require modification to exploration or development proposals to protect such properties, including indirect effects including audible, atmospheric, and setting impacts to the significant qualities of a historic property and visual impacts as determined through consultation with SHPO and the appropriate tribal entities, or disapprove any activity</p>

Stipulation Number Protected Resource Acres/Miles Affected ¹	Stipulation Description
	<p>that is likely to result in adverse effects that cannot be successfully avoided, minimized, or compensated.</p> <p>PURPOSE: To protect cultural resource sites that may be damaged from inadvertent, unauthorized, or authorized uses.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>
	Coal
CSU-48 <i>Geology: Coal Mine</i> BLM Surface: 6,560 acres Split-estate: 11,110 acres	<p>STIPULATION: Surface occupancy or use may be restricted due to surface or underground coal mines. Special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required. Operations proposed within the area of an approved surface or underground coal mine will be relocated outside the area to be mined or to accommodate room and pillar and long wall mining operations. This stipulation does not apply to operations that capture or pipe methane from a mine for beneficial use.</p> <p>PURPOSE: To protect surface or underground coal mines.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>
	Recreation and Visitor Services
CSU-50 <i>Recreation SRMAs</i> BLM Surface: 79,190 acres	<p>STIPULATION: Special design, construction and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required in the following SRMAs:</p> <ul style="list-style-type: none"> • Dry Creek RMZs 1, 2, 3, 4 and 5 • Jumbo Mountain RMZs 1 and 2 • North Delta • Ridgway Trails RMZs 1 and 2 • Roubideau RMZs 1, 2, 3, and 4 • Spring Creek RMZs 1, 2, and 3 <p>PURPOSE: To protect recreation outcomes and setting prescriptions.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>
CSU-51 <i>Recreation ERMA</i> s BLM Surface: 64,790 acres	<p>STIPULATION: Special design, construction and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required in the following ERMA</p> s: <ul style="list-style-type: none"> • Burn Canyon • Kinikin Hills • Paradox Valley <p>PURPOSE: To avoid negative impacts on targeted recreational opportunities.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>

Stipulation Number Protected Resource Acres/Miles Affected ¹	Stipulation Description
	Wild and Scenic Rivers
CSU-54 <i>Special Designation WSR ("Recreational")</i> BLM Surface: 22,660 acres Split-estate: 440 acres	<p>STIPULATION: Surface occupancy or use may be restricted within the WSR study corridor, as defined in the Uncompahgre Wild and Scenic River Suitability Report, of the following segments determined to have the classification of "recreational:"</p> <ul style="list-style-type: none"> • Beaver Creek • San Miguel River Segment 1 • San Miguel River Segment 3 • San Miguel River Segment 5 • San Miguel River Segment 6 • Dolores River Segment 2 • La Sal Creek Segment 2 <p>PURPOSE: To protect WSR outstandingly remarkable values, free-flowing nature, and water quality of eligible or suitable river segments and their consequent recreational, social, economic, and environmental significance.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>
	National Trails and Byways
CSU-55 <i>Special Designation Trail (Old Spanish National Historic Trail)</i> BLM Surface: 5,610 acres Split-estate: 4,470 acres	<p>STIPULATION: Surface occupancy or use may be restricted within 0.5-mile of the centerline of the following: Old Spanish National Historic Trail. Special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required.</p> <p>PURPOSE: To protect the physical evidence of the trail, associated cultural and historic resources, and integrity of the viewshed associated with the trail.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>
CSU-58 <i>Special Designation Byway (Scenic Byways)</i> BLM Surface: 34,680 acres Split-estate: 12,440 acres	<p>STIPULATION: Surface occupancy or use may be restricted within 805 meters (0.50-mile) of designated scenic byways. Special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required to protect the scenic (visual) values.</p> <p>PURPOSE: To protect the quality of the scenic (visual) values of scenic, historic, or backcountry byways.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>

Stipulation Number Protected Resource Acres/Miles Affected ¹	Stipulation Description
	Water Resources
CSU-59 <i>Domestic Water Wells</i> BLM Surface: 11,100 acres Split-estate: 32,210 acres	<p>STIPULATION: Surface occupancy or use may be restricted on lands located within 305 meters (1,000 feet) of all domestic water wells. Special engineering design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required. Also within 305 meters (1,000 feet) of all domestic water wells:</p> <ul style="list-style-type: none"> • Extend surface casing through the freshwater aquifer. • Require freshwater mud for drilling the surface casing. <p>Also prohibit directional drilling within 457 vertical meters (1,500 vertical feet) below the depth of a domestic water well.</p> <p>PURPOSE: To protect domestic water supplies, private water systems, and agriculture.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>
	Lands with Wilderness Characteristics
CSU-60 <i>Lands Identified as Having Wilderness Characteristics While Managing for Other Uses</i> BLM Surface: 18,320 acres	<p>STIPULATION: On lands identified as possessing wilderness characteristics, special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required. Prior to authorizing disturbance activities in the following areas, the proponent may be required to submit a plan of development that demonstrates that identified wilderness characteristics will be conserved:</p> <ul style="list-style-type: none"> • Camel Back Wilderness Study Area Adjacent (6,950 acres) • Dry Creek Basin (7,030 acres) • Roc Creek/Carpenter Ridge (4,340 acres) <p>PURPOSE: To conserve wilderness characteristics.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>
	National Trails
CSU-61 <i>Special Designation Trail (National Recreation Trails)</i> BLM Surface: 7,180 acres Split-estate: 250 acres	<p>STIPULATION: Surface occupancy or use may be restricted within 200 meters (656 feet) of the center line of designated National Recreation Trails. Special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet) of the center line of designated National Recreation Trails, may be required.</p> <p>PURPOSE: To protect National Recreation Trails.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>

¹The sum of acres with CSU stipulations in this table may add up to more than the total acres with CSU stipulations presented in the Approved RMP, as some areas may overlap.

Table B-4
Timing Limitation (TL) Stipulations Applicable to Fluid Mineral Leasing and
Surface-disturbing Activities

Stipulation Number <i>(Existing/New)</i> Protected Resource Acres/Miles Affected¹	Stipulation Description
TL-5 <i>Wildlife Coldwater Sport Fish</i> BLM Surface: 4,170 acres Split-estate: 2,030 acres	Fish and Aquatic Wildlife STIPULATION: Prohibit in-stream channel work within occupied fisheries, as mapped in the RMP, BLM's GIS database, or other maps provided by local, state, federal, or tribal agencies that are analyzed and accepted by the BLM, during the following period: <ul style="list-style-type: none"> • Spring spawning period: April 1 to July 15 (native cutthroat trout, rainbow trout, and native warm water fish [flannemouth sucker, bluehead sucker, and roundtail chub]) PURPOSE: To protect redds (egg masses) in the gravel and emerging fry. Standard EXCEPTION, MODIFICATION, and WAIVER apply. EXCEPTION for Non-Fluid Mineral Activities: In addition to the standard exception, this stipulation may be excepted for the following: <ul style="list-style-type: none"> • In-channel restoration or enhancement work designed to improve stream habitat conditions • Riparian plantings • Temporary disturbances of less than 0.1-acre with appropriate BMPs
TL-8 <i>Wildlife Big Game Winter</i> BLM Surface: 495,350 acres Split-estate: 94,890 acres	Terrestrial Wildlife STIPULATION: Prohibit surface use and surface-disturbing and disruptive activities during the following time period(s) in big game crucial winter habitat, as mapped in the RMP, BLM's GIS database, or other maps provided by local, state, federal, or tribal agencies that are analyzed and accepted by the BLM: crucial winter range, severe winter range and winter concentration areas. <ul style="list-style-type: none"> • Elk, mule deer, and moose: December 1 to April 15 • Pronghorn: January 1 to March 31 • Rocky Mountain and desert bighorn sheep: November 1 to April 15 PURPOSE: To reduce disruption of big game during the winter season in crucial winter habitat. Standard EXCEPTION, MODIFICATION, and WAIVER apply. MODIFICATION (additional): The BLM UFO Field Manager may modify the size and time frames of this stipulation if CPW monitoring information indicates that current animal use patterns are inconsistent with dates established for animal occupation, or under mild winter conditions for the last 60 days of the closure. Determine severity of the winter on the basis of snow depth, snow crusting, daily mean temperatures, and whether animals were concentrated on the winter range during the winter months. Modifications could be authorized if the

Stipulation Number <i>(Existing/New)</i> Protected Resource Acres/Miles Affected¹	Stipulation Description
	<p>proposed action could be conditioned so as not to interfere with critical habitat function or compromise animal condition. A modification may also be approved if the proponent, BLM, and CPW agree to compensation that satisfactorily offset detrimental impacts on big game winter range or its use, or an agreement can be reached where by a Colorado Oil and Gas Conservation Commission wildlife mitigation plan can be accommodated consistent with established RMP objectives and decisions.</p>
<p>TL-11 <i>Wildlife Big Game Production</i> BLM Surface: 3,020 acres Split-estate: 8,200 acres</p>	<p>STIPULATION: Prohibit surface occupancy and surface-disturbing and disruptive activities in mapped big game production areas as follows:</p> <ul style="list-style-type: none"> • Elk and moose: May 15 to June 30 • Desert bighorn sheep: February 1 to May 1 • Rocky Mountain bighorn sheep: April 15 to June 30 <p>PURPOSE: To reduce disruption of big game during the parturition and young rearing period.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p> <p>MODIFICATION for Non-Fluid Mineral Activities: In addition to the standard modification, the BLM UFO Field Manager may modify the size and time frames of this stipulation if CPW monitoring information indicates that current animal use patterns are inconsistent with dates established for animal occupation. Modifications could be authorized if the proposed action could be conditioned so as not to interfere with critical habitat function or compromise animal condition. A modification may also be approved if the proponent, BLM, and CPW agree to compensation that satisfactorily offset detrimental impacts on big game production or habitat condition, or an agreement can be reached where by a Colorado Oil and Gas Conservation Commission wildlife mitigation plan can be accommodated consistent with established RMP objectives and decisions.</p>
<p>TL-12 <i>Wildlife Turkey</i> BLM Surface: 18,030 acres Split-estate: 8,640 acres</p>	<p>STIPULATION: Prohibit surface use and surface-disturbing and disruptive activities within wild turkey winter habitat, as mapped in the RMP, BLM's GIS database, or other maps provided by local, state, federal, or tribal agencies that are analyzed and accepted by the BLM, during the following time period):</p> <ul style="list-style-type: none"> • Wild turkey winter habitat from December 1 to April 1 <p>PURPOSE: To prevent disruption of wild turkeys during crucial periods.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p>

Stipulation Number (Existing/New) Protected Resource Acres/Miles Affected ¹	Stipulation Description
	Special Status Terrestrial Wildlife
TL-16 <i>Gunnison Sage-grouse Winter Habitat</i> BLM Surface: 180 acres Split-estate: 4,970 acres	<p>STIPULATION: Prohibit surface use and surface-disturbing and disruptive activities in mapped important Gunnison sage-grouse winter habitat, including, but not limited to, all USFWS designated critical habitat and areas also defined by the BLM, USFWS, and CPW, from December 1 to March 15.</p> <p>PURPOSE: Prevent disruption of Gunnison sage-grouse during the winter period.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p> <p>EXCEPTION for Non-Fluid Mineral Activities: In addition to the standard exception, this stipulation may be excepted for actions designed to enhance the long-term utility or availability of suitable winter habitat.</p>
TL-18 <i>Gunnison Sage-grouse Breeding Habitat and Gunnison Sage-Grouse Critical Habitat</i> BLM Surface: 44,630 acres Split-estate: 50,600 acres	<p>STIPULATION: Prohibit surface use and surface-disturbing and disruptive activities in USFWS-designated occupied critical habitat, nesting habitat mapped and defined by the BLM, USFWS, and CPW, and within 4.0 miles of active Gunnison sage-grouse leks (if nesting habitat is not mapped) from March 1 to July 15.</p> <p>PURPOSE: Prevent disruption of reproductive activity during the production period.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p> <p>EXCEPTION for Non-Fluid Mineral Activities: In addition to the standard exception, this stipulation may be excepted for actions designed to enhance the long-term utility or availability of suitable nest habitat.</p>
TL-20 <i>Wildlife Sensitive Raptor Nest and Wildlife Raptor Nest</i> BLM Surface: 14,350 acres Split-estate: 2,770 acres	<p>STIPULATION: <i>Wildlife Sensitive Raptor Nest Timing Limitation:</i> Prohibit surface use within an 805-meter (0.50-mile) radius of active raptor nests, as mapped in the RMP, BLM's GIS database, or other maps provided by local, state, federal, or tribal agencies that are analyzed and accepted by the BLM, during the following time periods, or until fledging and dispersal of young:</p> <ul style="list-style-type: none"> • Bald Eagle: from November 15 to July 31 • Golden Eagle: from December 15 to July 15 • Ferruginous Hawk: from February 1 to August 15 • Peregrine and Prairie Falcon: from March 15 to July 31 • Northern Goshawk from March 1 to August 31 • Burrowing Owl: 0.25-mile radius around active nests from March 15 to August 15 <p><i>Wildlife Raptor Nest Timing Limitation:</i> No surface use is allowed within a 402-meter (0.25-mile) radius of active raptor nests, as mapped in the RMP, BLM's GIS database, or other maps provided by local, state, federal,</p>

Stipulation Number <i>(Existing/New)</i> Protected Resource Acres/Miles Affected¹	Stipulation Description
	<p>or tribal agencies that are analyzed and accepted by the BLM, during the following time period(s), or until fledging and dispersal of young:</p> <ul style="list-style-type: none"> • Osprey: from April 1 to August 31 • Red-tailed Hawk: from February 15 to August 15 • Swainson's Hawk, Cooper's Hawk, Sharp-shinned Hawk, and Northern Harrier: from April 1 to August 15 • Great Horned Owl: from February 1 to August 15 • Other Owls and Raptors (excluding Kestrel): from March 1 to August 15 <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p> <p>EXCEPTION for Non-Fluid Mineral Activities: In addition to the standard exception, the BLM UFO Field Manager may also grant an exception if the nest is unattended or remains unoccupied by May 15 of the project year. An exception may be granted to these dates by the BLM UFO Field Manager, consistent with policies derived from federal administration of the Migratory Bird Treaty Act.</p> <p>MODIFICATION for Non-Fluid Mineral Activities: In addition to the standard modification, a modification may be granted if the nest has remained unoccupied for a minimum of five years or conditions have changed such that there is no reasonable likelihood of site occupation over a minimum 10-year period.</p>
<p>TL-21</p> <p><i>Bald Eagle Winter Roost Sites</i></p> <p>BLM Surface: 4,630 acres</p> <p>Split-estate: 580 acres</p>	<p>STIPULATION: Prohibit surface use and surface-disturbing activities within an 805-meter (0.50-mile) radius of an active bald eagle winter roost, as mapped in the RMP, BLM's GIS database, or other maps provided by local, state, federal, or tribal agencies that are analyzed and accepted by the BLM, from November 15 to March 15.</p> <p>PURPOSE: To prevent disruption of wintering bald eagles at communal roosts.</p> <p>Standard EXCEPTION, MODIFICATION, and WAIVER apply.</p> <p>MODIFICATION for Non-Fluid Mineral Activities: In addition to the standard modification, a modification may be granted if the site has failed to support roosting activities over a minimum five year period, or if the site conditions have changed such that there is no reasonable likelihood of site occupation over a minimum 10-year period.</p>

Stipulation Number (Existing/New) Protected Resource Acres/Miles Affected ¹	Stipulation Description
TL-22 <i>Bald Eagle Winter Concentration Areas</i> BLM Surface: 10,180 acres Split-estate: 1,720 acres	STIPULATION: Prohibit surface use and surface-disturbing and disruptive activities within bald eagle winter concentration areas from November 15 to April 1. PURPOSE: To protect bald eagle crucial winter habitats and to comply with the Bald and Golden Eagle Protection Act. Standard EXCEPTION, MODIFICATION, and WAIVER apply. EXCEPTION: In addition to the standard exception, restriction timeframes may be adjusted on a case-by-case basis depending on weather conditions and the severity of winter, provided eagles are not observed in the proposed action area.
TL-23 <i>Wildlife Mexican Spotted Owl (Suitable Breeding Habitat)</i> No Data	STIPULATION: Prohibit surface use and surface-disturbing and disruptive activities in mapped suitable Mexican spotted owl breeding habitat, as mapped in the RMP, BLM's GIS database, or other maps provided by local, state, federal, or tribal agencies, including as defined in the Mexican spotted owl recovery plan, that are analyzed and accepted by the BLM, from March 1 to August 31. PURPOSE: To prevent disturbance of Mexican spotted owl during breeding and brood rearing and to promote recovery as defined in the Mexican Spotted Owl Recovery Plan. Standard EXCEPTION, MODIFICATION, and WAIVER apply.
TL-24 <i>Gunnison and White-tailed Prairie Dog</i> BLM Surface: 7,790 acres Split-estate: 870 acres	STIPULATION: Prohibit surface use and surface-disturbing and disruptive activities within 300 feet of active prairie dog colonies from March 1 to June 15. PURPOSE: To protect prairie dog reproduction. Standard EXCEPTION, MODIFICATION, and WAIVER apply.
TL-27 <i>Active Kit Fox Dens</i> No Data	STIPULATION: Prohibit surface use and surface-disturbing and disruptive activities within 0.25-mile of active dens from February 1 to May 1. PURPOSE: To prevent disruption during the kit fox denning period. Standard EXCEPTION, MODIFICATION, and WAIVER apply.

¹The sum of acres with TL stipulations in this table may add up to more than the total acres with TL stipulations presented in the Approved RMP, as some areas may overlap.

Table B-5
Lease Notices (LN) Applicable to Fluid Mineral Leasing

Stipulation Number (Existing/New) Protected Resource Acres/Miles Affected	Stipulation Description
	Terrestrial Wildlife
LN-UFO-1 Migratory Birds	The lessee is hereby notified that prior to and during all lease operations, including development and utilization of oil and gas resources, the lessee must comply year around with applicable provisions of the Migratory Bird Treaty Act of 1918, 16 USC 703–712, other state and local statutes and rules and regulations, now in existence or as may be modified in the future, consistent with lease rights. Migratory birds nest throughout the UFO, and seasonal timing restrictions for ground-disturbing activities may occur within the April 1 to July 15 period when migratory birds may be nesting in the area.
	Paleontological Resources
LN-UFO-3 High Potential Paleontological Resources	The lessee/operator is given notice that lands in this lease have been identified as having high potential for paleontological resources. Planned projects should be consistent with the Paleontological Resources Preservation Act and BLM Manual and Handbook H-8270-1, Chapter III (A) and III (B) to avoid areas where significant fossils are known or predicted to occur or to provide for other mitigation of possible adverse effects (RX, NF, ESR). Mitigation of impacts to scientifically important paleontological resources may include avoidance, monitoring, collection, excavation, or sampling. Mitigation of discovered scientifically important paleontological resources may require the relocation of the surface disturbance activity over 200 meters (656 feet). Inventory and any subsequent mitigation shall be conducted by a BLM permitted paleontologist. Modifications to the Surface Use Plan of Operations may be required in order to protect paleontological resources from surface-disturbing activities in accordance with Section 6 of the lease terms and 43 Code of Federal Regulations, 3101.1-2.
LN-UFO-4 Paleontological Areas	Require an accredited paleontologist approved by the BLM Authorized Officer to perform an inventory of areas of surface-disturbing activities in Potential Fossil Yield Classification Class 4 and 5 (previously known as Class I and II) paleontological areas, in accordance with BLM Instruction Memorandum 2008-009: Potential Fossil Yield Classification System for Paleontological Resources on Public Lands (BLM 2007).
	Visual Resources
LN-UFO-6 Night Skies	Permanent and temporary artificial outdoor lighting will be shielded, and downward-facing (“full cut-off” fixtures) will be used to minimize impacts on naturally dark night skies. An exception, with mitigation, may be granted for temporary lighting if the equipment will create a hazard. Permanent artificial outdoor lighting will be turned off when it is not needed.

Stipulation Number <i>(Existing/New)</i> Protected Resource Acres/Miles Affected	Stipulation Description
LN-UFO-5 <i>Coal Areas</i>	<p>Coal</p> <p>The portions of the coal potential area where the overburden above the coal is less than 3,500 feet will be managed primarily for the exploration and development of coal resources. Oil and gas operators anticipating exploration or development operations are required to consult and coordinate their activities with the BLM Authorized Officer to first determine the status of the coal resource then what course of action is in the public's interest. Under no circumstances would the BLM approve any oil and gas operations that compromises maximum economic coal recovery or the safety of underground mining operations. Where the coal is in place but is neither licensed for exploration nor leased for mining, oil and gas operators may expect the BLM to scrutinize and adjust well placement and hydraulic fracturing activities to avoid ruining coal resources. Where the coal is either licensed for exploration or leased for mining the oil and gas, operators must consult with the affected coal operators on proposed oil and gas exploration or development. In the event that the oil and gas and coal operators are unable to agree on any proposal, the BLM Authorized Officer would intervene and use all pertinent lease terms, regulations, and policy to determine what course of action is in the public's interest. This applies even if actual exploration and mining has ceased. Where the BLM has determined the coal to be completely mined out and all licenses and leases terminated, the oil and gas operator is required to become informed about historic mine maps and mine-related drill holes.</p>
LN-UFO-2 <i>Unexploded Ordnance</i>	<p>Public Health and Safety</p> <p>The lease area is known to contain unexploded ordnance. The Colorado National Guard and Army Reserve used the lease area as a practice area for military training in the past. Periodic surface searches for ordnance may not have located and removed all of the ordnance. Prior to any new activity on the lease area, a survey for surface and subsurface unexploded ordnance is required to avoid impacts on health and safety. Lessees must contact the BLM UFO prior to any surface activities associated with this lease. The lessee will be required to coordinate with the Colorado National Guard, Army Reserve and the Colorado Department of Public Health and Environment to conduct additional surveys to ensure that there is no unexploded ordnance present on the proposed disturbance sites and appropriate actions are taken to be sure the sites are safe for use. The BLM may recommend modifications to exploration and development proposals to avoid impacts on health and safety. The lease holder agrees to indemnify the United States against any liability arising from the lease holder's and its agents' activities on the lease area.</p>

Table B-6
No Ground Disturbance (NGD) Restrictions Applicable to Surface-disturbing Activities

Stipulation Number Protected Resource Acres/Miles Affected^{1, 2}	Stipulation Description
	Wilderness and Wilderness Study Areas
NL-18/NGD-27 <i>Wilderness Study Areas</i> 36,240 acres	Refer to NL-18/NGD-27 in Table B-1, Areas Closed to Fluid Mineral Leasing.
	Areas of Critical Environmental Concern
NSO-58/NGD-26/SSR-57 <i>Special Designation ACEC</i> 31,310 acres	Refer to NSO-58/NGD-26/SSR-57 in Table B-2, No Surface Occupancy (NSO) Stipulations Applicable to Fluid Mineral Leasing.
	Public Health and Safety
NSO-66/NGD-30 <i>US Department of Energy Uranium Mill Tailings Remedial Action Area</i> 20 acres	Refer to NSO-66/NGD-30 in Table B-2, No Surface Occupancy (NSO) Stipulations Applicable to Fluid Mineral Leasing.

¹The sum of acres with NGD restrictions in this table may add up to more than the total acres with NGD restrictions presented in the Approved RMP, as some areas may overlap.

²Acres are for BLM surface only; NGD restrictions do not apply to non-BLM-administered land.

Table B-7
Site-specific Relocation (SSR) Restrictions Applicable to Surface-disturbing Activities

Stipulation Number Protected Resource Acres/Miles Affected^{1, 2}	Stipulation Description
	Soils and Geology
CSU-3/SSR-3 <i>Geology Soil: Saline/Selenium Soils</i> 107,170 acres	Refer to CSU-3/SSR-3 in Table B-3, Controlled Surface Use (CSU) Stipulations Applicable to Fluid Mineral Leasing.
CSU-6/SSR-6 <i>Geology Soil: Potential Biological Soil Crust</i> No Data	Refer to CSU-6/SSR-6 in Table B-3, Controlled Surface Use (CSU) Stipulations Applicable to Fluid Mineral Leasing.
CSU-8/SSR-7 <i>Geology: Slope Greater than 40 Percent</i> 115,080 acres	Refer to CSU-8/SSR-7 in Table B-3, Controlled Surface Use (CSU) Stipulations Applicable to Fluid Mineral Leasing.
CSU-9/SSR-9 <i>Geology: Slope from 30 to 39 Percent</i> 60,200 acres	Refer to CSU-9/SSR-9 in Table B-3, Controlled Surface Use (CSU) Stipulations Applicable to Fluid Mineral Leasing.
	Water Resources
NSO-9/SSR-11 <i>Hydrology River</i> 26,990 acres	Refer to NSO-9/SSR-11 in Table B-2, No Surface Occupancy (NSO) Stipulations Applicable to Fluid Mineral Leasing.
NSO-11/SSR-13 <i>Hydrology Features</i> 26,050 acres	Refer to NSO-11/SSR-13 in Table B-2, No Surface Occupancy (NSO) Stipulations Applicable to Fluid Mineral Leasing.
	Terrestrial Wildlife
CSU-18/SSR-19 <i>Desert and Rocky Mountain Bighorn Sheep Summer Range</i> 39,530 acres	Refer to CSU-18/SSR-19 in Table B-3, Controlled Surface Use (CSU) Stipulations Applicable to Fluid Mineral Leasing.
	Special Status Plants
CSU-19/SSR-20 <i>BLM Sensitive Plant Species</i> 3,240 acres	Refer to CSU-19/SSR-20 in Table B-3, Controlled Surface Use (CSU) Stipulations Applicable to Fluid Mineral Leasing.
NSO-22/SSR-21 <i>Plant Endangered Species Act-Listed Species</i> 8,270 acres	Refer to NSO-22/SSR-21 in Table B-2, No Surface Occupancy (NSO) Stipulations Applicable to Fluid Mineral Leasing.

Stipulation Number Protected Resource Acres/Miles Affected ^{1, 2}	Stipulation Description
Special Status Fish and Aquatic Wildlife	
NSO-24/SSR-22 <i>Wildlife Endangered Species Act-Listed Species (Occupied Federally Listed Fish Habitat)</i> 270 acres	Refer to NSO-24/SSR-22 in Table B-2, No Surface Occupancy (NSO) Stipulations Applicable to Fluid Mineral Leasing.
NSO-26/SSR-25 <i>Occupied Native Cutthroat Trout Habitat</i> 13,260 acres	Refer to NSO-26/SSR-25 in Table B-2, No Surface Occupancy (NSO) Stipulations Applicable to Fluid Mineral Leasing.
Special Status Terrestrial Wildlife	
NSO-29/SSR-28 <i>Wildlife Endangered Species Act-Listed Species (Wildlife and Bird Species' Occupied Habitat)</i> No Data	Refer to NSO-29/SSR-28 in Table B-2, No Surface Occupancy (NSO) Stipulations Applicable to Fluid Mineral Leasing.
CSU-25/SSR-29 <i>Wildlife Endangered Species Act-Listed Species (Yellow-billed Cuckoo Habitat)</i> 6,080 acres	Refer to CSU-25/SSR-29 in Table B-3, Controlled Surface Use (CSU) Stipulations Applicable to Fluid Mineral Leasing.
CSU-27/SSR-31 <i>Wildlife Endangered Species Act-Listed Species (Canada Lynx Habitat)</i> 3,860 acres	Refer to CSU-27/SSR-31 in Table B-3, Controlled Surface Use (CSU) Stipulations Applicable to Fluid Mineral Leasing.
NSO-31/SSR-32 <i>Gunnison Sage-grouse Breeding Habitat and Critical Habitat</i> 5,950 acres	Refer to NSO-31/SSR-32 in Table B-2, No Surface Occupancy (NSO) Stipulations Applicable to Fluid Mineral Leasing.
CSU-29/SSR-34 <i>Gunnison Sage-Grouse Potential Habitat</i> 14,700 acres	Refer to CSU-29/SSR-34 in Table B-3, Controlled Surface Use (CSU) Stipulations Applicable to Fluid Mineral Leasing.
NSO-36/SSR-36 <i>Raptor Nest Sites (Except Mexican Spotted Owl)</i> 8,440 acres	Refer to NSO-36/SSR-36 in Table B-2, No Surface Occupancy (NSO) Stipulations Applicable to Fluid Mineral Leasing.

Stipulation Number Protected Resource Acres/Miles Affected^{1, 2}	Stipulation Description
CSU-32/SSR-37 <i>Raptor Breeding Habitat (Accipiters, Falcons [Except Kestrel], Buteos, and Owls [Except Mexican Spotted Owl])</i> 21,790 acres	Refer to CSU-32/SSR-37 in Table B-3, Controlled Surface Use (CSU) Stipulations Applicable to Fluid Mineral Leasing.
NSO-38/SSR-38 <i>Bald Eagle Winter Roost Sites</i> 4,570 acres	Refer to NSO-38/SSR-38 in Table B-2, No Surface Occupancy (NSO) Stipulations Applicable to Fluid Mineral Leasing.
CSU-33/SSR-39 <i>Bald Eagle Habitat (Winter Concentration and Communal Roosts)</i> 10,180 acres	Refer to CSU-33/SSR-39 in Table B-3, Controlled Surface Use (CSU) Stipulations Applicable to Fluid Mineral Leasing.
CSU-34/SSR-40 <i>Mexican Spotted Owl Suitable Breeding Habitat</i> No Data	Refer to CSU-34/SSR-40 in Table B-3, Controlled Surface Use (CSU) Stipulations Applicable to Fluid Mineral Leasing.
NSO-40/SSR-41 <i>Mexican Spotted Owl</i> No Data	Refer to NSO-40/SSR-41 in Table B-2, No Surface Occupancy (NSO) Stipulations Applicable to Fluid Mineral Leasing.
CSU-35/SSR-42 <i>Wildlife BLM Sensitive Species (Gunnison and White-tailed Prairie Dogs)</i> 6,480 acres	Refer to CSU-35/SSR-42 in Table B-3, Controlled Surface Use (CSU) Stipulations Applicable to Fluid Mineral Leasing.
CSU-37/SSR-44 <i>Wildlife BLM Sensitive Species (Active Kit Fox Dens)</i> No Data	Refer to CSU-37/SSR-44 in Table B-3, Controlled Surface Use (CSU) Stipulations Applicable to Fluid Mineral Leasing.
CSU-39/SSR-47 <i>Wildlife Bat: Bat Roost Sites and Winter Hibernacula (Colorado State Species of Concern)</i> 2,900 acres	Refer to CSU-39/SSR-47 in Table B-3, Controlled Surface Use (CSU) Stipulations Applicable to Fluid Mineral Leasing.
Cultural Resources	
NSO-46/SSR-49 <i>Allocation to Traditional Use</i> No Data	Refer to NSO-46/SSR-49 in Table B-2, No Surface Occupancy (NSO) Stipulations Applicable to Fluid Mineral Leasing.

Stipulation Number Protected Resource Acres/Miles Affected^{1, 2}	Stipulation Description
CSU-43/SSR-53 <i>Cultural</i> No Data	Refer to CSU-43/SSR-53 in Table B-3, Controlled Surface Use (CSU) Stipulations Applicable to Fluid Mineral Leasing.
	Lands with Wilderness Characteristics
NSO-53/SSR-56 <i>Lands with Wilderness Characteristics</i> 1,740 acres (if Sewemup Mesa Wilderness Study Area lands are released from wilderness consideration by Congress)	Refer to NSO-53/SSR-56 in Table B-2, No Surface Occupancy (NSO) Stipulations Applicable to Fluid Mineral Leasing.
	Areas of Critical Environmental Concern
NSO-58/NGD-26/SSR-57 <i>Special Designation ACEC</i> 31,310 acres	Refer to NSO-58/NGD-26/SSR-57 in Table B-2, No Surface Occupancy (NSO) Stipulations Applicable to Fluid Mineral Leasing.

¹The sum of acres with SSR restrictions in this table may add up to more than the total acres with SSR restrictions presented in the Approved RMP, as some areas may overlap.

²Acres are for BLM-administered surface only; SSR restrictions do not apply to non-BLM-administered land.

Table B-8
Raptor Species Breeding Periods

Falconiformes		Breeding Period
Osprey	<i>Pandion haliaetus</i>	4/1-8/31
Bald eagle	<i>Haliaeetus leucocephalus</i>	11/1-7/31
Northern harrier	<i>Circus cyaneus</i>	4/1-8/15
Sharp-shinned hawk	<i>Accipiter striatus</i>	3/15-8/31
Cooper's hawk	<i>Accipiter cooperii</i>	3/15-8/31
Northern goshawk	<i>Accipiter gentilis</i>	3/1-7/31
Swainson's hawk	<i>Buteo swainsoni</i>	4/1-7/15
Red-tailed hawk	<i>Buteo jamaicensis</i>	2/15-7/15
Ferruginous hawk	<i>Buteo regalis</i>	2/1-7/15
Rough-legged hawk	<i>Buteo lagopus</i>	N/A ¹
Golden eagle	<i>Aquila chrysaetos</i>	12/15-7/15
American kestrel	<i>Falco sparverius</i>	4/1-8/15
Merlin	<i>Falco columbarius</i>	4/1-8/31
Peregrine falcon	<i>Falco peregrinus</i>	2/1-8/31
Prairie falcon	<i>Falco mexicanus</i>	year round
Strigiformes		
Common barn owl	<i>Tyto alba</i>	2/1-9/15
Flammulated owl	<i>Otus flammeolus</i>	4/1-9/30
Western screech owl	<i>Megascops kennicottii</i>	3/1-8/15
Eastern screech owl	<i>Megascops asio</i>	3/1-8/15
Great horned owl	<i>Bubo virginianus</i>	12/1-9/31
Northern pygmy owl	<i>Glaucidium gnoma</i>	4/1-8/1
Burrowing owl	<i>Athene cunicularia</i>	4/1-8/15
Mexican spotted owl	<i>Strix occidentalis lucida</i>	3/1-8/31
Great gray owl	<i>Strix nebulosa</i>	3/1-8/31
Long-eared owl	<i>Asio otus</i>	2/1-8/15
Short-eared owl	<i>Asio flammeus</i>	3/1-8/1
Boreal owl	<i>Aegolius funereus</i>	2/1-7/31
Northern saw-whet owl	<i>Aegolius acadicus</i>	3/1-8/31

¹Species does not breed in Colorado

Source: Developed from Klute 2008 and *Table of Seasonal (Breeding) Buffers.xls* (BLM Colorado State Office)

B.5 REFERENCES

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Appendix C

Best Management Practices and
Standard Operating Procedures

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APPENDIX C

BEST MANAGEMENT PRACTICES AND STANDARD OPERATING PROCEDURES

This appendix provides a list of common standard operating procedures and best management practices that are applicable to the Uncompahgre Approved Resource Management Plan (RMP). Standard operating procedures are established guidelines that are followed by the BLM in carrying out management activities. While the list of standard operating procedures is complete, the list is not intended to be comprehensive; additional standard operating procedures could be developed and implemented to support achieving resource objectives.

Best management practices are state-of-the-art mitigation measures applied on a site-specific basis to avoid, minimize, reduce, rectify, or compensate for adverse environmental or social impacts. They are applied to management actions to aid in achieving desired outcomes for safe, environmentally responsible resource development, by preventing, minimizing, or mitigating adverse impacts and reducing conflicts. Best management practices can also be proposed by project applicants for activities on public lands (e.g., for gas drilling). Best management practices not incorporated into the permit application by the applicant may be considered and evaluated through the environmental review process and incorporated into the use authorization as conditions of approval or rights-of-way stipulations. Standard conditions of approval and rights-of-way stipulations are also provided in this appendix as appropriate. Additional best management practices, conditions of approval, and rights-of-way stipulations could be developed to meet resource objectives based on local conditions and resource specific concerns.

AIR QUALITY

- Air quality standards are governed by the Clean Air Act of 1990 (as amended) (42 United States [US] Code Chapter 85). The US Environmental Protection Agency is charged with setting National Ambient Air Quality Standards, currently found at <https://www.epa.gov/environmental-topics/air-topics> (US Environmental Protection Agency 2018). At the state level, the Colorado Department of Public Health and Environment has established its standards (Colorado Department of Public Health and Environment 2014).

- Require drill rig engines to meet US EPA requirements.
- Require all engines and ancillary equipment and methods to employ best available control technology with regard to air pollution reduction when operating on BLM lands.
- In the Bull Mountain Unit under the Master Development Plan, require new oil and gas development to meet the air resource related requirements described in the Final EIS (BLM 2016)/Record of Decision (BLM 2017) for the Master Development Plan. These requirements include tracking nitrogen oxide emissions for operations (post-development) for new federal oil and gas to ensure total operations phase nitrogen oxide emissions never exceed the Unit-wide 143 tons per year limit established in the Final EIS/Record of Decision. Also require evaluation of project-specific information by comparing actual proposed development information to parameter values that were modeled for the EIS to ensure that actual new proposed oil and gas development will not cause unacceptable cumulative local air quality impacts.
- Require that all new projects follow the BLM Colorado Air Resource Protection Protocol for completing future air quality analyses.

References

BLM (United States Department of the Interior, Bureau of Land Management). 2016. Bull Mountain Unit Master Development Plan Final EIS. BLM, Uncompahgre Field Office, Montrose, CO. July.

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Colorado Department of Public Health and Environment. 2014. Air Quality Control Commission Regulations. Internet Web site: <https://www.colorado.gov/pacific/cdphe/aqcc-regs>. Accessed on December 29, 2014.

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GEOLOGY, SOILS, AND WATER

- Implement guidelines from BLM Technical Reference 1737-17 (Sada et al. 2001), to protect or restore the functions of springs.
- Measures designed to minimize erosion and water quality deterioration will be required in the site-specific plans for surface-disturbing land use activities.
- Implement guidelines from BLM Technical Reference 1730-2 (BLM 2001), to protect or restore the functions of biological soil crusts.
- Require professional geotechnical engineering, reclamation plans, and stormwater management plans meeting the following conditions in areas having fragile soils for solid and fluid mineral development:

- Restore site productivity.
- Adequately control surface runoff.
- Protect off-site areas from accelerated erosion such as rilling, gully, piping, and mass wasting.
- Prohibit surface-disturbing activities during periods when soil is saturated.
- Prohibit construction when soils are frozen.
- Ensure stream crossings by roads/utilities are designed to withstand high flows and will not degrade stream channels, water quality or riparian resources.

Soils

- To minimize impacts to the aquatic and riparian systems, utilities or infrastructure should preferably be co-located in existing corridors or located in areas of existing disturbance or bored underneath river systems.
- Minimize the area of bare soil within the approved work zone as much as possible.
- Where applicable, cover entrances of construction sites with gravel to prevent trucks from tracking sediment from the construction site onto roads. This sediment will eventually end up clogging roadway drainage systems or settling into wetlands.
- Minimize soil exposure to erosional forces of wind and water by waiting until just before beginning construction to clear vegetation and to disturb the soil.
- Protect and maximize existing native vegetation and natural forest/rangeland to reduce impervious areas on the site.
- Use mechanical treatment methods to roughen and aerate soils in degraded sites identified for reclamation.
- Disperse stormwater to areas or undisturbed forest/rangeland wherever possible, rather than concentrating it into channels.
- Determine the volume of available topsoil existing on the site. Topsoil should be spread at a minimum uncompacted depth of 4 inches (or as appropriate determined by soil type).
- Allow sufficient time in scheduling for topsoil to be spread and bonded with the subsoil prior to seeding or planting.
- Topsoil must be salvaged during road construction and respread to the greatest degree practical on cut slopes, fill slopes, and borrow ditches prior to seeding. Road shape should be built using the borrow ditch subsoil.
- Properly store topsoil to protect it from erosion and compaction, assure that it remains identifiable (i.e., signed), viable, and available for redistribution during later stages of reclamation. Topsoil piles that will be stored for more than one month should be seeded with an approved BLM seed mix, stabilized with certified weed free erosion fabric or mulch, and may require fencing. When topsoil will be stored for more than one year and other resource values can be accommodated, topsoil should be stored in piles with a depth of two feet or less.

- Vegetative and structural soil stabilization practices will be required on cut and fill slopes off the working surfaces and in areas near water features, e.g., streams (including ephemeral drainages, ponds, and wetlands), or in other situations where wind or water erosion may otherwise accelerate movement of sediments.
- Utilize erosion control structures including but not limited to head-cut lay backs, rock structures, check dams, and sediment basins to retain soils in highly erodible areas and protect water quality.

Mancos Shale Derived Soils

- To minimize mobilization of selenium as well as the transport of salts and sediment, discharge of groundwater to surface water drainages in areas of mapped Mancos shale, saline soils, or fragile soils will be prohibited.
- To minimize mobilization of selenium, limit spreading water over native road surfaces (e.g., dust abatement) in areas of mapped Mancos shale. Alternate methods for controlling fugitive dust (e.g., proper road surfacing and maintenance and limiting vehicle speeds) are preferred in these locations. Alternate methods will be subject to BLM approval.
- Inhibit percolation of surface water through mapped Mancos shale areas by lining water retention/storage structures not associated with typical stormwater pollution prevention plans (e.g., tailing ponds and stock ponds). Liner material will be subject to BLM approval.
- Limit surface disturbance near drainage features and minimize total surface disturbance on mapped Mancos shale areas.
- In general the hydraulic or flow path distance from soil disturbances should be located as far from perennial water sources as possible. Small drainage basins and larger alluvial valleys exhibiting ephemeral channels can allow for long term storage of sediment, salinity and selenium produced during episodic climatic events, attenuating and increasing the time for these constituents to enter perennial water courses. (Report 6. Significance of Ephemeral and Intermittent Streams in the Arid and Semi-arid American Southwest)
- To the extent practical, soil surface disturbances should avoid being located on the Montezuma Valley, Juana Lopez, Blue Hill, or Fairport members of the Mancos shale, as these geologic units exhibit the highest concentrations of dissolvable salts. The Montezuma Valley and Juana Lopez also have the highest concentration of selenium.
- Maintaining healthy soil surface conditions on Mancos shale landscapes is more effective for the long term in limiting the yield of sediment, salinity and selenium than physical retention/detention structures.
- Require an analysis of impacts to biological soil crusts and appropriate stipulations on all use applications, such as rights-of-way, oil and gas and other exploration permits, and permits to drill.
- Locate livestock water and salt (or other supplements) on sites with low potential for biological soil crust development and in areas that discourage livestock from

loitering. In many areas, sites with high rock cover are good options, or in previously disturbed sites, and at least 0.5-mile from riparian and other key important plant communities. Livestock trailing preferences need to be considered when evaluating locations.

- Using brush barriers or fence segments to divert trailing. Sites with high potential for biological soil crust development are often not preferred by livestock for forage; however, these same sites may be open and easy to walk across. Because of lack of forage, minimal barriers are usually sufficient to discourage access.
- Bedding grounds for livestock (sheep) should be selected on sites with relatively low cover of biological soil crust and vegetation, and closely monitoring for overuse impacts.
- Drought management plans that address livestock management on excessively dry years should be implemented. Livestock use during dry conditions can reduce plant vigor, and excessively impact biological soil crust and physical soil crusts. Physical soil crusts which typically reform with precipitation provide protection from wind erosion.
- Develop terms and conditions on grazing permits to reduce accelerated sediment salinity/selenium yields (e.g., season of use, distribution, bedding grounds, levels of use on sensitive areas [north aspects], levels of use in and around channels, and grazing use impact on cryptogams).

Recreation Management BMPs

- Restrict road locations to less sensitive areas. Road drainage (culverts, water bars) should be designed so that erosion or sediment fill of adjacent off-site areas is minimized.
- Promote extensive, low-density uses, such as hiking and backpacking, during late fall and winter periods. Restrict surface disturbing activities during dry seasons.
- Permit high-density, high-impact uses for short durations during late fall and winter, preferably when soils are frozen. Areas should be rotated based on a total allowable disturbance threshold with long recovery periods (greater than 10 years minimum on moderate- to high-resiliency sites). Exclude low-resiliency sites. Provide designated trails, and restrict use to trails in high density recreational areas.
- Provide interpretive sites and literature on recognition and value of protecting biological soil crusts at major access points in areas of extensive or unique crust formation.
- A current inventory, monitoring, and maintenance plan for all trails, facilities and other surface disturbing uses should be maintained. Monitoring methods such as Extreme Close range Photogrammetry should be used to continue to improve the knowledge base of erosion processes over time on Mancos shale landscapes.
- The following topographic factors should be considered when locating trails on Mancos shale landscapes.

- Soil surface disturbance should be avoided on steep northerly aspects, as vegetation cover and biological soil crust provide a relatively high level of protection against erosion.
- Steep southerly aspects exhibit the highest rates of natural erosion due to the lack of vegetation and biological soil crust cover, and if disturbed would be expected to show the lowest increase in erosion compared to similar slopes on other aspects.
- Where possible, on steeper slopes trails should be located on areas that exhibit divergent flow such as ridges and drainage divides.
- Alluvial valley soils receive and temporarily store sediment, salinity, and selenium from steeper slopes. Since southerly aspects typically produce the highest rates of these constituents, disturbing alluvial valley soils receiving runoff from steep southerly aspects should be avoided if possible.
- To facilitate adequate drainage and minimize erosion from trail development, the following design feature should be considered:
 - Use cross slope and avoid flat ground whenever possible. The trail tread should generally be aligned perpendicular to the cross slope and should utilize frequent grade reversals. This is the best way to keep water off the trail. However, outsloped tread is not always practicable or desirable to meet recreation experience objectives so the use of curvilinear design principles to create a trail that follows the natural contours of the topography, sheds water, blends in with the surrounding terrain would be another option.
 - The Half Rule: “A trail’s grade shouldn’t exceed half the grade of the hillside or side slope (cross slope) that the trail traverses. If the grade does exceed half the side slope, it’s considered a fall-line trail. Water will flow down a fall-line trail rather than run across it. For example, if you’re building across a hillside with a (cross slope) of 20 percent, the trail-tread grade should not exceed 10 percent.”
 - The Ten Percent Average Guideline: The average trail grade over the length of the trail should be 10 percent or less for greatest sustainability. Short sections of the trail may exceed this, but the overall grade should remain at 10 percent or less.
 - Grade Reversals: Frequent changes in the direction of tread grade (gentle up and down undulations) will ensure that water is forced off the trail at frequent intervals.
 - Drainage crossings are key control points and should be selected carefully. Consider both the trail’s impact on the drainage (erosion and sedimentation), and the drainage’s impact on the trail (changing tread surface, water channeling onto trail). The trail should descend into and climb out of the drainage to prevent water from flowing down the trail. Avoid long or steep entries into drainages. Design grade reversals into the trail on each side of the

approach to minimize water and sediment entering from the trail. Look for drainage crossings on rock.

Miscellaneous BMPs

- BLM and permitted water facilities should be constructed to be impervious to prevent percolation into underlying Mancos shale. This includes ponds, ditches, and canals. These facilities could be lined with an impervious material, piped, or possibly treated with polyacrylamide sealant. The following are a list of criteria that should be considered for pond developments: (Report 9. Gunnison Basin Selenium Task Force)
 - Ponds that are “perched” or elevated above the water table and supplied with irrigation water or intermittent stream flow become new sources of groundwater deep percolation and selenium and salt loading.
 - Ponds which have long intermittent dry periods commonly form cracks (shrinking of the clay component) that take a long time to seal during refilling, which can accelerate the selenium and salt yield.
 - Ponds that are located close to or in fractured Mancos shale have higher leakage rates and are sources of selenium and salt loading.
 - Ponds located in existing wetlands (i.e., non-perched ponds) generally do not contribute additional water to deep percolation, the groundwater system and selenium and salt loading.
 - Although non-perched ponds do not contribute to selenium loading, if they are located in Mancos shale derived soils, they likely intercept groundwater elevated in selenium and can be new sources of exposure for wildlife.
- The following is a list of Mancos shale soil characteristics, from worst to best, to consider when selecting a site for pond or other water facility construction (for Mancos shale soils receiving less than 16 inches of annual precipitation):
 - Mancos shale soils that are previously non-irrigated and are residual (less than 60 inches to shale bedrock) and are perched above existing ground water tables.
 - Mancos shale soils that are previously non-irrigated and are alluvial (greater than 60 inches to shale bedrock) and are perched above existing ground water tables.
 - Mancos shale soils that are previously irrigated and are residual and are perched above the existing ground water tables.
 - Mancos shale soils that are previously irrigated that are alluvial, and are perched above existing ground water tables.
 - Ponds that are located in Mancos shale soils that are constructed within existing ground water tables.

- Note: any soils not derived from the Mancos shale but are underlain by Mancos shale in relative close proximity to the soils surface, have similar ranking potentials to selenium loading as the Mancos soils listed above.
 - All other soils not derived from or underlain by Mancos shale.
- All realty actions and permits/ROWs should be carefully reviewed for both salinity/selenium implications, and mitigate if necessary.

Water

Roads

- Design roads for minimal disruption of natural drainage patterns.
- Provide energy dissipaters (e.g., rock piles and logs) where necessary at the downstream end of ditch relief culverts to reduce the erosion energy of the emerging water.
- Drainage structures should not be discharged onto erodible soils or fill slopes without outfall protection.
- Avoid using roads during wet periods if use will damage the road drainage features.
- Grade road surfaces only as often as necessary to maintain a stable running surface and to retain the original surface drainage.
- Avoid cutting the toe of cut slopes when grading roads or pulling ditches.
- Provide for erosion-resistant surface drainage by adding necessary drainage facilities and armoring prior to fall rain or snow. When erosion is anticipated, sediment barriers shall be constructed to slow runoff, allow deposition of sediment, and prevent sediment from leaving the site. In addition, straining or filtration mechanisms may also contribute to sediment removal from runoff.
- The operator shall institute measures such as surfacing, watering, and use of non-saline dust suppressants on all roads authorized in this project to minimize impacts from fugitive dust emissions. The use of chemical dust suppressants on public surface will require prior approval from the BLM Authorized Officer.
- Avoid grading sections of road that do not need maintenance, as this elevates sediment production from the newly disturbed surface. Raise the blade where grading is not needed.
- Remove berms from the outside edge of roads where runoff is channeled.
- Leave abandoned roads in a condition that provides adequate drainage without further maintenance. Close these roads to traffic, reseed and/or scarify, and, if necessary, re-contour and provide cross ditches or drain dips.

Oil and Gas

- To reduce potential for contaminating water resources where spills of drilling fluids are most vulnerable (e.g., near areas of mapped alluvial, colluvial, and glacial deposits,

near springs and perennial water sources, and locally/regionally important groundwater recharge areas) the operator will use:

- Closed Loop Drilling Systems.
 - Flowback and stimulation fluids should be contained in tanks on well pads with secondary containment mats/blankets (or equivalent).
 - Containment devices should be installed beneath and around crude oil, condensate and produced water storage tanks.
 - Collection of surface and ground water quality data (pre, during and post) surface disturbing activities.
 - Notification of potentially impacted Public Water Systems 15 miles downstream.
 - Emergency spill and response program shall be developed, reviewed, and approved by BLM prior to surface-disturbing activities.
 - Chemicals used in the fracturing process should be biodegradable, non-toxic neutral pH, residual free, non-corrosive, non-polluting and non-hazardous in the forms and concentrations being used. The operator should review the material safety data sheets to assure the chemicals are not known carcinogens in the methods or concentrations being used.
- Avoid mixing or loading any chemicals near a well, spring, cistern, sinkhole, or stream.
 - Place all excess material removed by maintenance operations in safe disposal sites and stabilize these sites to prevent erosion. Avoid locations where erosion will carry materials into a stream.
 - The operator should utilize surface containment mats/blankets (or comparable) to prevent contamination of water resources occurring from accidental spills or leaks of fuels, coolants, lubricants, drilling fluids, fracturing fluids, or other potentially hazardous materials commonly utilized at drill sites.
 - Evaporation ponds should not be used for disposing of produced water.
 - Water from well production tests (water wells) or hydrostatic testing of pipelines should be filtered of sediments prior to discharge into wetlands. Energy dissipating methods (e.g., straw-bails, waddles, vegetative buffers) should be in place prior to discharge of production water or water used for hydrostatic testing.
 - Surface disturbing actions including well construction for fluid mineral development and storage of condensate and/or waste products associated with mineral development should not impair existing beneficial uses for groundwater supply wells. When potential foreseeable degradation of existing beneficial uses may occur, development and storage should be relocated in appropriate locations downgradient of these intake points (e.g., well head) or not permitted.

Stream Crossings

- Cross stream channels at right angles if at all possible.
- Concentrate right-of-way actions adjacent to stream courses as far landward as safety allows.
- Remove all temporary stream crossings immediately after use and cross ditch the ends of skid trails/two tracks/rights-of-way to mitigate erosion from disturbed areas.
- Evaluate potential effects of stream crossings/channel work on existing structures such as culverts, bridges, buried cables, pipelines, and irrigation flumes prior to construction activities to identify and mitigate unforeseen impacts.
- Design and construct stream crossings that handle the 100-year flood, and consider culvert and bridge designs that facilitate aquatic life passage.
- Low water crossings should be constructed at original streambed elevation in a manner that prevents any blockage or restriction of the existing channel. Material removed will be stockpiled for use in reclamation of the crossings.

General

- Avoid alteration of natural hydrologic function and condition in source areas for springs, seeps, and fens. Relocate surface-disturbing activities away from these sensitive areas as site conditions warrant.
- Restore modified or damaged streams as close as practicable to natural conditions using bioengineering techniques to protect banks, and to re-establish riparian vegetation.
- Maintain to the greatest extent practicable natural flow rates and chemical and physical properties of surface and groundwater during work within stream channels, floodplains, and/or riparian areas.
- Maintain appropriate vegetative/riparian buffers around water bodies to slow runoff and trap sediments and protect water quality.

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VEGETATION

General and Upland

- Review and refine vegetation and ecological site maps and models periodically through incorporation into the Land Health Assessment process.
- Incorporate information from ecological site models into seed mixes, revegetation BMPs, and the establishment of specific performance criteria.
- Incorporate climate change influences into development of seed mixes.
- Review and update standard seed mixes periodically.
- Establish performance criteria for revegetation that restore or improve upon preexisting levels of land health.
- Review and revise coordinated monitoring plan periodically.
- Promote and protect vegetation types with high carbon sequestration levels where consistent with vegetation health and mosaic objectives.
- Limit authorized use levels and activities where needed to allow vegetation to recover from fire, drought, disease and insect outbreaks
- Incorporate strategies in grazing plans which manage fuel build up to enhance natural fire use.
- Defer vegetation disturbing activities during severe or extreme drought to allow for vegetation recovery.
- On a landscape scale, maintain a diversity of age classes. Any 100 square mile patch of pinyon-juniper should encompass the full range of seral stages. Preferentially achieve diversity by actions in younger age classes rather than reductions of older stands.
- To benefit species sensitive to habitat fragmentation, maintain unroaded stands or patches no less than 1.2 square miles in size.
- Maintain connectivity between stands of pinyon-juniper, sagebrush, and ponderosa pine by preserving corridors of similar vegetation.
- In woodland thinning or harvest, retain at least some beetle-killed pinyons, large trees (trunk diameter greater than 12 inches), trees with twisted trunks, standing

dead trees (at least 2 per acre), partially dead trees (at least 2 per acre), large downed trees (at least 2 per acre), trees with cavities, and trees with significant mistletoe infestations (at least 2 per acre).

- Reclaim unused or undesired roadbeds in pinyon-juniper woodland, salt desert shrub, and ponderosa pine.
- After wildfire or intensive disturbance, priority should be in seeding with native grasses and forbs. Avoid seeding with monocultures or non-native grasses and forbs. Reseed with local genetic seed stock if available, or use non-native herbaceous species that do not compete well with native species.
- Place high requirements for justifying creation or retention of roads (or other linear features that fragment the habitat) in sagebrush. Reclaim unused or undesired roadbeds in sagebrush land cover types.
- If management prescriptions require reduction of pinyon-juniper (to control encroachment on sagebrush), focus reduction treatments where the largest patches of sagebrush would most quickly result (pinyon-juniper stands younger than 75 years on relatively deep, level soils, with sagebrush nearby).
- Prevent the loss of native understory in greasewood and other tall desert shrub.
- Post-fire rehabilitation should involve reseeding with some warm season native grasses (e.g., galleta).
- Weed management should place high priority on preventing the entrance of new flammable species such as medusahead.
- To the extent possible, move proposed land transforming projects or proposed road alignments out of large ponderosa pine tracts (greater than 150 acres).
- Retain some slash onsite for dead-and-down-wood insect habitat, if it can be justified considering forest pathologies.
- Retain and enhance ponderosa pine old growth characteristics (Reynolds et al 1992): clumpy nature, at least two large (greater than or equal to 18 inches diameter breast height, 30 feet tall) snags or large green snag per acre, at least 3 large (12 inch diameter mid-point, 8 feet long) downed logs per acre, a minimum of 3-5 mature and old live trees per acre in groups or stringers with interlocking crowns.
- Manage ponderosa pine for a mosaic of vegetation structural stages interspersed throughout (majority [60 percent] should ultimately be in the older age [i.e., greater than 12 inches diameter breast height]) with 30 percent in trees greater than 18 inches diameter breast height.

References

Reynolds, R.T., R.T. Graham, M.H. Reiser, R.L. Bassett, P.L. Kennedy, D.A. Boyce Jr., G. Goodwin, R. Smith, and E.L. Fisher. 1992. Management Recommendations for the Northern Goshawk in the Southwestern United States. USDA Forest Service General Technical Report RM-217:90 pp.

Riparian

- Trails and roads will be kept out of riparian areas wherever possible. Where this is not possible, impacts must be minimized by using soil stabilization structures, restoring damaged vegetation, and placing in least impacting areas. Buffer riparian and wetland areas amply from road and trail placement and other activities.
- Management actions within wetlands will include measures to restore their natural functions (as required by Executive Orders 11988 and 11990).
- Minimize livestock grazing and trailing impacts in riparian areas to protect vegetation, habitat values, streambank stability, and water quality.

Weeds

- Where possible, apply Colorado list A and B species, weed-free gravel/sand/road base on BLM-administered lands.
- Survey proposed project area prior to ground-disturbing activities to determine if weeds need to be addressed prior to construction.
- Pre-treat weeds in proposed project area prior to construction.
- Keep all banked topsoil in a weed free status.
- All construction vehicles and machinery should be free of debris and weed seeds before entering BLM lands including access roads into BLM lands.
- If construction site has weeds/weed seed, all construction machinery will be cleaned prior to leaving the construction site.
- If weeds are located within the project area construction should occur in the area with the least amount of weeds first progressing to areas of heavier infestation.
- Only one exit route should be used from weed-infested areas, and the route clearly marked (flagged and GPS) for follow up and future treatment.
- All ground disturbing activities will incorporate Early Detection Rapid Response strategies to address weeds before they become established.
- All special recreation events should have a weed education/mitigation component.
- Company vehicles entering and leaving project areas where weeds are present should be power washed prior to exiting the project. All long-term projects will have a noxious weed monitoring and treatment plan before construction begins.
- Check and clean tires and skid pans for noxious weed debris.
- Check companion animals before and after using public lands; clean appropriately.
- Avoid staging in weedy areas.
- Use weed free hay and straw as directed by policy.
- Seed all ground disturbance around a project to reduce the spread of noxious weeds and create a favorable environment for native vegetation.

- During road maintenance, weed infestations along roadways should be skipped over, to reduce the threat of spreading weeds along the roadway.
- Monitor for noxious weed establishment after projects are finished and for at least three growing seasons post project.
- Do not pick the wildflowers.
- Educate yourself and employees on noxious weed identification.

WILDLIFE (INCLUDING SPECIAL STATUS SPECIES)

- Expiration dates and other conditions will be applied to all biological clearances (e.g., raptor territory activity surveys expire April 1 of the following year).
- Require operators to establish and submit to the BLM UFO a set of operating procedures for employees and contractors working in important wildlife habitats. Design such procedures to inform employees and contractors of ways to minimize the effect of their presence on fish and wildlife and habitats. Procedures may address items such as working in bear country, controlling dogs, human waste disposal, and understanding and abiding by hunting, fishing, and firearms regulations.
- Surveys will be conducted by qualified biologists approved by the BLM UFO.
- Surveys will be conducted during the appropriate time period(s) for the species of interest and will typically be conducted as close in time as possible prior to surface disturbance.
- Survey reports, data, and determinations shall be submitted to the BLM UFO for review and confirmation.
- The BLM Authorized Officer will apply mitigation measures as appropriate, commensurate with anticipated impacts.

WILDLIFE

Aquatic

- Management techniques will be used to minimize degradation of aquatic habitats. Bridges and culvert installations will be designed to maintain adequate passages for fish.
- Bridges, low-water crossings, culverts, diversions, and other man-made structures in or adjacent to, aquatic habitats will be designed such that they provide for fish movement commensurate with management objectives. These structures should not impede movement of fish or, where appropriate, should create barriers to movement of nonnative fish, depending on management objectives. Additionally, they will be constructed and designed to minimize or eliminate sediment loading, erosion, and other processes that could degrade habitats, particularly in cold-water fisheries. Where possible, modify existing bridges, culverts, and similar structures to provide for movement of native fish or create barriers to nonnative fish movement commensurate with management objectives.

- All equipment and water craft utilized for working or transportation in aquatic systems shall be cleaned and inspected by the BLM Authorized Officer prior to conducting permitted activities, to prevent the introduction of invasive aquatic species.

Terrestrial

- Where winter range areas are not protected by lease stipulations, operations such as construction, drilling, completion, work-overs and other intensive activities will be avoided from January 1 to March 1 to minimize impacts to wintering big game.
- In all habitat improvements and manipulations, and maintenance of those areas, including projects designed to improve livestock grazing, reduce fuel loading, or otherwise, consider the habitat requirements of native wildlife communities, game and non-game alike, and acknowledge the ecological tradeoffs.
- During severe or extreme drought years, to the extent possible, assure that some pastures retain the maximum herb cover (even standing dead material) possible for ground-nesting birds.

Migratory Birds

- To protect areas from anthropogenic fires (e.g., campfire or fireworks accidents), periodically move large woody downfall away from trees near popular campsites and tree stands along railroad tracks.
- Investigate the economic value for the waterfowl, waterbirds, shorebirds and land birds that would use stock ponds and reservoirs if their dams were restored, such as Roatcap Reservoir, west of Olathe. This may help to create a positive cost-benefit ratio for the pond restoration.
- Buffer riparian and wetland areas amply from road and trail placement and other activities.
- Give high-priority to removal of tamarisk and other noxious weeds under native riparian trees.
- Consider planting riparian plant fire breaks (e.g., alkali sacaton) in high recreation use areas or near other likely sources of ignition.
- Use current state-of-the art practices to preserve high-quality or selected willow stands from intensive ungulate pressure (e.g., exclosures, seasonal closures, and game regulations).
- Implement fuels treatments to protect riparian areas from anthropogenic fires (e.g., campfire or fireworks accidents), periodically move large woody downfall away from trees near popular campsites and tree stands along railroad tracks.
- For the benefit of riparian shrub-dependent bird species, place at lowest priority eradication of tamarisk stands with the largest basal stems (bird nesting habitat) while there are younger tamarisk stands to treat.
- In areas of riparian weed treatment, replace removed tamarisk with native shrubs such as three-leaf sumac, golden currant, and silver buffaloberry. Also consider

planting small native trees such as box elder and Goodding's or peachleaf willows. If needed, seed with native herbaceous ground cover.

- Before implementing a tamarisk removal project, survey for long-eared owls during breeding and winter roosting seasons. If use by long-eared owls is detected, delay treatment until suitable native tall shrubs nearby can replace the habitat.
- To help control user-proliferated vehicle routes, combine directional signage with wildlife message signing, giving users added incentive to protect their lands.
- All power transmission equipment will incorporate the best known practices to prevent avian electrocutions (Avian Power Line Interaction Committee 2006).
- Encourage buried electric transmission lines over pole and tower held lines through non-wooded and non-forested habitat.
- All new construction of communication towers, wind turbines, or similar aerial hazards, will incorporate the best known practices for approving sites and designs to minimize hazards to migratory birds (Lambeth and Reeder 2009).

References

Lambeth, R.E. and D.R. Reeder. 2009. Migratory Bird Status Literature Review. Prepared by Rare Earth Science, LLC, for the BLM, Uncompahgre Field Office, Montrose, CO. 198 p.

Avian Power Line Interaction Committee. 2006. Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 1996. Edison Electric Institute, Avian Power Line Interaction Committee, and the California Energy Commission. Washington, DC, and Sacramento, CA.

SPECIAL STATUS SPECIES

General

- The operator is required to conduct a biological inventory prior to approval of operations in areas of known or suspected habitat of special status species, or habitat of other species of interest such as, but not limited to, raptor nests, sage-grouse leks, or rare plant communities. Surveys shall be conducted by qualified biologist(s) using protocols established for potentially affected species during the appropriate time period(s) for the species. Survey reports, data, and determinations shall be submitted to the BLM for review and confirmation. Results from surveys expire three (3) years from the date of survey completion. Operators, the BLM, and the BLM Authorized Officer will use the information gathered to develop an appropriate mitigation plan. Mitigating measures may include, but are not limited to, relocation of development activities and fencing operations or habitat. If special status species not found during inventory are encountered during operation, operations will cease immediately, and the BLM Authorized Officer will be notified.
- When "no effect" determinations (resulting from Endangered Species Act, Section 7 consultation with USFWS) rely heavily on specific project design features or mitigation to guarantee "no effect" on federally protected species, a qualified on-site construction monitor will be present during project implementation.

- Require oil and gas operators and other proponents of surface-disturbing activities to implement specific measures to reduce impacts of operations on wildlife and fish habitats within high-value or crucial habitats. Measures would be determined through biological surveys, onsite inspections, effects of previous actions in the area, and BMPs.
- Require operators to establish and submit to the BLM UFO a set of operating procedures for employees and contractors working in important wildlife habitats.
- Surveys will be conducted by qualified biologists approved by the BLM UFO during the appropriate time period(s) for the species of interest and will typically be conducted as close in time as possible prior to surface disturbance.
- Survey reports, data, and determinations shall be submitted to the BLM UFO for review and confirmation.

Plants

- Apply the Recommended Best Management Practices for Plants of Concern (Elliott et al. 2011) to minimize land use impacts on federally protected and recognized plants.
- Appropriate sediment and erosion control, weed control, and similar practices will be applied as necessary to protect plant populations.

Aquatic

- Identify in-channel features (e.g., culverts, water diversion structures) that block aquatic organism movement and/or impair stream connectivity and replace, modify, or remove these impediments as they are identified and as opportunities allow. Consider and address aquatic organism passage and appropriate life-stage requirements when designing new or modifying existing stream crossings.
- Where construction of in-channel barriers will benefit aquatic species by limiting access from competitive species and/or disease vectors, consider barriers as a management tool on a site-specific basis.

Terrestrial

- Follow the Primary Constituent Elements in the Designation of Critical Habitat for Gunnison Sage-Grouse (79 *Federal Register* 224:69312) to achieve good habitat potential near and in mapped grouse range.
- For the benefit of sagebrush-dependent passerine birds, avoid sagebrush eradication and treatment projects that reduce sagebrush canopy cover in a patch to below 20 percent on average.
- If management prescriptions require thinning of sagebrush canopy, protect several of the taller shrubs in each stand, and protect native herbaceous understories by selective removal of shrubs (rather than wholesale removal). Minimize ground disturbance, justifying it only to facilitate planted seed contact with soil.
- Using currently accepted methods (e.g., Stiver et al. 2005), inventory sagebrush habitat characteristics and quality across the Uncompahgre RMP planning area (to

develop a baseline for future comparison). Identify the best examples of intact contiguous patches with native understory vegetation, and prioritize such patches for protection from weed encroachment and fragmentation.

- On the landscape scale, prioritize protection of large (greater than 150 acres) intact patches of sagebrush from fragmentation, conversion to other land cover types, wildfire, herbaceous non-native weed invasion and pinyon-juniper woodland encroachment. First priority should be given to sagebrush in mapped sage sparrow range, and within and adjacent to mapped Gunnison sage-grouse range.
- In lynx habitat, remote monitoring systems shall be established as feasible for developed sites that occur within these habitat types or which require travel through these habitat types for access. This stipulation applies to both BLM surface and subsurface mineral estate. Locked gates will be installed at proper locations to prevent public use. The BLM will work with operators to modify existing operations for remote monitoring, to the degree possible.
- Gate and close to public use roads built for mineral activities in lynx habitat within lynx analysis units.
- Upon project completion, reclaim or obliterate these roads and monitor for successful restoration and weed control. Locked gates or other effective barricades will remain in place until restoration is achieved.
- Apply project design criteria as feasible to protect Gunnison sage-grouse nesting and early brood rearing activities by requiring that hospital grade sound reducing mufflers, exhaust systems, multi-cylinder pumps, and other noise-reducing technologies be used during the breeding period (March 1 to June 15) within 4 miles of active leks, or within sage-grouse nesting and early brood-rearing habitat as mapped (Patricelli et al. 2013).
- Where bat roosting, maternity sites and winter hibernacula occur, bat gates would be required for closing abandoned mine lands.

References

- Elliott, B. A., B. Kurzel, and S. Spackman Panjabi. 2011. Recommended Best Management Practices for Plants of Concern. Practices developed to reduce the impacts of oil and gas development activities to plants of concern. Unpublished report prepared by the Rare Plant Conservation Initiative for the National Fish and Wildlife Foundation. 20 p.
- Patricelli, G.L., J.L. Blickley, and S.E. Hooper. 2013. "Recommended management strategies to limit anthropogenic noise impacts on greater sage-grouse in Wyoming." *Human-Wildlife Interactions* 7 (2):230-249.
- Stiver, S.J., E.T. Rinkes, D.E. Naugle, P.D. Makela, D.A. Nance, and J.W. Karl. 2015. Sage-grouse habitat assessment framework: A multiscale assessment tool. Edited by Bureau of Land Management and Western Association of Fish and Wildlife Agencies. Denver, CO.

USFWS (United States Department of the Interior, Fish and Wildlife Service). 2014. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Gunnison Sage-Grouse; Final Rule. In 50 CFR Part 17. 79 Federal Register 224: 69312.

WILDLAND FIRE MANAGEMENT

- Rehabilitate suppression impacts as soon after fire containment as possible (such as water barring, removing berms, seeding disturbed areas, placing debris on lines).

Fuels Management

- Provide fire prevention and mitigation outreach information and education to communities within the UFO as needed.

Fire Suppression

- Resource Advisors and other applicable specialists shall be utilized to advise the Incident Commander and suppression resources on the natural resource values during the suppression effort.
- Avoid applying fire retardant in or near drinking water sources.
- Avoid the application of retardant or foam within 300 feet of a waterway or stream channel. Deviations from this procedure are acceptable if life or property is threatened.
- Fire lines will not be constructed by heavy equipment within riparian stream zones. If construction is necessary due to threats to life or property, control lines shall terminate at the edge of the riparian zone at a location determined appropriate to meet fire suppression objectives based on fire behavior, vegetation/fuel types, and fire fighter safety. Constructed lines shall be reclaimed so use does not continue on the route in the future.
- For streams currently occupied by Greenback Cutthroat Trout, Colorado River Cutthroat Trout or other aquatic special status species, extractions of water from ponds or pools shall not be allowed if stream inflow is minimal and extraction of water will lower the existing pond or pool level.
- Lands will be temporarily closed to other uses in areas where fire suppression is being implemented.
- Stream flow shall not be impounded or diverted by mechanical means in order to facilitate extraction of water from the stream for fire suppression efforts.
- If it is determined that use of retardant or surfactant foam within 300 feet of a waterway or stream channel is appropriate due to threats to life or property; alternative line construction tactics are not feasible because of terrain constraints, congested areas, or lack of ground personnel; or potential damage to natural resources outweighs possible loss of aquatic life, the unit administrator shall determine whether there have been any adverse effects to federally listed species. If the action agency determines that adverse effects were incurred by federally listed species or their habitats, then the action agency must consult with the Service, as required by 50 CFR 402.05, as soon as practicable.

- Avoid whenever possible burning out unburned islands of native vegetation, specifically sagebrush communities.
- Minimize/mitigate impacts to cultural resources and pristine vegetative communities.
- Before using it on lands administered by the UFO, thoroughly rinse to remove mud and debris from all fire suppression equipment from off-district or out of state and used to extract water from lakes, ponds, streams, or spring sources. Examples of this equipment are helicopter buckets, draft hoses, and screens. After cleaning the equipment, disinfect it to prevent the spread of invasive aquatic species. Do not rinse equipment with disinfectant solutions within 100 feet of natural water sources. UFO suppression equipment used to extract water from sources known to be contaminated with invasive aquatic species, as identified by the US Fish and Wildlife Service and Colorado Parks and Wildlife, also shall be disinfected beforehand on lands administered by the UFO.
- Vehicle and equipment shall be washed before being assigned to fires to minimize the spread of noxious weeds. Especially out of area equipment. Larger fires with incident management teams assigned may need to have a weed wash station.

Emergency Stabilization and Rehabilitation

- Stabilize areas that have low potential to naturally revegetate and that have high wind and soil erosion potential. Treatments include the following:
 - Seeding and planting to provide vegetative cover;
 - Spreading mulch to protect bare soil and discourage runoff;
 - Repairing damaged roads and drainage facilities;
 - Clearing stream channels of structures or debris that is deposited by suppression activities;
 - Installation of erosion control structures;
 - Installation of channel stabilization structures;
 - Fence or restrict areas to livestock and wild horse and burro grazing to promote success of natural revegetation or establishment of seeded species;
 - Lands may be temporarily closed to other uses during emergency stabilization and rehabilitation practices if activities inhibit treatment;
 - Repair or replace range improvements and facilities; and
 - Monitor emergency stabilization and rehabilitation treatments.

CULTURAL RESOURCES

Standard Operating Procedures

- The holder of a BLM authorization to carry out land use activities on Federal lands, including all leases and permits, must notify the BLM, by telephone and written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony (43 Code of Federal Regulations

[CFR] 10.4(g)). Activities must stop in the immediate vicinity of the discovery. The discovery must be protected from the authorized activity for a period of 30 days or unless otherwise notified by the (43 CFR 10.4(c) and (d)).

- The National Historic Preservation Act, as amended, requires that if newly discovered historic or archaeological materials or other cultural resources are identified during project implementation, work in that area must stop and the BLM Authorized Officer must be notified immediately. Within five working days the BLM Authorized Officer will inform the proponent as to:
- Whether the materials appear eligible for the National Register of Historic Places;
- The mitigation measures the proponent will likely have to undertake before the site could be used (assuming in situ preservation is not practicable), (36 CFR 800.13); and
- A timeframe for the BLM Authorized Officer to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Office, that the BLM Authorized Officer's findings were correct and mitigation was appropriate.
- A standard Education/Discovery stipulation for cultural resource protection shall be attached to the land use authorization. The operator or its contractor is responsible for informing all persons who are associated with the project operations that Federal laws protect cultural resources and they will be subject to prosecution for disturbing or destroying any historic or archaeological sites, or collecting any cultural objects, prehistoric or historic from federal lands.
- Strict adherence to the confidentiality of information concerning the nature and location of archeological resources will be required of any company issued a land use authorization and all of their subcontractors (Section 304 of the National Historic Preservation Act, 16 US Code 470w-3(a)).

Best Management Practices

- BLM specialists shall complete a File Search Request form and submit to the Field Office Archaeologist as soon as there is proposed BLM activity or BLM authorized activity that will require preparation of a NEPA document. This will provide the specialist with immediate information as to the need for Class III inventory, whether that will be contracted or in-house, or the presence of Cultural Resources that may preclude or impede their project.
- Once it has been determined that a project will require contracted cultural inventory the BLM specialists shall complete a Request for CR Compliance form and submit to the Field Office Archaeologist as soon as they have a final design for a BLM proposed project or activity.
- Evaluation of all BLM activities and BLM authorized activities shall be made in compliance with BLM Manual 8100, The Foundations for Managing Cultural Resources (BLM 2004a), and subsequent 8100 series (BLM 2004b, 2004c, 2004d, 2004e, and 2004f); Manual 1780, Tribal Relations (BLM 2016a); BLM Handbook 1780-1, Improving and Sustaining BLM–Tribal Relations (BLM 2016b); Handbook of

Guidelines and Procedures for Inventory, Evaluation, and Mitigation of Cultural Resources (BLM 1998, rev. 2011); and the current State Protocol Agreement between the Colorado BLM and the Colorado State Historic Preservation Office.

- In complex linear or split-estate actions early coordination with private landowners will facilitate the process the BLM must complete prior to authorizing the action. To comply with the National Historic Preservation Act, the BLM must consider the effects to cultural resources on private land that result from a Federal action, such as linear rights-of-way or constructing a well pad on private land to drill to federal lease. Before an applicant can contract a cultural survey, the private surface owner must allow the cultural consultant access. Projects can be authorized without completing cultural surveys on private lands but this may lead to lengthy delays while the BLM completes consultation.
- When possible, locate projects in areas that are previously disturbed. To comply with the National Historic Preservation Act the BLM must identify significant cultural resources. Under the current regulations and guidelines the BLM may decide that no inventory needs to be conducted because the proposed action is located in an environment where ground disturbance has modified the surface so extensively that the likelihood of finding intact cultural resources is negligible.
- When a NEPA document specifically stipulates the need for an archaeological monitor during construction or a project is located in areas that require an archaeological monitor to be present it is the applicant's responsibility to contract an archaeological consultant holding a current Colorado BLM permit and authorized to work in the UFO. Fieldwork authorizations are required prior to any construction monitoring.
- Where proposed projects or development will adversely affect a cultural resource, testing, data recovery or full excavation to recover scientific information may be required as mitigation. The applicant or operator bears the full cost of mitigation and is encouraged to consider avoiding adverse effects through project relocation or redesign rather than mitigating adverse effects.
- A cultural resource must be allocated to public use prior to:
 - authorizing or implementing any Heritage Tourism project;
 - when Special Recreation Permits are issued that will use a cultural resource;
 - or
 - a BLM recreation project is proposed that involves the use or interpretation of a cultural resource.
- A File Search Request form must be submitted to the Field Office Archaeologist identifying the site and the proposed use so the allocation to public use can be confirmed.

References

- BLM (United States Department of the Interior, Bureau of Land Management). 1998. Handbook of Guidelines and Procedures for Inventory, Evaluation, and Mitigation of Cultural Resources. Rev. 2011. BLM, Colorado State Office, Lakewood, CO. 37 p.
- _____. 2004a. Manual 8100: The Foundations for Managing Cultural Resources. Release 8-72. BLM, Washington, DC. December 3, 2004.
- _____. 2004b. Manual 8110: Identifying and Evaluating Cultural Resources. 8-73. BLM, Washington, DC. December 3, 2004.
- _____. 2004c. Manual 8130: Planning for Uses of Cultural Resources. 8-76. BLM, Washington, DC. December 3, 2004.
- _____. 2004d. Manual 8140: Protecting Cultural Resources. 8-77. BLM, Washington, DC. December 3, 2004.
- _____. 2004e. Manual 8150: Permitting Uses of Cultural Resources. 8-78. BLM, Washington, DC. December 3, 2004.
- _____. 2004f. Manual 8170: Interpreting Cultural Resources for the Public. 8-79. BLM, Washington, DC. December 3, 2004.
- _____. 2016a. Manual 1780—Tribal Relations. Rel. 1-1780. BLM, Washington, DC. December 15, 2016.
- _____. 2016b. Handbook 1780-1—Improving and Sustaining BLM—Tribal Relations. Rel. 1-1781. BLM, Washington, DC. December 15, 2016.

TRIBAL CONSULTATION

Standard Operating Procedures

- The BLM has a responsibility to develop a government-to-government relationship with the tribes: the formal relationship that exists between the Federal Government and tribal governments under United States laws. Tribal governments are considered dependent domestic sovereignties with primary and independent jurisdiction (in most cases) over tribal lands. Concerning proposed BLM plans and actions, at least the level of consideration and consistency review provided to State governments must be afforded to tribal governments.
- The BLM consults with tribes in accordance with laws, executive order, and regulations, including FLPMA, NEPA, Executive Order 13007, BLM Manual 1780 – Tribal Relations [BLM 2016a], and 40 CFR 1501.2 and 1501.7.
- Tribes must be consulted whenever other governmental entities or the public are formally involved in the BLM’s environmental review process in any NEPA documentation that entails public involvement or initial discussions with local or

state governments (BLM Handbook H-1790-I, National Environmental Policy Act [BLM 2008]).

- NHPA Section 106 consultations for cultural resources that are significant to Indian tribes. Consultation with an Indian tribe must recognize the government-to-government relationship between the Federal Government and Indian tribes. The agency official shall consult with representatives designated or identified by the tribal government. Consultation shall be conducted in a manner sensitive to the concerns and needs of the Indian tribe. (36 CFR 800.2(c)(2)(ii)(C).

Best Management Practices

- Notification is conducted by simple one-way written means. Consultation is generally construed to mean direct, two-way communication.
- When publishing notices or open letters to the public indicating that the BLM is contemplating an action and that comments are welcome, managers shall send individual letters, certified mail or delivery confirmed to tribes requesting their input on actions being considered. If this is an opening dialogue, prior to having developed a strong working relationship with the tribe, if a timely response is not received the manager shall follow up with personal telephone calls.
- For the benefit of both parties, managers are encouraged to strive for the most efficient and effective method of consultation. Whatever method is chosen, all consultation activities shall be carefully documented in the official record.
- Consultation roles can be facilitated but may not be transferred to others. Cultural resource consulting firms working for land use applicants cannot negotiate, make commitments, or otherwise give the appearance of exercising the BLM's authority in consultations.
- Owing to their status as self-governing entities, tribes shall be notified and invited to participate at least as soon as (if not earlier than) the Governor, state agencies, local governments, and other federal agencies.
- Tribal consultation means dialogue between a BLM manager and an American Indian Tribe. The BLM managers are encouraged to visit tribal councils and appropriate tribal leaders on a recurring basis. This face-to-face meeting helps to develop relationships that can reduce the time and effort spent in later consultation or individual projects. This government-to-government consultation shall be treated with appropriate respect and dignity of position.

References

BLM (United States Department of the Interior, Bureau of Land Management). 2008. Handbook H-1790-I: National Environmental Policy Act Handbook. Rel. I-1710, January 30, 2008. BLM, Washington, DC.

_____. 2016a. Manual 1780—Tribal Relations. Rel. I-1780. BLM, Washington, DC. December 15, 2016.

_____. 2016b. Handbook 1780-I—Improving and Sustaining BLM–Tribal Relations. Rel. I-1781. BLM, Washington, DC. December 15, 2016.

PALEONTOLOGICAL RESOURCES

- Attach lease notices, stipulations, and other requirements to permitted activities to prevent damage to paleontological resources.

VISUAL RESOURCES

- Guidelines for surface-disturbing activities and facilities:
 - Natural or artificial features such as topography, vegetation, or an artificial berm would be used to help screen facilities.
 - Facilities would avoid being placed on ridge tops.
 - Structures would be painted a color that enables the facilities to blend with the natural background color of the landscape.
 - The selected color would be one or two shades darker than the dominant background color and be a semi-gloss paint to resist weathering and staining.
 - Construction of new roads and other linear facilities would be located and constructed to follow the contour of the landform or mimic lines in the vegetation. (Avoid straight roads and steep slopes).
 - The minimum width of road necessary would be constructed or upgraded.
 - Short-term reclamation would include partially reshaping and re-vegetating roads, and facilities to reduce the amount of bare ground created during construction and project activities.
 - During reclamation, roads would be re-contoured back to their original contour and rough texture so to match the “texture” of the surrounding landscape.
- Developments in the immediate foreground of key observation points in VRM Class I and II areas would require special consideration to meet both recreational and VRM objectives. These facilities often create more contrast than would be acceptable; however, this contrast would be allowed if the facilities are part of the expected image of the public being served. The contrast should be allowed only to the extent needed for the function of the facility, which should reflect design excellence and be a positive element of the built environment. Structures should blend into the landscape while retaining functionality.
- Night lighting and dark sky preservation considerations:
 - Light facilities only during actual hours of operation.
 - Limit night lighting to only those areas within the complex that nighttime work is occurring.
 - Consider the opportunity for zone lighting within a complex where sections are lit independently based on outdoor night operations.

- All lighting fixtures shall be full cut-off luminaires.
 - Pedestrian scale lighting should be accomplished using bollard style path lighting using full cut-off luminaires.
 - Use of trailer-mounted mobile light plants is another way of avoiding unnecessary night lighting. The trailer-mounted mobile light plants are then used only during periods of actual need.
 - Actuate lighting by motion detection, remote control and other creative means so that light illuminate within the exterior areas only during periods when people are present.
 - Entrances into facilities should not be lit continuously through the dark sky hours, but only when vehicles approach and during normal operating hours.
 - Secure facilities using other technologies other than simply illuminating the area or perimeter of a given facility.
 - When illuminating vertical features that rise over 200 feet necessitating FAA regulated air flight safety requirements, require use of On-demand Audio/ Visual Warning Systems as approved by FAA.
- Implement the *Best Management Practices for Reducing Visual Impact of Renewable Energy Facilities on BLM Administered Lands* (BLM 2013), or most recently released version, the “Common to All” section of which is applicable to all aspects of BLM business and land use authorizations.

References

BLM (US Department of the Interior, Bureau of Land Management). 2013. *Best Management Practices for Reducing Visual Impact of Renewable Energy Facilities on BLM Administered Lands – First Edition, 2013*. Internet website: http://blmwyomingvisual.anl.gov/docs/BLM_RenewableEnergyVisualBMPs_LowRes.pdf. BLM, Wyoming State Office, Cheyenne, Wyoming. 342 pp. April.

FORESTRY

Standard Operating Procedures

- No fuel wood cutting of live trees will be allowed for cottonwood, willow, alder; unless resource objectives allow otherwise.

Standard Design Practices for Forestry Projects

- The closure of new roads will be considered and planned for during sale preparation in accordance with existing policy.
- Clear cuts will be considered for use in the pinyon-juniper and aspen types in critical big game winter ranges and other areas where economically feasible.
- Clear cuts will be considered for use in restoring aspen sites.
- Cuts will maximize the length of edge per amount of area considering natural and manmade boundaries.

- Sale areas with less than 15 percent ground cover or with insufficient understory will be seeded using a mixture of native grasses, forbs, and/or shrubs appropriate for the ecological site.
- Harvest plans will be completed on all commercial sales within woodlands and forests, showing access roads, decks and skid trail locations. Approval of these plans by the BLM Authorized Officer is required before harvest can start.
- A minimum 325 foot buffer will be maintained along all riparian areas. Vegetation treatments in riparian areas that are compatible with and promote natural riparian wetland function and improvement will be assessed on a case by case basis.
- Snags with existing cavities or nests will be priority for retention.

Best Management Practices

- Avoid heavy equipment use in riparian stands. If heavy equipment use is necessary, allow on a case by case basis and mitigate for adverse impacts.
- Protect seed and important wildlife habitat trees in pinyon-juniper stands.
- Minimize disturbance to the soil such that surface runoff does not result in sediment transport into waterbodies. Concentrate skidding on as few skid trails as needed.
- Limit primary skid trails to 10 percent of the total working area.
- Avoid widespread or random skidding patterns with repeated passes.
- Minimize placement and use of skid trails in ephemeral drainages. If skid trails must be within or cross an ephemeral drainage, additional BMPs are needed to protect water quality.
- Create skid trails only as wide as necessary to safely operate equipment and conduct the forestry operation. Avoid creating two-lane skid trails. Minimize the extent of gouges or trenches upon the ground surface that are created by the skidding of trees or logs.
- On sloping terrain, skid trails shall follow along the land contours and shall be kept to 25 percent grade or less when practical.
- Establish decks at locations where soil disturbance is minimized.
- Maintain as close to normal (pre-construction) streamflow by maintaining depth, width, gradient and capacity of the stream channel at the crossing.
- Perform construction, installation, and removal work during low-water flow if circumstances allow.
- Stabilize the approach ways and/or stream crossing locations so sediment is not transported into the stream.
- The crossing can be installed at a right-angle (90 degrees) to the stream channel so crossing distance is minimized.
- Any trees removed during these processes will be purchased by the applicant prior to commencement of operations.

- Weed management (inventory and treatment) will occur for a minimum of three years post-harvest.

Guidelines for Christmas Tree and Firewood Harvesting

- Vehicle use is restricted to existing roads and trails.
- Do not damage adjacent trees.
- When cutting down standing trees, cut the stump 6 inches or less, or as close to the ground as possible.
- Do not top a larger tree to obtain a Christmas tree. The tree may be cut at the base 2 and then topped.
- No harvesting when soils are saturated to a depth of 3 inches to prevent damage to roads.
- UFO closed to firewood harvesting December 1 to May 1.

LIVESTOCK GRAZING

- Implement BLM Colorado Guidelines for Livestock Grazing Management (BLM 1997). Guidelines are the management tools, methods, strategies and techniques (e.g., best management practices) designed to maintain or achieve healthy public lands as defined by the BLM Colorado Land Health Standards.
- Utilize “Recommendations on management practices for domestic sheep grazing on public land ranges shared with bighorn sheep”
- Look for opportunities for periodic rest in pastures and use areas during the nesting season (roughly April through July) to protect native cool season understory grasses, and protect ground nests.
- Grazing will be limited to 15 days or less in each pasture or use area during the growing season to prevent grazing of plant re-growth. This limitation may be modified as determined by the BLM Authorized Officer to accommodate the use of other grazing strategies as long as forage health does not decline.
- Grazing will be deferred on new vegetation treatments and rehabilitated burned areas to the extent necessary to comply with BLM Colorado Standards for Public Land Health and Guidelines for Livestock Grazing Management (BLM 1997).
- Seasonal utilization levels on palatable forage species should not exceed 50 percent unless required to meet specific range management objectives as identified in an environmental assessment, allotment management plan, or other activity plan.
- During any time of the year, livestock use shall not exceed an average of 30 percent on native woody vegetation in riparian areas unless required to meet specific range or riparian management objectives as identified in an environmental assessment, allotment management plan, or other activity plan.
- Implement rotational grazing strategies, which would rotate spring and fall grazing use between pastures or use areas to ensure pastures are not used during the same time period in any two consecutive years. Exceptions could be made to

accommodate, but are not limited to, grazing deferments associated with fire stabilization and rehabilitation or vegetation treatments.

- Grazing will be managed in a way that does not encourage the establishment or spread of weeds or other invasive plants and does not conflict with efforts to treat such weeds and invasive plants. In addition, livestock may be used where feasible as a tool to inhibit or stop the spread of noxious weeds. The placement of livestock nutritional supplements should be designed to improve livestock distribution and range management. Supplements must be at least 0.25-mile (or as far as practical) from permanent water sources.
- Develop rotational grazing strategies, incorporating rest, deferment, and/or other grazing methods to improve rangeland health. All developed strategies that are not during dormant periods should ensure livestock grazing does not occur in the same location during the same time period in any two consecutive years.
- The permittee is required to notify the BLM Rangeland Management Specialist prior to any surface-disturbing range project maintenance activity (e.g., fences, stock ponds, and spring developments) in any allotment (standard condition for all BLM allotments).
- Motorized access for livestock grazing operations will be limited to existing roads and routes, unless otherwise specified in the terms and conditions of the permit.
- Where possible, limit deposition of animal waste in and directly adjacent to water bodies, including protecting or repairing any existing exclusions providing additional water developments and developing new range improvements to discourage congregation near municipal water bodies
- Where necessary, enhance monitoring of resource conditions adjacent to municipal water bodies, and assess effectiveness of range improvements in protecting aquatic resources.

References

BLM (US Department of the Interior, Bureau of Land Management). 1997. BLM Standards for Public Land Health and Guidelines for Livestock Grazing Management in Colorado. BLM, Colorado State Office, Lakewood, Colorado. February 3, 1997.

US Animal Health Association Joint Working Group (US Animal Health Association, Committee on Wildlife Diseases and Committee on Sheep and Goats). 2009. Recommendations on best management practices for domestic sheep grazing on public land ranges shared with bighorn sheep. October 2009.

RECREATION AND VISITOR SERVICES

UFO recreation management relies heavily on community partnerships and employs the basic concept of the four E's: Engineering, Education, Enforcement, and Evaluation. Partnerships and the four E's provide an effective recreation management framework. The following SOPs and BMPs are categorized using that framework. The following SOPs and BMPs are arranged to correspond with those four general categories.

Partnerships

- Develop and maintain partnerships with recreation-based organizations and service providers. These partnerships should engage partners in the planning, implementation, and monitoring of recreation opportunities and facilities on BLM-administered lands.
- Administer Extensive Recreation Management Areas (ERMAs) and Special Recreation Management Areas (SRMAs) (and associated Recreation Management Zones [RMZs]) cooperatively through partnership agreements (example memorandum of understanding) between managing partners (e.g., recreation organizations and municipal governments) and the BLM UFO that outline administrative roles and responsibilities.
- Consider administering specific recreation facilities (e.g., campgrounds) cooperatively through partnership agreements with partner organizations or businesses.
- With community partners (local governments, recreation related businesses, clubs, and organizations), utilize community and visitor assessments to determine demand for regional recreation resources and opportunities.
- Develop and maintain partnerships with local and regional municipalities, recreation organizations, businesses, and other community partners to assist in the maintenance and enhancement of recreation routes, signs, facilities, and visitor services that help achieve recreation management objectives. Visitor use fees may be charged to support infrastructure and services (e.g., campgrounds, campsites, trailhead facilities, trail construction and maintenance, trail patrols, emergency medical services, law enforcement, maps, and information).
- Coordinate with adjoining public land management units (i.e., Dominguez-Escalante National Conservation Area, Gunnison Gorge National Conservation Area, BLM Grand Junction Field Office, BLM Moab Field Office, BLM Tres Rios Field Office, BLM Gunnison Field Office, Black Canyon National Park, US Bureau of Reclamation parcels, Colorado Parks and Wildlife parcels, and County and city parcels) to establish consistent recreation management actions.

Recreation Facilities and Trails (Engineering)

- Reroute or close trails that create resource damage and/or trespass on private property.
- For recreation facility development, utilize the BLM Guidelines for a Quality Built Environment manual (BLM 2010).
- Develop and maintain recreation visitor use data monitoring systems to track visitor use trends.
- Work with targeted recreation users and managing partners to protect and enhance targeted recreation opportunities in ERMAs and SRMAs.
- Work with partners (e.g., recreation organizations and municipal governments) to develop connectivity to adjoining urban trails to provide safe access to BLM-

administered lands, alternative transportation options, and improved recreational opportunities.

- In ERMA, avoid management actions that attract or concentrate recreation use at sites of other authorized uses (e.g., camping near stock ponds.)
- In ERMA, locate new recreation facility developments to mitigate recreation impacts on other resource uses and developments.
- In SRMA, locate new developments for other resource uses to mitigate impacts to targeted recreation resources.
- Develop recreation facilities at primary access points that may include, but are not limited to, parking/staging areas that accommodate targeted users, vault toilets, informational kiosks, and shade shelters.
- Work with private landowners and recreationists to avoid trespass issues where public and private lands interface.
- Work with community partners and utility permit applicants to minimize the impact to recreation from utility developments in right-of-way corridors and/or Renewable Energy Emphasis areas (wind and solar) that overlap ERMA and SRMA.
- Utilize Recreation Management Guidelines to Meet Public Land Health Standards on BLM Lands in Colorado (BLM 2000).
- Utilize current BMPs and the Recreation Management Guidelines to Meet Public Land Health Standards on BLM Lands in Colorado (BLM 2000) to reduce or eliminate impacts from recreation to the other natural and cultural resources listed in the objective above. This appendix describes BMPs current at the time of the RMP. Implementation of management actions should be based on the most current BMPs.
- In areas managed for multiple activities, support cooperative efforts by recreation users and other stakeholders that develop strategies promoting compatible interactions between recreation users (e.g., multi-user/interdisciplinary working groups).

Recreation Information and Education

- Provide clear, consistent, and standardized messaging to the public regarding recreation opportunities and regulations on BLM-administered lands. This messaging should be included in digital communications (e.g., websites and social media), print media (e.g., brochures and kiosk displays), signage, and personal contacts with recreation customers (e.g., office visits, phone calls, and field contacts).
- Utilize information portals (e.g., information/education kiosks, signs, brochures, maps, and websites) and management strategies (e.g., onsite staff and/or volunteer information, education, and enforcement patrols) to inform recreation participants about targeted recreation opportunities in ERMA and SRMA.

- Clearly identify primary access points to recreation areas both onsite (e.g., signs and developed recreation facilities) and offsite (e.g., digital and print media and recreation service providers.)
- In ERMA, utilize information portals (e.g., information/education kiosks, signs, brochures, maps, and websites) and management strategies (e.g., onsite staff and/or volunteer information, education, and enforcement patrols) to inform recreation participants about other resource uses in the area and appropriate recreation behavior that mitigates impacts to operations and facilities of other resource uses.
- Work with cooperators and partners to provide visitor information and education resources that help achieve area recreation management objectives and the objectives of adjoining or overlapping designations (e.g., WSAs, lands with wilderness characteristics units, Areas of Critical Environmental Concern (ACECs), wildlife emphasis areas, and recreation management areas [RMAs]).
- Work with managing partners (e.g., local clubs, businesses, and municipalities) to develop appropriate marketing strategies and informational materials (e.g., maps and brochures) that help achieve specific recreation management objectives.
- Clearly identify RMA/RMZ boundaries using a variety of communication tools and/or barriers including, but not limited to, digital and/or print media, signs and/or fencing, and natural topographic features. Boundary identification strategies should generally employ the most practical, cost-effective, and least-obtrusive materials and methods that are still effective for attaining desired management results. For example, periodic boundary identification signs may be sufficient to contain use along portions of an RMZ boundary. If signing alone proves ineffective, fencing or other physical barriers can be installed.
- Promote the seven standard principles of Leave No Trace (www.Int.org) outdoor ethics through print and electronic media and through personal communications with recreationists participating in non-motorized recreation activities on BLM-administered lands.
- Promote the principles of Tread Lightly (www.treadlightly.org) outdoor ethics, including the Respected Access campaign, through print and electronic media and through personal communications with recreationists participating in recreation activities on BLM-administered lands.

Recreation Monitoring (Enforcement and Evaluation)

- Special recreation permits will contain noxious weed management stipulations (e.g., pre-event inventories to avoid infested areas; event management to avoid or isolate activities that could cause weed introduction or spread, monitoring, and treatment of infestations exacerbated by the activity; and other appropriate noxious weed management stipulations).
- Lands may be temporarily closed to other uses during recreation events performed under special recreation permit (e.g., equestrian endurance rides or motorcycle events).

- In SRMAs, monitor outcome attainment and preferences through customer assessments (e.g., focus group interviews or visitor studies) on five-year intervals or as funding allows. Monitor activity participation and recreation setting characteristics (RSCs) annually during the primary use season of mid-April through October.
- Manage recreation to minimize or prevent adverse effects to biological and cultural resources using the Recreation Guidelines to Meet Public Land Health Standards on BLM Lands in Colorado (BLM 2000).
- Ensure all recreation management actions in areas overlapping ACECs help protect the relevance and importance criteria of those ACECs. Conduct social and physical monitoring to determine if recreation use is consistent with specific ACEC goals, objectives, and resource protection measures. Promote stewardship of ACEC resources by providing opportunities for visitors to learn about those resources.
- Adapt specific recreation regulations (e.g., camping stay limits) if monitoring indicates that recreation use is causing unacceptable resource damage or is compromising achievement of recreation or other resource use objectives.
- Coordinate with partner groups to complete resource monitoring requirements.

Special Recreation Management Areas

- In SRMAs, work with recreation users and other stakeholders to ensure protection of targeted activities, experiences, and outcomes.

References

BLM (US Department of the Interior, Bureau of Land Management). 2000. Recreation Management Guidelines to Meet Public Land Health Standards on Bureau of Land Management Lands in Colorado. BLM, Colorado State Office, Lakewood, CO. Internet Web site: http://www.blm.gov/co/st/en/BLM_Information/newsroom/2000/recguidefnr/guide_final.html.

_____. 2010. Guidelines for a Quality Built Environment, First Edition. December 2010.

COMPREHENSIVE TRAILS AND TRAVEL MANAGEMENT

- Roads and trails (off-highway vehicle, horse, bicycle, and hiking) will avoid wetlands, and if avoidance is not possible will be designed and constructed in accordance with current best practices approved by the BLM (e.g., Technical Reference 2E22A68-NPS, Managing Off-highway Vehicle Trails in Wet, Unstable, and Sensitive Environments [Forest Service 2002]), or other related references.
- Establish trail management objectives. Trail management objectives (TMO's) describe the use and management of a trail which may include but not limited to the following:
 - The primary uses and vehicle types
 - Other allowable uses
 - The desired recreation experience: transportation road, recreation road, trail, loop trail, destination trail

- The intended difficulty level (this may change once the trail is finally located on the ground)
 - Design guidelines including clearing width, tread width, and grades
 - How the trail will be constructed: machine or hand built
 - Maintenance frequency and methods
 - Trail management such as open all year, seasonally closed for wildlife, closed during wet season
 - Frequency of trail inspection and assessment
 - Any specific resource concerns or issues associated with the trail including grazing allotment, wildlife, cultural sites, sensitive plant sites, water quality, and nearby residents
- Create loops and avoid dead end trails. All trails should begin and end at a trailhead or another trail. A well-planned stacked loop trail system offers recreationists a variety of trail options. Easier, shorter loops are arranged close to the trailhead, with longer, more challenging loops extending further beyond the trailhead. Occasionally, destination trails to a point of interest will require an out and back trail, but only if they cannot be reasonably incorporated into a loop.
- Identify control points and use them to guide trail design and layout. Control points are specific places or features that influence where the trail goes. Basic control points include the beginning and end of the trail, property boundaries, intersections, drainage crossings, locations for turns, and other trails.
 - Positive control points are places where you want users to visit, including scenic overlooks, historic sites, waterfalls, rock outcroppings, lakes, rivers and other natural features or points of interest. If the trail does not incorporate these features, users will likely create unsustainable social trails to get to them.
 - Negative control points are places you want users to avoid, such as low-lying wet areas, flat ground, extremely steep cross slopes or cliffs, unstable soils, environmentally sensitive areas, sensitive archaeological sites, safety hazards, and private property.
- Knowing these control points provides a design framework. Try to connect the positive control points while avoiding the negative control points.
- Locate trails in stable soils. Avoid clays, deep loam and soils that do not drain rapidly. Consider season of use and type of use. A trail on a south aspect will have greater usability and sustainability for winter use. The capabilities of motorized vehicles to function in wet/muddy conditions make it imperative to avoid unstable or poorly drained soils. Trails that are less likely to be used when wet may be located in less-desirable soils if necessary. In western Colorado's arid environment, the best soil conditions for trails are those with high rock content. Utilize slick rock for trail tread when possible.

- Avoid switchbacks. Switchbacks are difficult, time-consuming, and expensive to construct, and require regular maintenance. Users often cut them, causing avoidable impacts. Utilizing curvilinear design principles eliminates the need for most switchbacks. Climbing turns are easier to construct and maintain and utilize natural terrain features (benches, knolls, rock outcrops) to change the direction of a trail.
- Avoid ridge tops. Ridge tops are often primary transportation corridors for wildlife, and were often used by Native Americans as travel routes. Noise from ridge top trails is broadcast over a wide area. Locate trails on side hills, off ridge tops, using ridges and watersheds as natural sound barriers to isolate noise.
- Use vegetation and other natural features to conceal the trail and absorb noise. This can be difficult in a desert environment. Try to minimize the visual impact of the trail by following natural transitions in vegetation or soil type. A trail near the base of a slope or on rimrock is usually less visible than a mid-slope trail. Denser vegetation will hide a trail, lessen noise transmission, and can dissipate the energy of falling raindrops on the bare soil of the trail tread.
- Carefully design intersections to avoid safety problems. When locating a bicycle or motorized vehicle trail be aware of sighting distance and sight lines. Collisions can be avoided if riders can see each other. Avoid four way intersections. Offsetting the cross traffic helps reduce speeds and reduces the risk of collisions.

References

Meyer, K.G. 2002. Managing Degraded Off-highway Vehicle Trails in Wet, Unstable, and Sensitive Environments. Technical Reference 2E22A68-NPS OHV Management. US Department of Agriculture, Forest Service, Technology and Development Program, Missoula, MT. October 2002. 56pp.

Recommended Standardized Trail Terminology for Use in Colorado, Colorado Outdoor Training Initiative (COTI). 2005

Great Trails: Providing Quality OHV Trails and Experiences, National Off-Highway Vehicle Conservation Council (NOHVCC). 2015

Managing Mountain Biking: IMBA's Guide to Providing Great Riding, International Mountain Bicycling Association (IMBA), 2007.

USDA Forest Service Technology and Development Program. Equestrian Design Guidebook for Trails, Trailheads, and Campgrounds. December 2007

LANDS AND REALTY

Stipulations used in addition to ROW Guide Stipulations, as applicable, by UFO:

- For renewals of existing authorizations: The holder shall contact the BLM Authorized Officer at least two weeks prior to the anticipated start of any surface disturbing activities. It is the holder's responsibility to comply with all applicable Federal, State, and local laws and regulations existing or hereafter enacted or promulgated. In any event, prior to any surface disturbing activities, the holder shall

comply and demonstrate compliance in writing, i.e., with surveys and inventories completed by qualified individuals, with the following laws including, but not limited to, the Endangered Species Act (if potential habitat is determined to be present), the National Historic Preservation Act, and the Native American Graves Protection and Repatriation Act. Evaluations and inventories can be completed by BLM, or by the holder in order to meet the holder's schedule and subject to approval by the BLM Authorized Officer. The holder shall not initiate any surface disturbing activities on the right-of-way without prior written approval as determined necessary by the BLM Authorized Officer. Contact the Montrose Public Lands Office at (970) 240-5300.

- For Communication Sites: To avoid possible impacts to birds or bats, follow the most current version of the US Fish and Wildlife Service's Interim Guidelines on the Siting, Construction, Operation and Decommissioning of Communication Towers, available at the following Web site: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.
- For Powerlines: Unless otherwise agreed to by the BLM Authorized Officer in writing, powerlines shall be constructed in accordance to standards outlined in "Suggested Practices for Avian Protection on Powerlines: The State of the Art in 2006" (Avian Power Line Interaction Committee 2006) available at: [http://www.aplic.org/SuggestedPractices2006\(LR-2watermark\).pdf](http://www.aplic.org/SuggestedPractices2006(LR-2watermark).pdf). The holder shall assume the burden and expense of proving that pole designs not shown in the above publication are "eagle and raptor safe." Such proof shall be provided by a raptor expert approved by the BLM Authorized Officer. The BLM reserves the right to require modifications or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States. All pole replacements will be brought up to this standard. For all maintenance activities that involve, but are not limited to, nest relocation or destruction, temporary possession, depredation, salvage/disposal, harassment, and scientific collection of raptors, the right-of-way holder shall provide the BLM with a copy of their current Migratory Bird Permit for those activities.
- For Water Wells:
 - If the holder has obtained well permits or groundwater rights pursuant to state water law procedures, those permits and/or rights will be abandoned or conveyed to the BLM Authorized Officer upon relinquishment or termination of this right-of-way grant.
 - The holder shall indemnify and hold the United States harmless from any and all liability or damages resulting from or otherwise related to human consumption of the water from the well authorized by this right-of-way grant.
- For Road Associations: The Holder shall participate in the formation of a user group association for the road. All new users would be required to join the association. The association's main purpose would be to ensure that all users would share in any proportionate costs and responsibilities including, but not limited to, road

maintenance required under the terms, conditions and stipulations of the right-of-way grant. The Holder shall participate in and cooperate with the development of a road maintenance agreement within the scope of the road users group association. The agreement shall be included in the association's charter or by-laws. A copy of the association's charter or by-laws shall be submitted to the BLM Authorized Officer.

References

Avian Power Line Interaction Committee. 2006. Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 1996. Edison Electric Institute, Avian Power Line Interaction Committee, and the California Energy Commission. Washington, DC, and Sacramento, CA.

FLUID MINERALS

BMPs are adaptive state-of-the-art mitigation measures applied on a site-specific basis to reduce, prevent, or avoid adverse environmental or social impacts. Numerous BMPs for oil and gas development are also incorporated into the general oil and gas development requirements. These include minimizing the number and size of pads through use of multiple well designs and directional drilling; centralizing hydraulic fracturing and water management; minimizing road footprints; centralized support facilities such as tank batteries; collocating utilities and pipelines in common corridors and aligning them along roadways; and implementing intensive interim reclamation practices. The BLM encourages applicants to include in their proposals BMPs such as those identified. If not, BLM will likely require them. Actual BMPs proposed or required during the permitting process to mitigate impacts are expected to vary according to technologies and site-specific needs. BMPs will also be expected to change over the life of a project, being adaptively updated in response to monitoring and changing project conditions. Additional practices could be required or withdrawn, or modified in response to changing activities or future planning. Such adaptive changes to BMPs may generally be implemented without further review or land use planning, but will be analyzed during the NEPA analysis associated with the permitting process. Monitoring and adaptive management practices will help to refine and clarify needed BMPs, consistent with the goals and objectives of this plan.

Geophysical Exploration

- If operations open an existing fence, temporary gates will be installed for use during the course of operations, or the fence will be immediately repaired. On completion of operations, fences will be restored to their original condition or better.
- When saturated soil conditions exist, activities on and off roads will be halted until soil dries or is frozen sufficiently for activities to proceed without undue damage and erosion.
- Off-highway vehicle travel will be limited to that necessary to complete the geophysical operations.
- Specialized low surface impact equipment (wide- or balloon-tired vehicles, all-terrain vehicles) or helicopters may be used for activities in off-road areas to protect fragile soils and or other resource values.

- Powder magazines will be located at least a mile from traveled roads, unless otherwise authorized after analysis or review. Loaded shot holes and charges will be attended at all times.
- Materials or equipment related to project activities (e.g., trash, flagging, lath) will be removed to an authorized disposal site.
- Project materials which could be a hazard to public health, safety or resource values will be stored in appropriate secondary containment. No oil or lubricants will be drained onto the ground surface.
- Pre-mobilization inspection will be performed to insure that all construction equipment and vehicles are clean and free of weeds, weed seed, soil and vegetative material prior to moving onto public lands. Driving through or parking on noxious weed infestations will be avoided.
- Topsoil stripping will include all growth medium present at a site, as indicated by color or texture. Stripping and storage depth may be specified during the onsite inspection. All stripped topsoil will be stored separately from subsoil or other excavated material and replaced prior to seedbed preparation. No topsoil will be stripped when soils are saturated or frozen below the stripping depth.
- Cleared vegetation smaller than four inches in diameter will be stockpiled, shredded, and salvaged with topsoil. Cleared vegetation larger than four inches in diameter will be removed from public land or shredded in place to be salvaged with topsoil. A wood cutting permit may be purchased from BLM.
- Shot-hole cuttings will be returned to the hole, or an alternative plan will be submitted for BLM approval.

Reducing Fluid Mineral Development Footprint

- The operator will co-locate multiple wells on well pads and use directional drilling to reduce the number of pads and roads.
- Pad placement, as practical, will be sensitive to natural resource protection. Surface disturbance will be minimized, especially near drainage features and on soils mapped as Mancos shale.
- To minimize construction disturbance, truck traffic, dust and other impacts to air quality, soils and wildlife, centralized production facilities will be used for all natural gas liquids and produced water.
- Utilities such as gas and water lines, power lines and roads will be located in common corridors where practicable.
- Telemetry will be used to remotely monitor producing wells to reduce vehicular traffic. During winter closures, unavoidable monitoring and or maintenance activities will be conducted between 9 a.m. and 3 p.m., to the extent practical.

Administrative/General and Planning

- Before activities take place, every pad, access road, or facility site will have an approved surface drainage plan for establishing positive management of surface

water drainage, to reduce erosion and sediment transport. The drainage plan will include adaptive BMPs, monitoring, maintenance and reporting. BMPs may include run-on/run-off controls such as surface pocking or revegetation, ditches or berms, basins, and other control methods to reduce erosion. Pre-construction drainage BMPs will be installed as appropriate.

- Before surface disturbance, agreements will be obtained with all existing rights-of-way holders, authorized users and pipeline operators affected by permitted activities. If Agreement cannot be reached, the operator will comply with the law or regulations.
- The BLM will be notified at least 48 hours before construction or reclamation and schedule a pre-construction meeting to facilitate implementation of plans.
- To limit surface disturbance, proposed roads and locations will consider the character of the topography and landform. Deep vertical cuts, long or steep fill slopes and side cuts across steep slopes will be avoided. Rights-of-way will be shared, and structures and facilities will be grouped.
- Project will use existing roads as much as possible. Roads will be designed, constructed and maintained to BLM standards (BLM 1985). All new roads and upgrades will be submitted to BLM for approval before construction.
- Drilling will be done with 'closed loop' systems as much as possible, particularly in areas where water resources are most vulnerable, including: soils mapped as alluvial, colluvial, and glacial deposits; near springs and perennial water sources; in important groundwater recharge areas; and within municipal watersheds.
- Chemicals used in the fracturing process will be biodegradable, non-toxic, pH neutral, residual free, non-corrosive, non-polluting and non-hazardous in the forms and concentrations being used. Documentation in the form of Material Safety Data Sheets will be reviewed by operator for compliance prior to use and Material Safety Data Sheets will remain on site at all times such chemicals are present.
- In municipal watersheds, the operator will develop and implement a Watershed Protection Plan. This plan will characterize baseline hydrologic and hydrogeologic conditions such as but not limited to: water chemistry, water quantity, groundwater flow patterns, connectivity between geologic formations, and communication between surface and groundwater. The operator will collaborate with all watershed stakeholders in development of the plan.
- Incorporate BMPs and conditions of approval from the Final Programmatic EIS for Geothermal Leasing in the Western US, as applicable (BLM 2008).

Pre-Construction

- Pre-mobilization inspections will be performed to be sure that all construction equipment and vehicles are clean and free of soils, weeds, weed seed and vegetative material prior to moving onto public lands. Driving through or parking on noxious weed infestations will be avoided.

- Stakes, snow fence or flagging will be installed to mark boundaries of permitted areas of disturbance, including pre-construction BMPs and soils storage areas and be maintained in place until final construction cleanup is completed.
- Pre-construction drainage BMPs will be installed as appropriate, per the approved surface drainage plan, to protect stream drainages and to reduce erosion and sediment transport.
- Prior to any construction or placement of drilling facilities, the location and access road will be cleared of brush and trees in a manner approved by the BLM.
- Surveys for raptor nests, sensitive plant and animal species and cultural resources will be conducted prior to construction activities following BLM survey standards. Survey results will be submitted to the BLM for analysis and recommendations before project approval.

Construction

- Where applicable, entrances to construction sites shall be covered by a gravel “track pad” to prevent sediment and weed seeds from leaving the construction site.
- As detailed in the site plan for surface water management, drainage from disturbed areas will be confined or directed to minimize erosion, particularly within 100 feet of all drainages. No runoff, including that from roads, will be allowed to flow into intermittent or perennial waterways without first passing through sediment-trapping mechanisms such as vegetation, anchored bales or catchments.
- In areas of mapped Mancos shale, saline soils, or fragile soils, groundwater will not be discharged to surface water drainages, to minimize mobilization and transport of selenium, salts and sediment within the Colorado River Basin.
- Discharge of groundwater to surface drainages will comply with the Clean Water Act and will be pre-approved by BLM and will meet the following criteria:
 - Discharge operations will not negatively impact downstream beneficial uses.
 - Discharge soil/water interactions will not facilitate the movement of water quality contaminants (e.g., salt, selenium, sediment, metals) above natural rates in surface and/or groundwater.
 - Water discharge shall be limited to well-defined major channels, to reduce potential of discharged water dissolving and transporting salts from the stream channel and to reduce concentration of salts in alluvium.
 - Discharges will be limited to a volume that can be handled by the natural channel and less than or equal to the naturally occurring mean annual peak flow (roughly equivalent to a two-year, 24-hour storm peak).
 - Discharge points will be located in stable channels or reservoirs away from any downstream head-cuts or other major erosional features (as determined by BLM). Outfall design may include discharge aprons and downstream stabilization of channel side slopes to prevent erosion and provide energy dissipation.

- Subject to BLM approval, water quality thresholds for both surface and groundwater will be set and monitored during discharge operations in order that they will cease if thresholds were exceeded.
 - Surface and groundwater quantity and quality will be monitored during all discharge operations. Monitoring locations will be subject to BLM approval. Monitoring activities will continue for at least two water years following cessation of discharge.
- Surface and ground water withdrawals will be avoided where they will jeopardize discharge to streams, springs, seeps, or fens.
- Project materials which could be hazardous to public health, safety or resource values will be stored in appropriate secondary containment. No oil or lubricants will be drained onto the ground surface.
- Topsoil will be stripped following removal of vegetation during construction of well pads, pipelines, roads, or other surface facilities. This will include all suitable growth medium present at a site, as indicated by color or texture. Stripped topsoil will be stored separately from subsoil or other excavated material and replaced prior to seedbed prep.
- Commercial and non-commercial woodlands removed as a result of development (i.e., oil shale, oil and gas, sodium) will be appraised and purchased prior to removal.
- Trees removed during construction shall be wind-rowed separately from soil stockpiles for later use to obstruct vehicle travel and support reclamation. Following replacement of topsoil and seeding, salvaged trees will be skidded back onto appropriate reclaimed areas. Stumps and rootballs may be buried or scattered in an area approved by the BLM, such as a toeslope.
- Removed trees not used in this way will be cut to four foot lengths if they are four inches or more in diameter, then located where they may be taken from public lands by the applicant or the public. If it is impractical to bring salvaged trees back onto reclaimed areas, they will be chipped and spread on reclaimed areas following seeding. Cleared vegetation smaller in diameter than four inches will also be distributed (no deeper than 1-2 inches) across reclaimed areas following seeding.
- Where linear disturbance is proposed and where habitat fragmentation/edge is an issue for a wildlife species of concern, edges of vegetation removal should be consider 'feathering' the treatment to avoid long linear habitat edges and support habitat complexity for wildlife. Additional trees may be removed along such edges to create irregularly shaped openings and more naturally mosaic habitat.
- No topsoil will be stripped when soils are saturated or frozen; construction will be halted until soil dries out or is frozen sufficiently for construction to proceed without undue damage and erosion.
- To extend the viability of topsoil and create a berm that limits and redirects stormwater runoff, topsoil shall be windrowed around the pad perimeter, per BLM Topsoil BMPs (BLM 2009, PowerPoint presentation available upon request). Topsoil shall also be wind-rowed, segregated and stored along pipelines and roads for later

redistribution across disturbed corridors during reclamation. Topsoil berms shall be promptly seeded to maintain soil microbe health, reduce erosion, and prevent weed establishment.

- Roads will be crowned or sloped, ditched, surfaced, drained with culverts and/or water dips, and constructed and maintained to BLM Gold Book standards. Construction of access roads on steep hillsides and near watercourses will be avoided. Generally, cut slope ratios will be no steeper than 3:1, with fill slopes no steeper than 2:1.
- Access roads requiring construction with cut and fill will minimize surface disturbance and consider the character of the landform's contours, visual contrasts, the cut materials, the depth of cut, where the fill material will be deposited and other resource concerns.
- Fill material will not be cast over hilltops or into drainages without BLM approval.
- Regularly scheduled road maintenance will include, but not be limited to, crown or slope reconstruction, clean-out of ditches, culverts and catchments, replacement of the road surface and dust abatement.
- Cattle guards will be installed and maintained whenever access roads intersect existing gates or fences.
- Construction activities at drainage crossings (e.g., burying pipelines, installing culverts) will be timed to avoid high flow conditions. Construction activities that affect stream flow will consist of either a piped stream diversion or the use of a coffer dam and pump to divert flow around the disturbed area.
- All pipeline welds within 100 feet of a perennial stream will be x-rayed to prevent leakage into the stream. Where pipelines cross streams that support Federal or State-listed threatened or endangered species or BLM-listed sensitive species, additional safeguards such as double-walled pipe, and remotely-actuated block or check valves on both sides of the stream may be used.
- Water from hydrostatic testing of pipelines will be filtered of sediments prior to discharge into wetlands. Energy dissipating methods such as straw-bales, wattles, and vegetative buffers will be in place before any discharge of water.
- When activity in a wetland is unavoidable, the operator will restore all temporarily disturbed wetlands or riparian areas, consulting with the BLM to determine appropriate mitigation, including verification of native plant species to be used in restoration.
- All stream crossings affecting perennial streams or streams supporting riparian habitat shall be professionally engineered (design, construction, and maintenance).
- Where the access road crosses small drainages and intermittent streams not requiring culverts, low water crossings shall be used. The road will dip to the original streambed elevation of the drainage and the crossing will prevent any blockage or restriction of the existing channel. Material moved from the banks of

the crossing will be stockpiled nearby for later use in reclamation. Gravel, riprap, or concrete bottoms may be required in some situations.

- Baseline information of channel characteristics and riparian vegetation present must be documented before actions are permitted to disturb riparian areas and the stream channel.
- Damage to range improvements (e.g., fences, gates, reservoirs, pipelines) will be avoided, or repaired and replaced. If an access road crosses an existing livestock fence, a steel frame gate or a cattleguard with associated bypass gate will be installed across the roadway.
- Pits and other containments for mud, cuttings, drilling fluids, and other materials used during the exploration or operation of the lease for the storage of any hazardous materials will be adequately fenced, posted, netted or covered.

Drilling

- Pits that may contain liquid, such as reserve pits, produced water pits, frac-water pits, cuttings trenches (if covered by water/fluid), and evaporation pits, will use netting to prevent or minimize entry or use by migratory birds. They will be fenced on three sides before drilling activity and closed off on the fourth side after drilling is completed.
- If any pit that may contain liquid is constructed with a slope steeper than 3:1, or if the pit is lined, escape ramps will be installed every 50 feet along the pit slope and at each corner to allow escape by livestock and wildlife.
- Catalytic converters will be installed on all internal combustion engines to minimize emissions to Tier 3 levels.
- Hazardous substances will not be used in drilling, testing, or completion operations, nor introduced at any time into the reserve or cuttings pit. Fluids will be confined to pits and all pits that may contain liquids will be lined to protect groundwater. Liners will be maintained in good condition, with no tears or holes, until they are removed when the reserve pit is closed.
- Pits will be constructed so that water will not run into them. Fluid levels will be maintained below 2 feet of the lowest point of containment.

Utilization and Production

- Operations will not damage, disrupt or interfere with water flows and/or improvements associated with springs, wells, or impoundments.
- When special resource values are at risk, such as crucial wildlife areas, companies controlling access into these areas will close roads or restrict use to authorized users.
- Pits will be promptly drained, tested, closed and reclaimed according to local state and federal regulations.
- Dust from vehicular traffic, equipment operations, or wind events will be controlled as needed. No application of surfactants or dust agents will proceed without BLM

approval. In areas with soils mapped as Mancos shale, application of water on native road surfaces will be limited, to minimize mobilization of selenium. In such areas, alternate dust abatement measures such as proper road surfacing and maintenance, and speed limits will be used, subject to BLM approval.

- Speed control measures will be in place on all project related unpaved roads to reduce fugitive dust.
- Noise will be minimized by methods such as closed compressor buildings and hospital grade mufflers.
- Pipeline warning signs permanently marked with the operator's and owner's names (emergency contact) and purpose (product) of the pipeline will be installed within five days of construction completion and before use of the pipeline for transportation of product.
- All production equipment with a chimney, vent, or stack shall be fitted with a device to prevent birds from entering or perching on the chimney, such as an excluder cone or equivalent.
- Production facilities such as tanks and dehydration equipment will be centralized rather than located on each well pad whenever practical. Wellheads and metering facilities will remain on individual pads.
- Production facilities will be located and arranged to facilitate safety and maximize areas to be reclaimed.

Site Stabilization, Reclamation, and Monitoring

- Road and pipeline reclamation, including seedbed prep and seeding of temporarily disturbed areas will be completed within 30 days following completion of construction.
- Following completion of pad construction, topsoil storage piles, stormwater control features, and cut-and-fill slopes will be temporarily seeded, to stabilize the materials, maintain biotic soil activities, and minimize weed infestations. When this is not feasible, disturbed surfaces may be stabilized using other methods like hydro-mulch or erosion matting while vegetation is establishing. Seedbed preparation is not generally required for topsoil storage piles or other areas of temporary seeding.
- Interim reclamation
 - Interim reclamation includes recontouring and revegetating the entire portion of the disturbed area except that part of the well pad needed for production activities.
 - It will be completed within six months following completion of the last well planned for the pad or after a year has passed with no new wells drilled on the pad. All areas unnecessary to production activities will be revegetated, including the area within the remaining rig anchors. In special cases, an exception to this will be requested.

- Before interim reclamation is scheduled, the operator will meet with BLM to inspect the disturbed area, review the existing reclamation plan, and agree upon any revisions to it.
- All parts of the pad unnecessary for long-term operations will be reshaped to blend with natural topography, covered evenly with topsoil and a seedbed prepared.
- For cut-and-fill slopes, initial reclamation will typically consist of moving fill material back into cuts, back-filling and reshaping to achieve the configuration specified in the reclamation plan. Compacted areas will be well ripped in two passes at perpendicular directions. In fragile or loose soils, compaction techniques such as tread-walking may be necessary to prevent high erosion hazard. Topographic contours will be reshaped to blend with natural topography. These may include berms and swales to manage water drainage, support revegetation, mitigate visual impacts and maximize natural appearances.
- Good seedbed preparation is key to soil stabilization, moisture infiltration, and improving the chances for revegetation success.
 - Following contouring, backfilled or ripped surfaces will be covered evenly with topsoil.
 - Within 24 hours of broadcast seeding, the spread topsoil will be roughened by a method such as pitting, raking or harrowing before seeding, to break up any crust that has formed and ensure good seed-to-soil contact.
 - To control erosion and enhance vegetative establishment on slopes steeper than 3:1, or to create a more natural looking landscape in areas of visual sensitivity, seedbed preparation may include pocking or pitting the soil material to form microbasins scaled to the site and materials. These microbasins will be constructed in irregularly spaced and irregularly aligned rows with an orientation perpendicular to the natural flow of runoff down a slope.
 - Requests to use soil amendments, including fertilizer and soil conditioners, will be submitted to the BLM for approval. Submittal will include basic information on the amendment and the purpose of its use.
- Seed mixes will typically consist of native, early-succession species, or species with the ability to establish quickly in disturbed soil areas. Non-native species considered desirable under special circumstances, such as sterile non-native grasses will be submitted to the BLM for approval before use.
 - Seed mix composition will be calculated based on the number of Pure Live Seed per pound rather than percentage by weight. Seeding rate in pounds per acre will be based on the total number of Pure Live Seeds per square foot.
 - Weed free seed will be used. It will contain no noxious, prohibited, or restricted weed seeds and no more than 0.5 percent by weight of any other weed seeds. Seed may contain up to 2.0 percent of “other crop” seed by

weight, including the seed of other agronomic crops and native plants; however, a lower percentage of other crop seed is recommended. To maintain quality, purity, germination, and yield, only tested, certified seed for the current year, with a minimum germination rate of 80 percent and a minimum purity of 90 percent will be used unless otherwise approved by BLM in advance of purchase. Seed shall be viability-tested in accordance with State law(s) and within nine months before purchase.

- Seed mixes for temporary use may contain one or more sterile hybrid grasses or other non-native cover crop in addition to native perennial species, if pre-approved by BLM.
- For private surfaces, BLM-approved seed mixes will be recommended, but the surface landowner has ultimate authority over the seed mix to be used in reclamation.
- Seed tags or other official documentation of the seed mix will be supplied to the BLM for approval at least 14 days before the date of proposed seeding. Seed that does not meet the above criteria will not be applied to public lands. A Sundry Notice describing the completed work, the weed-free certification, and the seed tag(s) will be submitted BLM within 30 days after seeding.

- Seeding Procedures

- Seeding will be conducted no more than 24 hours following completion of final seedbed preparation (see Seedbed Prep).
- Where practical, seed will be planted by drill-seeding to a depth of 0.25 to 0.5 inch along the contour of the site. Drill seeding will be followed by cultivation to enhance seed-to-soil contact and prevent losses of both. Where drill-seeding is impracticable, seed may be installed by broadcast-seeding at twice the drill-seeding rate, followed by raking or harrowing to provide 0.25 to 0.5 inch of soil cover. Hydro-seeding and hydro-mulching may be used in temporary seeding or in areas where drill-seeding or broadcast-seeding/raking are impracticable. Hydro-seeding and hydro-mulching must be conducted in two separate applications to ensure adequate seed-to-soil contact.
- If interim revegetation is unsuccessful, reseeding will be repeated annually until satisfactory vegetative cover has been achieved. Requirements for reseeding of temporary areas will be considered on a case-by-case basis. Seeding will be considered successful when the site is protected from erosion and revegetated with a vigorous, self-sustaining, and diverse cover of native (or otherwise approved) plant species. BLM shall not require reseeding during periods that have proven less than optimal.

- Mulch

- Mulch will be applied within 24 hours following completion of seeding. Where areas have been drill- or broadcast-seeded and raked, certified weed-free straw or certified weed-free native grass hay mulch will be crimped into the

soil. Hydro-mulching may be used in areas of interim reclamation where crimping is impractical, in areas of interim reclamation that were hydroseeded, and in areas of temporary seeding regardless of seeding method.

- Mulch will not be applied in areas where erosion potential necessitates use of a biodegradable erosion-control blanket (straw matting).
- Cut and fill slopes will be protected against erosion by contour grading, microbasins or other measures approved by the BLM. Well anchored BMPs such as biodegradable matting, weed-free bales or wattles may also be used on cut-and-fill slopes and along drainages to protect against soil movement.
- The reclaimed pad will be protected from disturbance by a fence to exclude livestock grazing for the first two growing seasons or until seeded species are firmly established, whichever comes later. Seeded species will be considered firmly established when at least 50 percent of the new plants are producing seed.
- Monitoring. Because weed and reclamation management activities are components of a long-term process, monitoring and reporting are integral to and long-term commitment to land health.
 - All sites considered as “operator reclamation in progress” will be routinely monitored for reclamation success. Reports will be submitted to the BLM by December 1 of each year. Annual reports will include whether accomplishment of objectives appears likely and of not, what corrective actions are proposed.
 - All sites will be routinely monitored for the presence of noxious weeds or other undesirable plant species as set forth in the joint BLM/Forest Service Noxious and Invasive Weed Management Plan for Oil and Gas Operators. Pesticide Use Proposals will be approved by the BLM before application of herbicides. Annual weed monitoring reports shall be submitted to the BLM by December 1. They will include weed species found (listed by common names), total acres infested with weeds, total acres treated, treatment methods, and total pounds of active ingredient of pesticides applied. All Noxious Weed Inventory and Pesticide Application records for that year will be included with the report.
- Visual Resources
 - Every proposal will include a detailed, site-specific description and plan of how it will meet the VRM Class of the area where it is proposed. As much as possible all proposed features will be located and placed to avoid or minimize visibility from travel corridors, residential areas, and other sensitive observation points.
 - To the extent practical, existing vegetation shall be preserved when clearing and grading for pads, roads, and pipelines. Cleared trees and rocks may be salvaged for redistribution over reshaped cut-and-fill slopes or along linear features.

- Above-ground facilities will be painted a non-reflective natural color selected to minimize contrast with adjacent vegetation or rock outcrops. Colors may be specified by the BLM on a project-by-project basis.
- Adaptive management techniques may be applied before or after construction to mitigate straight-line visual contrast effects of pad margins, cut and fill slopes, pipeline alignments or other cleared vegetation. This could include additional tree removal along contrasting edges, to create irregularly shaped openings or more natural-looking mosaic patterns, or treating surfaces to mitigate visual contrasts in color or surface texture.
- Implement the *Best Management Practices for Reducing Visual Impact of Renewable Energy Facilities on BLM Administered Lands* (BLM 2013), or most recently released version, the “Common to All” section of which is applicable to all aspects of BLM business and land use authorizations.

References

- BLM (United States Department of the Interior, Bureau of Land Management). 1985. BLM Manual 9113: Roads. Release 9-247. BLM, Washington DC. June 7, 1985. 83 pp.
- _____. 1992. Handbook H-3042-I: Solid Minerals Reclamation. Release 3-275. BLM, Washington, DC. April 8, 1992. 104 pp.
- _____. 2002. Handbook H-3600-I: Mineral Materials Disposal. Release 3-315. BLM, Washington, DC. February 22, 2002. 171 pp.
- _____. 2007. Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development – The Gold Book. BLM/WO/ST-06/021+3071/REV 07. BLM, Denver, CO. 84 pp.
- _____. 2008. Record of Decision, Programmatic Environmental Impact Statement for Geothermal Leasing in the Western United States – Appendix B. BLM Washington Office. December 2008.
- _____. 2013. Best Management Practices for Reducing Visual Impact of Renewable Energy Facilities on BLM Administered Lands – First Edition, 2013. Internet website: http://blmwyomingvisual.anl.gov/docs/BLM_RenewableEnergyVisualBMPs_LowRes.pdf. BLM, Wyoming State Office, Cheyenne, Wyoming. 342 pp. April.

RENEWABLE ENERGY

- Authorize rights-of-way by applying appropriate BMPs from the BLM Record of Decision for Implementation of a Wind Energy Development Program (BLM 2005), land use restrictions, stipulations, and mitigation measures.

References

- BLM (United States Department of the Interior, Bureau of Land Management). 2005. Record of Decision for Implementation of a Wind Energy Development Program and Associated Land Use Plan Amendments. BLM, Washington, DC. December 15, 2005.

TRANSPORTATION AND ACCESS

Standard Operating Procedures

- Continue coordination with counties and other agency road entities to promote utilization of best management practices for road maintenance they perform within UFO boundaries.
- Maintain an inventory of existing road and trail systems.
- BLM Manual 9113, Roads (BLM 1985a) and BLM Handbook 9113-2, Roads – Inventory and Maintenance (BLM 1985b) will be used to guide all maintenance and road construction designs and requirements. Include definitions for functional road classification and maintenance levels for BLM roads.
- All highway rights-of-way and other road authorizations will contain noxious and invasive weed stipulations that include prevention, inventory, treatment, and revegetation or rehabilitation. Road abandonment will include at least three years of post-abandonment monitoring and treatment.

Best Management Practices

- In order to ensure public access and safety, the UFO shall continue an active road maintenance program employing the use of redesign, blading, brush removal for sight distance as appropriate, scarification, graveling, water barring, low water crossings, spur ditching, seeding and installation/cleaning of culverts.
- NEPA Requirements – No new NEPA analysis will be required for road maintenance activities within the defined maintenance disturbance/easement footprint, which is defined as previously disturbed or maintained. Disturbance outside of the defined maintenance disturbance/easement footprint or road realignment will be subject to additional NEPA compliance.

References

- BLM (United States Department of the Interior, Bureau of Land Management). 1985a. BLM Manual 9113: Roads. Release 9-247. BLM, Washington DC. June 7, 1985. 83 pp.
- _____. 1985b. BLM Handbook 9113-2, Roads – Inventory and Maintenance. Release 9-250. BLM, Washington DC. December 19, 1985. 18 pp.

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Appendix D

Uncompahgre Field Office
Drought Detection and Monitoring Plan

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APPENDIX D

UNCOMPAHGRE FIELD OFFICE DROUGHT DETECTION AND MONITORING PLAN

D.1 INTRODUCTION

Drought, which is a normal part of the climate for virtually all regions of the US, is of particular concern in the West where an interruption of the region's already limited water supplies for extended periods of time can produce devastating impacts¹. The UFO is located primarily within the Colorado Plateau ecoregion defined by the Western Ecology Division of the US Environmental Protection Agency. Drought is considered to be a recurring event within this ecoregion. The early detection and prompt response to drought is needed to prevent further degradation to affected resources within the US Department of the Interior, Bureau of Land Management (BLM), Uncompahgre Field Office (UFO). The purpose of this monitoring plan is to describe the drought indicators and response triggers that will be used to facilitate the early detection and monitoring of drought conditions, and determine if management actions are needed. This document also provides a description of the monitoring methods that will be used to determine if the drought response triggers have been met.

D.2 GOALS

The early detection of drought is necessary for effective management during drought. The following list outlines the goals of the UFO Drought Detection and Monitoring Plan:

- Goal 1: Conduct early detection of drought conditions.
- Goal 2: Verify whether regional drought conditions are reflected at the local level.
- Goal 3: Strategically monitor the condition of vegetation and water resources at the local level.
- Goal 4: Monitor to determine when drought conditions have ceased.

¹ Wilhite, D.A. 1997. Responding to drought: Common threads from the Past, Visions for the Future. Drought Mitigation Center Facility Publications. Paper 29. Internet website: <http://digitalcommons.unl.edu/droughtfacpub/29>.

D.3 DROUGHT INDICATORS

Drought indicators are observations signaling the start or continuation of a drought. The UFO will use the following drought indicators (A, B, C below) to determine the onset and/or continuation of a drought:

D.3.1 Regional Drought Severity Class

The UFO will use the Drought Monitor's drought severity classification and its components to indicate drought at the regional level. The National Oceanic and Atmospheric Administration and other government agencies monitor drought at national and regional levels and make this information available to the public on the US Drought Monitor (<http://droughtmonitor.unl.edu/>). The drought severity classification breaks drought conditions into 5 stages: abnormally dry, moderate drought, severe drought, extreme drought, and exceptional drought. The US Drought Monitor is designed to provide a general summary of current drought conditions nationwide. Drought intensity categories are based on five key indicators: Palmer Drought Index, Climate Prediction Center Soil Moisture Model Percentiles, US Geological Survey Weekly Streamflow Percentiles, Standardized Precipitation Index, and Objective Short and Long-term Drought Indicator Blends, together with numerous supplementary indicators. A summary of the Drought Monitor categories is as follows:

- **Abnormally Dry:** Going into drought: short-term dryness slowing planting, growth of crops or pastures. Coming out of drought: some lingering water deficits; pastures or crops not fully recovered.
- **Moderate Drought:** Some damage to crops, pastures; streams, reservoirs, or wells low, some water shortages developing or imminent; voluntary water-use restrictions requested.
- **Severe Drought:** Soil moisture and weekly streamflows estimated in the 6-10th percentile of normal, and impacts of crop or pasture losses likely; water shortages common; water restrictions imposed.
- **Extreme Drought:** Soil moisture and weekly streamflows estimated in the 3-5th percentile of normal, and impacts of major crop/pasture losses; widespread water shortages or restrictions.
- **Exceptional Drought:** Soil moisture and weekly streamflows estimated in the 0-2nd percentile of normal, and impacts of exceptional and widespread crop/pasture losses; shortages of water in reservoirs, streams, and wells creating water emergencies.

Drought Monitor information will be evaluated monthly by UFO staff.

D.3.2 Local Weather Data (Temperature, Precipitation, and Soil Moisture)

Each month, UFO staff will review monthly temperature, precipitation and soil moisture statistics from local weather sites to evaluate and classify drought status within each of the ten landscape units, and determine whether triggers have been reached. Local weather sites include both BLM and non-BLM administered weather stations. Below are the existing weather monitoring sites within each of the ten Landscape Health Units (Map 1). Additional resources that may be used to determine classification could include: Keetch-Byram Drought Index, National Oceanic and Atmospheric Administration/National Environmental Satellite, Data, and

Information Service satellite Vegetation Health Indices, basin snow water equivalent averages, groundwater levels, and the Surface Water Supply Index.

Where local temperature and precipitation conditions diverge from the regional-level drought severity classification, the UFO staff will reclassify the drought severity at the appropriate level for specific areas. The ten Landscape Health Units will be used as a basis for drought severity categorization.

D.3.3 Site-Level Indicators

UFO staff will make site visits to verify whether local vegetation and water availability conditions are consistent with drought categories determined from regional and local weather data. At a minimum, site visits will be conducted at a range of elevations within each Landscape Health Unit that are verified in a severe drought condition based on local weather monitoring conditions. Key forage species will be monitored based on the dominant palatable species as described in the associated Ecological Site Descriptions (ESDs) for the area. In instances where key species referenced in the ESD are absent, key species would be identified using site-specific and/or past monitoring data. The following plant production and/or drought stress indicators will be used to determine whether site-level conditions accurately reflect the Drought Severity classifications:

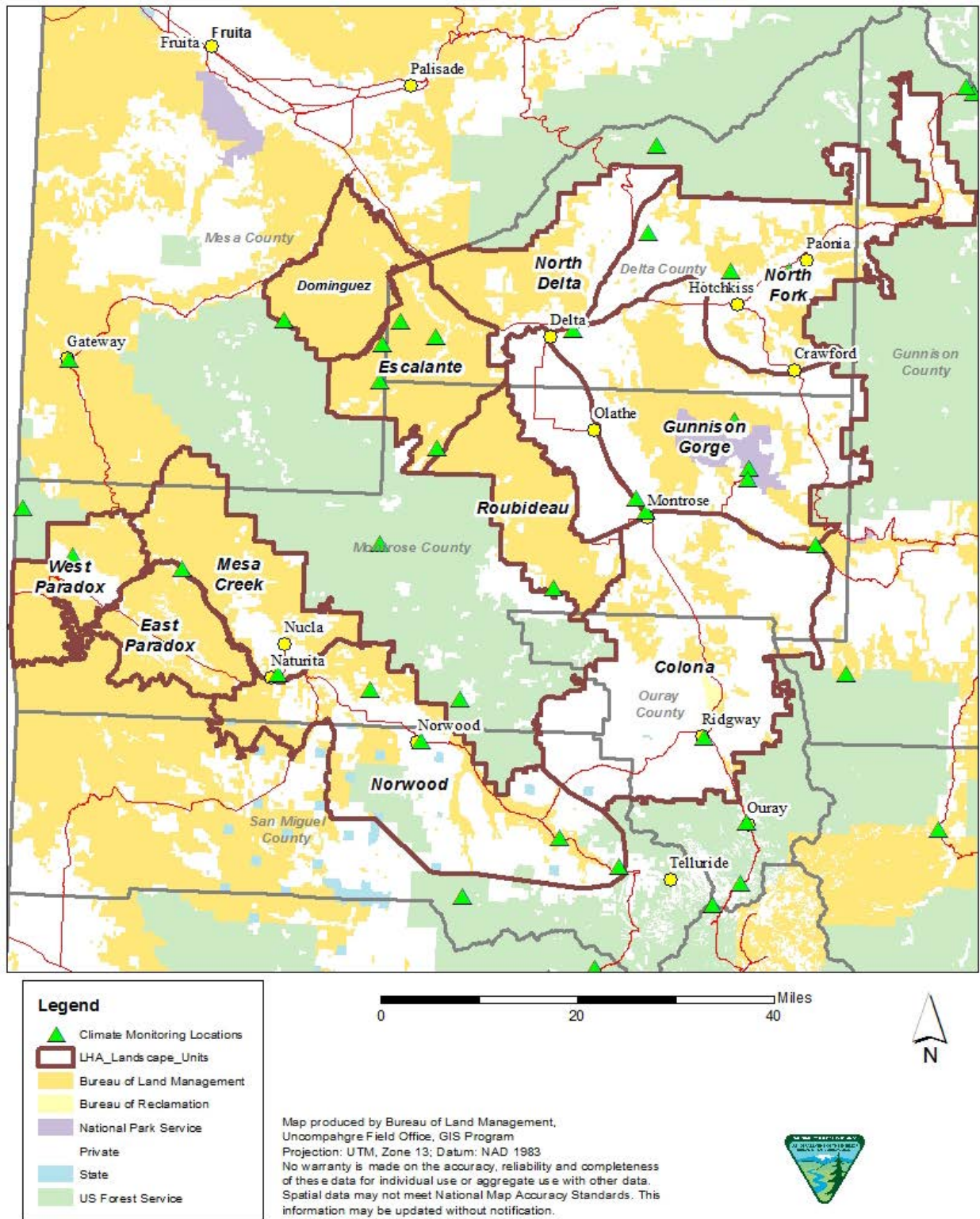
- Plant production: Are interruptions in plant life cycle stages (emergence, vegetative growth, flowering, seed set and dispersal, senescence) consistent with the drought severity class? Is sufficient forage available to meet Drought Management Objectives without damaging the vegetation resource?
- Drought stress: May also be monitored using VegDRI with site visits occurring to ground truth VegDRI reports. VegDRI is a hybrid drought monitoring and mapping tool that integrates satellite observations of vegetation status and climate data with information on land cover, soil characteristics, and other environmental factors. VegDRI reveals vegetation conditions as plants respond to solar energy, soil moisture, and other limiting factors (US Geological Survey 2010²).
- Soil Moisture: Is sufficient soil moisture available for plant growth?
- Water availability: For those allotments that do not typically rely on water hauling for normal year use, are water sources (natural and/or developed) limited as described by the drought severity class? Are waters sufficient to provide for the management and/or distribution of wildlife and livestock, while maintaining riparian area functionality and the health of adjacent upland areas?

D.4 DATA MANAGEMENT

Field worksheets, maps, and drought monitoring summaries will be stored in the short-/long-term monitoring files for the respective allotment. Global positioning system points of monitoring locations will be uploaded into geographic information systems (GIS). All GIS information will be kept to UFO and BLM Colorado State Office standards and will be incorporated into the UFO's GIS data base.

² US Geological Survey. 2010. Drought Monitoring with VegDRI. Face Sheet 2010–3314. Prepared in cooperation with the National Drought Mitigation Center, University of Nebraska, Lincoln. December.

Map 1. Landscape Health Units across the Uncompahgre RMP Planning Area



Drought Monitoring Field Form for Livestock Use

Landscape Unit: Vegetation Type: Ecological Site:

Allotment: Occupied Sage-Grouse Habitat? Yes No

UTM: Elevation:

Observation Date: Observers:

Site Condition:

Meeting Land Health Standards Not Meeting

Describe:

	Date of Report	Near Normal (1)	Moderate (2)	Severe (3)	Extreme (4)
Palmer Drought Index					
VegDRI Report					
UFO local climate data (precipitation and temperature)					

Soil Moisture (percent at site, 3", 8", 20") average 3 samples for each depth:

Vegetation: Evaluate 25 individuals along a paced transect for each key forage species for the ecological site type on an un-grazed site. Use dot count to tally which indicators best describe each individual for production and phenology. Rate indicators relative to what would be expected for the time of year for a normal weather pattern. Divide each growth category by 25 to get percentage of plants by category.

Drought Indicator	Key Species:	Key Species:	Key Species:
Production-select only I			
76-100% of expected growth (1) Near Normal			
51-75% of expected growth (2)			
26-50% of expected growth (3)			
0-25% of expected growth (4) Extreme			
Average Total			
Drought Rating (1-4)			
Phenology-Evaluate 25 individuals along a paced transect. Tally with dot count below for each species.			
Delayed emergence			
Lack of flowering			
Unsuccessful seed set			
Induced senescence			
Dead			
Average Total			
Drought Rating (1-4)			

Vegetation in occupied sage grouse habitat

Evaluate 25 individuals of each key perennial plant species (grasses and forbs). Use key species whenever possible on un-grazed sites. Use dot count to tally which indicators best describe the height of each individual.

	Grass height at leaf droop	Forb height at leaf droop	Sagebrush height (vegetative stems)
Key Species			
<1 inch			
1-2 inches			
2-4 inches			
4-6 inches			
6-8 inches			
8-10 inches			
10-12 inches			
12-14 inches			
14-16+ inches			
Average Total			
Drought Rating (1-4)			

Summary - Based on the data collected, answer the following questions:

Does plant production of key species show substantial proportions of the population are experiencing life cycle impairments due to drought (e.g., drought induced senescence, reduced seed head development, etc.)?

Yes

No

Rational:

Has substantial death of key species occurred?

Yes No

Are riparian water sources reduced to the point where livestock water needs will concentrate animals and damage riparian vegetation and impact channel stability? Yes / No / NA

Final Conclusions:

Field verified drought severity class: Near Normal Moderate Severe Extreme

General recommendations to protect resources for Moderate, Severe, and Extreme conditions:

D.5 DROUGHT MANAGEMENT AFTER FIELD VERIFIED DROUGHT

Trigger Point*	Drought Management Guidance
Moderate Drought	Assess conditions January 15 th prior to spring turnout, and June 15 th prior to fall or winter turnout. Send a drought notification letter informing permittees of the moderate drought conditions, reduced forage production, and the concern that if moisture does not come in the next few months to expect changes in management.
Severe Drought	<p>If drought conditions are severe at March 15th for spring turnout or August 15th for fall or winter turnout, schedule drought monitoring field visits to be conducted 2-4 weeks prior to turn out to assess field conditions. Permittees will be invited to assist in monitoring.</p> <p>If field verified severe drought:</p> <ul style="list-style-type: none"> • defer grazing past active growth; or • limit utilization to no less than 2-2.5 inch stubble height on rhizomatous species (not sod bound), 2.5 inches on short-mid stature grasses and 4 inches on mid height bunchgrasses (depending upon key species), and shrub utilization to <15% of the leaders browsed^{i, ii, iii}
Extreme Drought	<p>If field verified extreme drought, manage for minimal use i.e.:</p> <ul style="list-style-type: none"> • trailing only (active movement of livestock), • permit use of pastures meeting land health standards that have been rested prior years: limit utilization to no less than 2.5 inch stubble height on rhizomatous species (not sod bound), 2.5-4 inches on bunchgrasses (depending upon key species), and shrub utilization to <15% of the leaders browsed^{i, iii} • During multiyear severe or extreme drought implement complete rest
Post Drought Recovery (1-2 years following a severe or extreme drought episode)	<p>Based on site specific field verification</p> <ul style="list-style-type: none"> • Complete rest; or • defer grazing past active growth; and • limit utilization to no less than 2.5 inch stubble height on rhizomatous species (not sod bound), 2.5-4 inches on bunchgrasses (depending upon species), and shrub utilization to <15% of the leaders browsed^{i, iii} • Or resume permitted grazing without restrictions

ⁱ Aldon, E.F., and R.E. Francis. 1984. A Modified Utilization Gauge for Western Range Grasses. Vol. 438. USDA Forest Service, Rocky Mountain Forest and Range Experiment Station.

ⁱⁱ Holechek, J.L., and D. Galt. 2000. Grazing Intensity Guidelines. Rangelands, Vol. 22, No.3, pp.11-14.

ⁱⁱⁱ _____. 2004. More on Stubble Height Guidelines. Rangelands, Vol. 26, pp.3-7.

Appendix E

Description of Recreation Management Areas

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APPENDIX E

DESCRIPTION OF RECREATION MANAGEMENT AREAS

This appendix describes the management of Special Recreation Management Areas (SRMAs) and Extensive Recreation Management Areas (ERMAs) in the Uncompahgre Approved Resource Management Plan (RMP). A comparative table showing recreation characteristics for the different settings is included at the end of this appendix.

The following table displays the acreages of each recreation management zone (RMZ) within the SRMAs.

Special Recreation Management Areas	Total Acres	RMZ Acres				
		RMZ 1	RMZ 2	RMZ 3	RMZ 4	RMZ 5
Dolores River Canyon SRMA	13,380	4,990	8,390	20		
Dry Creek SRMA	42,180	1,640	1,030	30,840	890	7,780
Jumbo Mountain SRMA	1,600	290	1,310			
North Delta SRMA	3,950	3,950				
Ridgway Trails SRMA	1,130	20	1,110			
Roubideau SRMA	25,350	3,260	14,410	4,020	3,660	
San Miguel River SRMA	29,530	18,440	8,020	1,400	1,670	
Spring Creek SRMA	4,980	850	2,710	1,420		

Shading indicates not applicable

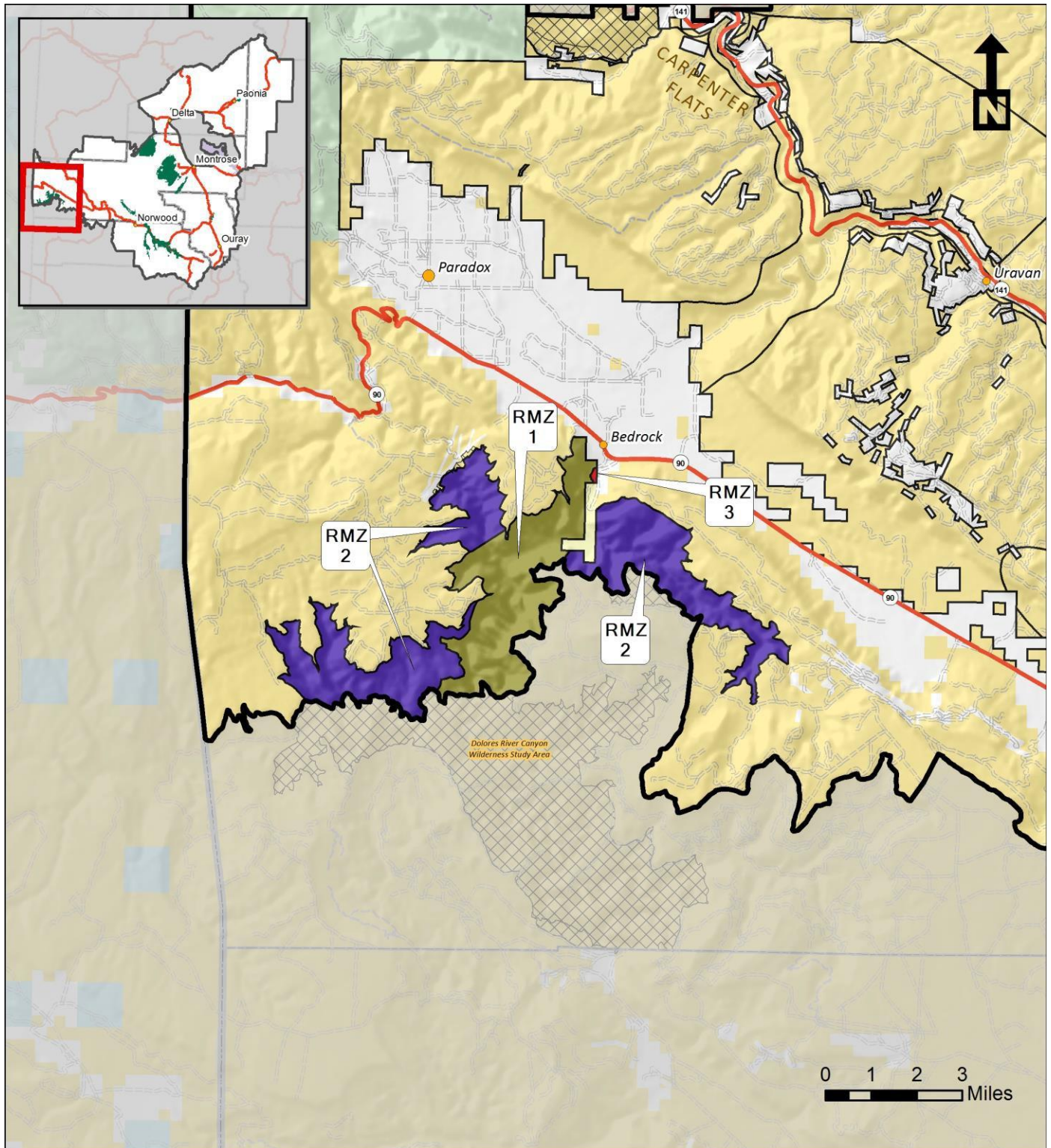


Figure E-1: Recreation Management Zones (RMZ) of Dolores River Canyon SRMA

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DOLORES RIVER CANYON SPECIAL RECREATION MANAGEMENT AREA
Refer to **Figure E-I**, RMZs of Dolores River Canyon SRMA.

Dolores River Canyon Special Recreation Management Area, RMZ I

Objective: Manage Zone I to provide opportunities primarily for visitors to engage in non-motorized water-based activity, challenging whitewater boating, and similar activities in a primitive backcountry setting so that within five to seven years the mean (average) response is at least a “moderate” (i.e., 3.0 on a probability scale where 1 = not at all, 2 = somewhat, 3 = moderate, 4 = complete/total realization) attainment of the following experiences and benefits.

Targeted Activities		Whitewater rafting, boating, fishing, camping					
Targeted Experiences		Opportunities to develop skills and abilities, enjoy strenuous outdoor physical exercise, and gain a greater sense of self-confidence. These opportunities help produce desired outcomes such as improved health and self-confidence, stronger family connections, and stewardship of private and public lands.					
Targeted Benefits		Personal: Improved skills and abilities, greater competence, greater confidence, improved cardiovascular and muscle strength, improved capacity for outdoor physical activity, improved understanding of our community’s dependence and impact on public lands and adjoining private lands. Community/Social: Enhanced outdoor-oriented lifestyle, bonding with friends and family, opportunity to contribute to stewardship efforts that benefit society. Environmental: Improved stewardship of public and privately owned lands. Economic: Reduced health maintenance costs, economic activity from visitor purchases.					
		Existing			Desired Future		
		Primitive	Back Country	Middle Country	Front Country	Rural	Urban
Physical	Remoteness						
	Naturalness						
	Facilities						
Social	Contacts						
	Group Size						
	Evidence of Use						
Operational	Access						
	Visitor Services						
	Management Controls						
VRM Class		VRM Class II					
Rights-of-Way		ROW Avoidance					
Coal		Closed to leasing					
Fluid Minerals		NSO-56: Recreation SRMA					
Locatable Minerals		No similar action					
Mineral Materials		Closed to mineral material disposal					
Nonenergy Solid Leasable Minerals		Closed to leasing					
Facility Development		Allow as needed to meet SRMA objective					
Camping Restrictions		Allow dispersed camping unless monitoring indicates a need for change. Use of fire pans and portable toilets or EPA-approved carry-out systems mandatory for boaters.					
SRPs		Prohibit competitive events					
Group Size		No more than 16 people/group					
Travel Management		Closed to motorized and mechanized travel, including motorized watercraft, except for administrative and permitted vehicular access which would be limited to authorized routes.					
Forestry		Closed to commercial/ private wood cutting. Allow on-site collection of dead and downed wood for campfires (fire pans required) unless monitoring indicates the need for a change.					
Target Shooting		Allow					

Dolores River Canyon Special Recreation Management Area, RMZ 2

Objective: Manage Zone 2 for visitors to engage in nonmotorized/nonmechanized, quiet trail activities so that they report an average 4.0 realization of the targeted experiences and benefit outcome stated in the following table. (4.0 on a probability scale where: 1=not at all realized to 5=totally realized)

Targeted Activities		Boating, Camping, and Educational Programs					
Targeted Experiences		Opportunities to enjoy high-quality canyon landscapes, learning more about things here; greater sensitivity to and awareness of natural beauty, and enjoy exploring.					
Targeted Benefits		Restored mind from unwanted stress; improved skills for outdoor enjoyment; greater awareness of outdoor ethics (e.g., “leave no trace”); improved appreciation of nature’s splendor; greater retention of distinctive natural landscape features; and increased awareness and protection of natural landscapes					
		Existing			Desired Future		
		Primitive	Back Country	Middle Country	Front Country	Rural	Urban
Physical	Remoteness						
	Naturalness						
	Facilities						
Social	Contacts						
	Group Size						
	Evidence of Use						
Operational	Access						
	Visitor Services						
	Management Controls						
VRM Class		VRM Class II					
Rights-of-Way		ROW avoidance					
Coal		Closed to leasing					
Fluid Minerals		NSO-56: Recreation SRMA					
Locatable Minerals		No similar action					
Mineral Materials		Closed to mineral material disposal					
Nonenergy Solid Leasable Minerals		Closed to leasing					
Facility Development		Allow as needed to meet SRMA objective					
Camping Restrictions		Allow dispersed camping unless monitoring indicates a need for change. Use of fire pans and portable toilets of EPA-approved carry-out systems mandatory for boaters.					
SRPs		Prohibit competitive events					
Group Size		No more than 16 people/group					
Travel Management		Closed to motorized and mechanized travel, including motorized watercraft, except for administrative and permitted vehicular access which would be limited to authorized routes.					
Forestry		Closed to commercial/ private wood cutting. Allow on-site collection of dead and downed wood for campfires (fire pans required) unless monitoring indicates the need for a change.					
Target Shooting		Allow					

Dolores River Canyon Special Recreation Management Area, RMZ 3

Objective: Manage Zone 3 to provide opportunities to experience spectacular natural scenery, camping, and other quiet use activities in a Middle to Front Country setting so within five to seven years the mean (average) response is at least a “moderate” (i.e., 3.0 on a probability scale where 1 = not at all, 2 = somewhat, 3 = moderate, 4 = complete/total realization) attainment of the following experiences and benefits.

Targeted Activities		Camping, and Educational Programs					
Targeted Experiences		Opportunities to enjoy high-quality canyon landscapes, learning more about things here. These opportunities help produce desired outcomes such as greater sensitivity to and awareness of natural beauty, and enjoy exploring.					
Targeted Benefits		Restored mind from unwanted stress; improved skills for outdoor enjoyment; greater awareness of outdoor ethics (e.g., “leave no trace”); improved appreciation of nature’s splendor; greater retention of distinctive natural landscape features; and increased awareness and protection of natural landscapes					
		Existing			Desired Future		
		Primitive	Back Country	Middle Country	Front Country	Rural	Urban
Physical	Remoteness						
	Naturalness						
	Facilities						
Social	Contacts						
	Group Size						
	Evidence of Use						
Operational	Access						
	Visitor Services						
	Management Controls						
VRM Class		VRM Class III					
Rights-of-Way		ROW avoidance					
Coal		Closed to leasing					
Fluid Minerals		NSO-56: Recreation SRMA					
Locatable Minerals		No similar action					
Mineral Materials		Closed to mineral material disposal					
Nonenergy Solid Leasable Minerals		Closed to leasing					
Facility Development		Allow as needed to meet SRMA objective					
Camping Restrictions		Allow camping in designated sites only. Use of fire pans and portable toilets of EPA-approved carry-out systems mandatory for boaters.					
SRPs		If compatible with SRMA objective, allow competitive events at the discretion of the Authorized Officer					
Group Size		No more than 16 people/group					
Travel Management		Motorized and mechanized travel limited to designated routes					
Forestry		Closed to commercial/ private wood cutting. Allow on-site collection of dead and downed wood for campfires (fire pans required) unless monitoring indicates the need for a change.					
Target Shooting		Allow					

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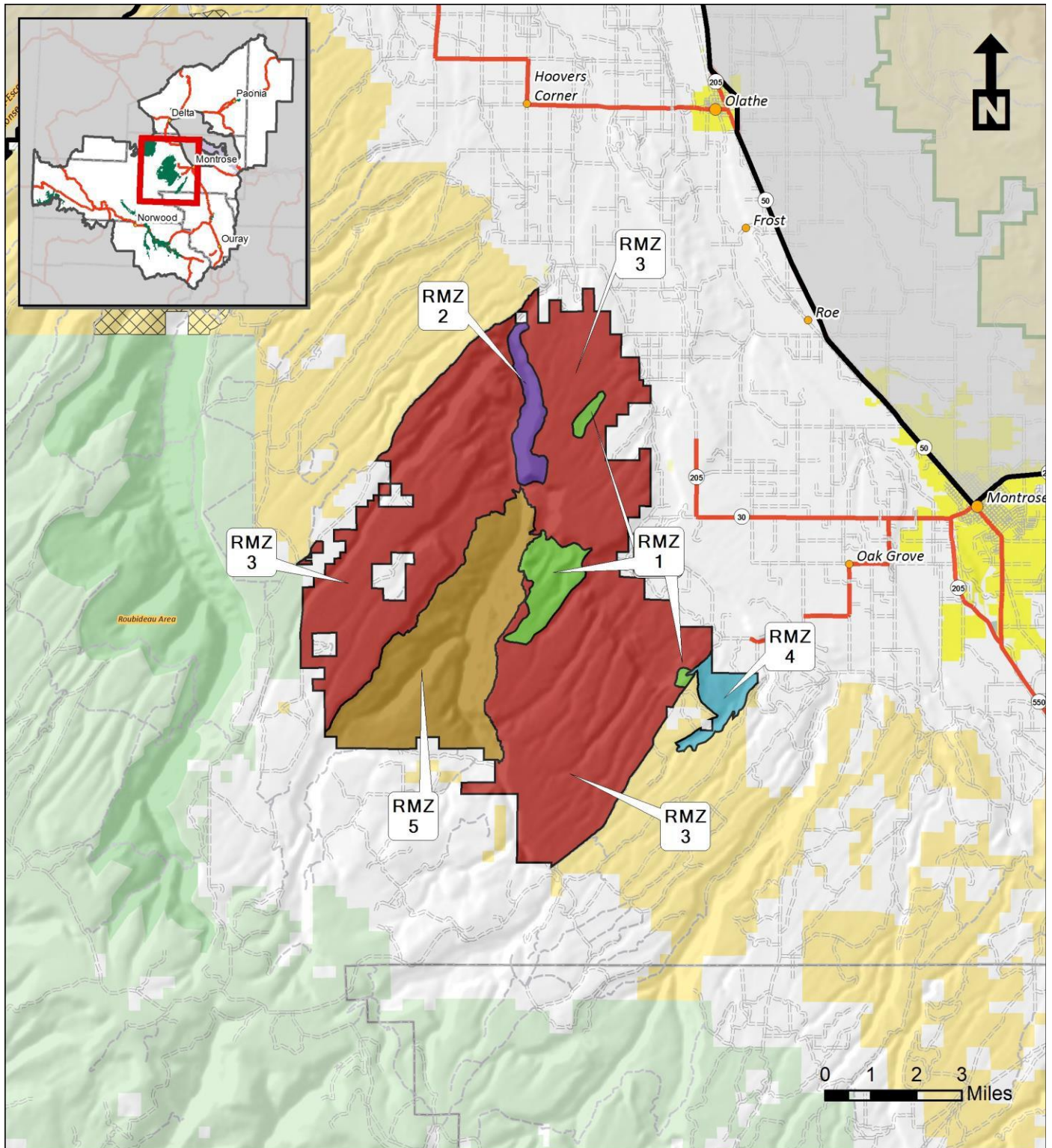


Figure E-2: Recreation Management Zones (RMZ) of Dry Creek SRMA

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DRY CREEK SPECIAL RECREATION MANAGEMENT AREA
Refer to **Figure E-2**, RMZs of Dry Creek SRMA.

Dry Creek Special Recreation Management Area, RMZ I

Objective: Manage Zone I for visitors to engage in motorized and mechanized technical riding activities so that they report an average 4.0 realization of the targeted experiences and benefit outcome stated in the following table. (4.0 on a probability scale where: 1=not at all realized to 5=totally realized)

Targeted Activities		Rock crawling and trials bike riding.					
Targeted Experiences		Developing skills and abilities; being able to tell others about the trip; enjoying risk-taking adventure; talking to others about equipment; relishing group affiliation and togetherness; enjoying meeting new people with similar interests; and enjoying easy access to natural landscapes.					
Targeted Benefits		Restored mind from unwanted stress; improved skills for outdoor enjoyment; greater understanding of the importance of recreation and tourism to the community; a more outdoor-oriented lifestyle; greater sense of adventure; improved understanding of the community's dependence and impact on public lands; enhanced quality of life; positive contributions to local/regional economic stability; and increased local tourism revenue.					
		Existing			Desired Future		
		Primitive	Back Country	Middle Country	Front Country	Rural	Urban
Physical	Remoteness						
	Naturalness						
	Facilities						
Social	Contacts						
	Group Size						
	Evidence of Use						
Operational	Access						
	Visitor Services						
	Management Controls						
VRM Class		VRM Class III					
Rights-of-Way		No similar action					
Coal		Closed to leasing					
Fluid Minerals		CSU-50: Recreation SRMAs					
Locatable Minerals		No similar action					
Mineral Materials		Closed to mineral material disposal					
Nonenergy Solid Leasable Minerals		Closed to leasing					
Facility Development		Allow as needed to meet SRMA objective					
Camping Restrictions		Allow dispersed camping unless monitoring indicates a need for change					
SRPs		If compatible with SRMA objective, allow competitive events at the discretion of the Authorized Officer					
Group Size		Standard (16 or less in a VWSA, wilderness, or Tabeguache Area and 75 or less in all other areas unless permitted by the Authorized Officer)					
Travel Management		Limit motorized and mechanized travel to designated routes					
Forestry		Not available for private and/or commercial use of woodland products. Allow on-site collection of dead and downed wood for campfires unless monitoring indicates the need for a change.					
Target Shooting		Allow					

Dry Creek Special Recreation Management Area, RMZ 2

Objective: Manage Zone 2 for visitors to engage in rock climbing and observing natural landscapes activities so that they report an average 4.0 realization of the targeted experiences and benefit outcome stated in the following table. (4.0 on a probability scale where: 1=not at all realized to 5=totally realized)

Targeted Activities		Rock climbing for beginner climbers, overlook viewing, and picnicking.					
Targeted Experiences		Developing skills and abilities; gaining a greater sense of self-confidence; enjoying risk-taking adventure; relishing group affiliation and togetherness; enjoying easy access to natural landscapes; enjoying getting some needed physical exercise; and enjoying access to close-to-home outdoor amenities.					
Targeted Benefits		Improved mental well-being; improved skills for outdoor enjoyment; improved outdoor knowledge and self-confidence; a more outdoor-oriented lifestyle; greater sense of adventure; improved appreciation of nature’s splendor; improved understanding of the community’s dependence and impact on public lands; enhanced quality of life; and improved local economic stability.					
		Existing			Desired Future		
		Primitive	Back Country	Middle Country	Front Country	Rural	Urban
Physical	Remoteness						
	Naturalness						
	Facilities						
Social	Contacts						
	Group Size						
	Evidence of Use						
Operational	Access						
	Visitor Services						
	Management Controls						
VRM Class		VRM Class III					
Rights-of-Way		No similar action					
Coal		Closed to leasing					
Fluid Minerals		CSU-50: Recreation SRMAs					
Locatable Minerals		No similar action					
Mineral Materials		Closed to mineral material disposal					
Nonenergy Solid Leasable Minerals		Closed to leasing					
Facility Development		Allow as needed to meet SRMA objective					
Camping Restrictions		Allow dispersed camping unless monitoring indicates a need for change					
SRPs		If compatible with SRMA objective, allow competitive events at the discretion of the Authorized Officer					
Group Size		Standard (16 or less in a WSA, wilderness, or Tabeguache Area and 75 or less in all other areas unless permitted by the Authorized Officer)					
Travel Management		Motorized and mechanized travel limited to designated routes					
Forestry		Not available for private and/or commercial use of woodland products. Allow on-site collection of dead and downed wood for campfires unless monitoring indicates the need for a change.					
Target Shooting		Allow					

Dry Creek Special Recreation Management Area, RMZ 3

Objective: Manage Zone 3 for visitors to engage in quality multi-use trail riding opportunities so that they report an average 4.0 realization of the targeted experiences and benefit outcome stated in the following table. (4.0 on a probability scale where: 1=not at all realized to 5=totally realized)

Targeted Activities		OHV use, mountain biking, hiking and horseback riding.					
Targeted Experiences		Enjoying exploring; enjoying access to close-to-home outdoor amenities; enjoying being able to frequently participate in desired activities and settings; just knowing this attraction is here; and encouraging visitors to help safeguard lifestyle and quality of life.					
Targeted Benefits		Improved mental well-being; improved skills for outdoor enjoyment; a more outdoor-oriented lifestyle; improved appreciation of nature’s splendor; improved understanding of the community’s dependence and impact on public lands; improved physical fitness and health maintenance; enhanced quality of life; improved local economic stability; positive contributions to local/regional economic stability; and increased awareness and protection of natural landscapes.					
		Existing			Desired Future		
		Primitive	Back Country	Middle Country	Front Country	Rural	Urban
Physical	Remoteness						
	Naturalness						
	Facilities						
Social	Contacts						
	Group Size						
	Evidence of Use						
Operational	Access						
	Visitor Services						
	Management Controls						
VRM Class		VRM Class III					
Rights-of-Way		No similar action					
Coal		Closed to leasing					
Fluid Minerals		CSU-50: Recreation SRMAs					
Locatable Minerals		No similar action					
Mineral Materials		No similar action					
Nonenergy Solid Leasable Minerals		Closed to leasing					
Facility Development		Allow as needed to meet SRMA objective					
Camping Restrictions		Allow dispersed camping unless monitoring indicates a need for change					
SRP:		If compatible with SRMA objective, allow competitive events at the discretion of the Authorized Officer					
Group Size		Standard (16 or less in a WSA, wilderness, or Tabeguache Area and 75 or less in all other areas unless permitted by the Authorized Officer)					
Travel Management		Motorized and mechanized travel limited to designated routes					
Forestry		Available for commercial/ private use of woodland products (including on-site collection of dead and downed wood for campfires) unless monitoring indicates the need for a change					
Target Shooting		Allow					

Dry Creek Special Recreation Management Area, RMZ 4

Objective: Manage Zone 4 for visitors of all abilities to engage in close to town nonmotorized activities including natural surfaced disabled accessible trails so that they report an average 4.0 realization of the targeted experiences and benefit outcome stated in the following table. (4.0 on a probability scale where: 1=not at all realized to 5=totally realized)

Targeted Activities		Mountain biking, running, hiking, horseback riding and accessible trails through the use of current and emerging adaptive equipment.					
Targeted Experiences		Developing skills and abilities; enjoying going exploring; learning more about things here; enjoying easy access to natural landscapes; enjoying getting some needed physical exercise; enjoying being able to frequently participate in desired activities and settings; escaping everyday responsibilities for a while; and increasing the quality of life,					
Targeted Benefits		Improved mental well-being; improved skills for outdoor enjoyment, a more outdoor-oriented lifestyle, greater opportunity for people with different skills to exercise in the same place, enhanced quality of life, and improved economic stability.					
		Existing			Desired Future		
		Primitive	Back Country	Middle Country	Front Country	Rural	Urban
Physical	Remoteness						
	Naturalness						
	Facilities						
Social	Contacts						
	Group Size						
	Evidence of Use						
Operational	Access						
	Visitor Services						
	Management Controls						
VRM Class		VRM Class III					
Rights-of-Way		No similar action					
Coal		Closed to leasing					
Fluid Minerals		CSU-50: Recreation SRMAs					
Locatable Minerals		No similar action					
Mineral Materials		Closed to mineral material disposal					
Nonenergy Solid Leasable Minerals		Closed to leasing					
Facility Development		Allow as needed to meet SRMA objective					
Camping Restrictions		Day use area only					
SRP:		If compatible with SRMA objective, allow competitive events at the discretion of the Authorized Officer					
Group Size		Standard (16 or less in a WSA, wilderness, or Tabeguache Area and 75 or less in all other areas unless permitted by the Authorized Officer)					
Travel Management		Motorized and mechanized travel limited to designated routes					
Forestry		Available for private and/or commercial use of woodland products (including on-site collection of dead and downed wood) unless monitoring indicates the need for a change					
Target Shooting		Allow					

Dry Creek Special Recreation Management Area, RMZ 5

Objective: Manage Zone 5 for visitors to engage in hunting and canyon viewing in a natural appearing setting through minimal quality trail activities so that they report an average 4.0 realization of the following targeted experiences and benefit outcomes (4.0 on a probability scale, where 1=not at all realized to 5=totally realized)

Targeted Activities		Hunting and Scenic Viewing					
Targeted Experiences		Enjoying going exploring; developing skills and abilities; enjoying easy access to natural landscapes; enjoying some needed physical exercise; enjoying being able to frequently participate in desired activities in desired settings; releasing or reducing some built-up mental tensions.					
Targeted Benefits		Improved mental well-being; improved skills for outdoor enjoyment; improved outdoor knowledge and self-confidence; a more outdoor-oriented lifestyle; improved appreciation of nature’s splendor; greater respect for private property and local lifestyles; improved physical fitness and health maintenance; enhanced quality of life; improved local economic stability; increased desirability as a place to live or retire; and increased awareness and protection of natural landscapes.					
		Existing			Desired Future		
		Primitive	Back Country	Middle Country	Front Country	Rural	Urban
Physical	Remoteness						
	Naturalness						
	Facilities						
Social	Contacts						
	Group Size						
	Evidence of Use						
Operational	Access						
	Visitor Services						
	Management Controls						
VRM Class		VRM Class II					
Rights-of-Way		ROW Avoidance					
Coal		Closed to leasing					
Fluid Minerals		CSU-50: Recreation SRMAs					
Locatable Minerals		No similar action					
Mineral Materials		Closed to mineral material disposal					
Nonenergy Solid Leasable Minerals		Closed to leasing					
Facility Development		Allow as needed to meet SRMA objective					
Camping Restrictions		Allow dispersed camping unless monitoring indicates a need for change					
SRPs		If compatible with SRMA objective, allow competitive events at the discretion of the Authorized Officer					
Group Size		Standard (16 or less in a WSA, wilderness, or Tabeguache Area and 75 or less in all other areas unless permitted by the Authorized Officer)					
Travel Management		Motorized and mechanized travel limited to designated routes					
Forestry		Available for private and/or commercial use of woodland products (including on-site collection of dead and downed wood) unless monitoring indicates the need for a change					
Target Shooting		Allow					

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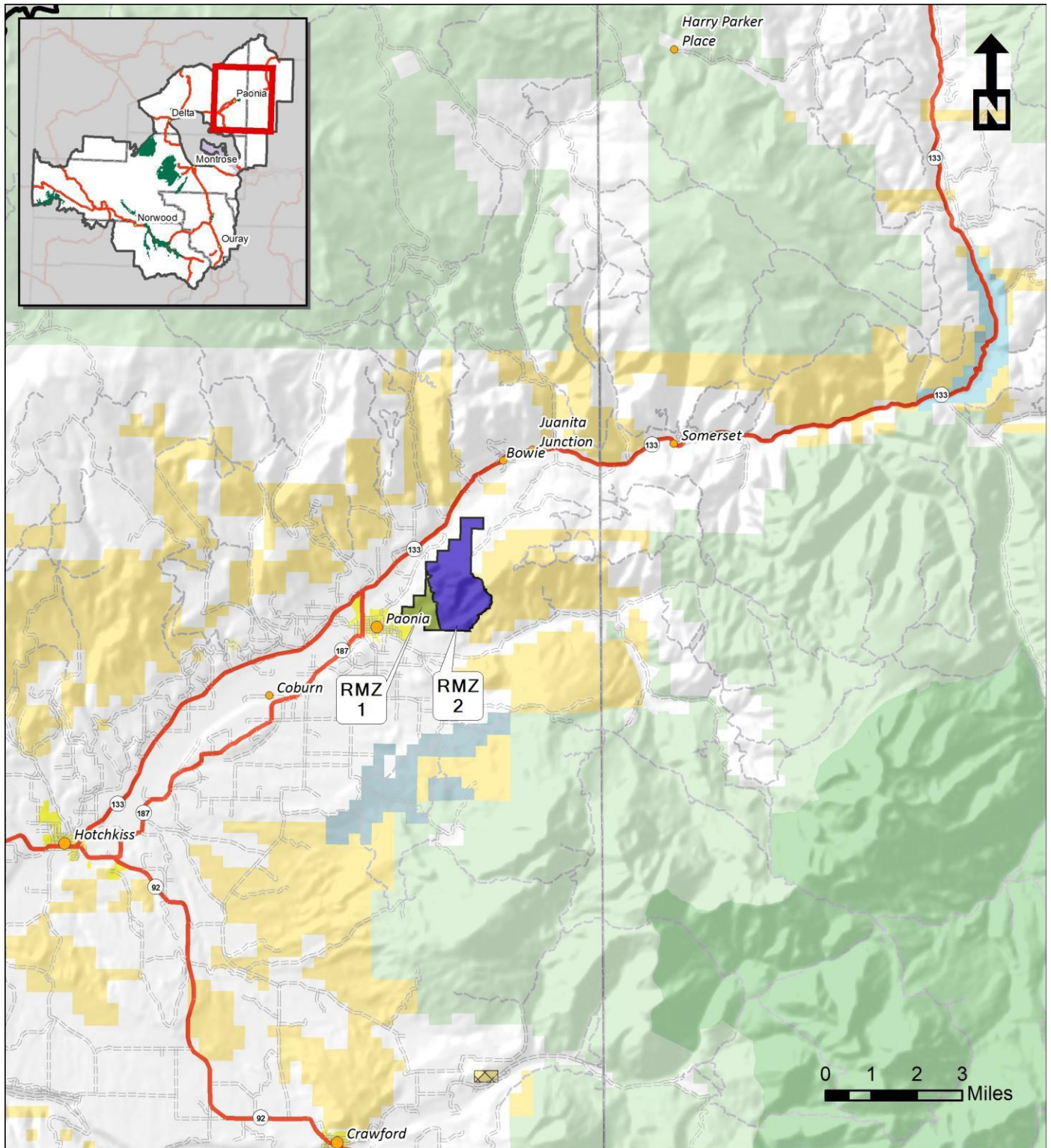


Figure E-3: Recreation Management Zones (RMZ) of Jumbo Mountain SRMA

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JUMBO MOUNTAIN SPECIAL RECREATION MANAGEMENT AREA
Refer to **Figure E-3**, RMZs of Jumbo Mountain SRMA.

Jumbo Mountain Special Recreation Management Area, RMZ I

Objective: Manage Zone I for visitors to engage in day-use stacked loop family friendly (easy) single track trail activities including challenging natural surfaced disabled accessible trails so that they report an average 4.0 realization of the following targeted experiences and benefit outcomes (4.0 on a probability scale, where 1=not at all realized to 5=totally realized)

Targeted Activities		Day use mountain biking, horseback riding, running, hiking, and accessible trails through the use of current and emerging adaptive equipment.					
Targeted Experiences		Developing skills and abilities; learning more about things here; enjoying access to hands-on environmental learning; enjoying easy access to natural landscapes; enjoying getting some needed physical exercise; enjoying access to close-to-home outdoor amenities; enjoying being able to frequently participate in desired activities and settings; releasing or reducing some built-up mental tensions; escaping everyday responsibilities for a while; and increasing/maintaining the quality of life here					
Targeted Benefits		Restored mind from unwanted stress; improved mental well-being; improved skills for outdoor enjoyment; improved outdoor knowledge and self-confidence; greater understanding of the importance of recreation and tourism to the community; a more outdoor-oriented lifestyle; improved understanding of the community's dependence and impact on public lands; greater respect for private property and local lifestyles; improved physical fitness and health maintenance; improved capacity for outdoor physical activity; greater opportunity for people with different skills to exercise in the same place; enhanced quality of life; improved local economic stability; positive contributions to local/regional economic stability; and increased desirability as a place to live or retire.					
		Existing			Desired Future		
		Primitive	Back Country	Middle Country	Front Country	Rural	Urban
Physical	Remoteness						
	Naturalness						
	Facilities						
Social	Contacts						
	Group Size						
	Evidence of Use						
Operational	Access						
	Visitor Services						
	Management Controls						
VRM Class		VRM Class III					
Rights-of-Way		No similar action					
Coal		Closed to leasing					
Fluid Minerals		CSU 50: Recreation SRMAs					
Locatable Minerals		No similar action					
Mineral Materials		Closed to mineral material disposal					
Nonenergy Solid Leasable Minerals		Closed to leasing					
Facility Development		Allow as needed to meet SRMA objective					
Camping Restrictions		Day use area only					
SRPs		If compatible with SRMA objective, allow competitive events at the discretion of the Authorized Officer					
Group Size		Standard (16 or less in a VWSA, wilderness, or Tabeguache Area and 75 or less in all other areas unless permitted by the Authorized Officer)					
Travel Management		Prohibit motorized and mechanized travel from December 1 to April 15, except for administrative and permitted access. Limit motorized and mechanized travel to designated routes during all other times of the year.					
Forestry		Not available for private and/or commercial use of woodland products (including on-site collection of dead and downed wood) unless monitoring indicates the need for a change					
Target Shooting		Allow					

Jumbo Mountain Special Recreation Management Area, RMZ 2

Objective: Manage Zone 2 for visitors to engage in day-use stacked loop technical (intermediate to difficult) single track trail activities so that they report an average 4.0 realization of the following targeted experiences and benefit outcomes (4.0 on a probability scale, where 1=not at all realized to 5=totally realized)

Targeted Activities		Day-use mountain biking, running and hiking.					
Targeted Experiences		Developing skills and abilities; enjoying getting some needed physical exercise; enjoying being able to frequently participate in desired activities and settings; releasing or reducing some built-up mental tensions; escaping everyday responsibilities for a while; and increasing/maintaining the quality of life here.					
Targeted Benefits		Restored mind from unwanted stress; improved mental well-being; improved skills for outdoor enjoyment; improved outdoor knowledge and self-confidence; improved outdoor recreation skills; greater understanding of the importance of recreation and tourism to the community; a more outdoor-oriented lifestyle; improved physical fitness and health maintenance; improved capacity for outdoor physical activity; enhanced lifestyle; improved local economic stability; and positive contributions to local/regional economic stability.					
		Existing			Desired Future		
		Primitive	Back Country	Middle Country	Front Country	Rural	Urban
Physical	Remoteness						
	Naturalness						
	Facilities						
Social	Contacts						
	Group Size						
	Evidence of Use						
Operational	Access						
	Visitor Services						
	Management Controls						
VRM Class		VRM Class III					
Rights-of-Way		No similar action					
Coal		Closed to leasing					
Fluid Minerals		CSU 50: Recreation SRMAs					
Locatable Minerals		No similar action					
Mineral Materials		Closed to mineral material disposal					
Nonenergy Solid Leasable Minerals		Closed to leasing					
Facility Development		Allow as needed to meet SRMA objective					
Camping Restrictions		Day use only					
SRPs		If compatible with SRMA objective, allow competitive events at the discretion of the Authorized Officer					
Group Size		Standard (16 or less in a WSA, wilderness, or Tabeguache Area and 75 or less in all other areas unless permitted by the Authorized Officer)					
Travel Management		Prohibit motorized and mechanized travel from December 1 to April 15, except for administrative and permitted access. Limit motorized and mechanized travel to designated routes during all other times of the year.					
Forestry		Available for private and/or commercial use of woodland products (including on-site collection of dead and downed wood) unless monitoring indicates the need for a change					
Target Shooting		Allow					

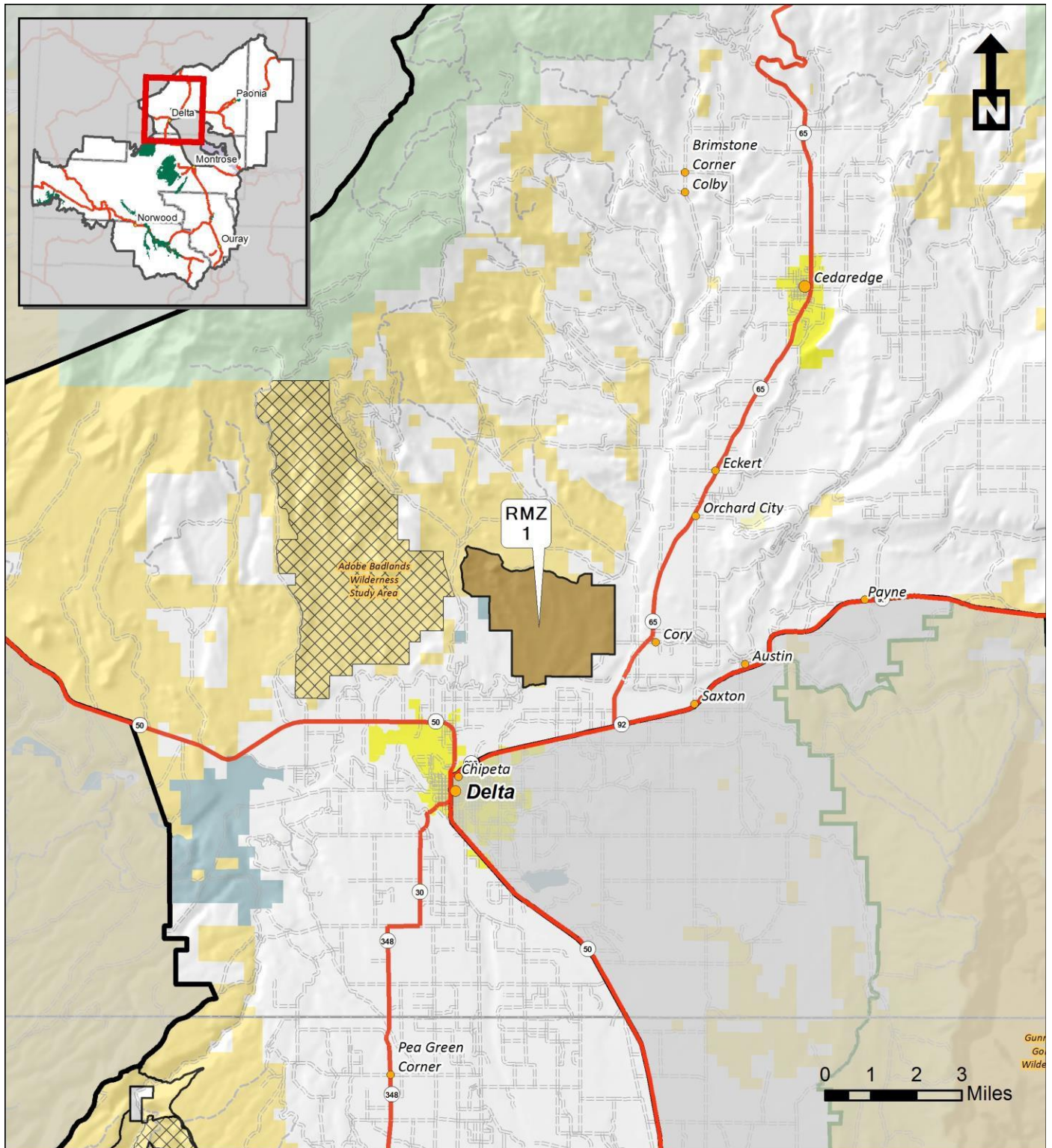


Figure E-4: Recreation Management Zones (RMZ) of North Delta SRMA

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NORTH DELTA SPECIAL RECREATION MANAGEMENT AREA
Refer to **Figure E-4**, RMZ of North Delta SRMA.

North Delta Special Recreation Management Area, RMZ I

Objective: Manage North Delta SRMA for visitors to engage in motorized activities so that they report an average 4.0 realization of the following targeted experiences and benefit outcomes (4.0 on a probability scale, where 1=not at all realized to 5=totally realized)

Targeted Activities		OHV use and educational trainings and programs.					
Targeted Experiences		Talking to others about equipment; relishing group affiliation and togetherness; enjoying learning ethical and proper riding skills; enjoying access to close-to-home outdoor amenities; enjoying being able to frequently participate in desired activities and settings; escaping everyday responsibilities for a while; just knowing this attraction is here; safeguarding the lifestyle and quality of life.					
Targeted Benefits		Restored mind from unwanted stress; improved skills for outdoor enjoyment; greater understanding of the importance of recreation and tourism to the community; a more outdoor-oriented lifestyle; greater opportunity for people with different skills to enjoy the same place; enhanced quality of life; improved local economic stability; positive contributions to local/regional economic stability; greater community ownership and stewardship of recreation and natural resources.					
		Existing			Desired Future		
		Primitive	Back Country	Middle Country	Front Country	Rural	Urban
Physical	Remoteness						
	Naturalness						
	Facilities						
Social	Contacts						
	Group Size						
	Evidence of Use						
Operational	Access						
	Visitor Services						
	Management Controls						
VRM Class		VRM Class IV					
Rights-of-Way		ROW avoidance					
Coal		Closed to leasing					
Fluid Minerals		CSU-50: Recreation SRMAs					
Locatable Minerals		No similar action					
Mineral Materials		No similar action					
Nonenergy Solid Leasable Minerals		Closed to leasing					
Facility Development		Allow to meet SRMA objective					
Camping Restrictions		Allow dispersed camping unless monitoring indicates a need for change					
SRPs		If compatible with SRMA objective, allow competitive events at the discretion of the Authorized Officer					
Group Size		Standard (16 or less in a WSA, wilderness, or Tabeguache Area and 75 or less in all other areas unless permitted by the Authorized Officer)					
Travel Management		Manage area as Open to cross country travel for motorized and mechanized travel					
Forestry		Not available for private and/or commercial use of woodland products (including on-site collection of dead and downed wood) unless monitoring indicates the need for a change					
Target Shooting		Allow					

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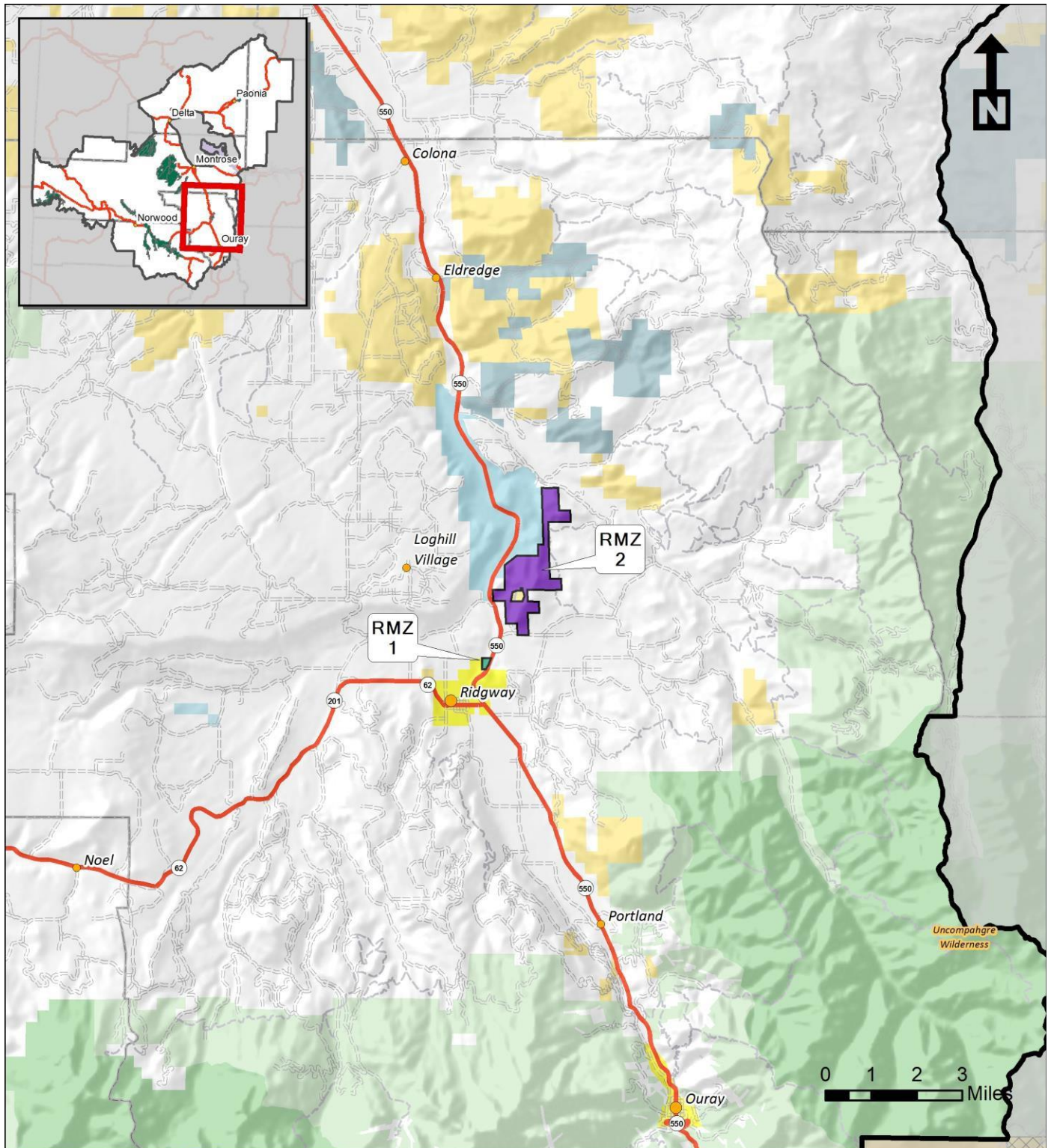


Figure E-5: Recreation Management Zones (RMZ) of Ridgway Trails SRMA

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RIDGWAY TRAILS SPECIAL RECREATION MANAGEMENT AREA
Refer to **Figure E-5**, RMZs of Ridgway Trails SRMA.

Ridgway Trails Special Recreation Management Area, RMZ I

Objective: Manage Zone I for visitors of all abilities to engage in nonmotorized and educational activities including disabled accessible trails so that they report an average 4.0 realization of the targeted experiences and benefit outcome stated in the following table. (4.0 on a probability scale where: 1=not at all realized to 5=totally realized)

Targeted Activities		Day use outdoor living classroom, biking, accessible trails, running, and hiking.					
Targeted Experiences		Enjoying meeting new people with similar interests; learning more about things here; enjoying access to hands-on environmental learning; enjoying easy access to natural landscapes; enjoying some needed physical exercise; enjoying access to close-to-home outdoor amenities; enjoying being able to frequently participate in desired activities in desired settings; and releasing or reducing some built-up mental tensions.					
Targeted Benefits		Improved mental well-being; enhanced awareness and understanding of nature; greater environmental awareness and sensitivity; a more outdoor-oriented lifestyle; greater cultivation of a natural resource stewardship ethic; improved physical fitness and health maintenance; enhanced quality of life; improved local economic stability; more positive contributions to local/regional economy; and increased local tourism revenue.					
		Existing			Desired Future		
		Primitive	Back Country	Middle Country	Front Country	Rural	Urban
Physical	Remoteness						
	Naturalness						
	Facilities						
Social	Contacts						
	Group Size						
	Evidence of Use						
Operational	Access						
	Visitor Services						
	Management Controls						
VRM Class		VRM Class III					
Rights-of-Way		No similar action					
Coal		Closed to leasing					
Fluid Minerals		CSU 50: Recreation SRMAs					
Locatable Minerals		No similar action					
Mineral Materials		Closed to mineral material disposal					
Nonenergy Solid Leasable Minerals		Closed to leasing					
Facility Development		Allow as needed to meet SRMA objective					
Camping Restrictions		Day use area only					
SRPs		If compatible with SRMA objective, allow nonmotorized competitive events at the discretion of the Authorized Officer. Prohibit motorized competitive events.					
Group Size		Standard (16 or less in a VWSA, wilderness, or Tabeguache Area and 75 or less in all other areas unless permitted by the Authorized Officer)					
Travel Management		Closed to motorized travel; mechanized travel limited to designated routes. Administrative and permitted vehicular access would be limited to authorized routes.					
Forestry		Not available for private and/or commercial use of woodland products (including on-site collection of dead and downed wood) unless monitoring indicates the need for a change					
Target Shooting		Allow					

Ridgway Trails Special Recreation Management Area, RMZ 2

Objective: Manage Zone 2 for visitors to engage in day use, stacked loop, single track trail activities, including challenging, natural surfaced, disabled accessible trails so that they report an average 4.0 realization of the following targeted experiences and benefit outcomes (4.0 on a probability scale, where 1=not at all realized to 5=totally realized)

Targeted Activities		Day use mountain biking, running, and hiking.					
Targeted Experiences		Developing skills and abilities; enjoying easy access to natural landscapes; enjoying some needed physical exercise; enjoying being able to frequently participate in desired activities in desired settings; increasing/maintaining quality of life; releasing or reducing some built-up mental tensions.					
Targeted Benefits		Improved mental well-being; improved skills for outdoor enjoyment; a more outdoor-oriented lifestyle; improved understanding of the community’s dependence and impact on public lands; improved physical fitness and health maintenance; enhanced quality of life; improved local economic stability; more positive contributions to local/regional economy; increased local tourism revenue; increased desirability as a place to live or retire; greater community ownership and stewardship of park, recreation, and natural resources.					
		Existing			Desired Future		
		Primitive	Back Country	Middle Country	Front Country	Rural	Urban
Physical	Remoteness						
	Naturalness						
	Facilities						
Social	Contacts						
	Group Size						
	Evidence of Use						
Operational	Access						
	Visitor Services						
	Management Controls						
VRM Class		VRM Class III					
Rights-of-Way		No similar action					
Coal		Closed to leasing					
Fluid Minerals		CSU 50: Recreation SRMAs					
Locatable Minerals		No similar action					
Mineral Materials		Closed to mineral material disposal					
Nonenergy Solid Leasable Minerals		Closed to leasing					
Facility Development		Allow as needed to meet SRMA objective					
Camping Restrictions		Day use area only					
SRPs		If compatible with SRMA objective, allow nonmotorized competitive events at the discretion of the Authorized Officer. Prohibit motorized competitive events.					
Group Size		Standard (16 or less in a VWSA, wilderness, or Tabeguache Area and 75 or less in all other areas unless permitted by the Authorized Officer)					
Travel Management		Prohibit motorized, mechanized, foot, and equestrian travel from December 1 to April 15, except for administrative and permitted access. Limit motorized and mechanized travel to designated routes during all other times of the year.					
Forestry		Available for private and/or commercial use of woodland products (including on-site collection of dead and downed wood) unless monitoring indicates the need for a change					
Target Shooting		Allow					

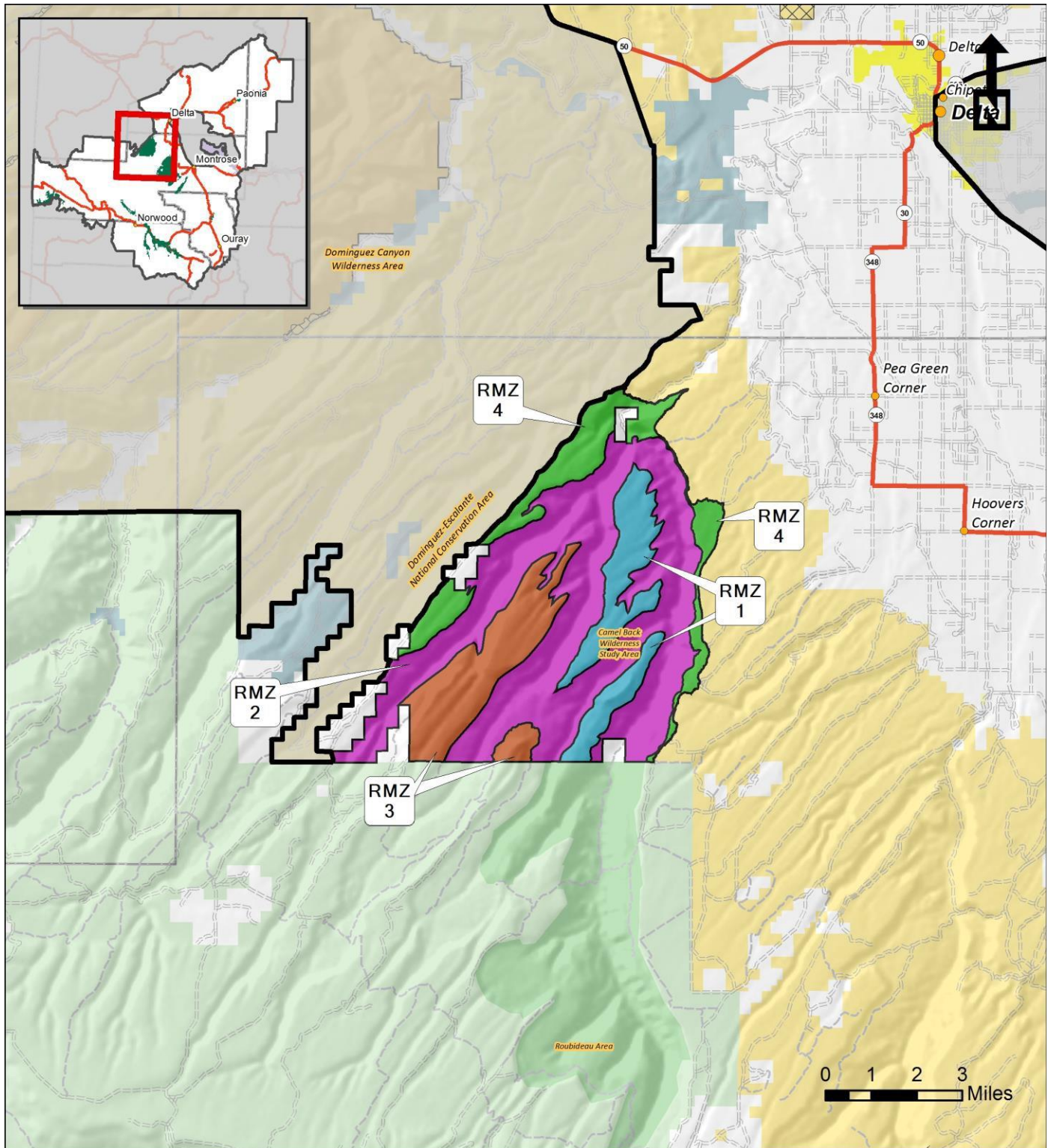


Figure E-6: Recreation Management Zones (RMZ) of Roubideau SRMA

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ROUBIDEAU SPECIAL RECREATION MANAGEMENT AREA
Refer to **Figure E-6**, RMZs of Roubideau SRMA.

Roubideau Special Recreation Management Area, RMZ I

Objective: *Manage Zone I for visitors to engage in nonmotorized/nonmechanized backcountry activities so that they report an average 4.0 realization of the targeted experiences and benefit outcome stated in the following table. (4.0 on a probability scale where: 1=not at all realized to 5=totally realized)*

Targeted Activities		Backcountry educational programs, backcountry hiking/ backpacking, hunting, and horseback riding.					
Targeted Experiences		Gaining a greater sense of self-confidence; enjoying going exploring; learning more about things here; savoring the total sensory—sight, sound, and smell—experience of a natural landscape; enjoying getting some needed physical exercise; feeling good about solitude; enjoying an escape from crowds of people; increasing/ maintaining quality of life; knowing that things are not going to change too much; and enjoy being able to participate in traditional use opportunities in desired settings.					
Targeted Benefits		Improved mental well-being; improved skills for outdoor enjoyment; improved outdoor knowledge and self-confidence; enhanced awareness and understanding of nature; a more outdoor-oriented lifestyle; greater sense of adventure; improved appreciation of nature’s splendor; improved physical fitness and health maintenance; enhanced quality of life; greater retention of distinctive natural landscape features; reduced wildlife harassment by recreation users; reduced wildlife disturbance from recreation facility development; increased awareness and protection of natural landscapes; and greater protection of fish, wildlife, and plant habitat from growth, development, and public use impacts.					
		Existing			Desired Future		
		Primitive	Back Country	Middle Country	Front Country	Rural	Urban
Physical	Remoteness						
	Naturalness						
	Facilities						
Social	Contacts						
	Group Size						
	Evidence of Use						
Operational	Access						
	Visitor Services						
	Management Controls						
VRM Class		VRM Class II					
Rights-of-Way		No similar action					
Coal		Closed to leasing					
Fluid Minerals		CSU 50: Recreation SRMAs					
Locatable Minerals		No similar action					
Mineral Materials		Closed to mineral material disposal					
Nonenergy Solid Leasable Minerals		Closed to leasing					
Facility Development		Allow minimal facilities as needed to meet SRMA objective					
Camping Restrictions		Allow dispersed camping unless monitoring indicates a need for change					
SRPs		If compatible with SRMA objective, allow nonmotorized competitive events at the discretion of the Authorized Officer. Prohibit motorized competitive events.					
Group Size		Standard (16 or less in a VWSA, wilderness, or Tabeguache Area and 75 or less in all other areas unless permitted by the Authorized Officer)					
Travel Management		Closed to motorized and mechanized travel, except for administrative and permitted vehicular access which would be limited to authorized routes.					
Forestry		Not available for private and/or commercial use of woodland products. On-site collection of dead and downed wood for campfires would be allowed unless monitoring indicates the need for a change.					
Target Shooting		Allow					

Roubideau Special Recreation Management Area, RMZ 2

Objective: Manage Zone 2 for visitors to engage in nonmotorized/nonmechanized canyon viewing activities so that they report an average 4.0 realization of the targeted experiences and benefit outcome stated in the following table. (4.0 on a probability scale where: 1=not at all realized to 5=totally realized)

Targeted Activities		Horseback riding, day use hiking, and overnight backpacking.					
Targeted Experiences		Gaining a greater sense of self-confidence; developing skills and abilities; enjoying exploring; savoring the total sensory—sight, sound, and smell—experience of a natural landscape; enjoying getting some needed physical exercise; feeling good about solitude; enjoying an escape from crowds of people; and enjoy being able to participate in traditional use opportunities in desired settings.					
Targeted Benefits		Improved mental well-being; improved skills for outdoor enjoyment; improved outdoor knowledge and self-confidence; a more outdoor-oriented lifestyle; greater sense of adventure; improved appreciation of nature’s splendor; improved physical fitness and health maintenance; enhanced quality of life; greater retention of distinctive natural landscape features; reduced wildlife harassment by recreation users; reduced wildlife disturbance from recreation facility development; greater protection of fish, wildlife, and plant habitat from growth, development, and public use impacts.					
		Existing			Desired Future		
		Primitive	Back Country	Middle Country	Front Country	Rural	Urban
Physical	Remoteness						
	Naturalness						
	Facilities						
Social	Contacts						
	Group Size						
	Evidence of Use						
Operational	Access						
	Visitor Services						
	Management Controls						
VRM Class		VRM Class III					
Rights-of-Way		ROW avoidance					
Coal		Closed to leasing					
Fluid Minerals		CSU 50: Recreation SRMAs					
Locatable Minerals		No similar action					
Mineral Materials		Closed to mineral material disposal					
Nonenergy Solid Leasable Minerals		Closed to leasing					
Facility Development		Allow minimal facilities as needed to meet SRMA objective					
Camping Restrictions		Allow dispersed camping unless monitoring indicates a need for change					
SRPs		If compatible with SRMA objective, allow nonmotorized competitive events at the discretion of the Authorized Officer. Prohibit motorized events.					
Group Size		No more than 35 people/group unless permitted by the Authorized Officer					
Travel Management		Closed to motorized and mechanized travel, except for administrative and permitted vehicular access which would be limited to authorized routes					
Forestry		Not available for private and/or commercial use of woodland products. On-site collection of dead and downed wood for campfires would be allowed unless monitoring indicates the need for a change.					
Target Shooting		Allow					

Roubideau Special Recreation Management Area, RMZ 3

Objective: Manage Zone 3 for visitors to engage in quiet use nonmotorized recreational activities with the exception of a few existing motorized trails so that they report an average 4.0 realization of the targeted experiences and benefit outcome stated in the following table. (4.0 on a probability scale where: 1=not at all realized to 5=totally realized)

Targeted Activities		Hunting, scenic viewing, and horseback riding.					
Targeted Experiences		Enjoying exploring; developing skills and abilities, and enjoy being able to participate in traditional use opportunities in desired settings.					
Targeted Benefits		Improved mental well-being; improved skills for outdoor enjoyment; a more outdoor-oriented lifestyle; improved appreciation of nature’s splendor; enhanced quality of life; more positive contributions to local/regional economy.					
		Existing			Desired Future		
		Primitive	Back Country	Middle Country	Front Country	Rural	Urban
Physical	Remoteness						
	Naturalness						
	Facilities						
Social	Contacts						
	Group Size						
	Evidence of Use						
Operational	Access						
	Visitor Services						
	Management Controls						
VRM Class		VRM Class III					
Rights-of-Way		ROW avoidance					
Coal		Closed to leasing					
Fluid Minerals		CSU-50: Recreation SRMAs					
Locatable Minerals		No similar action					
Mineral Materials		Closed to mineral material disposal					
Nonenergy Solid Leasable Minerals		Closed to leasing					
Facility Development		Allow minimal facilities as needed to meet SRMA objective					
Camping Restrictions		Allow dispersed camping unless monitoring indicates a need for change					
SRPs		If compatible with SRMA objective, allow nonmotorized competitive events at the discretion of the Authorized Officer. Prohibit motorized competitive events.					
Group Size		Standard (16 or less in a WSA, wilderness, or Tabeguache Area and 75 or less in all other areas unless permitted by the Authorized Officer)					
Travel Management		Motorized and mechanized travel limited to designated routes					
Forestry		Available for private and/or commercial use of woodland products (including on-site collection of dead and downed wood for campfires) unless monitoring indicates the need for a change					
Target Shooting		Allow					

Roubideau Special Recreation Management Area, RMZ 4

Objective: Manage Zone 4 for visitors to engage in canyon viewing activities so that they report an average 4.0 realization of the following targeted experiences and benefit outcomes (4.0 on a probability scale, where 1=not at all realized to 5=totally realized)

Targeted Activities		Motorized and nonmotorized scenic viewing, camping, and environmental learning.					
Targeted Experiences		Enjoying exploring; enjoying some needed physical rest; learning more about things here; enjoying easy access to natural landscapes; encouraging visitors to help safeguard the lifestyle and quality of life; and enjoying access to environmental learning.					
Targeted Benefits		Improved mental well-being; improved outdoor knowledge and self-confidence; greater sensitivity to and awareness of outdoor aesthetics; enhanced awareness and understanding of nature; improved appreciation of nature's splendor; improved understanding of the community's dependence and impact on public lands; enhanced quality of life; more positive contributions to local/regional economy; increased desirability as a place to live or retire; greater retention of distinctive natural landscape features; increased awareness and protection of natural landscapes.					
		Existing			Desired Future		
		Primitive	Back Country	Middle Country	Front Country	Rural	Urban
Physical	Remoteness						
	Naturalness						
	Facilities						
Social	Contacts						
	Group Size						
	Evidence of Use						
Operational	Access						
	Visitor Services						
	Management Controls						
VRM Class		VRM Class III					
Rights-of-Way		No similar action					
Coal		Closed to leasing					
Fluid Minerals		CSU-50: Recreation SRMAs					
Locatable Minerals		No similar action					
Mineral Materials		No similar action					
Nonenergy Solid Leasable Minerals		Closed to leasing					
Facility Development		Allow facilities as needed to meet SRMA objective					
Camping Restrictions		Allow dispersed camping unless monitoring indicates a need for change					
SRPs		If compatible with SRMA objective, allow competitive events at the discretion of the Authorized Officer					
Group Size		Standard (16 or less in a VWSA, wilderness, or Tabeguache Area and 75 or less in all other areas unless permitted by the Authorized Officer)					
Travel Management		Motorized and mechanized travel limited to designated routes					
Forestry		Available for private and/or commercial use of woodland products (including on-site collection of dead and downed wood for campfires) unless monitoring indicates the need for a change					
Target Shooting		Allow					

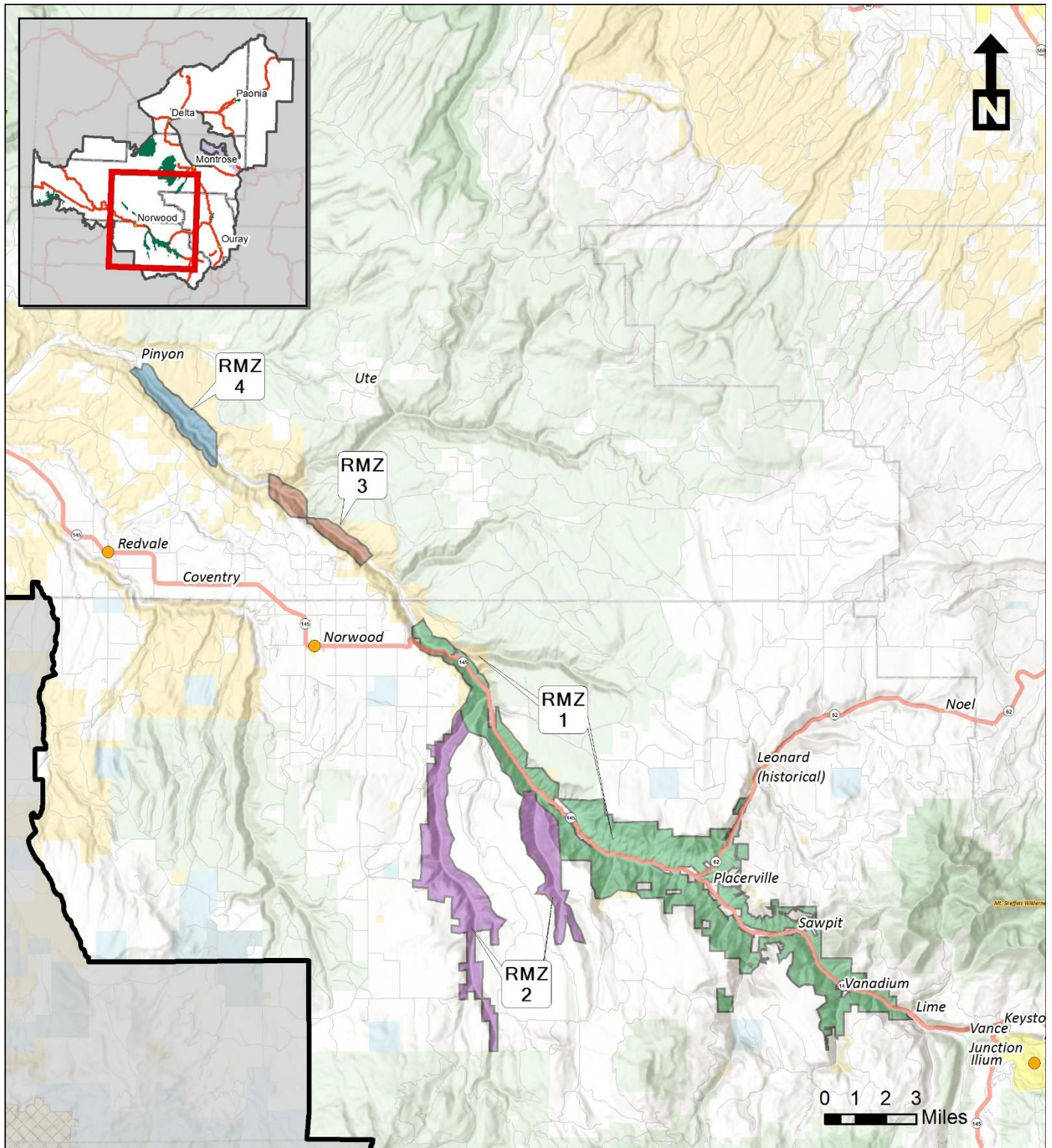


Figure E-7: Recreation Management Zones (RMZ) of San Miguel River SRMA

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SAN MIGUEL RIVER SPECIAL RECREATION MANAGEMENT AREA
Refer to **Figure E-7**, RMZs of San Miguel River SRMA.

San Miguel River Special Recreation Management Area, RMZ I

Objective: Manage Zone I for visitors to engage in motorized and nonmotorized scenic touring and nonmotorized water-based activities so that they report an average 4.0 realization of the targeted experiences and benefit outcome stated in the following table. (4.0 on a probability scale where: 1=not at all realized to 5=totally realized)

Targeted Activities		Rafting, kayaking, fishing, hiking, mountain biking, camping, nonmotorized trail use, educational programs, and scenic driving.					
Targeted Experiences		Developing skills and abilities; seeking challenge and adventure; socializing with friends and family; learning more about things here; enjoying easy access to natural landscapes; enjoying outdoor exercise; enjoying being able to frequently participate in desired activities in desired settings; and releasing or reducing some built-up mental tensions.					
Targeted Benefits		Improved mental well-being; improved outdoor knowledge and self-confidence; improved outdoor recreation skills; greater sensitivity to and awareness of outdoor aesthetics; greater environmental awareness and sensitivity; a more outdoor-oriented lifestyle; greater sense of adventure; greater personal enrichment through involvement with other people; greater cultivation of natural resource stewardship ethic; increased appreciation of area’s cultural history; improved understanding of the community’s dependence and impact on public lands; improved physical fitness and health maintenance; greater opportunity for people with different skills to exercise in the same place; enhanced lifestyle; enlarged sense of community dependency on public lands; improved local economic stability; more positive contributions to local/regional economy; increased awareness and protection of natural landscapes; improved respect for privately owned lands; and greater community ownership and stewardship of park, recreation, and natural resources.					
		Existing			Desired Future		
		Primitive	Back Country	Middle Country	Front Country	Rural	Urban
Physical	Remoteness						
	Naturalness						
	Facilities						
Social	Contacts						
	Group Size						
	Evidence of Use						
Operational	Access						
	Visitor Services						
	Management Controls						
VRM Class		VRM Class III					
Rights-of-Way		No similar action					
Coal		Closed to leasing					
Fluid Minerals		NSO-56: Recreation SRMA					
Locatable Minerals		No similar action					
Mineral Materials		No similar action					
Nonenergy Solid Leasable Minerals		Closed to leasing					
Facility Development		Allow facilities as needed to meet SRMA objective					
Camping Restrictions		Manage Beaver, Deep Creek, and Specie Creek developed recreation sites as day use sites. Allow camping only in designated campsites. Use of fire pans and portable toilets mandatory along the river corridor unless toilets are provided. Limit camping to no longer than 7 consecutive days at any one location; after the 7 days has been reached, prohibit the camper from returning to that location for 30 days and/or require them to move out of the SRMA.					
SRPs		If compatible with SRMA objective, allow nonmotorized competitive events at the discretion of the Authorized Officer. Prohibit motorized competitive events. Do no regulate private users unless monitoring indicates the need for a change.					
Group Size		Standard (16 or less in a WSA, wilderness, or Tabeguache Area and 75 or less in all other areas unless permitted by the Authorized Officer)					
Travel Management		Motorized and mechanized travel limited to designated routes					
Forestry		Not available for private and/or commercial use of woodland products. On-site collection of dead and downed wood for campfires would be allowed unless monitoring indicates the need for a change.					
Target Shooting		Allow					

San Miguel River Special Recreation Management Area, RMZ 2

Objective: Manage Zone 2 for visitors to engage in nonmotorized/nonmechanized canyon exploring with the exception of a few motorized routes so that they report an average 4.0 realization of the targeted experiences and benefit outcome stated in the following table. (4.0 on a probability scale where: 1=not at all realized to 5=totally realized)

Targeted Activities		Backcountry hunting, hiking and backpacking, and fishing.					
Targeted Experiences		Enjoying exploring; savoring the total sensory—sight, sound, and smell—experience of a natural landscape; enjoying getting some needed physical exercise; feeling good about solitude.					
Targeted Benefits		Improved physical fitness and health maintenance; improved outdoor knowledge and self-confidence; greater sense of adventure; improved appreciation of nature’s splendor; greater retention of distinctive natural landscape features; greater protection of fish, wildlife, and plant habitat from growth, development, and public use impacts; increased awareness and protection of natural landscapes; and restored mind from unwanted stress.					
		Existing			Desired Future		
		Primitive	Back Country	Middle Country	Front Country	Rural	Urban
Physical	Remoteness						
	Naturalness						
	Facilities						
Social	Contacts						
	Group Size						
	Evidence of Use						
Operational	Access						
	Visitor Services						
	Management Controls						
VRM Class		VRM Class III					
Rights-of-Way		ROW avoidance					
Coal		Closed to leasing					
Fluid Minerals		NSO-56: Recreation SRMA					
Locatable Minerals		No similar action					
Mineral Materials		Closed to mineral material disposal					
Nonenergy Solid Leasable Minerals		Closed to leasing					
Facility Development		Allow facilities as needed to meet SRMA objective					
Camping Restrictions		Allow dispersed camping unless monitoring indicates a need for change. Use of fire pans and portable toilets mandatory along the river corridor unless toilet is provided. Limit camping to no longer than 7 consecutive days at any one location; after the 7 days has been reached, prohibit the camper from returning to that location for 30 days and/or require them to move out of the SRMA.					
SRPs		Prohibit all competitive events. Continue to allow commercial walk-wade fishing. Do no regulate private users unless monitoring indicates the need for a change.					
Group Size		Standard (16 or less in a VWSA, wilderness, or Tabeguache Area and 75 or less in all other areas unless permitted by the Authorized Officer)					
Travel Management		Manage Saltado Canyon as closed to motorized and mechanized travel, except administrative and permitted vehicular access which would be limited to authorized routes. In the remainder of the RMZ, motorized and mechanized travel limited to designated routes.					
Forestry		Not available for private and/or commercial use of woodland products. On-site collection of dead and downed wood for campfires would be allowed unless monitoring indicates the need for a change.					
Target Shooting		Allow					

San Miguel River Special Recreation Management Area, RMZ 3

Objective: Manage Zone 3 for visitors to engage in nonmotorized/nonmechanized remote river canyon viewing activities so that they report an average 4.0 realization of the targeted experiences and benefit outcome stated in the following table. (4.0 on a probability scale where: 1=not at all realized to 5=totally realized)

Targeted Activities		Hiking, backpacking, rafting, kayaking, fishing, and camping.					
Targeted Experiences		Developing skills and abilities; enjoying going exploring; enjoying getting some needed physical exercise; escaping everyday responsibilities for a while; just knowing this attraction is here; knowing that things are not going to change too much.					
Targeted Benefits		Improved mental well-being; improved skills for outdoor enjoyment; improved outdoor knowledge and self-confidence; greater sense of adventure; improved appreciation of nature’s splendor; improved physical fitness and health maintenance; greater retention of distinctive natural landscape features; and increased awareness and protection of natural landscapes.					
		Existing			Desired Future		
		Primitive	Back Country	Middle Country	Front Country	Rural	Urban
Physical	Remoteness						
	Naturalness						
	Facilities						
Social	Contacts						
	Group Size						
	Evidence of Use						
Operational	Access						
	Visitor Services						
	Management Controls						
VRM Class		VRM Class II					
Rights-of-Way		ROW avoidance					
Coal		Closed to leasing					
Fluid Minerals		NSO-56: Recreation SRMA					
Locatable Minerals		No similar action					
Mineral Materials		Closed to mineral material disposal					
Nonenergy Solid Leasable Minerals		Closed to leasing					
Facility Development		Allow as needed to meet SRMA objective					
Camping Restrictions		Camping only allowed in designated campsites. Use of fire pans and portable toilets mandatory along the river corridor unless toilet is provided. Limit camping to no longer than 7 consecutive days at any one location; after the 7 days has been reached, prohibit the camper from returning to that location for 30 days and/or require them to move out of the SRMA.					
SRPs		If compatible with SRMA objective, allow nonmotorized competitive events at the discretion of the Authorized Officer. Prohibit motorized competitive events. Do not regulate private users unless monitoring indicates the need for a change.					
Group Size		Standard (16 or less in a WSA, wilderness, or Tabeguache Area and 75 or less in all other areas unless permitted by the Authorized Officer)					
Travel Management		Closed to motorized and mechanized travel, except for administrative and permitted vehicular access which would be limited to authorized routes					
Forestry		Not available for private and/or commercial use of woodland products. On-site collection of dead and downed wood for campfires would be allowed unless monitoring indicates the need for a change.					
Target Shooting		Allow					

San Miguel River Special Recreation Management Area, RMZ 4

Objective: Manage Zone 4 for visitors to engage in scenic viewing through camping and nonmotorized water-based activities so that they report an average 4.0 realization of the targeted experiences and benefit outcome stated in the following table. (4.0 on a probability scale where: 1=not at all realized to 5=totally realized)

Targeted Activities		Rafting, kayaking, fishing, camping, and educational programs.					
Targeted Experiences		Developing skills and abilities; relishing group affiliation and togetherness; learning more about things here; enjoying easy access to natural landscapes; enjoying getting some needed physical exercise; enjoying some needed physical rest.					
Targeted Benefits		Improved mental well-being; improved skills for outdoor enjoyment; improved outdoor knowledge and self-confidence; a more outdoor-oriented lifestyle; greater respect for private property and local lifestyles; improved physical fitness and health maintenance; increased awareness and protection of natural landscapes; enhanced awareness and understanding of nature; and more positive contributions to local/regional economy.					
		Existing			Desired Future		
		Primitive	Back Country	Middle Country	Front Country	Rural	Urban
Physical	Remoteness						
	Naturalness						
	Facilities						
Social	Contacts						
	Group Size						
	Evidence of Use						
Operational	Access						
	Visitor Services						
	Management Controls						
VRM Class		VRM Class III					
Rights-of-Way		No similar action					
Coal		Closed to leasing					
Fluid Minerals		NSO-56: Recreation SRMA					
Locatable Minerals		No similar action					
Mineral Materials		Closed to mineral material disposal					
Nonenergy Solid Leasable Minerals		Closed to leasing					
Facility Development		Allow as needed to meet SRMA objective					
Camping Restrictions		Camping only allowed in designated campsites. Use of fire pans and portable toilets mandatory along the river corridor unless toilet is provided. Limit camping to no longer than 7 consecutive days at any one location; after the 7 days has been reached, prohibit the camper from returning to that location for 30 days and/or require them to move out of the SRMA.					
SRPs		If compatible with SRMA objective, allow nonmotorized competitive events at the discretion of the Authorized Officer. Prohibit motorized competitive events. Do not regulate private users unless monitoring indicates the need for a change.					
Group Size		Standard (16 or less in a WSA, wilderness, or Tabeguache Area and 75 or less in all other areas unless permitted by the Authorized Officer)					
Travel Management		Motorized and mechanized travel limited to designated routes					
Forestry		Not available for private and/or commercial use of woodland products. On-site collection of dead and downed wood for campfires would be allowed unless monitoring indicates the need for a change.					
Target Shooting		Allow					

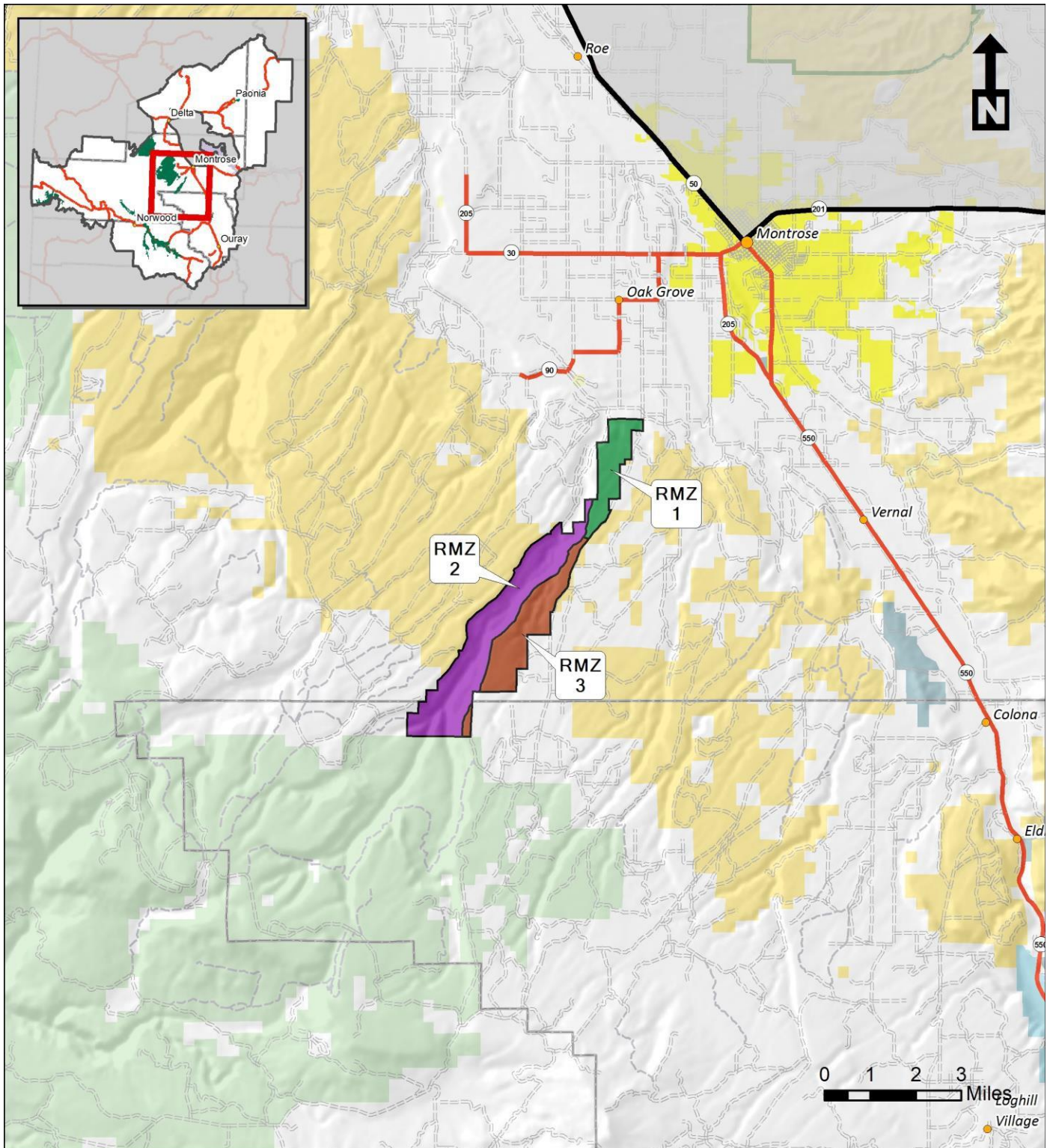


Figure E-8: Recreation Management Zones (RMZ) of Spring Creek SRMA

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SPRING CREEK SPECIAL RECREATION MANAGEMENT AREA
Refer to **Figure E-8**, RMZs of Spring Creek SRMA.

Spring Creek Special Recreation Management Area, RMZ I

Objective: Manage Zone I for visitors to engage in day use, nonmotorized, single-track, stacked loop, trail activities and accessible trails through the use of current and emerging adaptive equipment so that they report an average 4.0 realization of the following targeted experiences and benefit outcomes (4.0 on a probability scale, where 1=not at all realized to 5=totally realized)

Targeted Activities		Day use mountain biking, running, hiking, and educational programs					
Targeted Experiences		Developing skills and abilities; enjoying easy access to natural landscapes; enjoying learning outdoor social skills; enjoying some needed physical exercise; and enjoying being able to frequently participate in desired activities in desired settings.					
Targeted Benefits		Improved mental well-being; improved skills for outdoor enjoyment; improved outdoor knowledge and self-confidence; greater sensitivity to and respect for other visitors; enlarged understanding of the responsibility to help care for this community and keep it clean; a more outdoor-oriented lifestyle; greater respect for private property and local lifestyles; improved understanding of the community’s dependence and impact on public lands; improved physical fitness and health maintenance; enhanced quality of life; increased desirability as a place to live or retire; greater community ownership and stewardship of park, recreation, and natural resources					
		Existing			Desired Future		
		Primitive	Back Country	Middle Country	Front Country	Rural	Urban
Physical	Remoteness						
	Naturalness						
	Facilities						
Social	Contacts						
	Group Size						
	Evidence of Use						
Operational	Access						
	Visitor Services						
	Management Controls						
VRM Class		VRM Class III					
Rights-of-Way		No similar action					
Coal		Closed to leasing					
Fluid Minerals		CSU 50: Recreation SRMAs					
Locatable Minerals		No similar action					
Mineral Materials		Closed to mineral material disposal					
Nonenergy Solid Leasable Minerals		Closed to leasing					
Facility Development		Allow as needed to meet SRMA objective					
Camping Restrictions		Day use area only					
SRPs		If compatible with SRMA objective, allow nonmotorized competitive events at the discretion of the Authorized Officer. Prohibit motorized competitive events.					
Group Size		Standard (16 or less in a WSA, wilderness, or Tabeguache Area and 75 or less in all other areas unless permitted by the Authorized Officer)					
Travel Management		Closed to motorized travel; mechanized travel limited to designated routes. Administrative and permitted vehicular access would be limited to authorized routes.					
Forestry		Available for private and/or commercial use of woodland products (including on-site collection of dead and downed wood for campfires) unless monitoring indicates the need for a change					
Target Shooting		Allow					

Spring Creek Special Recreation Management Area, RMZ 2

Objective: Manage Zone 2 for visitors to engage in canyon viewing through quality single-track trail activities so that they report an average 4.0 realization of the following targeted experiences and benefit outcomes (4.0 on a probability scale, where 1=not at all realized to 5=totally realized)

Targeted Activities		Motorcycle riding, mountain biking, hiking, and horseback riding.					
Targeted Experiences		Enjoying going exploring; developing skills and abilities; enjoying easy access to natural landscapes; enjoying some needed physical exercise; enjoying being able to frequently participate in desired activities in desired settings; releasing or reducing some built-up mental tensions.					
Targeted Benefits		Improved mental well-being; improved skills for outdoor enjoyment; improved outdoor knowledge and self-confidence; a more outdoor-oriented lifestyle; improved appreciation of nature's splendor; greater respect for private property and local lifestyles; improved physical fitness and health maintenance; enhanced quality of life; improved local economic stability; increased desirability as a place to live or retire; and increased awareness and protection of natural landscapes.					
		Existing			Desired Future		
		Primitive	Back Country	Middle Country	Front Country	Rural	Urban
Physical	Remoteness						
	Naturalness						
	Facilities						
Social	Contacts						
	Group Size						
	Evidence of Use						
Operational	Access						
	Visitor Services						
	Management Controls						
VRM Class		VRM Class II					
Rights-of-Way		ROW avoidance					
Coal		Closed to leasing					
Fluid Minerals		CSU 50: Recreation SRMAs					
Locatable Minerals		No similar action					
Mineral Materials		Closed to mineral material disposal					
Nonenergy Solid Leasable Minerals		Closed to leasing					
Facility Development		Allow minimal facilities as needed to meet SRMA objective					
Camping Restrictions		Allow dispersed camping unless monitoring indicates a need for change					
SRPs		If compatible with SRMA objective, allow competitive events at the discretion of the Authorized Officer					
Group Size		Standard (16 or less in a WSA, wilderness, or Tabeguache Area and 75 or less in all other areas unless permitted by the Authorized Officer)					
Travel Management		Motorized and mechanized travel limited to designated routes					
Forestry		Not available for private and/or commercial use of woodland products. On-site collection of dead and downed wood for campfires would be allowed unless monitoring indicates the need for a change.					
Target Shooting		Allow					

Spring Creek Special Recreation Management Area, RMZ 3

Objective: Manage Zone 3 for visitors to engage in camping and scenic viewing activities so that they report an average 4.0 realization of the following targeted experiences and benefit outcomes (4.0 on a probability scale, where 1=not at all realized to 5=totally realized)

Targeted Activities		Scenic viewing and camping.					
Targeted Experiences		Enjoying access to close-to-home outdoor amenities; enjoying some needed physical rest; increasing or maintaining quality of life.					
Targeted Benefits		Improved mental well-being; a more outdoor-oriented lifestyle; improved appreciation of nature’s splendor; enhanced quality of life; improved local economic stability; increased desirability as a place to live or retire; greater community ownership and stewardship of park, recreation, and natural resources; and increased awareness and protection of natural landscapes.					
		Existing			Desired Future		
		Primitive	Back Country	Middle Country	Front Country	Rural	Urban
Physical	Remoteness						
	Naturalness						
	Facilities						
Social	Contacts						
	Group Size						
	Evidence of Use						
Operational	Access						
	Visitor Services						
	Management Controls						
VRM Class		VRM Class III					
Rights-of-Way		No similar action					
Coal		Closed to leasing					
Fluid Minerals		CSU 50: Recreation SRMAs					
Locatable Minerals		No similar action					
Mineral Materials		No similar action					
Nonenergy Solid Leasable Minerals		Closed to leasing					
Facility Development		Allow facilities as needed to meet SRMA objective					
Camping Restrictions		Allow dispersed camping unless monitoring indicates a need for change					
SRPs		If compatible with SRMA objective, allow competitive events at the discretion of the Authorized Officer					
Group Size		Standard (16 or less in a WSA, wilderness, or Tabeguache Area and 75 or less in all other areas unless permitted by the Authorized Officer)					
Travel Management		Motorized and mechanized travel limited to designated routes					
Forestry		Available for private and/or commercial use of woodland products (including on-site collection of dead and downed wood for campfires) unless monitoring indicates the need for a change					
Target Shooting		Allow					

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BURN CANYON EXTENSIVE RECREATION MANAGEMENT AREA

Objective: Focus recreation and visitor services on protecting and facilitating visitor opportunities to provide a variety of quality sustainable motorized and nonmotorized trails (e.g., ATV and motorcycle riding, mountain biking, hiking).

The area will provide a recreation setting commensurate with other uses that 1) retains a natural-appearing landscape; 2) provides the necessary recreation facilities (trails, trailheads, staging areas, etc.) to facilitate activity participation; 3) provides basic on-site visitor services (signage, maps, etc.) and 4) clearly posts conditions of use throughout the area.

Burn Canyon Extensive Recreation Management Area Management Actions and Allowable Use Decisions

VRM	VRM Class III
Fluid Minerals	CSU-51: Recreation ERMA

KINIKIN HILLS EXTENSIVE RECREATION MANAGEMENT AREA

Objective: Focus recreation and visitor services on protecting and facilitating visitor opportunities to provide a variety of motorized and nonmotorized trail activities (e.g., OHV riding, mountain biking, hiking, etc.).

The area will provide a recreation setting commensurate with other uses that 1) retains a natural-appearing landscape; 2) provides the necessary recreation facilities (trails, trailheads, staging areas, camping, etc.) to facilitate activity participation; 3) provides basic on-site visitor services (signage, maps, etc.) and 4) clearly posts conditions of use throughout the area.

Kinikin Hills Extensive Recreation Management Area Management Actions and Allowable Use Decisions

VRM	VRM Class III
Fluid Minerals	CSU-51: Recreation ERMA
Travel Management	Limited motorized and mechanized travel to designated routes.

PARADOX VALLEY EXTENSIVE RECREATION MANAGEMENT AREA

Objective: Focus recreation and visitor services on protecting and facilitating visitor opportunities to provide a variety of established recreation activities (e.g., OHV riding, mountain biking, hiking, rock climbing and bouldering, rafting, scenic touring, hunting, etc.).

The area will provide a recreation setting commensurate with other uses that 1) retains a natural-appearing landscape; 2) provides the necessary recreation facilities (trails, trailheads, staging areas, camping, etc.) to facilitate activity participation; 3) provides basic on-site visitor services (signage, maps, etc.) and 4) clearly posts conditions of use throughout the area.

Paradox Valley Extensive Recreation Management Area Management Actions and Allowable Use Decisions

VRM	Class III
Fluid Minerals	CSU-51: Recreation ERMA

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RECREATION SETTING CHARACTERISTICS MATRIX

	Primitive Classification	Back Country Classification	Middle Country Classification	Front Country Classification	Rural Classification	Urban Classification
<i>Physical Component – Qualities of the Landscape</i>						
Remoteness (approx. distance from routes)	More than ½ mile from either mechanized or motorized routes.	Within ½ mile of mechanized routes.	Within ½ mile of four-wheel drive vehicle, ATV, and motorcycle routes.	Within ½ mile of low-clearance or passenger vehicle routes (including unpaved County roads and private land routes).	Within ½ mile of paved/primary roads and highways.	Within ½ mile of streets and roads within municipalities and along highways.
Naturalness (landscape texture, form, line, color)	Undisturbed natural landscape.	Natural landscape with any modifications in harmony with surrounds and not visually obvious or evident (e.g., stock ponds, trails)	Character of the natural landscape retained. A few modifications contrast with character of the landscape (e.g., fences, primitive roads).	Character of the natural landscape partially modified but none overpower natural landscape (e.g., roads, structures, utilities).	Character of the natural landscape considerably modified (agriculture, residential, or industrial).	Urbanized developments dominate landscape.
Facilities	No structures. Foot/horse and water trails only.	Developed trails made mostly of native materials such as log bridges. Structures are rare and isolated.	Maintained and marked trails, simple trailhead developments and basic toilets.	Rustic facilities such as campsites, restrooms, trailheads, and interpretive displays.	Modern facilities such as campgrounds, group shelters, boat launches, and occasional exhibits.	Elaborate full-service facilities such as laundries, restaurants, and groceries.
<i>Social Component – Qualities Associated with Use</i>						
Contacts (avg. with any other group)	Fewer than 3 encounters/day at camp sites and fewer than 6 encounters/day on travel routes.	3-6 encounters/day off travel routes (e.g., campsites) and 7-15 encounters/day on travel routes.	7-14 encounters/day off travel routes (e.g., staging areas) and 15-29 encounters/day on travel routes.	15-29 encounters/day off travel routes (e.g., campgrounds) and 30 or more encounters/day on travel routes.	People seem to be generally everywhere.	Busy place with other people constantly in view.
Group Size (average – other than your own)	Fewer than or equal to 3 people/group.	4-6 people/group.	7-12 people/group.	13-25 people/group.	26-50 people/group.	Greater than 50 people/group.
Evidence of Use	No alterations of the natural terrain. Footprints only observed. Sounds of people rare.	Areas of alteration uncommon. Little surface vegetation wear observed. Sounds of people infrequent.	Small areas of alteration. Surface vegetation showing wear with some bare soils. Sounds of people occasionally heard.	Small areas of alteration prevalent. Surface vegetation gone with compacted soils observed. Sounds of people regularly heard.	A few large areas of alteration. Surface vegetation absent with hardened soils. Sounds of people frequently heard.	Large areas of alteration prevalent. Some erosion. Constantly hear people.
<i>Operational Component – Conditions Created by Management and Controls over Recreation Use</i>						
Access (type of travel allowed)	Foot, horse, and nonmotorized float boat travel.	Mountain bikes and perhaps other mechanized use, but all is nonmotorized.	Four-wheel drives, all-terrain vehicles, dirt bikes, or snowmobiles in addition to nonmotorized, mechanized use.	Two-wheel drive vehicles predominant, but also four-wheel drives and nonmotorized, mechanized use.	Ordinary highway auto and truck traffic is characteristic.	Wide variety of street vehicles and highway traffic is ever-present.
Visitor Services (and information)	No maps or brochures available on-site. Staff rarely present to provide on-site assistance.	Basic maps, staff infrequently present (e.g., seasonally, high use periods) to provide on-site assistance.	Area brochures and maps, staff occasionally (e.g., most weekends) present to provide on-site assistance.	Information materials describe recreation areas and activities, staff periodically present (e.g., weekdays and weekends).	Information described to the left, plus experience and benefit descriptions, staff regularly present (e.g., almost daily).	Information described to the left, plus regularly scheduled on-site outdoor demonstrations and clinics.
Management Controls	No on-site posting/signing of visitor regulations, interpretive information, or ethics. Few use restrictions.	Basic user regulations at key access points. Minimum use restrictions.	Some regulatory and ethics signing. Moderate use restrictions (e.g., camping, human waste).	Rules, regulations, and ethics clearly posted. Use restrictions, limitation, and/or closures.	Regulations strict and ethics prominent. Use may be limited by permit, reservation, etc.	Enforcement in addition to rules to reduce conflicts, hazards, and resource damage.

Source: BLM 2011

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REFERENCES

BLM (United States Department of the Interior, Bureau of Land Management). 2011. Instruction Memorandum 2011-004, Revised Recreation and Visitor Services Land Use Planning Guidance, Updated Checklist, and Three Land Use Planning Templates. Attachment 5, Recreation Setting Characteristics Matrix. BLM, Washington, DC. October 14, 2010.

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Appendix F

Livestock Grazing Allotments and Allotment Levels

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APPENDIX F

LIVESTOCK GRAZING ALLOTMENTS AND ALLOTMENT LEVELS

Table F-1
Livestock Grazing Allotments and Allotment Levels

Allotment Name	Allotment Number	Permitted AUMs ¹	Other Acres	BLM Acres Available ¹	Management Category ²
25 Mesa - North	14008	644	490	11,430	I
Adobe	05027	24	80	310	C
Alder Creek	17253	10	80	40	C
Alkali Flats	14017	1001	70	8,910	C
Allen Reservoir	05050	39	490	210	C
Antelope	14020	0	0	0	C
Anthracite Creek	14525	92	1,810	1,010	M
Aspen Ditch	14551	57	0	410	C
Bald Hills	05510	22	1,300	270	C
Baldy	05568	88	70	550	C
Barkelew Draw Common	07303	562	1,040	5,910	I
Beaver Canyon	17060	50	0	810	M
Beaver Hill	05522	576	0	6,010	C
Beaver Rim	07204	12	0	260	C
Ben Lowe	14013	410	80	5,520	C
Big Bear Creek	07207	20	320	480	C
Big Bucktail	17061	150	0	5,350	C
Big Gulch	03630	13	0	280	C
Big Gulch - 40	05036	6	0	40	C
Big Pasture	05044	15	1,820	200	C
Black Bullet	05045	7	1,110	180	C
Blue - Cimarron	03642	0	1,380	0	C
Bolinger Ditch	07219	8	0	120	C
Bramier Draw	07235	140	1,030	2,560	C
Broad Canyon	17199	81	1,660	1,800	C

Allotment Name	Allotment Number	Permitted AUMs ¹	Other Acres	BLM Acres Available ¹	Management Category ²
Buck	07232	47	30	130	C
Buckeye	17033	48	0	810	C
Burn Canyon	17022	91	800	1,970	C
Burro Creek	05556	0	0	0	C
Burro Ridge	05532	15	600	200	C
Busted Boiler	03648	0	0	0	C
Canal	14012	798	0	7,930	I
Carpenter Ridge	17100	265	0	7,060	I
Cedar	05570	226	770	1,530	I
Cedar Creek	05535	6	640	200	C
Cedar Point	05012	0	0	0	C
Chaffee	00019	80	160	2,190	C
Chaffee Gulch	05528	106	140	600	C
Cimarron 40	03658	0	0	0	C
Cimarron Stock Driveway	03650	0	0	0	C
Coal Canyon	17107	60	50	5,220	C
Coal Creek	05509	42	0	300	C
Coal Gulch	14517	587	30	6,480	C
Coke Ovens	17027	224	380	7,500	C
Collins	05043	10	770	200	C
Cone	03635	0	0	0	C
Cookie Tree	05560	0	0	0	M
Coventry	07222	70	0	860	C
Cow Creek	05566	70	310	520	C
Crawford Reservoir	05018	24	0	280	C
Creek Bottom	03632	0	0	0	M
Cushman	05506	728	90	6,650	C
Cut Off Allotment	05052	1	130	30	C
Dave Wood Road	05518	144	0	2,640	C
Davis Mesa	17037	223	0	3,910	I
Dead Horse Common	05010	0	0	0	M
Deep Creek	14524	3	640	110	M
Deer Basin - Midway	14019	900	770	11,670	C
Delta Pipeline	03277	563	0	6,030	C
Dexter Creek	05551	0	0	0	I
Dirty George	14023	133	0	1,390	C
Doby Canyon Indiv.	17042	12	0	2,290	C
Dolores Canyon	17004	123	340	2,960	I
Doug Creek	05028	60	620	410	C
Downing	05541	27	320	120	C
Dry Cedar	05537	360	10	4,790	M
Dry Creek	14549	132	0	1,800	C
Dry Creek Basin	05513	267	0	6,170	C
Dry Creek Place	05525	17	0	130	C
Dry Gulch	05540	250	810	5,600	I
Dry Park	07300	746	60	4,660	I

Allotment Name	Allotment Number	Permitted AUMs ¹	Other Acres	BLM Acres Available ¹	Management Category ²
Duroy	03637	10	0	210	C
East Fork Dry Creek	05514	11	630	160	C
East Gould Reservoir	05041	20	690	600	C
East Paradox Common	17101	1,254	2,380	15,150	I
East Roatcap Ind.	14512	58	0	200	C
Far Away Allotment	17213	30	0	370	C
Feedlot	17078	13	380	310	C
Fire Mountain Canal	14508	10	0	120	C
First Park	03645	20	0	220	C
Flatiron	05501	333	10	2,710	C
Franklin Mesa	05512	217	0	2,840	C
Gravel Pit	07063	43	170	1,140	C
Green	05503	39	300	760	C
Hairpin	05569	18	0	840	C
Hamilton Mesa	07209	26	1,010	410	C
High Park	05549	60	670	1,470	C
Highway 90	05521	313	200	6,000	C
Hillside	05562	40	40	130	C
Home Ranch	07201	79	5,790	1,140	C
Horse Bench	03634	0	0	0	C
Horsefly	05523	12	650	640	C
Horsefly Common	07301	49	0	870	C
Houser	07076	125	3,530	4,340	I
Hubbard Creek	14516	45	200	1,720	C
Joker	14014	0	0	0	M
Jumbo Mountain	14527	120	950	4,970	C
Juniper Knob	14505	18	0	590	C
Kinnikin	03643	16	0	160	C
La Sal Creek	17011	139	470	5,000	C
Lavender	07075	31	2,490	1,260	M
Lee Bench	14011	40	320	590	C
Lee Lands	17003	70	1,260	860	M
Leopard Creek	07205	12	400	290	M
Leroux	14550	158	240	1,990	C
Leroux Creek	14504	32	170	600	C
Lillylands-West	17024	227	880	2,550	C
Lion Canyon	17012	14	260	530	M
Lion Creek Basin	17044	350	10	5,340	C
Little Baldy	07223	175	1,870	1,430	C
Little Maverick Draw	07210	30	240	290	I
Log Hill	05529	189	620	3,790	C
Lower Beaver Canyon	07211	50	0	680	C
Lower Hamilton	07234	81	310	730	C
Lower Horsefly Combined	05520	401	150	18,120	I
Lower Pinion	07213	3	590	100	C
Lower Roc Creek	07216	5	170	110	I

Allotment Name	Allotment Number	Permitted AUMs ¹	Other Acres	BLM Acres Available ¹	Management Category ²
Lower Roubideau Canyon	05000	24	120	570	C
Mailbox Park	17001	194	2,920	6,770	M
Maverick Draw Allot	17018	76	160	2,010	C
Mcdonald Creek	14532	209	80	3,870	C
Mckee Draw	07206	74	0	1,670	C
Mesa Creek Camp	17014	4,255	7,280	94,210	I
Middle Hamilton Lease	07233	75	590	1,130	C
Milk Creek	14544	13	0	100	C
Moonshine Park	05563	7	630	230	C
Morrow Point	03631	0	0	0	C
Mud Springs	07230	593	0	3,960	C
Muddy Creek	14519	16	1,030	440	C
Naturita Canyon	07203	28	90	630	C
Naturita Ridge	17035	440	320	9,470	C
Needle Rock Allotment	14542	8	0	40	C
North Saddle Peak	14540	20	10	210	C
North Wickson Draw	17023	30	4,970	1,080	C
Norwood Hill Allot.	07218	9	0	190	C
Nyswanger	17082	50	60	3,490	C
Oak Hill	07225	5	640	40	C
Oak Hill 40	03644	0	0	0	C
Oak Mesa	14506	51	570	840	C
Oak Ridge Common	14528	417	0	3,700	C
Olathe Res. East	03649	0	0	0	C
Onion Lakes	05533	30	0	470	C
Overland	14511	30	360	160	C
Park Allotment	17030	68	1,830	990	C
Parkway	17062	35	0	1,190	C
Petrie Mesa	14022	104	360	2,840	C
Pine Ridge	05040	0	0	0	C
Piney Allotment	05516	373	970	3,740	I
Pinion	03641	0	0	0	I
Pinyon Springs	05033	0	0	0	C
Pipeline	05507	604	40	10,170	C
Pocket Ind.	17085	5	0	1,330	C
Point Creek	14021	102	4,380	1,620	C
Popp Ranch	14531	11	2,050	200	C
Radio Tower	02660	14	720	460	C
Ragsdale	03708	0	0	0	C
Rawhide - Coffee Pot	05034	33	1,140	1,910	C
Rawlings Individual	17021	18	10	330	C
Ray (Wray) Mesa	03298	375	30	23,240	M
Redvale	07227	20	700	310	C
Reynolds/Mcdonald	14530	271	40	4,550	C
Rim Rock Allotment	05051	1	660	160	C
River	17079	22	40	1,270	C

Allotment Name	Allotment Number	Permitted AUMs ¹	Other Acres	BLM Acres Available ¹	Management Category ²
River Allotment	07200	117	410	2,740	C
Roatcap	05504	264	180	2,840	C
Roatcap - Jay Creek	14507	955	3,190	9,640	I
Roc Creek Allotment	17020	28	470	1,310	I
Rock Ditch	05538	9	70	60	C
Round Top	03867	0	0	0	M
Rowher Canyon	17080	30	200	670	C
San Miguel Rim	03639	0	0	0	M
San Miguel River	03640	0	0	0	I
Sandy Wash	05502	707	160	7,230	I
Saw Pit	03636	0	0	0	C
Sawmill Mesa	14007	0	0	0	I
Sawtooth	17032	488	1,150	24,110	I
Second Park	17105	40	4,310	800	C
Section 35	14547	22	50	60	M
Sewemup	03646	0	0	0	C
Shamrock	05024	0	0	0	C
Shavano Mesa	05511	200	20	2,010	C
Shinn Park/South Canal	05534	288	0	4,910	I
Slagle Pass	05547	30	330	290	M
Slaughter Grade	03651	0	0	0	C
Smith Fork Ind.	05049	6	190	470	C
Smith Fork Rim	03526	0	0	0	C
South Branch	14004	101	220	830	M
South Dry Creek	14548	50	400	1,200	C
South Of Town	14534	369	4,310	3,830	C
South Piney	05515	186	0	4,620	C
Spring Creek	05517	47	0	540	C
Spring Creek & Highway 90	03638	0	0	0	M
Spring Creek Canyon	03659	0	0	0	C
Spring Gulch	05029	111	1,270	1,160	C
Stevens Gulch Common	14513	67	1,310	4,770	C
Stingley Gulch	14503	97	0	1,130	C
Stock Driveway	14521	32	220	120	C
Sundown	03633	0	0	0	C
Sunrise Gulch	17102	59	1,380	1,640	C
Sunshine Mesa	14541	5	170	40	C
Swain Bench	17081	23	30	3,020	C
Tabeguache Creek	17031	659	1,010	19,120	C
Tappan Creek	05575	18	0	410	C
Taylor Draw	05555	18	480	640	M
Third Park Common	17103	487	0	3,820	M
Tinkler Individual	05530	20	460	1,520	C
Transfer Road	05505	214	180	2,690	C
Tuttle Draw	17106	39	60	1,310	C
Twenty-Five Mesa - So.	07008	329	10	5,690	I

Allotment Name	Allotment Number	Permitted AUMs ¹	Other Acres	BLM Acres Available ¹	Management Category ²
Un-allotted		0	0	0	C
Uncompahgre Bench	07007	329	0	5,230	C
Uncompahgre Common	07302	58	0	260	C
Upper Mailbox Allotment	07208	176	0	780	C
Upper Maverick Draw	07202	6	420	490	C
Upper Terror Creek	14514	59	220	550	C
Wakefield	03628	0	0	0	C
Ward Creek Doughspoon	14025	446	10,830	14,980	I
Washboard Rock	05548	34	4,100	1,010	C
Waterdog Basin	05546	35	390	390	C
Weimer Hill Place	03660	0	0	0	C
Wells Gulch	14016	1,500	90	10,410	C
West Roatcap	14510	88	0	210	C
West Stevens Gulch	14515	110	810	1,730	C
West Youngs Peak	14536	25	280	190	C
White Ranch	14015	0	350	480	I
Wickson Draw	17010	80	770	3,670	I
Wilbanks	14502	377	0	3,080	C
Williams Creek	14523	8	1,010	100	C
Williams Ditch Allotment	07220	5	80	30	C
Winter- Monitor Mesa	14010	774	180	15,750	I
Winter Monitor Mesa - Camel Back Pasture	14010	Trailing	160	Trailing	I
Youngs Peak	14537	113	0	2,140	C
Total		35,520	124,080	616,640	

¹Geographic information systems (GIS) have been used to perform acreage calculations. Calculations are dependent upon the quality and availability of data, and most calculations in this RMP are rounded to the nearest 10 acres. Given the scale of the analysis, the compatibility constraints between datasets, and lack of data for some resources, all calculations are approximate, and serve for comparison and analytic purposes only. The BLM may receive additional or updated data; therefore, acreages may be recalculated and revised at a later date.

²Improve (I) the most-intensive management, with the objective of improving existing resource conditions. Maintain (M) less-intensive management, with the objective of maintaining existing resource conditions. Custodial (C) is the least-intensive management, with the objective of meeting standards and guidelines for rangeland health.

Appendix G

Bighorn/Domestic Sheep Risk of
Association Modeling

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ACRONYMS AND ABBREVIATIONS

Full Phrase

BLM	United States Department of the Interior, Bureau of Land Management
CHHR	core herd home range
CPW	Colorado Department of Natural Resources, Parks and Wildlife
Forest Service	United States Department of Agriculture, Forest Service
GIS	Geographic Information Systems
NEPA	National Environmental Policy Act of 1969
PA	probability assessment
Planning Area	Uncompahgre Field Office boundary, including all lands, regardless of land ownership, except the Gunnison Gorge National Conservation Area Planning Area and the Dominguez-Escalante National Conservation Area
RoC	risk of contact (model)
UFO	Uncompahgre Field Office
WAFWA	Western Association of Fish and Wildlife Agencies

APPENDIX G

BIGHORN/DOMESTIC SHEEP RISK OF ASSOCIATION MODELING

G.1 DISEASE SUMMARY

The potential effect that association (intermingling) with domestic sheep has on bighorn sheep is the probability of die-off and population viability; this is well documented and recognized. Current science indicates that the bacteria that cause pneumonia in bighorn sheep, *Mycoplasma ovipneumoniae* and *Mannheimia haemolytica*, appear to be transmitted only between domestic sheep and bighorn sheep when they come in direct contact (less than 30 feet; Western Association of Fish and Wildlife Agencies [WAFWA] 2015; Besser et al. 2012a; Lawrence et al. 2010; Schommer and Woolever 2008). Besser et al. (2012b) identified that epizootic pneumonia¹ of bighorn sheep is a devastating disease and that the etiology² regarding the bacterial respiratory pathogens is unclear. This is also the case in Colorado (Miller and Wolfe 2011). Transmission of *M. haemolytica* from domestic sheep to bighorn sheep was irrefutable, as demonstrated by Lawrence et al. (2010); this provides justification sufficient for preventing range overlap and potential association of domestic sheep and goats with bighorn sheep (WAFWA 2012).

No one form of evidence can conclusively demonstrate that bighorn sheep in the wild coming in contact with domestic sheep frequently leads to die-offs; however, taken together, the experiments and observations from the laboratory and the field do indicate that wild bighorn sheep coming in contact with domestic sheep does pose a risk of disease transmission and die-offs in free-ranging bighorn populations. Laboratory experiments demonstrate the particular sensitivity of bighorn sheep to some pneumonia-causing bacteria. The controlled conditions of inoculation and pen experiments show that healthy domestic sheep often carry bacteria that are fatal to bighorn sheep and that they can transmit those bacteria through close contact. Finally, nearly a century of observations in the field supports the view that proximity to domestic sheep is a risk factor for bighorn sheep, due to disease transmission.

¹Temporary and widespread

²Cause

Garde et al. (2005) offers the following summary of the risk to wild bighorn sheep from *Pasteurella* spp. and *Mannheimia* spp.:

- These bacteria can cause pneumonia in bighorn sheep, but there are benign commensal strains in the upper respiratory tract that have no harmful effects.
- Pathogens that are benign in domestic sheep can be lethal in bighorn sheep.
- The transference of pathogens from domestic to bighorn sheep has been documented in laboratory settings, with resulting mortality in bighorn sheep.
- Domestic sheep, goats, and llamas have been reported with these bacteria species.
- Wild sheep and mountain goats have been reported with these bacteria species.
- Transmission is by direct contact and aerosolization.³
- These bacteria species do not persist in the environment.
- Acute-to-chronic die-offs in bighorn sheep populations can result in low to 100 percent mortality, although these bacteria can be present in healthy sheep.
- These bacteria are considered opportunistic and can result in pneumonia outbreaks.
- These bacteria can cause clinical disease in domestic sheep and goats but are rarely primary pathogens.

In summary, field observations suggest that bighorn sheep have a high likelihood of contracting fatal pneumonia following contact with domestic sheep, which has led to numerous independent experiments. These experiments provide strong corroboration that bighorn sheep have a high likelihood of contracting fatal pneumonia following contact with domestic sheep.

The impact of disease on bighorn sheep conservation is likely to increase as habitat loss and fragmentation restrict their movement and concentrate them into smaller areas, increasing contact rates and the spread of disease (Cahn et al. 2011; Scott 1988; Levins et al. 1994). Given the substantial concern raised in the published literature over the past 30 years, management guidance has focused on the separation of domestic sheep and bighorn sheep to prevent disease transmission (The Wildlife Society 2014; WAFWA 2012, 2015; Cahn et al. 2011; Foreyt 1989; O'Brien et al. 2014; US Department of Agriculture Forest Service [Forest Service] 2009).

The WAFWA Wild Sheep Working Group recommends that land management agencies and state wildlife agencies cooperate to complete comprehensive risk assessments of domestic sheep grazing allotments to inform the land use planning process (WAFWA 2012). WAFWA provides recommendations for land management agencies, state wildlife agencies, and domestic sheep permittees to consider implementing its recommendations to minimize the risk of bighorn sheep associating with domestic sheep, commensurate with the level of risk.

The United States (US) Department of the Interior, Bureau of Land Management (BLM), Uncompahgre Field Office (BLM-UFO) used geographical information system (GIS) modeling to quantify the relative risk of association. In 2011, two models were developed: Probability of

³Fine mist from breathing

Interaction model, developed by the BLM-UFO in 2011, and the Risk of Contact (RoC) model, developed by the US Department of Agriculture Forest Service (Forest Service) and the BLM in Idaho (see additional discussion below).

The BLM UFO used the results from the RoC model described below to inform the management actions in each alternative analyzed in Chapter 2 of the Draft RMP/EIS and the Proposed RMP/Final EIS, as well as the Approved RMP, to minimize the risk of association between domestic and wild sheep.

G.2 RISK OF CONTACT (RoC) MODEL

In response to bighorn sheep population viability concerns, the Payette National Forest developed a method for calculating the probability and rates of contact between bighorn sheep and active domestic sheep allotments. Subsequently, in 2011, the Forest Service initiated a process to develop a geospatial platform, based on the concepts used in the Payette analyses, for application on other national forests. This was subsequently expanded to include the BLM (January 2013) and became an ArcGIS extension available to the BLM in early 2014. Information for this model can be found in the extension tool user's guide (Forest Service 2013a).

The RoC model was developed in an area that was rich in bighorn sheep movement and habitat data. For analysis of the risk of contact for this area, the BLM-UFO modified the use of the RoC model, based on the best available data for our local bighorn populations. In order to use the best available data for model inputs, the BLM-UFO and Colorado Parks and Wildlife Biologists conducted a series of webinars to agree on data use and assumptions.⁴

The RoC model estimates the probability that foraging bighorn sheep will reach a domestic sheep allotment. However, within an allotment it is not possible to determine where and when domestic sheep would consistently occur or for how long. Use of some areas within an allotment may present less chance of contact with bighorn sheep than others, while some areas may have higher probability of contact (e.g., source habitats as defined by the RoC User Guide). Consequently, because of this uncertainty, the RoC Model predicts potential interspecies contact by using the assumption that contact with an allotment results in interspecies contact. Of key importance to the model, the core herd home range (CHHR) defines the most important portion of a herd's use area, characterized by most (95 percent) of the use. By definition, where a CHHR overlaps an allotment, there is contact with the allotment and the assumption is that one or more contacts per year may occur. Stray domestic sheep could have implications for bighorn sheep herds and in many rangeland settings may pose a risk of disease transmission as large as or greater than that from foraging bighorn sheep. However, the bighorn sheep risk of contact tool (Forest Service 2013a) does not model the risk of stray domestic sheep and the subsequent potential for contact with bighorn sheep.

The following is a description of the method used to quantify the probability of bighorn sheep to have contact with a grazing allotment (RoC model), and ultimately contact with domestic sheep to determine the risk posed by domestic sheep grazing in BLM-UFO allotments. Bighorn sheep populations within approximately 35 kilometers (21.7 miles) of the Uncompahgre RMP planning area boundary were selected for the RoC analysis because the RoC model calculates foray

⁴December 12, 2014, January 15, 2015, and February 20, 2015.

probabilities for bighorn sheep to approximately that distance.⁵ Assessing allotments greater than that distance would exceed the design window of the RoC model. The model was developed according to procedures outlined in the RoC ArcGIS extension tool user's guide (Forest Service 2013a).

- I. Inputs to the model include the following:
 - a. Bighorn suitable habitat
 - b. Bighorn core herd home range
 - c. Relative preference for habitat
 - d. Bighorn ram distance/ewe distance files
 - e. Bighorn adult herd size and sex ratios
 - f. Foray probability values (ram and ewe)⁶

G.2.1 Suitable Habitat Model

Bighorn sheep occupy rugged canyons, foothills, and mountainous terrain at elevations ranging from 1,450 to 10,500 feet. Key habitat features are steep, rugged escape terrain, grasses and forbs for forage, and a limited amount of tall vegetation. Bighorn sheep have habitat preferences and select habitat based on such factors as proximity of steep-sloped escape terrain, forage availability, and horizontal visibility (Forest Service 2013b; O'Brien et al. 2014).

The Department of Natural Resources, Parks and Wildlife (CPW) developed a Rocky Mountain bighorn sheep suitable habitat model for the state of Colorado in 2012 (CPW 2012; **Figure G-1** [CPW Rocky Mountain Bighorn Sheep Suitable Habitat Model for RoC Analysis Area]). The CPW developed a desert bighorn sheep suitable habitat model for western Colorado in late 2014 (**Figure G-2** [CPW Desert Bighorn Sheep Suitable Habitat Model for RoC Analysis Area]). The CPW made available the desert bighorn sheep habitat model during the webinars. This model is similar to the Rocky Mountain suitable habitat model but uses a less rugged terrain feature and shows habitat only to within 35 kilometers (21.7 miles) of the Dolores and Dominguez desert bighorn herds.

As prescribed in the User's Guide (Forest Service 2013a), based on the source habitat model, all areas in the Rocky Mountain and desert suitable habitat models were assigned to one of three habitat classes—source habitat, connectivity area, and nonhabitat. Source habitat for bighorn sheep occurs in BLM-UFO domestic sheep allotments and adjacent landscape.

⁵E.T. Rinkes, Wildlife Biologist, BLM, personal communication with Missy Siders, Wildlife Biologist of BLM-UFO, at the Bighorn Sheep Modeling Workshop, January 15, 2015.

⁶Foray distance distributions files provide the probabilities that individual ram or ewe forays will reach each of the 1-kilometer-wide (0.62-mile-wide) concentric rings emanating from the core herd home range boundary. "Sample data" are provided with the model and were derived from 12 years of Hells Canyon (Idaho) area telemetry data, used as part of the Payette National Forest analysis. "The foray distance distributions exhibited by the Hells Canyon area bighorn sheep were consistent with published observations of bighorn sheep movements from several other areas of western North America. These default data should be used unless other well-supported, scientifically derived estimates of foray distance distributions are available for the area under consideration." (Forest Service 2013, pp. 4-12)

G.2.2 Telemetry Data/Core Herd Home Range Modeling

Usually, CHHR analysis uses bighorn sheep telemetry location points to identify and enclose an area that contains 95 percent of all telemetry points from radio-collared bighorn sheep. The CPW did not feel that it had enough telemetry locations to conduct this portion of the model. As stated in the User's Guide (Forest Service 2013a), "If point location data are not available, a polygon layer containing the CHHR boundaries must be supplied." CPW biologists reviewed their existing spatial data for bighorn sheep home range polygons for overall, summer, and winter ranges and provided their best professional judgment for boundaries for the populations involved (**Figure G-3** [Analysis Area and Bighorn Sheep Populations Used in the RoC Model]). The biologists acknowledged that these areas were overestimates of the CHHR concept and will overestimate foray distances.

Because of the focus on the Uncompahgre RMP area results, the RoC model was run for each of the 12 bighorn sheep populations that are within approximately 35 kilometers (21.7 miles) of the Uncompahgre RMP area (**Figure G-3**). Results across bighorn sheep populations were added to create the final results. If an area intersected with at least one bighorn sheep CHHR, the results were given as "This allotment intersects the home range polygon and is therefore not included in the RoC analysis." The RoC model assumes one or more contacts of bighorn with the allotment per year due to direct overlap with CHHR.

G.2.3 Foray Analysis

Bighorn sheep, particularly rams, occasionally travel long distances beyond their CHHR. Singer et al. (2001) defined these forays as any short-term movement of an animal away from and back to its CHHR. This life-history trait can put bighorn sheep at risk of contact with domestic sheep, particularly when suitable habitats are well connected and overlap with domestic sheep use areas (Singer et al. 2000; Gross et al. 2000), or even when domestic sheep use is outside of CHHR areas.

The risk of contact between dispersing bighorn sheep and domestic sheep is related to the number of bighorn sheep in a herd, the proximity of domestic sheep use areas (allotments) to a bighorn sheep CHHR, the distribution of bighorn sheep source habitats across the landscape, and the frequency and distance of bighorn sheep forays outside of the CHHR. The risk of contact can be increased by straying domestic sheep in the following ways:

- The stocking rates and numbers of straying sheep
- The frequency and distance of straying
- The distance that grazing occurs from bighorn sheep source habitat
- Straying sheep persistence on the range

(However, these risk factors were not analyzed.)

The foray model analyzes how often bighorn sheep leave the CHHR, whether they travel far enough to reach an allotment, and whether they then actually intersect an allotment (i.e., rather than intersecting a different area at the same distance from the CHHR). For this analysis, information on habitat preference and foray distance (ram/ewe) is used to generate a foray

probability raster. Again, local bighorn herd information was limited; during the webinar discussion, the BLM-UFO and CPW biologists agreed to use the default Idaho (summer) values as the best available information, in the absence of more local information (**Table G-1** [Default Idaho (Summer) Relative Preference Values by Habitat Class]).

Table G-1
Default Idaho (Summer) Relative Preference Values by Habitat Class

Habitat Class	Habitat Name	Relative Preference
1	Suitable	1
2	Corridor	0.177
10	Nonhabitat	0.029

G.2.4 Probability That a Bighorn Sheep Will Intersect an Allotment Analysis

Many animals (particularly bighorn sheep ewes) may not travel far, even if they are observed outside of the CHHR. The probability that a bighorn sheep on a foray will reach an allotment decreases as the travelling distance increases. Bighorn sheep rams are more mobile and leave CHHRs significantly more often than ewes, and they have a higher probability of interspecies contact.

For this portion of the analysis, information on herd size, sex ratios, and foray rates are needed. CPW population and sex ratio information typically includes juvenile bighorns. This model assumes that herd size and sex ratios are for adult animals only. CPW biologists provided their professional adjustment of adult survey numbers for model use (**Table G-2** [CPW Desert Bighorn Sheep Herd Population Estimates for RoC Model]; **Table G-3** [CPW Rocky Mountain Bighorn Sheep Herd Population Estimates for RoC Model]). For some areas, CPW population areas were combined into one CHHR unit because they did not have enough information to be able to divide the existing polygons. Again, local information was limited on foray rates, and during the webinar discussion, the BLM-UFO and CPW biologists agreed to use the default Idaho (Summer) values as the best available information in the absence of more local information (ram 0.141; ewe 0.015).

Within the RoC model, given that an animal has reached a ring, the probability that it will be in an allotment is proportional to the size of the allotment and to the quality of the habitat in the allotment, relative to the size and quality of habitat in the ring as a whole. (Results from the analysis across all bighorn sheep populations are found in **Table G-4** [RoC Model Results for Bighorn Risk of Contact with Allotments (Probability that a Bighorn Sheep Will Intersect an Allotment)]¹; an example interpretation of the results is given in a footnote at the bottom of the table.)

G.2.5 Probability of Disease Outbreak Analysis

The RoC model assumes that allotments that intersect with the CHHR have contact with domestic sheep and therefore could transmit the disease. The sequence of events by which a disease outbreak could result from contact between a bighorn sheep and a domestic sheep or goat in an active allotment outside of a bighorn sheep CHHR can be broken down into a number of steps.

To reach an occupied allotment, a bighorn sheep must go through the following steps:

- (1) Leave the CHHR
- (2) travel far enough to reach the allotment
- (3) Intersect with the allotment, rather than some other area at the same distance from the CHHR

Once this occurs, in order for disease transmission to occur, the bighorn sheep must go through more steps, as follows:

- (1) Come in contact with domestic sheep in the allotment
- (2) Contract the disease from the domestic sheep
- (3) For an outbreak to affect the animal's home herd, the infected bighorn sheep must make its way back to the CHHR
- (4) It must transmit the disease to other members of the herd

The literature (Forest Service 2013b; Carpenter et al. 2014; O'Brien et al. 2014) identifies uncertainty as to what frequency of interspecies contacts in a rangeland situation result in disease transmission and disease outbreaks within a bighorn sheep population. Because of this uncertainty and lack of appropriate data, the BLM-UFO did not conduct herd-specific modeling for disease transmission and herd persistence.

There is no scientific evidence to support a specific assumption for acceptable risk of contact and disease outbreak. The results should be viewed as a means of comparing the relative risks of disease outbreaks, not as definitive values. Results of the model support the current knowledge and characteristics of the bighorn sheep herds and the science, based on the understanding of potential disease outbreaks potentially occurring from contact of a bighorn sheep with a domestic sheep within an allotment.

A high degree of uncertainty exists regarding the probability that contact of a bighorn sheep with a domestic sheep in an allotment will lead to disease outbreak within a bighorn sheep herd (Forest Service 2013b; Carpenter et al. 2014; O'Brien et al. 2014). Quantification of disease transmission and outbreaks in bighorn sheep populations following contact with domestic sheep or goats, and the subsequent ability of a population to recover, are key to interpreting the results from the above models; however, the mechanisms of disease transmission and resulting disease outbreaks in bighorn sheep is not fully understood. Empirical data are lacking recommending the frequency of outbreaks and the effects on population persistence. Therefore, the BLM-UFO relied on the following to assist with the interpretation of RoC model results:

- The effects of respiratory disease outbreaks on bighorn sheep populations are often severe (Besser et al. 2012a; Besser et al. 2012b). Controlled pen experiments identified in Besser et al. 2012b resulted in complete or nearly complete die-offs of bighorn sheep following contact with domestic sheep. It has also been documented that disease perturbations can affect lamb recruitment for several years following a severe population decline resulting from a disease outbreak that rapidly affects many

animals in a specific area at the same time (Besser et al. 2012a; Coggins and Matthews 1992; Foreyt 1990). Consequently, when bighorn sheep disease die-offs occur, there is a substantial immediate population decline and a delayed recovery due to poor lamb recruitment for many years (Besser et al. 2013). Population recovery is unlikely where interspecies come in contact within a few decades of each other, potentially resulting in disease transmission and subsequent outbreak (BLM/CPW 2015). There is no specific guidance on the number of decades required to recover from a disease outbreak; observations of herds that have experienced pneumonia indicate it likely requires several decades.

- Another important trend of wild/domestic sheep disease transmission is that an illness' effect on individual bighorn populations can be long lasting. Cahn et al. (2011) explained the trend of suppressed lamb recruitment: "Whether mild or severe, most respiratory disease outbreaks in bighorn populations are followed by several years of pneumonia caused mortality of lambs resulting in low recruitment rates and juvenile survival. Continuing lamb infection apparently results from females that remain infective following an outbreak, although mortality or morbidity among the females may not be detectable. Such recurring lamb infections can substantially delay the recovery of depleted populations to pre-outbreak levels."

The BLM-UFO recognizes the uncertainty of the relationship between the number of bighorn sheep contacts with a domestic sheep allotment and predictions for disease transmission and outbreaks. Because of this uncertainty, modelers ran the disease model assuming a range of values from 0.05 (1 in 20 contacts would result in a disease outbreak) to 1.00 (every contact would result in a disease outbreak). The range of values modeled were 0.05, 0.10, 0.25, 0.50, 0.75, 0.90, and 1.00. Results for this calculation are found in **Table G-5** (Predicted Years Between Potential Disease Events for Allotments That Did Not Intersect with CHHR, Based on RoC Model Results).

It is important to disclose that accurate modeling of the impacts of disease based on individual animals is difficult because the dynamics of respiratory disease in the wild are only partly known. An individual-based model would require understanding many factors, such as the incubation period and active infection durations, the probability and rate of recovery from disease, the rate of effective contact between individuals within the herd, and the possible role of persistently infected individuals in harboring and spreading the disease. Variations in the resistance to disease of individual bighorn sheep and in the virulence of the disease-causing organisms themselves can also affect population dynamics.

Furthermore, modeling population dynamics of large herbivores at the individual level requires estimating numerous parameters, from adult and juvenile survival rates to age at sexual maturity, fecundity, and lamb survival (Gaillard et al. 2000). In addition, the average values for each of those life-history parameters may be modified by interacting impacts of density dependence, weather, forage availability, and predation. Properly estimating these parameters would require extensive age- and class-specific population data, ideally from the populations being modeled. Such data are not currently available.

In a review of other RoC modeling, general trends appear to develop. The Payette National Forest Analysis (Forest Service 2010) stated that total foray contact rates >0.04 annually (less than a 25-year interval) were deemed unacceptable due to estimated disease return intervals and subsequent impacts on long-term viability of bighorn herds. Additionally, they assumed that 1 in 4 contacts (0.25) would result in disease transmission, based on local information. The Rio Grande National Forest (Forest Service 2013b) stated that a disease occurring in a bighorn herd every 25 years or less would result in a high risk to bighorn long-term viability and a low probability of population persistence. This would result in a bighorn sheep population that is constantly being exposed to ongoing disease transmission and resultant outbreaks.

G.2.6 Data Assumptions/Issues

With assistance from CPW biologists, the BLM ran the RoC model using the best available local bighorn sheep population information to provide the parameters for the model. However, much of the needed data were not available for individual Colorado bighorn sheep populations.

The BLM made the following assumptions:

1. CPW (2013a) bighorn sheep overall range maps approximate bighorn sheep CHHR for the purposes of the RoC model.
 - i. CHHR is the area occupied by bighorn sheep 95 percent of the time, based on telemetry or other location data.
 - ii. Telemetry data to generate CHHR within the model were unavailable for this population.
 - iii. These areas overestimate the CHHR concept and, therefore, overestimate foray distances.
2. Suitable habitat is mapped for the domestic sheep grazing period and is mapped as suitable, corridor, and nonhabitat.
 - i. Domestic sheep grazing is predominantly during the winter.
 - ii. The CPW mapped the year-round desert bighorn suitable habitat and provided it for this modeling.⁷
3. The CPW mapped summer Rocky Mountain bighorn sheep suitable habitat and provided it for this modeling.
4. Default values from Idaho bighorn sheep (summer) approximate local desert and Rocky Mountain bighorn sheep populations for the domestic sheep grazing season for
 - i. Bighorn sheep habitat preference
 - ii. Bighorn sheep ram and ewe foray distances
 - iii. Bighorn sheep foray probabilities

⁷K. Eichhoff, Biologist, Colorado Parks and Wildlife, personal communication with Missy Siders, Wildlife Biologist of BLM UFO, January 26, 2015.

G.2.7 RoC Analysis Results

Given the assumption of 1 in 4 contacts results in a disease, the relative risk rates were generated using the following scheme:

0-25 years	High
26-50 years	Moderate
51-75 years	Some
76-100 years	Low
>100 years	Very low

The RoC analyzed 259 allotments or allotment pieces (**Table G-6** [Summary of Bighorn Relative Risk Rates for the Uncompahgre RMP Area]). Most of the assessed areas are allotted to cattle or horses (84.2 percent). A smaller portion of the Uncompahgre RMP area is allotted to sheep (15.1 percent) or cattle or sheep (0.8 percent). Most assessed areas were considered to be Very Low (48.3 percent), with a smaller portion considered Low (6.2 percent), Some (3.5 percent), or Moderate (8.1 percent). Slightly more than one-quarter (25.5 percent) of assessed areas were considered High, including 15.8 percent of the areas that had direct overlap with CCHR. However, only 3.8 percent of areas assessed were considered High and were within current domestic sheep areas; 1.5 percent were current domestic sheep areas directly overlapping CHHR, and 2.3 percent were current domestic sheep areas outside CHHR. Individual allotment or allotment pieces relative risk rates are described for sheep allotments (**Table G-7** [Relative Risk Rates for Bighorn Risk of Contact with Domestic Sheep Allotments]) and for non-domestic sheep allotments (**Table G-8** [Relative Risk Rates for Bighorn Risk of Contact with Non-Domestic Sheep Allotments]) and mapped in **Figure G-4** [RoC Model Results for Uncompahgre RMP Area].

Both the RoC model and the Alternatives were developed using the best available science, professional judgment, and knowledge of the local bighorn herd at the time. The RoC model informs the RMP and future management on the relationship between bighorn and domestic sheep in the area. The model and the RMP are the first big-scale look at the management situation. When grazing permits for these areas are renewed, the BLM-UFO will conduct NEPA analyses using more site-specific information and any new data to determine the bighorn herd's current condition and possible subsequent changes in management. At that time, the BLM-UFO will also use the currently accepted methods and model to conduct the analysis.

Table G-2
CPW Desert Bighorn Sheep Herd Population Estimates* for RoC Model

CPW Population Names	Uncompahgre/ Dominguez	Black Ridge	Middle Dolores	Upper Dolores
Game Management Unit	S62	S56	S63	S64
	DAU 60#		DAU 61#	
Adult Herd Size	120	150	42	92
	270		134	
Herd Sex Ratio/Numbers of (Rams:Ewes)	36:84	56:94	13:29	31:61
	93:177		44:90	
Ram Ratio (for reference)	43.7:100	60:100	44.8:100	50:100
	52.8:100		48.4:100	

*CPW 3-year average; # populations were merged into one unit for analysis purposes; **bold** text are numbers used for analysis.

Table G-3
CPW Rocky Mountain Bighorn Sheep Herd Population Estimates* for RoC Model

CPW Population Names	Black Canyon	Cow Creek/ Wetterhorn	Lake Fork/ Pole Mountain	Dillon Mesa/ W. Elk	Snowmass West	Snowmass East	Taylor River	Fossil Ridge	Lower Lake Fork	Main Canyon	Battlement Mesa
Game Management Unit	S80	S21	S33	S54	S25	S13	S26	S71	S81	S75	S24
	DAU=21				DAU=23						
Adult Herd Size	30	204	100	90	51	60	30	25	10	45	55
	304				50						
Herd Sex Ratio/Numbers of (Rams:Ewes)	8:22	82:122	44:56	28:62	16:35	20:40	13	5	4:6	10:35	16:39
	126:178				20						
Ram Ratio (for reference)	35:100	67.9:100	67.9:100	45:100	47.4:100	50:100	76:100	25:100	40:100	30:100	40:100
	67.9:100				67:100						

*CPW 3-year average; # populations were merged into one unit for analysis purposes; **bold** text are numbers used for analysis.

Table G-4
RoC Model Results for Bighorn Risk of Contact with Allotments (Probability that a Bighorn Sheep Will Intersect an Allotment)

Allotment Name	Allotment Number	Current Type of Livestock	Probability of Contact		Rate of Contact/10 Years		
			Ram	Ewe	Ram	Ewe	Herd
Adobe	05027	Cattle	0.005786	0.001632	0.009545	0.000699	0.010244
Alder Creek-A	17253	Cattle	0.000611	0.000329	0.010857	0.000877	0.011734
Alder Creek-B	17253	Cattle	0.000611	0.001144	0.010781	0.003054	0.013835
Alkali Flats	14017	Sheep	0.009295	0.002794	0.116135	0.006637	0.122772
Allen Reservoir	05050	Cattle	0.019497	0.006029	0.035328	0.002859	0.038187
Anthracite Creek	14525	Cattle	0.017408	0.005453	0.056528	0.004059	0.060587
Aspen Ditch-A	14551	Sheep	0.001227	0.000267	0.001406	0.000094	0.001499
Aspen Ditch-B	14551	Sheep	0.001241	0.000288	0.001451	0.000105	0.001556
Bald Hills	05510	Cattle	0.007959	0.002039	0.102362	0.005035	0.107397
Baldy	05568	Cattle					*
Barkelew Draw Com	07303	Cattle	0.004518	0.001574	0.028067	0.002199	0.030266
Beaver Canyon	17060	Cattle	0.004952	0.001135	0.087972	0.003031	0.091003
Beaver Hill	05522	Sheep	0.007369	0.002546	0.084104	0.005864	0.089969
Beaver Rim	07204	Horse	0.003112	0.000307	0.055292	0.000821	0.056113
Ben Lowe	14013	Cattle			*		
Big Bear Creek-A	07207	Cattle	0.005396	0.000537	0.095006	0.001345	0.096351
Big Bear Creek-B	07207	Cattle	0.002751	0.003495	0.041613	0.008570	0.050183
Big Bucktail	17061	Cattle	0.002254	0.001260	0.021435	0.002346	0.023782
Big Gulch-40	05036	Sheep	0.002280	0.002284	0.002882	0.000824	0.003706
Big Gulch-A	03630		0.000741	0.000355	0.000867	0.000123	0.000990
Big Gulch-B	03630		0.000178	0.000103	0.000212	0.000037	0.000249
Big Pasture	05044	Cattle	0.023384	0.006496	0.043031	0.003296	0.046327
Black Bullet	05045	Cattle	0.019316	0.012926	0.021937	0.004292	0.026229
Blue Cimarron	16036	Cattle or Sheep	0.027424	0.020987	0.037759	0.007392	0.045151
Bolinger Ditch	07219	Cattle	0.000385	0.000038	0.006815	0.000101	0.006915
Bramier Draw	07235	Cattle	0.000786	0.000213	0.004874	0.000287	0.005161
Broad Canyon	17199	Cattle	0.002080	0.000524	0.012903	0.000708	0.013611
Buck	07232	Cattle or Horse	0.000027	0.000011	0.000241	0.000019	0.000260
Buckeye	17033	Cattle					*
Burn Canyon	17022	Cattle	0.000493	0.000615	0.003122	0.001160	0.004282
Burro Creek	05556	Cattle			^		
Burro Ridge	05532	Cattle	0.011198	0.001363	0.174460	0.002599	0.177058

Allotment Name	Allotment Number	Current Type of Livestock	Probability of Contact		Rate of Contact/10 Years		
			Ram	Ewe	Ram	Ewe	Herd
Busted Boiler	03648	Cattle			^		
Canal	14012	Sheep			*		
Carpenter Ridge Com	17100	Cattle			*		
Carpenter Ridge Com/Horse Bench	17100	Cattle			*		
Cedar	05570	Cattle	0.007198	0.002186	0.016240	0.001034	0.017274
Cedar Creek-A	05535	Cattle	0.036759	0.010278	0.041586	0.003473	0.045059
Cedar Creek-B	05535	Cattle	0.001290	0.000495	0.001461	0.000164	0.001625
Cedar Point	05012	Cattle	0.015913	0.003484	0.020203	0.001226	0.021429
Chaffee	00019	Cattle	0.004756	0.001827	0.045020	0.003202	0.048221
Chaffee Gulch	05528	Cattle	0.003681	0.001534	0.018223	0.002648	0.020871
Cimarron 40	03658	Cattle	0.004898	0.000119	0.082878	0.000048	0.082927
Cimarron Stock Driveway	03650	Cattle			*		
Coal Canyon	17107	Cattle	0.002032	0.000712	0.012714	0.000983	0.013697
Coal Creek	05509	Cattle	0.000488	0.000153	0.002749	0.000162	0.002911
Coal Gulch-A	14517	Sheep	0.008236	0.002008	0.025047	0.001441	0.026488
Coal Gulch-B	14517	Sheep	0.001537	0.001560	0.003810	0.000903	0.004713
Coke Ovens	17027	Cattle	0.013751	0.002810	0.085313	0.003793	0.089106
Collins	05043	Cattle	0.001771	0.000388	0.002474	0.000146	0.002620
Cone	03635	Cattle			^		
Cookie Tree	05560	Cattle			^		
Coventry	07222	Cattle	0.003194	0.000480	0.050329	0.000860	0.051189
Cow Creek	05566	Cattle			*		
Crawford Reservoir	05018	Cattle	0.008256	0.001787	0.010066	0.000683	0.010749
Creek Bottom	03632	Cattle			^		
Cushman	05506	Sheep	0.048246	0.009514	0.541295	0.021561	0.562856
Cut Off	05052	Cattle	0.000409	0.000084	0.000461	0.000028	0.000488
Dave Wood Road	05518	Sheep	0.003991	0.000960	0.050038	0.002250	0.052288
Davis Mesa	17037	Cattle			*		
Deep Creek	14524	Cattle	0.007625	0.002362	0.023364	0.001597	0.024961
Deer Basin/Midway-A	14019	Sheep	0.008094	0.001779	0.096718	0.004190	0.100908
Deer Basin/Midway-B	14019	Sheep	0.011010	0.002621	0.135599	0.005790	0.141389
Deer Basin/Midway-C	14019	Sheep	0.000086	0.000024	0.000622	0.000029	0.000651
Delta Pipeline	03277	Sheep	0.033100	0.007320	0.274724	0.012728	0.287452
Dexter Creek	05551	Cattle			*		
Dirty George	14023	Cattle	0.001878	0.000812	0.005095	0.000572	0.005667
Doby Canyon	17042	Cattle	0.002468	0.000698	0.016656	0.001237	0.017893

Allotment Name	Allotment Number	Current Type of Livestock	Probability of Contact		Rate of Contact/10 Years		
			Ram	Ewe	Ram	Ewe	Herd
Dolores Canyon	17004	Cattle			*		
Doug Creek	05028	Cattle	0.014318	0.004593	0.025417	0.002009	0.027426
Downing	05541	Cattle	0.000212	0.000072	0.000511	0.000043	0.000555
Dry Cedar-A	05537	Sheep	0.016474	0.005417	0.045904	0.002496	0.048400
Dry Cedar-B	05537	Sheep	0.000253	0.000041	0.002774	0.000031	0.002805
Dry Cedar-C	05537	Sheep	0.000283	0.000013	0.004466	0.000009	0.004475
Dry Creek	14549	Cattle	0.010641	0.003496	0.012042	0.001155	0.013197
Dry Creek Basin	05513	Cattle or Sheep	0.025462	0.005323	0.305510	0.012727	0.318237
Dry Creek Place	05525	Cattle or Horse	0.001081	0.000253	0.008871	0.000373	0.009244
Dry Gulch	05540	Cattle	0.014868	0.005812	0.019056	0.004177	0.023233
Dry Park	07300	Cattle	0.000954	0.000668	0.011884	0.001567	0.013451
Duroy	03637	Cattle			^		
E Fork Dry Creek	05514	Cattle	0.003329	0.000686	0.043084	0.001714	0.044798
E Gould Reservoir	05041	Cattle	0.017926	0.004185	0.028847	0.001968	0.030814
E Paradox Com-A	17101	Cattle			*		
E Paradox Com-B	17101	Cattle	0.020310	0.004307	0.126002	0.005814	0.131816
E Roatcap Ind	14512	Cattle	0.000056	0.000013	0.000063	0.000004	0.000067
Far Away	17213	Cattle	0.000539	0.000157	0.009248	0.000419	0.009667
Feedlot	17078	Cattle			*		
Fire Mountain Canal	14508	Cattle	0.000737	0.000283	0.000831	0.000093	0.000924
Flatiron	05501	Cattle	0.022379	0.011204	0.265040	0.028357	0.293396
Franklin Mesa	05512	Cattle or Sheep	0.012334	0.002724	0.135192	0.006110	0.141301
Gravel Pit	07063	Cattle	0.000713	0.000366	0.005371	0.000626	0.005997
Green	05503	Cattle	0.005921	0.003108	0.076050	0.008160	0.084209
Hairpin	05569	Cattle	0.022462	0.010830	0.026337	0.003904	0.030241
Hamilton Mesa	07209	Cattle	0.002749	0.000822	0.017101	0.001141	0.018242
High Park	05549	Cattle	0.006109	0.003119	0.011948	0.003359	0.015306
Highway 90	05521	Sheep	0.009925	0.003306	0.113440	0.007618	0.121058
Hillside	05562	Cattle			*		
Home Ranch	07201	Cattle	0.002185	0.000788	0.014222	0.001255	0.015477
Horsefly	05523	Cattle	0.000835	0.000289	0.013765	0.000627	0.014391
Horsefly Com	07301	Cattle	0.001082	0.000192	0.018614	0.000511	0.019125
Houser	07076	Cattle	0.029500	0.013270	0.183016	0.017915	0.200931
Hubbard Creek	14516	Sheep	0.001942	0.002108	0.004215	0.001134	0.005349
Jumbo Mountain	14527	Cattle	0.008211	0.002841	0.014354	0.001637	0.015991
Juniper Knob	14505	Cattle	0.002160	0.000441	0.002436	0.000146	0.002582

Allotment Name	Allotment Number	Current Type of Livestock	Probability of Contact		Rate of Contact/10 Years		
			Ram	Ewe	Ram	Ewe	Herd
Kinnikin	03643	Cattle			^		
La Sal Creek	17011	Cattle			*		
Lavender	07075	Cattle	0.039684	0.022901	0.246197	0.030916	0.277113
Lee Bench	14011	Cattle	0.005296	0.002520	0.069209	0.006682	0.075891
Lee Lands-A	17003	Sheep			*		
Lee Lands-B	17003	Sheep	0.008701	0.000469	0.154046	0.001216	0.155262
Leopard Creek	07205	Sheep			*		
Leroux	14550	Cattle	0.009498	0.002287	0.010714	0.000755	0.011468
Leroux Creek	14504	Cattle	0.001343	0.000380	0.001515	0.000125	0.001640
Lillylands/West	17024	Cattle	0.006749	0.001764	0.041870	0.002381	0.044251
Lion Canyon	17012	Cattle			*		
Lion Creek Basin	17044	Cattle			*		
Little Baldy	07223	Cattle	0.001763	0.001207	0.031326	0.003222	0.034548
Little Maverick Draw	07210	Cattle	0.000441	0.000167	0.002919	0.000243	0.003161
Log Hill	05529	Cattle or Sheep	0.001672	0.001142	0.016056	0.002083	0.018139
Lower Beaver Canyon	07211	Cattle	0.000048	0.000977	0.000855	0.002608	0.003462
Lower Hamilton	07234	Cattle	0.001671	0.000421	0.010369	0.000569	0.010938
Lower Horsefly-A	05520	Sheep	0.000560	0.000070	0.007245	0.000107	0.007352
Lower Horsefly-B	05520	Sheep	0.002540	0.000467	0.040917	0.000943	0.041860
Lower Horsefly-C	05520	Sheep	0.000738	0.000200	0.006355	0.000253	0.006608
Lower Pinion	07213	Cattle	0.000616	0.000389	0.005219	0.000720	0.005939
Lower Roc Creek	07216	Cattle	0.007578	0.002911	0.047016	0.003930	0.050947
Lower Roubideau Canyon	05000	Cattle			*		
Mailbox Park-A	17001	Cattle	0.000014	0.000003	0.000210	0.000004	0.000215
Mailbox Park-B	17001	Cattle	0.001413	0.000629	0.015355	0.001168	0.016523
Maverick Draw	17018	Cattle	0.000787	0.000339	0.005437	0.000560	0.005997
McDonald Creek	14532	Sheep	0.017173	0.003884	0.019673	0.001345	0.021018
McKee Draw	07206	Cattle	0.000768	0.000708	0.007690	0.001248	0.008938
Mesa Creek-A	17014	Cattle			*		
Mesa Creek-B/First Park	17014	Cattle	0.009200	0.002404	0.057077	0.003245	0.060323
Mesa Creek-C	17014	Cattle			*		
Middle Hamilton Lse	07233	Cattle	0.001173	0.000296	0.007278	0.000399	0.007678
Milk Creek	14544	Cattle	0.000037	0.000013	0.000047	0.000006	0.000052
Moonshine Park	05563	Cattle			*		
Morrow Point	03631	Cattle			*		
Mud Springs	07230	Cattle	0.001129	0.000553	0.011678	0.001045	0.012724

Allotment Name	Allotment Number	Current Type of Livestock	Probability of Contact		Rate of Contact/10 Years		
			Ram	Ewe	Ram	Ewe	Herd
Muddy Creek	14519	Sheep	0.006602	0.002567	0.016419	0.001562	0.017981
N Saddle Peak	14540	Cattle	0.001577	0.000508	0.002703	0.000217	0.002920
N Wickson Draw	17023	Cattle	0.001006	0.000338	0.006243	0.000457	0.006700
Naturita Canyon-A	07203	Cattle	0.001055	0.000230	0.006547	0.000311	0.006857
Naturita Canyon-B	07203	Cattle	0.000059	0.000015	0.000368	0.000020	0.000388
Naturita Canyon-C	07203	Cattle	0.000049	0.000015	0.000302	0.000020	0.000322
Naturita Canyon-D	07203	Cattle	0.000061	0.000019	0.000381	0.000025	0.000406
Naturita Canyon-E	07203	Cattle	0.000609	0.000184	0.003778	0.000248	0.004026
Naturita Canyon-F	07203	Cattle	0.000269	0.000081	0.001668	0.000110	0.001778
Naturita Ridge	17035	Cattle	0.062360	0.013224	0.386878	0.017852	0.404730
Needle Rock	14542	Horse	0.000569	0.000178	0.000972	0.000077	0.001049
Norwood Hill	07218	Cattle	0.001836	0.000100	0.032617	0.000266	0.032883
Nyswanger	17082	Cattle			*		
Oak Hill	07225	Cattle	0.001005	0.000311	0.017862	0.000830	0.018692
Oak Hill 40	03644	Cattle			^		
Oak Mesa	14506	Cattle	0.007195	0.001880	0.008115	0.000620	0.008736
Oak Ridge Com	14528	Cattle	0.005351	0.001375	0.014046	0.000967	0.015013
Onion Lakes	05533	Cattle or Sheep	0.011575	0.001282	0.154453	0.001158	0.155611
Overland	14511	Cattle	0.000210	0.000049	0.000237	0.000016	0.000253
Park	17030	Cattle	0.004831	0.001070	0.029973	0.001445	0.031417
Parkway	17062	Cattle	0.000853	0.000211	0.005545	0.000309	0.005854
Petrie Mesa	14022	Sheep	0.036802	0.009590	0.339704	0.017094	0.356798
Piney	05516	Cattle	0.020442	0.009790	0.266032	0.025710	0.291741
Pinion	03641	Cattle			^		
Pipeline	05507	Cattle or Sheep	0.025079	0.006472	0.288450	0.014289	0.302739
Pocket Ind	17085	Cattle			*		
Point Creek	14021	Sheep	0.027646	0.006135	0.327320	0.014210	0.341530
Popp Ranch	14531	Cattle	0.001263	0.000436	0.001588	0.000184	0.001773
Radio Tower	02660	Cattle	0.003787	0.001273	0.023495	0.001718	0.025213
Ragsdale	03708	Cattle			^		
Rawhide/Coffee Pot-A	05034	Sheep	0.009168	0.004268	0.016004	0.001509	0.017513
Rawhide/Coffee Pot-B	05034	Sheep	0.018411	0.014541	0.022776	0.005171	0.027947
Rawhide/Coffee Pot-C	05034	Sheep			*		
Rawlings Ind	17021	Cattle			*		
Ray (Wray) Mesa	03298	Cattle			*		
Redvale	07227	Cattle	0.002511	0.000934	0.016378	0.001304	0.017681

Allotment Name	Allotment Number	Current Type of Livestock	Probability of Contact		Rate of Contact/10 Years		
			Ram	Ewe	Ram	Ewe	Herd
Reynolds/McDonald-A	14530	Cattle	0.000422	0.000136	0.000604	0.000061	0.000664
Reynolds/McDonald-B	14530	Cattle	0.033291	0.008301	0.038364	0.002952	0.041316
Ridgway Reservoir	00001	Cattle			^		
Rim Rock	05051	Cattle			*		
Smith Fork Rim	03526	Cattle			*		
River	17079	Cattle			*		
River Allotment	07200	Cattle	0.002920	0.001252	0.042982	0.003131	0.046113
Roatcap	05504	Cattle	0.009721	0.006274	0.120063	0.016222	0.136285
Roatcap/Jay Creek	14507	Cattle	0.018193	0.005564	0.020521	0.001836	0.022357
Roc Creek	17020	Cattle	0.033260	0.019194	0.206345	0.025911	0.232256
Rock Ditch	05538	Cattle	0.000126	0.000037	0.000629	0.000023	0.000652
Round Top	00002	Cattle			^		
Rowher Canyon	17080	Cattle			*		
S Dry Creek	14548	Cattle	0.010282	0.003144	0.011608	0.001038	0.012646
S Piney-A (Olathe Reservoir East)	05515	Cattle or Sheep	0.003132	0.000722	0.040075	0.001687	0.041762
S Piney-B	05515	Cattle or Sheep	0.018089	0.007097	0.231140	0.017475	0.248616
San Miguel Rim	03639	Cattle			^		
San Miguel River	03640	Cattle			^		
Sandy Wash	05502	Sheep	0.020198	0.009368	0.246753	0.023812	0.270566
Saw Pit	03636	Cattle			^		
Sawtooth	17032	Cattle			*		
Second Park	17105	Cattle	0.012555	0.003023	0.077894	0.004082	0.081975
Section 35	14547	Cattle	0.000855	0.000256	0.002395	0.000158	0.002553
Sewemup	03646	Cattle			^		
Shavano Mesa	05511	Sheep	0.005201	0.001197	0.063177	0.002857	0.066035
Shinn Park	05534	Sheep	0.073631	0.015434	0.083669	0.006023	0.089692
Simms Mesa-A	05519	Sheep	0.000480	0.000130	0.001457	0.000128	0.001585
Simms Mesa-B	05519	Sheep	0.001221	0.000920	0.011483	0.001776	0.013259
Slagle Pass	05547	Cattle	0.005813	0.000558	0.086024	0.000686	0.086710
Slaughter Grade	03651	Cattle			^		
Smith Fork Ind	05049	Cattle	0.025896	0.012459	0.029619	0.004218	0.033838
South Branch	14004	Cattle	0.002206	0.000899	0.013448	0.001005	0.014453
South of Town	14534	Sheep	0.010049	0.004487	0.011368	0.001489	0.012856
Spring Creek	05517	Cattle			^		
Spring Creek Canyon	03659	Cattle			^		
Spring Creek and Highway 90	03638	Cattle			*		

Allotment Name	Allotment Number	Current Type of Livestock	Probability of Contact		Rate of Contact/10 Years		
			Ram	Ewe	Ram	Ewe	Herd
Spring Gulch	05029	Cattle			*		
Stevens Gulch Com	14513	Cattle	0.005086	0.001108	0.006439	0.000411	0.006849
Stingley Gulch	14503	Cattle	0.006308	0.001929	0.007115	0.000637	0.007752
Stock Driveway	14521	Cattle	0.002184	0.000692	0.005123	0.000397	0.005520
Sundown	03633	Cattle			*		
Sunrise Gulch Com	17102	Cattle			*		
Sunshine Mesa	14541	Cattle	0.006437	0.001426	0.007260	0.000470	0.007731
Swain Bench	17081	Cattle			*		
Tabeguache Creek	17031	Cattle	0.025582	0.006866	0.164013	0.010500	0.174513
Tappan Creek-A	05575	Sheep	0.000244	0.000026	0.003489	0.000040	0.003529
Tappan Creek-B	05575	Sheep	0.000044	0.000007	0.000636	0.000012	0.000648
Taylor Draw	05555	Cattle	0.005691	0.001685	0.090401	0.003627	0.094028
Third Park Com	17103	Cattle	0.010779	0.002286	0.066870	0.003086	0.069956
Tinkler Ind	05530	Cattle	0.001981	0.001309	0.007034	0.002543	0.009577
Transfer Road	05505	Cattle	0.021507	0.008115	0.260493	0.020283	0.280776
Tuttle Draw	17106	Cattle	0.020981	0.004287	0.130167	0.005787	0.135954
Twenty Five Mesa N	14008	Cattle			*		
Twenty Five Mesa N Proposed	14008	Cattle			^		
Twenty Five Mesa S-A	07008	Cattle	0.001188	0.000506	0.008257	0.000878	0.009135
Twenty Five Mesa S-B	07008	Cattle	0.000663	0.000370	0.005360	0.000616	0.005977
Uncompahgre Bench	07007	Cattle	0.009129	0.003201	0.057178	0.004422	0.061599
Uncompahgre Com-A	07302	Cattle	0.000982	0.000102	0.017442	0.000272	0.017714
Uncompahgre Com-B	07302	Cattle	0.001052	0.000308	0.018696	0.000823	0.019518
Uncompahgre Com-C	07302	Cattle	0.004680	0.000098	0.083149	0.000262	0.083411
Uncompahgre Com-D	07302	Cattle	0.004344	0.000029	0.077177	0.000078	0.077254
Uncompahgre Com-E	07302	Cattle	0.002434	0.000002	0.043246	0.000005	0.043251
Upper Mail Box	07208	Cattle	0.000216	0.000081	0.003479	0.000191	0.003670
Upper Maverick Draw	07202	Cattle	0.000855	0.000529	0.005889	0.000821	0.006710
Upper Terror Creek	14514	Cattle	0.000463	0.000343	0.000823	0.000152	0.000975
W Roatcap	14510	Cattle	0.000144	0.000049	0.000163	0.000016	0.000179
W Stevens Gulch	14515	Cattle	0.008353	0.001959	0.009422	0.000647	0.010069
W Youngs Peak	14536	Cattle	0.016611	0.003329	0.019074	0.001166	0.020240
Wakefield	03628	Cattle			^		
Ward Creek/Doughspoon	14025	Cattle	0.051155	0.014199	0.257059	0.015760	0.272819
Washboard Rock-A	05548	Cattle	0.015798	0.004511	0.076412	0.003146	0.079557
Waterdog Basin	05546	Cattle	0.001399	0.000222	0.009594	0.000111	0.009705

Allotment Name	Allotment Number	Current Type of Livestock	Probability of Contact		Rate of Contact/10 Years		
			Ram	Ewe	Ram	Ewe	Herd
Weimer Hill Place	03660	Cattle			^		
Wells Gulch	14016	Sheep	0.014522	0.007551	0.179680	0.017748	0.197427
White Ranch	14015	Cattle	0.011673	0.004484	0.153065	0.011906	0.164971
Wickson Draw	17010	Cattle	0.006772	0.001916	0.042010	0.002586	0.044597
Wilbanks-A	14502	Cattle	0.010570	0.003542	0.012681	0.001254	0.013936
Washboard Rock-B	14502	Cattle	0.000130	0.000044	0.000150	0.000015	0.000165
Williams Creek	14523	Cattle	0.003363	0.001105	0.009386	0.000693	0.010080
Willims Ditch	07220	Cattle	0.000219	0.000064	0.001358	0.000086	0.001443
Winter/Monitor Mesa	14010	Cattle			*		
Youngs Peak	14537	Cattle	0.015303 ^a	0.003260	0.018164 ^b	0.001195	0.019359 ^c

*This allotment intersects the home range polygon and is therefore not included in the RoC analysis. It is assumed that one or more contacts per year may occur.

^This is a proposed allotment in the RMP that was not included in the RoC model run.

Sample Interpretation for Youngs Peak:

^a Given that a ram is on foray, there is a 1.5% probability that it will come in contact with this allotment.

^b Given the probability of ram on foray, predicts a rate of 0.2 ram contacts with allotment in 10 years.

^c Given the probability of foray of bighorn in the population, a rate of 0.2 contact with allotment in 10 years is predicted.

Table G-5
Predicted Years Between Potential Disease Events for Allotments That Did Not Intersect with CHHR, Based on RoC Model Results

Allotment Name	Allotment Number	Current Type of Livestock	Herd Rate of Contact ^a	Years Between Contact ^b	Years Between Potential Disease Events ^c						
					1:1 (1.0)	1:1.111 1 (0.9)	1:1.333 3 (0.75)	1:2 (0.50)	1:4 (0.25)	1:10 (0.10)	1:20 (0.05)
Adobe	05027	Cattle	0.010244	98	98	108	130	195	390	976	1952
Alder Creek-A	17253	Cattle	0.011734	85	85	95	114	170	341	852	1704
Alder Creek-B	17253	Cattle	0.013835	82	72	80	96	145	289	723	1446
Alkali Flats	14017	Sheep	0.122772	8	8	9	11	16	33	81	163
Allen Reservoir	05050	Cattle	0.038187	26	26	29	35	52	105	262	524
Anthracite Creek	14525	Cattle	0.060587	17	17	18	22	33	66	165	330
Aspen Ditch-A	14551	Sheep	0.001499	667	667	741	889	1334	2668	6671	13342
Aspen Ditch-B	14551	Sheep	0.001556	643	643	714	857	1285	2570	6426	12851
Bald Hills	05510	Cattle	0.107397	9	9	10	12	19	37	93	186
Barkeley Draw Com	07303	Cattle	0.030266	33	33	37	44	66	132	330	661
Beaver Canyon	17060	Cattle	0.091003	11	11	12	15	22	44	110	220
Beaver Hill	05522	Sheep	0.089969	11	11	12	15	22	44	111	222
Beaver Rim	07204	Horse	0.056113	18	18	20	24	36	71	178	356
Big Bear Creek-A	07207	Cattle	0.096351	10	10	12	14	21	42	104	208
Big Bear Creek-B	07207	Cattle	0.050183	20	20	22	27	40	80	199	399
Big Bucktail	17061	Cattle	0.023782	42	42	47	56	84	168	420	841
Big Gulch-40	05036	Sheep	0.003706	270	270	300	360	540	1079	2698	5397
Big Gulch-A	03630		0.000990	1010	1010	1122	1346	2020	4039	10098	20196
Big Gulch-B	03630		0.000249	4013	4013	4459	5351	8026	16052	40130	80259
Big Pasture	05044	Cattle	0.046327	22	22	24	29	43	86	216	432
Black Bullet	05045	Cattle	0.026229	38	38	42	51	76	153	381	763
Blue Cimarron	16036	Cattle or Sheep	0.045151	22	22	25	30	44	89	221	443
Bolinger Ditch	07219	Cattle	0.006915	145	145	161	193	289	578	1446	2892
Bramier Draw	07235	Cattle	0.005161	194	194	215	258	388	775	1938	3875
Broad Canyon	17199	Cattle	0.013611	73	73	82	98	147	294	735	1469
Buck	07232	Cattle or Horse	0.000260	3844	3844	4271	5125	7688	15376	38440	76879
Burn Canyon	17022	Cattle	0.004282	234	234	259	311	467	934	2335	4671
Burro Creek	05556	Cattle						^a			
Burro Ridge	05532	Cattle	0.177058	6	6	6	8	11	23	56	113

Allotment Name	Allotment Number	Current Type of Livestock	Herd Rate of Contact ^a	Years Between Contact ^b	Years Between Potential Disease Events ^c						
					1:1 (1.0)	1:1.111 1 (0.9)	1:1.333 3 (0.75)	1:2 (0.50)	1:4 (0.25)	1:10 (0.10)	1:20 (0.05)
Busted Boiler	03648	Cattle						^			
Cedar	05570	Cattle	0.017274	58	58	64	77	116	232	579	1158
Cedar Creek-A	05535	Cattle	0.045059	22	22	25	30	44	89	222	444
Cedar Creek-B	05535	Cattle	0.001625	616	616	684	821	1231	2462	6155	12311
Chaffee	00019	Cattle	0.048221	21	21	23	28	41	83	207	415
Chaffee Gulch	05528	Cattle	0.020871	48	48	53	64	96	192	479	958
Cimarron 40	03658	Cattle	0.082927	0	12	13	16	24	48	121	241
Coal Canyon	17107	Cattle	0.013697	73	73	81	97	146	292	730	1460
Coal Creek	05509	Cattle	0.002911	344	344	382	458	687	1374	3435	6870
Coal Gulch-A	14517	Sheep	0.026488	38	38	42	50	76	151	378	755
Coal Gulch-B	14517	Sheep	0.004713	212	212	236	283	424	849	2122	4243
Coke Ovens	17027	Cattle	0.089106	11	11	12	15	22	45	112	224
Collins	05043	Cattle	0.002620	382	382	424	509	763	1526	3816	7632
Cone	03635	Cattle						^			
Cookie Tree	05560	Cattle						^			
Coventry	07222	Cattle	0.051189	20	20	22	26	39	78	195	391
Crawford Reservoir	05018	Cattle	0.010749	93	93	103	124	186	372	930	1861
Creek Bottom	03632	Cattle						^			
Cushman	05506	Sheep	0.562856	2	2	2	2	4	7	18	36
Cut Off	05052	Cattle	0.000488	2048	2048	2275	2730	4095	8191	20477	40954
Dave Wood Road	05518	Sheep	0.052288	19	19	21	25	38	76	191	382
Deep Creek	14524	Cattle	0.024961	40	40	45	53	80	160	401	801
Deer Basin/Midway-A	14019	Sheep	0.100908	10	10	11	13	20	40	99	198
Deer Basin/Midway-B	14019	Sheep	0.141392	7	7	8	9	14	28	71	141
Deer Basin/Midway-C	14019	Sheep	0.000651	1536	1536	1707	2048	3073	6145	15363	30726
Delta Pipeline	03277	Sheep	0.287454	3	3	4	5	7	14	35	70
Dirty George	14023	Cattle	0.006951	144	176	196	235	353	706	1765	3529
Doby Canyon	17042	Cattle	0.017893	56	56	62	75	112	224	559	1118
Doug Creek	05028	Cattle	0.027426	36	36	41	49	73	146	365	729
Downing	05541	Cattle	0.000555	1803	1803	2003	2404	3606	7212	18031	36062
Dry Cedar-A	05537	Sheep	0.048400	21	21	23	28	41	83	207	413
Dry Cedar-B	05537	Sheep	0.002805	357	357	396	475	713	1426	3565	7130
Dry Cedar-C	05537	Sheep	0.004475	223	223	248	298	447	894	2235	4469

Allotment Name	Allotment Number	Current Type of Livestock	Herd Rate of Contact ^a	Years Between Contact ^b	Years Between Potential Disease Events ^c						
					1:1 (1.0)	1:1.111 1 (0.9)	1:1.333 3 (0.75)	1:2 (0.50)	1:4 (0.25)	1:10 (0.10)	1:20 (0.05)
Dry Creek	14549	Cattle	0.013278	75	76	84	101	152	303	758	1516
Dry Creek Basin	05513	Cattle or Sheep	0.318237	3	3	3	4	6	13	31	63
Dry Creek Place	05525	Cattle or Horse	0.009244	108	108	120	144	216	433	1082	2164
Dry Gulch	05540	Cattle	0.023233	43	43	48	57	86	172	430	861
Dry Park	07300	Cattle	0.013451	74	74	83	99	149	297	743	1487
Duroy	03637	Cattle						^			
E Fork Dry Creek	05514	Cattle	0.044798	22	22	25	30	45	89	223	446
E Gould Reservoir	05041	Cattle	0.030814	32	32	36	43	65	130	325	649
E Paradox Com-B	17101	Cattle	0.131816	8	8	8	10	15	30	76	152
E Roatcap Ind	14512	Cattle	0.000067	14903	14903	16559	19871	29806	59613	149031	298063
Far Away	17213	Cattle	0.009667	103	103	115	138	207	414	1034	2069
Fire Mountain Canal	14508	Cattle	0.000924	1082	1082	1202	1442	2164	4327	10818	21636
Flatiron	05501	Cattle	0.293396	3	3	4	5	7	14	34	68
Franklin Mesa	05512	Cattle or Sheep	0.141301	7	7	8	9	14	28	71	142
Gravel Pit	07063	Cattle	0.005997	167	167	185	222	333	667	1667	3335
Green	05503	Cattle	0.084209	12	12	13	16	24	48	119	238
Hairpin	05569	Cattle	0.030241	33	33	37	44	66	132	331	661
Hamilton Mesa	07209	Cattle	0.018242	55	55	61	73	110	219	548	1096
High Park	05549	Cattle	0.015306	65	65	73	87	131	261	653	1307
Highway 90	05521	Sheep	0.121058	8	8	9	11	17	33	83	165
Home Ranch	07201	Cattle	0.015477	65	65	72	86	129	258	646	1292
Horsefly	05523	Cattle	0.014391	69	69	77	93	139	278	695	1390
Horsefly Com	07301	Cattle	0.019125	52	52	58	70	105	209	523	1046
Houser	07076	Cattle	0.200931	5	5	6	7	10	20	50	100
Hubbard Creek	14516	Sheep	0.005349	187	187	208	249	374	748	1869	3739
Jumbo Mountain	14527	Cattle	0.015991	63	63	69	83	125	250	625	1251
Juniper Knob	14505	Cattle	0.002582	387	387	430	516	775	1549	3873	7746
Kinnikin	03643	Cattle									^
Lavender	07075	Cattle	0.277113	4	4	4	5	7	14	36	72
Lee Bench	14011	Cattle	0.075891	13	13	15	18	26	53	132	264
Lee Lands-B	17003	Sheep	0.155262	6	6	7	9	13	26	64	129
Leroux	14550	Cattle	0.011468	87	87	97	116	174	349	872	1744

Allotment Name	Allotment Number	Current Type of Livestock	Herd Rate of Contact ^a	Years Between Contact ^b	Years Between Potential Disease Events ^c						
					1:1 (1.0)	1:1.111 1 (0.9)	1:1.333 3 (0.75)	1:2 (0.50)	1:4 (0.25)	1:10 (0.10)	1:20 (0.05)
Leroux Creek	14504	Cattle	0.001640	610	610	678	813	1220	2439	6098	12196
Lillylands/West	17024	Cattle	0.044251	23	23	25	30	45	90	226	452
Little Baldy	07223	Cattle	0.034548	29	29	32	39	58	116	289	579
Little Maverick Draw	07210	Cattle	0.003161	316	316	351	422	633	1265	3163	6326
Log Hill	05529	Cattle or Sheep	0.018139	55	55	61	74	110	221	551	1103
Lower Beaver Canyon	07211	Cattle	0.003462	289	289	321	385	578	1155	2888	5776
Lower Hamilton	07234	Cattle	0.010938	91	91	102	122	183	366	914	1829
Lower Horsefly-A	05520	Sheep	0.007352	136	136	151	181	272	544	1360	2720
Lower Horsefly-B	05520	Sheep	0.041860	24	24	27	32	48	96	239	478
Lower Horsefly-C	05520	Sheep	0.006608	151	151	168	202	306	605	1513	3026
Simms Mesa-A	05519	Sheep	0.001585	631	631	701	841	1262	2524	6311	12622
Simms Mesa-B	05519	Sheep	0.013259	75	75	84	101	151	302	754	1508
Lower Pinion	07213	Cattle	0.005939	168	168	187	225	337	674	1684	3368
Lower Roc Creek	07216	Cattle	0.050947	20	20	22	26	39	79	196	393
Mailbox Park-A	17001	Cattle	0.000215	4659	4659	5176	6211	9317	18634	46586	93172
Mailbox Park-B	17001	Cattle	0.016523	61	61	67	81	121	242	605	1210
Maverick Draw	17018	Cattle	0.005997	167	167	185	222	334	667	1668	3335
McDonald Creek	14532	Sheep	0.021018	48	48	53	63	95	190	476	952
McKee Draw	07206	Cattle	0.008938	112	112	124	149	224	448	1119	2238
McKee Draw	07206	Cattle	0.008938	112	112	124	149	224	448	1119	2238
Mesa Creek-B	17014	Cattle	0.060323	17	17	18	22	33	66	166	332
Middle Hamilton Lse	07233	Cattle	0.007678	130	130	145	174	260	521	1302	2605
Milk Creek	14544	Cattle	0.000065	15477	19173	21304	25564	38347	76693	191733	383467
Mud Springs	07230	Cattle	0.012724	79	79	87	105	157	314	786	1572
Muddy Creek	14519	Sheep	0.017981	56	56	62	74	111	222	556	1112
N Saddle Peak	14540	Cattle	0.002920	342	342	381	457	685	1370	3425	6849
N Wickson Draw	17023	Cattle	0.006700	149	149	166	199	299	597	1493	2985
Naturita Canyon-A	07203	Cattle	0.006857	146	146	162	194	292	583	1458	2917
Naturita Canyon-B	07203	Cattle	0.000388	2574	2574	2860	3432	5148	10296	25741	51482
Naturita Canyon-C	07203	Cattle	0.000322	3104	3104	3449	4139	6209	12417	31043	62087
Naturita Canyon-D	07203	Cattle	0.000406	2466	2466	2740	3288	4931	9863	24656	49313
Naturita Canyon-E	07203	Cattle	0.004026	248	248	276	331	497	994	2484	4968
Naturita Canyon-F	07203	Cattle	0.001778	563	563	625	750	1125	2250	5626	11252

Allotment Name	Allotment Number	Current Type of Livestock	Herd Rate of Contact ^a	Years Between Contact ^b	Years Between Potential Disease Events ^c						
					1:1 (1.0)	1:1.111 1 (0.9)	1:1.333 3 (0.75)	1:2 (0.50)	1:4 (0.25)	1:10 (0.10)	1:20 (0.05)
Naturita Ridge	17035	Cattle	0.404730	2	2	3	3	5	10	25	49
Needle Rock	14542	Horse	0.001049	954	954	1060	1272	1907	3815	9537	19074
Norwood Hill	07218	Cattle	0.032883	30	30	34	41	61	122	304	608
Oak Hill	07225	Cattle	0.018692	53	53	59	71	107	214	535	1070
Oak Hill 40	03644	Cattle									^
Oak Mesa	14506	Cattle	0.008736	114	114	127	153	229	458	1145	2289
Oak Ridge Com	14528	Cattle	0.015013	67	67	74	89	133	266	666	1332
Onion Lakes	05533	Cattle or Sheep	0.155611	6	6	7	9	13	26	64	129
Overland	14511	Cattle	0.000253	3947	3947	4386	5263	7895	15790	39474	78949
Park	17030	Cattle	0.031417	32	32	35	42	64	127	318	637
Parkway	17062	Cattle	0.005854	171	171	190	228	342	683	1708	3416
Petrie Mesa	14022	Sheep	0.356798	3	3	3	4	6	11	28	56
Piney	05516	Cattle	0.291741	3	3	4	5	7	14	34	69
Pinion	03641	Cattle									^
Pipeline	05507	Cattle or Sheep	0.302739	3	3	4	4	7	13	33	66
Point Creek	14021	Sheep	0.341530	3	3	3	4	6	12	29	59
Popp Ranch	14531	Cattle	0.001773	564	564	627	752	1128	2257	5641	11283
Radio Tower	02660	Cattle	0.025213	40	40	44	53	79	159	397	793
Ragsdale	03708	Cattle									^
Rawhide/ Coffee Pot-A	05034	Sheep	0.017513	57	57	63	76	114	228	571	1142
Rawhide/ Coffee Pot-B	05034	Sheep	0.027947	36	36	40	48	72	143	358	716
Redvale	07227	Cattle	0.017681	57	57	63	75	113	226	566	1131
Reynolds/ McDonald-A	14530	Cattle	0.000664	1506	1506	1673	2007	3011	6022	15055	30110
Reynolds/ McDonald-B	14530	Cattle	0.041316	24	24	27	32	48	97	242	484
Ridgway Reservoir	00001	Cattle									^
River Allotment	07200	Cattle	0.046113	22	22	24	29	43	87	217	434
Roatcap	05504	Cattle	0.136285	7	7	8	10	15	29	73	147
Roatcap/Jay Creek	14507	Cattle	0.022357	45	45	50	60	89	179	447	895
Roc Creek	17020	Cattle	0.232256	4	4	5	6	9	17	43	86

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Rock Ditch	05538	Cattle	0.000652	1534	1534	1705	2046	3069	6137	15344	30687
Round Top	00002	Cattle									^
S Dry Creek	14548	Cattle	0.012646	79	79	88	105	158	316	791	1582
S Piney-A	05515	Cattle or Sheep	0.041762	24	24	27	32	48	96	239	479
S Piney-B	05515	Cattle or Sheep	0.248616	4	4	4	5	8	16	40	80
San Miguel Rim	03639	Cattle						^			
San Miguel River	03640	Cattle						^			
Sandy Wash	05502	Sheep	0.270566	4	4	4	5	7	15	37	74
Saw Pit	03636	Cattle									^
Second Park	17105	Cattle	0.081975	12	12	14	16	24	49	122	244
Section 35	14547	Cattle	0.002553	392	392	435	522	783	1567	3917	7833
Sewemup	03646	Cattle									^
Shavano Mesa	05511	Sheep	0.066035	15	15	17	20	30	61	151	303
Shin Park/ South Canal	05534	Cattle	0.066035	15	15	17	20	30	61	151	303
Shinn Park	05534	Sheep	0.089692	11	11	12	15	22	45	111	223
Slagle Pass	05547	Cattle	0.086710	12	12	13	15	23	46	115	231
Slaughter Grade	03651	Cattle						^			
Smith Fork Ind	05049	Cattle	0.033838	30	30	33	39	59	118	296	591
South Branch	14004	Cattle	0.015474	65	69	77	92	138	277	692	1384
South of Town	14534	Sheep	0.012856	78	78	86	104	156	311	778	1556
Spring Creek	05517	Cattle						^			
Spring Creek Canyon	03659	Cattle						^			
Stevens Gulch Com	14513	Cattle	0.006849	146	146	162	195	292	584	1460	2920
Stingley Gulch	14503	Cattle	0.007752	129	129	143	172	258	516	1290	2580
Stock Driveway	14521	Cattle	0.005520	181	181	201	242	362	725	1812	3623
Sunshine Mesa	14541	Cattle	0.007731	129	129	144	172	259	517	1294	2587
Tabeguache Creek	17031	Cattle	0.174513	6	6	6	8	11	23	57	115
Tappan Creek-A	05575	Sheep	0.003529	283	283	315	378	567	1134	2834	5668
Tappan Creek-B	05575	Sheep	0.000648	1543	1543	1715	2057	3086	6172	15431	30862
Taylor Draw	05555	Cattle	0.094028	11	11	12	14	21	43	106	213
Third Park Com	17103	Cattle	0.069956	14	14	16	19	29	57	143	286
Tinkler Ind	05530	Cattle	0.009577	104	104	116	139	209	418	1044	2088

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Transfer Road	05505	Cattle	0.280776	4	4	4	5	7	14	36	71
Tuttle Draw	17106	Cattle	0.135954	7	7	8	10	15	29	74	147
Twenty Five Mesa S-A	07008	Cattle	0.009135	109	109	122	146	219	438	1095	2189
Twenty Five Mesa S-B	07008	Cattle	0.005977	167	167	186	223	335	669	1673	3346
Uncompahgre Bench	07007	Cattle	0.061599	16	16	18	22	32	65	162	325
Uncompahgre Com-A	07302	Cattle	0.017714	56	56	63	75	113	226	565	1129
Uncompahgre Com-B	07302	Cattle	0.019518	51	56	63	75	113	226	565	1129
Uncompahgre Com-C	07302	Cattle	0.083411	12	51	57	68	102	205	512	1025
Uncompahgre Com-D	07302	Cattle	0.077254	13	12	13	16	24	48	120	240
Uncompahgre Com-E	07302	Cattle	0.043251	23	13	14	17	26	52	129	259
Upper Mail Box	07208	Cattle	0.003670	273	23	26	31	46	92	231	462
Upper Maverick Draw	07202	Cattle	0.006710	149	149	166	199	298	596	1490	2981
Upper Terror Creek	14514	Cattle	0.000975	1025	1025	1139	1367	2051	4102	10255	20510
W Roatcap	14510	Cattle	0.000179	5599	5599	6221	7465	11197	22394	55986	111972
W Stevens Gulch	14515	Cattle	0.010069	99	99	110	132	199	397	993	1986
W Youngs Peak	14536	Cattle	0.020240	49	49	55	66	99	198	494	988
Wakefield	03628	Cattle						^			
Ward Creek/Doughspoon	14025	Cattle	0.274489	4	4	4	5	7	15	37	73
Ward Creek/Doughspoon	14025	Cattle	0.274489	4	4	4	5	7	15	37	73
Washboard Rock-A	05548	Cattle	0.079557	13	13	14	17	25	50	126	251
Waterdog Basin	05546	Cattle	0.009705	103	103	114	137	206	412	1030	2061
Weimer Hill Place	03660	Cattle						^			
Wells Gulch	14016	Sheep	0.197428	5	5	6	7	10	20	51	101
White Ranch	14015	Cattle	0.164971	6	6	7	8	12	24	61	121
White Ranch	14015	Cattle	0.164971	6	6	7	8	12	24	61	121

Allotment Name	Allotment Number	Current Type of Livestock	Herd Rate of Contact ^a	Years Between Contact ^b	Years Between Potential Disease Events ^c						
					1:1 (1.0)	1:1.111 1 (0.9)	1:1.333 3 (0.75)	1:2 (0.50)	1:4 (0.25)	1:10 (0.10)	1:20 (0.05)
Wickson Draw	17010	Cattle	0.044597	22	22	25	30	45	90	224	448
Wilbanks-A	14502	Cattle	0.014274	70	72	80	96	144	287	718	1435
Wilbanks-B	14502	Cattle	0.000173	5787	6069	6743	8091	12137	24274	60686	121372
Williams Creek	14523	Cattle	0.010080	99	99	110	132	198	397	992	1984
Willims Ditch	07220	Cattle	0.001443	693	693	770	924	1386	2771	6928	13856
Youngs Peak	14537	Cattle	0.019359	52	52	57	69	103	207	517	1033

^a From last column.

^b 1/Herd rate of contact

^c Gray-shaded cells for allotments show potential disease event rates more frequently than 25 years.

[^] This is a proposed allotment in the RMP that was not included in the RoC model run.

Table G-6
Summary of Bighorn Relative Risk Rates for the Uncompahgre RMP Area

Current Type of Livestock	Number (Percent) of Areas Assessed						^	Grand Total
	High*	High	Moderate	Some	Low	Very Low		
Cattle	37 (14.3%)	19 (7.3%)	14 (5.4%)	7 (2.7%)	13 (5.0%)	102 (39.4%)	22 (8.5%)	214 (82.6%)
Cattle or Horse						2 (0.8%)		2 (0.8%)
Cattle or Sheep			1 (0.4%)			1 (0.4%)		2 (0.8%)
Horse				1 (0.4%)		1 (0.4%)		2 (0.8%)
Sheep	4 (1.5%)	6 (2.3%)	6 (2.3%)	1 (0.4%)	3 (1.2%)	19 (7.3%)		39 (15.1%)
Grand Total	41 (15.8%)	25 (9.7%)	21 (8.1%)	9 (3.5%)	16 (6.2%)	125 (48.3%)	22 (8.5%)	259

Table G-7
Relative Risk Rates for Bighorn Risk of Contact with Domestic Sheep Allotments

Allotment Name	Allotment Number	Current Type of Livestock	Probability of Interaction Model Results [#]	Allotment Number	RoC Allotment Name	RoC Results [@]
Alkali Flats	14017	Sheep	Moderate	14017	Alkali Flats	Moderate
Aspen Ditch	14551	Sheep	Some	14551	Aspen Ditch-A	Very Low
					Aspen Ditch-B	Very Low
Beaver Hill	05522	Sheep	Low	05522	Beaver Hill	Moderate
Big Gulch-40	05036	Sheep	Moderate	05036	Big Gulch-40	Very Low
Canal	14012	Sheep	High	14012	Canal	High*
Coal Gulch	14517	Sheep	Low	14517	Coal Gulch-A	Very Low
					Coal Gulch-B	Very Low
Cushman	05506	Sheep	Some	05506	Cushman	High
Dave Wood Road	05518	Sheep	Low	05518	Dave Wood Road	Low
Deer Basin/Midway	14019	Sheep	Some	14019	Deer Basin/Midway-A	Moderate
					Deer Basin/Midway-B	Moderate
					Deer Basin/Midway-C	Very Low
Delta Pipeline	03277	Sheep	Some	03277	Delta Pipeline	High
Dry Cedar	05537	Sheep	Some	05537	Dry Cedar-A	Low
					Dry Cedar-B	Very Low
					Dry Cedar-C	Very Low
Highway 90	05521	Sheep	Some	05521	Highway 90	Moderate
Hubbard Creek	14516	Sheep	Low	14516	Hubbard Creek	Very Low

Allotment Name	Allotment Number	Current Type of Livestock	Probability of Interaction Model Results [#]	Allotment Number	RoC Allotment Name	RoC Results [@]
Lee Lands	17003	Sheep	High	17003	Lee Lands-A	High*
					Lee Lands-B	Moderate
Leopard Creek	07205	Sheep	High	07205	Leopard Creek	High*
Log Hill	05529	Cattle or Sheep	Some	05529	Log Hill	Very Low
Lower Horsefly Combined	05520	Sheep	Low	05520	Lower Horsefly-A	Very Low
					Lower Horsefly-B	Low
					Lower Horsefly-C	Very Low
					Simms Mesa-A	Very Low
				05519	Simms Mesa-B	Very Low
McDonald Creek	14532	Sheep	Some	14532	McDonald Creek	Very Low
Muddy Creek	14519	Sheep	Low	14519	Muddy Creek	Very Low
Onion Lakes	05533	Cattle or Sheep	Some	05533	Onion Lakes	Moderate
Petrie Mesa	14022	Sheep	Some	14022	Petrie Mesa	High
Point Creek	14021	Sheep	Some	14021	Point Creek	High
Rawhide/Coffee Pot	05034	Sheep	Moderate	05034	Rawhide/Coffee Pot-A	Very Low
					Rawhide/Coffee Pot-B	Very Low
					Rawhide/Coffee Pot-C	High*
Sandy Wash	05502	Sheep	Some	05502	Sandy Wash	High
Shavano Mesa	05511	Sheep	Some	05511	Shavano Mesa	Some
Shinn Park/South Canal	05534	Cattle	Some	05534	Shinn Park	Moderate
Shinn Park	05534	Sheep	Moderate			
South of Town	14534	Sheep	Moderate	14534	South of Town	Very Low
Tappan Creek	05575	Sheep	Low	05575	Tappan Creek-A	Very Low
					Tappan Creek-B	Very Low
Wells Gulch	14016	Sheep	Moderate	14016	Wells Gulch	High

[@]High—Intersects with bighorn sheep range or disease contact less than 25 years (assume 1:4 contacts results in disease event); Moderate—disease contact 25-50 years; Some—disease contact 50-75 years; Low—disease contact 75-100 years; Very Low—disease contact greater than 100 years.

*Allotments intersect the CHHR for RoC model.

Table G-8
Relative Risk Rates for Bighorn Risk of Contact with Non-Domestic Sheep Allotments

Probability of Interaction Model Allotment Name	Allotment Number	Current Type of Livestock	Probability of Interaction Model Results[#]	Allotment Number	RoC Model Allotment Name	RoC Model Results[@]
Adobe	05027	Cattle	Moderate	05027	Adobe	Very Low
Alder Creek	17253	Cattle	High	17253	Alder Creek-A	Very Low
					Alder Creek-B	Very Low
Allen Reservoir	05050	Cattle	Moderate	05050	Allen Reservoir	Very Low
Anthracite Creek	14525	Cattle	Some	14525	Anthracite Creek	Some
Bald Hills	05510	Cattle	Some	05510	Bald Hills	Moderate
Baldy	05568	Cattle	High	05568	Baldy	High*
Barkelew Draw Com	07303	Cattle	Low	07303	Barkelew Draw Com	Very Low
Beaver Canyon	17060	Cattle	Some	17060	Beaver Canyon	Moderate
Beaver Rim	07204	Horse	Low	07204	Beaver Rim	Some
Ben Lowe	14013	Cattle	Moderate	14013	Ben Lowe	High*
Big Bear Creek	07207	Cattle	Moderate	07207	Big Bear Creek-A	Moderate
					Big Bear Creek-B	Low
Big Bucktail	17061	Cattle	Low	17061	Big Bucktail	Very Low
Big Gulch	03630	Cattle	Some	03630	Big Gulch-A	Very Low
					Big Gulch-B	Very Low
Big Pasture	05044	Cattle	Moderate	05044	Big Pasture	Low
Black Bullet	05045	Cattle	Moderate	05045	Black Bullet	Very Low
Blue Cimarron	03642	Cattle	Moderate	03642	Blue Cimarron	Low
Bolinger Ditch	07219	Cattle	Low	07219	Bolinger Ditch	Very Low
Bramier Draw	07235	Cattle	Low	07235	Bramier Draw	Very Low
Broad Canyon	17199	Cattle	Low	17199	Broad Canyon	Very Low
Buck	07232	Cattle or Horse	Low	07232	Buck	Very Low
Buckeye	17033	Cattle	Some	17033	Buckeye	High*
Burn Canyon	17022	Cattle	Low	17022	Burn Canyon	Very Low
Burro Creek	05556	Cattle	Some		Burro Creek	^
Burro Ridge	05532	Cattle	Some	05532	Burro Ridge	High
Busted Boiler	03648	Cattle	Low		Busted Boiler	^
Carpenter Ridge Com	17100	Cattle	Moderate	17100	Carpenter Ridge Com	High*
Horse Bench	03634	Cattle	Moderate	03634	Carpenter Ridge Com/Horse Bench	High*
Cedar	05570	Cattle	Some	05570	Cedar	Very Low

Probability of Interaction Model Allotment Name	Allotment Number	Current Type of Livestock	Probability of Interaction Model Results [#]	Allotment Number	RoC Model Allotment Name	RoC Model Results [@]
Cedar Creek	05535	Cattle	Moderate	05535	Cedar Creek-A	Low
					Cedar Creek-B	Very Low
Chaffee	00019	Cattle	Some	00019	Chaffee	Low
Chaffee Gulch	05528	Cattle	Some	05528	Chaffee Gulch	Very Low
Cimarron 40	03658	Cattle	Moderate	03658	Cimarron 40	Moderate
Cimarron Stock Driveway	03650	Cattle	High	03650	Cimarron Stock Driveway	High*
Coal Canyon	17107	Cattle	Low	17107	Coal Canyon	Very Low
Coal Creek	05509	Cattle	Some	05509	Coal Creek	Very Low
Coke Ovens	17027	Cattle	Some	17027	Coke Ovens	Moderate
Collins	05043	Cattle	Moderate	05043	Collins	Very Low
Cone	03635	Cattle	Some		Cone	^
Cookie Tree	05560	Cattle	Moderate		Cookie Tree	^
Coventry	07222	Cattle	Low	07222	Coventry	Low
Cow Creek	05566	Cattle	High	05566	Cow Cr	High*
Crawford Reservoir	05018	Cattle	Some	05018	Crawford Reservoir	Very Low
Creek Bottom	03632	Cattle	Low		Creek Bottom	^
Cut Off	05052	Cattle	Some	05052	Cut Off	Very Low
Davis Mesa	17037	Cattle	Moderate	17037	Davis Mesa	High*
Deep Creek	14524	Cattle	Low	14524	Deep Creek	Very Low
Dexter Creek	05551	Cattle	High	05551	Dexter Creek	High*
Dirty George	14023	Cattle	Low	14023	Dirty George	Very Low
Doby Canyon	17042	Cattle	Low	17042	Doby Canyon	Very Low
Dolores Canyon	17004	Cattle	High	17004	Dolores Canyon	High*
Doug Creek	05028	Cattle	Some	05028	Doug Creek	Very Low
Downing	05541	Cattle	Some	05541	Downing	Very Low
Dry Creek	14549	Cattle	Low	14549	Dry Creek	Very Low
Dry Creek Basin	05513	Cattle	Some	05513	Dry Creek Basin	High
Dry Creek Place	05525	Cattle or Horse	Some	05525	Dry Creek Place	Very Low
Dry Gulch	05540	Cattle	Some	05540	Dry Gulch	Very Low
Dry Park	07300	Cattle	Low	07300	Dry Park	Very Low
Duroy	03637	Cattle	Moderate		Duroy	^
E Fork Dry Creek	05514	Cattle	Some	05514	E Fork Dry Creek	Low
E Gould Reservoir	05041	Cattle	Moderate	05041	E Gould Reservoir	Very Low
E Paradox Com	17101	Cattle	Moderate	17101	E Paradox Com-A	High*
				17101	E Paradox Com-B	Moderate
E Roatcap Ind	14512	Cattle	Low	14512	E Roatcap Ind	Very Low
Far Away	17213	Cattle	Low	17213	Far Away	Very Low

Probability of Interaction Model Allotment Name	Allotment Number	Current Type of Livestock	Probability of Interaction Model Results [#]	Allotment Number	RoC Model Allotment Name	RoC Model Results [@]
Feedlot	17078	Cattle	Moderate	17078	Feedlot	High*
Fire Mountain Canal	14508	Cattle	Moderate	14508	Fire Mountain Canal	Very Low
Flatiron	05501	Cattle	Moderate	05501	Flatiron	High
Franklin Mesa	05512	Cattle	Some	05512	Franklin Mesa	Moderate
Gravel Pit	07063	Cattle	Low	07063	Gravel Pit	Very Low
Green	05503	Cattle	Some	05503	Green	Moderate
Hairpin	05569	Cattle	Moderate	05569	Hairpin	Very Low
Hamilton Mesa	07209	Cattle	Low	07209	Hamilton Mesa	Very Low
High Park	05549	Cattle	Moderate	05549	High Park	Very Low
Hillside	05562	Cattle	High	05562	Hillside	Very Low*
Home Ranch	07201	Cattle	Low	07201	Home Ranch	Very Low
Horsefly	05523	Cattle	Some	05523	Horsefly [%]	Very Low
Horsefly (W)	05523	Cattle	Some			
Horsefly Com	07301	Cattle	Low	07301	Horsefly Com	Very Low
Houser	07076	Cattle	Some	07076	Houser	High
Jumbo Mountain	14527	Cattle	Low	14527	Jumbo Mountain	Very Low
Juniper Knob	14505	Cattle	Some	14505	Juniper Knob	Very Low
Kinnikin	03643	Cattle	Some		Kinnikin	^
La Sal Creek	17011	Cattle	High	17011	La Sal Creek	High*
Lavender	07075	Cattle	Moderate	07075	Lavender	High
Lee Bench	14011	Cattle	Moderate	14011	Lee Bench	Some
Leroux	14550	Cattle	Some	14550	Leroux	Very Low
Leroux Creek	14504	Cattle	Some	14504	Leroux Creek	Very Low
Lillylands/West	17024	Cattle	Low	17024	Lillylands/West	Low
Lion Canyon	17012	Cattle	Moderate	17012	Lion Canyon	High*
Lion Creek Basin	17044	Cattle	Some	17044	Lion Creek Basin	High*
Little Baldy	07223	Cattle	Some	07223	Little Baldy	Very Low
Little Maverick Draw	07210	Cattle	Low	07210	Little Maverick Draw	Very Low
Lower Beaver Canyon	07211	Cattle	Low	07211	Lower Beaver Canyon	Very Low
Lower Hamilton	07234	Cattle	Low	07234	Lower Hamilton	Very Low
Lower Pinion	07213	Cattle	Low	07213	Lower Pinion	Very Low
Lower Roc Creek	07216	Cattle	High	07216	Lower Roc Creek	Low
Lower Roubideau Canyon	05000	Cattle	High	05000	Lower Roubideau Canyon	High*
Mailbox Park	17001	Cattle	Low	17001	Mailbox Park-A	Very Low
					Mailbox Park-B	Very Low

Probability of Interaction Model Allotment Name	Allotment Number	Current Type of Livestock	Probability of Interaction Model Results [#]	Allotment Number	RoC Model Allotment Name	RoC Model Results [@]
Maverick Draw	17018	Cattle	Low	17018	Maverick Draw	Very Low
McKee Draw	07206	Cattle	Some	07206	McKee Draw	Very Low
McKee Draw (E)	07206	Cattle	Some	07206	McKee Draw	Very Low
Mesa Creek	17014	Cattle	Moderate	17014	Mesa Creek-A	High*
					Mesa Creek-C	High*
Mesa Cr/First Park	03645	Cattle	Low		Mesa Creek-B	Some
Middle Hamilton Lse	07233	Cattle	Low	07233	Middle Hamilton Lse	Very Low
Milk Creek	14544	Cattle	Low	14544	Milk Creek	Very Low
Moonshine Park	05563	Cattle	High	05563	Moonshine Park	High*
Moonshine Park (N)	05563	Cattle	High	05563	Moonshine Park	High*
Morrow Point	03631	Cattle	High		Morrow Point	High*
Mud Springs	07230	Cattle	Low	07230	Mud Springs	Very Low
North Saddle Peak	14540	Cattle	Low	14540	N Saddle Peak	Very Low
North Wickson Draw	17023	Cattle	Low	17023	N Wickson Draw	Very Low
Naturita Canyon	07203	Cattle	Low	07203	Naturita Canyon-A	Very Low
					Naturita Canyon-B	Very Low
					Naturita Canyon-C	Very Low
					Naturita Canyon-D	Very Low
					Naturita Canyon-E	Very Low
					Naturita Canyon-F	Very Low
Naturita Ridge	17035	Cattle	Some	17035	Naturita Ridge	High
Needle Rock Allotment-not ACEC	14542	Horse	Low	14542	Needle Rock	Very Low
Norwood Hill	07218	Cattle	Low	07218	Norwood Hill	Very Low
Nyswanger	17082	Cattle	High	17082	Nyswanger	High*
Oak Hill	07225	Cattle	Low	07225	Oak Hill	Very Low
Oak Hill 40	03644	Cattle	Some		Oak Hill 40	^
Oak Mesa	14506	Cattle	Some	14506	Oak Mesa	Very Low
Oak Ridge Com	14528	Cattle	Low	14528	Oak Ridge Com	Very Low
Overland	14511	Cattle	Low	14511	Overland	Very Low
Park	17030	Cattle	Some	17030	Park	Very Low
Parkway	17062	Cattle	Low	17062	Parkway	Very Low
Piney	05516	Cattle	Some	05516	Piney	High
Pinion	03641	Cattle	Low		Pinion	^

Probability of Interaction Model Allotment Name	Allotment Number	Current Type of Livestock	Probability of Interaction Model Results [#]	Allotment Number	RoC Model Allotment Name	RoC Model Results [@]
Pipeline	05507	Cattle	Some	05507	Pipeline	High
Pocket Ind	17085	Cattle	Moderate	17085	Pocket Ind	High*
Popp Ranch	14531	Cattle	Some	14531	Popp Ranch	Very Low
Radio Tower	02660	Cattle	Low	02660	Radio Tower	Very Low
Ragsdale	03708	Cattle	Low		Ragsdale	^
Rawlings Ind	17021	Cattle	Moderate	17021	Rawlings Ind	High*
Ray (Wray) Mesa	03298	Cattle	Moderate	03298	Ray (Wray) Mesa	High*
Redvale	07227	Cattle	Low	07227	Redvale	Very Low
Reynolds/McDonald	14530	Cattle	Some	14530	Reynolds/McDonald-A	Very Low
					Reynolds/McDonald-B	Low
Ridgway Reservoir	00001	Cattle	Moderate		Ridgway Reservoir	^
Rim Rock	05051	Cattle	High	05051	Rim Rock	High*
Smith Fork Rim	03526	Cattle	High	03526	Smith Fork Rim	High*
River	17079	Cattle	High	17079	River	High*
River Allotment	07200	Cattle	Low	07200	River Allotment	Low
Roatcap	05504	Cattle	Moderate	05504	Roatcap	Moderate
Roatcap/Jay Creek	14507	Cattle	Some	14507	Roatcap/Jay Creek	Very Low
Roc Creek	17020	Cattle	High	17020	Roc Creek	High
Rock Ditch	05538	Cattle	Low	05538	Rock Ditch	Very Low
Round Top	00002	Cattle	Moderate		Round Top	^
Rowher Canyon	17080	Cattle	Moderate	17080	Rowher Canyon	High*
S Dry Creek	14548	Cattle	Some	14548	S Dry Creek	Very Low
South Piney	05515	Cattle	Some	05515	S Piney-A	
					S Piney-B	High
San Miguel Rim	03639	Cattle	Low		San Miguel Rim	^
San Miguel River	03640	Cattle	Low		San Miguel River	^
Saw Pit	03636	Cattle	Moderate		Saw Pit	^
Sawtooth	17032	Cattle	Some	17032	Sawtooth	High*
Second Park	17105	Cattle	Some	17105	Second Park	
Section 35	14547	Cattle	Some	14547	Section 35	Very Low
Sewemup	03646	Cattle	High		Sewemup	^
Slagle Pass	05547	Cattle	Moderate	05547	Slagle Pass	Moderate
Slaughter Grade	03651	Cattle	Low		Slaughter Grade	^
Smith Fork Ind	05049	Cattle	Moderate	05049	Smith Fork Ind	Very Low
South Branch	14004	Cattle	Low	14004	South Branch	Very Low
Spring Creek	05517	Cattle	Low		Spring Creek	^
Spring Creek Canyon	03659	Cattle	Low		Spring Creek Canyon	^

Probability of Interaction Model Allotment Name	Allotment Number	Current Type of Livestock	Probability of Interaction Model Results [#]	Allotment Number	RoC Model Allotment Name	RoC Model Results [@]
Spring Creek and Highway 90	03638	Cattle	Moderate	03638	Spring Creek and Highway 90	High*
Spring Gulch	05029	Cattle	High	05029	Spring Gulch	High
Stevens Gulch Com	14513	Cattle	Low	14513	Stevens Gulch Com	Very Low
Stingley Gulch	14503	Cattle	Some	14503	Stingley Gulch	Very Low
Stock Driveway	14521	Cattle	Some	14521	Stock Driveway	Very Low
Sundown	03633	Cattle	High	03633	Sundown	High*
Sunrise Gulch Com	17102	Cattle	High	17102	Sunrise Gulch Com	High*
Sunshine Mesa	14541	Cattle	Some	14541	Sunshine Mesa	Very Low
Swain Bench	17081	Cattle	Moderate	17081	Swain Bench	High*
Tabeguache Creek	17031	Cattle	Some	17031	Tabeguache Creek	High
Taylor Draw	05555	Cattle	Moderate	05555	Taylor Draw	Moderate
Third Park Com	17103	Cattle	Some	17103	Third Park Com	Some
Tinkler Ind	05530	Cattle	Low	05530	Tinkler Ind	Very Low
Transfer Road	05505	Cattle	Some	05505	Transfer Road	High
Tuttle Draw	17106	Cattle	Some	17106	Tuttle Draw	Moderate
Twenty Five Mesa N	14008	Cattle	High	14008	Twenty Five Mesa N	High*
Twenty Five Mesa N (proposed)	14008	Cattle	Moderate	14008	Twenty Five Mesa N	^
Twenty Five Mesa S	07008	Cattle	Low	07008	Twenty Five Mesa S-A	Very Low
					Twenty Five Mesa S-B	Very Low
Uncompahgre Bench	07007	Cattle	Some	07007	Uncompahgre Bench	Some
Uncompahgre Com	07302	Cattle	Some	07302	Uncompahgre Com-A	Very Low
					Uncompahgre Com-B	Very Low
					Uncompahgre Com-C	Very Low
					Uncompahgre Com-D	Moderate
					Uncompahgre Com-E	Some
Upper Mail Box	07208	Cattle	Low	07208	Upper Mail Box	Low
Upper Maverick Draw	07202	Cattle	Low	07202	Upper Maverick Draw	Very Low
Upper Terror Creek	14514	Cattle	Low	14514	Upper Terror Creek	Very Low

Probability of Interaction Model Allotment Name	Allotment Number	Current Type of Livestock	Probability of Interaction Model Results [#]	Allotment Number	RoC Model Allotment Name	RoC Model Results [@]
W Roatcap	14510	Cattle	Low	14510	W Roatcap	Very Low
W Stevens Gulch	14515	Cattle	Low	14515	W Stevens Gulch	Very Low
W Youngs Peak	14536	Cattle	Some	14536	W Youngs Peak	Very Low
Wakefield	03628	Cattle	Low		Wakefield	^
Ward Creek-Doughspoon	14025	Cattle	Some	14025	Ward Cr/Doughspoon	High
Ward Creek-Doughspoon (south)	14025	Cattle	Some	14025	Ward Creek/Doughspoon	High
Washboard Rock	05548	Cattle	Moderate	05548	Washboard Rock-A	Some
Waterdog Basin	05546	Cattle	Some	05546	Waterdog Basin	Very Low
Weimer Hill Place	03660	Cattle	Low		Weimer Hill Place	^
White Ranch	14015	Cattle	Moderate	14015	White Ranch	High
White Ranch (proposed)	14015	Cattle	Moderate	14015	White Ranch	High
Wickson Draw	17010	Cattle	Low	17010	Wickson Draw	Low
Wilbanks	14502	Cattle	Low	14502	Wilbanks-A	Very Low
					Wilbanks-B	Very Low
Williams Creek	14523	Cattle	Low	14523	Williams Creek	Very Low
Williams Ditch	07220	Cattle	Low	07220	Williams Ditch	Very Low
Camel Back Pasture	14010	Cattle	High	14010	Winter/Monit or Mesa	High
Winter-Monitor Mesa	14010	Cattle	High	14010	Winter/Monit or Mesa	High*
Winter-Monitor Mesa (proposed)	14010	Cattle	High	14010	Winter/Monit or Mesa	High
Youngs Peak	14537	Cattle	Some	14537	Youngs Peak	Very Low

[@]High—Intersects with bighorn sheep range or disease contact less than 25 years (assume 1:4 contacts results in disease event); Moderate—disease contact 25-50 years; Some—disease contact 50-75 years; Low—disease contact 75-100 years; Very Low—disease contact greater than 100 years.

*Allotments intersect the CHHR for RoC model.

^This is a proposed allotment in the RMP that was not included in the RoC model run.

%Same as Horsefly and Horsefly (W) combined

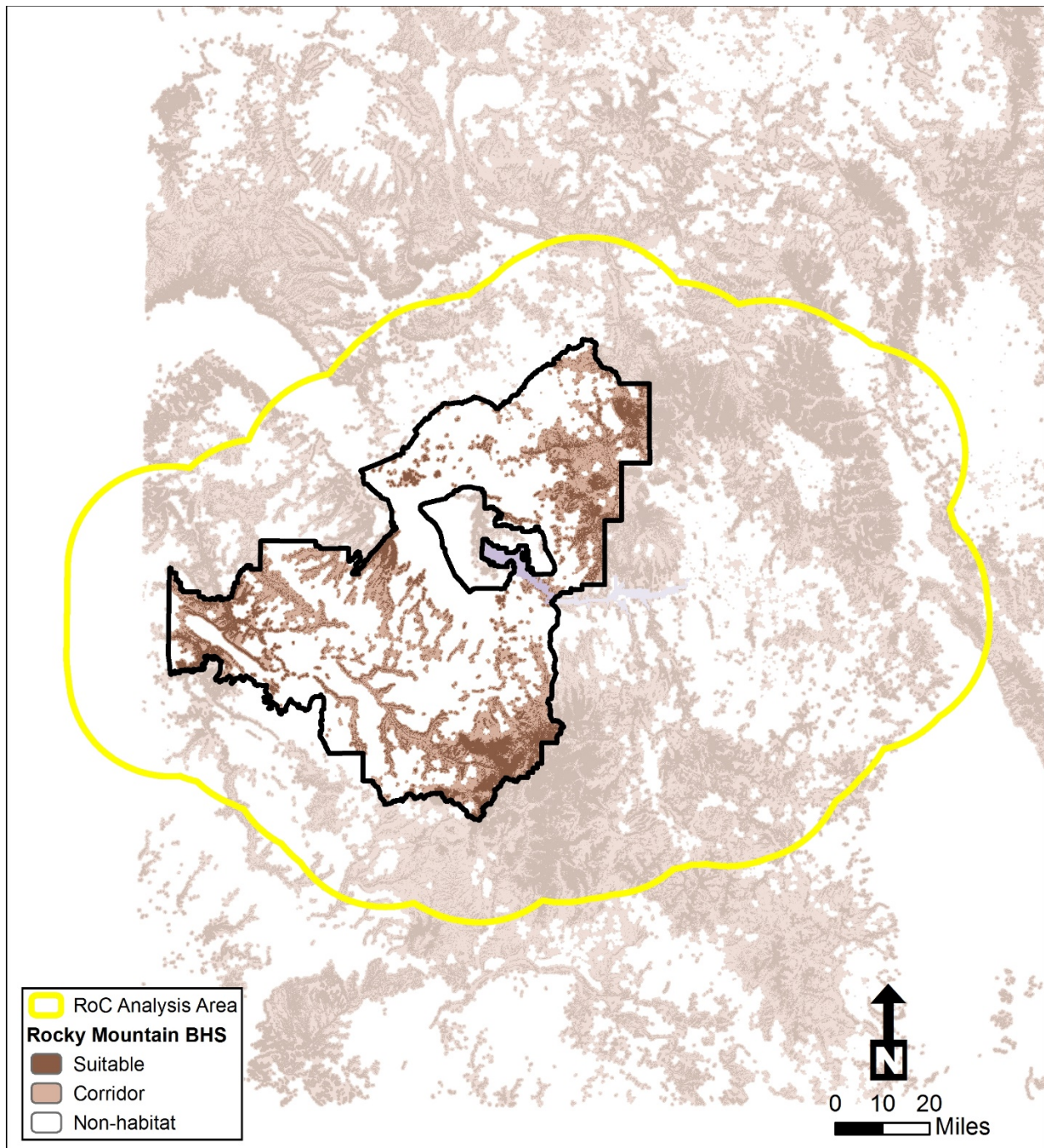


Figure G-I CPW Rocky Mountain Bighorn Sheep Suitable Habitat Model for RoC Analysis Area

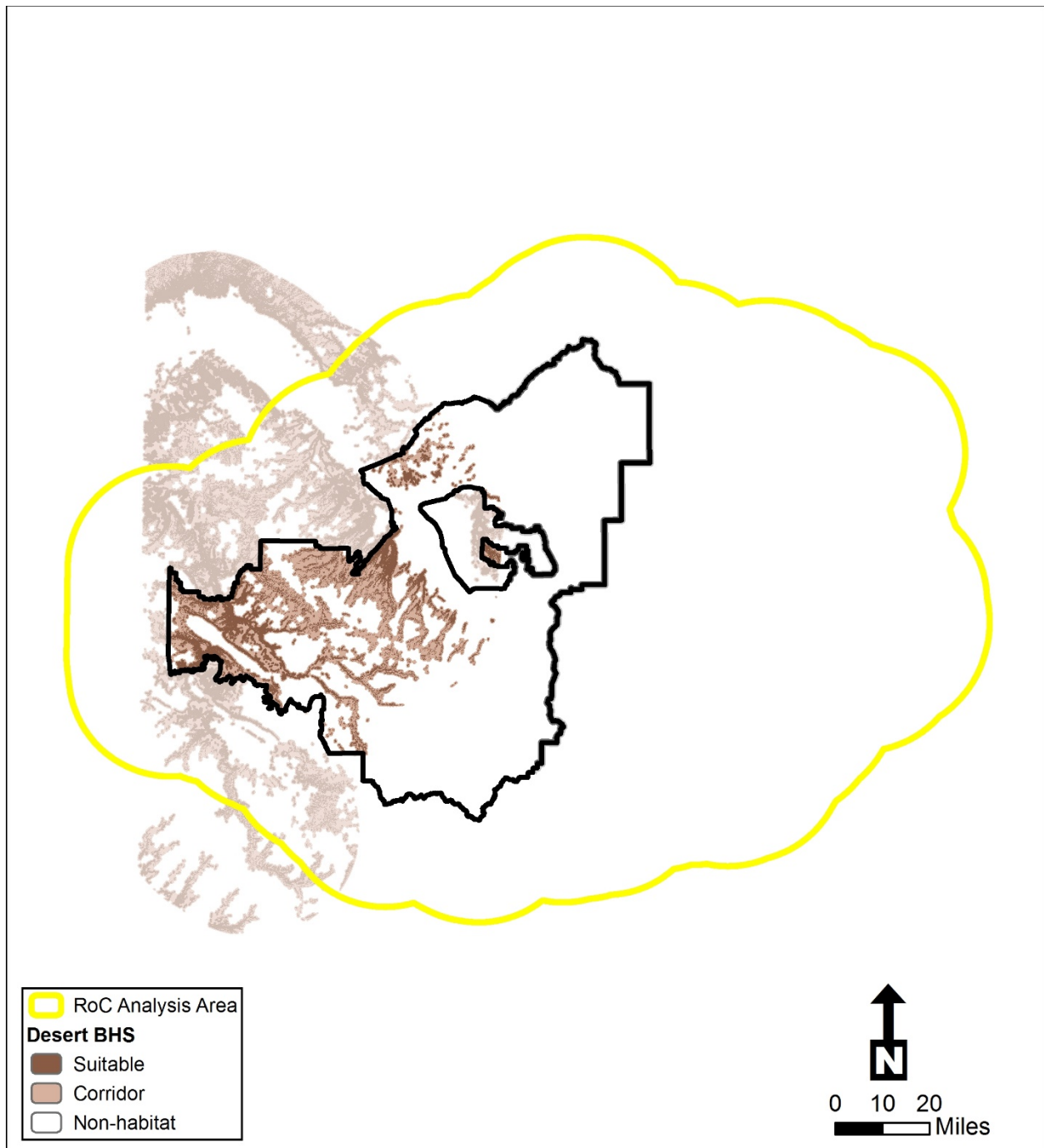


Figure G-2 CPW Desert Bighorn Sheep Suitable Habitat Model for RoC Analysis Area

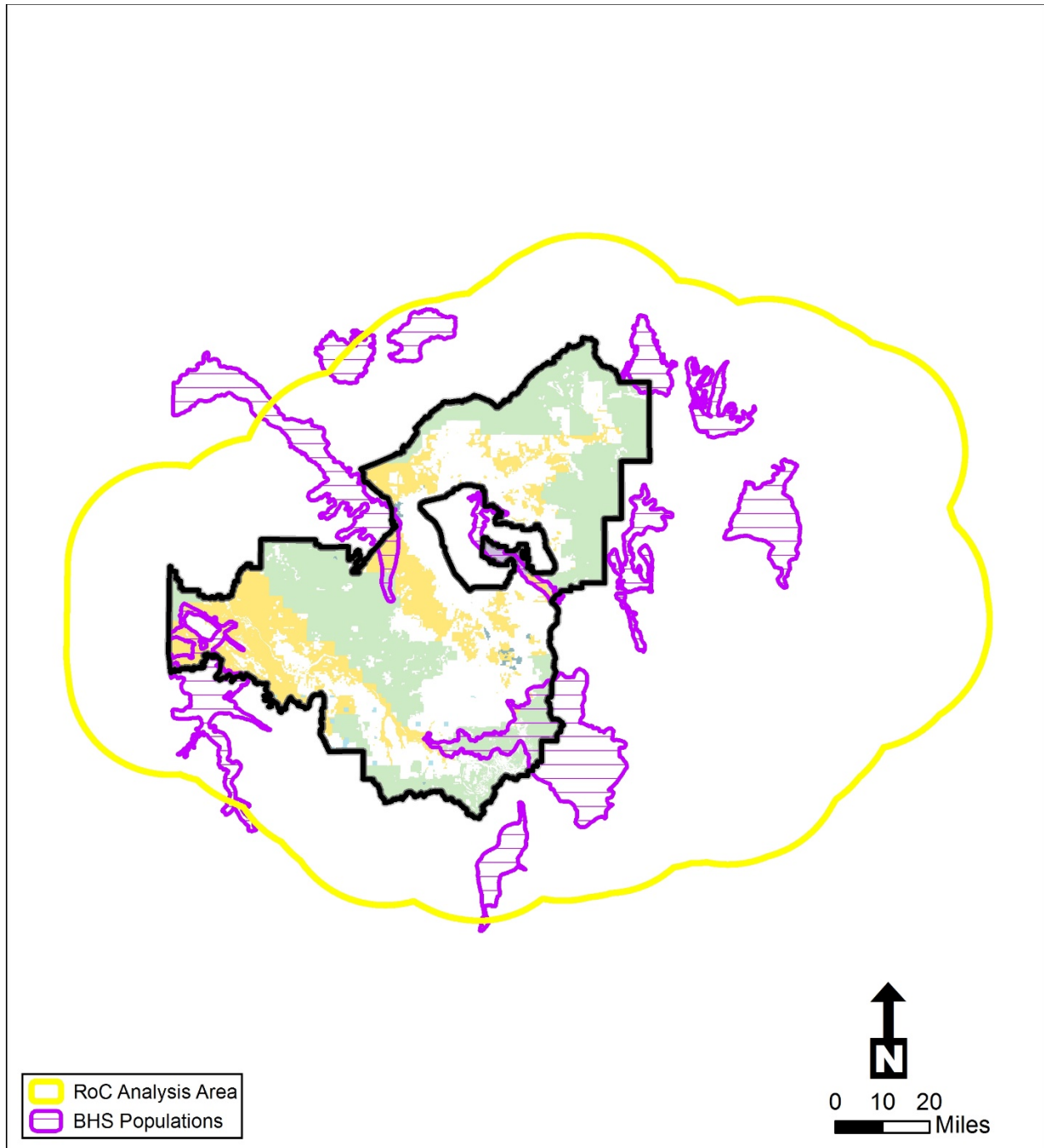


Figure G-3 Analysis Area and Bighorn Sheep Populations Used in the RoC Model

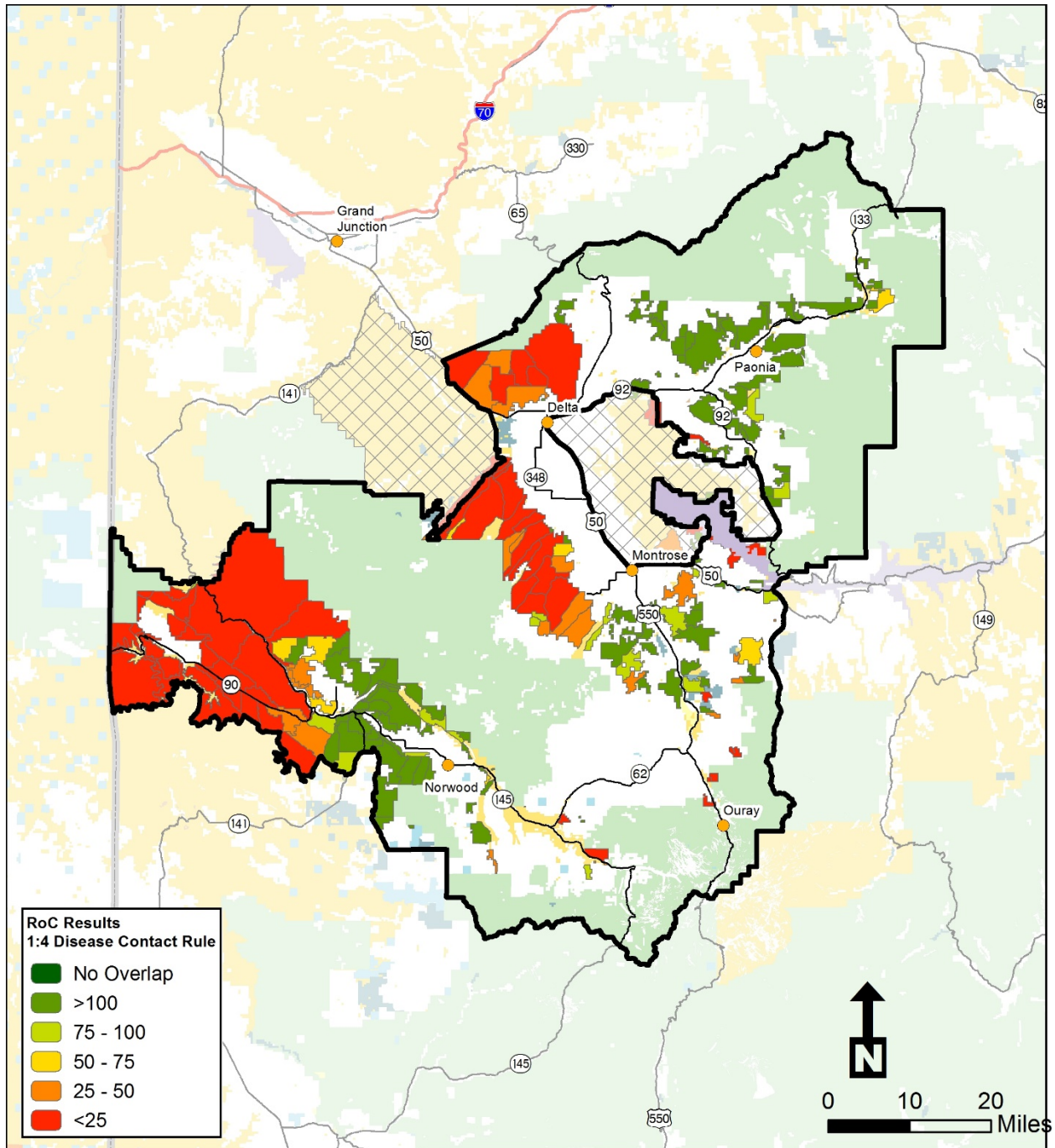


Figure G-4 RoC Model Results for Uncompahgre RMP Area

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Appendix H

Coal Screening Criteria for the Uncompahgre
Planning Area

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APPENDIX H

COAL SCREENING FOR THE UNCOMPAGRE PLANNING AREA

INTRODUCTION

The federal government provides for coal leasing under the Mineral Leasing Act of 1920, as amended by the Federal Coal Leasing Amendments Act of 1976. The Mineral Leasing Act outlines procedures for considering development of coal deposits through a leasing system that involves land use planning and environmental analysis. This document summarizes land management decisions regarding federal coal resources in the Uncompahgre Planning Area (planning area) within the United States (US) Department of Interior, Bureau of Land Management (BLM) Uncompahgre Field Office (UFO), Colorado.

The identification of areas acceptable for coal leasing consideration is a major land use planning decision, providing direction for coal leasing decisions made by the Secretary of the Interior and guiding the future development of federal coal resources throughout the planning area.

Lands in the planning area were evaluated for coal leasing suitability using the screening process set forth in the Competitive Leasing section of the Code of Federal Regulations (43 CFR 3420.1-4) and summarized as follows:

- 1) Identify lands that have coal development potential, using internal estimates and nonconfidential coal geology information and economic data provided by public and private sources
- 2) Evaluate lands identified as having coal development potential in relation to the unsuitability criteria set forth in 43 CFR 3461 to determine areas that are unsuitable for all or stipulated methods of surface mining
- 3) Identify multiple land use decisions that could eliminate from leasing lands that contain resource values and land uses that are locally, regionally, or nationally important or unique and that are not included in the unsuitability criteria.

The Department of the Interior offers federal coal resources through two application processes:

- Lease-by-application
- Application to modify an existing lease

Applications are typically initiated by coal companies, qualified individuals, or existing coal lessees. When a federal coal tract is proposed for leasing, the BLM reviews the application to ensure that it conforms to existing land use plans and contains sufficient geologic data to assess the fair market value of the coal.

Both leasing processes require compliance with the National Environmental Policy Act (NEPA) of 1969, in which the direct, indirect, and cumulative impacts associated with a proposed action are evaluated. After considering environmental analysis and public comments solicited during the NEPA process, the BLM determines whether to accept a proposed action, take no action, or develop an alternative action.

The submission of a coal lease application for lands within the planning area would initiate a fourth screening procedure:

- 4) Consult with the surface owner regarding private surface lands overlying federal coal.

RESULTS OF THE COAL SCREENING PROCESS

The following details the results of screening procedures used to identify lands in the planning area as suitable for coal leasing consideration.

Screen 1: Identification of Coal Development Potential

Somerset, Grand Mesa, Tongue Mesa, and Nucla-Naturita coal fields constitute the leased and unleased federal coal resources within the planning area where development could occur over the estimated twenty-year duration of the RMP.

Located along the northeastern boundary of the planning area in Delta and Gunnison counties, **Somerset Coal Field** contains one active mine on federal leases operating in coal seams of the Mesaverde Formation and has the highest development potential of the four areas. Adjacent to Somerset along the northern boundary of the planning area, **Grand Mesa Coal Field** straddles the Delta-Mesa County Line and is also comprised of Mesaverde coals.

Tongue Mesa Coal Field traverses the Ouray-Gunnison County Line in the southeastern portion of the planning area and contains relatively inaccessible coal seams of the Fruitland Formation. Somerset, Grand Mesa, and Tongue Mesa are considered deep coal fields, with overburden depths too great to allow for surface mining potential. **Nucla-Naturita Coal Field** is located in western Montrose County and has overburden depths sufficiently shallow to allow for surface mining of Dakota Formation coals.

At the time of this report, the New Horizon coal mine, on private surface and private minerals, near Nucla, Colorado, had ceased production after March 2017 and entered final reclamation.

There was no active mining of federal mineral estate within either the Grand Mesa or Tongue Mesa coal fields.

Coal Development Potential in the RMP

The coal development potential area identified in the 1985 San Juan/San Miguel RMP and 1989 Uncompahgre Basin RMP was carried forward to Alternative A (which reflects current management) in the Draft RMP/EIS and Proposed RMP/Final EIS. Under Alternative A, coal potential was based on a maximum development depth of about 2,000 feet. The coal potential area in Alternatives B, C, D, and E was expanded because of newer technology that allows for mining of deeper coal to a maximum development depth of 3,000 feet, and the addition of Dakota coal west of Montrose and an expanded Nucla-Naturita Coal Field, both of which were not recognized in the 1985 and 1989 RMPs.

Screen 2: Unsuitability Criteria Review

As required by 43 CFR 3461, the BLM assessed the coal development potential areas (identified in Screen 1) in relation to twenty unsuitability criteria to determine suitability for surface mining. In accordance with 43 CFR 3461.3-2, lands already leased for coal mining were not assessed. The criteria focus on significant resource values that could be impacted by surface operations.

Surface coal mining operations are defined in 43 CFR 3400.0-5 as “activities conducted on the surface of lands in connection with a surface coal mine or surface operations and surface impacts incident to an underground mine” (such as vent holes, portals, load out facilities, roads, and other surface disturbances).

Federal regulation 43 CFR 3461.1 [a] outlines exemptions and exceptions from the criteria, stating that “federal lands with coal deposits that would be mined by underground mining methods shall not be assessed as unsuitable where there would be no surface coal mining operations.” The unsuitability criteria were not applied to the three coal fields in the planning area that have deep coal deposits and no clearly defined areas where surface operations would occur. The criteria will be applied to surface facilities and operations during the exploration and leasing stages, as allowed by 43 CFR 3461.2-1(b) (1) and 3461.3-1.

A summary of the findings is as follows. Note that acres are subject to change as the BLM would evaluate proposed surface mining and surface operations in relation to the criteria at the time of exploration and leasing.

Criteria	Nucla-Naturita Coal Field (acres)	Other Shallow Coal Fields (acres)
2: Rights-of-Way and Easements	2,190	30
3: Public Roads, Buildings, Cemeteries, and Parks and Occupied Dwellings	20	0
12: Bald and Golden Eagle Roosts and Winter Concentrations Buffer Area	340	10
17: Municipal Watersheds	70	0
Total	2,460¹	40

¹The total acreage is less than the sum total of the individual acres because some areas overlap. The total does not include overlapping acreage.

Criterion 1 - Special Systems of Federal Lands

Federal surface lands included in the following land systems or categories shall be considered unsuitable for surface mining and surface operations:

- National Park System
- National Wildlife Refuge System
- National System of Trails
- National Wilderness Preservation System
- National Recreation Areas
- land acquired with money derived from the Land and Water Conservation Fund
- National Forests (not applicable to underground mining)
- federal lands in incorporated cities, towns, and villages

Analysis: Designated as a National Historic Trail by Congress in 2002, the northern branch of The Old Spanish Trail passes through the planning area. The trail and associated corridor are unsuitable for surface mining and surface operations associated with underground mining. Prior to coal exploration and leasing within any coal development potential area in the planning area, the BLM will examine proposed federal lands and identify additional areas listed under Criterion 1 as unsuitable for surface mining and surface operations.

Criterion 2 - Rights-of-Way and Easements

Federal lands within rights-of-way or easements or within surface leases for residential, commercial, industrial, or other public purposes shall be considered unsuitable for surface mining and surface operations.

Analysis: The West-Wide Energy Corridor, the Kinder-Morgan pipeline, Western Area Power Administration and Tri-state powerline corridors, utility corridors, and county road rights-of-way within the Nucla-Naturita Coal Field are unsuitable for surface mining and surface operations.

Numerous additional rights-of-way occur within coal development potential areas in the planning area. Prior to coal exploration and leasing, the BLM will examine proposed federal lands and identify additional rights-of-way and easements listed under Criterion 2 as unsuitable for surface mining and surface operations.

Criterion 3 - Public Roads, Buildings, Cemeteries, and Parks and Occupied Dwellings

Federal lands affected by sections 522(e) (4) and (5) of the Surface Mining Control and Reclamation Act shall be considered unsuitable for surface mining and surface operations, including:

- within 100 feet of a cemetery or the outside line of a public highway right-of-way
- within 300 feet of an occupied building

- within 350 feet of an occupied public building, school, church, community, or institutional building or public park

Analysis: Prior to coal exploration or leasing within any coal development potential area in the planning area, the BLM will examine proposed federal lands and identify areas and structures listed under Criterion 3 as unsuitable for surface mining and surface operations. Coal fields in the planning area include the following public roads:

- State Highway 133 runs through the Somerset Coal Field.
- State Highway 65 runs through the Grand Mesa Coal Field.
- P77 Road and Owl Creek Pass run through the Tongue Mesa Coal Field.
- State Highway 145 runs through the Nucla-Naturita Coal Field.

Criterion 4 - Wilderness Study Areas

Federal lands designated as Wilderness Study Areas (WSA) shall be considered unsuitable for surface mining and surface operations while under review by the federal administration and Congress for possible wilderness designation.

Analysis: At the time of this report, no WSAs have been designated within the Nucla-Naturita Coal Field. Because Screen 3 eliminates all WSAs from coal leasing, Criterion 4 is not applicable to surface operations for underground mines.

Criterion 5 - Class I Visual Resources

Federal lands designated as Visual Resource Management (VRM) Class I (signifying an area of outstanding scenic quality or high visual sensitivity) and not currently on the National Register of Natural Landmarks shall be considered unsuitable for surface mining and surface operations.

Analysis: At the time of this report, no VRM Class I areas have been designated within the Nucla-Naturita Coal Field. Prior to coal exploration or leasing within any coal development potential area in the planning area, the BLM will examine proposed federal lands and identify VRM Class I areas as unsuitable for surface mining and surface operations.

Criterion 6 - Scientific Studies, Demonstrations, and Experiments

Federal lands under permit by the BLM for scientific studies involving food or fiber production, or natural resources or technology demonstrations and experiments shall be considered unsuitable for the duration of the study, demonstration, or experiment, except where mining could be conducted in such a way as to enhance or not jeopardize the purposes of the study, as determined by the BLM, or where the principal scientific user or agency gives written concurrence to all or certain methods of mining.

Analysis: At the time of this report, no scientific studies listed under Criterion 6 are being conducted within coal development potential areas in the planning area. Prior to coal exploration or leasing within any coal development potential area in the planning area, the BLM will examine proposed federal lands and identify areas with scientific studies, demonstrations,

and experiments listed under Criterion 6 as unsuitable for surface mining and surface operations.

Criterion 7 - National Register of Historic Place Sites

Federal lands containing publicly owned sites listed on the National Register of Historic Places shall be considered unsuitable for surface mining and surface operations. The BLM shall consult with the Advisory Council on Historic Preservation and the State Historic Preservation Office and apply Criterion 7 to properties within coal development potential areas determined to be necessary in order to protect the inherent values that made the property eligible for National Register listing.

Analysis: At the time of this report, no publicly owned sites within coal development potential areas in the planning area have been identified as eligible for listing on the National Register of Historic Places. Prior to coal exploration or leasing within any coal development potential area in the planning area, the BLM will examine proposed federal lands, consult with the Advisory Council on Historic Preservation and the State Historic Preservation Office, and identify National Register of Historic Place sites as unsuitable for surface mining and surface operations.

Criterion 8 - National Natural Landmarks

Federal lands designated as natural areas or National Natural Landmark sites (containing outstanding biological and geological resources regardless of land ownership) shall be considered unsuitable for surface mining and surface operations.

Analysis: At the time of this report, no natural areas or National Natural Landmarks have been identified within coal development potential areas in the planning area. Prior to coal exploration or leasing within any coal development potential area in the planning area, the BLM will examine proposed federal lands and identify natural areas and National Natural Landmarks listed under Criterion 8 as unsuitable for surface mining and surface operations.

Criterion 9 - Federally Designated Critical Habitat for Threatened & Endangered Species

Federally designated critical habitat for listed threatened or endangered plant and animal species, and habitat proposed to be designated as critical habitat, which is determined by the US Department of Interior, Fish and Wildlife Service (USFWS) and the surface management agency to be of essential value, and where the presence of threatened or endangered species has been scientifically documented, shall be considered unsuitable for surface mining and surface operations.

Analysis: At the time of this report, no federally proposed or designated habitat for listed threatened and endangered plant and animal species have been identified within the Nucla-Naturita Coal Field. Prior to coal exploration or leasing within any coal development potential area in the planning area, the BLM will examine proposed surface coal operations and facilities in relation to Criterion 9.

Prior to mine plan approval, the BLM will survey for critical habitat that could be directly or indirectly impacted by surface operations or structures. Mine plans will identify known federally designated and proposed critical habitat for threatened and endangered plant and animal species

as unsuitable, and outline avoidance and mitigation measures for habitat discovered during mining operations.

Criterion 10 - Critical Habitat for State-listed Threatened and Endangered Species

Federal lands containing habitat determined to be critical or essential for plant or animal species listed as threatened or endangered by the State of Colorado pursuant to state law shall be considered unsuitable for surface mining and surface operations.

Analysis: At the time of this report, no critical or essential habitat for state-listed threatened or endangered plant and animal species has been identified within coal development potential areas in the planning area. Prior to coal exploration or leasing within any coal development potential area in the planning area, the BLM will examine proposed surface coal operations and facilities in relation to Criterion 10.

Prior to mine plan approval, the BLM will survey for critical and essential habitat for state-listed threatened and endangered plant and animal species that could be directly or indirectly impacted by surface mining or surface operations. Mine plans will identify known critical and essential habitat for state-listed threatened and endangered plant and animal species as unsuitable, and outline avoidance and mitigation measures for critical or essential habitat discovered during mining operations.

Criterion 11 - Bald and Golden Eagle Active Nest Sites

Federal lands containing an active bald or golden eagle nest site, along with an appropriate buffer zone around the nest site (see Criteria Table on page H-3), shall be considered unsuitable for surface mining and surface operations. The BLM will consult with the USFWS and will consider terrain and availability of habitat for prey species when defining buffer zones.

Terminology Used: According to 2007 National Bald Eagle Management Guidelines issued by the USFWS, a nest is defined as a structure built, maintained, or used by eagles for the purpose of reproduction. An active nest is attended (built, maintained, or used) by a pair of eagles during a given breeding season, whether or not eggs are laid.

Analysis: Federal lands within an appropriate buffer zone of known active bald or golden eagle nesting sites (established through consultation with the USFWS) will be identified as unsuitable for surface mining and surface operations. At the time of this report, no known bald or golden eagle nest sites have been identified within the Nucla-Naturita Coal Field.

Prior to coal exploration or leasing within any coal development potential area in the planning area, the BLM will evaluate proposed surface operations and facilities in relation to Criterion 11. Prior to mine plan approval, the BLM will survey for bald and golden eagle nests and nesting activity that could be directly or indirectly impacted by surface operations or facilities. Mine plans will identify known golden and bald eagle active nest sites and associated buffer zones as unsuitable and will outline measures to comply with current USFWS Bald Eagle Management Guidelines & Conservation for active nest sites discovered during mining operations.

Criterion 12 - Bald and Golden Eagle Roosts

Federal lands containing bald and golden eagle roosts and concentration areas used during migration and wintering shall be considered unsuitable for surface mining and surface operations.

Terminology Used: According to 2007 National Bald Eagle Management Guidelines issued by the USFWS, roosts are areas where eagles gather and perch overnight (and sometimes during the day in the event of inclement weather). Communal roost sites are usually in large trees (live or dead) that are relatively sheltered from wind and are generally in close proximity to foraging areas. Roosts may also serve a social purpose for pair bond formation and communication among eagles. Many roost sites are used year after year.

Analysis: Federal lands within one-quarter mile of known bald or golden eagle roosts and concentration areas will be identified as unsuitable for surface mining and surface operations. At the time of this report, no known bald or golden eagle roosts and concentration areas have been identified within the Nucla-Naturita Coal Field.

Prior to coal exploration or leasing within any coal development potential area in the planning area, the BLM will examine surface operations and facilities in relation to Criterion 12. Prior to mine plan approval, the BLM will survey for bald and golden eagle roosts and concentration areas that could be directly or indirectly impacted by surface operations or facilities. Mine plans will identify known bald and golden eagle roosts and concentration areas as unsuitable, and will outline measures to comply with current USFWS Bald Eagle Management Guidelines & Conservation for roosts and concentration areas discovered during mining operations.

Criterion 13 - Falcon Cliff Nest Sites

Federal lands containing falcon cliff nest sites with active nests (excluding kestrel), along with a buffer zone of federal land around the nest site, shall be considered unsuitable for surface mining and surface operations. The BLM will consult with the USFWS and will consider terrain and availability of habitat for prey species when defining buffer zones.

Analysis: At the time of this report, no falcon cliff nest sites have been identified within the Nucla-Naturita Coal Field. Prior to coal exploration or leasing within any coal development potential area in the planning area, the BLM will evaluate proposed surface mining and surface operations in relation to Criterion 13.

Prior to mine plan approval, the BLM will survey for falcon cliff nest sites that could be directly or indirectly impacted by surface operations or structures. Mine plans will identify federal lands within an appropriate buffer zone of known active falcon cliff nest sites (established in consultation with the USFWS) as unsuitable for surface mining and surface operations, and outline avoidance and mitigation measures for nest sites discovered during mining operations.

Criterion 14 - Migratory Bird Habitat

Federal lands considered high-priority habitat for migratory bird species of high federal interest on a regional or national basis, as determined jointly by the surface management agency and USFWS, shall be considered unsuitable for surface mining and surface operations.

Analysis: At the time of this report, no high-priority habitat for migratory bird species of high federal interest has been identified within the Nucla-Naturita Coal Field. Prior to coal exploration or leasing within any coal development potential area in the planning area, the BLM (in consultation with the USFWS) will evaluate proposed surface mining and surface operations in relation to Criterion 14.

Prior to mine plan approval, the BLM will survey for high-priority migratory bird habitat that could be directly or indirectly impacted by surface operations or facilities. Mine plans will identify known high-priority migratory bird habitat as unsuitable, and outline avoidance and mitigation measures for habitat discovered during mining operations. During periods when a high-priority habitat is in use by a migratory bird species, underground coal mining may occur in areas where the BLM (in consultation with the USFWS) determines that all or certain stipulated mining methods will not adversely affect the habitat.

Criterion 15 - Habitat for State High-Interest Wildlife and Plants

Federal lands that the BLM and State of Colorado jointly identify as essential habitat for maintaining resident fish, wildlife, and plant species of high interest to the State shall be considered unsuitable for surface mining and surface operations.

Examples of lands that serve a critical function for a particular species include:

- active dancing and strutting grounds for sage-grouse
- crucial winter range for deer and elk
- migration corridors for elk
- extremes of range for plant species

Analysis: Much of the planning area consists of crucial winter range for deer and elk. Prior to coal exploration or leasing within any coal development potential area in the planning area, the BLM will evaluate proposed surface mining and surface operations in relation to Criterion 15.

Prior to mine plan approval, the BLM will survey for crucial deer and elk winter range that could be directly or indirectly impacted by surface operations or facilities. Mine plans will identify known crucial winter range for deer and elk as unsuitable, and outline avoidance and mitigation measures.

Criterion 16 - Riverine, Coastal, and 100-Year Recurrence Interval Floodplains

Federal lands in riverine, coastal, and 100-year recurrence interval flood plains, on which the BLM determines that mining could not be undertaken without substantial threat of loss of life or property, shall be considered unsuitable for all or certain stipulated methods of mining.

Analysis: Coastal and riverine flood plains do not occur within the planning area and, at the time of this report, 100-year recurrence interval floodplains have not been identified within any coal development potential areas in the planning area. One hundred-year floodplains may exist along drainages in some areas.

Prior to coal exploration or leasing within any coal development potential area in the planning area, the BLM will evaluate proposed surface mining and surface operations in relation to Criterion 16. Mine plans will identify potential effects of mine operations on adjacent flood plains and outline mitigation measures.

Criterion 17 - Municipal Watersheds

Federal lands that have been classified by the BLM as municipal watersheds shall be considered unsuitable for surface mining and surface operations.

Analysis: The Nucla, Naturita, Norwood, and Tri-state G&T Station are municipal watersheds within the Nucla-Naturita Coal Field identified as unsuitable for surface mining.

Grand Mesa and Somerset coal fields both contain numerous municipal watersheds within which surface operations will be considered unsuitable. Because designation of municipal watersheds is likely to increase over time, the BLM will evaluate proposed surface mining and surface operations in relation to Criterion 17 at the time of exploration and leasing.

Criterion 18 - Natural Resource Waters

Federal lands with national resource waters identified in state water quality management plans, and a buffer zone of federal lands one-quarter mile from the outer edge of the far banks of the water, shall be considered unsuitable for surface mining and surface operations.

Analysis: At the time of this report, no national resource waters have been identified by the State of Colorado within coal development potential areas in the planning area. Prior to coal exploration or leasing within any coal development potential area in the planning area, the BLM will evaluate proposed surface mining and surface operations in relation to Criterion 18.

Criterion 19 - Alluvial Valley Floors

Federal lands identified by the surface management agency, in consultation with the state in which they are located, as alluvial valley floors according to the definition in 43 CFR 3400.0-5 (a), standards in 30 CFR Part 822, the final alluvial valley floor guidelines of the Office of Surface Mining Reclamation and Enforcement when published, and approved state programs under the Surface Mining Control and Reclamation Act of 1977, where mining would interrupt, discontinue, or preclude farming, shall be considered unsuitable. Additionally, when mining federal land outside an alluvial valley floor would materially damage the quantity or quality of water in surface or underground water systems that would supply alluvial valley floors, the land shall be considered unsuitable for surface mining and surface operations.

Analysis: Alluvial valley floors will be identified at the time of coal exploration and leasing. Office of Surface Mining Reclamation and Enforcement guidelines will be followed. Surface coal mining operations may occur along alluvial valley floors if no reasonable alternative sites exist outside these areas. Lease stipulations and conditions of approval would be required in order to minimize disturbance and impacts to water supplies within these areas.

Criterion 20 - State and Indian Tribe Proposed Criteria

Within the State of Colorado, federal lands in the planning area to which an applicable criterion (i) proposed by the State or an Indian tribe located in the planning area, and (ii) adopted by rulemaking by the Secretary, shall be considered unsuitable for surface mining and surface operations.

Analysis: At the time of this report, no federal lands within coal development potential areas in the planning area have been proposed by the State of Colorado or an Indian tribe as unsuitable. Prior to coal exploration or leasing within any coal development potential area in the planning area, the BLM will evaluate proposed surface mining and surface operations in relation to Criterion 20.

Screen 3: Identification of Multiple Land Use Conflicts

Screen 3 requires evaluating multiple land use decisions that could eliminate from surface or underground coal exploration and leasing consideration, federal lands containing resource values and uses that are considered locally, regionally, or nationally unique or more important than coal. Such values and uses include, but are not limited to, those identified in Section 522(a)(3) of the Surface Mining Reclamation and Control Act of 1977 and the Criteria for Designating Areas as Unsuitable for Surface Coal Mining Operations (30 CFR 762).

The following areas within coal development potential areas have been identified as containing resource values or uses deemed of greater value than coal, for which potential impacts could not be mitigated. The conflict areas differed within each Proposed RMP/Final EIS alternative and were identified as unacceptable for further coal exploration and leasing consideration.

Approved RMP

Section 308 of the Fiscal Year 1984 Interior Appropriations Act prohibits leasing within WSAs. The WSAs in the planning area are managed according to BLM Manual 6330, Management of Wilderness Study Areas (BLM 2012) until such time as Congress either designates them as wilderness or releases them for other purposes. These WSAs were identified in all of the Draft RMP/EIS and Proposed RMP/Final EIS alternatives as unacceptable for further coal exploration and leasing consideration.

Under the Approved RMP (Proposed RMP/Final EIS Alternative E), the Adobe Badlands (10,320 acres) and Camel Back (10,680 acres) WSAs are within the revised coal development potential area and would be managed as unacceptable for further consideration for coal leasing, as described under Common to All Alternatives. In addition, the following areas have been identified as unacceptable for further coal exploration and leasing consideration under the Approved RMP:

- State parks
- State wildlife areas
- Municipal parks
- Lands managed to protect wilderness characteristics – Roc Creek unit

- SRMAs
 - Dolores River Canyon
 - Dry Creek
 - Jumbo Mountain
 - North Delta
 - Ridgway Trails
 - Roubideau
 - San Miguel River
 - Spring Creek
- ACECs:
 - Adobe Badlands
 - San Miguel River
- Suitable WSR segments
- WSAs

Screen 4: Consultation with Private Surface Owners

Both Section 714 of the Surface Mining Control and Reclamation Act and 43 CFR 3420(e)(4) require the BLM to consult with qualified owners whose lands overlie federal coal deposits proposed for development by surface mining methods. The BLM will consult with qualified surface owners prior to coal exploration or leasing within any coal development potential area in the planning area.

REFERENCES CITED

- BLM (United States Department of the Interior, Bureau of Land Management). 1985. San Juan/San Miguel Planning Area Resource Management Plan and Record of Decision. BLM, Montrose District, CO. September.
- _____. 1989. Uncompahgre Basin Resource Management Plan and Record of Decision. BLM, Montrose District, Uncompahgre Basin Resource Area, CO. July.
- _____. 2012. Manual 6330—Management of Wilderness Study Areas. Rel. 6-134. BLM, Washington, DC. July 13.

Appendix I

Travel Management

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APPENDIX I

TRAVEL MANAGEMENT

INTRODUCTION

Travel management is the process of planning for and managing access and travel systems on public lands. This includes route planning, inventory and evaluation, innovative partnerships, user education, mapping, monitoring, signing, field presence and law enforcement (BLM Instruction Memorandum CO-2007-020). Comprehensive travel management planning should address all resource use aspects, such as recreational, traditional, casual, agricultural, commercial, and educational, and all modes and conditions of travel on public lands, not just motorized or off-highway vehicle activities (Appendix C of BLM Land Use Planning Handbook 1601-1).

Travel management implementation decisions for the Uncompahgre Resource Management Plan (RMP) are being deferred to an implementation plan due to the complexity of the area, controversy, and incomplete data (e.g., complete inventory of routes) within a majority of the resource plan area. To conform with Appendix C of BLM Land Use Planning Handbook 1601-1, comprehensive travel management planning efforts will consider all modes of travel, motorized and nonmotorized.

The Uncompahgre RMP offers a mix of recreational opportunities that attempt to meet a wide variety of recreation demands while reducing conflict among users. The RMP also provides for livestock grazing, the continued operation of public land rights-of-way, forest product collection, traditional uses, and access to private property. Each of these uses, including recreation, requires a supporting travel management system within the UFO.

The ultimate goal of the travel management process is to propose a management framework that supports BLM's mission, achieves resource management objectives and provides appropriate, sustainable public and administrative access.

Travel management decisions are considered sequentially at two levels of analysis:

- Land Use Planning – Uncompahgre RMP, Travel area decisions (i.e., areas that are open, closed, or limited for all modes of travel)

- Activity or Implementation Level Plans – Route-by-route decisions (i.e., which routes are open or closed for different modes of travel in limited areas)

Note: Land Use Plan-level decisions differ from activity or implementation-level decisions. To change a travel area decision, the RMP must be amended. Route-by-route decisions do not require an RMP amendment. As implementation decisions, they are designed to be more adaptable. Based on monitoring, the designated route system can be changed to meet resource and resource use objectives. Additionally, area designations may be protested and route-by-route designations may be appealed.

BACKGROUND

Description of Route System

Travel management historically focused specifically on motor vehicle use. The BLM now thinks more comprehensively about travel management to include all forms of transportation, including travel by foot, horseback, and mechanized vehicles such as bicycles, as well as the numerous forms of motorized vehicles from two-wheeled (motorcycles) and four-wheeled all-terrain vehicles (ATVs) to full-size vehicles (cars and trucks), and aircraft (backcountry airstrips)¹.

The vast majority of existing routes within the UFO were not constructed by the BLM for recreational use. Instead, the majority of existing routes are two-track routes that were created to provide access for timber cutting, mineral and paleontological exploration, range and vegetation management projects, and various rights-of-way. Of these routes, many were not necessarily intended to be left behind or open for recreational use but have become popular routes for visitors engaged in nonmotorized and motorized recreation activities.

Over time, the UFO's route system has been expanded by users themselves, particularly in areas that were previously designated as open for cross-country travel. These routes are not typically maintained by the BLM; rather, it is the repeated passage of vehicles that maintains these routes.

Description of Process

Travel management planning for the UFO will be based upon extensive public participation and internal, structured interdisciplinary team route by route analysis.

Inventory and Public Comment

See **Figure I-1** at the end of this appendix for a current map of existing and designated BLM roads and trails. Prior to travel planning in areas limited to existing, BLM UFO staff will verify

¹ There are a number of locations throughout the UFO that are commonly known and consistently used for aircraft landing and departure activities that, through such casual use, have evolved into backcountry airstrips (per the definition contained in Section 345 of Public Law 106-914, the Interior and Related Agencies Appropriation Act of 2001). In accordance with that law, when considering any closure of an aircraft landing strip, require full public notice, consult with local and state government officials and the Federal Aviation Administration, and comply with all applicable laws, including the National Environmental Policy Act.

In addition to compliance with applicable aviation regulations, backcountry airstrips would be designated and managed the same as travel routes for other forms of transportation. As such, management of backcountry airstrips would conform to all decisions, including those regarding route construction and maintenance, outlined in this travel management plan.

and update inventories and digitize spatial information within each travel management area. The majority of this information will be collected in the field, while some may have to be digitized remotely using satellite imagery and verified in the field at a later date.

During the scoping comment period, the BLM will seek feedback from the public on the following questions:

- Is the BLM's route inventory accurate and complete?
- Which routes do you value for what uses, and why?
- Where would you like to see additional routes, and why?
- What routes would you like to see closed and why?

Interdisciplinary Meetings

Once public comments have been reviewed, the BLM will use an interdisciplinary team to draft travel management route-by-route implementation-level decisions for a range of alternatives. During this step of the process, comments from the public, resource information, and management objectives will drive the decision-making process. The purpose of the BLM interdisciplinary team meetings will be to:

- Gather information from the interdisciplinary team on conflicts identified and mitigation proposed. Identify the purpose and need for each route. Where conflicts with resources exist, these conflicts will be discussed and resolved during the meeting, and final proposals for the various alternatives will be established.
- Formulate a range of alternatives that will support the goals and objectives established under each alternative.

The product of the process will be a range of alternative travel management systems. Development of a preferred alternative would likely include components of the other alternatives.

Laws, Regulations, Policies, and Program Guidance

Currently, the Code of Federal Regulations (CFR) establishes the criteria for designating public lands with respect to off-highway vehicles (OHVs) and for establishing controls governing the use and operation of OHVs. Nonmotorized and nonmechanized uses will also be addressed in travel planning, and decisions made will be incorporated into supplemental rules for enforcement purposes. Various laws and regulations apply to the process, including:

- National Environmental Policy Act
- Endangered Species Act
- Wilderness Act
- Omnibus Public Lands Management Act of 2009
- National Historic Preservation Act
- Antiquities Act of 1906

- Wild and Scenic Rivers Act
- Clean Air Act
- Clean Water Act
- Taylor Grazing Act
- Mining Act of 1872 (and subsequent mining acts)
- Federal Land Policy and Management Act
- Executive Orders 11644 (1972) and 11989 (1977)
- BLM's Travel and Transportation Manual (Manual 1626)
- BLM's Travel and Transportation Management Handbook (Handbook H-8342-1)
- Addendum I to the Colorado Protocol: Section 106 Requirements for Comprehensive Travel and Transportation Management Planning
- Code of Federal Regulations

Addendum I to the Colorado Protocol: Section 106 Requirements for Comprehensive Travel and Transportation Management Planning allows the BLM to complete consultation per Section 106 of the National Historic Preservation Act after route designation.

The federal regulations 43 CFR Part 8342.1 and Executive Order 12608 require BLM to designate all public lands as Open, Limited, or Closed for OHV use within the following parameters.

The BLM Authorized Officer shall designate all public lands as open, limited, or closed to off-highway vehicles. All designations shall be based on the protection of the resources of the public lands, the promotion of the safety of all the users of the public lands, recreational opportunities, and the minimization of conflicts among various uses of the public lands; and in accordance with the following criteria:

- a) Areas and trails shall be located to minimize damage to soil, watershed, vegetation, air, or other resources of the public lands, and to prevent impairment of wilderness suitability.
- b) Areas and trails shall be located to minimize harassment of wildlife or significant disruption of wildlife habitats. Special attention will be given to protect endangered or threatened species and their habitats.
- c) Areas and trails shall be located to minimize conflicts between existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors.
- d) Areas and trails shall not be located in officially designated wilderness areas or primitive areas. Areas and trails shall be located in natural areas only if the BLM Authorized Officer determines that off-highway vehicle use in such locations will not

adversely affect their natural, aesthetic, scenic, or other values for which such areas are established.

AREA ALLOCATION TRAVEL DECISIONS

Area allocation travel management decisions, or land use planning travel management decisions, define the areas within the UFO that are designated Open, Limited, or Closed to OHV, mechanized travel, and possibly cross-country foot and horse. Limited can mean the following:

- Limited to designated routes
- Limited to existing routes
- Limited to a specific season of use (generally done for wildlife or soil protection)
- Limited to a specific class or type of use

Area decisions reflected the goals and objectives of resources and resource uses throughout the Uncompahgre Approved RMP. Goals and objectives for all UFO uses and resources (e.g., recreation, lands with wilderness characteristics, livestock grazing and vegetative health, wildlife, and soils and water quality) played a role in influencing the land allocation travel decision process.

IMPLEMENTATION-LEVEL TRAVEL DECISIONS

Implementation-level decisions include the process of assigning route designations to each route in accordance with alternative objectives, while balancing access and resource concerns. Route designation is an implementation level decision intended to support the UFO's goals and objectives.

The BLM's interdisciplinary team will convene for each travel management plan. The group will examine each route within the planning area to determine its designation under the range of alternatives. Access needs, resource concerns, recreation objectives and public comment all factored into this process. The criterion that will be used is described below.

Only routes on BLM-administered land within the UFO travel planning area that are not county roads will be considered during this process. In addition, routes within Wilderness Study Areas can be designated for horse and/or foot travel.

Identification of Use Needs and Concerns for Each Route

As the BLM analyzes each route (existing and proposed) within the travel management planning area, the following baseline criteria will be used to determine the use needs and resource concerns associated with each route. This process will be done with all alternatives in mind. For example, if a route helps meet trail-based recreation objectives under any of the alternatives, it will be noted at this stage of the process.

Some of the criteria for identifying environmental concerns and other factors for consideration may be treated with more urgency than others when route-by-route designations are being determined. For example, routes that are in big game calving or production areas would be considered to be a far more pressing concern than routes that fall within big game summer range.

Use of the Route

Recreation

1. The route helps meet objectives for recreation
2. The route provides access to recreational opportunities
3. The route provides access to a destination point (e.g., dispersed camping site or scenic overlook)

Livestock Grazing

1. The route provides access to existing range developments
2. The route facilitates livestock management

Lands and Realty

1. The route provides access to nonfederal lands
2. There is an existing right-of-way associated with the route, or the route provides access to an existing right-of-way
3. The route provides access for authorized mineral activities, valid mineral rights, or other valid existing rights

Other

1. The route is necessary for wildland fire suppression activities
2. The route could provide access for forest resource permits (e.g., wood collection and Christmas trees)
3. The route provides for backcountry airstrip
4. The route is needed for public health and safety
5. The route provides administrative access for BLM administrative functions (e.g., research or vegetation treatments)
6. The route provides administrative access for traditional use by Native Americans

Environmental Concerns

Soil Stability

1. The route is within a highly erosive soils area (i.e., fragile soils, as defined by Natural Resources Conservation Service)
2. The route crosses slopes of 40 percent or greater
3. Increases erosion potential with use

Wildlife Habitat

1. The route is within big game winter range (such as 1a. severe winter range)
2. The route is within big game calving or production areas
3. The route is within big game summer range

4. The route leads to significant wildlife habitat fragmentation
5. The route is a potential issue for nesting birds

Special Status Species Habitat

1. The route is a known issue within special status wildlife habitat
2. The route is a known issue for special status plants
3. No known issue for special status species, but within suitable habitat
4. Route has potential to impact special status wildlife species

Riparian, Water Quality, and Fisheries

1. The route causes known impacts to water quality
2. The route could cause impacts to water quality
3. The route impacts riparian areas, or seeps and springs
4. The route could lead to cumulative impacts to water quality

Vegetation

1. The route creates concerns for rare, exemplary, or ancient vegetation
2. The route is a known contributor to land health problems

Visual Resources

1. The route conflicts with potential Visual Resource Management class objectives

Cultural Resources

1. The route creates an issue for known historic or prehistoric properties
2. The route creates an issue for areas of Native American concern
3. The route falls within an area that lacks cultural survey information

Geological/Paleontological Resources

1. The route crosses significant paleontological or geological areas
2. The route creates an issue for active or future paleontological research sites

Wilderness/Wilderness Study Area

1. The route is within an area determined to contain wilderness characteristics
2. The route is within a Wilderness Study Area/Congressionally Designated Area

Special Management Areas

1. The route conflicts with recreation management area objectives
2. The route conflicts with ecological emphasis area objectives
3. The route falls within an ACEC or heritage area
4. The route is within a Wild and Scenic River suitable corridor

5. The route is within a Wild and Scenic River eligible corridor
6. The route conflicts with National Trail or Byway objectives

Other Factors for Consideration

General

1. The route is a BLM-maintained route
2. The route condition is poor and/or unsustainable
3. The route is unsafe (e.g., steep or no turn-around)
4. The route is an existing aircraft landing strip

Route Redundancy/Dead-end

1. The route runs parallel to a preferable, existing route
2. The route is a dead-end route (0.5-mile or less and not leading to a facility, campground, or scenic overlook)

Private Land Issues

1. The route could lead to private land trespass issues

Route-by-route Designation

Once the uses, concerns and other factors for each route have been determined, the interdisciplinary team will give each route a designation under each alternative.

Route designations under each alternative will be made to conform to the management objectives and actions described in the Uncompahgre Approved RMP.

Route designations will fall into the following categories:

- Open to all modes of travel
- Closed
- Limited to administrative use only
- Limited to aircraft only
- Limited to foot and horse travel
- Limited to bicycle, foot, and horse travel
- Limited to motorcycle, bicycle, foot, and horse travel
- Limited to ATVs, motorcycles, bicycle, foot, and horse travel

Administrative routes are routes that would be closed to the public, but open for use by individuals (e.g., grazing permittees, BLM employees, and Colorado Parks and Wildlife) who receive authorization to travel on such routes. These administrative routes could include routes to stock ponds and other range improvements, guzzlers, and BLM facilities. Some routes could receive both an administrative use designation, as well as another designation for public use.

This could mean that a route could be open to full-size vehicles for administrative use, but limited for the public to bicycle, foot, and horse travel.

There may be routes where the BLM identifies an environmental concern that could be addressed or mitigated. This allows the BLM to address environmental concerns, while continuing to provide access or recreational opportunities. Depending on the alternative and the nature of the concern, the routes could fall into one of the following categories:

- Open; seek re-route or mitigate resource concern
- Closed until re-route or resource concern is mitigated

Route-by-route Designation Guidelines

Through the process of route-by-route designation, the interdisciplinary team will follow the baseline guidelines for route designation that will apply across all alternatives, except for the No Action Alternative. These are described in more detail below.

1. Routes will be designated to provide consistency with adjacent route designations on adjacent federal and state lands.
2. Motorized and mechanized travel onto public lands from adjacent private lands will be limited to public access points only.
3. Route density for designated public routes will be used as an analysis tool. Due to the low level of use, administrative route mileage would not be considered within the route density analysis.
4. Prohibit cross-country motorized/mechanized travel for big game retrieval. Where appropriate, allow hand-held wheeled game retrieval carts off route in limited areas only during Colorado Parks and Wildlife authorized hunting seasons.
5. Where needed to protect resource values, provide for public safety, and/or maintain an identified opportunity, limit nonmechanized/nonmotorized travel to designated roads and trails.
6. Width restrictions for:
 - a. Single track = 36" or less
 - b. ATV = 50" or less and weighing no more than 1200 pounds
 - c. Roads = Wider than 50"
7. Motorized and mechanized modes of travel employing advanced technology must adhere to specified route width and weight restrictions.
8. Identify and consider aircraft landing strips.
9. Parking will be restricted to immediately adjacent and parallel to available designated routes unless otherwise restricted.
10. Designate spur routes leading to destination sites that meet objectives (e.g., campsites and overlooks).

- I 1. Impacts to currently known eligible cultural properties will be avoided, minimized or mitigated in consultation. Where National Register of Historic Places-eligible sites are known to be in danger or are currently being impacted by travel activities, routes will be closed to travel, if necessary, until the appropriate mitigation has been implemented.
- I 2. Route density will be considered during the environmental analysis
- I 3. BLM administrative functions related to resource management objectives requiring cross-country travel using motorized vehicles or equipment will be addressed at the project level on a case-by-case basis.
- I 4. Monitoring plans will be developed sufficient to detect and evaluate motorized OHV-, mechanized-, and nonmotorized/nonmechanized-related impacts so that management changes can occur, if needed.
- I 5. Travel and recreational facilities will be considered as needed during route-by-route travel planning.

SUPPLEMENTARY RULES

Supplementary rules will be established for all travel management areas following the comprehensive travel management planning National Environmental Policy Act process. See 43 CFR 8365.1-6 for the supplementary rulemaking process.

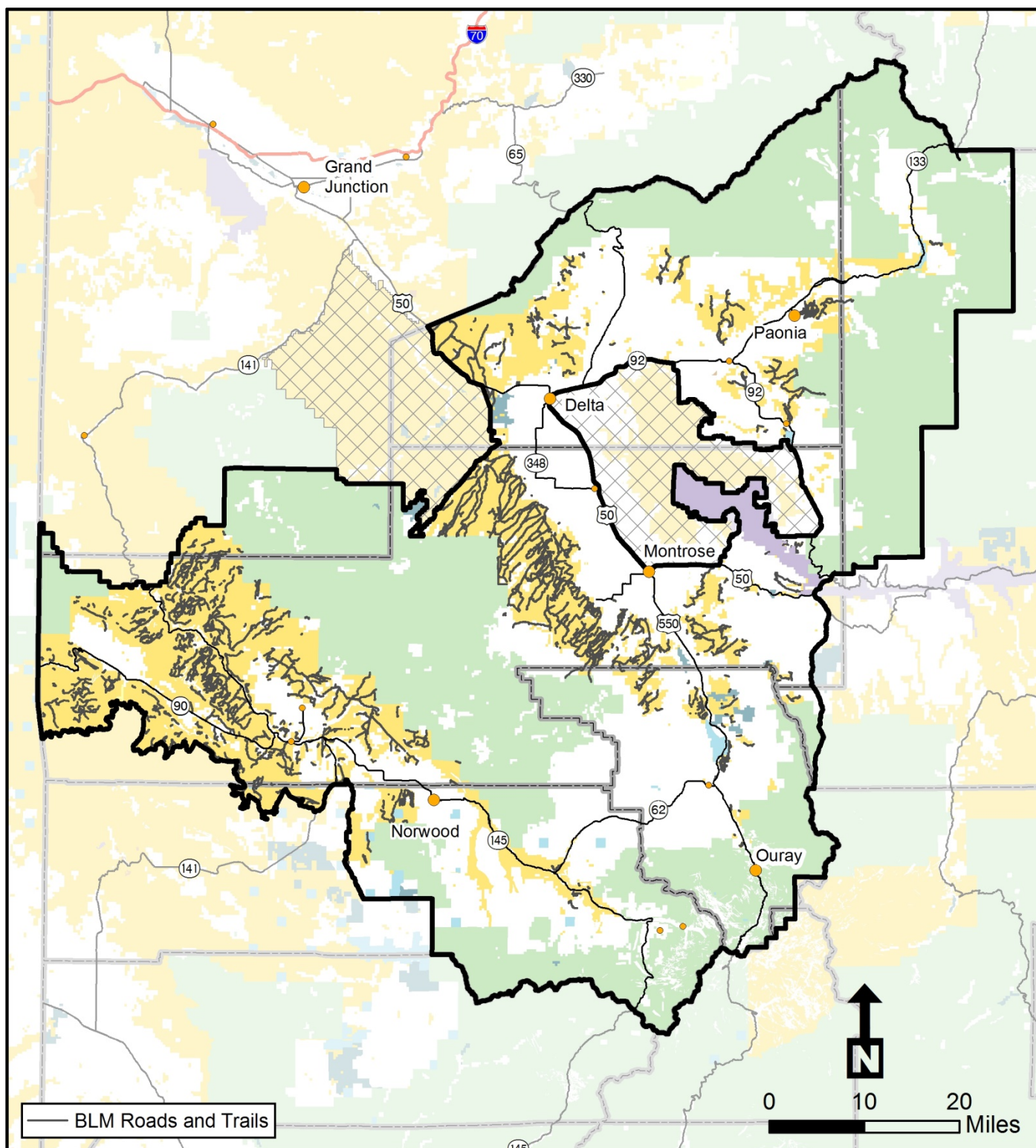


Figure I-1: Existing and Designated BLM Roads and Trails

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Appendix J

Legal Descriptions of Lands Identified for Disposal

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APPENDIX J

LEGAL DESCRIPTIONS OF LANDS IDENTIFIED FOR DISPOSAL

Though the Secretary of Interior has no intention to dispose of public lands, the Federal Land Policy and Management Act of 1976 (FLPMA) Sections 201 and 202 state the Secretary shall “prepare and maintain on a continuing basis an inventory of all public lands and their resource and other values...” and “...develop, maintain, and, when appropriate, revise land use plans which provide by tracts or areas for the use of the public lands', respectively.” Therefore, as mandated by FLPMA Sections 201 and 202, the following tract(s) of public land have been found to meet criteria for disposal in FLPMA Section 203 and/or FLPMA Section 206 during this land use planning effort. The identification of a public land tract as having met FLPMA criteria for disposal is NOT, in itself, a decision to dispose of public lands. The process for disposing of public lands via FLPMA Section 203 (Sales) or Section 206 (Exchanges) is a lengthy multi-decisional process requiring a comprehensive site-specific analysis, survey, and follow-on decisions prior to a final decision being made by the Department of Interior. There are no official plans to dispose of public lands within the Uncompahgre RMP Planning Area.

Legal descriptions of lands available for disposal are as follows.

Township	Range	Section	Aliquot Lot Tract	Acres
6th Principal Meridian				
14 S	92 W	32	NWSW	40
12 S	94 W	32	L14	10.91
12 S	94 W	34	L17	14.52
12 S	94 W	34	L3	1.60
12 S	94 W	35	L4	10.58
12 S	95 W	25	L6	39.71
12 S	95 W	25	SWSW	40
12 S	95 W	36	L3	40.97
13 S	95 W	1	L9	39.08
13 S	95 W	36	L6	40.15

Township	Range	Section	Aliquot Lot Tract	Acres
New Mexico Principal Meridian				
44 N	08 W	11	L14	40
44 N	08 W	11	L12	40
44 N	08 W	11	L13, excepting U.S. Mineral Survey No. 9195	40
44 N	08 W	14	SESE	40
44 N	08 W	14	NESE	40
45 N	08 W	8	SESW	40
48 N	08 W	2	SWSW	40
48 N	08 W	2	SWSE	40
48 N	08 W	2	SESW	40
48 N	08 W	11	NWNW	40
48 N	08 W	26	SWSW	40
48 N	08 W	26	SESW	40
49 N	08 W	29	E2NESWSW	5
49 N	08 W	29	E2SESWSW	5
49 N	08 W	32	SESWSWN W	2.5
49 N	08 W	32	SENESWNW	2.5
46 N	09 W	15	NENE	40
47 N	09 W	22	SWNW	40
47 N	09 W	24	NESE	40
47 N	09 W	36	NESW	40
47 N	10 W	2	L3	40.42
48 N	10 W	11	NWNW	40
49 N	10 W	21	E2SWSW	20
50 N	11 W	36	E2NESWSW	20
48 N	12 W	14	L1	40.58
43 N	13 W	12	NESW	40
44 N	13 W	24	NESE	40
44 N	13 W	35	NWSW	40
46 N	14 W	35	NESW	40
45 N	15 W	2	SWSW	40
45 N	15 W	2	L4	37.66
45 N	15 W	2	SWNW	40
45 N	15 W	2	NWSW	40
45 N	15 W	3	L14	44.96
45 N	15 W	4	L2	47.27
45 N	15 W	4	L7	39.50
46 N	15 W	16	NESW	40
46 N	15 W	17	SWSW	40
46 N	15 W	17	N2NENW	20
46 N	15 W	17	E2SENENW	5
46 N	15 W	17	SWNENW	10

Township	Range	Section	Aliquot Lot Tract	Acres
46 N	15 W	18	NENW	40
47 N	16 W	9	SESE	40
47 N	16 W	9	SWSE	40
46 N	17 W	3	SWNE	40
47 N	18 W	6	SWSE	40
47 N	18 W	8	NWSW	40
47 N	18 W	16	SWSE	40
47 N	18 W	21	NWNE	40

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