Appendices

Appendix A: Comprehensive Travel and Transportation Management

Appendix B: Oil and Gas Lease Stipulations

Appendix C: Conditions of Approval Applicable to Surface Disturbing Activities other than Oil and Gas Leasing

Appendix D: Best Management Practices and Standard Operating Procedures

Appendix E: Comprehensive Air Resource Protection Protocol (CARPP)

Appendix F: System Roads and Maintenance Levels

Appendix G: Supplemental Rules

Appendix H: Threatened & Endangered Species Specific Coordination & Conservation Measures

Appendix I: Upper Colorado River Wild and Scenic Stakeholder Group Management Plan

Appendix J: BLM Standards for Public Land Health and Guidelines for Livestock Grazing Management in Colorado

Appendix K: Special Recreation Permit Evaluation Criteria

Appendix L: Description of Recreation Resources

Note: The Appendices can be downloaded, viewed, and printed from:
http://www.blm.gov/co/st/en/fo/kfo/planning.html

Appendix A: Comprehensive Travel and Transportation Management

The decisions identifying routes of travel within designated areas for motorized vehicles are implementation decisions and are appealable under 43 CFR part 4. These decisions are contained in this appendix. Any party adversely affected by the proposed route identifications may appeal within 30 days of publication of this Notice of Availability pursuant to 43 CFR, part 4, subpart E. The appeal should state the specific route(s) on which the decision is being appealed. The appeal must be filed with the Kremmling Field Manager at PO Box 68, (2103 E. Park Ave) Kremmling, CO 80459. Please consult the appropriate regulations (43 CFR, part 4, subpart E) for further appeal requirements.

This Appendix has been reprinted from the PRMP (Appendix P).

The Resource Management Plan Transportation Map Book, which contains detailed, large-scale maps that apply to the RMP decisions, can be found at http://www.blm.gov/co/st/en/fo/kfo/planning.html. The map book is 176 pages long with a cover page showing the grid of map book pages and a complete legend.

Introduction

Comprehensive Travel and Transportation Management (CTTM) is the proactive management of public access, natural resources, and regulatory needs in order to ensure that all aspects of road and trail system planning and management are considered. This includes route planning, inventory and evaluation, innovative partnerships, user education, mapping, monitoring, signing, field presence, and law enforcement (BLM IM CO-2007-020; BLM 2007i). CTTM planning should address all resource use aspects (such as recreational, traditional, casual, agricultural, commercial, and educational), and the accompanying modes and conditions of travel on public lands; not just motorized or off-highway vehicle (OHV) activities (BLM Land Use Planning Handbook 1601-1, Appendix C; BLM 2005a).

Public scoping has consistently demonstrated CTTM as a major issue to be addressed in Resource Management Plans (RMPs). Increased demand for access to public lands, combined with the research on the impacts of roads on resources and resource uses, has increased the need for a well-designed and well managed transportation system.

Historically focused on motor vehicle use, CTTM encompasses all forms of transportation, including travel by foot, by horse, and by mechanical vehicles (such as bicycles); as well as the numerous forms of motorized vehicles [from 2-wheeled (motorcycles) to 4-wheeled all-terrain vehicles (ATVs)], to cars and trucks. The National Management Strategy for Motorized Off-Highway Vehicle Use on Public Lands (BLM2001b) was the first step in developing a proactive approach to managing OHV use and recreational opportunities while managing for multiple resources. This was also defined in BLM's M-1626 Travel and Transportation Manual (BLM 2011d) and H-8342 Travel and Transportation Handbook (BLM 2012e).

[*Note:* The term off-road vehicle (ORV) is defined as "any motorized vehicle capable of or designated for, travel on or immediately over land, water, or other natural terrain" [43 Code of Federal Regulation (CFR) 8340.0-4(a)]. This definition has been updated using the term "OHV" in the National Management Strategy for Motorized Off-Highway Vehicle Use on Public Lands (BLM 2001b). The intent of the National Strategy was to update and

revitalize management of OHV use on BLM-managed public lands. The National Strategy provides guidance and recommendations designed to accomplish that purpose.]

How to Read/Use this Document

This document addresses the planning criteria, data collection, and alternative development process by which the KFO Interdisciplinary (ID) Team developed the Proposed Resource Management Plan/Final Environmental Impact Statement (PRMP/FEIS) alternatives for motorized, mechanized, and non-motorized uses for the Planning Area, including those related to the following management decisions:

- **Land Use Planning Decisions --** The land use planning decisions of the CTTM Plan define the areas within the KFO that are designated as "Open," "Limited," or "Closed" to OHV use; as well as the number of miles of designated routes under the Limited category.
- **Implementation Decisions --** Implementation decisions of the CTTM Plan that are included in this document include the designations of routes within areas delineated as Limited to Designated Roads and Trails. Other implementation actions include signage, maps, public information, kiosks, monitoring, and working with partners; however, these types of actions have not been addressed in this CTTM Plan designation process. Such decisions will be addressed as the site-specific implementation process continues.

The specific decisions, and designations, as well as the analysis of the environmental impacts associated with the implementation of the CTTM Plan under the 5 alternatives, are presented in Chapter 4 of the PRMP/FEIS.

Summary

Land Use Planning Decisions

The CFR (43 CFR Part 8340) requires the BLM to designate all public lands as Open, Closed, or Limited for OHV use. These designations are made in RMPs or in RMP Amendments. In addition, the criteria for route designation are established in RMPs. (Table A-1 lists the lands designated as Open, Limited, and Closed within the Planning Area, as determined by the ID Team.)

Table A- 1 OHV Categories by Alternative for KFO

Category	Proposed	Alternative A	Alternative B	Alternative C	Alternative D
Open	200	307,300	200	50	200
Limited to Existing	0	7,300	0	0	0
Limited to Designated	369,300	54,500	369,300	353,800	369,300
Closed	8,400	8,700	8,400	24,100	8,400
Source: BLM GIS data 2011					

Implementation Decisions

The designation of routes within the Planning Area specified as "Limited to Designated" is an implementation decision. Designation involves the selection and identification of roads and trails to be included in a CTTM System, as well as the allowable types of use on each of these routes. (Table A-2 provides a summary of the miles of routes designated for public use by alternative.)

Table A- 2 Designated Routes (miles) by Alternative

Type of Route*	Proposed	Alternative A	Alternative B	Alternative C	Alternative D
Full Size Vehicle	862	1,739	872	754	971
ATV (50 inches or less)	12	73	14	11	27
Motorcycle	15	53	21	14	62
Mechanized	18	0	12	6	7
Foot Horse Only	85	60	72	86	60
Foot Only	6	33	6	6	6
Administrative Use Only	645	22	626	692	590
Decommission	427	0	433	507	353
Other	0	89	0	0	0

Administrative routes are designated for valid existing rights or management requirements when limitations and restrictions for public use are placed on roads and trails (and associated modes of travel) due to: the location of sensitive or high-value resources; the potential for environmental impacts to those resources; special designations and identifications; as well as to where RMP goals and objectives may be adversely impacted. Administrative routes may also be designated in areas where motorized use is restricted (in areas where there is no legal motorized access for the general public), but where there is a requirement for motorized use for valid existing rights or management requirements. Administrative routes are authorized on a case-by-case basis, and do not grant use for motorized travel for any reason other than the specific management requirements (such as for accessing a range development or accessing a Monitoring Station). Management actions common to all of the proposed alternatives include the following, as developed by the ID Team in preliminary alternative-development meetings:

- in areas identified as “Limited to Designated Routes,” only designated routes are open to motorized use;
- areas and trails shall be located in a manner designed to minimize damage to soil, watershed, vegetation, and/or to other resources;
- areas and trails shall be located in a manner designed to minimize harassment of wildlife or significant disruption of wildlife habitats;
- areas and trails shall be located in a manner designed to minimize conflicts between OHV use and other existing, or proposed, recreational uses of the same, or neighboring, public lands; and in a manner designed to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors;
- any fire, military, emergency or law enforcement vehicle being used for emergency purposes is exempted from OHV decisions;

- Wilderness Study Areas (WSAs) are to be either designated as Limited or Closed to OHV use, and must be managed and monitored in order to comply with the BLM Manual regarding Wilderness Study Areas; and
- as required in 43 CFR Sec. 8342.3 (Designation Changes): "The Authorized Officer shall monitor effects of the use of off-road vehicles. On the basis of information so obtained, and whenever the Authorized Officer deems it necessary to carry out the objectives of this part, designations may be amended, revised, revoked, or other actions taken pursuant to the regulations in this part."

Authority and Guidance for Travel Management

- **Executive Order (EO) 11644 (February 8, 1972) --** This EO establishes criteria by which Federal agencies are to develop regulations for the management of OHVs on public lands under their management. Agencies are to "monitor the effects" of OHV use on their public lands and, "on the basis of the information gathered, they shall from time to time, amend or rescind designation of areas for OHV use as necessary to further its policy."
- **EO 1989 (May 25, 1977) --** This EO amended EO 11644, and authorizes agencies to adopt a policy that specific public lands can be considered Closed to OHVs once it is determined that OHV use "will cause, or is causing, considerable adverse effects" to particular resources.
- **43 CFR Part 8340 --** These regulations establish criteria for designating BLM-managed public lands as Open, Limited, or Closed to OHV use.
- **National Management Strategy for Motorized Off-Highway Vehicle Use on Public Land**s **--** This describes the current strategy for managing OHV use on BLM-managed public lands (BLM 2001b).
- **Information Bulletin (IB) 200COIB2003-020.DOC3-020 --** This IB describes the Travel Management Guidelines for BLM Colorado.
- **Instruction Memorandum (IM) 2004-005 --** This IM provides clarification of OHV designations and travel management in the BLM land use planning process (BLM 2003d).
- **IM CO-2007-020 --** This IM states that CTTM and OHV designations, decisions, and management actions for all CTTM Plans (whether they are part of an RMP, or are completed in a separate Activity Plan) shall be consistent with, incorporate, and implement policy contained in the BLM's Land Use Planning Handbook (H-1601-1), Appendix C, Section I: Natural, Biological, and Cultural Resources; Section II: Resource Uses; Section III: Special Designations; and Section IV (BLM 2005a; BLM 2008p).
- **Washington Office (WO) IM 2008-014 --** This IM states that CTTM planning and implementation shall be supported by all programs, and use the full range of funding and technical assistance sources (based on the fact that all programs benefit from effective CTTM (BLM 2008p).
- **BLM's M-1626 Travel and Transportation Manual** (BLM 2011d) – This manual provides detailed policy, direction, and guidance to establish a comprehensive program for travel and transportation planning within the BLM land use planning process.
- **BLM's H-8342 Travel and Transportation Handbook** (BLM 2012e) -- This Handbook provides specific guidance for preparing, amending, revising, maintaining, implementing, monitoring, and evaluating BLM land use and travel management plans. It provides further guidance related to the objectives, authorities, responsibilities, and policy considerations outlined in Manual Section 1626, Travel and Transportation Management. The material in this Handbook will replace the previous guidance issued in Appendix C, section II. D of the Land Use Planning Handbook (H-1601-1).

CTTM Designation Process

A goal of the planning process for the RMP was for the KFO to develop, along with public and Cooperating Agency input, a Comprehensive Travel and Transportation Management Plan. The CTTM Plan allows the BLM to provide access to BLM-managed public lands while, at the same time, protecting resource values. The Goals and Objectives (Desired Outcomes) of the CTTM Plan apply to all areas of travel management, including providing and managing access to resources; and providing and managing appropriate recreational opportunities that protect resources, ensure public safety, minimize conflicts among the various public land uses (and users), and provide support of the local economy.

Background

In the early 1980s, in response to Presidential EO 11644 and EO 11989, the BLM began designating all public lands into 1 of 3 OHV designation categories. As a result, the BLM-managed public lands within the Planning Area were designated as Open, Limited to Existing Roads and Trails, Limited to Designated Roads and Trails, and Closed to OHV use. The designations are as follows:

- **Open --** The BLM designates areas as "Open" for intensive OHV use where there are no compelling resource protection needs, user conflicts, or public safety issues that warrant limiting cross-country travel. However, motor vehicles may not be operated in a manner that causes, or is likely to cause, significant undue damage to, or disturbance of, soils, wildlife, wildlife habitat improvements, vegetation, cultural/paleontological resources, or other authorized uses of the public lands (43 CFR 8341).
- **Limited --** The "Limited" designation is used where OHV use must be restricted in order to meet specific resource management objectives. In the current guidance context, this means Limited to Designated Roads and Trails (a route network designated by the BLM in its Approved RMP). These routes may also be limited to: a time or season of use, depending upon the resources in the area (such as Threatened and Endangered Species' habitat or nesting areas, crucial winter ranges, etc.), and/or to a type of vehicle use (such as ATV, motorcycle, 4-wheel vehicle, etc.)
- **Closed --** The BLM designates areas as "Closed" if closure to all vehicular use is necessary in order to protect resources, ensure visitor safety, and/or to reduce resource or use conflicts. Generally, access by means other than by motor vehicle access is allowed. The Field Office Manager may allow motor vehicle access on a case-by-case basis or for emergencies.

In the current planning process for the PRMP/FEIS, State and national guidance for the OHV Limited category designation has changed. Designating Open, Closed, and Limited areas for OHV use continues to be mandated; however, under the Limited category only the "Limited to Designated Roads and Trails" category is recommended. The designation of "Limited to Existing Roads and Trails" is no longer a recommended option (BLM 2003d). (Eliminating the "Limited to Existing Roads and Trails" category prevents confusion and enforcement problems concerning new unauthorized routes being created; routes which are then used by the public because they are then "existing".)

In the 1984 Kremmling Resource Area RMP (BLM 1984b), and subsequent 1988 Off-Road Vehicle Implementation Plan (BLM 1988d), the BLM designated all public lands within the Planning Area as Open, Closed, or Limited to Existing and Designated Roads and Trails. In 2005, the Wolford Travel Management Plan (BLM 2005b) was completed with implementation beginning the same year. Other RMP Amendments listed in the *Federal Register* amended travel management within the Planning Area by implementing seasonal and year-long restrictions on OHVs.

CTTM Plan area designations are made in accordance with the criteria set forth in 43 CFR 8340. Within the Planning Area, approximately 12 percent of BLM-managed public lands are subject to restrictions, with the remaining 88 percent being open (not subject to restrictions).

Interdisciplinary Team Process

The KFO ID Team Resource Specialists who participated in the completion of the CTTM Plan are listed in Table A-3.

Table A- 3 KFO ID Team Members

Name	Resource	Organization
Paula Belcher	Hydrology	KFO – BLM
Megan McGuire	Biological Resources	KFO – BLM
Susan Cassel	Realty Specialist	KFO – BLM
Ken Belcher	Forestry Specialist	KFO – BLM
Pete Torma	Range Management	KFO – BLM (former)
Richard Johnson	Range Management	KFO – BLM (former)
Karl Waller	Range Conservationist	KFO – BLM (former)
Frank Rupp	Archaeology/Paleontology	KFO – BLM (former)
Bill Wyatt	Archeologist	KFO – BLM
Darren Entrican	Law Enforcement	KFO – BLM
Joe Stout	DRMP/DEIS Lead	KFO – BLM (former)
John Monkouski	Recreation Lead	KFO – BLM
Andy Windsor	Recreation Lead	KFO – BLM (former)
Bernice Sterin	Recreation Lead	KFO – BLM (former)
Justin Koppa	GIS Specialist	KFO – BLM (former)
Sue Valente	GIS Specialist	KFO - BLM
Kelly Elliott	Natural Resource Specialist	KFO - BLM
Zach Hughes	Natural Resource Specialist	KFO - BLM

Between March and June of 2008, the KFO ID Team held several day-long meetings in order to identify initial designation alternatives for the CTTM Plan. Alternatives were then refined, as DRMP/DEIS alternatives evolved; as new BLM policies and guidance became available; and/or as comments were received from the public, Cooperating Agencies, and sub-RAC representatives identifying where adjustments were needed in order to ensure that a reasonable range of alternatives was being developed. In 2007, the KFO conducted three Trails and Routes Workshops (as described below).

Trails and Routes Data-collection Workshops

In 2007, the BLM hosted three Trails and Routes Data-collection Workshops. The workshops were held in order to allow the public to: 1) review the BLM's inventory for accuracy and completeness; 2) provide information on routes missing from the BLM's inventory; and 3) offer suggestions for what routes could be designated, and why they should be designated. Table P-4 shows the date, location, and number of attendees for each workshop. (All meetings were held from 4 p.m. to 7 p.m.) .

Each workshop was similarly structured: attendees were asked to sign in, and were then briefed on the room layout and goals and objectives of the workshop. Information Sheets (2-pages in length) summarizing the BLM's planning effort and CTTM process; RMP Newsletter Volume 1, Number 1; and Comment Forms to document attendees' comments on new or existing routes were made available.

An overview map was displayed at the entrance of the room showing the respective Field Office boundary, as well as the different Travel Management Zones within the Field Office. The KFO was divided into 10 Travel Management Zones, which were labeled A through O. (Dividing the Field Office into a number of Travel Management Zones enabled the public to focus on a specific area of interest.)

Work Stations were set up around the room with topographic and aerial photograph-based maps displaying the inventoried trails and routes for each Zone. Attendees were asked to complete a Comment Form, and were encouraged to draw on the maps in order to document any missing existing trails and routes. Proposed new routes were also drawn on the maps. (Pencils and markers were made available to attendees so that they could edit the maps.)

The comment period for routes and trails data collection was open until July 20, 2007. The public could submit comments by completing the Comment Form and sending it (via email, U.S. mail, facsimile, or by hand delivery) to the Field Office. All Travel Management Zone maps and Comment Forms were available at the 3 workshops, at the KFO, and on the project website (www.blm.gov/rmp/co/kfo-gsfo).

A total of 192 submissions were received by the deadline of July 20, 2007, which included all Comment Forms and letters. The BLM Comment Form was the format most commonly used in order to submit comments, totaling 182 Comment Forms. Ten (10) letters, 3 CD-ROMs, and 31 maps were also submitted by July 20, 2007. Some written submissions included numerous comments, overlapping comments, and incomplete comments. As such, the 192 submissions contained 210 types of comments.

Table A- 4 Trails and Routes Data-Collection Workshop

Location	Date	Number of Attendees
Granby Recreation Center 125 North 3rd, Granby	June 26, 2007	19
Wattenburg Center 686 County Road 42, Walden	June 27, 2007	19
Chamber Building 203 Park Avenue, Kremmling	June 28, 2007	21
Total		**59**

Identification of Issues

CTTM Plan issues were identified by BLM Resource Specialists in the DRMP/DEIS Preparation Plan, through the public scoping process for the DRMP/DEIS, and during the public scoping process specific to travel management planning.

BLM staff identified the following factors describing the condition of travel management within the Planning Area, thereby identifying the need for developing a CTTM Plan:

- a lack of comprehensive travel management that considers the relationship between various resources, access for authorized permittees, and recreation uses;
- the lack of planning for recreational experiences that preceded the construction of historic routes;
- unauthorized uses, emanating from designated routes, resulting in impacts to other resources;
- subdivision of private property, creating new access points to public lands;
- routes open to motorized use being accessible only to adjacent landowners; and
- conflicts between recreational uses (and users).

Based upon the comments received, the following planning issue statement was developed:

- **Travel Management and Transportation --** How will transportation be managed so that natural and cultural resources are protected; so that motorized and non-motorized recreational opportunities are provided; so that user conflicts are reduced; so that route designations and closures are enforced; and so that public access is improved?

Developing Planning Criteria

Considerations of both social and physical elements help define the criteria for a CTTM Plan. The social aspects include public demands; historical uses; existing rights-of-way (ROWs); permitted uses; public access; resource development; law enforcement and safety; conflicts between existing, or potential, uses and users; recreational opportunities; local uses; and cultural and economic issues. Physical aspects include those associated with terrain, soils, water, vegetation, and watersheds; the connectedness of routes; special management area designations; demands for specific types of vehicle use; and manageability considerations.

The CTTM Plan for the KFO will manage access on public lands in accordance with existing law, rules, regulations, policies, standards, and guidelines.

General planning criteria for the PRMP/FEIS planning process includes:

- **Decisions --** All decisions made in the Approved RMP will only apply to BLM-managed public lands.
- **Valid Existing Rights --** The CTTM Plan recognizes current, valid existing rights.

Planning criteria specific to the CTTM Plan include:

- **National OHV Policy --** Decisions regarding OHV travel will be consistent with the National Management Strategy for Motorized Off-Highway Vehicle Use on Public Lands. (BLM 2001b).
- **Addendum 1 to the Colorado Protocol: Section 106 Requirements for Comprehensive Travel Management Planning (BLM. 2006i)** – The BLM will phase any required identification, evaluation, treatment, mitigation, and reporting of existing routes following route designation.
- **Revised Statute 2477 (Rights-of-Way) --** ROWs may exist across the Planning Area; however, adjudication is beyond the scope of this PRMP/FEIS.

Designation Criteria

Vehicle-use restrictions will be established where known high-resource values would otherwise be damaged or destroyed. BLM's designation of OHV use areas is guided by 43 CFR 8342.1, which states that designations shall be based on the protection of resources, the promotion of the safety of all users of public lands, and the minimization of land use conflicts. Minimization criteria are defined in 43 CFR 8342.1:

- [Designated] areas and [designated] trails shall be located to minimize damage to soil, watershed, vegetation, air, and other resources of the public lands, and to prevent impairment of wilderness suitability.
- [Designated] areas and [designated] trails shall be located in a manner designed 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.
- [Designated] areas and [designated] trails shall be located to minimize conflicts between off-road vehicle use and other existing or proposed recreation 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.
- [Designated] areas and [designated] 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 Authorized Officer determines that off-road vehicle use in such locations will not adversely affect the natural, esthetic, scenic, or other values for which such areas were established.

Criteria for the CTTM Plan

In addition to the criteria defined in 43 CFR 8342.1, preliminary screening criteria considered during the route designation process, and that would be considered during future route modifications, are outlined below:

1. **Environmental Conditions --**
    a. **General --** Does access on the route promote resource damage/concerns? Is the route causing resource damage?
    b. **Soil stability --** Is the route within a highly erosive soils area? Does the route cross slopes of 50 percent or greater?
    c. **Wildlife habitat (winter range, nesting/brooding and rearing habitat, calving/fawning areas) --** Is the route a known issue within big game winter range?
    d. **Special Status Species habitat --** Is the route a known issue within Special Status Species habitat?
    e. **Proximity to riparian areas and/or 303(d) (list of impaired) streams --** Is the route causing damage to water quality? Does the route negatively impact wetlands/riparian/fens/mires?
    f. **Visual resources --** Does the route conflict with Visual Resource Management (VRM) Class objectives?
    g. **Cultural/paleontological resources --** Is the route creating an issue for any historic properties? Is the route creating an issue for any areas of Native American concern? Does the route cross significant paleontological areas?
    h. **Special Management Areas --** Is the route within a WSA? Is the route within an area determined to contain wilderness characteristics? Does the route conflict with Special Recreation Management Area (SRMA) objectives? Does the route conflict with Area of Critical Environmental Concern (ACEC) objectives?
2. **Route conditions --**
    a. **General --** Is the route a BLM-maintained route? Is the road condition poor and/or unsustainable? Is the route unsafe (is it steep; have no turn-around)?
    b. **Parallel routes --** Does the route run parallel to another existing route?
    c. **Spurs --** Are there spurs?
    d. **Dead end --** Is it a dead-end route (0.5-mile or less)? Does the route end at private property?
    e. **Access --** Is there legal public access? Is there an existing ROW?
3. **User conflicts --**
    a. Motorized versus non-motorized?

   b. Motorized/mechanized versus non-mechanized?
4. **Administrative purposes --**
   a. Is the route necessary for rangeland activities?
   b. Is the route necessary for wildland fire suppression activities?
   c. Is the route necessary for safety?
   d. Is the route necessary for resource management and permitted activities?
5. **Public purposes --**
   a. Does the route access public or private land?
   b. Is the route used as a destination route for specific activities?
   c. Does the route have recreational value (no special destination)?
   d. Does the route involve types of desired use (motorized, mechanized, non-motorized/non-mechanized)?
6. **Route, vehicle type, and size limitations –**
   a. 50-inch wheel base (full-size vehicles)?
   b. Less than 50-inch wheel base (ATVs)?
   c. single-track (motorcycles/mountain bikes)?

Route Designations in Wilderness Study Areas

Information Bulletin (IB) 99-181 directs the BLM to comply with the wilderness non-impairment mandate [FLPMA, Section 603(c); BLM 1995]. WSAs are managed under the Management of BLM Wilderness Study Areas – Manual 6330 (BLM 2012f). In accordance with this policy, the BLM must monitor and regulate the activities of OHVs in WSAs in order to ensure that their use does not compromise these areas by impairing their suitability for designation as Wilderness. BLM OHV regulations (43 CFR 8342.1) require that the BLM establish OHV designations of areas and routes that meet the non-impairment mandate. It is the BLM's policy that cross-country vehicle use in the WSAs does cause the impairment of wilderness suitability; therefore, the BLM must establish OHV designations in WSAs that limit vehicular access to boundary roads, or to existing ways (inside the WSA) that were identified during the inventory phase of the wilderness review.

Administrative Access and Use

Routes considered for Administrative Use Only were discussed by the ID Team. These administrative categories include routes to stock ponds, as well as to other range improvements, guzzlers (plastic tanks), and BLM facilities. The KFO reserves the right to allow travel on these routes to permittees, BLM employees, or whomever the BLM deems appropriate, on a case-by-case basis.

Emergency Uses

By regulation, any fire, military, emergency or law enforcement vehicle being used for emergency purposes is exempted from OHV decisions. (Emergency uses in WSAs are covered under Manual 6330, Management of BLM Wilderness Study Areas(BLM 2012f).)

Emergency Limitations or Closures

Whenever the Authorized Officer determines that OHV use will cause, or is causing, considerable adverse impacts to resources (such as to soil, vegetation, wildlife, wildlife habitat, cultural, historic, scenic, recreation, or other resources), the area must be immediately closed to the type of use causing the adverse impacts (43 CFR 8341.2). Such limitations or closures are not OHV designations.

Alternative Development

As part of the planning process for the PRMP/FEIS, the BLM is developed a CTTM Plan for all BLM-managed public lands within the Planning Area in conjunction with the PRMP/FEIS. The CTTM Plan covers all types of travel (recreational, casual, agricultural, industrial, administrative, etc.) and accompanying modes and conditions of travel, including motorized, mechanized, and non-mechanized (muscle-powered) uses. It is Colorado BLM policy (CO-IM-2007-20) to restrict all OHV use to Limited Areas to Designated Routes.

Goal and Objective

The Goal and Objective of the CTTM Plan is for the BLM to provide opportunities for a full range of motorized and non-motorized access and recreational experiences on BLM-managed public lands while, at the same time, protecting sensitive resources and minimizing conflicts among various uses and users. This process includes preparing a reasonable range of alternatives for inclusion in the PRMP/FEIS. The BLM provided a range of alternatives with regard to which areas would be Open to OHV travel, which areas would be Closed to OHV travel, and which areas would be Limited to Designated Routes. Within the Limited areas, the BLM provided a range of alternatives by varying miles of designated routes. Decisions made within the PRMP/FEIS are within the range of alternatives providing for a full range of motorized and non-motorized opportunities while protecting resources and minimizing conflicts.

Route Designations and ID Team Meetings

The KFO held several ID Team meetings in order to address route/resource conflicts and route designations. These meetings were held from March through June of 2008. The KFO Field Office Manager conducted the meeting, and every route proposed for designation within the KFO boundaries was evaluated.

The purpose of the route designation ID Team meetings was three-fold:

1. to gather input from the ID Team in relation to conflicts identified, and mitigation measures proposed, by each Resource Specialist; identify (where known) the purpose and need for the route in question; identify where conflicts with resources existed (these conflicts were discussed, and resolved, during the meeting); and to establish final proposals for the various alternatives;
2. to formulate 3 “action” alternatives (not including the “No Action Alternative”) for the CTTM Plan (the range of alternatives includes an alternative that emphasizes resource conflicts over the purpose and need for the route; an alternative that emphasizes the purpose and need for the route over resource conflicts; and an alternative that weighs both resource conflicts and the purpose and need); and
3. to develop a system of designated routes that fulfills the Goals and Objectives (Desired Outcome) for the Planning Area.

The Administrative Record (AR) for the Kremmling RMP contains details of the conflicts identified for each route (or route segment), and the BLM's conclusions as to designation (by alternative). All travel and transportation recommendations were examined on an area-by-area and route-by-route basis (usually, by employing GIS and other digital and physical mapping to overlay physical constraints, public comments, and background topography and/or aerial photography, with existing routes and their public and administrative uses).

As discussed above, Resource Specialists identified potential conflicts with proposed routes, and characterized the severity of the conflict. In general, routes with serious resource conflicts (or less severe, but multiple conflicts), and

no obvious purpose and need, were recommended for decommissioning or to be limited to administrative use. There were many routes where resource concerns conflicted with established purpose and need. Typically, these routes were recommended for decommissioning, or to be limited to administrative use, under Alternative C; however, they may have been designated for public use under Alternative D. The decision as to whether or not designate a route under Alternative B was decided by a weighing of the route's importance against the severity of the identified resource conflicts. In many cases, the potential conflict was resolved by reducing the number of parallel and redundant routes.

During the travel management route designation process, existing cultural resource inventory and assessment information, including completed Class II and III inventories as well as a comprehensive Class I Cultural Resource overview (Reed et al. 2008a) was considered by the IDT as they reviewed each route within the range of alternatives. Designations were made based on public need and known natural and cultural resource concerns. On routes where sensitive cultural resources are known but these resources are too sensitive to be identified to the public, cultural resources may not have been noted in the GIS spatial data base by the IDT. This is to help protect these resources from being identified as occurring on specific routes under the authority to withhold information per Section 106 pursuant to 36 CFR 800.11 (C).

Resource Conflict Descriptions

Cultural Resources

Existing routes may go through identified cultural and/or paleontological sites. Use of these routes may hasten erosion, exposing more of the site to natural or human-caused damage. Cross-country travel, in particular, can exacerbate this problem. Site densities may be such that any access to the area could put such resources at risk.

Recreation

Public scoping has shown a desire on the part of some people for more areas to be managed for non-motorized recreation. In response to this, the BLM may decide to manage certain areas for more primitive forms of recreation, or to reduce user conflicts between motorized and non-motorized users. In such areas, and under different PRMP/FEIS alternatives, the existence of certain roads (or a redundancy of such) may pose a conflict with underlying recreation management Goals and Objectives.

Riparian

There are numerous streams, rivers, and other waterways that run through the Open or Limited OHV use category area. Routes are often located in riparian areas in canyons and drainage bottoms (so that people can avoid the more difficult uplands). Use of these routes can contribute to the loss of riparian vegetation, degrade stream banks, and lead to erosion problems. In addition, there are numerous washes within the Limited OHV use category area that do not support riparian vegetation, and merely provide a channel for water during storm events. Compaction of soils in these washes can lead to accelerated flood velocity, further contributing to erosion and sedimentary transfer.

Soils

Any surface-disturbing activity, including routes, on sensitive soils will result in increases in salinity and sedimentation levels. Roads and OHV travel can result in impacts to watersheds, by impacting soil health and water quality. Impacts can include soil compaction, decreased soil stability, loss of vegetation and biotic soil crusts, loss of functioning floodplains, accelerated erosion, water quality degradation, and increased salinity contributions.

Wilderness Study Areas

WSA are managed under Manual 6330, Management of BLM Wilderness Study Areas (BLM 2012f) so as not to impair their suitability for preservation as Wilderness. Each of these WSAs has wilderness characteristics. (They are greater than 5,000 acres in size, natural in appearance, and provide outstanding opportunities for solitude and/or for primitive recreation.) Many also possess supplemental wilderness values, including cultural resources and wildlife values.

The Management of BLM Wilderness Study Areas manual specifies that, at a minimum, motorized vehicles and mechanical transport are only allowed on pre-existing inventoried ways in WSAs. Use of vehicles off boundary routes and on these ways is only permitted for emergencies; Search and Rescue operations; official purposes for the protection of human life, safety, and property; protection of lands and their resources, and to maintain structures and installations as identified within the manual.

Today's OHVs are more varied and increasingly powerful machines capable of accessing steeper and rougher terrain than was possible 20 years ago (when the WSAs were designated). Motorized use in, and around, certain WSAs has increased dramatically, and now involves Sports Utility Vehicles (SUVs), trucks, ATVs, and motorcycles. As discussed earlier, designating motorized routes within WSAs can lead to the impairment of wilderness character, whether through increased risks associated with off-road travel or through intrusions upon the solitude that users seek in WSAs.

Lands with Wilderness Characteristics outside of WSAs

The BLM is required to keep an updated inventory of lands that possess wilderness characteristics outside of WSAs. The KFO conducted an assessment of lands outside of WSAs for wilderness characteristics as required by FLPMA sec. 201 as part of the planning process for the DRMP/DEIS. Wilderness values considered in this analysis include naturalness, opportunities for solitude or opportunities for primitive and unconfined recreation. Areas that possess these values may be managed in a manner designed to protect those values and characteristics. The use of motorized vehicles or mechanical transport on existing routes within these areas (if they were to be managed for such values), may be allowed; however, this use could lead to impacts to those values through the increased risks associated with off route travel.

Wildlife

In general, roads can produce threats to wildlife populations due to habitat fragmentation, stress caused by human activities at critical times (such as lambing), and impacts to resources (such as to water and vegetation resources) upon which wildlife depend. OHV travel can exacerbate these impacts. Several species found within the Planning Area may be especially susceptible to human disturbance (such as sage-grouse).

Big Game (bighorn sheep, deer, elk, pronghorn)

Disturbance associated with human activity can result in increased stress for big game, making animals more susceptible to disease and parasites, and leading to habitat abandonment and fragmentation of habitat. Within bighorn sheep habitat, the Range-wide Plan for Managing Habitat for Desert Bighorn Sheep on Public Lands (BLM undated) recommends that new road construction be minimized, and that roads no longer serving a definite purpose be closed. In addition, the Plan recommends that OHVs be limited to existing roads and trails. (Birthing grounds are, by far, the most crucial habitat.) Additional stress and pressure resulting from human activities can deplete energy reserves, as well as increase disease and parasite resistance in pregnant and lactating animals with young at their sides. (This reduces the survival rate of newborns.) White-tailed and Gunnison prairie dog populations have been decimated by the sylvan plague, and restoration of habitat is required for re-colonization. Limiting new

roadways, decommissioning unnecessary roads, and reclaiming illegal trails, will help to lessen the impacts to prairie dog habitat.

Within the Planning Area, reduction of human disturbance and fragmentation is needed in order to protect the remaining sage-grouse habitat. Limiting new roadways, decommissioning unnecessary roads, and reclaiming illegal trails, will help reduce habitat fragmentation and protect the birds and their habitat from human disturbance.

Mechanical Routes

Mechanized use includes mechanical devices (such as bicycles) that are not motorized. The KFO concluded that areas not designated as Open or routes not designated for public motorized or mechanical travel will be, generally, limited to foot and equestrian travel. As with all designations in the CTTM Plan, the BLM reserves the right to change designations in the future, should resource issues warrant such action. In general, routes not designated for motorized use will not be available for mechanical use in areas identified for hiking, or in other non-mechanical focus areas.

Foot and Equestrian Travel

Within the Planning Area, foot and equestrian travel will continue to be allowed in all areas, except as specifically prohibited.

Plan Maintenance and Changes to Route Designations

The Approved RMP includes indicators to guide future plan maintenance, amendments, and/or revisions related to OHV area designations, or to the approved Transportation System within Limited areas. Indicators could include results of monitoring data, new information, and/or changed circumstances (IM 2004-005, Attachment 2; BLM 2003d).

Actual route designations within the Limited category can be modified without completing an RMP Amendment; however, compliance with the National Environmental Policy Act (NEPA) is still required. The regulations at 43 CFR 8342.3 state: “The Authorized Officer shall monitor effect of the use of off-road vehicles. On the basis of information so obtained, and whenever the Authorized Officer deems it necessary to carry out the objectives of this part, designations may be amended, revised, revoked, or other action taken pursuant to the regulation in this part.”

Field Offices must establish procedures for making modifications to their designated route networks in the planning process. Future conditions may require the designation or construction of new routes, or closure of routes, in order to better address resources and resource use conflicts; therefore, a Field Office must expressly state how modification will be evaluated.

As noted in IM 2004-061 (BLM 2004e), Plan maintenance can be accomplished through additional analysis and land use planning (such as through activity level planning). The BLM will collaborate with affected and interested parties in evaluating the designated Transportation System for suitability for active OHV management, and for envisioning potential changes in the existing system or adding new roads, primitive roads or trails; and to specify limitations that will help the BLM meet current and future demands. In conducting such evaluations, the following factors will be considered:

- routes within areas suitable for different categories of OHVs, including dirt bikes, ATVs, dune buggies, and 4-wheel drive touring vehicles, mechanical transport including mountain bikes as well as opportunities for joint trail use;
- needs for parking, trailheads, informational and directional signs, mapping and profiling, and development of brochures or other materials for public dissemination;
- opportunities to tie into existing or planned route networks;
- measures needed in order to avoid onsite and offsite impacts to current and future land uses and important natural resources (among others, issues include noise and air pollution, erodible soils, stream sedimentation, non-point source water pollutions, Listed and Sensitive Species' habitats, historic and archaeological sites, wildlife, special management areas, grazing operations, fence and gate security, needs of non-motorized recreationists, and recognition of property rights for adjacent landowners);

BLM-managed roads or trails determined to cause considerable adverse impacts, or to constitute a nuisance or threat to public safety, will be considered for relocation or closure and rehabilitation after appropriate coordination with applicable agencies and partners.

Areas managed as Closed will not be available for new motorized or mechanized route designation or construction.

Regulations at 43 CFR 8342.2 require the BLM to monitor the impacts associated with OHV use. Changes made to the CTTM Plan should be based upon the information obtained through monitoring. Procedures for making changes to route designations after the Record of Decision (ROD) is signed are established in the Approved RMP. Site-specific environmental analysis documentation, in accordance with the NEPA, is required in order to change the route designations in the CTTM Plan.

Cooperating Agencies and other Coordination

Cooperating Agencies

The primary role of Cooperating Agencies is to provide special expertise and/or assistance to the BLM throughout the planning process. Cooperating Agencies provide staff, information, and assistance to the BLM; perform (or assist with) independent preparation of analysis (where their staff has special expertise); review draft information; and provide input and advice. Cooperating Agencies meet with the BLM throughout the analysis process in order to discuss issues, solutions, and ideas for developing the RMP. (The Cooperating Agencies involved with the planning effort are discussed in Chapter 1, Section 1.11.3.)

Other Coordination

Throughout the planning process, the KFO has developed several partnerships with local groups, including the Mountain Metal Mashers – Sidewinder Trail; the Colorado Division of Wildlife (CDOW), for monitoring and enforcement; the Kremmling Chamber of Commerce; the North Park Chamber of Commerce; the USFS, Special Recreation Permit (SRP) Permitting; Colorado State Parks; the Colorado Off-highway Vehicle Coalition; Stay the Trail Colorado; and the North Sand Hills Working Group. A sub-Resource Advisory Council with representatives for different interest groups was also assembled in order to review, and ensure, that there was a reasonable range of alternatives for recreational designations and opportunities.

Implementation Process

Generally, implementation decisions constitute the BLM's final approval allowing on-the-ground actions to proceed. These types of decisions are based upon site-specific planning and environmental analyses (in accordance with the NEPA), and are subject to the administrative remedies set forth in the regulations that apply to each resource management program of the BLM. Implementation decisions are not subject to protest under the planning regulations.

Instead, implementation decisions are subject to various administrative remedies. Where implementation decisions are made as part of the land use planning process, they are still subject to the appeals process, or to other forms of administrative review (as prescribed by specific resource program regulations) after the BLM resolves the protests to RMP decisions, and makes a decision to adopt or amend the RMP.

The travel planning and implementation process includes the following:

- a map of roads and trails for all travel modes;
- definitions and additional limitations for specific roads and trails;
- criteria developed in order to set parameters and to specify limitations;
- guidelines for managing, monitoring, and maintaining the system;
- indicators to guide future plan maintenance, amendments, or revisions related to OHV area designations, or to the approved road and trail system within Limited areas.

The Travel Management Network should be reviewed periodically in order to ensure that current resource and travel management objectives are being met (43 CFR 8342.3).

In the Appendix A of the PRMP/FEIS, designated OHV routes are portrayed by maps identifying CTTM decisions. These maps will be the basis for signing, as well as for enforcement. The Field Office will prioritize actions, resources, and geographic areas for implementation. The implementation goals include completing signage, maps, public information, kiosks, and working with partners.

Criteria for the Placement of Trails

The following criteria are used in order to determine suitable locations for new trails and trail reroutes within the Kremmling Field Office (KFO). [NOTE: This document uses terminology from the "Recommended Standardized Trail Terminology for Use in Colorado" (COTI 2005).]

These criteria are to be followed as guidelines. Not all of the criteria can be met on every segment of every trail. Their purpose is to help create sustainable, low-maintenance trails that provide quality recreational experiences based upon predetermined trail management objectives (TMOs). Specialty trails requiring higher maintenance may be allowed in appropriate locations.

1. **Know and understand trail management objectives --** TMOs provide the framework for what the trail will look like, who will be using the trail, and how the trail will be managed. Different TMOs may allow different applications of the criteria described below.
2. **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 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.

3. **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 --** Positive control points are places where resource managers 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 --** Negative control points are places resource managers 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).
    - **Sensitive Areas --** Sensitive areas include environmentally sensitive areas, sensitive archaeological sites, safety hazards, and private property.

    Knowing these control points provides a design framework. Resource Managers should try to connect the positive control points while, at the same time, avoiding the negative control points.

4. **Use cross-slopes and avoid flat ground, whenever possible --** Generally, the trail tread should run perpendicular to the cross-slope, and should utilize frequent grade reversals. (This is the best way to keep water off of the trail.) Resource managers should use curvilinear design principles in order to create a trail that follows the natural contours of the topography, sheds water, blends with the surrounding terrain, and provides fun recreational opportunities.

    The following grade guidelines will help determine appropriate tread locations:

    - **The Half Rule --** "A trail's grade shouldn't exceed half the grade of the hillside or sideslope (cross-slope) that the trail traverses. If the grade does exceed half the sideslope, 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" (IMBA 2004). Steeper cross-slopes allow more flexibility for sustainable tread grades, while flat or low angle cross-slopes can be problematic. (There is an upper limit to this rule. Sustaining a 24 percent tread grade, even on a 50 percent cross-slope is unlikely. In addition, trail segments may break this rule on durable tread surfaces, such as on solid rock.)
    - **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; however, the overall grade should remain at 10 percent or less.
    - **Maximum Sustainable Grade --** This is the upper grade limit for short trail segments that push the limits of the previous two guidelines. It is determined by a site-specific analysis based upon TMOs, environmental conditions, and observations of existing trails (such as, what's working, and what's not?).
    - **Grade Reversals --** Frequent changes in the direction of tread grade (gentle up-and-down undulations) will ensure that water is forced off of the trail at frequent intervals.

5. **Locate trails in stable soils --** Avoid clays, deep loam, and soils that do not drain rapidly. Consider season of use and type of 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.)

6. **Drainage crossings are key control points and should be selected carefully --** Resource managers should 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 in order to prevent water from flowing down the trail. Trails should avoid long or steep entries into drainages. Resource managers should design grade reversals into the trail on each side of the approach in order to minimize water and sediment entering from the trail. Resource managers should look for drainage crossings on rock.
7. **Dry washes can be excellent travel ways --** Dry washes are well defined, contain noise, and are periodically resurfaced by flowing water. As long as the wash does not support riparian vegetation, and has no major safety problems (such as water falls), they are well suited to be part of a recreational trail system.
8. **Avoid switchbacks --** Switchbacks are difficult, time-consuming, and expensive to construct, and require regular maintenance. (Users often cut them, causing avoidable impacts.) Using 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) in order to change the direction of a trail.
9. **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. In order to isolate noise, resource managers should locate trails on side hills, off of ridge tops, using ridges and watersheds as natural sound barriers.
10. **Use vegetation and other natural features to conceal the trail and absorb noise --** This can be difficult in a desert environment. Resource managers should try to minimize the visual impact of the trail by following natural transitions in vegetation or soil type. Usually, a trail near the base of a sideslope, or on rimrock, is 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.
11. **Carefully design intersections to avoid safety problems --** When locating a bicycle or motorized vehicle trail, resource managers should be aware of sighting distance and sight lines. (Collisions can be avoided if riders can see each other.) Trails should avoid 4-way intersections. Offsetting the cross-traffic helps to reduce speeds, and reduces the risk of collisions.

Appendix B: Oil and Gas Lease Stipulations

Table of Contents

Introduction 1
Overview 2
Types of Fluid Minerals Leases 2
Land Use Planning for Fluid Minerals Leasing -- The Planning Process 3
Oil and Gas Leasing in the Planning Area 3
Fluid Minerals Leasing -- Stipulations 4
No Leasing 5
No Surface Occupancy 5
Controlled Surface Use 5
Timing Limitations 5
Lease Notice 5
Fluid Minerals Leasing -- Exceptions, Modifications, and Waivers 6
Other Regulatory Authority 7
Table B- 1 Areas Closed to Oil and Gas Leasing (No Leasing) 7
Table B- 2 No Surface Occupancy Stipulations Applicable to Oil and Gas Leasing 8
Table B- 3 Controlled Surface Use Stipulations Applicable to Oil and Gas Leasing 25
Table B- 4 Timing Limitation Stipulations Applicable to Oil and Gas Leasing 45
Table B- 5 Lease Notices Applicable to Oil and Gas Leasing 58
Table B- 6 Kremmling Field Office Stipulations and Lease Notices Applicable to Oil and Gas Leasing . 61

Introduction

This Appendix discusses the fluid minerals leasing decisions, stipulations, exceptions, waivers, and modifications proposed as part of the planning effort for the Kremmling Field Office (KFO). This Appendix covers the new oil and gas lease stipulations related to public lands managed by the Bureau of Land Management (BLM) in the Planning Area.

Overview

The FLPMA established the land management authority of the BLM and provided guidance for how public lands are to be managed by the BLM. In accordance with the FLPMA, the BLM is required to manage public lands on the basis of multiple use and sustained yield (Section 202(c)(1)). Multiple use is to be considered in the context of the best combination of land uses that meet the present and future needs of the nation with respect to "recreation, range, timber, minerals, watershed, wildlife and fish, and natural, scenic, scientific, and historical values."

The Mineral Leasing Act of 1920, the Mineral Leasing Act for Acquired Lands of 1947, and the Federal Onshore Oil and Gas Leasing Reform Act of 1987, give the BLM responsibility for oil and gas leasing on approximately 570 million acres of BLM, USFS, and other Federal lands, as well as on private lands where mineral rights have been retained by the Federal government ("split-estate" lands).

Under the FLPMA, resource values, including fluid minerals, on BLM-administered lands are to be managed in a "harmonious and coordinated" manner that does not lead to "permanent impairment of the productivity of the land and the quality of the environment." The BLM is required to protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values for present and future generations.

Types of Fluid Minerals Leases

The BLM issues two types of leases for oil and gas exploration and development on lands owned or controlled by the Federal Government: competitive and non-competitive. After Congress passed the Federal Onshore Oil and Gas Leasing Reform Act of 1987, all public lands available for oil and gas leasing are offered first through a competitive leasing process. Non-competitive oil and gas leases are only issued after the lands have been offered competitively at an oral auction and have not received a bid.

- **Competitive Leasing Process** -- When parcels are available, the BLM conducts oral auctions of oil and gas leases on a quarterly basis. A Notice of Competitive Lease Sale (Sale Notice), which lists lease parcels to be offered at the auction, is published by each BLM State Office at least 45 days before the auction is held. Lease stipulations applicable to each parcel are specified in the Sale Notice. (See Fluid Minerals Leasing --Stipulations below.) Lands included in the auction process come from the following sources:
    - lands identified by informal expressions of interest from the public;
    - lands identified by the BLM for management reasons; or
    - lands included in presale offers filed for non-competitive leases.
- **Non-Competitive Leasing Process** -- Non-competitive leases are only issued for parcels that have been offered competitively but have failed to receive a bid. These lands are available for non-competitive leasing for a period of two years following a competitive sale. Lands in expired, terminated, relinquished, or cancelled leases are not available for non-competitive leasing until they have been offered competitively, and have failed to receive a bid. A non-competitive pre-sale offer may be filed on such lands only if the prior lease expired (or was terminated, relinquished or cancelled) at least one year before the pre-sale offer was submitted to the BLM State Office.

The BLM cannot place for sale lands already under lease, or lands where mineral ownership is not federally owned. Additional lands unavailable for leasing include, but are not limited to, the following:

- lands within city limits;
- lands closed to mineral leasing;
- lands designated as Wilderness or Wilderness Study Areas (WSAs);
- lands within a Native American Indian Reservation;
- lands with mineral entry applications;
- lands in patented mining claims; or
- lands posted in a Notice of Competitive Lease Sale.

A lease grants the lessee the right to explore and drill for (and extract, remove, and dispose of) oil and gas deposits that may be found in the leased lands.

Subject to special restrictions or "stipulations," the leases are granted on the condition that the lessee will have to obtain BLM approval before conducting any surface-disturbing activities. The oil and gas lease conveys the right to develop those resources on the leased land. The lessee(s) or operator(s) may not build a house on the land, cultivate the land, or remove any minerals other than oil and gas from the leased land.

Land Use Planning for Fluid Minerals Leasing -- The Planning Process

In order to help ensure proper land management that meets the goals of multiple use and sustained yield, the FLPMA requires the development, maintenance, and revision of land use plans for public lands. The land use planning process is the key tool used by the BLM to protect resources and designate uses on BLM-administered lands. Resource Management Plans (RMPs) help ensure that the public lands are managed in a manner that recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber in a manner that protects the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water, and archaeological values for present and future generations.

With regard to oil and gas leasing, the FLPMA requires that RMPs address: 1) the identification of areas available for oil and gas development; and 2) specify related management directions (including, if applicable, stipulations, exceptions, waivers, and modifications) by alternative.

Oil and Gas Leasing in the Planning Area

Tables B-2 through B-6, in this Appendix, are descriptions of the stipulations for oil and gas leasing. The stipulations will not apply to activities and uses where they are contrary to laws, rules, regulations, policies, standards, or guidelines. Tables B-2 through B-6 display the detailed descriptions of the stipulations, including exceptions, modifications, and waivers, that will be applied. Table B-1 displays detailed descriptions of the areas closed to oil and gas leasing under the approved RMP. All other areas not identified in the tables are open to oil and gas leasing, subject to standard lease terms and conditions.

Stipulations can be applied to Federal oil and gas leases in the Planning area at the time of leasing to mitigate impacts that will result from developing leases. Leasing stipulations will be applied where the surface is administered by the BLM, and in split-estate situations, where the surface is privately or State-

owned, or managed by other land management agencies. Where National Forest System lands overly Federal mineral estate, the BLM defers surface use control to the U.S. Forest Service (USFS), and coordinates with the agency on lease sales and development. Stipulations developed in USFS land management plans will be applied to leases on National Forest System Lands. While federal mineral estate under the Arapaho National Wildlife Refuge will not be leased, coordination with the USFWS will occur if leases are issued adjacent to the Refuge, when development is proposed near the Refuge's boundary.

The BLM issued Instruction Memorandum (IM) No. 2010-117, Oil and Gas Leasing Reform, on May 17, 2010 (BLM 2010a), to implement the Secretary of the Interior's policy on leasing oil and gas resources on Federal lands. Part of the BLM's implementation of the policy is to ensure oil and gas leasing stipulation consistency among the BLM Field Offices in each State, as well as among the various States. The stipulations described in this Appendix will be applied to new leases, until Statewide leasing stipulations are adopted.

Oil and gas leasing stipulations are developed through land use planning. The stipulations in this Appendix, therefore, will be applied to new leases, until they are replaced by Statewide standard stipulations through a Statewide implementation process that could include plan maintenance or amendment.

Fluid Minerals Leasing -- Stipulations

BLM-managed public lands are available for oil and gas leasing only after they have been evaluated through the BLM's planning process. In areas where development of oil and gas resources will be allowed, where conflicts with the protection or management of other resources or public land uses may occur, mitigating measures are identified and may appear on leases as either stipulations to uses or as restrictions on surface occupancy.

If, upon weighing the relative resource values, uses, or users during the development of the RMP, it is determined that conflict with oil and gas operations exist that cannot be adequately managed under the BLM Standard Lease Terms (SLTs), a lease stipulation is deemed necessary. Documentation of the necessity for a stipulation is disclosed in planning documents, such as in this one. RMPs establish the guidelines by which future waivers, exceptions, or modifications may be granted (see definitions below).

Stipulations may be necessary if the authority to control the activity on the lease does not already exist under laws, regulations, or orders. The Authorized Officer has the authority to modify the site location and design of facilities, control the rate of development and timing of activities, and require additional mitigation under Section 6 of the SLTs (BLM Form 3100-11) and 43 CFR 3101.1-2.

Stipulations are conditions, promises, or demands that are to be made part of a lease when the environmental and planning record demonstrates the necessity for the stipulations. Stipulations, as such, are neither "standard" nor "special." They are a necessary modification of the terms of the lease. In order to accommodate the variety of resources encountered on BLM-administered lands, these stipulations are categorized as to how the stipulation modifies the lease rights, not by the resource(s) to be protected (Rocky Mountain Regional Coordinating Committee 1989). In this Appendix, the stipulations are arrayed first by their categories, and then within the categories by the resource(s) they protect. The specifics as to

what, why, and how mitigations are to be accomplished is determined by the land management agency through the development of the RMP and through the NEPA analysis.

- A lease stipulation, developed during the land planning process, is a condition of lease issuance designed to provide a level of protection for other resource values or land uses. This is achieved by restricting lease operations such as during certain times of the year or by locations, to avoid unacceptable impacts to a greater extent than provided by standard lease terms or regulations. A stipulation is an enforceable term of the lease contract. It supersedes any inconsistent provisions of the standard lease form. A lease stipulation is attached to, and made a part of, the lease. Lease stipulations further implement the BLM's regulatory authority to protect resources or resource values.
- Stipulation standards are the physical and temporal conditions, resources, or resource values that must be present, and met, for application of a specific stipulation to a specific lease.

Lease stipulations and lease notices will be applied to all new leases, and to expired leases that are reissued. On existing leases, the BLM will seek voluntary compliance, or will develop COAs for Applications for Permit to Drill (APDs) to achieve resource protections.

No Leasing

Areas identified as closed are not open to oil and gas leasing. Exceptions, modifications, and waivers do not apply to closed areas. Refer to Table B-1 and Table B-7.

No Surface Occupancy

Use or occupancy of the land surface for fluid mineral exploration or development is prohibited in order to protect identified resource values. Refer to Table B-2 and Table B-8. The NSO is a major constraint, requiring horizontal or directional drilling from outside the boundaries of the NSO area to reach oil and gas resources.

Controlled Surface Use

CSU is a category of moderate constraint stipulations that allows some use and occupancy of the surface while, at the same time, protecting identified resources or values. A CSU stipulation will allow the BLM to require special operational constraints, including special design or the relocation of a proposed oil and gas development. Refer to Table B-3 and Table B-9.

Timing Limitations

Areas affected by a TL, a moderate constraint, are closed to oil and gas exploration and development during identified timeframes. This stipulation will not apply to operation and maintenance activities, including associated vehicle travel, unless otherwise specified. Refer to Table B-4 and Table B-10.

Lease Notice

An LN provides more detailed information concerning limitations already provided by law, lease terms, regulations, or operational orders. An LN also addresses special items that lessees should consider when planning operations; however, it does not impose additional restrictions. LNs apply only to leasable minerals (oil, gas, geothermal resources) and not to other types of leases such as livestock grazing. Refer to Table B-5 and Table B-11.

Fluid Minerals Leasing -- Exceptions, Modifications, and Waivers

Fluid minerals lease stipulations and related exceptions, waivers, and modifications are developed during the land use planning process. Exceptions, waivers, and modifications provide an effective means of applying "Adaptive Management" techniques to meet changing circumstances. The criteria for approval of exceptions, waivers, and modifications must be supported by a NEPA analysis, either through the land use planning process or through a site-specific environmental review. Regulations covering exceptions, modifications, and waivers are found in 43 CFR 3101.1-4; BLM IM No. 2008-032, dated November 19, 2007.

An exception, waiver, or modification may not be approved unless 1) the Authorized Officer determines that the factors leading to its inclusion in the lease have changed sufficiently to make the protection provided by the stipulation no longer justified; or 2) the proposed operations will not cause unacceptable impacts.

Such determinations must be fully supported by an appropriate level of environmental review, and must be made on a case-by-case basis based on the following questions:

- Will the BLM remain in compliance with all applicable laws, regulations, rules, policies, standards, and guidelines?
- Is the proposal in conformance with the objectives of the RMP?
- What will be the level of harm (impacts) to the protected resource, both locally and regionally?
- What will be the economic or public safety concerns if an active operation near completion was shut down in order to comply with a seasonal closure?
- Are the impacts temporary, rather than long term?
- Is the resource being protected rare, or is it relatively common? Is it a Special Status Species?
- Based upon existing knowledge of a species and of its use of an area, will impacts be confined to single or to a small number of individuals, or will there be impacts on local or regional populations? Will such impacts be allowed under existing law and policy?
- Is off-site mitigation an appropriate option? (For example, where individual or cumulative impacts cannot be effectively mitigated on site.)
- Can the impacts be reduced to an acceptable level through intensive use of environmental Best Management Practices (BMPs)?

Exceptions -- A one-time exemption from a stipulation for a particular site within the leasehold. Exceptions are determined on a case-by-case basis and, if granted, suspend the restrictions of a stipulation for a specified period, location, or activity. The stipulation continues to apply to other sites in the stipulation area.

Modifications -- A modification is a change to the provisions of a lease stipulation. Modifications may be temporary, or they may be for the term of the lease. Depending upon the specific modification, the stipulation may, or may not, apply to all sites within the leasehold to which the restrictive criteria are applied. Modifications are made if it is determined that the stipulation is no longer required as written (e.g., when it is based upon the results of monitoring data.)

Waivers -- Waivers are permanent exemptions to a stipulation. Under a waiver, the stipulation no longer applies anywhere within the leasehold. Waivers apply to an entire stipulation area. They are applied only after preparation of an environmental analysis document, in accordance with the NEPA, and after a subsequent decision has been made that a stipulation is no longer required to protect a specific resource.

Other Regulatory Authority

Conditions of Approval (COAs) are conditions or provisions (requirements) under which an APD is approved; they are not leasing stipulations. See Appendix C.

Oil and gas development is subject to the standard terms of the lease. Section 6 of the Lease Terms (BLM Form 3100-11, Offer to Lease and Lease for Oil and Gas) addresses the conduct of operations on an oil and gas lease, which provides basic environmental protections to resources, land uses and users.

Onshore Oil and Gas Order No. 1 (Onshore Oil and Gas Operations; Federal and Indian Oil and Gas Leases; Approval of Operations) and Federal regulations (43 CFR 3101.1-2) provide the authority for the BLM to relocate proposed operations up to 656 feet (200 meters), and to prohibit surface-disturbing operations for a period not to exceed 60 days in any lease year. These regulations are not leasing stipulations, but they will be applied to protect resources in the same way that CSU and TL stipulations will be used.

The BLM's regulatory authority also includes ensuring that oil and gas activity is conducted in an environmentally sound manner that protects other resources and uses, and requiring adequate reclamation. The BLM has the discretion to modify surface operations to change or add specific mitigation measures when supported by scientific analysis. All mitigation and conservation measures not already required as stipulations will be analyzed in a site-specific environmental analysis document in accordance with the NEPA, and will be incorporated, as appropriate, into COAs for permits, Plans of Development, or other use authorizations.

Table B- 1 Areas Closed to Oil and Gas Leasing (No Leasing)

Protected Resource	Area Closed to Oil and Gas Leasing	No Leasing Area Description
Fish and Wildlife	State-owned wildlife areas	Prohibit oil and gas leasing on all State-owned Wildlife Areas.
Wilderness Characteristics	Lands with wilderness characteristics outside of Wilderness Study Areas (WSAs)	Prohibit oil and gas leasing within areas of lands with wilderness characteristics outside of WSAs.
Lands and Realty	Municipal Boundaries	Prohibit oil and gas leasing within municipal boundaries.
Lands and Realty	YMCA/Sheep Mountain Conservation Easement	Prohibit oil and gas leasing in the YMCA/Sheep Mountain Conservation Easement area.
Recreation and Visitor Services	Upper Colorado River SRMA	Prohibit oil and gas leasing in the Upper Colorado River SRMA.
Recreation and Visitor Services	North Sand Hills SRMA	Prohibit oil and gas leasing in the North Sand Hills SRMA.

Protected Resource	Area Closed to Oil and Gas Leasing	No Leasing Area Description
Recreation and Visitor Services	Strawberry SRMA	Prohibit oil and gas leasing in the Strawberry SRMA.
Wilderness Study Areas	WSAs	Prohibit oil and gas leasing in the North Sand Hills Instant Study Area (ISA), and the Platte River Contiguous and Troublesome WSAs.
Wild and Scenic Rivers	Suitable Wild and Scenic River (WSR) Segments	Prohibit oil and gas leasing within all segments suitable for inclusion in the National Wild and Scenic River System (NWSRS).

Table B- 2 No Surface Occupancy Stipulations Applicable to Oil and Gas Leasing

Type	Stipulation Number/ Protected Resource	Stipulation Description
Soils		
NSO	CO-NSO-1 Fragile Soils or Slopes Greater Than 40 Percent	STIPULATION -- Prohibit surface occupancy or use in all areas of fragile soils (as defined below) as well as a 75-foot buffer around the fragile areas, which includes slumps, landslides, highly erosive soils, flooding, and biological soil crusts. The buffer can be extended based upon site specific conditions; conversely, if the soil mapping is incorrect, no fragile area is found, a NSO may be waived. NSO/No Ground Disturbance (NGD) for slopes greater than 40 percent. [NOTE: “Fragile soils” -- Many soils are termed “fragile,” in that they have shallow depth to bedrock, minimal surface layer organic material content and structure, soil textures that are more easily detached and eroded, or are on slopes over 35 percent. The soil map unit description rate all soils in the resource area as to their susceptibility to water erosion. Wind erosion may also be a hazard, especially when surface litter and vegetation is removed by fire.] The following soil/slope characteristics are indicative of a potentially fragile soil or high erosion hazard: 1. soils rated as highly or severely erodible by wind or water, as described in National Resource Conservation Service (NRCS) soil survey reports; 2. soils on slopes greater than 35 percent, especially if they have 1 of the following characteristics: a) a surface texture that is sand, loamy sand, very fine sandy loam, fine sandy loam, silty clay, or clay; b) a depth to

Type	Stipulation Number/ Protected Resource	Stipulation Description
		bedrock that is greater than 20 inches; c) an erosion hazard rating of high or very high; and d) a K (soil erodibility potential) factor greater than 0.32. PURPOSE -- To protect soil productivity, rare or sensitive biota, thereby minimizing risk to water bodies, fisheries and aquatic species habitats; and the protection of human health and safety (from landslides, mass wasting, etc.). EXCEPTION -- Standard exceptions apply. MODIFICATION -- Standard modifications apply. WAIVER -- Standard waivers apply.
Water		
NSO	CO-NSO-2 Major River Corridors	STIPULATION -- Prohibit surface occupancy or use within stream channels, stream banks, and the area 2,500 horizontal feet either side of the ordinary high-water mark (bank-full stage) of rivers/streams. PURPOSE -- To protect rivers and adjacent aquatic habitat that provide: a) Special Status or critical 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. EXCEPTION -- Standard exceptions apply. In addition, 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. MODIFICATION -- Standard modifications apply. WAIVER -- Standard waivers apply.
NSO	CO-NSO-3 Municipal Watersheds and Public Water Supplies	STIPULATION -- *No surface occupancy or use is allowed on the lands described below:* Lands within 1,000 horizontal 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 five (5) miles upstream of a public water supply intake with the classification *"Water Supply"* by the State of Colorado used as a public (municipal) water

Type	Stipulation Number/ Protected Resource	Stipulation Description
		supply. *Justification:* No surface occupancy on lands with the highest migration potential and the closest proximity to a public water supply intake will provide protection for human health, and protect water quality for Water Supply Use Classification standards. Potential contaminant migration may vary by geologic strata, depth, transmissivity, percolation of groundwater. Shorter migration paths and times of travel mean less chance for dilution or degradation of the contaminant before it reaches the intake. The proximity of the potential contaminant source to the surface water drainage network and its proximity to the intake approximate the relative migration path and time that a contaminant must travel to enter the source water and then flow to the intake. PURPOSE -- To protect public water supplies, water quality, aquatic habitat and human health and for protecting a watershed that serves a "public water system". 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 at least fifteen service connections or regularly serves an average of at least twenty-five individuals daily at least 60 days out of the year. EXCEPTION -- BLM may consider use of new technology or engineered plans designed to protect water supply streams and intakes from operations located closer than specified in the stipulation. Consideration of special technology or designs will be coordinated with appropriate water authorities and owners. MODIFICATIONS or WAIVERS of this stipulation are not anticipated except in the unlikely event of an alteration of the water supply or water intake.
NSO	CO-NSO-4 Perennial Streams, Water Bodies, Fisheries, and	STIPULATION -- Prohibit surface occupancy or use within a minimum buffer distance of 325 horizontal feet for all perennial waters. For perennial streams, the buffer will be measured from the ordinary high-water mark (bankfull stage). For wetland features, the buffer will be measured from the edge of the mapped extent (see Table 1). For unmapped wetlands, the vegetative boundary (from which the buffer originates) will

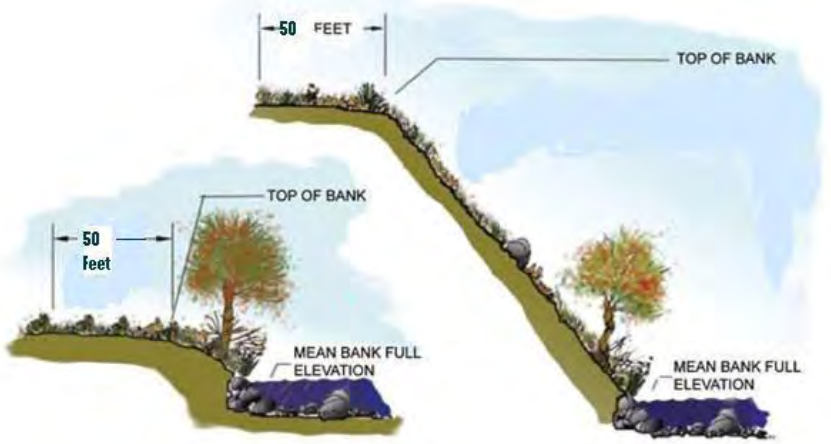
<table>
<tr><th>Type</th><th>Stipulation Number/ Protected Resource</th><th>Stipulation Description</th></tr>
<tr><td></td><td>Riparian Areas</td><td>be determined in the field. Where the riparian zone extends beyond 325
<table>
<tr><th colspan="2">NSO Buffers for Perennial Waters</th></tr>
<tr><td>Water Body Type</td><td>Buffer Width in Feet</td></tr>
<tr><td>Fens and wetlands</td><td>325 feet</td></tr>
<tr><td>Perennial Streams (with or without fish)</td><td>325 feet (as measured from ordinary high water mark)</td></tr>
<tr><td>Lotic or lentic springs and seeps</td><td>325 feet (as measured from wetland/vegetation edge)</td></tr>
<tr><td>Riparian</td><td>325 feet (or greater, if riparian area is wider than 325 feet)</td></tr>
</table>
PURPOSE -- To maintain the proper functioning condition (PFC), including the vegetative, hydrologic, and geomorphic functionality of the perennial water body; protect water quality, 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.

EXCEPTION -- Standard exceptions apply. In addition, an exception may be granted for stream crossings if the Authorized Officer determines that no other alternative exists (such as another route).

MODIFICATION -- Wetland buffer dimensions may be averaged in order to accommodate variability in terrain or development plans. Up-gradient distances should be maintained (up-gradient buffer distances of 325 feet), while down-gradient buffers may be reduced to no less than 100 feet. The buffer averaging must, however, not adversely affect wetland functions and values; and a minimum buffer distance of 100 feet from the wetland edge must be maintained. The buffer’s intent is to protect the water source area of the wetland, which is more important than the down-gradient portion of the wetland.

WAIVER -- Standard waivers apply.</td></tr>
<tr><td>NSO</td><td>CO-NSO-5

Streams Intermittent and Ephemeral</td><td>STIPULATION -- Prohibit surface occupancy or use within 50 horizontal feet, as measured from the top of the stream bank, for all intermittent or ephemeral streams (see diagram). If riparian vegetation extends beyond the top of the stream bank, the buffer will be measured from the extent of the riparian vegetation.</td></tr>
</table>

Type	Stipulation Number/ Protected Resource	Stipulation Description
		 PURPOSE: To maintain and protect water quality, stream stability, aquatic health, seasonal use, and downstream fisheries; and sediment processes downstream. EXCEPTION -- Standard exceptions apply. MODIFICATION: None. WAIVER: None.
NSO	CO-NSO-6 Raptor- Osprey, Red-tailed Hawk, Swainson's Hawk, Cooper's Hawk, Sharp-shinned Hawk, Northern Harrier, Burrowing Owl, Great horned Owl, and all owls and raptors, with exception of	STIPULATION -- No surface occupancy or use is allowed on Osprey, Red-tailed Hawk, Swainson's Hawk, Cooper's Hawk, Sharp-shinned Hawk, Northern Harrier, Burrowing Owl, Great horned Owl, and all owls with exception of Mexican Spotted Owl: within 0.25 mile radius of active and inactive nest sites. PURPOSE -- To maintain the integrity of nest sites and surrounding habitat. EXCEPTION -- An exception can be granted if an environmental analysis of the Proposed Action indicates that the nature or conduct of the activity could be conditioned so as not to impair the utility of nest for current, or subsequent, nesting activity or occupancy. An exception may be granted to these dates by the Field Manager, consistent with policies derived from Federal administration of the Migratory Bird Treaty Act (MBTA). MODIFICATION -- The Field Manager may modify the stipulation buffer distances, or substitute with a TL, if an environmental analysis indicates

Type	Stipulation Number/ Protected Resource	Stipulation Description
	American Kestrel	that a portion of the area is non-essential to nest utility or function, or that the Proposed Action could be conditioned so as not to impair the utility of the nest site for current, or subsequent, nest activities or occupation. The stipulation may also be modified if the proponent, the BLM, and, where necessary, other affected interests, negotiate compensation that satisfactorily offsets anticipated impacts to raptor breeding activities and/or habitats. Modifications could also occur if sufficient information is provided that supports the contention that the action will not contribute to the suppression of breeding population densities, or to the population's production or recruitment regime from a regional perspective. A modification may be granted if the nest has remained unoccupied for a minimum of 5 years, or conditions have changed such that there is no reasonable likelihood of site occupation over a minimum 10-year period. WAIVER -- The Field Manager may grant a waiver if conditions have changed such that there is no reasonable likelihood of site occupation within the lease area.
Special Status Species – Plants and Wildlife		
NSO	CO-NSO-7 Threatened, Endangered, Proposed, and Candidate Plants	STIPULATION -- Prohibit surface occupancy or use within a 656-foot (200-meter) buffer from the edge of occupied habitat for the following Special Status plant species: federally Listed Species, Proposed Species and Candidate Species. In addition, prohibit surface occupancy within areas designated as critical habitat. PURPOSE -- To protect federally Listed, Proposed, and Candidate plant species, and designated critical habitat, from direct and indirect impacts, including loss of habitat. The protection buffer reduces the risk of impacts on Special Status plant populations resulting from dust transport, weed invasion, chemical and produced-water spills; and those effects on Special Status plant populations. It also reduces impacts to important pollinators and their habitat. EXCEPTION -- An exception may be granted by the Authorized Officer if it can be demonstrated that the activity will not cause adverse impacts, or have negligible impacts. In addition, surface occupancy may be authorized following ESA Section 7 Consultation with the U.S. Fish and Wildlife Service (USFWS) (for species listed under the ESA). If an exception is granted, special design, construction, and implementation measures, including relocation of operations by more than (656 feet) (200 meters),

Type	Stipulation Number/ Protected Resource	Stipulation Description
		may be required. MODIFICATION -- The Authorized Officer may modify (increase, decrease, or relocate) the area subject to the stipulation if it is determined that the species has relocated; the occupied habitat has increased or decreased; or that the nature or conduct of the activity, as proposed or conditioned, will not impair values associated with the maintenance or recovery of the species. WAIVER -- A waiver may be granted by the Authorized Officer if the species is delisted, becomes extinct, or if the site has been unoccupied by the species for a minimum period of 15 years.
NSO	CO-NSO-8 Bat Maternity Roosts and Hibernacula	STIPULATION -- No surface occupancy within one-quarter mile radius of known maternity roosts or hibernacula of BLM Sensitive bat species. PURPOSE -- To protect known sensitive bat species' maternity roosts and hibernacula. EXCEPTION -- An exception can be granted if an environmental analysis of the Proposed Action indicates that nature or conduct of the activity could be conditioned so as not to impair the utility of these features for current, or subsequent, reproductive or over-winter activity or occupancy. MODIFICATION -- The Field Manager may modify the stipulation buffer distances if an environmental analysis indicates that a portion of the area is non-essential to maintaining habitat use, or that the Proposed Action could be conditioned so as not to impair the utility of these features for current, or subsequent, reproductive or over-winter activities or occupation. Modifications could also occur if sufficient information is provided that supports the contention that the action will not contribute to the suppression of breeding population densities, or to the population's production or recruitment regime from a regional perspective. WAIVER -- A waiver may be granted if the feature is no longer capable of supporting reproductive and over-winter activities.

Type	Stipulation Number/ Protected Resource	Stipulation Description
NSO	CO-NSO-9 Sage-grouse Lek Habitat	STIPULATION -- No surface occupancy or use is allowed on the lands described below: • Greater Sage-grouse: within 0.6 mile radius of leks • Gunnison Sage-grouse: within 0.6 mile radius leks PURPOSE -- To maintain the integrity of habitat surrounding leks that are used during the breeding period. EXCEPTION -- An exception may be granted by the Field Manager if an environmental analysis determines that the action, as proposed or conditioned, will not impair the function or utility of the site for current, or subsequent, reproductive display, including daytime loafing/staging activities. MODIFICATION -- The no surface occupancy or use area may be modified in extent, or substituted with a TL, by the Field Manager if an environmental analysis finds that: 1) a portion of the area is non-essential to site utility or function, 2) the Proposed Action could be conditioned so as not to impair the function or utility of the site for current, or subsequent, reproductive display, including daytime loafing/staging activities, or 3) it is determined that the site has been unoccupied for a minimum of 10 years, unless the area has been identified for habitat restoration and population recovery. The stipulation may also be modified if the proponent, the BLM, the CPW, and, where necessary, other affected interest, negotiate compensation that satisfactorily offsets anticipated impacts to sage-grouse breeding activities and/or habitats. WAIVER -- The Field Manager may grant a waiver if, in cooperation with the CPW, it is determined that the lease area is no longer capable of supporting suitable lekking activity.
NSO	CO-NSO-10 Columbian Sharp-tailed and Plains Sharp-tailed Grouse	STIPULATION -- No surface occupancy or use is allowed on the lands described below: • Plains Sharp-tailed Grouse: within 0.4 mile radius of leks • Columbian Sharp-tailed Grouse: within 0.4 mile radius of leks PURPOSE -- To maintain the integrity of habitat surrounding leks that are used during the breeding period. EXCEPTION -- An exception may be granted by the Field Manager if an

Type	Stipulation Number/ Protected Resource	Stipulation Description
		environmental analysis determines that the action, as proposed or conditioned, will not impair the function or utility of the site for current, or subsequent, reproductive display, including daytime loafing/staging activities. MODIFICATION -- The no surface occupancy or use area may be modified in extent, or substituted with a TL, by the Field Manager if an environmental analysis finds that: 1) a portion of the area is non-essential to site utility or function, 2) that the Proposed Action could be conditioned so as not to impair the function or utility of the site for current, or subsequent, reproductive display, including daytime loafing/staging activities; or 3) it is determined that the site has been unoccupied for a minimum of 10 years, unless the area has been identified for habitat restoration and population recovery. The stipulation may also be modified if the proponent, the BLM, the CPW, and, where necessary, other affected interest, negotiate compensation that satisfactorily offsets anticipated impacts to grouse breeding activities and/or habitats. WAIVER -- The Field Manager may grant a waiver if, in coordination with the CPW, it is determined that the lease area is no longer capable of supporting suitable lekking activity.
NSO	CO-NSO-11 Raptors – Bald Eagle and Golden Eagle Nest Sites	STIPULATION -- No surface occupancy or use is allowed on the lands described below: • Bald Eagle: within 0.25 mile radius of active and inactive nest sites or within 100 meters of abandoned nests (unoccupied for 5 consecutive years, but with all or part of the nest remaining) • Golden Eagle: within 0.25 mile radius of active and inactive nest sites. PURPOSE -- To maintain integrity of nest sites and surrounding habitat. EXCEPTION -- An exception can be granted if an environmental analysis of the Proposed Action indicates that the nature or conduct of the activity could be conditioned so as not to impair the utility of the nest for current, or subsequent, nesting activity or occupancy. MODIFICATION -- The Field Manager may modify the stipulation buffer distances, or substitute with a TL, if an environmental analysis indicates that a portion of the area is non-essential to nest utility or function, or that

Type	Stipulation Number/ Protected Resource	Stipulation Description
		the Proposed Action could be conditioned so as not to impair the utility of the nest site for current, or subsequent, nest activities or occupation. The stipulation may also be modified if the proponent, the BLM, the USFWS, and, where necessary, other affected interests, negotiate compensation that satisfactorily offsets anticipated impacts to raptor breeding activities and/or habitats. Modifications could also occur if sufficient information is provided that supports the contention that the action will not contribute to the suppression of breeding population densities, or to the population's production or recruitment regime from a regional perspective. A modification may be granted if the nest has remained unoccupied for a minimum of 5 years, or conditions have changed such that there is no reasonable likelihood of site occupation over a minimum 10-year period. WAIVER -- The Field Manager may grant a waiver if conditions have changed such that there is no reasonable likelihood of site occupation within the lease area.
NSO	CO-NSO-12 Bald Eagle Winter Roost Sites	STIPULATION -- No surface occupancy or use is allowed on the lands described below: • Bald Eagle Roosts: This area encompasses bald eagle winter roosts. Surface occupancy or use is not allowed within 0.25 mile of designated features. PURPOSE: To maintain the integrity of active winter roost sites and surrounding habitat. EXCEPTION -- The Field Manager may also grant an exception if an environmental analysis indicates that the nature or conduct of the action, as proposed or conditioned, will not impair the function or utility of the site for current, or subsequent, roosting activities or occupancy MODIFICATION -- The no surface occupancy or use stipulation may be modified by the Field Manager if an environmental analysis indicates that a portion of the area is non-essential to roost site function or utility, or that the Proposed Action could be conditioned to not impair the function or utility of the site for current, or subsequent, roosting activities or occupancy. The modification may be modified if the site has failed to support roosting activities over a minimum 5-year period. A waiver may also apply if the area has changed such that there is no reasonable

Type	Stipulation Number/ Protected Resource	Stipulation Description
		likelihood of site occupation for a subsequent minimum period of 10 years. WAIVER -- The Field Manager may grant a waiver if the area has changed such that there is no reasonable likelihood of site occupation within the lease area.
NSO	CO-NSO-13 Raptors-Ferruginous Hawk, Peregrine Falcon, Prairie Falcon, and Northern Goshawk	STIPULATION -- No surface occupancy or use is allowed on the lands described below: • Ferruginous Hawk, Peregrine Falcon, Prairie Falcon, and Northern Goshawk: within 0.5 mile of active and inactive nest sites PURPOSE -- To maintain the integrity of nest sites and surrounding habitat. EXCEPTION: An exception can be granted, or substituted with a TL, if an environmental analysis of the Proposed Action indicates that nature or conduct of the activity could be conditioned so as not to impair the utility of nest for current, or subsequent, nesting activity or occupancy. An exception may be granted by the Field Manager, consistent with policies derived from Federal administration of the MBTA. MODIFICATION -- The Field Manager may modify the stipulation buffer distances, or substitute with a TL, if an environmental analysis indicates that a portion of the area is non-essential to nest utility or function, or that the proposed action could be conditioned so as not to impair the utility of the nest site for current, or subsequent, nest activities or occupation. The stipulation may also be modified if the proponent, the BLM, and, where necessary, other affected interests, negotiate compensation that satisfactorily offsets anticipated impacts to raptor breeding activities and/or habitats. Modifications could also occur if sufficient information is provided that supports the contention that the action will not contribute to the suppression of breeding population densities, or to the population's production or recruitment regime from a regional perspective. A modification may be granted if the nest has remained unoccupied for a minimum of 5 years, or conditions have changed such that there is no reasonable likelihood of site occupation over a minimum 10-year period. WAIVER -- The Field Manager may grant a waiver if conditions have

Type	Stipulation Number/ Protected Resource	Stipulation Description
		changed such that there is no reasonable likelihood of site occupation within the lease area.
NSO	CO-NSO-14 Raptor-Mexican Spotted Owl Protected Activity Centers (PAC)	STIPULATION -- No surface occupancy or use is allowed on the lands identified as PACs for Mexican Spotted Owls. PURPOSE -- To maintain the integrity of the breeding and brood rearing complex. EXCEPTION -- An exception may 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 PAC for current, or subsequent, reproductive activity or occupancy. MODIFICATION -- The Field Manager may modify the PAC configuration or extent based upon new information. Modification of the PAC will be completed in coordination with the USWS. Modifications could also occur if sufficient information is provided that supports the contention that the action will not contribute to the suppression of breeding population densities, or to the population's production or recruitment regime from a regional perspective. WAIVER -- The Field Manager may grant a waiver if the PAC conditions have changed such that there is no reasonable long-term likelihood of PAC occupation.
NSO	CO-NSO-15 Least Tern , Snowy Plover and Piping Plover Nesting Habitat	STIPULATION -- No surface occupancy or use is allowed on the lands described below: • Production areas as mapped by the BLM or by the CPW PURPOSE -- To protect the integrity of nesting habitat. EXCEPTION -- 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

Type	Stipulation Number/ Protected Resource	Stipulation Description
		the utility of habitat for current, or subsequent, nesting activity or occupancy. MODIFICATION --The Field Manager, in consultation with the USFWS, may modify the stipulation area if an environmental analysis indicates that a portion of the area is non-essential to nest utility or function, or that the Proposed Action could be conditioned so as not to impair the utility of the nest habitat for current, or subsequent, nest activities or occupation. WAIVER -- A waiver may be granted if habitat conditions are permanently incapable of supporting production activities.
Cultural Resources		
NSO	CO-NSO-16 Cultural Resources	STIPULATION -- The lessee is prohibited from surface occupancy and surface-disturbing activities within a 100-meter-wide protection boundary around known historic properties, traditional cultural properties, listed National Register sites/districts, outstanding cultural resources to be nominated to the National Register of Historic Places (NRHP), interpreted and/or public use sites, and experimental-use sites (BLM Manual 8110.42(A-E). PURPOSE -- To protect cultural resource sites that may be damaged from inadvertent, unauthorized, or authorized uses. The following characteristics are to be protected: 1) significant scientific information; 2) areas that contain dense concentrations of significant sites; 3) integrity of physical setting; 4) integrity of visual setting associated with a place and/or cultural landscape; and 5) recreational opportunity for public use sites. Typically, mitigation using data recovery is not an option for traditional cultural properties, sites set aside for long-term conservation, and interpreted and/or public use sites EXCEPTION -- The Authorizing Officer may: 1) allow archaeological documentation, controlled surface collection, and/or excavation that, where not prohibited, may result in the sites physical alteration or destruction; and 2) change the site protection boundary on a case-by-case basis, taking into account topographical barriers, the nature of the Proposed Action, and the nature of the cultural resource site and/or area.

Type	Stipulation Number/ Protected Resource	Stipulation Description
		MODIFICATION -- None. WAIVER -- The complete destruction of the geographical area containing the site. When circumstances change or new data become available, the Authorized Officer shall re-evaluate and revise the cultural resource site use allocation to discharged from management. Specific cultural resource sites must be inspected in the field and recorded before they may be discharged from management. Cultural resources discharged from management are removed from further management attention and do not constrain other land uses [BLM Manual 8110.42(F)]. These locations no longer possess integrity of location, design, setting, materials, workmanship, feeling, and association that qualify them for nomination to the NRHP [36 CFR 60.4(a)(d).]
Paleontology		
NSO	CO-NSO-17 Paleontological (Fossil) Resources	STIPULATION -- The lessee is prohibited from surface occupancy and surface-disturbing activities within 100 meters around all known scientifically important paleontological resources. PURPOSE -- To protect scientific information that may be damaged from inadvertent or authorized uses. EXCEPTION -- The Authorizing Officer may: 1) allow for paleontological excavation; and 2) change the protection boundary on a case-by-case basis, taking into account topographical barriers, the design of the Proposed Action, and the characteristics of the paleontological resource. MODIFICATION -- None. WAIVER -- Destruction of all the physical characteristics of a paleontological resource.
Visual Resources		

Type	Stipulation Number/ Protected Resource	Stipulation Description
NSO	CO-NSO-18 Visual Resources	STIPULATION -- Surface occupancy is not allowed in all VRM Objective Class I areas. PURPOSE -- To maintain scenic quality in accordance with documented public sensitivity to visual aesthetics and visibility. EXCEPTION -- If VRM objective class is downgraded to II-IV; other applicable stipulations may still apply. MODIFICATION -- None. WAIVER -- None.
Recreation and Visitor Services		
NSO	CO-NSO-19 High Value Recreation and Wildlife Habitat Resources	STIPULATION -- Prohibit surface occupancy or use on selected State Wildlife Areas (SWAs), as determined by BLM in cooperation with the CPW. PURPOSE -- To protect high value wildlife habitat and recreation values associated with designated SWAs. EXCEPTION -- An exception may be granted, or substituted with a TL, by the Field Manager, in coordination with the CPW, if an environmental analysis determines that the action, as proposed or conditioned, will not impair the values of the SWA. MODIFICATION -- A modification may be granted by the Field Manager, in coordination with the CPW, if an environmental analysis finds that a portion of the area is non-essential to site utility or function, or that the Proposed Action could be conditioned so as not to impair the current, or future, values of the site. The stipulation may also be modified if the proponent, the CPW, and, where necessary, other affected interests, negotiate compensation that satisfactorily offsets anticipated impacts to the SWA. WAIVER -- This stipulation may be waived if the CPW disposes of the site.

Type	Stipulation Number/ Protected Resource	Stipulation Description
NSO	CO-NSO-20 Recreation and Visitor Resources	STIPULATION -- Prohibit surface occupancy or use within the boundaries of municipal, County, State, and National Parks. PURPOSE -- To protect recreation-tourism investments and their social and economic significance to nearby communities, and to Colorado's Statewide economy. EXCEPTION -- None. MODIFICATION -- At the discretion of the Authorized Officer, boundaries of the stipulated areas may be modified for specific areas, projects, etc., wherever it can be positively determined that such modification will have no significant adverse effect to benefiting communities and economies. WAIVER -- None.
NSO	CO-NSO-21 Recreation and Visitor Resources	STIPULATION -- Prohibit surface occupancy or use within the boundaries of all SWAs and Federal Wildlife Refuges. PURPOSE -- To protect these areas' recreation-tourism attractions and their social and economic significance to nearby communities, and to Colorado's Statewide economy. EXCEPTION -- None. MODIFICATION -- At the discretion of the Authorized Officer, boundaries of the stipulated areas may be modified for specific areas, projects, etc., wherever it can be positively determined that such modification will have no significant adverse effect to benefiting communities and economies. WAIVER -- None.
NSO	CO-NSO-23 Recreation and Visitor Resources	STIPULATION -- Prohibit surface occupancy or use within the boundaries of BLM developed recreation sites. PURPOSE -- To protect capital facility investments, protect recreational opportunities, maintain desirable recreation setting characteristics, and maintain the social and economic productivity of BLM recreation sites. EXCEPTION -- None.

Type	Stipulation Number/ Protected Resource	Stipulation Description
		MODIFICATION -- At the discretion of the Authorized Officer, this stipulation may be revoked for recreation sites that are dismantled. WAIVER -- None.
Cave and Karst		
NSO	CO-NSO-24 Karst (Cave) Resources	STIPULATION -- Prohibit surface occupancy or use above recreationally significant karst (cave) resources and their associated surface and subterranean hydrologic features. PURPOSE -- To protect sensitive karst recreation-tourism attractions and associated recreation opportunities, and to maintain their social and economic productivity. EXCEPTION -- None. MODIFICATION -- At the discretion of the Authorized Officer, this stipulation may be modified for specific areas, projects, etc., if it can be determined that surface occupancy will not adversely impact karst geology and associated hydrologic features; and will not impair recreational opportunities and outcomes nor associated social and economic benefits to local communities. WAIVER -- None.
ACECs		
NSO	CO-NSO-25 ACECs, RNAs, and ONAs	STIPULATION -- Prohibit surface occupancy or use within ACECs, RNAs, and ONAs. PURPOSE -- To protect and prevent irreparable damage to important historic, cultural, or scenic values; fish and wildlife resources; or to other natural systems or processes; or to protect human life and safety from natural hazards. EXCEPTION -- Exceptions to this restriction may be authorized in writing by the Authorized Officer. Proposed Actions may be allowed if environmental analysis reveals that the action will not adversely affect the

Type	Stipulation Number/ Protected Resource	Stipulation Description
		values for which the ACEC was designated. If an exception is granted, special design, construction, and implementation measures, including relocation of operations by more than 656 feet (200 meters), and a TL of greater than 60 days, may be required. MODIFICATION -- Site-specific modifications to the NSO area may be granted by the Authorized Officer, pending determination that the relevant and important values for which the ACEC was designated will not be adversely impacted. WAIVER -- A waiver may be granted by the Authorized Officer if the area is no longer designated as an ACEC, RNA, or ONA.

Table B- 3 Controlled Surface Use Stipulations Applicable to Oil and Gas Leasing

Type	Stipulation Number/ Protected Resource	Stipulation Description
Soils		
CSU	CO-CSU-1 Soils	STIPULATION -- Apply CSU restrictions to surface-disturbing activities within mapped Mancos shale and saline soils. For slopes between 25 percent and 40 percent, site conditions may warrant an engineering/reclamation plan in order to mitigate potential impacts to slope stability or soil productivity. (Examples of site conditions include poor vegetative cover, evidence of ravel, and/or extended slope lengths that directly reach a water body.) The Plan must be approved by the Authorized Officer, and must demonstrate how site productivity will be restored; surface runoff will be adequately controlled; off-site areas will be protected from accelerated erosion (such as drilling, gullying, piping, and mass wasting); surface-disturbing activities will not be conducted during extended wet periods; and construction will not be allowed when soils are frozen. Operations shall cease when 3-inches of saturated soils or rutting exists. PURPOSE -- To improve reclamation potential; maintain soil stability and

Type	Stipulation Number/ Protected Resource	Stipulation Description
		productivity of sensitive areas; and minimize contributions of salinity, selenium, and sediments likely to affect downstream water quality, fisheries, and other downstream aquatic habitats. EXCEPTION -- Standard exceptions apply. MODIFICATION -- Standard modifications apply. WAIVER -- Standard waivers apply.
Water		
CSU	CO-CSU-2 Municipal Watersheds and Public Water Supplies	STIPULATION -- Surface occupancy or use is subject to the following special operating constraints: Oil and Gas operations located greater than 1,000 horizontal feet but less than 2,640 horizontal feet of a classified surface water supply stream segment (as measured from the average high water mark of a water body) for a distance of five (5) miles upstream of a public water supply intake with the classification" Water Supply" by the State of Colorado will require the following protective measures. The buffer may be extended beyond 2,640 horizontal feet if site specific conditions warrant it. • Pitless drilling systems • Flowback and stimulation fluids contained within tanks that are placed on a well pad or in an area with down-gradient berming. • Follow COGCC rules for fracking operations and disclosure. • Berms or other containment devices shall be constructed in compliance with rule 603e (12) around crude oil, condensate and produced water storage tanks. • Notification of potentially impacted Public Water Systems 15 miles downstream. • The use of evaporation ponds for means of disposing of produced water shall not be permitted on BLM administered lands or split estate within the municipal watershed. Collection of baseline water quality data (surface and/or groundwater) consisting of a pre drilling sample collected within a 100 feet of well pad, or where sufficient water exists to collect a sample per EPA or USGS collection methods. Additional sampling must be conducted during drilling operations and immediately following well completion. Each sample should analyze at a minimum: pH, alkalinity, specific conductance, major

Type	Stipulation Number/ Protected Resource	Stipulation Description
		cations, major anions, total dissolved solids, BTEX/GRO/DRO, TPH, PAH's (including benzene (a) pyrene; and metals (arsenic, barium, calcium, iron, magnesium, manganese, lead, and selenium. For municipal watersheds, a coordinated water resources monitoring plan must be developed with the Bureau of Land Management and municipality. Each office will determine the sampling site, intensity, and need for groundwater sampling, depending on site specific geology and risk. Results must be submitted to BLM within 3 months of data collection per Section 317b of the Colorado Oil and Gas Conservation Commission regulations. PURPOSE -- To protect public water supplies, water quality, aquatic habitat and human health, and for protecting a watershed that serves a "public water system". 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 at least fifteen service connections or regularly serves an average of at least twenty-five individuals daily at least 60 days out of the year. EXCEPTION -- BLM may consider use of new technology or engineered plans designed to protect water supply streams and intakes from operations located closer than specified in the stipulation. Consideration of special technology or designs will be coordinated with appropriate water authorities and owners. MODIFICATIONS or WAIVERS: -- This stipulation may be modified or waived or reduced in scope if circumstances change, or if the lessee can demonstrate that operations can be conducted without causing unacceptable impacts on the concern(s) identified and/or applicable best management practices and operating procedures will result in substantially equivalent protection.

<table>
<tr><th>Type</th><th>Stipulation Number/ Protected Resource</th><th>Stipulation Description</th></tr>
<tr><td>CSU</td><td>CO-CSU-3

Perennial Streams, Water Bodies, Fisheries, and Riparian Areas</td><td>STIPULATION -- From 325 horizontal feet to 500 horizontal feet from the perennial water body, CSU restrictions will apply. Surface-disturbing activities may require special engineering design, construction, and implementation measures, including re-location of operations beyond 656 feet (200 meters), in order to protect water resources within the 325-foot NSO buffer. For perennial streams, the buffer will be measured from the ordinary high-water mark (bankfull stage). For wetland features, the buffer will be measured from the edge of the mapped extent (see Table 1). For unmapped wetlands, the vegetative boundary (from which the buffer originates) will be determined in the field.
<table>
<tr><th colspan="2">CSU Buffers for Perennial Waters</th></tr>
<tr><td>Water Body Type</td><td>Buffer Width in Feet</td></tr>
<tr><td>Fens and wetlands</td><td>325 feet to 500 feet</td></tr>
<tr><td>Perennial Streams (with or without fish)</td><td>325 feet to 500 feet (as measured from ordinary high water mark)</td></tr>
<tr><td>Lotic or lentic springs and seeps</td><td>325 feet (as measured from wetland/vegetation edge)</td></tr>
</table>
PURPOSE -- To maintain the PFC, including the vegetative, hydrologic, and geomorphic functionality of the perennial water body; to protect water quality, fish habitat, aquatic habitat; and to provide a clean, reliable source of water for downstream users. Buffers are expected to indirectly benefit migratory birds, wildlife habitat, amphibians, and other species.

EXCEPTION -- Standard exceptions apply.

MODIFICATION -- Standard modifications apply.

WAIVER -- Standard waivers apply.</td></tr>
<tr><td>CSU</td><td>CO-CSU-4

Intermittent and Ephemeral Streams</td><td>STIPULATION -- This CSU shall apply from the edge of NSO buffer to 100 horizontal feet. Minimize locating roads, stream crossings and facilities within this zone (because activities within this area can potentially affect streams). Adequate professional design and engineering of activities in this zone is necessary in order to prevent stormwater runoff and sedimentation. Measurement is from the top of the stream bank; however, if wetland vegetation exists, then the measurement is from the vegetation’s edge.

PURPOSE -- To minimize the risk of sedimentation, spills, and other</td></tr>
</table>

Type	Stipulation Number/ Protected Resource	Stipulation Description
		contaminants, reaching intermittent and/or ephemeral streams in order to protect water quality, stream function, and aquatic habitat. EXCEPTION -- Standard exceptions apply. MODIFICATION -- Standard modifications apply. WAIVER -- Standard waivers apply.
Special Status Species – Plants and Wildlife		
CSU	CO-CSU-5 BLM-Sensitive Plant Species	STIPULATION -- For plant species listed as Sensitive by the BLM, special design, construction, and implementation measures within a 328-foot (100-meter) buffer from the edge of occupied habitat may be required. In addition, relocation of operations by more than 656-feet (200 meters) may be required. PURPOSE -- To protect BLM Sensitive plant species from direct and indirect impacts, including loss of habitat. The protection buffer will reduce the risk of impacts resulting from dust transport, weed invasion, chemical and produced-water spills; and those effects on BLM Sensitive plant populations. It will also reduce impacts to important pollinators and their habitat. EXCEPTION -- Operations may be authorized if the Authorized Officer determines that the activity will not impair values associated with the maintenance or viability of the species. MODIFICATION -- The Authorized Officer may modify (increase, decrease, or relocate) the area subject to the stipulation if it is determined that the species has relocated; the occupied habitat has increased or decreased; or that the nature or conduct of the activity, as proposed or conditioned, will not impair values associated with the maintenance or viability of the species, and will minimize or eliminate threats affecting the status of the species. WAIVER -- A waiver may be granted by the Authorized Officer if the species is no longer designated as BLM Sensitive, or if the site has been unoccupied by the species for a minimum period of 15 years.

Type	Stipulation Number/ Protected Resource	Stipulation Description
CSU	CO-CSU-6 Significant Plant Communities and Relict Vegetation	STIPULATION -- For those plant communities that meet the BLM's criteria for significant plant communities, special design, construction, and implementation measures, including relocation of operations by more than 656 feet (200 meters), may be required. Habitat areas include occupied habitat and habitat necessary for the maintenance or viability of the species or communities. PURPOSE -- To conserve significant plant communities and relic communities (such as old growth forests and woodlands) that are not otherwise protected. EXCEPTION -- Standard exceptions apply. In addition, operations may be authorized if the Authorized Officer determines that the activity will not impair values associated with the maintenance or viability of the species or communities. MODIFICATION -- The Authorized Officer may modify (increase, decrease, or relocate) the area subject to the stipulation if it is determined that the plant community has shifted; the occupied habitat of the species or community has increased or decreased; or that the nature or conduct of the activity, as proposed or conditioned, will not impair values associated with the maintenance or viability of the species or community. WAIVER -- A waiver may be granted by the Authorized Officer if the species or community is no longer designated as significant or relict, or if the site has been unoccupied by the species or community for a subsequent minimum period of 15 years.
CSU	CO-CSU-7 BLM-Sensitive Amphibians	STIPULATION -- Apply CSU (site-specific relocation) restrictions within a 0.5-mile (800-meter) buffer around all known or identified breeding sites. PURPOSE -- To protect boreal toad, northern leopard frog, Great Basin spade-foot toad, northern cricket frog, plains leopard frog, and canyon tree frog breeding habitats and breeding activities; and to maintain the functionality of important breeding habitats and allow for breeding activities to occur uninterrupted. EXCEPTION -- Standard exceptions apply. MODIFICATION -- Standard modifications apply

Type	Stipulation Number/ Protected Resource	Stipulation Description
		WAIVER -- Standard waivers apply.
CSU	CO-CSU-8 Mapped Seasonal Habitats (non-lek breeding, late brood rearing, and winter habitat) or Suitable Sagebrush Habitat Within a 4-mile Radius of a Lek	STIPULATION -- Surface occupancy or use is subject to the following special operating constraints. The Field Manager may require the proponent/applicant to submit a Plan of Development that will demonstrate: • avoidance of direct or indirect loss of important Gunnison Sage-grouse (GUSG) habitat necessary for maintenance of the local population OR reduce to acceptable levels the direct or indirect loss of important Greater Sage-grouse (GRSG) habitat necessary for sustainable local populations; • special reclamation measures or design features are incorporated that will accelerate recovery and/or re-establishment of affected sage-grouse habitat; • the current/future utility of such habitat for sage-grouse use will not be impaired. Additional conservation measures may be imposed, as necessary, in order to maintain high quality sage-grouse habitat; reduce fragmentation or loss of habitat within, or between, population areas; reduce cumulative impacts within population areas; and reduce disturbance to sage-grouse use in the area. Conservation measures may be identified in State or local conservation plans, or through appropriate science or research for the species. PURPOSE -- To maintain the integrity of important occupied sage-grouse habitat in order to maintain sustainable local populations. EXCEPTION -- The Field Manager, in coordination with the CPW, may grant an exception to this stipulation if an environmental analysis indicates that the proposed or conditioned activities will not affect the long-term suitability or utility of habitat for sage-grouse. MODIFICATION -- Incorporated into CSU language. WAIVER -- The Field Manager, in coordination with the CPW, may grant a waiver to this stipulation if site conditions have changed sufficient to permanently preclude sage-grouse occupation of the lease area.

Type	Stipulation Number/ Protected Resource	Stipulation Description
CSU	CO-CSU-9 Black-tailed, White-tailed and Gunnison Prairie Dog Town Complexes	STIPULATION -- Development of lease parcels that include current or historically occupied prairie dog towns, as mapped by the CPW or by the BLM, will require 1 or more of the following conservation measures prior to, and during, lease development. • Development of a Surface Use Plan of operations with the BLM that integrates and coordinates long-term lease development with measures necessary in order to minimize adverse impacts to prairie dog populations or their habitat. • Abide by special daily and seasonal activity restrictions on construction, drilling, product transport, and service activities during reproductive period (from March 1 to June 15). • Incorporate special modifications to facility siting, design, construction, and operation in order to minimize involvement of prairie dog burrow systems. • Provide in-kind compensation for habitat loss and/or displacement (such as special on-site prairie dog habitat enhancement), when appropriate. PURPOSE -- To maintain the integrity and extent of prairie dog complexes. EXCEPTION -- The Field Manager may grant an exception to this stipulation if an environmental analysis indicates that the proposed or conditioned activities will not affect the long-term suitability or utility of habitat for prairie dogs. Surface disturbance and occupation may also be authorized in the event that established impacts to habitat values will be compensated or offset to the satisfaction of the BLM. MODIFICATION -- Incorporated into CSU language. WAIVER -- The Field Manager may grant a waiver to this stipulation if site conditions have changed sufficient to preclude prairie dog occupation of the stipulation area.

Type	Stipulation Number/ Protected Resource	Stipulation Description
CSU	CO-CSU-10 Established Lynx Linkage Corridors and Lynx Habitat within LAUs	STIPULATION -- Development of lease parcels within established Lynx Linkage Corridors and mapped LAUs will require appropriate application of the following conservation measures prior to, and during, lease development, as determined through Section 7 Consultation with the USFWS: • Restrict newly constructed road use to activities associated directly with development and construction activities. • Reduce the influence of snow compaction and removal activities as travel corridors for competitive predators. Use of over-the-snow vehicles will be prohibited for use in LAU lynx habitat (such as on site reconnaissance, resource surveys). • Surface use or disrupting activities will not be allowed in LAU denning habitat during the denning period, from March 15 to- July 15. • Development or production facilities sited will be in order to avoid primary lynx habitat. Oil and gas development activities on BLM-managed surface lands will not be allowed to contribute disproportionately to management thresholds applied to lynx habitat (no more than 30 percent of mapped habitat within a LAU in unsuitable condition, and less than 15 percent of habitat within an LAU converted to unsuitable condition within a 10-year period); also, maintenance of greater than 10 percent of habitat suitable for denning within an LAU). PURPOSE -- To maintain integrity and use of lynx habitat per Lynx Conservation Assessment Strategy (LCAS) guidelines. EXCEPTION -- The Field Manager, in consultation with the USFWS, may grant an exception to this stipulation if an environmental analysis indicates that the proposed or conditioned activities will not affect the long-term suitability or utility of established Lynx Linkage Corridors or lynx habitat within LAU(s). MODIFICATION -- The Field Manager, in consultation with the USFWS, may modify the size of the stipulation area or timeframes if an environmental analysis indicates that a portion of the area is non-essential to the function and utility of established Lynx Linkage Corridors and lynx habitat, or that the proposed action could be conditioned so as not to impair the utility of the corridors and LAU for current, or subsequent, lynx

Type	Stipulation Number/ Protected Resource	Stipulation Description
		use and occupancy. WAIVER -- The Field Manager, in consultation with the USFWS, may grant a waiver to this stipulation if site conditions have changed sufficient to preclude lynx occupation of the LAU or use of linkage corridors.
CSU	CO-CSU-11 Bald Eagle Habitat – Cottonwood Communities	STIPULATION -- Surface occupancy or use is subject to the following special operating constraints: The Field Manager may require the proponent/applicant to submit a Plan of Development that will demonstrate that: • involvement of cottonwood stands or cottonwood regeneration areas have been avoided to the extent practicable; • special reclamation measures or design features are incorporated that will accelerate recovery and/or re-establishment of affected cottonwood communities; • the pre-development potential of affected floodplains to develop or support riverine cottonwood communities has not been diminished; and • the current/future utility of such cottonwood substrate for bald eagle use will not be impaired. PURPOSE -- To maintain long-term availability of suitable bald eagle habitat. EXCEPTION -- The Field Manager may grant an exception to this stipulation if an environmental analysis indicates that the proposed or conditioned activities will 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 to habitat values will be compensated or offset to the satisfaction of the BLM. MODIFICATION -- Incorporated into CSU language. WAIVER -- The Field Manager may grant a waiver to this stipulation if cottonwood communities no longer exist in the lease area.

Type	Stipulation Number/ Protected Resource	Stipulation Description
CSU	CO-CSU-12 Mexican Spotted Owl Suitable Breeding Habitat	STIPULATION -- Surface occupancy or use is subject to the following special operating constraints: The Field Manager may require the proponent/applicant to submit a Plan of Development that will demonstrate that: 1) impacts to Mexican spotted owl habitat have been avoided to the extent practicable. Constituent elements for MSO breeding habitat include: • high basal area of large diameter trees; • moderate to high canopy closure; • wide range of tree sizes suggestive of uneven-age stands; • multi-layered canopy with large overstory trees of various species; • high snag basal area; • high volumes of fallen trees and other woody debris; • high plant species richness; and/or • adequate levels of residual plant cover to maintain fruits, seeds, and regeneration in order to provide for the needs of Mexican spotted owl prey species. For canyon habitat, the primary constituent elements include the following attributes: • cooler and often more humid conditions than the surrounding area; • clumps or stringers of trees and/or canyon wall containing crevices, ledges, or caves; • high percent of ground litter and woody debris; and/or • riparian or woody vegetation (although not at all sites). 2) special reclamation measures or design features are incorporated that will accelerate recovery and/or the re-establishment of affected Mexican spotted owl habitat; 3) the current/future utility of such habitat for Mexican spotted owl use will not be impaired. PURPOSE -- To maintain the availability of suitable breeding and brood rearing habitat, as defined in the MSO Recovery Plan, in order to promote recovery. EXCEPTION -- An exception can be granted if an environmental analysis

Type	Stipulation Number/ Protected Resource	Stipulation Description
		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 habitat for current, or subsequent, reproductive activity or occupancy. MODIFICATION -- Incorporated into CSU language. WAIVER -- The Field Manager may grant a waiver if conditions have changed such that there is no reasonable likelihood of site occupation within the lease area.
Cultural Resources		
CSU	CO-CSU-13 Cultural Resources	STIPULATION -- This lease may be found to contain historic properties and/or resources protected under the National Historic Preservation Act (NHPA), American Indian Religious Freedom Act (AIRFA), Native American Graves Protection and Repatriation Act (NAGPRA), Executive Order (EO) 13007; or laws, rules, regulations, policies, standards, and guidelines. The BLM will not approve any ground-disturbing activities that may affect any such properties or resources until it completes its obligations under applicable requirements of the NHPA and other authorities. The BLM may require modification to exploration or development proposals in order to protect such properties, or disapprove any activity that is likely to result in adverse effects that cannot be successfully avoided, minimized, or mitigated. PURPOSE -- To protect cultural resource sites that may be damaged from inadvertent, unauthorized, or authorized uses. The following characteristics are to be protected: 1) significant scientific information; 2) areas that contain dense concentrations of significant sites; 3) integrity of physical setting; 4) integrity of visual setting associated with a place and/or cultural landscape; and 5) recreational opportunity for public use sites. Typically, mitigation using data recovery is not an option for traditional cultural properties, sites set aside for long-term conservation, and interpreted and/or public use sites. EXCEPTION -- None. MODIFICATION -- None.

Type	Stipulation Number/ Protected Resource	Stipulation Description
		WAIVER -- None.
Paleontology		
CSU	CO-CSU-14 Paleontological (Fossil) Resources	STIPULATION -- The lessee is hereby notified that prior to any surface-disturbing activities an inventory of paleontological resources (fossils) in "Potential Fossil Yield Classification" (PFYC) Class 4 and Class 5 Areas shall be done. Mitigation of scientifically important paleontological resources may include avoidance, monitoring, collection, excavation, or sampling. Mitigation of discovered scientifically important paleontological resources might require the relocation of disturbance over 100 meters. This, and any subsequent, mitigation work shall be conducted by a BLM-permitted Paleontologist. The lessee shall bear all costs for inventory and mitigation (WO IM-2009-011). PURPOSE -- To protect scientific information that may be damaged from inadvertent or authorized uses. EXCEPTION -- None. MODIFICATION -- None. WAIVER -- None.
Visual Resources		
CSU	CO-CSU-15 VRM Objective Class Areas	STIPULATION -- Oil and gas development and operations, and post-operation rehabilitation, must comply with VRM contrast limits by ensuring that project design does not exceed the following contrast ratings by VRM Objective Classes in approved RMPs: • Class II: weak/low • Class III: moderate • Class IV: strong/high PURPOSE -- To maintain scenic quality in accordance with documented

Type	Stipulation Number/ Protected Resource	Stipulation Description
		public sensitivity to visual aesthetics and visibility. EXCEPTION -- If VRM objective classes are downgraded by the Authorized Officer, the new VRM objective class stipulations will apply instead. MODIFICATION -- None. WAIVER -- None.
CSU	CO-CSU-16 Backcountry and Scenic Byway Viewsheds	STIPULATION -- Surface occupancy is restricted within viewsheds of designated back country, Scenic and Historic Byways, at foreground and middleground distances (within 5 miles), unless topographically screened from view. PURPOSE -- To protect scenic integrity of Colorado's Scenic and Historic Byways and their social and economic significance to nearby communities, and to Colorado's Statewide economy. EXCEPTION -- An exception to this stipulation may be granted by the Authorized Officer wherever Byway designation is revoked by the Governor's Scenic and Historic Byway Commission. MODIFICATION -- At the discretion of the Authorized Officer, this stipulation may be modified for specific areas, projects, etc., by removing the restriction for middleground distances only during other than peak recreation-tourism seasons (dates) for each Byway, conditioned by a determination of no significant adverse effect to benefiting communities and economies. WAIVER -- None.
CSU	CO-CSU-17 State and US Highway Viewsheds	STIPULATION -- Restrict the siting of oil and gas development and operations from all locations and all VRM objective classes at locations where they will otherwise be sky-lined above the horizon, as viewed from all State and U.S. Highways. PURPOSE -- To protect Colorado's scenic horizons and their social and economic significance to nearby communities, and to Colorado's statewide economy. EXCEPTION -- For landscapes that are currently visually compromised,

Type	Stipulation Number/ Protected Resource	Stipulation Description
		there may be an exception at the discretion of the Authorized Officer. MODIFICATION -- At the discretion of the Authorized Officer, this stipulation may be modified for specific areas, projects, etc., by adjusting the CSU where viewsheds in which oil and gas development and operations occur are not a scenic focal point, are visible for only a short travel distance, and lie in a background distance zone. WAIVER -- None.
CSU	CO-CSU-18 Rehabilitation Within State and U.S. Highway and Interstate Viewsheds	STIPULATION -- Rehabilitate all post-exploration and development within the foreground distance zone viewshed of all State, U.S., and Interstate Highways in order to replicate the original landscape contour and vegetation. PURPOSE -- To protect the scenic quality of Colorado's major travel thoroughfares and their significant contributions to nearby communities, and to Colorado's Statewide economy. EXCEPTION -- None. MODIFICATION -- At the discretion of the Authorized Officer, this stipulation may be modified for specific areas, projects, etc., by adjusting the CSU where viewsheds in which oil and gas development and operations occur are not a scenic focal point, are visible for only a short travel distance, and lie in a background distance zone. WAIVER -- None.
CSU	CO-CSU-19 SRMAs	STIPULATION -- Surface occupancy or use is restricted within SRMAs where the Authorized Officer identifies and documents, through the environmental analysis and planning process, specific recreation-tourism visitors and/or community customer markets to be served, and specifies setting character and service delivery system conditions essential to the achievement of specifically targeted recreation benefits and associated recreational activities. PURPOSE -- To protect major BLM recreation investments within SRMAs; the distinctive character of settings and service delivery systems essential to production of specified recreation benefits and associated activity opportunities; and the individual, social, economic, and

Type	Stipulation Number/ Protected Resource	Stipulation Description
		environmental benefits thereby realized. EXCEPTION -- An exception to this stipulation may be granted by the Authorized Officer wherever SRMA designation is revoked in subsequent RMP Amendments. MODIFICATION -- At the discretion of the Authorized Officer, this stipulation may be modified for specific areas, projects, etc., if it can be determined that surface occupancy will not adversely impair the character of specified recreation settings and service delivery systems; their productive capacity for targeted benefits and associated activities; and individual, social, economic, and environmental benefits being realized, as targeted in Approved RMPs. WAIVER -- None.
CSU	CO-CSU-20 Key Observation Points	STIPULATION -- Restrict surface occupancy or use within foreground-middleground distance zones of KOPs within any National Park or State Park. PURPOSE -- To protect scenic integrity of Colorado's State and National Parks and their social and economic significance to nearby communities, and to Colorado's Statewide economy. EXCEPTION -- Unless topographically screened from view. MODIFICATION -- At the discretion of the Authorized Officer, this stipulation may be modified for specific areas, projects, etc., by removing the restriction for foreground-middleground distances only during other than peak recreation-tourism seasons (dates), on a Park-specific basis, for landscapes visible from KOPs whose visual quality is already compromised by other developments within this specific distance zone. This stipulation may be further modified for Parks that have already issued oil and gas leases within their boundaries. All modifications are conditioned further by a determination of no significant adverse effect to benefitting communities and economies. WAIVER -- None.

Type	Stipulation Number/ Protected Resource	Stipulation Description
CSU	CO-CSU-21 River Foreground and Middleground	STIPULATION -- Restrict surface occupancy or use within foreground and middleground distances of rivers that support commercially outfitted, rehabilitative sports, or other socially or economically significant recreational boating or angling. PURPOSE -- To protect scenic integrity of Colorado's rivers, their recreation and tourism productivity, and their social and economic significance to nearby communities, and to Colorado's statewide economy. EXCEPTION - Unless topographically screened from view. MODIFICATION -- At the discretion of the Authorized Officer, this stipulation may be modified for specific areas, projects, etc., by removing the CSU for middleground distances only during other than peak recreation-tourism seasons (dates) for each river, conditioned by a determination of no significant adverse effect to commercial and disabled sports operations. WAIVER -- None.
CSU	CO-CSU-22 BLM Public Lands Near Residential Developments	STIPULATION -- Exclude oil and gas development and operations within foreground and middleground distances of BLM-managed public lands adjoining significant residential developments, communities, and municipalities. PURPOSE -- To protect significant social and economic productivity of adjoining natural resource settings and their contribution to affected open space aesthetics (sight and sound) of adjoining public lands, property values, and associated investments. EXCEPTION -- Unless topographically screened from view. MODIFICATION -- At the discretion of the Authorized Officer, this stipulation may be modified for specific areas, projects, etc., by removing the CSU for landscapes whose visual quality is already compromised by other developments, and conditioned by a determination of no significant adverse effect to benefitting communities and economies, and the visiting guests they jointly share with the BLM. WAIVER -- None.
Wilderness Characteristics		

Type	Stipulation Number/ Protected Resource	Stipulation Description
CSU	CO-CSU-23 Lands With Wilderness Characteristics	STIPULATION -- Restrict surface occupancy or use wherever wilderness characteristics have been identified outside of identified of WSAs, as necessary, in order to maintain those wilderness characteristics. PURPOSE -- To maintain identified wilderness characteristics and their consequent recreational, social, economic, and environmental significance (locally, regionally, and nationally). EXCEPTION -- These restrictions may be modified if guidance pertaining to the identification and management of lands with wilderness characteristics is either changed or revoked. MODIFICATION -- Subject to U.S. Department of the Interior (DOI) and BLM guidelines, including the BLM Director's approval, the Authorized Officer may choose to allow impairment of wilderness characteristics. WAIVER -- None.
Recreation and Visitor Services		
CSU	CO-CSU-24 Developed Recreation Sites	STIPULATION -- Surface occupancy is restricted within one-half mile of the boundaries of BLM developed recreation sites, except where sights and sounds may be topographically screened. PURPOSE -- To protect capital facility investments, protect recreational opportunities, maintain desirable recreation setting characteristics, and maintain the social and economic productivity of BLM recreation sites. EXCEPTION -- None. MODIFICATION -- At the discretion of the Authorized Officer, this stipulation may be modified for specific areas, projects, etc., if it can be determined that surface occupancy will not adversely impair visitor experiences and associated individual benefits to recreation site visitors and related social, and economic benefits to local communities and the guests they jointly share with the BLM. WAIVER -- None.

Type	Stipulation Number/ Protected Resource	Stipulation Description
CSU	CO-CSU-25 Recreation Travel Routes and Corridors	STIPULATION -- Restrict surface occupancy or use to existing travel routes and corridors, and avoid upgrading them. PURPOSE -- To avoid creating new travel routes and corridors by restricting access to existing travel routes. EXCEPTION -- None. MODIFICATION -- At the discretion of the Authorized Officer, this stipulation may be modified by allowing, on a case-by-case basis: 1) access route improvements to existing routes for surface occupancy where existing routes provide insufficient access; and/or 2) new access route construction where upgrades to existing routes will prevent the achievement of recreation management objectives or setting character specifications outlined in Approved RMPs. WAIVER -- None.
CSU	CO-CSU-26 Recreation Access Zones	STIPULATION -- Surface occupancy or use is restricted from immediate day-use recreation-tourism access zones of BLM-managed public lands adjoining significant residential developments, communities, and associated municipalities. PURPOSE -- To maintain the desirable open space character of these extraordinarily high-value public lands, their productive recreational capacity for day-use of local communities, and the guests they share with the BLM; and the consequent flow of social and economic benefits to those communities. EXCEPTION -- None. MODIFICATION -- At the discretion of the Authorized Officer, this stipulation may be modified by removing the CSU for landscapes whose recreation setting characteristics are already compromised by other developments, and conditioned by a determination of no significant adverse effect to benefitting communities, economies, and the visiting guests they jointly share with the BLM. WAIVER -- None.
Coal		

Type	Stipulation Number/ Protected Resource	Stipulation Description
CSU	CO-CSU-27 Coal Resources	STIPULATION -- Apply CSU (site-specific relocation) restrictions to oil and gas operations within the area of federally leased coal. Relocate oil and gas operations outside the area to be mined or located in order to accommodate room-and-pillar mining operations. PURPOSE -- To protect coal resources. EXCEPTION -- Standard exceptions apply. No additional specific exception criteria apply. MODIFICATION -- Standard modifications apply. WAIVER -- Standard waivers apply. In addition, this stipulation may be waived without a RMP Amendment if the lessee agrees that the drilling of a well will be subject to the following conditions: 1)(a) well must be plugged when the mine is within 500 feet of the well and re-entered or re-drilled upon completion of the mining operation; (b) well must be plugged in accordance with Mine Safety and Health Administration (formerly Mine Enforcement and Safety Administration) Informational Report 1052; (c) Operator will provide accurate location of where the casing intercepts the coal by providing a directional and deviation survey of the well to the coal operator; or 2) Operator will relocate the well into a permanent pillar or outside the area to be mined. A suspension of operations and production will be considered when the well is plugged and a new well is to be drilled after mining operations move through the location.
Wild and Scenic Rivers		
CSU	CO-CSU-28 Wild and Scenic River Segments	STIPULATION -- Restrict surface occupancy or use within one-quarter mile of all rivers that are eligible or suitable for WSR designation. PURPOSE -- To preserve their outstandingly remarkable values (ORVs), free-flowing condition, water quality, and tentative classifications; and their consequent recreational, social, economic, and environmental significance (locally, regionally, and nationally). EXCEPTION -- An exception to this stipulation may be granted by the Authorized Officer for specific river segments if, and when, the Congress has relinquished protective measures that now apply. MODIFICATION -- None.

Type	Stipulation Number/ Protected Resource	Stipulation Description
		WAIVER -- None.

Table B- 4 Timing Limitation Stipulations Applicable to Oil and Gas Leasing

Type	Stipulation Number/ Protected Resource	Stipulation Description
Fish and Wildlife		
TL	CO-TL-1 Native Fish and Important Sport Fish	STIPULATION -- Prohibit in-channel work in all occupied cutthroat trout (Colorado River, greenback, and Rio Grande) streams during spring spawning periods of April 1 to August 1, and fall spawning periods from October 1 to November 30. PURPOSE -- To protect redds (egg masses) in the gravel and emerging fry of native fish populations (Colorado River, greenback, and Rio Grande cutthroat trout, flannelmouth and bluehead sucker, and roundtail chub), and important sport fish populations (rainbow, brown, and brook trout). EXCEPTION -- Standard exceptions apply. In addition, the dates may be modified by the U.S. Army Corps of Engineers (UASCE) via the 404 Permit compliance process. MODIFICATION -- Standard modifications apply. WAIVER -- Standard waivers apply.

Type	Stipulation Number/ Protected Resource	Stipulation Description
TL	CO-TL-2 Big Game Production Areas: Antelope, Rocky Mountain Bighorn Sheep, Mule deer, White-tailed deer, Elk, Moose	STIPULATION -- No surface use is allowed during the following time period(s) in mapped big game production areas. (This stipulation does not apply to operation and maintenance of production facilities.) • Antelope: April 15 to June 30 • Rocky Mountain Bighorn sheep: April 15 to June 30 • Mule deer/White-tailed deer: April 15 to June 30 • Elk: April 15 to June 30 • Moose: April 15 to June 30 PURPOSE -- To reduce behavioral disruption during parturition and early young rearing period. EXCEPTION -- The Field Manager may grant an exception if an environmental analysis indicates that the Proposed Action can be conditioned so as not to interfere with habitat function or compromise animal condition within the project vicinity. An exception may also be granted if the proponent, the BLM, and the CPW negotiate compensation that will satisfactorily offset anticipated impacts to big game production or habitat condition; or an agreement can be reached whereby a Colorado Oil and Gas Conservation Commission (COGCC) wildlife mitigation plan can be accommodated, consistent with established RMP objectives and decisions. An exception may also be granted for actions intended to enhance the long-term utility for availability of suitable habitat. MODIFICATION -- The Field Manager may modify the size and timeframes of this stipulation if the 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, the BLM, and the CPW agree to compensation that satisfactorily offset detrimental impacts to big game production or habitat condition; or an agreement can be reached where by a COGCC wildlife mitigation plan can be accommodated consistent with established RMP objectives and decisions. WAIVER -- The Field Manager may grant a waiver if the CPW determines that the area is no longer utilized by big game for production purposes.

Type	Stipulation Number/ Protected Resource	Stipulation Description
TL	CO-TL-3 Big Game Crucial Winter Range (Severe Winter Range and Winter Concentration Areas)	STIPULATION -- No surface use is allowed during the following time period(s) in mapped crucial winter habitat. (This stipulation does not apply to operation and maintenance of production facilities.) • Antelope: Dec. 1 to April 30 • Rocky Mountain/Desert Bighorn sheep: Nov. 1 to April 30 • Mule deer/White-tailed deer: Dec. 1 to April 30 • Elk: Dec. 1 to April 30 • Moose: Dec. 1 to April 30 PURPOSE -- To reduce behavioral disruption of big game during the winter season on crucial winter habitat, as mapped by the CPW. EXCEPTION -- The Field Manager may grant an exception if an environmental analysis indicates that the Proposed Action can be conditioned so as not to interfere with habitat function or compromise animal condition within the project vicinity. An exception may also be granted if the proponent, the BLM, and the CPW negotiate compensation that will satisfactorily offset anticipated impacts to big game production or habitat condition; or an agreement can be reached where by a COGCC wildlife mitigation plan can be accommodated consistent with established RMP objectives and decisions. An exception may also be granted for actions intended to enhance the long-term utility for availability of suitable habitat. MODIFICATION -- The Field Manager may modify the size and timeframes of this stipulation if the 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. Severity of the winter will be determined 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 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, the BLM, and the CPW agree to compensation that satisfactorily offset detrimental impacts to big game winter range or its use; or an agreement can be reached where by a COGCC wildlife mitigation plan can be accommodated consistent with established RMP objectives and decisions. WAIVER -- The Field Manager may grant a waiver if the CPW

Type	Stipulation Number/ Protected Resource	Stipulation Description
		determines that the area is no longer utilized by big game as crucial winter range.
TL	CO-TL-4 Shorebirds, Waterbirds and Waterfowl Nesting Habitat	STIPULATION -- No surface use is allowed during the following time period. (This stipulation does not apply to operation and maintenance of production facilities.) • March 1 to July 31, in areas designated for waterfowl, shorebird, and waterbird production by Field Offices. PURPOSE -- To prevent disruption of nesting activity. EXCEPTION -- An exception can be granted if an environmental analysis of the Proposed Action indicates that the nature or conduct of the activity could be conditioned so as not to impair the utility of habitat for current, or subsequent, nesting activity or occupancy. MODIFICATION -- The Field Manager may modify the stipulation dates, or stipulation area, if an environmental analysis indicates that a portion of the area is non-essential to nest utility or function, or that the Proposed Action could be conditioned so as not to impair the utility of the nest habitat for current, or subsequent, nest activities or occupation. The stipulation may also be modified if the proponent, the BLM, the CPW, and, where necessary, other affected interests, negotiate compensation that satisfactorily offsets anticipated impacts to breeding activities and/or habitats. WAIVER -- A waiver may be granted if habitat conditions are permanently incapable of supporting production activities.
TL	CO-TL-5 Raptor- Osprey, Red-tailed Hawk, Swainson's Hawk, Cooper's	STIPULATION -- No surface use is allowed during the following time period(s), or until fledgling and dispersal of young within a 0.25-mile radius of active nests. • Osprey: April 1 to Aug. 31 • Red-tailed Hawk: Feb. 15 to Aug. 15 • Swainson's Hawk: April 1 to Aug. 15

Type	Stipulation Number/ Protected Resource	Stipulation Description
	Hawk, Sharp-shinned Hawk, Northern Harrier, Burrowing Owl, Great horned Owl, and all Owls & Raptors with Exception of American Kestrel	• Cooper's Hawk: April 1 to Aug. 15 • Sharp-shinned Hawk: April 1 to Aug. 15 • Northern Harrier: April 1 to Aug. 15 • Burrowing Owls: March 15 to Aug. 15 • Great horned Owl: Feb. 1 to Aug. 15 • Other owls and raptors: March 1 to Aug. 15 PURPOSE -- To protect reproductive activity at nest sites. EXCEPTION -- An exception can be granted if an environmental analysis of the Proposed Action indicates that the nature or conduct of the activity could be conditioned so as not to impair the utility of nest for current, or subsequent, nesting activity or occupancy. The 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 Field Manager, consistent with policies derived from Federal administration of the MBTA. MODIFICATION -- The Field Manager may modify the stipulation dates or buffer distances if an environmental analysis indicates that a portion of the area is non-essential to nest utility or function, or that the Proposed Action could be conditioned so as not to impair the utility of the nest site for current, or subsequent, nest activities or occupation. The stipulation may also be modified if the proponent, the BLM, the CPW, and, where necessary, other affected interests, negotiate compensation that satisfactorily offsets anticipated impacts to raptor breeding activities and/or habitats. Modifications could also occur if sufficient information is provided that supports the contention that the action will not contribute to the suppression of breeding population densities, or to the population's production or recruitment regime from a regional perspective. A modification may be granted if the nest has remained unoccupied for a minimum of 5 years, or conditions have changed such that there is no reasonable likelihood of site occupation over a minimum 10-year period. WAIVER -- The Field Manager may grant a waiver if conditions have changed such that there is no reasonable likelihood of site occupation within the lease area.

Type	Stipulation Number/ Protected Resource	Stipulation Description
TL	CO-TL-6 Wild Turkey Winter Habitat	STIPULATION -- No surface use is allowed during the following time period(s): • Wild Turkey: December 1 to April 1, mapped turkey winter habitat PURPOSE -- To prevent disruption of Wild Turkey during the winter period. EXCEPTION -- The Field Manager may grant an exception if an environmental analysis, and coordination with the CPW, indicate that the Proposed Action could be conditioned so as not adversely affect winter distribution and survival. An exception could also be granted if the proponent, the BLM, and the CPW negotiate compensation that will satisfactorily offset the anticipated loss of winter habitat or overwintering activities. Actions designed to enhance the long-term utility or availability of suitable winter habitat may be excepted. MODIFICATION -- The Field Manager may modify the size of the TL area if an environmental analysis indicates that the Proposed Action could be conditioned so as not to adversely affect winter distribution or survival. WAIVER -- The Field Manager may grant a waiver if the CPW determines that the described lands are incapable of serving the long-term requirements of wild turkey winter habitat, and that these ranges no longer warrant consideration as components of wild turkey winter habitat.
Special Status Species - Wildlife		
TL	CO-TL-7 Sage Grouse Nesting Habitat	STIPULATION -- No surface use is allowed during the following time period(s). (This stipulation is intended to apply to construction, drilling, fracking and completion activities; however, it may also apply to operation, maintenance, and production activities that may disrupt reproductive activities of sage-grouse.) • Greater Sage-grouse: March 1 to July 15, suitable nesting habitat within a 4-mile radius of active leks or mapped nesting habitat • Gunnison Sage-grouse: March 1 to June 30, suitable nesting habitat within 4 mile radius of active leks or mapped nesting habitat PURPOSE -- To prevent disruption of reproductive activity during the

Type	Stipulation Number/ Protected Resource	Stipulation Description
		production period. EXCEPTION -- The Field Manager may grant an exception if an environmental analysis, and coordination with the DCOW, indicate that the Proposed Action could be conditioned so as not to affect breeding behavior, nest attendance, egg/chick survival, or nesting success. An exception could also be granted if the proponent, the BLM, and the CPW negotiate compensation that will satisfactorily offset the anticipated loss of nesting habitat or nesting activities. Actions designed to enhance the long-term utility or availability of suitable nest habitat may be excepted. MODIFICATION -- The Field Manager may modify the size or the dates of the TL area if an environmental analysis indicates that the Proposed Action could be conditioned so as not to affect nest attendance, egg/chick survival, or nesting success. Seasonal or daily timeframes may be modified (from March 1 to May 15) if operations could be conditioned to not disrupt lek attendance, breeding behavior, and bird distribution within a 0.6-mile radius of the lek during the breeding period. With the primary objective of allowing for 90 percent of initial nesting attempts to progress through hatch, timeframes may also be adjusted in nesting habitat, as supported by appropriate monitoring data. WAIVER -- The Field Manager may grant a waiver if the CPW determines that the described lands are incapable of serving the long-term requirements of sage-grouse nesting habitat, and that these ranges no longer warrant consideration as components of sage-grouse nesting habitat.
TL	CO-TL-8 Sage Grouse Winter Habitat	STIPULATION -- No surface use is allowed during the following time period(s) in mapped important Sage-grouse winter range, as defined by the BLM and by the CPW, during the planning process: • Greater Sage-grouse: Dec. 1 to March 15 • Gunnison Sage-grouse: Dec. 1 to March 15 PURPOSE -- To prevent disruption of sage-grouse during the winter period. EXCEPTION -- The Field Manager may grant an exception if an environmental analysis, and coordination with the CPW, indicate that the Proposed Action could be conditioned so as not adversely affect winter

Type	Stipulation Number/ Protected Resource	Stipulation Description
		distribution and survival. An exception could also be granted if the proponent, the BLM, and the CPW negotiate compensation that will satisfactorily offset the anticipated losses of winter habitat or overwintering activities. Actions designed to enhance the long-term utility or availability of suitable winter habitat may be accepted. MODIFICATION -- The Field Manager may modify the size of the TL area if an environmental analysis indicates that the Proposed Action could be conditioned so as not to adversely affect winter distribution or survival. WAIVER -- The Field Manager may grant a waiver if the CPW determines that the described lands are incapable of serving the long-term requirements of sage-grouse winter habitat, and that these ranges no longer warrant consideration as components of sage-grouse winter habitat.
TL	CO-TL-9 Plains and Columbian Sharp-tailed Grouse Nesting Habitat	STIPULATION -- No surface use is allowed during the following time period(s): • Plains Sharp-tailed grouse: March 1 to June 30, suitable nesting habitat within a 1.25-mile radius of active leks or mapped nesting habitat • Columbian Sharp-tailed grouse: March 15 to July 30, suitable nesting habitat within a 1.25- mile radius of active leks or mapped nesting habitat PURPOSE -- To prevent disruption of reproductive activity during the production period. EXCEPTION -- The Field Manager may grant an exception if an environmental analysis, and coordination with the CPW, indicate that the Proposed Action could be conditioned so as not to affect breeding behavior, nest attendance, egg/chick survival, or nesting success. An exception could also be granted if the proponent, the BLM, and the CPW negotiate compensation that will satisfactorily offset the anticipated loss of nesting habitat or nesting activities. Actions designed to enhance the long-term utility or availability of suitable nest habitat may be excepted. MODIFICATION -- The Field Manager may modify the size of the TL area if an environmental analysis indicates that the Proposed Action could be conditioned so as not to affect nest attendance, egg/chick survival, or nesting success. Seasonal or daily timeframes may be modified (March 1

Type	Stipulation Number/ Protected Resource	Stipulation Description
		to May 15) if operations could be conditioned to not disrupt lek attendance, breeding behavior (through nest initiation), and bird distribution within a 0.4-mile radius of the lek during the breeding period. With the primary objective of allowing for 90 percent of initial nesting attempts to progress through hatch, timeframes may also be adjusted in nesting habitat, as supported by appropriate monitoring data. WAIVER -- This stipulation may be waived if the CPW determines that the described lands are incapable of serving the long-term requirements of sage-grouse nesting habitat, and that these ranges no longer warrant consideration as components of Sharp-tailed grouse nesting habitat.
TL	CO-TL-10 Columbian Sharp-tailed Grouse Winter Habitat	STIPULATION -- No surface use is allowed during the following time period(s), in mapped important Columbian Sharp-tailed grouse winter range, as defined by the BLM and by the CPW during the planning process: • Columbian Sharp-tailed grouse: Dec. 1 to March 15 PURPOSE- - To prevent disruption of Columbian Sharp-tailed grouse during the winter period. EXCEPTION -- The Field Manager may grant an exception if an environmental analysis, and coordination with the CPW, indicate that the Proposed Action could be conditioned so as not adversely affect winter distribution and survival. An exception could also be granted if the proponent, the BLM, and the CPW negotiate compensation that will satisfactorily offset the anticipated loss of winter habitat or overwintering activities. Actions designed to enhance the long-term utility or availability of suitable winter habitat may be excepted. MODIFICATION -- The Field Manager may modify the size of the TL area if an environmental analysis indicates that the Proposed Action could be conditioned so as not to adversely affect winter distribution or survival. WAIVER -- The Field Manager may grant a waiver if the CPW determines that the described lands are incapable of serving the long-term requirements of Columbian sharp-tailed grouse winter habitat, and that these ranges no longer warrant consideration as components of Columbian sharp-tailed grouse winter habitat.

Type	Stipulation Number/ Protected Resource	Stipulation Description
TL	CO-TL-11 Bald Eagle and Golden Eagle Nest Sites	STIPULATION -- No surface use is allowed within the area described below during the following time period, or until fledgling and dispersal of young: • Bald Eagle: Nov. 15 to July 31, a 0.5-mile radius around active nests • Golden Eagle: Dec. 15 to July 15, a 0.5-mile radius around active nests PURPOSE -- To protect reproductive activity at nest sites. EXCEPTION -- An exception can be granted if an environmental analysis of the Proposed Action indicates that the nature or conduct of the activity could be conditioned so as not to impair the utility of nest for current, or subsequent, nesting activity or occupancy. The Field Manager may also grant an exception if the nest is unattended, or remains unoccupied, by May 15 of the project year. MODIFICATION -- The Field Manager may modify the stipulation dates or buffer distances if an environmental analysis indicates that a portion of the area is non-essential to nest utility or function; or that the Proposed Action could be conditioned so as not to impair the utility of the nest site for current, or subsequent, nest activities or occupation. The stipulation may also be modified if the proponent, the BLM, the USFWS, and, where necessary, other affected interests, negotiate compensation that satisfactorily offsets anticipated impacts to raptor breeding activities and/or habitats. Modifications could also occur if sufficient information is provided that supports the contention that the action will not contribute to the suppression of breeding population densities, or to the population's production or recruitment regime from a regional perspective. A modification may also be granted if the nest has remained unoccupied for a minimum of 5 years, or conditions have changed such that there is no reasonable likelihood of site occupation over a minimum 10-year period. WAIVER -- The Field Manager may grant a waiver if conditions have changed such that there is no reasonable likelihood of site occupation within the lease area.

Type	Stipulation Number/ Protected Resource	Stipulation Description
TL	CO-TL-12 Bald Eagle Winter Roost Sites	STIPULATION -- No surface use is allowed within the area described below during the following time period(s): • Nov 15 to March 15, within 0.5 miles of an active winter roost PURPOSE -- To prevent disruption of wintering bald eagles at communal roosts. EXCEPTION -- An exception can be granted if an environmental analysis of the Proposed Action indicates that the nature or conduct of the activity could be conditioned so as not to impair the utility of the roost site. MODIFICATION -- The Field Manager may modify the size of the stipulation area or TLs if an environmental analysis indicates that a portion of the area is non-essential to roost site function and utility; or that the Proposed Action could be conditioned so as not to impair the utility of the roost site for current, or subsequent, roosting activities or occupancy. A modification may be granted if the site has failed to support roosting activities over a minimum 5-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. WAIVER -- The Field Manager may grant a waiver if the site conditions have changed such that there is no reasonable likelihood of site occupation within the lease area.
TL	CO-TL-13 Ferruginous Hawk, Peregrine Falcon, Prairie Falcon, & Northern Goshawk Nest Sites	STIPULATION -- No surface use is allowed within the area described below during the following time period(s), or until fledgling and dispersal of young: • Ferruginous Hawk: Feb. 1 to Aug. 15, within 0.5 mile of active nest sites • Peregrine and Prairie Falcon: March 15 to July 31, within 0.5 mile of active nest sites • Northern Goshawk: March 1 to August 31, within 0.5 mile of active nest sites PURPOSE -- To protect reproductive activity at nest sites. EXCEPTION -- An exception can be granted if an environmental analysis of the Proposed Action indicates that the nature or conduct of the activity could be conditioned so as not to impair the utility of nest for current, or

Type	Stipulation Number/ Protected Resource	Stipulation Description
		subsequent, nesting activity or occupancy. The 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 Field Manager, consistent with policies derived from Federal administration of the MBTA. MODIFICATION -- The Field Manager may modify the stipulation dates or buffer distances if an environmental analysis indicates that a portion of the area is non-essential to nest utility or function; or that the Proposed Action could be conditioned so as not to impair the utility of the nest site for current, or subsequent, nest activities or occupation. The stipulation may also be modified if the proponent, the BLM, and, where necessary, other affected interests, negotiate compensation that satisfactorily offsets anticipated impacts to raptor breeding activities and/or habitats. Modifications could also occur if sufficient information is provided that supports the contention that the action will not contribute to the suppression of breeding population densities, or to the population's production or recruitment regime from a regional perspective. A modification may be granted if the nest has remained unoccupied for a minimum of 3 years, or conditions have changed such that there is no reasonable likelihood of site occupation over a minimum 10-year period. WAIVER -- The Field Manager may grant a waiver if conditions have changed such that there is no reasonable likelihood of site occupation within the lease area.
TL	CO-TL-14 Mexican Spotted Owl Suitable Breeding Habitat	STIPULATION -- No surface use is allowed during the following time period(s) in suitable Mexican Spotted Owl (MSO) breeding habitat: • March 1 to August 31 PURPOSE -- To maintain the utility of suitable breeding and brood rearing habitat, as defined in the MSO Recovery Plan, in order to promote recovery. EXCEPTION -- 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 suitable habitat for current, or subsequent, reproductive activity or occupancy.

Type	Stipulation Number/ Protected Resource	Stipulation Description
		MODIFICATION -- The Field Manager may modify the dates based upon new information, which will be completed in coordination with the USFWS. The Field Manager may modify this stipulation if the Proposed Action could be conditioned so as not to impair the utility of suitable habitat for current or subsequent, reproductive activities or occupation. Modifications could also occur if sufficient information is provided that supports the contention that the action will not contribute to the suppression of breeding population densities, or to the population's production or recruitment regime from a regional perspective. WAIVER -- The Field Manager may grant a waiver if suitable habitat conditions have changed such that there is no reasonable likelihood of occupation.
TL	CO-TL-15 Mountain Plover Nesting Habitat	STIPULATION -- No surface use is allowed during the following time period(s). (This stipulation does not apply to operation and maintenance of production facilities.) • Mountain Plover: April 10 to July 31, in suitable nesting habitat, as mapped by the BLM or by the CPW PURPOSE -- To prevent disruption of reproductive activity during the production period. EXCEPTION -- The Field Manager may grant an exception if an environmental analysis, and coordination with the CPW, indicate that the Proposed Action could be conditioned so as not to affect breeding behavior, nest attendance, egg/chick survival, or nesting success. An exception could also be granted if the proponent, the BLM, and the CPW negotiate compensation that will satisfactorily offset the anticipated losses of nesting habitat or nesting activities. MODIFICATION -- The Field Manager may modify the size or dates of the TL area if an environmental analysis indicates that the Proposed Action could be conditioned so as not to affect nest attendance, egg/chick survival, or nesting success. Seasonal or daily timeframes may be modified if operations could be conditioned so as to not disrupt breeding behavior and bird distribution within suitable breeding habitat. WAIVER -- The Field Manager may grant a waiver if the BLM or the CPW, in consultation with the USFWS, determines that the described

Type	Stipulation Number/ Protected Resource	Stipulation Description
		lands are incapable of serving the long-term requirements of mountain plover nesting habitat.
TL	CO-TL-16 Sandhill Crane Nesting, Roosting, Staging, and Migration Habitat	STIPULATION -- No surface occupancy is allowed during the following time period: • March 1 to Oct. 16, in areas designated by Field Offices for sandhill crane production or migration habitat use PURPOSE -- To prevent disruption of bird behavior during key seasonal habitat use periods. EXCEPTION -- An exception can be granted if an environmental analysis of the Proposed Action indicates that the nature or conduct of the activity could be conditioned so as not to impair the utility of habitat for current or subsequent production or migratory activity or occupancy. The dates may also be modified if local data demonstrates the mapped habitat is used during a shorter seasonal period (nesting habitat, May 1 to July 1). MODIFICATION -- The Field Manager may modify the stipulation dates or stipulation area if an environmental analysis indicates that a portion of the area is non-essential to nesting, migration utility or function, or that the Proposed Action could be conditioned so as not to impair the utility of the habitat for current or subsequent seasonal activities or occupation. WAIVER -- A waiver may be granted if habitat conditions are permanently incapable of supporting production or migration activities.

Table B- 5 Lease Notices Applicable to Oil and Gas Leasing

Type	Stipulation Number/ Protected Resource	Stipulation Description

Type	Stipulation Number/ Protected Resource	Stipulation Description
Wildlife		
LN	CO-LN-1 Migratory Bird Nesting Habitat	Avoid or minimize disruption of migratory bird nesting activity by siting or prioritizing vegetation clearing, facility construction, and concentrated operational activities (such as drilling, completion, utility installation) in order to avoid the involvement of higher value migratory bird habitats, especially during the core migratory bird nesting season (from May 15 to July 15).
LN	CO-LN-2 Endangered Species Act	The lease area may now, or hereafter, contain plants, animals, or their habitats determined to be federally Threatened, Endangered, or Proposed for listing. The BLM may recommend modifications to exploration and development proposals to further its conservation and management objective in order to avoid BLM-approved activity that will adversely affect listed species or their habitat. 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, or result in the destruction or adverse modification of a designated or proposed critical habitat. 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 (ESA) as amended (16 USC 1531 et seq.), including completion of any required procedure for conference or consultation.
LN	CO-LN-3 Special Status Species Plants and Wildlife	In areas of known or suspected habitat of Special Status Species (federally Listed, Proposed, Candidate, or BLM Sensitive), or significant plant communities, a biological inventory may be required prior to the approval of operations. The inventory will be used in environmental analysis (in accordance with the NEPA) and mitigating measures designed to reduce the impacts of surface disturbance on the affected species or their habitats may be required. Special design and construction measures designed to mitigate impacts, may include, but are not limited to, relocation of roads, well pads, pipelines, and other facilities; and fencing operations or habitat. The lessee/Operator may be required to submit to the BLM's Authorized Officer a plan for avoidance or mitigation of impacts on the identified species.

Type	Stipulation Number/ Protected Resource	Stipulation Description
LN	CO-LN-4 Important Sage-grouse Habitat	Greater or Gunnison Sage-grouse Habitat: The lease may in part, or in total, contain important Greater or Gunnison Sage-grouse habitats, as identified by the BLM, either currently or prospectively. The Operator may be required to implement specific measures through a COA in order to reduce impacts of oil and gas or geothermal operations on the Greater or Gunnison Sage-grouse populations and habitat quality. Sage-grouse habitat conservation measures may include timing restrictions, distances or percentages of allowable surface-disturbing activities, noise-suppression actions, and desired density levels or other development constraints consistent with State or Range-wide Sage-grouse Conservation Planning for Colorado (including subsequent updates), current peer reviewed sage-grouse research, or as developed in conjunction with the CPW, in order to meet local population objectives. Such measures shall be developed during the Application for Permit to Drill (APD) on-site and environmental review process, or during the environmental review process for Sundry Notices and associated rights-of-way (ROWs), will be consistent with lease rights granted.
Cultural Resources		
LN	CO-LN-5 Cultural Resources	The lessee is hereby notified that Class III Cultural Resource Inventory may be required prior to surface-disturbing activities. Mitigation measures may be required in order to reduce the impacts of surface disturbances on the affected cultural resources. These mitigating measures may include, but are not limited to, relocation of roads, well pads, and other facilities; evaluative testing; data recovery; and/or fencing. Mitigation measures may be required upon the discovery of any cultural resource. All cultural resource work must be performed by a BLM-permitted Archaeologist. The BLM may charge Federal licensees and permittees project costs of preservation activities conducted under the National Historic Preservation Act (NHPA) as a condition to the issuance of such license or permit [NHPA, as amended Section 110(g)].

Type	Stipulation Number/ Protected Resource	Stipulation Description
LN	CO-LN-6 Buried Cultural Resources	The lessee is hereby notified that deep, subsurface survey may be required for subsurface-disturbing operations in areas that have a high potential for deeply buried cultural resources. All cultural resource work must be performed by a BLM-permitted Archaeologist. The BLM may charge Federal licensees and permittees project costs of preservation activities conducted under the National Historic Preservation Act (NHPA) as a condition to the issuance of such license or permit [NHPA, as amended Section 110(g)]. The purpose of this stipulation is to protect significant scientific information in cultural resource sites that may be damaged from inadvertent, unauthorized, or authorized uses.
Paleontology		
LN	CO-LN-7 Paleontological (Fossil) Resources	The lessee is hereby notified that prior to any surface- disturbing activities, an inventory of paleontological resources (fossils) may be required. Mitigation measures may be required upon the discovery of any vertebrate fossil or other scientifically-important paleontological resource. Mitigation of scientifically important paleontological resources may include avoidance, monitoring, collection, excavation, or sampling. Mitigation of discovered scientifically important paleontological resources might require the relocation of the disturbance over 100 meters. This, and any subsequent mitigation work, shall be conducted by a BLM-permitted Paleontologist. The lessee shall bear all costs for inventory and mitigation (WO IM-2009-011).

Table B- 6 Kremmling Field Office Stipulations and Lease Notices Applicable to Oil and Gas Leasing

Type	Stipulation Number/ Protected Resource	Stipulation Description
NSO - Wildlife		

Type	Stipulation Number/ Protected Resource	Stipulation Description
NSO	K-NSO-1 Core Wildlife Areas	STIPULATION -- Prohibit surface occupancy or use on core wildlife areas. (Core wildlife areas are areas of high habitat value for multiple species, including sage-grouse, elk, and mule deer.) This stipulation applies to the following: PURPOSE -- To help reduce fragmentation of core wildlife areas. EXCEPTION -- Standard exceptions apply. In addition, habitat and range improvements may be allowed. MODIFICATION -- Standard modifications apply. WAIVER -- Standard waivers apply.
NSO - National Trails		
NSO	K-NSO-3 National Trail Corridors	STIPULATION -- Prohibit surface occupancy or use in National Trail alignments, and in viewshed corridors up to 5 miles in width, where trail resources and associated settings are present. PURPOSE -- To conserve, protect, and restore National Scenic and Historic Trail resources, qualities, and values within National Trail management corridors. The BLM shall promote preservation, public access, travel opportunities, enjoyment, and appreciation of National Scenic and Historic Trails for present and future generations as units of the National Landscape Conservation System (NLCS). Activities within National Trail management corridors will be conducted according to the National Trails System Act, national and State BLM policies and budget, and Comprehensive Management Plans and Statewide Trail Management Plans. EXCEPTION -- Standard exceptions apply. In addition, 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 and impacts to the setting associated with the Proposed Action. MODIFICATION -- Standard modifications apply. WAIVER -- Standard waivers apply.
NSO - Watchable Wildlife Areas		

Type	Stipulation Number/ Protected Resource	Stipulation Description
NSO	K-NSO-4 Watchable Wildlife Areas	STIPULATION - Prohibit surface occupancy or use on designated WWAs. PURPOSE -- To protect high value wildlife habitat and recreational values associated with designated WWAs. EXCEPTION -- An exception may be granted, or substituted with a TL, by the Field Manager if an environmental analysis determines that the action, as proposed or conditioned, will not impair the values of the WA. MODIFICATION -- A modification may be granted by the Field Manager if an environmental analysis finds that a portion of the area is non-essential to site utility or function; or that the Proposed Action could be conditioned so as not to impair the current, or future, values of the site. The stipulation may also be modified if the proponent, and, where necessary, other affected interests, negotiate compensation that satisfactorily offsets anticipated impacts to the WWAs. WAIVER -- This stipulation may be waived by the Authorized Officer if the area is no longer designated as a WWA.
CSU - Recreation and Visitor Services		
CSU	K-CSU-1 ERMAs and other lands outside of SRMAs	STIPULATION -- Surface occupancy is restricted at sites within specific ERMAs, and at sites on other lands outside of SRMAs, where assets have been developed in order to promote and enhance recreational activities and opportunities, and to protect the area resources. PURPOSE -- To protect BLM recreation investments (such as trails, roads, signs, kiosks, fencing, and facilities that provide for public health and safety) within specific ERMAs, and at sites outside of SRMAs. EXCEPTION -- An exception to this stipulation may be granted by the Authorized Officer if an ERMA designation is revoked in subsequent RMP Amendments or revisions, or where COAs or design features applied during permitting provide sufficient protection of recreation investments in ERMAs and in other lands outside of SRMAs. MODIFICATION -- None. WAIVER -- None.

Type	Stipulation Number/ Protected Resource	Stipulation Description
Lease Notice - Wildlife		
LN	K-LN-1 High Value Wildlife Habitat	The lease may in part, or in total, contain high-value wildlife habitat. These areas include, but are not limited to, habitat for Special Status Species, big game severe winter range, big game migration corridors, and priority moose habitat. The Operator may be required to implement specific measures through a COA in order to reduce impacts of oil and gas or geothermal operations on wildlife and wildlife habitat. Special design and construction measures designed to mitigate impacts, may include, but are not limited to, relocation of roads, well pads, pipelines, and other facilities; and fencing operations or habitat. The lessee/Operator may be required to submit a plan for avoidance or mitigation of impacts on the identified species to the Authorized Officer.

Appendix C: Conditions of Approval Applicable to Surface Disturbing Activities other than Oil and Gas Leasing

Table of Contents

Introduction 1

Table C- 1 COAs for Surface Disturbing Activities 2

Introduction

Table D-1 lists the Conditions of Approval (COAs) for projects involving surface-disturbing activities described throughout this Approved Resource Management Plan (RMP). These COAs may apply to surface-disturbing activities; uses and occupancy associated with land use authorizations; conditions or provisions under which an Application for Permit to Drill (APD) is approved; and permits and leases issued for public lands managed by the Bureau of Land Management (BLM) in the Kremmling Field Office (KFO).

The COAs would not apply to activities or uses where they are contrary to applicable laws, rules, regulations, standards, policies, or guidelines. The intent is to maintain consistency, to the extent possible, with the Goals, Desired Outcomes, and Management Actions described under the Approved RMP in relation to the application of COAs to all surface-disturbing activities, uses, and occupancy.

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 that accelerate natural erosion processes. Whether surface-disturbing activities are considered more than negligible may be determined based upon the extent, duration, or intensity of the activity; the existing condition of the area affected; and the compatibility, or incompatibility, of the activity with another resource value or use. In general, surface disturbances are more than negligible if the impact would last longer than 2 years, and/or would require re-vegetation rather than natural recovery in order to restore the area to pre-disturbance conditions within 1 or 2 growing seasons.

For the purposes of this RMP, surface (ground) disturbances that normally result in greater-than-negligible impacts lasting more than 2 years include, but are not limited to, the following:

- construction of permanent, or other long-term, facilities (such as telecommunication towers and pipelines);
- new road construction, including the upgrading of existing two-track roads;

- mechanical scraping, excavation, or digging; and/or
- oil and gas operations, and mining.

Additional activities that may result in greater-than-negligible impacts, depending upon the intensity and duration of the activity and pre-disturbance conditions, include, but are not limited to:

- use of mechanized earth-moving equipment that damages vegetation and disturbs the soil (such as tracked vehicles);
- cross-country motorized and mechanized travel in areas designated as Limited or Closed to OHV use; or cross-country motorized travel on less than 12 inches of snow;
- vegetation treatments that scarify the soil, if natural recovery or re-vegetation of the treated area would be expected to require more than 2 growing seasons, and if the treatments are incompatible with a resource value being protected by a No Surface Occupancy (NSO) or No Ground Disturbance (NGD) COA;
- construction of range improvements, including stock ponds and installation of fencing, if such improvements are incompatible with a resource value being protected by a NSO/NGD COA;
- intensive and/or large-scale human use or occupation (such as concentrated group events); and/or
- use of explosives or pyrotechnics.

Activities that are not considered surface-disturbing activities include, but are not limited to, livestock grazing, cross-country hiking or horseback riding, and vehicular travel on designated routes.

Table C- 1 COAs for Surface Disturbing Activities

Resource	COA:
Air	Dust Abatement: Project Operators shall be required to implement dust-abatement measures, as needed, in order to prevent fugitive dust resulting from vehicular traffic, equipment operations, or wind events. The Authorized Officer may direct the Operator to change the level, and type, of treatment (watering or application of various dust agents, surfactants, and road-surfacing material) if dust abatement measures are observed to be insufficient to prevent fugitive dust. In addition, fugitive dust control plans would be required.
Air	Engine Emissions: New and existing natural gas fired reciprocating internal combustion engines at oil and gas field compression facilities shall meet Colorado Department of Public Health and Environment (CDPHE) Air Quality Control Commission (AQCC) Regulation No. 7 Emission Standards for new and relocated engines, regardless of when the engines begin operation. All engines shall comply with applicable U.S. Environmental Protection Agency (EPA) emission standards.

Resource	COA:
Air	VOC Emission Requirements: For oil and gas operations, emission controls for glycol dehydrators and condensate tanks shall be required, without regard to the quantity of uncontrolled volatile organic compound (VOC) emissions from the equipment. VOC emissions from new glycol dehydrators shall be reduced by achieving, at least, 95 percent control of VOC emissions from glycol dehydrator vents. VOC emissions from condensate tanks shall be reduced by, at least, 95 percent from uncontrolled emission levels.
Soils	Soil Erosion and Steep Slopes: Generally, steep slopes shall be avoided, and alternate locations considered. In general, mechanical soil disturbances shall be limited to slopes less than 40 percent. For proposed projects, the length of the slope, soil conditions, and the extent of the disturbance shall be considered; exemptions may be allowed. Erosion-control measures, Monitoring Plans, and Adaptive Management actions may be required on erosive sites in order to ensure long-term soil health and stability.
Water and Riparian Vegetation	Water and Riparian Resource Buffers: Surface disturbances shall be relocated, where possible, in order to protect domestic water supplies, with up to a 1,000-foot buffer for domestic wells and springs. If recharge areas are identified, then these shall also be maintained. A 100-foot buffer shall be applied for perennial streams and springs/seeps, and a 50-foot buffer shall be applied for intermittent/ephemeral drainages. Exemptions may be allowed, depending upon the purpose/extent of disturbance. Best Management Practices (BMPs) or additional erosion-control actions may be required for surface disturbances within 500 feet of perennial waters and 100 feet of intermittent/ephemeral waters. Buffers may need to be extended in order to protect wetland vegetation or function, and to reduce invasive vegetation establishing within wetland areas, depending upon the extent of the disturbance.
Fisheries/Aquatic Wildlife	Native Fish and Important Sport Fish -- Surface-disturbing activities may be prohibited for in-channel work during appropriate spring and fall spawning periods from April 1 to August 1 (for rainbow and cutthroat trout) and fall spawning periods from October 1 to November 30 (for brown and brook trout).
Wildlife and Plants	Biological Inventories in Special Status Species Habitat-- In areas of known, or suspected, habitat of Special Status Species (Federally Listed, Proposed, Candidate and BLM Sensitive), or significant plant communities, a biological inventory may be required prior to approval of surface-disturbing activities. The inventory will be used in the environmental analysis (in accordance with the NEPA). Mitigation measures designed to reduce the impacts of surface disturbance on the affected species or their habitats may be required.

Resource	COA:
Wildlife	Core Wildlife Areas--Surface Occupancy or use may be prohibited on core wildlife areas to help reduce fragmentation. (Core wildlife areas are areas of high habitat value for multiple species, including sage-grouse, elk, and mule deer.)
Wildlife and Special Status Species	High Value Wildlife Habitat—In areas that contain high-value wildlife habitat, such as, but are not limited to, habitat for Special Status Species, big game severe winter range, big game migration corridors, and priority moose habitat. The Operator may be required to implement specific measures in order to reduce impacts of oil and gas or geothermal operations on wildlife and wildlife habitat. Special design and construction measures designed to mitigate impacts, may include, but are not limited to, relocation of roads, well pads, pipelines, and other facilities; and fencing operations or habitat. The lessee/Operator may be required to submit a plan for avoidance or mitigation of impacts on the identified species to the Authorized Officer.
Big Game	Big Game Crucial Winter Range (Severe Winter Range and Winter Concentration Areas) -- Surface-disturbing activities may be prohibited during the following time period(s) in mapped crucial winter habitat in order to reduce behavioral disruption of big game during the winter season on crucial winter habitat as mapped by the Colorado CPW. (NOTE: This COA would not apply to operation and maintenance of production facilities): • Antelope: Dec. 1 to April 30 • Rocky Mountain/Desert Bighorn sheep: Dec. 1 to April 30 • Mule deer/White-tailed deer: Dec. 1 to April 30 • Elk: Dec. 1 to April 30 • Moose: Dec. 1 to April 3
Big Game	Big Game Production Areas: Antelope, Rocky Mountain Bighorn Sheep, Mule deer/White-tailed deer, Elk, Moose -- Surface-disturbing activities may be prohibited during the following time period(s) in mapped big game production areas: • Antelope: April 15 to June 30 • Rocky Mountain Bighorn sheep: April 15 to June 30 • Mule deer/White-tailed deer: April 15 to June 30 • Elk: April 15 to June 30 • Moose: April 15 to June 30
Migratory Birds	Migratory Bird Nesting Habitat -- Surface-disturbing activities shall avoid or minimize disruption of migratory bird nesting activity, especially during the core nesting season (from May 15 to July 15).

<table>
<tr><th>Resource</th><th>COA:</th></tr>
<tr><td>Raptors</td><td>Raptor Nesting Habitat-- In general, surface-disturbing activities may be prohibited within the proximity of active and inactive raptor nest sites as noted below:

• Ferruginous Hawk, Peregrine Falcon, Prairie Falcon, and Northern Goshawk: 0.125-mile to 0 .5 mile radius
• Bald Eagle: 0.25-mile radius, or within 100 meters of abandoned nests (unoccupied for 5 consecutive years, but with all or part of the nest remaining)
• Golden Eagle: 0.125-mile to .25-mile radius
• Osprey, Red-tailed Hawk, Swainson’s Hawk, Cooper’s Hawk, Sharp-shinned Hawk, Northern Harrier, Burrowing Owl, Great horned Owl, and all owls with exception of MSO: 0.125-mile to .25-mile radius</td></tr>
<tr><td>Raptors</td><td>Raptors. Active Nest Sites -- Surface-disturbing activities may be prohibited during the following time period(s):
<table>
<tr><th>Species</th><th>Time Period</th><th>Buffer from Active Nest Site</th></tr>
<tr><td>Osprey</td><td>April 1 to Aug 31</td><td>0.25 mile</td></tr>
<tr><td>Red-tailed Hawk</td><td>Feb 15 to Aug 15</td><td>0.25 mile</td></tr>
<tr><td>Swainson’s Hawk</td><td>April 1 to Aug 15</td><td>0.25 mile</td></tr>
<tr><td>Cooper’s Hawk</td><td>April 1 to Aug 15</td><td>0.25 mile</td></tr>
<tr><td>Sharp-shinned Hawk</td><td>April 1 to Aug 15</td><td>0.25 mile</td></tr>
<tr><td>Northern Harrier</td><td>April 1 to Aug 15</td><td>0.25 mile</td></tr>
<tr><td>Burrowing Owls</td><td>March 15 to Aug 15</td><td>0.25 mile</td></tr>
<tr><td>Great horned Owl</td><td>Feb 1 to Aug 15</td><td>0.25 mile</td></tr>
<tr><td>Ferruginous Hawk</td><td>Feb 1 to Aug 15</td><td>0.25 mile</td></tr>
<tr><td>Peregrine and Prairie Falcon</td><td>March 15 to July 31</td><td>0.25 mile to 0.5 mile</td></tr>
<tr><td>Northern Goshawk</td><td>March 1 to Aug 15</td><td>0.25 mile to 0.5 mile</td></tr>
<tr><td>Bald Eagle</td><td>Nov 15 to July 31</td><td>0.25 mile to 0.5 mile</td></tr>
<tr><td>Golden Eagle</td><td>Dec 15 to July 15</td><td>0.25 mile to 0.5 mile</td></tr>
<tr><td>Other owls and raptors</td><td>March 1 to Aug 15</td><td>0.25 mile</td></tr>
</table></td></tr>
<tr><td>Waterfowl and shorebirds</td><td>Waterfowl and Shorebird Habitat and Rookeries -- Surface-disturbing activities may be prohibited within 0.25 miles of significant production areas in order to protect waterfowl and shorebird habitat and rookeries.</td></tr>
<tr><td>Waterfowl and Shorebirds</td><td>Shorebirds, Waterbirds, and Waterfowl Nesting Habitat -- Surface-disturbing activities may be prohibited during the following time period:
• March 1 to July 31, in areas designated for waterfowl, shorebird, and waterbird production by Field Offices.</td></tr>
</table>

Resource	COA:
Endangered Species Act	Endangered Species Act: The BLM may recommend modifications to surface disturbing activities to further conservation and management objectives in order to avoid BLM-approved activity that would adversely affect listed species or their habitat. 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, or result in the destruction or adverse modification of a designated or proposed critical habitat. The BLM will not approve any ground-disturbing activity that may affect any such species or critical habitat until its obligations under applicable requirements of the ESA are completed, including completion of any required procedure for conference or consultation.
Sensitive Amphibians	BLM Sensitive Amphibians -- Site-specific restrictions within a 0.5-mi (800-meter) buffer around all known, or identified, breeding sites may be required for surface-disturbing activities.
Special Status Species Plants	Significant Plant Communities and Relict Vegetation -- For those plant communities that meet the BLM's criteria for significant plant communities, special design, construction, and implementation measures, including relocation of operations by more than 200 meters (656 feet), may be required for surface-disturbing activities.
Special Status Species Plants	Threatened, Endangered, Proposed, and Candidate Plants -- Surface-disturbing activities may be prohibited within a 200-meter (656-foot) buffer around occupied habitat for Federally Listed Species, Proposed Species, Candidate Species, and in areas designated as critical habitat. Also see Appendix W, in the PRMP for a list of conservation measures.
Special Status Species Plants	BLM Sensitive Plant Species -- For plant species listed as Sensitive by the BLM, special design and construction measures may be required for surface-disturbing activities within a 100-meter (328-foot) buffer around occupied habitat. In addition, relocation of operations by more than 656 feet (200 meters) may be required in order to protect BLM Sensitive plant species from direct and indirect impacts, including loss of habitat.
Least Tern, Snowy Plover, and Piping Plover	Least Tern , Snowy Plover, and Piping Plover Nesting Habitat: Surface occupancy or use may be prohibited on the lands described below in order to protect the integrity of nesting habitat: • Production areas, as mapped by the BLM or by the CPW.
Special Status Species Birds	Mountain Plover Nesting Habitat -- Surface-disturbing activities may be prohibited during the following time period(s): • April 10 to July 31, in suitable nesting habitat, as mapped by the BLM or by the Colorado Parks and Wildlife (CPW).
Special Status Species Birds	Bald Eagle Winter Roost Site Surface Occupancy Buffer-- In general, surface-disturbing activities may be prohibited within the proximity of winter roost sites as described below: • Within .25 mile of designated features
Special Status Species Birds	Bald Eagle Winter Roost Sites Timing Restriction -- Surface-disturbing activities may be prohibited within the proximity of winter roost sites, as described below, during the following time period(s): • Bald Eagle: Nov 15 to March 15, within .5 miles of an active winter roost

Resource	COA:
Special Status Species Bird	Bald Eagle Habitat in Cottonwood Communities -- Surface-disturbing activities may be subject to the following special constraints: • involvement of cottonwood stands or cottonwood regeneration areas have been avoided to the extent practicable; • special reclamation measures or design features are incorporated that would accelerate recovery and/or the re-establishment of affected cottonwood communities; • the pre-development potential of affected floodplains to develop or support riverine cottonwood communities has not been diminished; and • the current/future utility of such cottonwood substrate for bald eagle use would not be impaired.
Greater Sage-grouse	Greater Sage-grouse Leks -- Surface-disturbing activities may be prohibited within a 0.6-mile-radius of Greater sage-grouse leks in order to maintain integrity of habitat surrounding leks that are used during the breeding period.

Greater Sage-grouse	Mapped Seasonal Habitats or Suitable Sagebrush Habitat within a 4-mile radius of a Lek:
	• May require a Plan of Development that demonstrates:
	  o reduction to acceptable levels
	  o special reclamation measures to accelerate recovery
	  o current/future utility of habitat for sage-grouse would not be impaired
	• May require additional conservation measures

Greater Sage-grouse	Greater Sage-grouse Nesting and Winter Habitat -- Surface-disturbing activities may be prohibited during the following time period(s): • Nesting Habitat: March 1 to July 15, in suitable nesting habitat within a four mile radius of active leks or mapped nesting habitat in order to prevent disruption of reproductive activity during the production period. • Winter Habitat: Dec 1 to March 15, in mapped important Sage-grouse winter range as defined by the BLM and the CPW.
Greater Sage-grouse	Fences in Greater Sage-grouse Habitat: When fences are necessary, require a sage-grouse-safe design.
Greater Sage-grouse	Locating Roads in Greater Sage-grouse Habitat: Locate roads to avoid important areas and habitats.
Greater Sage-grouse	Road Development and Operation in Greater Sage-grouse Habitat: Coordinate road construction and use among Federal fluid mineral lessees and ROW holders.
Greater Sage-grouse	Important Sage-Grouse Habitat: In areas that contain important Greater Sage-grouse habitats, as identified by the BLM, either currently or prospectively, specific measures may be required through a COA in order to reduce impacts on the Greater Sage-grouse population and habitat quality. Sage-grouse habitat conservation measures may include timing restrictions, distances or percentages of allowable surface-disturbing activities, noise-suppression actions, or other constraints consistent with State or Range-wide Sage-grouse Conservation Planning for Colorado (including subsequent updates), current peer reviewed sage-grouse research, or as developed in conjunction with the CPW, in order to meet local population objectives.

Resource	COA:
Greater Sage-grouse	Noise Shields in Priority Habitat: In priority habitat, require noise shields when drilling during the lek, nesting, brood-rearing, and wintering seasons.
Greater Sage-grouse	Underground Mining in Priority Habitat: Plan any new appurtenant facilities outside of priority areas. Where new appurtenant facilities associated with the existing lease cannot be located outside the priority sage-grouse habitat area, co-locate new facilities within existing disturbed areas. If this is not possible, then build any new appurtenant facilities to the minimum standard necessary for the action.
Columbian Sharp-tailed Grouse	Columbian Sharp-tailed grouse Leks -- Surface-disturbing activities may be prohibited within a .4 mile-radius of leks.

Columbian Sharp-tailed Grouse	Columbian Sharp-tailed grouse Winter and Nesting Habitat -- Surface-disturbing activities may be prohibited in the listed habitat during the following time period(s):
	  Nesting Habitat: March 15 to July 30, suitable nesting habitat within 1.25-mile radius of active leks or mapped nesting habitat
	  Winter Habitat: Dec 1 to March 15, mapped Columbian Sharp-tailed grouse winter range

Wild Turkey	Wild Turkey Winter Habitat -- Surface-disturbing activities may be prohibited in the listed habitat during the following time period(s): • Mapped Wild Turkey Habitat: December 1 to April 1
Greater Sandhill Crane	Greater Sand Hill Crane Nesting, Roosting, Staging, and Migration Habitat -- Surface-disturbing activities may be prohibited during the following time period: • March 1 to Oct 16, in areas designated for sandhill crane production or migration habitat use by Field Offices
Mexican Spotted Owl	Mexican Spotted Owl Suitable Breeding Habitat -- Surface-disturbing activities may be subject to the following special operating constraints: • Maintenance of identified constituent elements for Mexican Spotted Owl breeding habitat
Mexican Spotted Owl	Mexican Spotted Owl Primary Activity Centers -- Surface-disturbing activities may be prohibited on the lands identified as Primary Activity Centers (PACs) for Mexican Spotted Owls.
Mexican Spotted Owl	Mexican Spotted Owl Suitable Breeding Habitat -- Surface-disturbing activities may be prohibited during the following time period(s): • Mexican Spotted Owl: March 1 to August 31
Bats	Bat Maternity Roosts and Hibernacula -- Surface-disturbing activities may be prohibited within 0.25-mile-radius of known maternity roosts or hibernacula of BLM Sensitive bat species.

Resource	COA:
White-tailed Prairie Dog	Designated Prairie Dog Towns -- Surface disturbing activities that include current or historically occupied prairie dog towns, as mapped by the CPW or by the BLM, or by both, may require 1 or more of the following conservation measures in order to maintain the integrity and extent of prairie dog complexes: • development of a Surface Use Plan of Operations with the BLM that integrates and coordinates long-term lease development with measures necessary in order to minimize adverse impacts to prairie dog populations or their habitat; • special daily and seasonal activity restrictions during the reproductive period (from March 1 to June 15); • special modifications in order to minimize involvement of prairie dog burrow systems; and • provide in-kind compensation for habitat loss and/or displacement (such as special on-site prairie dog habitat enhancement) when appropriate
Cultural	Historic Properties -- Surface-disturbing activities may be prohibited within 656 feet (200 meters) of historic properties.
Cultural	Windy Gap Cultural Research Natural Area (RNA) -- Surface-disturbing activities shall be prohibited in the Windy Gap Cultural RNA.
Cultural	Significant Sites Within and Near the North Sand Hills Special Recreation Management Area (SRMA) -- Surface-disturbing activities may be prohibited at significant sites and newly identified areas of Native American tribal concerns.
Cultural	Heritage Areas (Traditional Cultural Properties) -- Surface-disturbing activities may be prohibited within 0.25 mile of traditional cultural properties or Native American tribal areas of concern in order to protect the integrity of place, setting, and/or feeling.
Paleontology	Class 4 and Class 5 Paleontological Areas -- An inventory by an accredited Paleontologist, approved by the Authorized Officer, may be required in Class 4 and Class 5 paleontological areas prior to any surface-disturbing activities.
Visual Resources	Visual Resources Management (VRM) Class I Areas -- In general, surface-disturbing activities shall be prohibited in VRM Class I Areas.
Visual Resources	VRM Class II Areas -- Surface-disturbing activities may be restricted in VRM Class II Areas with slopes over 30 percent and high visual sensitivity.
Recreation and Visitor Services	Developed Recreation Facilities and Trails -- In general, relocation may be required for surface-disturbing activities proposed on, or near, current and future developed recreation sites; and near currently mapped and future national/regional trails, local system trails that connect communities, and trailheads and interpretive sites with exceptional recreation values or significant public interest.
Extensive Recreation Management Areas	Project Location in ERMAs: Site-specific relocation of proposed projects may be required in order to minimize conflicts with recreation opportunities, recreation setting characteristics, and visitor health and safety within the following Extensive Recreation Management Areas (ERMAs): • Headwaters

Resource	COA:
Special Recreation Management Areas	Surface Disturbing Activities in SRMAs: Surface-disturbing activities may be prohibited in the following Special Recreation Management Areas (SRMAs) in order to minimize impacts to: 1) the prescribed physical, social, and operational recreational setting characteristics; 2) the targeted recreation opportunities(including recreational activities, experiences and outcomes); and 3) public health and safety: • Upper Colorado River • North Sand Hills • Strawberry • Wolford Forest management projects would occur within the Strawberry SRMA. During project planning and design recreation setting characteristics would be protected wherever possible; however in some cases, recreation setting characteristics may be modified within a project area to meet forest management and public health and safety objectives.
Coal	North Park Known Recoverable Coal Resource Area (KRCRA) and Other Areas of Coal Resources -- Surface-disturbing activities may be prohibited in some areas within the North Park KRCRA, and in other areas where coal resources are determined to occur.
Oil and Gas	Drilling Multiple Wells from a Single Pad -- Drilling multiple wells per well pad may be required to limit the number of surface locations in scenic areas, fragile soil areas, or important wildlife habitat while still allowing the necessary number of downhole locations.
Oil and Gas	Colocation of Surface Disturbances -- Colocation of surface disturbances (e.g. powerlines, roads, pipelines) in common corridors, and development of a comprehensive transportation network, may be required, where technically feasible, in order to eliminate unnecessary surface disturbances and fragmentation of habitat.
Oil and Gas	Centralizing Production Facilities -- Liquid gathering pipeline systems feeding centralized offsite production facilities may be required in order to reduce year-round fluids haul traffic during the life of the field in areas of important wildlife habitat.
Areas of Critical Environmental Concern	Areas of Critical Environmental Concern (ACECs) -- Surface-disturbing activities may be prohibited within ACECs.
Wilderness Study Areas	Surface Disturbing Activities in WSAs: In general, surface-disturbing activities shall be prohibited in Wilderness Study Areas (WSAs); however, in rare circumstances some surface-disturbing activities may be allowed in WSAs, provided that such activities comply with the specific policy guidance of BLM Manual 6330, Management of BLM Wilderness Study Areas (BLM 2012f).
North Sand Hills WSA	Motorized Recreation Use in NSH WSA: Motorized recreational use may be allowed in designated portions of the sand dunes within the North Sand Hills WSA, provided that such use complies with the specific policy guidance of BLM Manual 6330, Management of BLM Wilderness Study Areas (BLM 2012f).

Resource	COA:
Lands with Wilderness Characteristics	Surface Disturbing Activities in lands with wilderness characteristics: Surface-disturbing activities may be allowed on lands with wilderness characteristics outside existing WSAs, provided that such activities comply with the guidance of Management and Setting Prescriptions for Areas with Wilderness Characteristics (see Appendix H in the PRMP), and the primary purpose is to protect or enhance wilderness characteristics.
Wild and Scenic Rivers	Surface Disturbing Activities Along NWSR Segments: Surface-disturbing activities may be prohibited within 0.25 miles of the centerline of recommended suitable segments of river.
Watchable Wildlife Areas	Surface Disturbing Activities in WWAs: Surface-disturbing activities may be prohibited in WWAs. Habitat and range improvements, low-impact interpretive trails and facilities, and facilities designed to ensure public health and safety, and to protect other resources, would be allowed.

Appendix D: Best Management Practices and Standard Operating Procedures

Table of Contents

Introduction 3
Best Management Practices 3
Standard Operating Procedures 3
Management Guidelines for the Planning Area 3
Resources 3
Air Quality 3
Soil Resources 4
Water Resources 4
Vegetation 4
Vegetation -- Rangeland 4
Vegetation -- Riparian 4
Vegetation-Weeds 5
Fish and Wildlife/Special Status Species 6
Cultural/Paleontological Resources and Native American Tribal Consultation 7
Visual Resources 8
Wildland Fire Ecology and Management 9
Forestry 10
Livestock Grazing 11
Vegetation/Riparian Zone Management 13
Recreation 13
Lands and Realty 13
Energy and Minerals 15
Renewable Energy 19
Wilderness, Wilderness Study Areas, Wilderness Characteristics 22
Transportation Facilities 22
Summary 22

Sources and General Guidance 23
Agreements and Protocols 23
Authorities 23
Acts 23
Code of Federal Regulations (CFRs) 25
Executive Orders/Secretarial Orders 25
Guidelines 26
Instruction Memorandums and Technical Documents 28
BLM Technical References 28

Introduction

Best Management Practices

Best Management Practices (BMPs) are defined in the BLM Land Use Planning Handbook, H-1601-1 as "a suite of techniques that guide, or may be applied to, management actions to aid in achieving desired outcomes" (BLM 2005a). The BMPs for the Bureau of Land Management (BLM), Kremmling Field Office (KFO), are approved by the Authorized Official, and are adopted as policy for the KFO.

Standard Operating Procedures

Standard Operating Procedures (SOPs) are written procedures that provide direction for consistently and correctly performing routine operations. These written procedures set forth methods expected to be followed during the performance of a particular task (BLM 2005a). The SOPs for the BLM, KFO, are approved by the Authorized Official, and are adopted as policy for the KFO.

Management Guidelines for the Planning Area

The following guidelines, techniques, and practices (collectively referred to as Management Guidelines) are a general summary of the BMPs and the SOPs for the Planning Area, and were compiled from a variety of sources. These guidelines are by no means a comprehensive list. The goal of these guidelines, when utilized in conjunction with other Management Plans applicable to BLM-managed public lands, and their associated resources and resource uses, is to assist the BLM in achieving Desired Outcomes (Goals and Objectives) as outlined in the KFO Approved Resource Management Plan (RMP) to reduce adverse (negative) environmental impacts. Any number of these guidelines can be applied to make progress towards, or to achieve, Desired Outcomes. Periodically, these guidelines may be updated so that they may stay current with the latest technology, and with U.S. Department of the Interior (DOI) and BLM direction.

The following Management Guidelines are identified by resource. A number of these Management Guidelines can be applied to a variety of situations; therefore, there may be a duplication or similarity of, and between, these guidelines. Furthermore, although these Management Guidelines may be identified for specific situations or actions [such as for wind energy right-of-ways (ROWs), livestock grazing, forestry, or road construction), they are not exclusive to those actions unless otherwise specified.

Resources

Air Quality

Air quality standards are governed by the Clean Air Act (CAA) of 1990, as amended [42 United States Code (USC) Chapter 85). The CAA, which was last amended in 1990, requires the U.S. Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) (40 CFR Part 50) for pollutants considered harmful to public health and to the environment. The CAA established 2 types of national air quality standards:

- Primary Standards -- Primary Standards set limits to protect public health, including the health of "sensitive" populations (such as asthmatics, children, and the elderly); and .

- Secondary Standards -- Secondary Standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings.

The EPA has established NAAQS for several different pollutants, which are often referred to as criteria pollutants, including: ozone, nitrogen dioxide, carbon monoxide, sulfur dioxide, particulate matter, and lead. Standards for suspended particulate matter have been set for 2 size fractions: inhalable particulate matter (PM10), and fine particulate matter (PM2.5).

(Detailed information on these criteria pollutants can be found online at: http://www.epa.gov/air/criteria.html.) In addition, the EPA's Natural Gas STAR Program is a flexible, voluntary partnership that encourages oil and natural gas companies, domestically and abroad, to adopt cost-effective technologies and practices that improve operational efficiency and reduce emissions of methane, a potent greenhouse gas (GHG) and clean energy source. (Detailed information on this program can be found online at: http://www.epa.gov/gasstar/index.html.)

At the State level, The Colorado Air Pollution Prevention and Control Act of 1992 (Colorado Revised Statue 25-7-101) was passed to foster the health, welfare, convenience, and comfort of the inhabitants of the State of Colorado, and to facilitate the enjoyment and use of the scenic and natural resources of the State. Policy direction under this Act is intended to achieve the maximum practical degree of air purity in every portion of the State, to attain and maintain NAAQS, and to prevent the significant deterioration of air quality in those portions of the State where the air quality is better than the NAAQS. The Colorado Department of Public Health and Environment (CDPHE), Air Quality Control Commission, also has established procedures and guidelines with regard to air quality. (These are available online at: http://www.cdphe.state.co.us/op/aqcc/.)

Soil Resources

BMPs are available on the Internet at: http://www.greenco.org/index.php.

Water Resources

BMPs are available on the Internet at: http://www.greenco.org/index.php.

Vegetation

Management Guidance in relation to vegetation resources comes from a variety of sources, as delineated below.

Vegetation -- Rangeland

Standard Operating Procedures

When making decisions about Proposed Actions in known sagebrush habitat, existing plans and guidance will be used by Interdisciplinary (ID) Teams, and considered in the decision-making process. This management guidance includes the conservation actions/guidelines identified in the Western Association of Fish and Wildlife Agencies – Guidelines to Manage Sage-Grouse Populations and Their Habitats, and the Colorado Greater Sage-Grouse Conservation Plan (Colorado Greater Sage-Grouse Steering Committee 2008).

Vegetation -- Riparian

Best Management Practices

1. Minimize crossing of streams (intermittent and perennial) and wetlands with vehicles and heavy machinery.

2. Locate residue piles (sawdust, field chipping residue, etc.) away from drainages where runoff may wash residue into water bodies or wetlands.

3. Maintain appropriate vegetative/riparian buffers around water bodies to protect water quality.

4. Manage riparian areas in a manner designed to provide adequate shade, sediment control, bank stability, and recruitment of wood into stream channels.

5. Locate project staging areas for refueling, maintenance equipment, materials and operating supplies in areas not designated as riparian and/or stream bank management zones.

6. Determine the best locations and design for roads, the slope of roads, and the approach to stream crossings through proper planning.

7. Do not locate roads/trails parallel to streams. Where roads must cross streams, they must cross perpendicularly, and then the roads/trails must immediately exit the buffer zone.

8. Place appropriate improvements (such as culverts) at stream crossings to keep vehicles/equipment out of the stream flow, and to prevent direct sedimentation of streams.

9. Maintain a minimum of 6-inch stubble height at the end of October on stream bank (lotic) riparian areas.

10. Maintain a minimum of 4-inch stubble height at the end of October on wet meadows (lentic) systems.

Vegetation-Weeds

Standard Operating Procedures

1. Take actions designed to prevent or minimize the need for vegetation control when and where feasible, considering the management objectives of the site.

2. Use effective non-chemical methods of vegetation control when and where feasible.

3. Develop plans to thoroughly evaluate the need for chemical treatments, and their potential for impact on the environment.

4. Re-seed or plant disturbed areas with desirable vegetation when the native plant community cannot recover and occupy the site sufficiently.

5. Survey the project site for species listed, or proposed for listing, or Special Status Species. If a proposed project may affect a Proposed or Listed Species, or its critical habitat, the BLM will consult with the U.S. Fish and Wildlife Service (USFWS) and/or with the National Marine Fisheries Service (NMFS). The BLM will also follow protective measures identified in the NMFS Endangered Species Act Section

7. Consultation Biological Opinion with regard to the impacts of the Proposed Vegetation Treatment Program for 17 Western States.

6. Avoid using tools and equipment for vegetation management in Wilderness Areas unless they are necessary for the protection of the wilderness resource.

7. Meet responsibilities for consultation and government-to-government relationships with Native American tribes by consulting with appropriate tribal representatives prior to taking actions that affect tribal interests.

8. Notify potentially affected parties of treatment activities that occur on BLM-managed public lands.

9. Ensure that the public is allowed input into vegetation management actions on BLM-managed public lands under the environmental analysis and review (NEPA) process.

Best Management Practices

1. Vegetation treatments will be governed by the Final Vegetation Treatments using Herbicides on Bureau of Land Management Land in 17 Western States Programmatic Environmental Impact Statement (BLM 2009h), and BLM Handbook 9000, Chemical and Biological Control, as well as:

- The Federal Noxious Weed Act of 1974, as amended by Section 15 – Management of Undesirable Plant on Federal Lands, 1990, which authorizes Federal agencies "to cooperate with other Federal and State agencies, and others in carrying out operations or measures to eradicate, suppress, control, prevent, or retard the spread of any noxious weed."
- Executive Order (EO) 13112 -1999, which enhances and orders coordination of Federal activities to control and minimize the economic, ecological, and human health impacts caused by invasive species. The EO also established a National Invasive Species Council to oversee a Management Plan detailing the Goals and Objectives of the efforts of the involved Federal agencies.
- The Federal Plant Protection Act of 200 [Title IV Public Law (PL) 106-224] prohibits the introduction of any animal, plant, or material that is considered harmful to this country's agriculture. The U.S. Department of Agriculture (USDA), Plant Protection and Quarantine division is the enforcement authority for this Act.

Fish and Wildlife/Special Status Species

Standard Operating Procedures

- Fences constructed will comply with applicable wildlife fence standards (BLM Manual Handbook H-1741-1, Fences). Existing fences that impede big game movement, or that otherwise conflict with wildlife, may be modified to comply with applicable wildlife fence standards on a case-by-case basis.
- The KFO will consult agency Species Management Plans and other Conservation Plans, as appropriate, to guide management and devise mitigation measures when needed. [Examples of these plans include, but are not limited to:
    - The Intermountain West Regional Shorebird Plan (available on the Internet at: www.shorebirdplan.org/wp-content/uploads/2013/01/IMWEST4.pdf),

- The North American Landbird Conservation Plan (available on the Internet at: http://www.pwrc.usgs.gov/pif/cont_plan/);
- The North American Waterbird Conservation Plan (available on the Internet at: http://www.pwrc.usgs.gov/nacwcp/nawcp.html);
- The Partners-in-Flight Colorado Bird Conservation Plan (available on the Internet at: http://www.rmbo.org/pif/copif.html)
- The Colorado Bat Conservation Plan (available on the Internet at: http://www.cnhp.colostate.edu/teams/zoology/cbwg/consPlan.asp); and
- The Colorado State Wildlife Action Plan (Comprehensive Wildlife Conservation Strategy) (available on the Internet at: http://wildlife.state.co.us/WildlifeSpecies/ColoradoWildlifeActionPlan/).]

Best Management Practices

1. Coordinate with the Colorado Parks and Wildlife (CPW) on BLM projects, and BLM-authorized projects that are proposed within 0.5 mile of a small-capacity water development, and 2.0 mile of a large-capacity wildlife water development. Projects determined to have a detrimental impact on wildlife using wildlife water developments will be avoided, or re-routed, if possible.

2. Coordinate with the CPW on migratory bird inventories when migratory bird inventories are proposed by BLM or required of third parties.

3. Wildlife water developments proposed in Wilderness Study Areas (WSAs) will have to meet the non-impairment criteria.

See also Vegetation–Riparian.

Cultural/Paleontological Resources and Native American Tribal Consultation

Standard Operating Procedures

1. All BLM activities shall comply with Cultural Resources Inventory General Guidelines (BLM 1989); BLM Manual 8110, Identifying and Evaluating Cultural Resources (BLM 2004c); BLM Manual 8160, Native American Coordination and Consultation (BLM1994), and the current State Protocol Agreement between the BLM and the Colorado State Historic Preservation Office (SHPO).

2. The BLM is responsible for considering the impacts that management actions or authorizations have on cultural resources located on non-Federal lands where such lands are included in, or a part of, an overall Federal action.

3. The BLM will conduct, or cause to be conducted, the inventory and evaluation of cultural resources on the non-Federal lands affected by the Federal action or authorization.

4. Identification and mitigation of an adverse impact to cultural resources on non-Federal lands may be required as a condition of an authorization issued by the BLM.

5. The BLM will mitigate, or cause to be mitigated, any adverse impacts to cultural resources that would result from a Federal action or authorization.

6. Where mitigation included data recovery, the artifacts, samples, and collections recovered from the non-Federal lands remain the property of the non-Federal landowner, unless donated to the BLM.

7. Holders of BLM authorizations are required to immediately bring to the attention of the Authorized Officer any and all antiquities; and/or other objects of historic, paleontological, or scientific interest including, but not limited to, historic or prehistoric ruins or artifacts DISCOVERED as a result of operations under this authorization (16 USC 470.-3, 36 CFR 800.112). The holder shall immediately suspend all activities in the area of the object, and shall leave such discoveries intact until written approval to proceed is obtained from the Authorized Officer. Approval to proceed will be based upon evaluation of the object(s). Evaluation shall be by a qualified professional selected by the Authorized Officer from a Federal agency insofar as practicable (BLM Manual 8140, Protecting Cultural Resources., BLM 2004d). When not practicable, the holder shall bear the cost of the services of a non-Federal professional.

8. Within 5 working days, the Authorized Officer will inform the holder as to:

- whether the materials appear eligible for the National Register of Historic Places (NRHP);
- the mitigation measures the holder will likely have to undertake before the site can be used (assuming in-situ preservation is not necessary); and
- a timeframe for the Authorized Officer to complete an expedited review under 36 CFR 800.11 to confirm, through the SHPO, that the findings of the Authorized Officer are correct, and that mitigation is appropriate.

9. If the holder wishes, at any time, to relocate activities to avoid the expense of mitigation, and/or the delays associated with this process, the Authorized Officer will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the holder will be responsible for mitigation costs. The Authorized Officer will provide technical and procedural guidelines for the conduct of mitigation measures. Upon verification from the Authorized Officer that the required mitigation has been completed, the holder will then be allowed to resume construction.

10. Antiquities, historic and/or prehistoric ruins, and/or paleontological objects or objects of scientific interest that are outside of the authorization boundaries but are directly associated with the impacted resource will also be included in this evaluation and/or mitigation.

11. Antiquities, historic and/or prehistoric ruins, and/or paleontological objects or objects of scientific interest, identified or unidentified, that are outside of the authorization and not associated with the resource within the authorization will also be protected. Impacts that occur to such resources, which are related to the authorizations activities, will be mitigated at the holder's cost.

Visual Resources

Best Management Practices

1. Refer to Visual Contrast Rating Worksheet Form 8400-4. (Available on the Internet at: http://nnsa.energy.gov/sites/default/files/seis/BLM%20VRM%20manual%208431.pdf).

2. Paint above-ground production facilities (such as buildings, pumping units, pipes, compressors, tanks, and treaters) colors that allow the facility to blend into the background.

3. All new equipment brought onto the sites should be painted the same color(s).

4. Use the following considerations when selecting a color and shade:

- semi-gloss paints will stain and fade less than flat paints;
- typically, the background is a vegetated background, and seldom a solid background;
- the selected color should be one or two shades darker than the background; and
- consider the predominant season of public use; however, never paint an object to match snow.

Wildland Fire Ecology and Management

Standard Operating Procedures -- Fuels Management

1. Construct fuel breaks or green strips in a manner designed to protect wildland-urban interface (WUI) communities and important wildlife habitat, and provide for firefighter safety, by using mechanical, chemical, biological and prescribed fire treatment methods.

2. Construct fuel breaks and green strips in areas containing a good understory of native perennials to successfully compete with, and deter, the establishment and spread of annual species.

3. Seed green strips in areas that do not have a good understory of desirable native perennials that can successfully compete with annual species.

4. Where practicable, use large-scale landscape planning to connect fuel breaks and to avoid small piecemeal projects.

5. Maintain fuel breaks and green strips to ensure effectiveness.

6. Prevent seeded species from being grazed during the first growing season following seeding.

7. Provide fire prevention and mitigation outreach information and education to communities within the Planning Area.

Standard Operating Procedures - Fire Suppression

1. Resource Advisors, and other applicable specialists, should be used to advise the Incident Commander and suppression resources on the natural resource values during the suppression effort.

2. Avoid applying fire retardant in, or near, drinking water sources.

3. 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.

4. 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 should terminate at the edge of the riparian zone at a location determined appropriate to meet fire suppression objectives based upon fire behavior, vegetation/fuel types, and firefighter safety.

5. For streams currently occupied by cutthroat trout or other aquatic Species Status Species, extractions of water from ponds or pools should not be allowed if stream inflow is minimal, and if extraction of water will lower the existing pond or pool level.

6. Stream flow should not be impounded or diverted by mechanical means to facilitate extraction of water from the stream for fire-suppression efforts.

7. If it is determined that use of retardant or surfactant foam within 300 ft (91.5 m) 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, then the Unit Administrator shall determine whether there have been any adverse impacts to federally listed species. If the action agency determines that adverse impacts were incurred by federally listed species or their habitats, then the action agency must consult with the USFWS, as required by 50 CFR 402.05 (Emergencies), as soon as practicable.

8. Avoid, whenever possible, burning out unburned islands of native vegetation, specifically Sagebrush communities.

9. Before using it on BLM-managed public lands within the Planning Area, thoroughly rinse to remove mud and debris from all fire-suppression equipment from off-District or out of State that was used to extract water from lakes, ponds, streams or spring sources. (Examples of this equipment include 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. KFO suppression equipment used to extract water from sources known to be contaminated with invasive aquatic species, as identified by the USFWS and the CPW, should be disinfected before being used on BLM-managed public lands within the Planning Area.

Standard Operating Procedures – Emergency Stabilization and Rehabilitation

1. Stabilize areas that have low potential to naturally re-vegetate, and that have high wind and soil erosion potential. Treatments include the following:

- installing waterbars and other drainage diversions, including culverts, along fire roads, dozer lines, and other cleared areas;
- 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;
- installing erosion-control structures;
- installing channel-stabilization structures;
- Closing areas to livestock and wild horse and burro grazing to promote success of natural re-vegetation or establishment of seeded species;
- repairing or replacing range improvements and facilities; and
- monitoring emergency stabilization and rehabilitation (ES&R) treatments.

Forestry

Standard Operating Procedures

1. No fuel-wood cutting of live trees will be allowed for cottonwood, willow, alder, limber pine, white bark pine, and/or curl leaf mahogany, unless resource objectives allow otherwise.

Best Management Practices

1. Avoid heavy equipment use in stands of cottonwood, willow, alder, and limber pine. If heavy equipment use is necessary, allow on a case-by-case basis and mitigate for adverse impacts.

2. Allow dead-and-down collection of cottonwood, willow, alder, and limber pine, and white bark pine for personal use.

3. Protect seed and important wildlife habitat trees in pinyon/juniper stands.

4. Manipulate pinyon, juniper stands using mechanical, biological, and chemical treatments. Allow tree harvesting for woodland products and biomass reduction.

Public Guidelines for Christmas Tree and Firewood Harvesting

- Restrict vehicle use to existing roads and trails. Do not drive off road.
- Do not damage adjacent trees.
- When cutting down standing trees, cut the stump to 12-inches or less, or as close to the ground as possible.
- Scatter lopped branches at least 50 feet from the stump.
- Do not top a larger tree to obtain a Christmas tree.
- Do not cut trees that have been posted as “SEED TREE DO NOT FALL” or “WILDLIFE TREE DO NOT DISTURB.”
- Do not harvest any trees within 100 feet of a spring or creek unless trees are identified for selective removal to meet resource objectives.
- Please pack out your trash as well as trash left by others.

Livestock Grazing

Standard Operating Procedures

1. Allow re-growth before winter or un-grazed fall growth–recovery of root carbohydrates.

2. Usually, it is necessary to protect seedings from grazing for 1 full year, and through the growing season of the second year. Some seedings established during adverse weather cycles may need protection for a longer period.

3. Development of springs and seeps, or other projects affecting water and associated resources, shall be designed to maintain the associate riparian area and assure attainment of standards.

Best Management Practices

1. Livestock grazing could be used as an intensively managed prescriptive grazing practice to control cheatgrass and noxious or invasive weeds.

2. In spring, graze for a short duration earlier in the season so that sufficient soil moisture remains for plant recovery.

3. Implement short-duration grazing (up to 3 weeks) (more animals/smaller pastures) where infrastructure permits during the growing season. Avoid re-grazing the same plants in one growing season.

4. Rotate livestock use areas year-to-year; not in the same place at the same time each year.

5. Graze during the dormant season to allow plants to recover every year.

6. Allow for rest/recovery periods before, or after, grazing during critical growth periods.

7. Maintain range developments to maintain or improve distribution.

8. Avoid use most years in areas of valuable woody plants during times when they are selected.

9. Avoid selective use on key species by rest following heavy dormant season use.

10. Graze established seedings to avoid decadent plants and poor nutrient cycles; especially in crested wheatgrass seedings.

11. Avoid the following grazing management practices:

- long seasonal use with no recovery time;
- heavy use that stresses plants;
- little or no re-growth before winter; little stubble for root crown protection;
- use at the same time every year; thereby repeating the stress;
- no rest or growing season recovery; little recovery with long seasons of use;
- little or ineffective herding;
- salt placed in the same locations year after year;
- livestock left behind after pasture moves; and
- grazing during the critical growth period year after year.

12. Generally, seedings should not be grazed until the plants are well established.

13. Use rotation or deferment to vary the timing of grazing so as to allow for periodic rest of upland vegetation during critical growth periods.

14. Provide occasional rest to allow a whole growing season for recovery.

15. When using livestock to control cheatgrass or noxious or invasive weeds, match animal dietary preference or tolerance to the target species.

16. Use the target weed's biology when developing a grazing strategy.

17. Manage heavy grazing on target weed species to account for any intermixed desirable species.

18. Manage animals' post-treatment grazing to contain weed seeds.

Vegetation/Riparian Zone Management

Best Management Practices

1. Achieve proper functioning condition (PFC) by managing livestock grazing with appropriate riparian management practices.

2. Graze earlier in the season when cattle use uplands.

3. Plants should be grazed only once or twice per year.

4. Avoid hot season grazing of riparian areas.

5. Allow re-growth before winter by grazing early enough for substantial plant re-growth during the growing season to slow spring flows and retain soil.

6. For maintenance or improvement of willows, allow 2 growing seasons rest prior to late season use.

7. Maintain/provide alternate water sources for better distribution.

8. In addition to the grazing management practices to avoid (listed above), the following should also be avoided.

- hot season grazing in big pastures with little riparian areas; poor distribution;
- few waters and only riparian waters; poor distribution;
- heavy use that stresses plants, tramples banks, and/or consumes last year's wood; and
- little or no re-growth before winter; little stubble for sediment.

Recreation

Guidelines for recreation use can be found in the Land Use Planning Handbook H-1801-1 (BLM 2005a); the Recreation Permit Administration Handbook H-2930-1 (BLM 2006d), and 3 CFR 2930.

Special Recreation Permits (SRPs) will contain noxious weed management stipulations (including pre-event inventories designed to avoid infested areas; event management designed to avoid or isolate activities that could result in weed introduction or spread; monitoring and treatment of infestations exacerbated by the activity; and other appropriate noxious weed management stipulations).

Lands and Realty

Standard Operating Procedures

1. Power lines shall be constructed in accordance to standards outlined in "Suggested Practices for Raptor Protection on Power Lines, The State of the Art in 1996" [APLIC Avian Power Line Interaction Committee (APLIC) 1996]. ROW applicants shall assume the burden and expense of proving that proposed pole designs not shown in the above publication are "raptor safe." Such proof shall be provided by a raptor expert approved by the Authorized Officer.

2. ROWs and other lands and realty authorizations (including power lines, pipelines, transmission corridors, energy development sites and related development, and gravel pits) must contain noxious and invasive plant management terms or stipulations for all ground-disturbing actions. These will include

conducting a pre-disturbance noxious weed inventory; designing to avoid or minimize vegetation removal and weed introduction or spread; managing weeds during the life of the ROW or authorization to prevent or minimize weed introduction or spread; abandoning the ROW or authorization to establish competitive vegetation on bare-ground areas; and monitoring revegetation success and weed prevention and control for a reasonable number of years.

3. Use of pesticides shall comply with all applicable State and Federal laws, rules, regulations, policies, standards, and guidelines. Pesticides shall be used only in accordance with their registered uses, and only within the limitations imposed by the Secretary of the Interior. Prior to the use of pesticides, the holder shall obtain from the Authorized Officer written approval of a plan showing the type and quantity of material to be used, pest(s) to be controlled, method of application, location of storage and disposal of containers, and any other information deemed necessary by the Authorized Officer. Emergency use of pesticides shall be approved in writing by the Authorized Officer prior to such use.

4. The holder(s) shall comply with all applicable laws, rules, regulations, policies, standards, and guidelines existing or hereafter enacted or promulgated. In any event, the holder(s) shall comply with the Toxic Substances Control Act of 1976, as amended (15 USC 2601, et seq.) with regard to any toxic substances that are used, generated by, or stored on the ROW (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) In addition, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.

5. The holder shall mulch disturbed areas designated by the Authorized Officer. The type of mulch shall meet one of the following requirements:

- Straw used for mulching shall be from oats, wheat, rye, or other approved grain crops, and free from noxious weeds or other objectionable material, as determined by the Authorized Officer. Straw mulch shall be suitable for placing with mulch blower equipment.
- Hay shall be certified weed-free. Hay shall be suitable for placing with mulch blower equipment.
- Wood cellulose fiber shall be natural or cooked wood cellulose fiber; shall disperse readily in water; and shall be non-toxic. The homogeneous slurry or mixture shall be capable of application with power spray equipment. A colored dye that is non-injurious to plant growth may be used, when specified. Wood cellulose fiber shall be packaged in new, labeled containers.

6. Evaluate and take advantage of opportunities to remove, bury, or modify existing power lines. When possible, require perch deterrents on existing or new overhead facilities.

7. Where new ROWs are necessary, co-locate new ROWs within existing ROWs where possible.

8. If a ROW is relinquished, the Authorized Officer will require the holder to complete reclamation with objective of ensuring re-establishment of any prior affected sage-grouse habitat.

9. Subject to valid existing rights including non-federal land inholdings: collocate required new ROWs within existing ROWs or where it best minimizes sage-grouse impacts. Use existing roads, or realignments to access valid existing rights that are not yet developed.

Best Management Practices

1. Coordinate with the CPW early in the sale process on proposals to sell public land encumbered by a small capacity wildlife water development.

Energy and Minerals

Actions involving minerals and energy are governed by:

- Surface Operating Standards and Guidelines to Oil and Gas Exploration and Development" (also known as "The Gold Book") (Revised 2007e);
- Onshore Oil and Gas Order No. 1
- Mineral Materials Disposal Handbook H-3600-1 (BLM 2002e);
- Solid Minerals Reclamation Handbook H-3042-1; and
- 43 CFR 8900.

Best Management Practices -- Fluid Minerals

Best Management Practices (BMPs) are defined in the BLM Land Use Planning Handbook, H-1601-1 as "a suite of state-of-the-art mitigation measures that guide, or may be applied to, management actions to aid in achieving desired outcomes" (BLM 2005a). BMPs are methods, measures, or practices that are applied on a site-specific basis to reduce, prevent, or avoid adverse environmental or social impacts. For each proposed action, a number of BMPs may be applied as necessary to mitigate expected impacts. The following typical environmental Best Management Practices (BMP) may be applied to exploration activities, construction and utilization on individual Applications for Permit to Drill and associated rights-of-way on a case-by-case basis. These procedures are consistent with current national guidance and the Surface Operating Standards and Guidelines for Oil and Gas Development (Gold Book), 2007e. This list is not all inclusive and may be modified over time as conditions change and new practices are identified.

Exploration

1. Temporary gates will be installed for use during the course of operations, unless the fences were immediately repaired. On completion of operations, fences will be restored to, at least, their original condition.

2. During periods of adverse conditions affecting soil moisture caused by such climatic factors as thawing, heavy rains, snow, flooding, or drought, all activities off existing maintained roads that create excessive surface rutting may be suspended.

3. Off-road vehicle travel will be limited to that necessary to complete the geophysical operations.

4. The use of specialized low-surface impact equipment [wide- or balloon-tired vehicles, all-terrain vehicles (ATVs)] or helicopters may be required for any activities in off-road areas to protect the fragile soils or other resource values.

5. Powder magazines will be located at least 1 mile from traveled roads, unless otherwise authorized after analysis or review. Loaded shot holes and charges will be attended at all times.

6. All trash, flagging, and lath will be removed and hauled to an authorized disposal site. No oil or lubricants will be drained onto the ground surface.

7. The underside of all heavy equipment must be cleaned by water before being driven onto public lands. Driving through, or parking on, noxious weed infestations will be avoided.

8. All topsoil from all disturbances will be stockpiled for use in reclamation projects.

9. Vegetation that is removed will be stockpiled, shredded, and used as mulch during site rehabilitation.

10. Drill-hole cuttings will be returned to the hole if possible or, at a minimum, will be raked and spread out so as not to impede regrowth of vegetation or to create erosion problems.

Pre-Construction

1. Existing roads should be used to the extent possible. Additional roads, if needed, will be kept to an absolute minimum, and the location of routes must be approved by the Authorized Officer prior to construction.

2. All access roads will be constructed and maintained to current BLM road standards.

3. Off-road travel will be restricted to terrain with less than 30 percent slopes; 20 percent if highly erodable.

4. Proposed surface disturbance and vehicular travel will be limited to the approved well location and access route.

Well Pad and Facility Construction

1. Every pad, access road, or facility site must have an approved Surface Drainage Plan.

2. Drainage from disturbed areas will be confined or directed so that erosion of undisturbed areas will not be increased.

3. No runoff water (including that from roads) will be allowed to flow into intermittent or perennial waterways without first passing through a sediment-trapping mechanism. Erosion-control structures may include water bars, berms, drainage ditches, sediment ponds, or devices. Existing oil and gas roads that are in eroded condition or contribute to other resource concerns will be brought to BLM standards within a reasonable period of time.

4. Access road construction for exploratory wells should be planned such that a permanent road could later be constructed in the event of field development. All new roads will be designed and constructed to a safe and appropriate standard, “no higher than necessary” to accommodate intended vehicular use.

5. Construction of access roads on steep hillsides and near watercourses will be avoided where alternate routes provide adequate access.

6. Access roads requiring construction with cut-and-fill will be designed to minimize surface disturbance; and will take into account the character of the landform, natural contours, cut material, depth of cut, where the fill material will be deposited, resource concerns, and visual contrast. Roads will follow the contour of the land where practical.

7. Fill material will not be cast over hilltops or into drainages. Cut slope ratios should normally be no steeper than 3:1; and fill slopes no steeper than 2:1.

8. Low-water crossings will be used whenever possible.

9. Placement of production facilities on hilltops and ridgelines will be avoided to the extent possible. Well site layout should take into account the character of the topography and landform. Deep vertical cuts and steep long fill slopes should be avoided. All cut-and-fill slopes should be constructed to the least percent slope practical.

10. Trash will be retained in portable trash cages and hauled to an authorized disposal site for disposal. Burning will not be allowed on the well site.

11. Cattleguards will be installed and maintained whenever access roads go through pasture gates or fences. Maintenance includes cleaning out under cattle guard bases, when needed.

12. When fences are necessary, require a sage-grouse-safe design.

13. Mud, separation pits, and other containments used during the exploration or operation of the lease for the storage of any hazardous materials will be adequately fenced, posted, or covered.

Utilization

1. Operations will be done in a manner that prevents damage to, or interference or disruption of, water flows and improvements associated with all springs, wells, or impoundments.

2. Companies controlling roads that provide access into crucial wildlife areas may be required to close the road with a lockable gate to prevent general use of the road during critical periods of the year when resource problems are experienced (for example, during hunting seasons and winter).

3. The use of closed road segments will be restricted to legitimate authorized agents of the lessee or their subcontractor(s), the land managing agency, and/or to other agencies with a legitimate need (for example, the CPW and law enforcement agencies).

4. Locate roads to avoid important areas and habitats.

5. Coordinate road construction and use among Federal fluid mineral lessees and ROW holders.

6. Petroleum products (such as gasoline, diesel fuel, helicopter fuel, crankcase oil, lubricants, and cleaning solvents) used to fuel, lubricate, and clean vehicles and equipment will be stored in approved containers.

7. Hazardous materials will be properly stored in separate containers to prevent mixing, drainage, or accidents. Hazardous materials will not be drained onto the ground or into streams or drainage areas.

8. Totally enclosed containment will be provided for all solid construction waste. Trash, garbage, petroleum products, and related litter will be promptly removed to an authorized sanitary landfill approved for the disposal of these classes of waste.

9. All powerlines to individual well locations (excluding major power source lines to the operating oil or gas field) and all flow lines will be buried in or immediately adjacent to the access roads where feasible.

10. In developing oil and gas fields, all production facilities may be centralized to avoid tanks and associated facilities on each well pad where necessary to address resource issues.

11. Multiple wells will be drilled from a single well pad wherever feasible.

12. Noise reduction techniques and designs will be used to reduce noise from compressors or other motorized equipment.

13. All above ground facilities including power boxes, building doors, roofs, and any visible equipment will be painted a color selected from the latest national color charts that best allows the facility to blend into the background. Screen facilities from view whenever possible.

Interim and Final Reclamation

1. A reclamation plan is included in the Surface Use Plan of Operations and should discuss plans for both interim and final reclamation.

2. Planning for reclamation prior to construction is critical to achieving successful reclamation in the future. Reclamation becomes significantly more difficult, more expensive, and less effective if sufficient topsoil is not salvaged, interim reclamation is not completed, and if proper care is not taken to construct pads and roads in locations that minimize reclamation needs.

3. Final reclamation of all oil and gas disturbance will involve recontouring of all disturbed areas, including access roads, to the original contour or a contour that blends with the surrounding topography and revegetating all disturbed areas. It also involves salvaging and reusing all available topsoil (whatever soil is on top) in a timely manner, revegetating disturbed areas to native species, controlling erosion, controlling invasive nonnative plants and noxious weeds, and monitoring results. Reclamation measures should begin as soon as possible after the disturbance and continue until successful reclamation is achieved.

4. The long-term objective of final reclamation is to set the course for eventual ecosystem restoration, including the restoration of the natural vegetation community, hydrology, and wildlife habitats. In most cases, this means returning the land to a condition approximating or equal to that which existed prior to the disturbance.

5. During the life of the development, all disturbed areas not needed for active support of production operations should undergo “interim” reclamation in order to minimize the environmental impacts of development on other resources and uses. Reclamation is required of any disturbed surface that is not necessary for continued production operations.

6. Disturbed areas should be revegetated after the site has been satisfactorily prepared. Site preparation will include respreading topsoil to an adequate depth, and may also include ripping, tilling, disking on contour, and dozer track-imprinting.

7. Any topsoil pile set aside should be revegetated to prevent it from eroding and to help maintain its biological viability.

8. All pits must be reclaimed to a safe and stable condition and restored to a condition that blends with the rest of the reclaimed pad area. If necessary, the pit area should usually be mounded slightly to allow for settling and positive surface drainage.

9. Interim reclamation of the well and access road will begin as soon as practicable after a well is placed in production. Facilities will be grouped on the pads to allow for maximum interim reclamation. Interim reclamation will include road cuts and fills and will extend to within close proximity of the wellhead and production facilities.

10. When practical, the operator should respread topsoil over the entire location and revegetate to within a few feet of the production facilities, unless an all-weather, surfaced, access route or turnaround is needed.

11. To achieve final reclamation, the well site must be recontoured to original contour or a contour that blends with the surrounding landform, stockpiled topsoil evenly redistributed, and the site revegetated. Salvaged topsoil must be respread evenly over the surfaces to be revegetated. The topsoiled site should be prepared to provide a seedbed for reestablishment of desirable vegetation.

12. Final reclamation includes recontouring the road back to the original contour, seeding, controlling noxious weeds, and may also include other techniques to improve reclamation success, such as ripping, scarifying, replacing topsoil, constructing waterbars, pitting, mulching, redistributing woody debris, and barricading.

Renewable Energy

Standard Operating Procedures

1. Authorize ROWs by applying appropriate BMPs (Final Programmatic Environmental Impacts Statement on Wind Energy Development on BLM-Administered Lands in the Western United States, BLM 2005c), land use restrictions, stipulations, and mitigation measures.

2. An environmental analysis document is required for applications for monitoring sites in known Sage-grouse Population Management Units.

Best Management Practices -- Planning, Location, and Design

1. Operators will consult with local planning authorities regarding increased traffic prior to the construction phase, including an assessment of the number of vehicles per day, their size, and type. Specific issues of concern (such as location of school bus routes and stops) will be identified and addressed in the Travel Management Plan.

2. Existing roads and pad sites will be used to the maximum extent feasible, but only if located in a safe and environmentally sound location. No new roads and pad sites will be constructed without agency

authorization. If new roads and pad sites have been authorized, they will be designed and constructed by the Operator to the appropriate agency standard, and no higher than necessary to accommodate their intended function. Roads and pad sites will be routinely maintained by the Operator to maintain public safety and to minimize impacts to the environment (such as erosion, sedimentation, fugitive dust, loss of vegetation).

3. The Operator will perform a detailed geotechnical analysis prior to the construction of any structures, so that they will be sited to avoid any hazards from subsidence or liquefaction (such as the changing of a saturated soil from a relatively stable solid state to a liquid during earthquakes or nearby blasting).

4. The Operator will incorporate visual design considerations into the planning and design of the project in order to minimize potential visual impacts of the proposal, and to meet Visual Resource Management (VRM) objectives of the area and the agency.

5. Low-profile structures will be constructed whenever possible to reduce structure visibility.

6. Operators will develop a Hazardous Materials Management Plan addressing storage, use, transportation, and disposal of each hazardous material anticipated to be used at the site. The Plan will identify all hazardous materials that will be used, stored, or transported at the site. It will establish inspection procedures, storage requirements, storage quantity limits, inventory control, non-hazardous product substitutes, and disposition of excess materials. The Plan will also identify requirements for notices to Federal and local emergency response authorities, and will include emergency response plans.

7. The Operator will coordinate with livestock operators to minimize impacts to livestock operations.

8. Operators will develop a plan for control of noxious weeds and invasive species that could occur as a result of new surface-disturbance activities at the site. The most recent recommendations at the local and State level should be incorporated into any Operating Plan for the geothermal exploration and development. The Plan will address monitoring, education of personnel on weed identification, the manner in which weeds spread, and methods for treating infestations. The use of certified weed-free mulching will be required. If trucks and construction equipment are arriving from locations with known invasive vegetation problems, a controlled inspection and cleaning area will be established to visually inspect construction equipment arriving at the project area, and to remove and collect seeds that may be adhering to tires and other equipment surfaces.

9. The Operator will prepare a Habitat Restoration Plan to avoid (if possible), minimize, or mitigate negative impacts on vulnerable wildlife while, at the same time, maintaining or enhancing habitat values for other species. The Plan will identify revegetation, soil stabilization, and erosion reduction measures that will be implemented to ensure that all temporary use areas are restored. The Plan will require that restoration occur as soon as possible after completion of activities to reduce the amount of habitat converted at any one time, and to speed up the recovery to natural habitats.

Best Management Practices -- Geothermal

Prior to geothermal exploration and development, a complete subsurface geotechnical investigation will be conducted to analyze the soil and geologic conditions. The investigation will evaluate and identify

potential geologic hazards, and will provide remedial grading recommendations, foundation and slab design criteria, and soil parameters for the design of geothermal power infrastructure.

1. The Operator will collect available information describing the environmental and socio-cultural conditions in the vicinity of the proposed project, and will provide the information to the BLM.

2. A Monitoring Program will be developed by the Operator to ensure that environmental conditions are monitored during the exploration and well drilling, testing, construction, utilization, and reclamation phases. The Monitoring Program requirements, including adaptive management strategies, will be established at the project level to ensure that potential adverse impacts of geothermal development are mitigated. The Monitoring Program will identify the monitoring requirements for each major environmental resource present at the site, establish metrics against which monitoring observations can be measured, identify potential mitigation measures, and establish protocols for incorporating monitoring observations and additional mitigation measures into ongoing activities. The Operator will provide the results of the Monitoring Program to the BLM in an Annual Report.

3. The Operator will comply with the Secretary of Interior rules and regulations for uses of all existing improvements (such as BLM development roads) within and outside of the area permitted by the Secretary of Interior; and use and occupancy of the BLM-managed public lands not authorized by an Exploration Plan approved by the Secretary of Interior.

Best Management Practices -- Construction

1. Traffic will be restricted to the roads developed for the project. Use of other unimproved roads will be restricted to emergency situations.

2. The Operator will obtain agency authorization prior to borrowing soil or rock material from BLM-managed public lands.

3. Pipelines constructed above ground, due to thermal gradient induced expansion and contraction, will rest on cradles above ground level to allow small animals to pass underneath. Projects should be analyzed to ensure adequate passage for all wildlife species. The pipeline will be raised higher to allow wildlife passage where needed. Pipeline corridors through certain habitat types can alter local predator-prey dynamics by providing predators with lines-of-sight and travel corridors; therefore, large projects should be analyzed to ensure that there will be no significant changes to predator-prey balance. 4. Underground utilities will be installed in a manner designed to minimize the amount of open trenches at any given time, keeping trenching and backfilling crews close together. Avoid leaving trenches open overnight. Where trenches cannot be back-filled immediately, escape ramps should be constructed at least every 100 feet.

Reclamation

The objective of interim reclamation is to restore vegetative cover and a portion of the landform sufficient to maintain healthy, biologically active topsoil; control erosion; and minimize habitat, visual, and forage loss during the life of the well or facilities.

The long-term objective of final reclamation is to return the land to a condition approximating that which existed prior to disturbance. This includes restoration of the landform and natural vegetative community,

hydrologic systems, visual resources, and wildlife habitats. In order to ensure that the long-term objective will be reached through human and natural processes, actions will be taken to ensure that standards are met for site stability, visual quality, hydrological functioning, and vegetative productivity.

Wilderness, Wilderness Study Areas, Wilderness Characteristics

Standard Operating Procedure

All Wilderness Study Areas (WSAs) will be managed in accordance with BLM Manual 6330 – Management of BLM Wilderness Study Areas (BLM 2012f).

Transportation Facilities

Standard Operating Procedures

1. Continue coordination with Counties and other agency road entities to promote the use of the BMPs for road maintenance performed within the KFO boundaries.

2. Maintain an inventory of existing road and trail systems.

3. Use BLM Manual 9100, Facilities Planning, Design, Construction and Maintenance (Section 9113, Roads) (BLM 2008t) to guide all maintenance and road construction designs and requirements. Include definitions for functional road classification and maintenance levels for BLM-managed roads.

4. All highway ROWs 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 3 years of post-abandonment monitoring and treatment.

Best Management Practices

1. In order to ensure public access and safety, the KFO 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.

National Environmental Policy Act (NEPA) Requirements

No new environmental 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 compliance with the NEPA.

Summary

The BMPs/SOPs listed in this Appendix are not "one size fits all," and do not encompass all the effective BMPs/SOPs currently required and/or available. These BMPs/SOPs expand and supplement the basic guidelines and minimum requirements of the BLM laws, rules, regulations, policies, standards, and guidelines. However, several common themes related to the mitigation of environmental impacts were expressed throughout the previous sections, including:

1. the need for proper planning related to timing, spatial extent, and duration critical to minimize environmental impacts;

2. the value of consulting with resource and field specialists to make educated and accurate management decisions;

3. the importance of considering more than one factor (such as just wildlife, or just water quality.) when developing and/or implementing management activities;

4. the necessity of contingency Revegetation Plans in cases where natural reestablishment of native vegetation may not be feasible due to lack of seed source or impacts from competing non-native/invasive vegetation;

5. the need to give special emphasis to the protection of sensitive resources (such as to Listed Species habitats, Cultural Resources, etc.); and

6. the importance of developing inventory and monitoring strategies.

Sources and General Guidance

The following are additional sources and references that the BLM uses, on a case-by-case basis, for additional BMP guidance applicable to the Planning Area. Many of the sources used are included; however, as mentioned above, these references are not all-inclusive and can change when they are amended or when new guidance or policy is issued.

Agreements and Protocols

- Agreement between the Advisory Council on Historic Preservation (ACHP) and the National Conference of State Historic Preservation Officers (NCSHOP) regarding the manner in which the BLM will meet its responsibilities under the National Historic Preservation Act (NHPA).
- Agreement between the BLM Colorado State Director and the Colorado SHPO regarding the manner in which the BLM will meet its responsibilities under the NHPA and the National Programmatic Agreement between the BLM, the Advisory Council on Historic Preservation, and the National Council of State Historic Preservation Officers (1998 Colorado Protocol).
- 2007 Addendum to the Colorado Protocol. CTTM planning and implementation will be consistent with the Colorado Policy on Cultural Clearances for Travel Planning – Addendum 1 to the Colorado Protocol: Section 106 Requirements for Comprehensive Travel and Transportation Management Planning (BLM.2006i).

Authorities

Acts

- The Agricultural Conservation Program (16 USC 590d);
- The Alaska National Interest Lands Conservation Act of December 2, 1980 (94 Stat. 2371);
- The Alaska Native Claims Settlement Act of December 18, 1971 (43 USC 1601);

- The American Indian Religious Freedom Act (42 USC 1996, 1996a);
- The Antiquities Act of 1906 (16 USC. 431 et seq.);
- The Archaeological Resources Protection Act of 1979 (16 USC 470a et seq.);
- The Bald Eagle Protection Act of 1940 (16 USC 668);
- The Bankhead Jones Farm Tenant Act of July 22, 1937 (7 USC 1012);
- The Carlson Foley Act of 1968 (PL 90-583);
- The Clean Air Act of 1970 (42 USC1857-58a);
- The Clean Air Act of 1990, as amended (42 USC 7401 et seq.);
- The Clean Water Act of 1987, as amended (33 USC 1251);
- The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 USC 9601 et seq.);
- The Disaster Relief Act of May 22, 1974 (42 USC 5121);
- The Economy Act of June 30, 1932 (16 USC);
- The Endangered Species Act of 1973 (16 USC 1531 et seq.);
- The Energy Policy Act of 2005 (43 USC 15801);
- The Environmental Quality Improvement Act of 1970 (42USC 4371-4375);
- The Federal Cave Resources Preservation Act of 1988 (16 USC 4351 et seq.);
- The Federal Fire Prevention and Control Act of October 29, 1974 (15 USC 2201);
- The Federal Food, Drug, and Cosmetic Act (21 USC 301 et seq.);
- The Federal Grant and Cooperative Agreement Act of 1977 (31 USC 6301-6308);
- The Federal Insecticide, Fungicide, and Rodenticide Act (7 USC 136 et seq.);
- The Federal Land Exchange Facilitation Act of 1988 (43 USC 1701);
- The Federal Land Policy and Management Act of 1976 (FLPMA) (43 USC 1701 et seq.);
- The Federal Lands Recreation Enhancement Act of 2005 (16 USC 6801 et seq.);
- The Federal Land Transaction Facilitation Act (FLTFA) (43 USC 2301 et seq.);
- The Federal Noxious Weed Act of 1974 (7 USC 2801 et seq.);
- The Federal Property and Administrative Service Act of 1949 (40 USC 471 et seq.);
- The Federal Quality Protection Act of 1996 (7 USC 136 et seq.);
- The Fish and Wildlife Coordination Act of 1958 (16 USC 661 et seq.);
- The Fish and Wildlife Improvement Act of 1978 (92 Stat. 3110, P.L. 95-616);
- The Fishery Conservation and Management Act of 1976 (16 USC 1801 et seq.);
- The Food Security Act of 1985 (Farm Bill);
- The Great Plains Conservation Program (16 USC S Op.);
- The Historic Sites Act of 1935 (16 USC 461 et seq.);
- The Indian Self-Determination and Education Assistance Act (PL 93-638);
- The McSweeney-McNary Act of 1928 (16 USC 487);
- The Migratory Bird Treaty Act of 1918 (16 USC et seq.);
- The Mineral Leasing Act of 1920 (30 USC 181 et seq.);
- The National Environmental Policy Act of 1969 (NEPA) (42 USC 4321-4370);
- The National Historic Preservation Act of 1966 (16 USC 470 et seq.);
- The National Indian Forest Resources Management Act of 1990 (PL 101-630);

- The National Wildlife Refuge System Administration Act of 1966 as amended (16 USC 668dd-668ee);
- The National Park Service Acts as amended (16 USC 1b);
- The Native American Graves Protection and Repatriation Act (25 USC 3001 et seq.);
- The Noxious Weed Control and Eradication Act of 2004 (7 USC 7781 et seq.);
- The Oregon and California (O&C) Act of August 28, 1937 (43 USC 1181e);
- The Plant Protection Act (7 USC 7701 et seq.);
- The Preservation of Historical and Archaeological Data Threatened by Dam Construction or Alterations of Terrain (16 USC 461 et seq.);
- The Protection Act of September 20, 1922 (16 USC 594);
- Public Law 106-206, Commercial Filming;
- The Public Rangelands Improvement Act of 1978 (43 USC 1901 et seq.);
- The Reciprocal Fire Protection Act of May 27, 1955 (42 USC 1856a);
- The Reclamation Act of 1902 (43 USC 391);
- The Recreation and Public Purposes Act as amended (43 USC 869 et seq.);
- The Resource Conservation and Recovery Act of 1976 (RCRA) (42 USC 1901 et seq.);
- The Soil Conservation and Allotment Domestic Act of April 27, 1935, as amended (16 USC 590a-590q);
- The Supplemental Appropriation Act of September 10, 1982 (96 Stat. 837);
- The Surface Mining Control and Reclamation Act of 1977 (30 USC 1201 et seq.);
- The Act of September 15, 1960, as amended (16 USC 670 et seq.);
- The Federal Water Projects recreation Act (16 USC 4601-12 et seq.);
- The Land and Water Conservation Fund Act of 1965 (16 USC 4601-6a);
- The National Parks and Recreation Act of 1978 (16 USC 1242-1243);
- The National Trails System Act of 1968 (16 USC 1241-1251);
- The Outdoor Recreation Act of May 28, 1963 (16 USC 4601-1);
- The Pierce Act of 1938 (52 Stat. 1033);
- The Sikes Act of 1974, as amended (16 USC 670 et seq.);
- The Wild and Scenic Rivers Act (16 USC 1281c);
- The Wild and Scenic Rivers Act of 1968 (16 USC 1271 et seq.);
- The Wilderness Act (16 USC 1131c) & (43 USC 1702i);
- The Taylor Grazing Act of June 28, 1934 (43 USC 315);
- The Tribal Self-Governance Act of 1994 (PL 013-413);
- The U.S. Department of Interior and Related Agencies Appropriations Act (PL 103-32); and
- The Wildfire Suppression Assistance Act of 1989 (PL 100-428 as amended by PL 101-11);

Code of Federal Regulations (CFRs)

- 36 CFR -- Parks, Forests, and Public Property
- 43 CFR -- Public Lands, Interior

Executive Orders/Secretarial Orders

- EO 11644, Use of Off-Road Vehicles on the Public Lands;

- EO 11738, Providing for Administration of the Clean Air Act and the Federal Water Pollution Control Act with Respect to Federal Contracts, Grants or Loans;
- EO 11988, Flood Plain Management;
- EO 11989, Use of Off-Road Vehicles on the Public Lands;
- EO 11990, Protection of Wetlands;
- EO 13112, Invasive Species;
- EO 13423, Strengthening Federal Environmental, Energy, and Transportation Management; and
- Secretarial Order 3226, Evaluating Climate Change Impacts in Environmental Planning;

Guidelines

- Aids to Determining Fuel Models for Estimating Fire Behavior. USDA Forest Service General Technical Report, INT.-122, 22p. Intermountain Forest and Range Experiment Station. (BLM 2006f).
- BEHAVE: Fire Behavior Prediction and Fuel Modeling System – BURN Subsystem, Part 1. USDA Forest Service General Technical Report, INT.-194 (BLM 2011a).
- BLM's National Management Strategy for Motorized Off-Highway Use on Public Lands, January 19, 2001 (BLM 2001b).
- BLM National Sage-Grouse Habitat Conservation Strategy, November 2004 (BLM 2004a).
- BLM National Sage-Grouse Habitat Conservation Strategy, 1.3.1 Guidance for Addressing Sagebrush Habitat Conservation in BLM Land Use Plans, November 2004. (Available on the Internet at: http://www.blm.gov/pgdata/etc/medialib/blm/wo/Planning_and_Renewable_Resources/fish__wildlife_and.Par.53354.File.dat/Sage-Grouse_Strategy_1_3_1.pdf1.pdf)
- BLM's Priorities for Recreation and Visitor Services (Purple Book) (BLM 2003c). (Available on the Internet at: http://www.ntc.blm.gov/krc/uploads/320/BLM%20Priorities%20Recreation%20and%20Visitor%20Services%20(Purple%20Book).pdf)
- BLM Visual Resource Management for Fluid Minerals. Best Management Practices/Participants Notebook Field Reference Guide (BLM 2007o).
- Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development (commonly referred to as The Gold Book) (BLM 2006e).
- Bonytail (Gila elegans) Recovery Goals: amendment and supplement to the Bonytail Chub Recovery Plan. U.S. Fish and Wildlife Service, Mountain Prairie Region (6). U.S. Department of the Interior (USFWS 2002a). (Available on the Internet at: http://ecos.fws.gov/docs/recovery_plan/060727a.pdf)
- Boreal Toad Recovery Plan (CDOW 2001). (Available on the Internet at: http://wildlife.state.co.us/Research/Aquatic/BorealToad/Pages/BorealToad.aspx)
- CDOW's Actions to Minimize Adverse Impacts to Wildlife Resources (CDOW 2008e).
- Colorado Greater Sage-Grouse Conservation Plan (Colorado Greater Sage-Grouse Steering Committee 2008).
- Colorado Office of Archaeology and Historic Preservation Cultural Report Guidelines and Forms (BLM 2011b). (Available on the Internet at:

http://www.blm.gov/pgdata/etc/medialib/blm/co/programs/cultural_resources.Par.72785.File.dat/Handbook_revised%203-2011.pdf)

- Colorado Policy on Cultural Clearances for Travel Management Planning – Addendum 1 to the Colorado Protocol: Section 106 Requirements for Comprehensive Travel and Transportation Management Planning. (Available on the Internet at: http://www.blm.gov/pgdata/etc/medialib/blm/co/information/efoia/2007/2007_im.Par.53849.File.dat/COIM2007-023ATT1.pdf)
- Colorado's Comprehensive Wildlife Conservation Strategy (CDOW 2006c). (Available on the Internet at: http://wildlife.state.co.us/WildlifeSpecies/ColoradoWildlifeActionPlan/Pages/ColoradoWildlifeActionPlan.aspx)
- Federal Interagency Committee for the Management of Noxious and Exotic Weeds (FICMNEW). (Available on the Internet at: http://www.fs.fed.us/ficmnew/index.shtml)
- Humpback Chub Recovery Plan (USFWS 1990b). (Available on the Internet at: . http://www.fws.gov/southwest/es/Arizona/Documents/RecoveryPlans/Humpback_Chub_1990.pdf)
- Interagency Standards for Fire and Fire Aviation Operations 2009, Department of the Interior: BLM, NPS, USFWS; Department of Agriculture: USFS. January 2009 NFES 2724 (BLM, NPS, USFWS, USFS 2009).
- Least Tern Recovery Plan. USFWS, Region 6 (USFWS 1990a). (Available on the Internet at: http://www.fws.gov/montanafieldoffice/Endangered_Species/Recovery_and_Mgmt_Plans/Least_Tern_Recovery_Plan.pdf
- Low-Volume Roads Engineering, Best Management Practices Field Guide. Developed by Gordon Keller and James Sherar. (Available on the Internet at: http://ntl.bts.gov/lib/24000/24600/24650/Index_BMP_Field_Guide.htm)
- Lynx Conservation Assessment and Strategy (Lynx Biology Team 2000).
- Managing the Impacts of Wildfires on Communities and the Environment – A Report to the President, August 2000. (Available on the Internet at: http://clinton4.nara.gov/CEQ/firereport.pdf)
- Meeting the Invasive Species Challenge. (National Invasive Species Council. 2001). (Available on the Internet at: http://www.invasivespeciesinfo.gov/docs/council/mp.pdf)
- National Fire Plan, A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment – 10 Year Strategy Implementation Plan (DOI and UDSA 2000).
- North Park Phacelia Recovery Plan (USFWS 1986).
- Northwest Colorado Council of Governments, Water Quality Protection Standards. (Available on the Internet at: http://www.nwc.cog.co.us/index.php/programs/watershed-services/)
- Osterhout Milkvetch and Penland Beardtongue Recovery Plan (USFWS, 1992). (Available on the Internet at: http://ecos.fws.gov/docs/recovery_plan/920930c.pdf)
- Pallid Sturgeon Recovery Plan (USFWS, 1993). (Available on the Internet at: http://ecos.fws.gov/docs/recovery_plans/1993/931107.pdf)
- Pikeminnow Recovery Plan (USFWS, 2002d). (Available on the Internet at: http://ecos.fws.gov/docs/recovery_plan/020828b.pdf)

- Razorback Sucker Recovery Plan (USFWS, 2002e. (Available on the Internet at: http://www.coloradoriverrecovery.org/documents-publications/foundational-documents/recoverygoals/Razorbacksucker.pdf)
- State of Colorado River Otter Recovery Plan (CDOW 2003). (Available on the Internet at: http://wildlife.state.co.us/SiteCollectionDocuments/DOW/WildlifeSpecies/SpeciesOfConcern/RecoveryPlans/CDOW2003Riverotterrecoveryplan.pdf)
- Unified Strategy to Implement "BLM's Priorities for Recreation and Visitor Services" Workplan (Purple Book) (BLM 2007p). (Available on the Internet at: http://www.blm.gov/pgdata/etc/medialib/blm/wo/Planning_and_Renewable_Resources/recreation_images/national_recreation/planning.Par.76166.File.dat/im2007-043_a1.pdf)
- Rocky Mountain Research Station, Fire Sciences Laboratory: Fire Effects Information System (USFS 2002a).
- Final Report: Federal Wildland Fire Management Policy and Program (DOI and USDA 1995).
- Visual Resource Management Update, Glenwood Springs and Kremmling Resource Areas, September 28, 2007 (Otak 2007).

Instruction Memorandums and Technical Documents

- BLM IM No. 2007-021. Integration of Best Management Practices into Application for Permit to Drill Approvals and Associated Rights-of-Way.
- BLM IM No. 2007-097. Solar Energy Development Policy.
- BLM IM No. 2009-043. Wind Energy Policy.

BLM Technical References

- P312 -- Livestock Grazing on Western Riparian Areas.
- P316 -- Riparian-Wetland Initiative for the 1990's.
- P322 -- Indexed Bibliography of Stream Habitat Improvement.
- P363 -- Willow Planting for Riparian Area Habitat Improvement
- P373 -- Managing Change – Livestock Grazing on Western Riparian Areas.
- P385 -- Pipe-laying Techniques on Open Range Land: A new Method for Laying Heavy- duty Pipe.
- P392 -- Open Stream Collection and Diversion: An Added Dimension in Providing Water for Grazing Animals.
- P423 -- Hydraulic Considerations for Pipelines Crossing Stream Channels
- TR1730-2 -- Biological Soil Crusts: Ecology and Management.
- TR1734-1 -- Inventory and Monitoring Coordination, Guidelines for the Use of Aerial-Photography in Monitoring.
- TR1734-3 -- Utilization Studies and Residual Measurements.
- TR1734-4 -- Sampling Vegetation Attributes.
- TR1734-6 -- Interpreting Rangeland Indicators.
- TR1737-3 -- Inventory and Monitoring Riparian Areas.
- TR1737-5 -- Riparian and Wetland Classification Review.
- TR1737-6 -- Management Techniques in Riparian Areas.

- TR137-7 -- Procedures for Ecological Site Inventory – With Special reference to Riparian-Wetland Sites.
- TR1737-8 -- Greenline Riparian-Wetland Monitoring.
- TR1737-9 -- Process for Assessing Proper Functioning Condition.
- TR1737-10 -- The Use of Aerial Photographs to Manage Riparian-Wetland Areas.
- TR1737-11 -- Process for Assessing Proper Functioning Condition for Lentic Riparian- Wetland Areas.
- TR1737-12 -- Using Aerial Photographs to Assess Proper Functioning Condition of Riparian-Wetland Areas.
- TR1737-13 -- Observing Physical and Biological Change Through Historical Photographs
- TR1737-14 -- Grazing Management for Riparian Wetland Areas: Riparian Area Management (Updated ed. of: Grazing Management in Riparian Areas/Gene Kinch, 1989 Technical Reference 1737-4)
- TR1737-17 -- A Guide to Managing, Restoring, and Conserving Springs in the Western United States
- TR1737-18 -- USFS GTR RMRS-54 CD-Managing for Enhancement of Riparian and Wetland Areas of the Western United States: An Annotated Bibliography.
- TR1737-20 -- Grazing Management Processes and Strategies for Riparian-Wetland Areas
- TR1737-22 -- Riparian Restoration USFS 0423 1201 – SDTDC.
- TR4400-2 -- Actual Use
- TR4400-5 -- Supplemental Studies
- TR4400-7 -- Analysis Interpretation and Evaluation (undergoing update)
- TR4400-8 -- Statistical Considerations
- TR9113-1 -- Planning and Conducting Route Inventories

Appendix E: Comprehensive Air Resource Protection Protocol (CARPP)

February 2014

COLORADO BUREAU OF LAND MANAGEMENT

COMPREHENSIVE AIR RESOURCE PROTECTION PROTOCOL (CARPP)

Table of Contents

Comprehensive Air Resources Protection Protocol (CARPP) 3

Section 1 – Purpose, Scope, and Responsibilities 3

I.A CARPP Scope 3

I.B BLM Responsibilities under FLMPA and MLA 3

Section II – Interagency Air Resources Collaboration 3

II.A National Air Quality MOU 4

Section III – Actions to Analyze & Protect Air Quality 4

III.A Monitoring 4

III.B Emissions Inventories 5

III.C Modeling 5

III.D Permitting 7

III.E Mitigation 7

III.F Protocol Implementation 8

Section IV – Adaptive Management Processes for Air Resources 9

IV.A Establish Baseline Air Quality Conditions 9

IV.B Emissions Tracking 9

IV.C Prescriptive Model Validation 9

IV.D Responding to Monitored Exceedances of the NAAQS 10

IV.E Evaluating Projected Future Development/Emissions 11

SECTION V – Annual Summary Report 11

Section VI – Oil and Gas Development Emissions Reduction Strategies & BMPs 11

Table VI 1 Best Management Practices and Air Emission Reduction Strategies for Oil and Gas Development 11

CARPP Change History

SECTION	REVISION	DATE
III.D.1	Amended paragraph to reflect final approved LN language.	2/11/2014

Comprehensive Air Resources Protection Protocol (CARPP)

Section I – Purpose, Scope, and Responsibilities

This Comprehensive Air Resources Protection Protocol (CARPP) describes the process and strategies the BLM will use when authorizing activities that have the potential to adversely impact air quality within the state of Colorado. This protocol also outlines specific measures that may be taken to address BLM-approved activities with the potential to cause significant adverse impacts to air resources (via the generation of significant quantities of air emissions) within any planning area (as determined on a case by case basis). Further, the purposes of this protocol are to address air quality issues identified by the Bureau of Land Management (BLM), or public scoping, in its analysis of potential impacts on air resources for BLM Colorado Resource Management Plans and Environmental Impact Statements (RMP/EIS); and clarify the mechanisms and procedures that BLM will use to achieve the air resources goals, objectives, and management actions set forth in BLM Colorado RMPs.

I.A CARPP Scope

The CARPP is not a decision document, but rather a strategy to address air quality concerns throughout BLM-managed lands and resources in Colorado. Because the CARPP is not a field office specific management tool, it may be modified as necessary to comport or comply with changing laws, regulations, BLM policy, or to address new information and changing circumstances without maintaining or amending any specific Field Office RMP (see reference version date on the cover page).

However, changes to the goals, objectives, or management actions set forth in any Colorado Field Office RMP/EIS as a result of the changes in the CARPP (or more specifically, any subsequent analysis based on such changes) would require an amendment of the specific RMP being affected.

I.B BLM Responsibilities under FLMPA and MLA

The BLM has the authority and responsibility under the Federal Land Policy and Management Act (FLPMA) to manage public lands in a manner that will protect the quality of air and atmospheric values [FLPMA Sec. 102(a)(8)]. The FLPMA also provides that the public lands be managed in a manner which recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands and includes provisions for implementing the Mining and Minerals Policy Act of 1970 [FLPMA Sec. 102(a)(12)]. The BLM has the responsibility under the Mineral Leasing Act (MLA) to implement the decisions of any RMP/EIS in a manner that recognizes valid and existing lease rights[i].

Further, the FLPMA provides that "In the development and revision of land use plans, the Secretary shall provide for compliance with applicable pollution control laws, including State and Federal air, water, noise, or other pollution standards or implementation plans;" [FLPMA Sec. 202(c)(8)][ii].

Section II – Interagency Air Resources Collaboration

The Bureau of Land Management is firmly committed to working with federal, state, tribal, and local air resource management partners to address complex and often cross-jurisdictional air quality issues. As a federal agency, we have a role to provide leadership in addressing known air quality issues within our authority and domain, while upholding our responsibility to manage the public lands for multiple-use under the FLPMA. We also recognize that the State of Colorado, specifically the Colorado Department of Public Health and Environment (CDPHE), has the primary responsibility and authority delegated by

the EPA to regulate and maintain air quality standards within Colorado in accordance with the Clean Air Act. Interagency collaboration is the key to management of air quality, as no single agency has all the necessary tools to solve these complex issues alone. We must act together.

To that end the BLM will work collaboratively with other local, state, federal, and tribal agencies involved in the management of air resources to develop a comprehensive strategy to protect air resources from potentially significant adverse impacts resulting from BLM approved activities in Colorado.

II.A National Air Quality MOU

When making oil and gas implementation decisions, the BLM will consider or apply, as appropriate, the provisions of the Memorandum of Understanding Among the US Department of Agriculture, US Department of the Interior, and US Environmental Protection Agency, Regarding Air Quality Analyses and Mitigation for Federal Oil and Gas Decisions Through the NEPA Process, signed June 23, 2011.

Section III – Actions to Analyze & Protect Air Quality

The following sections describe actions the BLM will take to ensure an adequate analysis and subsequent protection for air quality resources within Colorado. Appropriate air resources protection requires the BLM to manage its authorized activities and actions at broad spatial and temporal scales that are dynamic and thus subject to change. The BLM will accomplish this through an adaptive management approach, which includes establishing baseline conditions, monitoring, reevaluation, and adjustment as necessary. Adaptive management therefore contemplates regular review and adjustment of management approaches during the authorization of emissions generating activities commensurate with changing circumstances.

III.A Monitoring

Ambient air monitoring provides valuable data for determining current and background concentrations of air pollutants, describing long term trends in air pollutant concentrations, and evaluating the effectiveness of air control strategies. The BLM's comprehensive air resource protection protocol includes the ambient air monitoring measures described in this section.

III.A.1 – Air Monitoring Network

The BLM will participate in a cooperative effort with industry, CDPHE, Forest Service, National Park Service, EPA, local counties, and other entities as appropriate, to establish, operate, and maintain a comprehensive air monitoring network within the planning areas where a need for monitoring has been identified (contingent upon available funding). The BLM will cooperate in the sharing of air monitoring data collected by the air monitoring network with other agencies and the public.

III.A.2 – Pre-Construction Air Monitoring

The BLM may request proponents of projects with the potential to generate significant air emissions, to submit pre-construction air monitoring data from a site within or adjacent to the proposed development area. The purpose of this air monitoring is to determine baseline air quality conditions prior to development at the site. The need for monitoring will be determined by the BLM based on the availability or absence of existing representative air monitoring data and the factors listed in Section III.D of this protocol. If the BLM determines that pre-construction monitoring is necessary, the project proponent must provide a minimum of one year of representative ambient air monitoring data for the pollutants of concern. The project proponent will be responsible for siting, installing, operating, and

maintaining any new air monitoring equipment needed to fulfill this requirement in the absence of existing representative air monitoring data.

III.A.3 – Life of Project Air Monitoring

The BLM may require proponents or operators of Federal mineral development projects, or proponents of other potentially significant emission generating projects, to conduct air monitoring for the life of the project based on the availability or absence of representative air monitoring data and the factors listed in Section III.D of this protocol. The purpose of this air monitoring is to measure impacts potentially attributable to the project over time and to determine the effectiveness of emissions control measures required for the project. The project proponent will be responsible for siting, installing, operating, and maintaining any new air monitoring equipment needed to fulfill this requirement in the absence of existing representative air monitoring data.

III.A.4 – Monitoring Data Transparency

Project-specific monitoring data may be used by the BLM in subsequent NEPA analysis required for project approvals. Thus public disclosure of such data is assured via the NEPA process, if used. Additionally, the BLM will ensure that ambient air monitoring data collected as a COA for any BLM authorized activity will be made publicly available within the body or our annual report required under Section V of this protocol.

III.B Emissions Inventories

The BLM will request the proponent of an oil and gas development activity (as proposed in a permit application, plan of development, or Master Development Plan) to submit a comprehensive inventory of anticipated direct and indirect emissions associated with the proposed project. The emissions inventory will include estimated emissions of regulated air pollutants from all sources related to the proposed activity, including fugitive emissions and greenhouse gas emissions, for each year or distinct project phase over the life of the project. The BLM will review the emissions inventory to determine its completeness and accuracy. In most cases the BLM will accept inventory data reported to other agencies for the purposes of meeting this requirement. For example BLM would accept copies of actual emissions data for criteria pollutants, volatile organic compounds, hazardous air pollutants, and greenhouse gases that are submitted to CDPHE as required for applicable air permitting or APEN requirements, or submittals to COGCC in the form of drilling and production data reports, and data to EPA under the Greenhouse Gas Reporting Rule (40 CFR Part 98 Subpart W) for the authorized action.

III.C Modeling

Air dispersion and photochemical grid models are useful tools for predicting project-specific impacts on air quality, predicting the potential effectiveness of control measures and strategies, and forecasting trends in regional concentrations of air pollutants. The BLM will use regional air modeling and project-specific modeling, in conjunction with other air analysis tools, to develop air resource protection strategies consistent with our responsibilities under FLPMA. Further, the BLM will provide appropriate disclosure for any modeling of direct, indirect, and cumulative impacts of proposed actions during the required NEPA analysis.

III.C.1 – Project-specific Modeling

The BLM may require project-specific air quality modeling, consistent with the Air Resources MOU to analyze potential impacts from a proposed Federal mineral development project or other proposed activity

that has the potential to emit significant quantities of a regulated air pollutant and the effectiveness of any air emission control measures. Project proponents may submit results from other modeling analyses that include activities similar to the proposed project for BLM's review and approval, and if approved, those modeling results may be used in lieu of new project-specific modeling. The decision as to whether to require air quality modeling will be based on factors listed in Section III.D of this protocol. The BLM will not require an air modeling analysis when it can be demonstrated that the project will not cause a substantial increase in emissions of the pollutants of concern.

III.C.2 – Modeling Protocol

The BLM will determine the parameters required for a project-specific modeling analysis through the development of a modeling protocol for each analysis. When conducting a regional model or EIS level project specific oil and gas air modeling analysis, the BLM will adhere to the *Memorandum of Understanding Among the US Department of Agriculture, US Department of the Interior, and US Environmental Protection Agency, Regarding Air Quality Analyses and Mitigation for Federal Oil and Gas Decisions Through the NEPA Process*, signed June 23, 2011.

III.C.3 – Regional Air Modeling

The BLM will support and participate in regional modeling efforts through multi-state and/or multi-agency organizations such as Western Governors' Association – Western Regional Air Partnership (WRAP) and the Federal Leadership Forum (FLF). In addition, BLM will, contingent upon available funding, conduct and facilitate regional air modeling as needed. Currently, the BLM is facilitating the Colorado Air Resources Management Modeling Study (CARMMS). CARMMS is a BLM funded regional air quality modeling study of expected impacts on air quality from projected increases in oil and gas development across Colorado and certain upwind adjacent states.

- The CARMMS modeling protocol/study will be developed by the BLM with involvement from appropriate local, state, federal, and tribal agencies involved in the management of air resources and the authorization and regulation of oil and gas development.
- The CARMMS results will include the predicted impacts from all projected federal and non-federal oil and gas development within the region.
- The CARMMS results and analysis will be made available to the public.

III.C.4 – Evaluation of Modeling Results

The BLM will cooperate in an interagency process to develop a comprehensive strategy to manage air quality impacts from future oil and gas development within the region. As part of that strategy, the local, state, federal, and Tribal agencies involved in the regulation of air quality and the authorization of oil and gas development would evaluate modeling results from CARMMS or other future modeling studies and identify potential air quality concerns and necessary reductions in air emissions. If the modeling predicts significant impacts, these agencies would use their respective authorities to implement appropriate enhanced emission control strategies, operating limitations, equipment standards, and/or pacing of development.

III.C.5 – Future Modeling Studies

Future iterations of the CARMMS, or a similar regional modeling study of expected impacts from oil and gas development, may be conducted through a collaborative interagency management mechanism and interagency / industry funding mechanism.

III.D Permitting

As part of the NEPA process and prior to the authorization of any Federal mineral development activity the BLM will conduct an air analysis to determine the potential impacts on air quality based on the estimated emissions from the activity being authorized. The BLM may conduct such an analysis for other authorized activities with the potential to generate significant emissions of a regulated pollutant. The BLM will consider the following factors to identify pollutants of concern and make decisions regarding the appropriate level of air analysis, monitoring, and reporting requirements for the proposed activity.

- magnitude of potential air emissions from the proposed activity
- duration of proposed activity and distinct phase considerations
- proximity to a federally mandated Class I area, sensitive Class II area (as identified on a case-by-case basis by CDPHE or a federal land management or tribal agency), population center, or other sensitive receptor
- location within or adjacent to a non-attainment or maintenance area
- meteorological and geographic conditions
- existing air quality conditions including measured exceedances of NAAQS or CAAQS and measured adverse impacts on air quality related values (AQRVs) at Class I and sensitive Class II areas
- intensity of existing and projected development in the area
- issues identified during project scoping

III.D.1 – Statewide Lease Notice

The following Lease Notice language will be incorporated into all new leases.

> *Due to potential air quality concerns, supplementary air quality analysis may be required for any proposed development of this lease. This may include preparing a comprehensive emissions inventory, performing air quality modeling, and initiating interagency consultation with affected land managers and air quality regulators to determine potential mitigation options for any predicted significant impacts from the proposed development. Potential mitigation may include limiting the time, place, and pace of any proposed development, as well as providing for the best air quality control technology and/or management practices necessary to achieve area-wide air resource protection objectives. Mitigation measures would be analyzed through the appropriate level of NEPA analysis to determine effectiveness, and will be required or implemented as a permit condition of approval (COA). At a minimum, all projects and permitted uses implemented under this lease will comply with all applicable National Ambient Air Quality Standards and ensure Air Quality Related Values are protected in nearby Class I or Sensitive Class II areas that are afforded additional air quality protection under the Clean Air Act (CAA).*

III.E Mitigation

Many activities that the BLM authorizes, permits, or allows generate air pollutant emissions that have the potential to adversely impact air quality. The primary mechanism to reduce air quality impacts is to reduce emissions via project design features and mitigation. Appropriate emission reduction measures are best identified and required at the project authorization stage, when the temporal and spatial characteristics and technological specifications of the proposed action have been defined. The

project-specific information available at that stage allows for the development of an emissions inventory and impact analysis that can be used to identify effective mitigation options for predicted adverse impacts. Section VI, Emissions Reduction Strategies and Best Management Practices, provides some emission reduction technologies and strategies as an example. The list in Table VI-1 is not intended to be all inclusive or preclude the use of other effective air pollution control technologies that may be proposed.

The BLM will ensure implementation of reasonable mitigation, control measures, and design features through appropriate mechanisms, including lease stipulations identified in RMPs, notices to lessees, and conditions of approval (permit terms and conditions) as provided for by law and consistent with lease rights and obligations. In the absence of, or in addition to effective control technologies, the BLM may manage the pace, place, density, and intensity of leasing and development to meet air quality goals and objectives as defined under any applicable RMP.

III.E.1 – Emissions Reduction Planning / Minimizing Air Emissions

The BLM will request proponents of oil and gas development projects that have the potential to significantly adversely impact air quality or predicted to exceed an air quality standard to provide an emissions reduction plan where air quality has been identified as a resource of concern in applicable NEPA analysis. Plans shall include a detailed description of operator committed measures to reduce project related air pollutant emissions including greenhouse gases and fugitive dust. All projects are required to comply with all applicable state and federal regulations.

III.E.2 – Project-specific Mitigation

If the project-specific air quality analysis predicts future impacts on NAAQS or CAAQS (i.e. exceedances) or adverse impacts to AQRVs in Class I or sensitive Class II areas, the BLM will analyze air quality mitigation measures for emission sources. Further, if the regional air quality modeling study conducted under Section III.C.3 predicts significant cumulative impacts on air resources from expected oil and gas development in the region, the BLM may require the proponent of an oil and gas development project to apply reasonable mitigation including but not limited to best management practices (see Section VI), emissions offsets, and other control technologies or strategies identified in the project-specific air quality analyses.

Where identified and analyzed mitigation measures cannot be reasonably implemented for a particular proposed action due to the overall project design, or substantial technical or economic barriers, the BLM will work with project proponents during the NEPA process to develop operator-committed measures or acceptable emissions offsets that would be included as conditions of approval (COA). Any operator committed measures would be required to provide an air quality benefit sufficient in type, scale, location, and timing to avoid the anticipated adverse impact or at a minimum, to reduce it to an acceptable level for the specific area and pollutant(s) analyzed.

III.F Protocol Implementation

The BLM will ensure that air resource protection strategies and mitigation measures are implemented by including project-specific COAs (operator-committed and/or required mitigation) for each authorized action. Any COAs applied to projects as a result of this process shall be clearly consistent with the applicable RMP management decisions and/or subsequent analysis of new or previously unavailable information upon which the BLM can reasonably rely.

Section IV – Adaptive Management Processes for Air Resources

Adaptive management incorporates the principles of monitoring current conditions, predicting future impacts, and adapting management strategies to account for changing conditions. An adaptive management strategy for air quality resources allows the BLM to comply with NEPA and complete an appropriate analysis to ensure that activities approved by the BLM minimize adverse impacts to air quality; while allowing for development of important domestic energy resources.

The BLM will implement an adaptive management strategy to account for changing air quality conditions and to minimize adverse impacts to air resources from BLM-authorized activities. The strategy includes evaluating air quality on an on-going basis, and if necessary, implementing appropriate mitigation measures to meet the identified objectives and targets for any applicable Colorado RMP. The adaptive management strategy is intended to be transparent and as such the process includes an annual reporting component that will be made available to the public, as well as case by case incorporation of specific plan elements within individual project approvals. Components of this adaptive management strategy include the following:

IV.A Establish Baseline Air Quality Conditions

Existing air quality conditions will be established and continuously updated on an annual basis. To establish a periodic baseline, data must be compiled and analyzed such that air quality value trends (NAAQS & AQRVs for Class I and sensitive Class II areas) can be established or evaluated for the purpose of predicting future impacts from BLM-authorized activities. Sources of data for this analysis may include raw air quality monitoring station data, air quality monitoring reports prepared by others (CDPHE, EPA, NPS or USFS), and/or appropriate regional modeling results.

In addition to monitored or predicted background data, regional emissions inventories will be continuously or periodically updated to reflect the annual mass of pollutants added to the atmosphere. The data will provide an understanding between mass emissions and monitored/modeled air quality conditions and provide a reasonable basis from which to evaluate impacts from future projects or actions.

The last component of the baseline analysis includes providing a brief synopsis of the current meteorological conditions that exist for any planning area such that exceptional events and historical deviations in atmospheric values can be documented to provide additional context for the observed/reported air quality values.

IV.B Emissions Tracking

To provide for the periodic baseline the BLM will use the project-specific information used in its NEPA analyses as a mechanism to track emissions of criteria pollutants, volatile organic compounds, hazardous air pollutants, and greenhouse gases from BLM authorized oil and gas activities within each field office planning area. (NOTE: the BLM may incorporate emissions inventories for other authorized activities with significant emissions to provide for an appropriate cumulative inventory, where such sources are not already included as a Colorado Air Pollution Emissions Notice, or National Emissions Inventory component). The BLM will use emissions data from APDs to inform iterative elements of our adaptive management strategy, including modeling inputs and any subsequent prescriptive or comparative project tiering from any applicable modeling results.

IV.C Prescriptive Model Validation

Prescriptive model validation includes comparing the annual NEPA emissions data from BLM authorized oil and gas activities within the planning areas to emission levels analyzed in the CARMMS modeling study (or the most recent BLM or interagency air impacts analysis conducted in accordance with the provisions of the modeling Section III above). Emissions data will include specific oil and gas indicators, such as the number of wells drilled, number of producing wells, production data, compressor stations installed, centralized liquids gathering stations, and gas treatment facilities constructed. The actual emissions levels and new baseline air quality observations will be correlated against the modeled parameters to determine the reasonableness of the model for predicting impacts and its continued appropriateness as a reference for any subsequent project analysis.

If during the course of our annual analysis it is determined that the model has not demonstrated a reasonable correlation of predicted impacts (for modeled emissions inventory levels) compared against the actual emissions recorded for a planning area, the BLM will investigate the potential sources of the discrepancy to determine a potential cause, such as meteorological factors (ex: winter time ozone, which cannot be modeled at this time), or fee mineral development (i.e. non-BLM authorized actions). If a probable cause for the discrepancy cannot be established, then the BLM will initiate interagency coordination with our regulatory partners to determine if a new modeling analysis is potentially warranted.

IV.D Responding to Monitored Exceedances of the NAAQS

If during the course of a year a Federal Reference or Equivalent air monitor within any planning area records a validated exceedance of any NAAQS (excluding any non-attainment areas) the BLM will review the available data to determine if any BLM authorized activity caused or significantly contributed to the exceedance event. The review will encompass the following steps.

IV.D.1– QA/QC

The BLM will ensure the validity of the monitored data by: (a) reviewing Quality Assurance/Quality Control (QA/QC) metadata to ensure against false high readings, and (b) reviewing meteorological data to determine if an exceptional atmospheric event such as stratospheric ozone intrusion occurred. The BLM may contact CDPHE for technical consultation and concurrence regarding possible exceptional events.

IV.D.2 – Screening Analysis

If the monitoring data are validated, the BLM will conduct a screening analysis to determine the likely cause, source, or origin of the exceedance and whether any BLM authorized source(s) within or adjacent to the planning area caused or contributed to the monitored exceedance. If the screening analysis indicates BLM-authorized sources did NOT cause or significantly contribute to the exceedance, then no further action will be taken by the BLM. The data, analysis, and conclusions will be included in the annual public report described under I.C above.

IV.D.3 – Enforcement

Should the results of the screening analysis indicate that a BLM authorized source(s) caused or significantly contributed to the monitored exceedance, the BLM will review the COA from the authorization for the source(s) to determine if all the COA were implemented as required. Where it is determined that operators did not comply with the conditions of approval for their authorized activities, and did not submit an appropriate sundry notice for approved deviations from such conditions, BLM may issue a notice of incident of noncompliance or take other appropriate enforcement action.

IV.D.4 – Contingency Planning

If, after review the BLM determines that an authorized source(s) caused or significantly contributed to the monitored exceedance, the BLM will initiate consultation with CDPHE, EPA, and any other applicable local, state, federal, and tribal agencies with responsibility for managing air resources to address appropriate responses to the monitored exceedances. Responses to monitored exceedances may include employing more stringent mitigation measures within the agencies' respective authority to reduce projected future emissions and performing additional modeling and analysis to determine the overall effectiveness of such mitigation measures.

Additionally, the BLM may implement reasonable temporary measures that have been included in a project specific authorization as conditions of approval, which could limit drilling operations, completions or well stimulations, blowdowns, or other non-essential operations during specified time periods (i.e. a timing limitation). Other actions the Bureau may take would include limiting the number of annual APD approvals issued for the affected area until such time that updated regional modeling can be conducted to provide an appropriate assessment of the expected impacts from a reasonable level of development.

IV.E Evaluating Projected Future Development/Emissions

Periodically, but not less than every three years, the BLM will evaluate the available or reasonably foreseeable oil and gas development projections for each planning area for the following three to five year period, and compare these projected levels to the level of predicted future development analyzed in the CARMMS modeling study (or the most recent BLM or interagency air impacts analysis conducted under the provisions of the modeling section(s) III.C.3 or III.C.5 above). The BLM will use the projected development/emissions data to determine whether the modeling analysis remains appropriate as a reference for any subsequent project analyses.

SECTION V – Annual Summary Report

Annually, the BLM will prepare a comprehensive summary report (from actual project data and analysis). This report will be made available to the public. The BLM will use this annual review to evaluate whether current air resources protection strategies are meeting the goals and objectives established within the BLM Colorado RMPs. If the analysis shows that the strategies are not achieving our defined air resource protection goals, the BLM will collaborate with CDPHE and the EPA to develop or modify air resource protection strategies as necessary to effectively protect air resources within any deficient planning area. Should this result in changes to RMP goals and objectives, additional planning level analyses will be required.

Section VI – Oil and Gas Development Emissions Reduction Strategies & BMPs

Table VI-1 displays some emission reduction measures, their potential environmental benefits and liabilities, and feasibility. The table is not meant to be exhaustive in terms of available or acceptable emissions reduction/control technologies or techniques, but provides a baseline or starting point from which to construct design features and mitigation options for project specific or regional analyses.

Table VI 1 Best Management Practices and Air Emission Reduction Strategies for Oil and Gas Development

Emission Reduction Measure	Potential Environmental Benefits	Potential Environmental Liabilities	Feasibility
Control Strategies for Drilling and Compression			
Multi-well pad directional or horizontal drilling.	When compared to single pad vertical drilling, reduces construction related emissions, decreases surface disturbance, reduces trip frequencies, and reduces habitat fragmentation.	Could result in higher air impacts in one area with longer sustained drilling times.	Depends on geological strata, topography, and other physical constraints.
Improved engine technology (Tier 2 or 4) for diesel drill rig engines.	Reduced NOx, PM, CO, and VOC emissions.		Dependent on availability of technology from engine manufacturers and, potentially differentials in cost for small operators..
Selective Catalytic Reduction (SCR) for drill rig engines and/or compressors.	NO_x emissions reduction, potential decreased formation of visibility impairing compounds and ozone. NOx control efficiency of 95% achieved on drill rig engines. NOx emission rate of 0.1 g/hp-hr achieved for compressors.	Potential NH3 emissions and formation of visibility impairing ammonium nitrate. Regeneration/disposal of catalyst can produce hazardous waste.	Not applicable to 2-stroke engines.
Non-selective catalytic reduction (NSCR) for drill rig engines and/or compressors.	NOx emissions reduction, potential decreased formation of visibility impairing compounds, and ozone. NOx control efficiency of 80-90% achieved for drill rig engines. NOx emission rate of 0.7 g/hp-hr achieved for compressor engines greater than 100 hp.	Regeneration/disposal of catalysts can produce hazardous waste.	Not applicable to lean burn or 2-stroke engines.

Emission Reduction Measure	Potential Environmental Benefits	Potential Environmental Liabilities	Feasibility
Natural Gas fired drill rig engines.	NOx emissions reduction, potential decreased formation of visibility impairing compounds, and ozone.	May require construction of infrastructure (pipelines and/or gas treatment equipment). May require onsite gas storage. May require additional engines to supplement needed torque.	Requires onsite processing of field gas.
Electrification of drill rig engines and/or compressors	Decreased emissions at the source. Transfers emissions to more efficiently controlled source (EGU).	Displaces emissions to EGU. Temporary increase in emissions with construction of power lines.	Depends on availability of power and transmission lines.
Improved engine technology (Tier 2, 3 or 4) for all mobile and non-road diesel engines.	Reduced NOx, PM, CO, and VOC emissions.		Dependent on availability of technology from engine manufacturers.
Reduced emission (a.k.a. "green") completions.	Reduction in VOC and CH4 emissions. Reduces or eliminate flaring and venting and associated emissions. Reduces or eliminates open pits and associated evaporative emissions. Increased recovery of gas to pipeline rather than atmosphere.	Temporary increase in truck traffic and associated emissions due to delivery of onsite equipment or due to construction of infrastructure.	Need adequate pressure and flow. Need onsite infrastructure (tanks/dehydrator). Availability of sales line. Green completion required where feasible per COGCC Rule 805(b)(3) and NSPS 40 CFR 63 OOOO.
Flaring of completion emissions	Reduces methane, VOC, and some HAP emissions. Converts CH4 to CO2.		
Minimize/eliminate venting and/or use closed loop process where possible during	Reduces methane, VOC, and some HAP emissions		

Emission Reduction Measure	Potential Environmental Benefits	Potential Environmental Liabilities	Feasibility
"blow downs".			
Eliminate evaporation pits for drilling fluids.	Reduces VOC and GHG emissions. Reduces potential for soil and water contamination. Reduces odors.	May increase truck traffic and associated emissions. May increase pad size.	Requires tank and/or pipeline infrastructure.
Electrification of wellhead compression/ pumping.	Reduces local emissions of fossil fuel combustion and transfers to more easily controlled source.	Displaces emissions to EGU.	Depends on availability of power and transmission lines.
Wind (or other renewable) generated power for compressors.	Low or no emissions.	May require construction of infrastructure. Visual impacts. Potential wildlife impacts.	Depends on availability of power and transmission lines.
Compressor seals – replace wet with dry or use mechanical seal.	Reduce gas venting (VOC and GHG emissions).		May be costly or not mechanically feasible.
Compressor rod packing system – use monitoring and replacement system.	Reduce gas leaks (VOC and GHG emissions).		Requires establishing a monitoring system and doing replacements.
Control Strategies Utilizing Centralized Systems			
Centralization (or consolidation) of gas processing facilities (e.g., separation, dehydration, sweetening).	Reduces vehicle miles traveled (truck traffic) and associated emissions. Reduced VOC and GHG emissions from individual dehydration/ separator units.	Temporary increase in construction associated emissions. Higher potential for pipe leaks/groundwater impacts.	Requires pipeline infrastructure, infeasible for highly dispersed or exploratory wells.
Liquids Gathering systems (for condensate and produced water).	Reduces vehicle miles traveled and associated emissions. Reduced VOC and GHG emissions from tanks, truck loading/unloading, and	Temporary increase in construction associated emissions. Higher potential for pipe leaks/groundwater impacts.	Requires pipeline infrastructure . May be infeasible for highly dispersed or exploratory wells, difficult terrain, or

Emission Reduction Measure	Potential Environmental Benefits	Potential Environmental Liabilities	Feasibility
	multiple production facilities.		patchy surface ownership.
Water and/or fracturing liquids delivery system.	Reduced long term truck traffic and associated emissions.	Temporary increase in construction associated emissions. Higher potential for pipe leaks/groundwater impacts.	Requires pipeline infrastructure. May be infeasible for highly dispersed or exploratory wells, difficult terrain, or patchy surface ownership.
Control Strategies for Tanks, Separators, and Dehydrators			
Eliminate use of open top tanks.	Reduced VOC and GHG emissions.		
Capture and control of flashing emissions from all storage tanks and separation vessels with vapor recovery and/or thermal combustion units.	Reduces VOC and GHG emissions.	Pressure buildup on older tanks can lead to uncontrolled rupture.	
Capture and control of produced water, crude oil, and condensate tank emissions.	Reduces VOC and GHG emissions.		95% VOC control required by COGCC in some areas and by CDPHE statewide with applicability thresholds
Capture and control of dehydration equipment emissions with condensers, vapor recovery, and/or thermal combustion.	Reduces VOC, HAP, and GHG emissions.		90% VOC control required by COGCC in some areas and by CDPHE statewide with applicability thresholds
Use zero emissions dehydrators or use desiccants dehydrators.	Reduces VOC, HAP, and GHG emissions.	Requires desiccants (salt tablets and forms a brine solution that must be disposed of.	Can be as effective as Triethylene glycol (TEG) dehydration.

Emission Reduction Measure	Potential Environmental Benefits	Potential Environmental Liabilities	Feasibility
Control Strategies for Misc. Fugitive VOC Emissions			
Install plunger lift systems to reduce well blow downs.	Reduces VOC and GHG emissions.		Can be more efficient at fluids removal than other methods; must have adequate pressure.
Install and maintain low VOC emitting seals, valves, hatches on production equipment.	Reduces VOC and GHG emissions.		
Initiate equipment leak detection and repair program (e.g., including use of FLIR infrared cameras, grab samples, organic vapor detection devices, and/or visual inspection).	Reduction in VOC and GHG emissions.		
Install or convert gas operated pneumatic devices to electric, solar, or instrument (or compressed) air driven devices/controllers.	Reduces VOC and GHG emissions.	Electric or compressed air driven operations can displace or increase combustion emissions.	
Use "low" or "no bleed" gas operated pneumatic devices/controllers.	Reduces VOC and GHG emissions.		Required by COGCC and by CDPHE in non-attainment areas.
Use closed loop system or thermal combustion for gas operated pneumatic pump emissions.	Reduces VOC and GHG emissions.		
Install or convert gas operated pneumatic pumps to electric, solar, or instrument (or compressed) air driven	Reduces VOC and GHG emissions.	Electric or compressed air driven operations can displace or increase combustion emissions.	

Emission Reduction Measure	Potential Environmental Benefits	Potential Environmental Liabilities	Feasibility
pumps.			
Install vapor recovery on truck loading/unloading operations at tanks.	Reduces emissions of VOC and GHG emissions.	Pressure build up on older tanks can lead to uncontrolled rupture.	
Control Strategies for Fugitive Dust and Vehicle Emissions			
Unpaved surface treatments including watering, chemical suppressants, and gravel.	20% - 80% control of fugitive dust (particulates) from vehicle traffic.	Potential impacts to water and vegetation from runoff of suppressants.	
Use remote telemetry and automation of wellhead equipment.	Reduces vehicle traffic and associated emissions.		Not possible in some terrain.
Speed limit restrictions on unpaved roads.	Reduction of fugitive dust emissions.		
Reduce commuter vehicle trips through car pools, commuter vans or buses, innovative work schedules, or work camps.	Reduced combustion emissions, reduced fugitive dust emissions, reduced ozone formation, reduced impacts to visibility.		
Miscellaneous Control Strategies			
Use of ultra-low sulfur diesel (e.g., in engines, compressors, construction equipment).	Reduces emissions of particulates and sulfates.		Fuel not readily available in some areas.
Reduce unnecessary vehicle idling.	Reduced combustion emissions, reduced ozone formation, reduced impacts to visibility, reduced fuel consumption.		
Reduced pace of (phased) development.	Peak emissions of all pollutants reduced.	Emissions generated at a lower rate but for a longer period. LOP, duration of impacts is longer.	May not be economically viable or feasible if multiple mineral interests.

[i] H-1601-1 - LAND USE PLANNING HANDBOOK: A plan-level decision to open the lands to leasing represents BLM's determination, based on the information available at the time, that it is appropriate to allow development of the parcel consistent with the terms of the lease, laws, regulations, and orders, and subject to reasonable conditions of approval. When applying leasing restrictions, the least restrictive constraint to meet the resource protection objective should be used.

[ii] Note: Where sources of air pollution emissions are regulated by an entity/agency (Federal, State, Tribal, Local), the BLM shall not craft alternatives with features or conditions that interfere with a proponents ability to comply with such laws or standards. IBLA has held that the meaning of "providing for compliance" does not require that the BLM has any obligation to ensure compliance where another agency holds such responsibility [*Wyoming Outdoor Council, et al*176 IBLA 15, 27 (2008); Powder River Basin Resource Council, 183 IBLA 83, 94-95 (2012)]. However, the BLM should appropriately analyze such sources (as well as non-regulated sources) within the applicable NEPA context to disclose potential impacts, determine significance, and provide for mitigation as necessary and within our authority for any specific finding.

Appendix F: System Roads and Maintenance Levels

Table of Contents

Maintenance Level Descriptions 1
Maintenance Intensities – Transportation System Assets 1
Level 0 2
Level 1 2
Level 2 2
Level 3 2
Level 4 3
Level 5 3
System Roads and Maintenance Levels 5

Maintenance Level Descriptions

Maintenance Intensities – Transportation System Assets –

BLM Route Maintenance Intensities provide guidance for appropriate "standards of care" to recognized routes within the BLM. Recognized Routes by definition include Roads, Primitive Roads, and Trails carried as Assets within the Bureau of Land Management Facility Asset Management System (FAMS).

Maintenance Intensities provide consistent objectives and standards for the care and maintenance of BLM routes based on identified management objectives. Maintenance Intensities are consistent with land-use planning management objectives (for example, natural, cultural, recreation setting, and visual). Maintenance Intensities provide operational guidance to field personnel on the appropriate intensity, frequency, and type of maintenance activities that should be undertaken to keep the route in acceptable condition and provide guidance for the minimum standards of care for the annual maintenance of a route.

Maintenance Intensities do not describe route geometry, route types, types of use or other physical or managerial characteristics of the route. Those items are addressed as other descriptive attributes to a route.

Maintenance Intensities provide a range of objectives and standards, from "identification for removal" through frequent and intensive maintenance.

Level 0

Maintenance Description: Existing routes that will no longer be maintained and no longer be declared a route. Routes identified as Level 0 are identified for removal from the Transportation System entirely.

Maintenance Objectives:

- No planned annual maintenance;
- Meet identified environmental needs;
- No preventative maintenance or planned annual maintenance activities.

Maintenance Funds: No annual maintenance funds

Level 1

Maintenance Description: Routes where minimum (low intensity) maintenance is equired to protect adjacent lands and resource values. These roads may be impassable for extended periods of time.

Maintenance Objectives:

- Low (Minimal) maintenance intensity;
- Emphasis is given to maintaining drainage and runoff patterns as needed to protect adjacent lands. Grading, brushing, or slide removal is not performed unless route bed drainage is being adversely affected, causing erosion;
- Meet identified resource management objectives;
- Perform maintenance as necessary to protect adjacent lands and resource values;
- No preventative maintenance;
- Planned maintenance activities limited to environmental and resource protection;
- Route surface and other physical features are not maintained for regular traffic.

Maintenance Funds: Maintenance funds provided to address environmental and resource protection requirements. No maintenance funds provided to perform preventative maintenance.

Level 2

Reserved for Possible Future Use

Level 3

Maintenance Description: Routes requiring moderate maintenance due to low volume use (for example, seasonally or year-round for commercial, recreational, or administrative access).

Maintenance Intensities may not provide year-round access but are intended to generally provide resources appropriate to keep the route in use for the majority of the year.

Maintenance Objectives:

- Medium (Moderate) maintenance intensity;
- Drainage structures will be maintained as needed. Surface maintenance will be conducted to provide a reasonable level of riding comfort at prudent speeds for the route conditions and intended use. Brushing is conducted as needed to improve sight distance when appropriate for management uses. Landslides adversely affecting drainage receive high priority for removal; otherwise, they will be removed on a scheduled basis;
- Meet identified environmental needs;
- Generally maintained for year-round traffic;
- Perform annual maintenance necessary to protect adjacent lands and resource values;
- Perform preventative maintenance as required to generally keep the route in acceptable condition;
- Planned maintenance activities should include environmental and resource protection efforts, annual route surface;
- Route surface and other physical features are maintained for regular traffic.

Maintenance Funds: Maintenance funds provided to preserve the route in the current condition, perform planned preventive maintenance activities on a scheduled basis, and address environmental and resource protection requirements.

Level 4

Reserved for Possible Future Use

Level 5

Maintenance Description: Route for high (maximum) maintenance due to year-round needs, high volume of traffic, or significant use. Also may include route identified through management objectives as requiring high intensities of maintenance or to be maintained open on a year-round basis.

Maintenance Objectives:

- High (Maximum) maintenance intensity;
- The entire route will be maintained at least annually. Problems will be repaired as discovered. These routes may be closed or have limited access due to weather conditions but are generally intended for year-round use;
- Meet identified environmental needs;
- Generally maintained for year-round traffic;
- Perform annual maintenance necessary to protect adjacent lands and resource values;

- Perform preventative maintenance as required to generally keep the route in acceptable condition;
- Planned maintenance activities should include environmental and resource protection efforts, annual route surface;
- Route surface and other physical features are maintained for regular traffic.

Maintenance Funds: Maintenance funds provided to preserve the route in the current condition, perform planned preventative maintenance activities on a scheduled basis, and address environmental and resource protection requirements.

(ref. Roads and Trails Terminology Report, Bureau of Land Management U. S. Department of the Interior April 2006)

System Roads and Maintenance Levels

BLM Route Number	BLM Route Name	Miles	Maintenance Level	Maintenance Responsibility
2513	Parson's Draw	2.320	2	BLM
2754	FY 2007	3.277	2	BLM
2753	Windy Gap	5.376	2	BLM
2764	Sheriff Creek	3.353	3	BLM
2771	Spruce Creek Spur2	0.680	3	BLM
2761	Pumphouse	1.540	5	Other
2750	Dice Hill	5.087	3	BLM
2769	Behler Creek Road	1.164	2	BLM
2751	Strawberry	8.467	3	BLM
2762	Smith Mesa Lower	2.226	3	BLM
2760	Hogback	2.481	2	BLM
2768	McQueary Loop	1.934	3	BLM
2758	Fox Loop	5.493	3	BLM
2756	McQueary Creek	4.147	3	BLM
2763	Round Gulch	0.745	2	BLM
2755	Kinney Creek	5.581	3	BLM
2759	Smith Mesa	12.036	3	BLM
2757	Black Mountain	9.157	3	BLM
2510	Three Mile Creek	2.703	3	BLM
2508	Buffalo Peak	3.334	3	BLM
2503	West Independence Mountain	6.139	3	BLM
2507	Buffalo Peak Lower	3.723	3	BLM
2506	Owl Mountain	4.602	3	BLM
2504	Independence Mountain	14.108	3	BLM
2505	Bull Mountain	8.261	3	BLM
2770	Spruce Creek Spur1	0.560	3	BLM
2767	Spruce Creek	2.692	3	BLM
2764	Sheriff Creek	3.353	3	BLM
2765	Hurd Peak	2.011	3	BLM
2502	Owl Mountain Spur	2.589	3	BLM
2512	Big Creek	2.617	3	BLM
2509	North Sand Hills	2.841	3	Other
2752	Reed Creek	5.514	2	BLM
2511	Mitchell Placer	1.390	3	BLM

Appendix G: Supplemental Rules

Table of Contents

Definitions 1
Supplemental Rules -- Entire Kremmling Field Office 2
Supplemental Rules -- North Sand Hills SRMA 3
Supplemental Rules -- Upper Colorado River SRMA 4
Supplemental Rules -- Wolford Mountain Special Recreation Management Area 5

Definitions

- **Approved portable toilet --** Any non-biodegradable, durable container designated to receive and hold human waste, in any container position without leaking; and equipped with a dumping system that allows the container to be emptied into a standard receiving or dump system designed for that purpose (such as a SCAT machine or recreational vehicle dump station), in a sanitary manner, without spills, seepage, or human exposure to human waste; or any approved biodegradable landfill-approved bag system designed for landfill disposal (such as a "WAG" bag). **Camping --** The erecting of a tent or shelter of natural or synthetic material; preparing a sleeping bag or other bedding material for use; parking of a motor vehicle, motor home or trailer, or mooring of a vessel, for the apparent purpose of overnight occupancy while engaged in recreational activities such as hiking, hunting, fishing, bicycling, sightseeing, off-road vehicle activities, or other generally recognized forms of recreation.
- **Designated campsite --** A BLM-designated campsite, marked with a visible number or identification mounted on a post or placard.
- **Developed toilet facility --** A vault-type toilet provided by the BLM.
- **Excessive noise --** Any noise that is unreasonable, considering the location, time of day, impact on other users, or other factors that govern the conduct of a reasonably prudent person under the circumstances.
- **Firearm --** A weapon, by whatever name known, that is designed to expel a projectile by the action of powder; and be readily capable of use as a weapon.
- **Fireworks --** Any combustible or explosive composition or substance, or any combination of any such composition or substance, or any other article prepared for the purpose of providing a visible or audible effect by combustion, explosion, deflagration, or detonation; and includes blank

cartridges, or toy cannons in which explosives are used; balloons that require fire underneath to propel the same; firecrackers, torpedoes, skyrockets, roman candles, bombs, wheels, colored fires, fountains, mines, serpents, or any other article of like construction; or any article containing any explosive or flammable compound; or any tablets or other devise containing any explosive substance or flammable compound.

- **Fire pan --** A durable metal fire pan at least 12 inches in diameter with at least a 1.5 inch lip around its outer edge and sufficient to contain fire and remains, while preventing ashes or burning material from spilling onto the ground; and is elevated above the ground.
- **Intent to camp --** Any off-loading onto a riverbank, or preparing for use, common overnight camping equipment (such as tents, sleeping bags, or bedding, food, cooking or dining equipment, or lighting equipment); or preparing common camping equipment for use in, or on, any boat.
- **Non-designated campsite --** A campsite that has not been designated by the BLM, and is not marked with a visible number or identification mounted on a post or placard.
- **Obscene --** Objectionable or offensive to accepted standards of decency.
- **Refuse --** Includes, but is not limited to, wastewater, sewage, litter, trash, garbage, scraps, or other useless, worthless parts of things.

Supplemental Rules -- Entire Kremmling Field Office

The following rules apply on BLM-administered lands throughout the Kremmling Field Office, and any lands jointly managed with other agencies, or that are managed under agreement or lease.

1. Any lands jointly managed with other agencies or that are managed under agreement or lease are subject to the Code of Federal Regulations and any other regulations that exist for such lands.
2. When an approved portable toilet or developed toilet facility is available, you must not leave, deposit, or scatter human waste, toilet paper, or items used as toilet paper.

   Where a developed toilet facility is not provided, and an approved portable toilet is not required, all human waste and toilet paper, or material used as toilet paper, must be buried at least 6 inches below the surface of the ground in natural soil, and at least 100 feet from the edge of a river or any other water source.

3. You must not use, or possess to use, as firewood any materials containing nails, screws, or other metal hardware, including, but not limited to, wood pallets and/or construction debris.
4. You must not build or maintain a fire more than 3 feet in diameter.
5. You must not intend to cause public alarm, nuisance, jeopardy, or violence; or knowingly or recklessly commit a risk thereof by committing any of the following acts:
   a. engaging in fighting, threatening, or violent behavior; or
   b. using language, an utterance or gesture, or engaging in a display or act that is lewd or obscene, physically threatening; or incite an immediate breach of the peace; or
   c. creating excessive noise between the hours of 10 p.m. to 7 a.m.

6. You must not drink an alcoholic beverage, or have in your possession or on your person any open container that contains an alcoholic beverage while operating or riding in, or on, any motor vehicle or off-highway vehicle.
7. You must not violate any posted regulation.
8. You must not violate the lawful order of a government employee or agent authorized to maintain order and control public access and movement during firefighting operations, Search and Rescue operations, wildlife management operations involving animals that pose a threat to public safety, law enforcement actions, or emergency operations that involve a threat to public safety or public land resources; or other activities where the control of public movement and activities is necessary in order to maintain order and/or public safety.
9. You must not fail to keep sites free of refuse during the period of occupancy or to not remove all personal equipment and clean your sites upon departure, or both.
10. You must not leave animal carcasses, or any part of an animal carcass, within 100 feet of the outer perimeter of any campsite (designated or non-designated) or 100 feet from the edge of any roadway or any water source.
11. You must not install permanent camping facilities.
12. You must not dig or level the ground at any campsite.
13. You must not camp in areas designated as Closed for such use by a BLM sign or map.
14. While camping, you must not park a motor vehicle within 50 feet of a water source.
15. You must not operate mechanical transport (e.g., bicycles, mountain bikes) other than on designated roads and trails allowing such use.
16. You must not discharge a firearm of any kind, or any other device such as a paintball or compressed air gun, in an area designated and signed as prohibiting such use, unless in the lawful pursuit of hunting game during a valid hunting season.
17. You must not have unrestrained animals within any developed recreation area. Animals must be kept on a leash not longer than 6 feet. The leash must be held by hand, secured to a fixed object, or otherwise physically restricted at all times. Outside of developed recreation areas, dogs must be under voice control, unless in the lawful pursuit of hunting game during a valid hunting season or for the purpose of training in hunting activities.
18. You must not collect fuel wood within a developed recreation area. Fuel wood for recreational campfires outside of developed recreation areas is limited to dead and downed vegetation, unless otherwise prohibited.

Supplemental Rules -- North Sand Hills SRMA

The following rules apply in the North Sand Hills SRMA:

1. You must not discharge or use a firearm of any kind, or any other device such as a paintball or compressed air gun, in an area designated and signed as prohibiting such use, unless in the lawful pursuit of hunting game during a valid hunting season.
2. You must not park a vehicle in such a manner as to impede or obstruct the normal flow of traffic, or create a hazardous condition.

3. You must not fail to obey posted parking closures or restrictions.
4. You must not operate a motor vehicle or off-highway vehicle (OHV) in excess of the posted speed limit, or in excess of 15 mph around camping areas, 50 feet from any campsite, parked vehicle(s), person(s), or animal(s).
5. You must not cut or collect wood, including dead-and-down wood.
6. You must not possess or use any glass container on the open sand dunes or trails. Persons may possess glass containers within the confines of their camping area.

Supplemental Rules -- Upper Colorado River SRMA

The following rules apply in the Upper Colorado River SRMA:

1. You must not violate any Colorado State Boating Laws.
2. You must not discharge or use a firearm, or any other device such as a paintball or compressed air gun, within 0.25 mile of either side of the Colorado River, unless in the lawful pursuit of hunting game during a valid hunting season.
   Additionally, the following rules apply within 600 feet of either side of the Colorado River from the Blue River to State Bridge:
3. You must not camp, or display intent to camp, during an overnight trip, without an approved fire pan.
4. You must not build, ignite, maintain, use, attend, or be present within 20 feet of a campfire not contained in an approved fire pan or in a constructed, permanently installed metal fire pit provided by the BLM.
5. Outside of the Pumphouse, Radium, and State Bridge Recreation Sites, and the Village, you must not leave fire ash produced from a campfire in a fire pan or in a constructed, permanently installed metal fire pit provided by the BLM. Fire blankets under fire pans are recommended to facilitate total ash removal.
6. You must not camp, or display intent to camp on an overnight trip, without an approved portable toilet.
7. 5. You must not fail to carry and use an approved portable toilet on an overnight trip. The system must be adequate for the size of the group and length of the trip. All solid human waste, including bags, must be contained in a leak-proof, animal-proof, hard-sided container with a screw-on or rachet-locking lid.
7. You must not fail to set up an approved portable toilet, ready for use, as soon as practical upon arriving at the campsite to be occupied on an overnight trip.
8. You must not empty a portable toilet into a developed toilet facility, or any other facility not developed and identified especially for that purpose. Leaving solid human body waste on Public Lands or dumping it into vault toilets or trash receptacles at BLM managed facilities is prohibited.
9. You must not fail to remove pet waste.
10. You must not launch or take out a vessel within the Upper Colorado SRMA, in areas signed as prohibiting those activities.

11. You must not cut, collect, or use live, dead, or down wood except driftwood.
12. You must not use a motorized water craft, unless that use is approved by the BLM's Authorized Officer.

Supplemental Rules -- Wolford Mountain Special Recreation Management Area

The following rules apply in the Wolford Mountain Travel Management Area:

1. You must not fail to possess a HazMat spill kit during travel on the Sidewinder Extreme 4x4 Jeep Trail.
2. You must not travel on the Sidewinder Extreme 4X4 Jeep Trail during, or 24 hours following, a precipitation event. Travel is only allowed on the trail when the top 1 inch of soil is dry, and there is no rutting.
3. Except for qualified and BLM permitted scientific researchers, you must not collect, excavate, damage, or destroy Cretaceous Ammonites or other fossils or other artifacts within the Kremmling Cretaceous Ammonite Area of Critical Environmental Concern (ACEC)/Research Natural Area (RNA).
4. You must not discharge a firearm of any kind, or any other device such as a paintball or compressed air gun, in an area designated and signed as prohibiting such use, unless in the lawful pursuit of hunting game during a valid hunting season.

Appendix H: Threatened & Endangered Species Specific Coordination & Conservation Measures

Table of Contents

North Park Phacelia, Kremmling Milkvetch, and Penland Beardtongue 1
Canada Lynx 3
Mexican Spotted Owl 4
North Platte River and Colorado River Species 5
Greenback (Lineage GB) Cutthroat Trout 5

It is the intent of the BLM to strive toward actions that have no effect on listed species, or effects that are insignificant, discountable, or beneficial. When this is not possible, implementing the following species-specific conservation strategies in the Kremmling RMP Decision Area is intended to minimize adverse impacts that are likely to result from implementing the management actions provided in the RMP. This appendix discusses conservation measures that are specific to each federally-listed threatened or endangered species. In addition, the BLM has committed already to implementing many conservation measures; many of these measures are from statewide Biological Assessments and Biological Evaluations for individual species. The BLM also will consider implementing any appropriate stipulations, conditions of approval, or best management practices to further protect a species and its habitat. In the event new populations of a species are discovered, these measures will apply until such time as further investigation and subsequent consultation with the USFWS may result in more appropriate management prescriptions. The measures identified below are not comprehensive. Additional conservation measures or modified versions may be applied for any BLM-authorized activity upon further analysis, review, or Section 7 consultation with USFWS.

North Park Phacelia, Kremmling Milkvetch, and Penland Beardtongue

Surveys will be conducted in suitable habitat before project approval. If any populations of North Park Phacelia, Kremmling Milkvetch, or Penland Beardtongue are discovered, separate Section 7 consultation will be completed at the project level. Conservation measures will be developed during the consultation process to protect these species and their habitats. Examples of conservation measures are listed below.

- All BLM-issued fluid mineral leases will include a notification that T&E species may be present on the lease and that mitigation/conservation measures may need to be developed. Additional conditions of approval beyond the options for a 60-day delay in starting new surface

disturbance operations and 200-meter relocation of proposed operations (which are consistent with lease rights) will potentially be required when listed or candidate species occur within the action area.

- Surface disturbing activities in occupied or suitable habitat will be preceded by a current-year survey and a separate Section 7 consultation, if necessary.
- The BLM will stipulate fugitive dust control methods through the NEPA process and implement them on permitted actions and activities occurring on public lands, to prevent or minimize any adverse effects on federally listed plants.
- Protections for federally listed plants will include appropriate measures to protect specific, pollinating species where known and identified by the USFWS.
- Projects that remove topsoil in areas of suitable habitat for listed plants will set aside and replace the topsoil when groundwork is completed, to preserve the seed bank and associated mycorrhizal species.
- When possible, re-vegetation of surface disturbance will be limited to native species that will not compete with the rare species at that site, to avoid introducing competitive species. Re-vegetation projects will require a site-specific plan for areas with listed plant species, to be developed in consultation with the USFWS.
- “Translocation” will not be used as a rationale to defend a “not likely to adversely affect” or a “no effect” finding for any federally listed plant species.
- Prior to any land tenure adjustments in known habitat for North Park Phacelia, Kremmling Milkvetch, or Penland Beardtongue, the BLM will survey to assess the habitat boundary and retain that area in federal ownership. BLM-administered public lands that contain identified habitat will not be exchanged or sold, unless it benefits the species.
- To the extent practicable, all proposed ROW projects (e.g., power lines, pipelines, and roads) will be designed and locations selected at least 200m from any occupied habitat to minimize disturbances. If avoidance of adverse effects is not possible, the BLM will initiate consultation with the Service.
- Travel management plans will include management direction to avoid or minimize adverse impacts on North Park Phacelia, Kremmling Milkvetch, or Penland Beardtongue.
- When possible, recreational site development will not be authorized in occupied habitat.
- Livestock grazing will be managed within occupied habitat from June through July for the Kremmling Milkvetch and Penland Beardtongue and July through August for North Park Phacelia, to allow plants to bloom and go to seed.

- A Section 7 consultation will be conducted for any livestock grazing permit renewals in allotments containing occupied habitat for these species.
- Use data will be collected to ensure all livestock management practices and operations (e.g., grazing intensity, distribution, confinement, location of salt, and range improvements), will benefit or not adversely impact federally listed plants.
- The BLM will implement fire management practices and protection (plant locations will be made known to resource advisors of wildfires) to enhance the conservation of federally listed plant species (e.g., refueling sites or fire camps will not be established in listed plant habitat, to the extent this will not jeopardize firefighter or public safety). Fire retardant will not be used in occupied habitat.

Canada Lynx

The BLM will assess the potential impacts of actions proposed for implementation within lynx habitat at the project level. Any such actions within lynx habitat will implement the Lynx Conservation Assessment Strategy conservation measures and other necessary measures to avoid or minimize effects. Although the BLM is not a signatory to the Southern Rockies Lynx Amendment, new information and guidelines from this document will be utilized to minimize effects to lynx and their habitat. To protect lynx habitat, a Controlled Surface Use restriction will be placed on Established Lynx Linkage Corridors and Lynx Habitat within Lynx Analysis Units. Section 7 consultation will be completed at the project level for any action that 'may affect' Canada lynx or their habitat. The guidelines and conservation measures listed below are most pertinent to lynx habitat on BLM-managed lands within the KFO.

- Prescribed fire activities will not create permanent travel routes that facilitate snow compaction. Construction of permanent firebreaks on ridges or saddles will be avoided.
- Prescribed fire activities will consider design features to restore ecological processes and maintain or improve lynx habitat.
- Vegetation will be managed to mimic or approximate natural succession or disturbance processes, while maintaining the habitat components necessary for the conservation of lynx, where feasible and beneficial.
- Projects (e.g., habitat improvements, fuels reductions, harvests) will consider design features to retain and improve recruitment of an understory of small diameter conifers and shrubs preferred by hares.
- In aspen stands, the BLM will ensure habitat improvement projects or harvests favor regeneration of aspen.
- New permanent roads and trails that are likely to adversely affect lynx will be situated away from forested stringers within LAUs and linkages, where possible.

- Road densities and permanent facilities will be minimized in lynx linkages.
- In fire created openings, livestock grazing will be managed so impacts do not prevent shrubs and trees from regenerating.
- Livestock grazing in aspen stands will be managed to ensure sprouting and sprout survival sufficient to perpetuate the long-term viability of the clones.
- Livestock grazing in riparian areas and willow cars will be managed to contribute to maintaining or achieving a preponderance of mid- or late-seral stages, similar to conditions that will have occurred under historic disturbance regimes.
- Shrub-steppe habitats will be managed to maintain or achieve mid-seral or higher condition in the elevational ranges that encompass forested lynx habitat.

Mexican Spotted Owl

- The BLM will work with CPW and the USFWS to identify suitable Mexican spotted owl habitat on BLM-administered public lands. Surveys, according to the USFWS protocol, will be required prior to any disturbance-related activities that have been identified to have the potential to impact Mexican spotted owls in suitable habitat, unless current species occupancy and distribution information is complete and available.
- Trees greater than 9 inches diameter at breast height (DBH) should not be removed from suitable Mexican spotted owl “steep slope” and “canyon” habitats. Thinning of trees less than 9 inches DBH, fuels treatments, and prescribed fires will be allowed on a case-by-case basis to reduce fire hazard and improve habitat condition for owl prey. Habitat components that should be retained include snags (as appropriate), large logs (greater than or equal to 12 inches DBH), grasses, forbs, and shrubs. Exception: removal of trees, downed woody debris, snags, and other key habitat variables will be allowed if it is determined to be compatible with owl habitat management objectives documented through environmental analysis.
- Livestock grazing in protected and restricted Mexican spotted owl habitats will meet the BLM’s Colorado Standards for Public Land Health within key habitat areas (riparian areas, meadows and oak types) to provide for adequate levels of plant cover and forage for owl prey species. Monitoring in such areas will occur to determine current levels of use and detect any changes in the relative composition of herbaceous and woody plants.
- If any suitable habitat is found to be occupied by Mexican spotted owls, a Protected Activity Center (PAC) will be designated to protect important habitat.
- If a PAC is designated in the Decision Area, a No Surface Occupancy requirement will be applied to that entire area.

- Permitted activities, such as prescribed fires, fuels reduction, new Special Recreation Permits, etc., may occur within a PAC, if not likely to impact nest success. Separate Section 7 consultation will be required.
- No new facilities or trails that are likely to impact nest success will be permitted within PACs.
- Travel management within PACs will be evaluated and seasonal closures will be implemented, if necessary.
- The presence and intensity of existing recreational activities (e.g., hiking, climbing, OHV use) within PACs will be evaluated on a case-by-case basis. Seasonal closures will be implemented, if necessary.
- Within "restricted" habitats (as defined in the recovery plan), management priority should be placed on reducing risks to Mexican spotted owl habitat. Forest habitats will be managed on an uneven-aged system.

North Platte River and Colorado River Species

- The BLM will continue to abide by the Programmatic Biological Opinion (PBO) for Colorado River water depletions (PBO #ES/GJ-6-CO-08-F-0006 and (PBO #ES/GJ-6-CO-08-F-0010), and continue to participate in the Colorado River Endangered Fish Recovery Program.
- The BLM will continue to abide by the June 16, 2006, PBO and the 2010 Memorandum of Agreement with the USFWS for North Platte River water depletions.
- The BLM will continue participation in the Platte River Recovery Implementation Program (PRRIP).

Greenback (Lineage GB) Cutthroat Trout

- As a member of the greenback cutthroat trout recovery team, the BLM will continue to monitor and improve habitat, and work cooperatively with partner agencies to implement actions that ultimately lead to the removal of Lineage GB cutthroat trout from the Endangered Species list.
- The BLM will maintain or enhance habitat for all known genetically pure Lineage GB cutthroat trout populations.
- The BLM will prohibit in-channel work in all occupied native cutthroat trout (Lineage CR and Lineage GB) streams during spring spawning periods of April 1 to August 1.
- A Section 7 consultation will be conducted for any grazing permit renewals in allotments containing occupied habitat for Lineage GB trout.

- The BLM will avoid surface occupancy or permanent surface disturbance within a minimum buffer distance of 325 horizontal feet for all occupied Lineage GB and Lineage CR waters, to protect water quality, fish habitat, aquatic and riparian habitat. For perennial streams, the buffer will be measured from the ordinary high-water mark (bank-full stage).
- Stream crossings will be designed to avoid or minimize adverse impacts to occupied Lineage GB and Lineage CR waters, to protect water quality, fish habitat, aquatic and riparian habitat.

Appendix I: Upper Colorado River Wild and Scenic Stakeholder Group Management Plan

Upper Colorado River
Wild and Scenic Stakeholder Group
Management Plan

Prepared on behalf of:

American Whitewater
Aurora Water
Blue Valley Ranch
Colorado River Outfitters Association
Colorado River Water Conservation District
Colorado Springs Utilities
Denver Water
Eagle County
Eagle Park Reservoir Company
Eagle River Water and Sanitation District
Grand County
Middle Park Water Conservancy District
Municipal Subdistrict, Northern Colorado Water Conservancy District
Northern Colorado Water Conservancy District
Northwest Colorado Council of Governments
Summit County
The Wilderness Society
Trout Unlimited
Upper Eagle Regional Water Authority
Vail Associates, Inc.

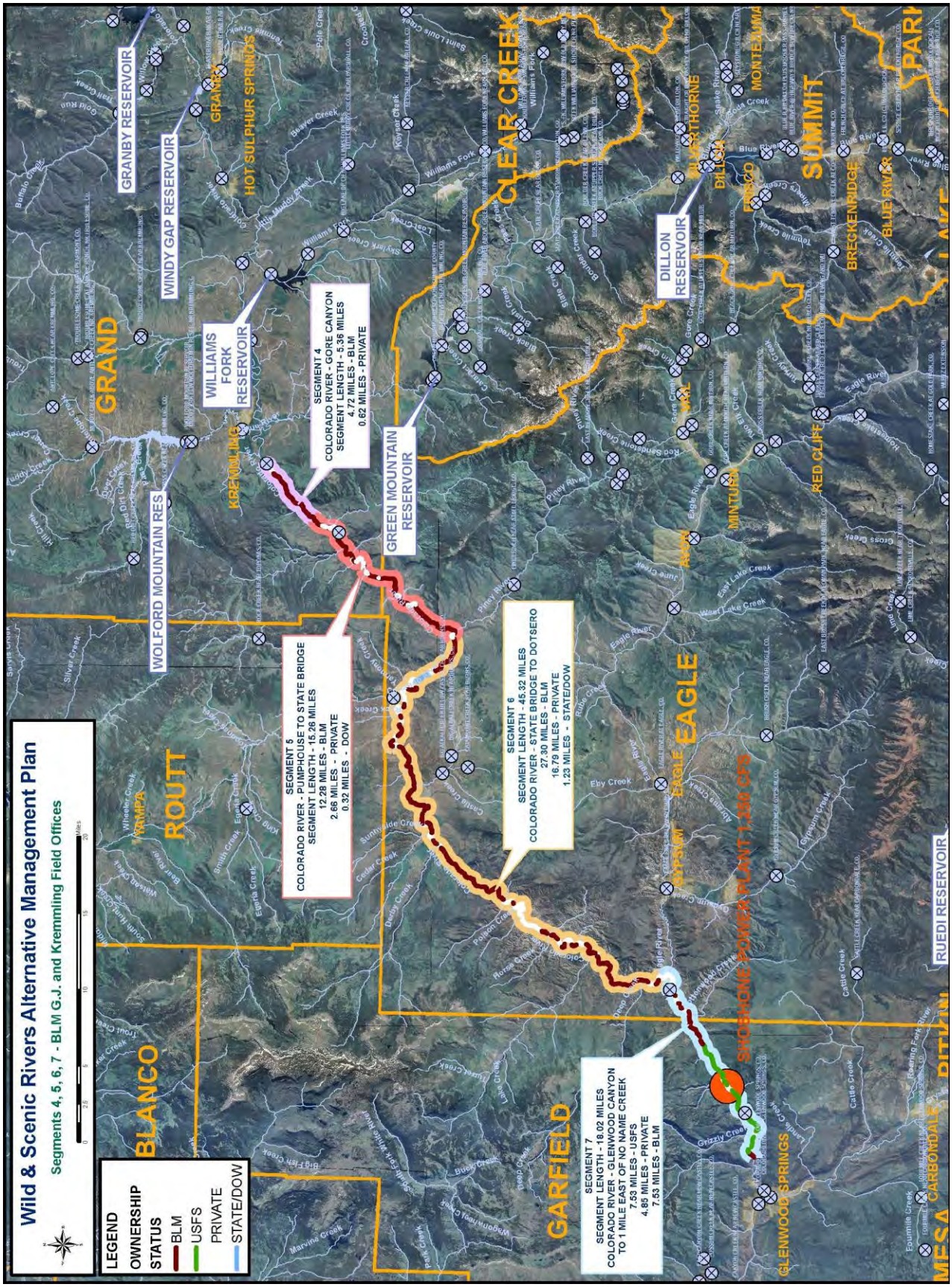
In consultation with:

Colorado Water Conservation Board
Colorado Parks and Wildlife
U.S. Bureau of Reclamation

For submittal to:

U.S. Bureau of Land Management
U.S. Forest Service

January 2012


Wild & Scenic Rivers Alternative Management Plan
Segments 4, 5, 6, 7 - BLM G.J. and Kremmling Field Offices
LEGEND
OWNERSHIP STATUS
BLM
USFS
PRIVATE
STATE/DOW
SEGMENT 5
COLORADO RIVER - PUMPHOUSE TO STATE BRIDGE
SEGMENT LENGTH - 15.26 MILES
12.28 MILES - BLM
2.66 MILES - PRIVATE
0.32 MILES - DOW
SEGMENT 4
COLORADO RIVER - GORE CANYON
SEGMENT LENGTH - 5.36 MILES
4.72 MILES - BLM
0.62 MILES - PRIVATE
SEGMENT 6
SEGMENT LENGTH - 45.32 MILES
COLORADO RIVER - STATE BRIDGE TO DOTSERO
27.30 MILES - BLM
16.79 MILES - PRIVATE
1.23 MILES - STATE/DOW
SEGMENT 7
SEGMENT LENGTH - 18.02 MILES
COLORADO RIVER - GLENWOOD CANYON TO 1 MILE EAST OF NO NAME CREEK
7.53 MILES - USFS
4.85 MILES - PRIVATE
7.53 MILES - BLM
GRANBY RESERVOIR
WINDY GAP RESERVOIR
WILLIAMS FORK RESERVOIR
WOLFORD MOUNTAIN RES
GREEN MOUNTAIN RESERVOIR
DILLON RESERVOIR
RUEDI RESERVOIR
GRAND
ROUTT
BLANCO
GARFIELD
EAGLE
CLEAR CREEK
SUMMIT
HOT SULPHUR SPRINGS
KREMMLING
GLENWOOD SPRINGS
SHOSHONE POWER PLANT 1,250 CFS
DOTSERO
MINTURN
RED CLIFF
BRECKENRIDGE
BLUE RIVER
FRISCO
DILLON
ILLIGARTHORNE
MONTEZUMA
CARBONDALE
MESA

EXECUTIVE SUMMARY

The Upper Colorado River Wild and Scenic Stakeholder Group (Stakeholder Group or SG) represents a diverse range of interests who have worked together since 2008 to develop an Upper Colorado River Wild and Scenic Stakeholder Group Management Plan (SG Plan or Plan) to protect the outstandingly remarkable values (ORVs) identified in the U.S. Bureau of Land Management (BLM) and U.S. Forest Service (USFS) Eligibility Reports for Segments 4 through 7 of the Upper Colorado River. All references hereinafter to Segment 7 of the Colorado River are intended to include BLM Segment 7 and USFS Segments 1 and 2 of the Colorado River. The SG Plan is being proposed to BLM and the USFS as a potential Wild and Scenic Rivers management alternative for the resource management plan revision process. The Stakeholder Group's intention for this collaborative Plan is to balance permanent protection of the ORVs, certainty for the stakeholders, water project yield, and flexibility for water users. A significant benefit of the SG Plan is that through the cooperative and voluntary efforts of interested water users, local governments, and other entities, the ORVs can be protected (and perhaps enhanced) in ways that coordinate with federal agency management.

The SG Plan will use identified Long-Term Protection Measures and voluntary Cooperative Measures of the Stakeholder Group to protect the ORVs. Examples of the protective measures include the appropriation of Colorado Water Conservation Board (CWCB) Instream Flow (ISF) water rights, delivery of water to senior water demands downstream of Segments 4 through 7, and water deliveries to the 15-Mile Reach in the Grand Valley pursuant to the Upper Colorado River Endangered Fish Recovery Program.

The SG Plan aims to protect all ORVs while focusing on recreational fishing (in Segments 4 through 6) and recreational floatboating (in Segments 4 through 7). The SG Plan uses two distinct tools – "ORV Indicators" (characterizing the range and quality of the ORVs) which will be used to gage whether the ORVs are being protected; and "Resource Guides" (reflecting ranges for factors such as flow, temperature and water quality) that will be used as a source of information among others to inform SG discussions under the Plan. Resource Guides are not intended to be used as a test for Plan success nor for use by permitting agencies or entities as the criterion for evaluating a project's effects on the ORVs. However, nothing in the Plan shall preclude or limit the use of any data regardless of whether such data has been used in the negotiation of the Resource Guides. The Resource Guides will not create binding requirements that water providers satisfy specific flow levels. The SG Plan's implementation procedures will provide a feedback loop to periodically confirm that the management measures under the SG Plan, in coordination with BLM's and USFS's other land management actions, are protective of all ORVs. The SG Plan contains mechanisms to address concerns related to impairment of or a significant risk of impairment to the ORVs.

This Plan has been formally endorsed by the SG members identified on page one. The effective date of the SG Plan will commence upon issuance of records of decision by BLM and the USFS approving the Plan without material change as the Wild and Scenic Rivers management alternative for Segments 4 through 7 of the Upper Colorado River. Prior to the effective date of the Plan, the stakeholders will carry out the tasks described in Attachment B.

For the first 3-to-5 years of implementation of the SG Plan, provisional ORV Indicators and Resource Guides will be used. During this period (provisional period), the Stakeholder Group will work to gather additional data, learn and refine what is needed for the protection of the ORVs, and develop final ORV Indicators and Resource Guides. The SG Plan includes a Monitoring Plan as well as requirements for periodic reporting to BLM and the USFS. The SG Plan also includes provisions addressing governance, representation, decision-making, funding, and agency coordination. It is anticipated that BLM and the USFS will be non-voting members of the Stakeholder Group. The Plan is contingent upon the agencies deferring but not precluding a suitability determination, and on resolution of the issues under Section III.C.2.c.of this Plan (Poison Pill).

Proponents of new projects that seek federal authorization, funding or assistance could choose to participate in the SG Plan. In such event, a new project proponent would: inform the SG of the proposed project in a timely manner to facilitate SG consideration and comment on the project; formally endorse the Plan and commit to participate in the Cooperative Measures procedures and funding provisions of the Plan; and demonstrate to the appropriate permitting/authorizing agency(ies) that project operations will not unreasonably diminish the ORVs or that operations will be subject to mitigation to avoid unreasonably diminishing the ORVs. The SG intends that permitting or authorizing agency(ies) will conduct their own independent assessment of a project's impacts to the ORVs, if any. Membership as a stakeholder is not intended to serve as project mitigation nor as a means to demonstrate that a project does not unreasonably diminish the ORVs (except as may be agreed between the project proponent and the SG).

TABLE OF CONTENTS

EXECUTIVE SUMMARY 2

DEFINITIONS 6

I. INTRODUCTION 8

II. DESCRIPTION OF ORVs 10

III. ORV INDICATORS AND RESOURCE GUIDES 13

IV. MEASURES TO ENSURE PROTECTION OF ORVs 25

V. MONITORING PLAN 32

VI. GOVERNANCE 33

VII. NEW PROJECTS 43

VIII. FUNDING 45

IX. AGENCY COORDINATION 51

LIST OF ATTACHMENTS 52

Attachment A: Milestones for Implementation of Tier 1 Long-Term Protection Measures and Mechanisms for addressing Changed Circumstances 52

Attachment B: Time Line and Task List 52

Attachment C: Existing Flow Conditions 52

Attachment D: Provisional Period Monitoring Plan 52

DEFINITIONS

A. "Effective date" of the Plan will commence upon issuance of records of decision by BLM and the USFS approving this Plan without material change as the management alternative for Segments 4 through 7 of the Upper Colorado River. Prior to the effective date of the Plan, the stakeholders will carry out the tasks described in Attachment B.

B. "Stakeholder" refers to an individual person or entity having membership status under the Plan pursuant to section VIII.B., whether or not such person or entity is a member of the Governance Committee.

C. "Stakeholder Group" is comprised of all stakeholders. The Stakeholder Group conducts its business and makes decisions through the SG Governance Committee. The terms "Stakeholder Group", "SG", "Governance Committee", and "GC" are used interchangeably throughout this document.

D. "Streamflow-influenced ORVs" refer to Outstandingly Remarkable Values which are influenced by streamflow and water quality, as defined in Part II of the Plan.

E. "ORV Indicators" mean the conditions that characterize the primary streamflow-influenced ORVs as they exist today. Provisional ORV Indicators are to be used by the Plan until such time as the final ORV Indicators are developed and approved pursuant to the criteria in the Plan.

F. "Resource Guides" are flow, temperature and water quality ranges specified in Part III of this Plan to inform SG discussions under the Plan. "Provisional Resource Guides" are identified in Part III of this Plan, subject to the identified qualifications on their use and the procedures for their finalization described in the Plan.

G. "Cooperative Measures" are voluntary actions that will be explored and may be implemented to assist in protection of the ORVs pursuant to the process described in Section IV.B. of the Plan.

H. "Long-Term Protection Measures" refer to specific measures described in Part IV.A. of the Plan that are expected to result in ongoing protection of the ORVs, absent a Material Change in Circumstances. These are supported by the SG and will be pursued pursuant to the Milestones in Attachment A.

I. "Milestones" contain the requirements for implementation of the Long-Term Protection Measures for protection of the ORVs. These are described in Part I of Attachment A to this Plan.

J. “Material Change in Circumstance” means a change in circumstance that undermines the value of one of the Long-Term Protection Measures under Section IV.A. of the SG Plan, including but not limited to the examples described in Part II of Attachment A.

K. “Significant risk of impairment to” an ORV is a determination made by affirmative vote of at least five Interest Groups that one or more of the ORVs is faced with an imminent risk of material diminishment due to circumstances under the control of the Plan. This may be cause for invoking the dispute resolution and potential Plan termination procedures in Section VI.J.4.

L. “Provisional period” refers to the first 3-to-5 years of Plan implementation commencing upon the effective date of the Plan. During this period, the SG will utilize provisional ORV Indicators and provisional Resource Guides, while working cooperatively to implement defined data collection and monitoring efforts and perform additional technical review. Final ORV Indicators and Resource Guides will be adopted prior to conclusion of the provisional period.

M. “Consensus”, “agreement”, “unanimous vote”, and “unanimous consent” of the SG or GC all refer to and require the affirmative vote of all Interest Groups. These terms are used interchangeably throughout this document.

N. “Poison Pill” means the potential withdrawal of the SG Plan under the conditions set forth in Section III.C.2.c. of the Plan.

O. A “water right” is a right to utilize a certain quantity of water based on the priority of a party’s appropriation of water for beneficial use. An “absolute water right” is a water right that has been put to actual use. A “conditional water right” is a right to perfect a water right with a certain priority upon the completion with reasonable diligence of the appropriation upon which such water right is based.

P. “Simulated Future Flows” – means stream flows that may occur in the future, which are modeled by imposing projected water demands of Front Range and West Slope Colorado River Basin water users, plus anticipated water-system operations, on historical stream flow records. Simulated Future Flows were evaluated by the SG in the context of negotiation of the Provisional Resource Guides but they are not specifically identified or otherwise incorporated into the SG Plan.

I. INTRODUCTION

This SG Plan has been developed to monitor and protect the ORVs identified in the BLM and USFS Eligibility Reports for Segments 4 through 7 of the Upper Colorado River.[1] It is intended to serve as a Wild and Scenic Rivers management alternative for the resource management plan revision process. A significant benefit of the SG Plan is that through the cooperative and voluntary efforts of interested water users, local governments, and other entities, the ORVs can be protected (and perhaps enhanced) in ways that coordinate with federal agency management.

Stakeholders have participated in the development of the SG Plan based on the premise that Cooperative Measures under the Plan are voluntary and cooperative. This SG Plan will be implemented in accordance with the following Guiding Principles:

Purpose of the Plan: The Stakeholder Group's intention for this collaborative Plan is to balance permanent protection of the ORVs, certainty for the stakeholders, water project yield, and flexibility for water users.

Cooperative Measures: The SG acknowledges that under the SG Plan, cooperative actions that would impair water providers' ability to meet their water supply commitments will not be undertaken.

Provisional Resource Guides: During the provisional period, the SG will work cooperatively to gather additional data, learn and refine what is needed for the protection of the ORVs, and develop a long-term Monitoring Plan to guide the protection of the ORVs. During the provisional period, the Resource Guides will be used as a source of information among others to inform SG discussions under the Plan. The Resource Guides are not intended to be used as a test for Plan success nor for use by permitting agencies or entities as the criterion for evaluating a project's effects on the ORVs. However, nothing in the Plan shall preclude or limit the use of any data regardless of whether such data has been used in the negotiation of the Resource Guides. The Resource Guides do not create any binding requirements that water providers satisfy specific flow levels. The SG will use the data and knowledge gained during the provisional period to develop final ORV Indicators, and Resource Guides that recognize long-term hydrologic variability, which may or may not resemble the provisional Resource Guides.

[1] The USFS is involved with BLM in the assessment of Wild and Scenic management along the Colorado River, and is the federal managing agency with respect to USFS Segments 1 and 2 (within BLM Segment 7) covering portions of the Upper Colorado River through Glenwood Canyon.

Resource Priorities: Under both the provisional period and subsequent to adoption of final Resource Guides and ORV Indicators, the SG acknowledges that the Cooperative Measures can have a limited ability to significantly influence the higher flow levels contemplated by the Resource Guides, particularly during low-flow periods. The SG is committed to work together to prioritize the use of Cooperative Measures among the various ORVs in a manner consistent with the intent of the SG Plan.

Project Permits: The SG acknowledges that the Municipal Subdistrict, Northern Colorado Water Conservancy District (Municipal Subdistrict) and Denver Water's continued participation in the SG Plan is contingent upon completion of all NEPA and related environmental permitting for the Municipal Subdistrict's Windy Gap Firming Project and Denver Water's Moffat Collection System Project (Projects), and upon Denver Water and the Subdistrict's election to proceed with the permitted Projects. The SG also acknowledges that the SG Plan is contingent upon the non-exercise of Paragraph III.C.2.c. of the SG Plan (Poison Pill). Prior to expiration of the period for exercise of the Poison Pill, members of the SG would continue to contribute annual funding to the SG Plan, but shall not be required to contribute endowment funding as anticipated pursuant to Section VIII.A. of the Plan.

Suitability Determination and Agency Coordination: The SG Plan is contingent upon the neutral deferral of a suitability determination under the Wild and Scenic Rivers Act by BLM/USFS. The SG Plan will not become effective or will terminate if either agency enters formal findings that Segments 4, 5, 6 or 7 of the Upper Colorado River are suitable or not suitable. The SG supports the position that BLM/USFS defer a determination of suitability until and unless there is a determination by the SG that the Plan should be terminated by BLM/USFS, and/or that it should no longer be used as a Wild and Scenic Rivers management alternative. The SG agrees to revisit this position on deferral at the end of the provisional period. If the Plan is determined to have failed, the BLM/USFS will be charged with considering a suitability determination. The SG encourages adoption by the BLM/USFS of a streamlined NEPA process that would, under such circumstances, allow the opportunity to provide comment and feedback to the agencies on the merits of suitability including comments expressing opposition to or support of a finding of suitability. The SG believes that interagency agreements/MOUs are important to the success of the Plan if suitability is deferred. The SG will work with BLM, USFS, and other federal agencies to encourage the adoption of appropriate MOUs that describe how the federal agencies' actions will relate to the SG Plan.

Elevation/Referral Process: The SG recommends including the BLM and USFS as non-voting members of the SG. As property managers, BLM and USFS are actually stakeholders in resource management issues and should be included when the elevation process triggers discussion among the SG (see Tier 3 process, Paragraph IV.C. of the Plan). Tier 3 includes the assessment of data

gathered, evaluation of the status of the resources, and exploration of voluntary cooperative efforts as described in the SG Plan; the BLM and USFS would participate in the SG discussions to provide resources and potential guidance on the issues and the data. As recognized in these Principles, the Plan will be successful as long as the SG is working together to protect the ORVs. After attempts at resolution have been explored by the SG, the SG will consider mediation or referral to a policy-level group within the SG in efforts to address unresolved material concerns. If, after all cooperative efforts have been explored and concerns remain that the ORVs are being impaired, the SG may by a 5/6 vote of the SG Interest Groups determine that the local process is no longer working and that the SG Plan should be terminated.

II. DESCRIPTION OF ORVs

A. Identification of ORVs.

The BLM and USFS Eligibility Reports identify the following ORVs that are the subject of this Plan:

Segment	Reach	ORVs	Preliminary Classification
Segment 4	Colorado River from top of Gore Canyon to the Pumphouse recreational site (5.36 miles)	Scenic (canyon, cliffs) Recreational (fishing - DOW Wild Trout waters; floatboating - Class V whitewater boating; scenic driving) Geological Wildlife (bald eagle nesting and winter habitat; river otter habitat) Historic (Moffat Rd.; early hydroelectric projects; WWII German POW camp)	Recreational

Segment 5	Colorado River from the Pumphouse Recreational Site down to State Bridge (15.26 miles)	Scenic (Little Gore Canyon & Red Gorge) Recreational (fishing - same as Segment 4; floatboating - Class II/III run; scenic driving) Geological Wildlife (same as above) Historic (early hydroelectric projects; early copper mining; Brass Balls Mine/Cable Rapids Cabin; State Bridge; historic Moffat Road) Paleontological (fossils).	Recreational
Segment 6	Colorado River from State Bridge to Dotsero (18.02 miles)	Scenic Recreational (fishing; floatboating; scenic driving) Wildlife (river otter habitat) Botanical (riparian plant communities)	Recreational
Segment 7	Colorado River from Dotsero to ½ mile east of No Name Creek/ Glenwood Canyon (15.78 miles)	Scenic Recreational (floatboating) Geological	Recreational
USFS Segment 1	Colorado River from National Forest boundary on the east end of Glenwood Canyon to the upstream end of the Shoshone Dam (4 miles)	(same as Segment 7 above)	Recreational
USFS Segment 2	Colorado River from the Shoshone power plant to the National Forest boundary on the west end of Glenwood Canyon (5 miles)	(same as Segment 7 above)	Recreational

B. Nature of and Factors Influencing ORVs.

This Plan aims to monitor and protect all ORVs while focusing on the primary streamflow-influenced ORVs identified in subsection (1) below. The SG Plan's implementation procedures provide a feedback loop to periodically assess and confirm that the management measures under the

Plan, in coordination with the BLM and USFS other land management actions, are protective of all ORVs.

1. The primary streamflow-influenced ORVs are:
    - Recreational Fishing
    - Recreational Floatboating
2. Other streamflow-influenced ORVs are:
    - Wildlife
    - Botanical
    - Scenic
3. Additional ORVs are:
    - Geological
    - Historical
    - Paleontological

C. <u>Context of ORVs - Existing Conditions</u>.

1. Existing Flow Conditions

Figure 1 (see Attachment C) shows the range of historical streamflows at the Colorado River near Kremmling stream gage (USGS #9058000) for the period 1983 – 2006. This period of record generally represents the level of flows in existence at the time that BLM and USFS identified the ORVs. The streamflows shown in Figure 1 will be used to inform discussions of the SG under Sections III and IV.

Figure 2 (see Attachment C) shows the range of historical streamflows at the Colorado River near Dotsero stream gage (USGS #9070500) for the period 1983 – 2006. This period of record generally represents the level of flows in existence at the time that BLM and USFS identified the ORVs. The streamflows shown in Figure 2 will be used to inform discussions of the SG under Sections III and IV.

Figure 3 (see Attachment C) compares the median annual flow at Kremmling for the periods 1904 – 1918 (pre-Moffat and C-BT systems) and 1962 – 1984 (pre-1984 Operating Rules for Green Mountain Reservoir and pre-Windy Gap) and 1985 – 2006 (post-Windy Gap).

2. Existing Temperature Conditions

At the 2010 Rulemaking on 5 CCR 1002-93, the State of Colorado determined that existing conditions for stream temperature in the reach of the Colorado River that comprises Segments 4 through 7 meet current Daily Maximum (DM) and Maximum Weekly Average Temperature (MWAT) stream temperature standards. See Provisional Period Monitoring Plan Exhibit 1 (Attachment D).

3. Existing Water Quality Conditions

In 2008, the State of Colorado determined that existing water quality conditions for the reach of the Colorado River that comprises Segments 4 through 7 meet current water quality standards for the protection of recreation and aquatic life. See Provisional Period Monitoring Plan Exhibit 1 (Attachment D).

III. ORV INDICATORS AND RESOURCE GUIDES

A. Definition and Use of ORV Indicators and Resource Guides.

This Plan aims at monitoring and protecting the ORVs using two distinct tools – "ORV Indicators" and "Resource Guides" – as follows:

1. ORV Indicators

In the first 3-to-5 years of implementation of this Plan, the Stakeholder Group will gather necessary data and develop specific indicators which will be used to gage whether the ORVs are being protected. These indicators are referred to in the Plan as "ORV Indicators." Failure to meet the criteria related to the provisional or final ORV Indicators would be cause for elevation and potential termination of this Plan pursuant to Section IV.C.-D. and VI.J.

2. Resource Guides

Streamflow-influenced ORVs may be affected by factors such as flows, temperature and water quality. This Plan establishes ranges for these factors, referred to as "Resource Guides," which are described in Part III of the Plan. Not all stakeholders endorse these Resource Guides or believe that the ranges they represent are necessary to support the ORVs. Nevertheless, the SG has negotiated the provisional Resource Guides as one source of

information among others for informing SG discussions under the Plan. The Resource Guides are not intended to be used as a test for Plan success, nor for use by permitting agencies or entities as the criterion for evaluating a project's effects on the ORVs. However, nothing in the Plan shall preclude or limit the use of any data regardless of whether such data has been used in the negotiation of the Resource Guides.[2]

B. Establishment of Provisional ORV Indicators.

Until such time as final ORV Indicators are developed, the Plan will use the following provisional ORV Indicators:

1. *RECREATIONAL FISHING* (Segments 4 through 6):

Recreational Fishing ORV Indicators for the Upper Colorado River from Gore Canyon to Red Dirt Creek.[3]

Type	Name	Current level (if available)
Fishery[4]	Quality Trout	24 fish over 14" per acre
Fishery[3]	Biomass	90 pounds/acre
Fishery[3]	Species Diversity (SD)	14 species of fish
Recreational Fishing[5]	Total Fishing Effort (TFE)	TBD
Recreational Fishing[4]	Catch/Unit Effort (CPUE)	TBD

The Stakeholder Group currently has insufficient information to describe the range and variability of the provisional recreational fishing ORV Indicators over time. The SG will monitor available information during the provisional period to

[2] For further information regarding Resource Guides and their use, see Section VII.B.3. of this Plan.

[3] Existing Colorado Parks and Wildlife (CPW) fishery data suggests that the quality of the recreational coldwater fishery in the reach of the Colorado River downstream of its confluence with Red Dirt Creek may not be as high as in the reach above. The provisional ORV Indicators will apply to that portion of Segment 6 upstream of the Colorado River's confluence with Red Dirt Creek. During the provisional period, the SG will gather data, as appropriate, and evaluate whether there is a need to develop specific ORV Indicators for the lower portion of Segment 6.

[4] Note: These Provisional ORV Indicators were developed using levels of Quality Trout, Biomass, and SD collected by CPW personnel in 2008. Data collected by CPW personnel in 2010 yielded 46 trout per acre 14" or larger, with a total biomass of 121 pounds per acre. The CPW plans to collect additional fishery data within BLM Segment 5 every other year.

[5] Note: A creel census will be required to quantify TFE and CPUE. The current estimated annual cost of the creel census will be approximately $25,000. CPW has no current plans to conduct a creel census within BLM Segments 4, 5, or 6 of the Colorado River; therefore, this cost, and supervision of the creel census, will likely be the responsibility of the Stakeholder Group.

evaluate, and revise if necessary, the provisional ORV Indicators above as described in the Monitoring Plan, Part V. During the provisional period, the SG will evaluate any instance where the individual ORV Indicator values for recreational fishing shown in Table III.B.1 are not met in a given year. In the event that subsequent data for such instances does not exhibit an improving trend toward meeting the provisional Indicator values in each subsequent year, the SG may invoke the SG elevation procedures in Section VI.J.4 of the Plan. It is recognized that the ORV Indicators for total fishing effort and catch/unit effort are not yet determined and that this is needed for a better understanding of the status of the recreational fishing ORV.

2. *RECREATIONAL FLOATBOATING* (Segments 4 through 7*):*

Narrative standard: Protect the existing range and quality of the outstanding floatboating opportunities.[6] This narrative standard does not imply mirroring any specific hydrology.

C. Establishment of Provisional Resource Guides.

Factors which may influence or affect the condition of the primary streamflow-influenced ORVs include flow levels, temperature, and water quality. Provisional Resource Guides[7] are established for each of these factors as part of this Plan. These guides are subject to the qualifications on their use described in Section III.A.2. and Section VII.B.3. of this Plan.

[6] The intent of the SG is to develop and incorporate objective criteria into the final recreational floatboating ORV Indicator.

[7] These provisional Resource Guides have been negotiated and are the result of compromise among the SG participants to inform SG discussions during the first 3-to-5 years of Plan implementation and may be replaced by final Guides that will be developed as a result of monitoring and data collection under the Plan.

1. *RECREATIONAL FISHING* (Segments 4 through 6):

a. Seasonal flows:

Season	Number of Days in Season	Month	Seasonal Fish Flow Range and Midpoint (cfs)
1	91	April	800-1000 900 midpoint
		May	
		June	
2	92	July	600-1000 800 midpoint
		August	
		September	
3	61	October	400-800 600 midpoint
		November	
4	122	December	400-600 500 midpoint
		January	
		February	
		March	

The provisional Resource Guides contained in the Table above represent the seasonal ranges of flow for the recreational fishing ORV. The SG will use the mid-point value as a reference flow and compare it to the 5-year rolling average under each season for purposes of discussion under the Plan.[8] Analysis of both historical and simulated future flow data shows that flow conditions in Segments 4, 5, and 6 can be expected to continue to be highly variable and that flow levels will sometimes lie above or below the ranges of the seasonal flow guides. While this could be addressed through the use of criteria addressing a specified frequency of meeting these guides, such implementation criteria has not been established for purposes of the Plan. The SG may develop such criteria in the future, but the Plan is designed to operate in the absence of such criteria.

b. Flushing flows: The SG has not achieved consensus on a definition or amount of a flushing flow in Segments 4, 5 and 6 but will continue to work toward consensus during the provisional period. For purposes of the provisional period,

[8] For the provisional period, the 5-year rolling average will include the data from the previous 4 years.

the SG has negotiated the following provisional Resource Guide for a periodic high flow[9]:

> A daily average flow of at least 2,000 cfs maintained for three consecutive days with a frequency of occurrence of once in two years on average.

During the provisional period, the SG will monitor substrate, stream flows and other conditions in Segments 4, 5 and 6 to evaluate the adequacy of this provisional Resource Guide. The SG acknowledges there are achievability issues regarding the frequency of occurrence of periodic high flows during the historical period and under simulated future stream flow conditions. Under these circumstances the SG will explore voluntary cooperative efforts to protect the fishing ORV.

c. Channel maintenance flows: During the provisional period, the SG agrees to study the extent to which channel maintenance flow guides will be incorporated in the Plan. Discussions during the provisional period may result in the decision that no channel maintenance flow guides will be included in the Plan.

2. *RECREATIONAL FLOATBOATING:*

The Stakeholder Group will develop final flow guides protective of the recreational floatboating ORV as soon as possible but in no event later than 3 years after approval of this Plan by BLM and USFS, absent extension of such time period by action of the Stakeholder Group. In the interim, this Plan adopts the following numeric and narrative criteria as provisional recreational floatboating flow guides. The numeric criteria describe the number of boatable days ("Usable Days") within the recreational floatboating season of April 1 to September 30, expressed as a range from minimum to median and maximum under each floatboating experience category and year type.

In addition to developing and tracking Resource Guides as described in this subsection, the SG will utilize forecasts of undepleted flows during the beginning of each Wild & Scenic water year to anticipate flow conditions for the year. These anticipated flow conditions will be used to inform the SG's decisions regarding

[9] The SG believes that this periodic high flow should mobilize substrate in riffle areas in Segments 4 and 5, and also in Segment 6 with consideration of tributary inflow.

cooperative measures that might assist in achieving the Guides. Refer to Section IV.B.2 (Cooperative Measures) for details.

a. Segments 4 through 6

For purposes of this provisional flow guide for Segments 4, 5, and 6, flows between 700 cfs and 1300 cfs are presumed to provide a low water experience ("Green"); flows between 1300 cfs and 4000 cfs are presumed to provide a standard experience ("Blue"); and flows above 4000 cfs are presumed to provide a high water experience ("Black"). Flows through Segments 4, 5, and 6 less than 700 cfs or more than 7400 cfs are not considered by some stakeholders in the Stakeholder Group to provide Usable Days under these provisional flow guides, and therefore are not counted.

The following chart reflects the water year type, total median Usable Days, and the range of Usable Days within each floatboating experience category that will serve as the provisional flow guides.

Number of Usable Days: Segments 4 through 6 [*minimum (median) maximum*]

	Total Usable Days	Green Opportunities 700 – 1300 cfs	Blue Opportunities 1300 – 4000 cfs	Black Opportunities 4000 – 7400 cfs
Wettest 25% Years	115 (161) 180	38 (74) 121	39 (72) 79	4 (22) 28
Wet Typical 25% Years	120 (153) 169	68 (108) 119	19 (57) 79	0 (0) 5
Dry Typical 25% Years	74 (115) 141	69 (106) 127	0 (14) 33	0 (0) 0
Driest 25% Years	62 (80) 96	53 (73) 87	0 (1) 25	0 (0) 0

It is anticipated that the SG will review the number of floatboating Usable Days for each boating season. The year-type for this review will be based on the annual measured flows (aka the depleted flows) at the Kremmling gage (USGS gage number 09058000) as of March 31. Any preliminary reviews done prior to March 31 will be based upon estimated annual measured flows at the Kremmling gage, and where necessary preliminary stream flow data will be used. The year types for Segments 4, 5 and 6 are defined as follows:

Year Type	Annual Kremmling Gage Flows
Wettest 25% Year	More than 769,500 AF
Wet Typical Year	525,500 – 769,500 AF
Dry Typical Year	454,500 – 525,500 AF
Driest 25% Year	Less than 454,500 AF

The numeric criteria shown in the above chart are based on simulated future streamflow conditions modeled by imposing future demands and system operations on past undepleted stream flow (simulated future flows) instead of existing streamflow conditions. It is recognized, based on an analysis of both historical and simulated future flow data, that flow conditions can be expected to continue to be highly variable and that flow levels will at times lie outside the ranges of these guides. While this could be addressed through the use of criteria addressing a specified frequency of meeting these guides, such implementation criteria has not been established for purposes of the Plan. The SG may develop such criteria in the future, but the Plan is designed to operate in the absence of such criteria.

Some stakeholders (including those representing the floatboating recreation community) maintain that the use of simulated future flows for the provisional flow guides is not protective of the ORVs. The entire Stakeholder Group agrees to implement the Cooperative Measures process (considering available resources and protection of the other ORVs) in efforts to increase the number of Usable Days for each floatboating experience category, within each year type.

It is anticipated that stakeholders will bring their specific preferences and goals to the Cooperative Measures planning process and to the negotiation of final recreational floatboating flow guides. The use of simulated future flows as part of these provisional flow guides does not reflect agreement among the stakeholders whether simulated future flows or historical stream flows should be used to develop the final flow guides (even if Section III.C.2.c. of this Plan is not exercised). Nothing in these provisional flow guides implies agreement by the stakeholders on use of the Usable Day concept, floatboating experience categories, nor year types for purposes of development of final flow guides.

b. Segment 7

The following chart presents the year type, total Usable Days (i.e., the total number of days between April 1 and September 30 when the flow at the Dotsero gage is between 1,200 to 8,600 cfs), and the range of Usable Days within each floatboating experience category that will serve as the provisional Resource Guides for Segment 7.

Number of Usable Days: Segment 7 [*minimum (median) maximum*]

Year Type	Total Usable Days	Green Opportunities 1200/1250[10] - 1800 cfs	Blue Opportunities 1800 - 5500 cfs	Black Opportunities 5500-8600 cfs
Wettest 25% Years	120 (156) 169	33 (57) 83	49 (68) 77	21 (29) 42
Wet Typical 25% Years	126 (164) 172	44 (68) 102	39 (75) 110	1 (13) 33
Dry Typical 25% Years	138 (161) 178	75 (86) 121	40 (61) 91	0 (2) 11
Driest 25% Years	136 (159) 177	88 (126) 137	10 (32) 63	0 (0) 6

It is anticipated that the SG will review the number of floatboating Usable Days for each boating season. The year-type for this review will be based on the annual measured flows (aka the depleted flows) at the Dotsero gage (USGS gage number 09070500) as of March 31. Any preliminary reviews done prior to March 31 will be based upon estimated annual measured flows at the Dotsero gage, and where necessary preliminary stream flow data will be used. The year types for Segment 7 are defined as follows:

[10] The stakeholders do not agree on the specific flow rate for the Green floatboating category; however, during the provisional period, the number of usable days in the Green floatboating category will be based on a flow rate of 1200 – 1800 cfs. The Stakeholder Group agrees that nothing in these provisional Resource Guides has any effect on the operation of the Shoshone Hydro Power Plant or the water rights for the Shoshone Hydro Power Plant. Moreover, nothing in this SG Plan shall be interpreted as a waiver of any party's position with respect to the appropriate flow rate for the Green floatboating category, or on any existing or future agreements regarding the operation of the Shoshone Hydro Power Plant and its associated water rights.

Year Type	Annual Dotsero Gage Flows
Wettest 25% Year	More than 1,519,500 AF
Wet Typical Year	1,234,000 – 1,519,500 AF
Dry Typical Year	1,029,500 – 1,234,000 AF
Driest 25% Year	Less than 1,029,500 AF

It is recognized, based on an analysis of both historical and simulated future flow data, that flow conditions can be expected to continue to be highly variable and that flow levels will at times lie outside the ranges of these guides. While this could be addressed through the use of criteria addressing a specified frequency of meeting these guides, such implementation criteria has not been established for purposes of the Plan. The SG may develop such criteria in the future, but the Plan is designed to operate in the absence of such criteria.

c. Poison Pill. It is recognized that the SG does not currently have the information it needs to set final floatboating flow guides at this time and that the setting of those guides will be informed by information about the resource and water uses. The provisional floatboating flow guides, as set forth in Paragraph III.C.2. of the Plan, were negotiated using historical data and an assumed future hydrology. Some stakeholders have expressed serious concern with such an approach because they maintain that it will result in a reduction of usable floatboating days from what occurs under existing hydrology. However, these stakeholders have agreed to include the provisional floatboating flow guides in the Plan, subject to the negotiation of protective measures within the context of the permitting for the Windy Gap Firming Project and the Moffat Collection System Project ("Projects") that will address consistency of the Projects with the streamflow-influenced ORVs. If the outcome of those negotiations or final permitting precludes continued support of the Plan by any stakeholder (including a Project proponent), that stakeholder shall provide written notification of such position to the SG and the SG will withdraw the Plan from consideration by BLM and USFS as a locally supported Wild and Scenic management plan alternative. To clarify, the net effect of such withdrawal will be that the BLM and USFS will be left to determine the appropriate Wild and Scenic determinations and protective

measures for Segments 4, 5, 6 and 7, if any, without taking into account the SG Plan alternative. Written notification to the SG by the objecting stakeholder must occur no later than six (6) months after the issuance of required permits for the Windy Gap Firming Project[11] and the Moffat System Improvement Project[12], at which time the SG will convene a special meeting. Notification of Plan withdrawal to BLM and USFS must occur within 60 days after notification to the SG, unless a longer time period is agreed to by the SG.

The SG agrees that if, upon the deadlines set forth above, the Plan is not withdrawn: (1) protection measures established through negotiations or permitting provide the means for the Windy Gap Firming Project and the Moffat System Improvement Project to be operated in a manner consistent with protection of the ORVs; (2) the Projects will not be subject to the requirements of Part VII (New Projects); (3) the Projects will fall under IV.D.2. of the Plan; and (4) the Plan may not be withdrawn pursuant to the withdrawal provisions of this section III.C.2.c.

3. *WATER QUALITY* (Segments 4 through 7):

The Resource Guides for water quality are the Colorado Department of Public Health and Environment (CDPHE) water quality standards for cold water aquatic life and recreation uses for the portion of the stream segment that CDPHE has designated COUCUC03 (Mainstem of the Colorado River from the outlet of Granby Reservoir to the confluence with the Roaring Fork River) that is within Wild and Scenic Segments 4 through 7.[13]

---

[11] The anticipated permits and approvals for the Windy Gap Firming Project are: a Clean Water Act Section 404 permit from the U.S. Army Corps of Engineers; special use permit or license, and revised amendatory carriage contract, from U.S. Bureau of Reclamation; 401 certification from the Colorado Water Quality Control Division; state fish and wildlife mitigation plan; and, without waiving any party's rights, Grand County 1041 and special use permit amendments, if such are required. The requirements of NEPA, FWCA and ESA would be addressed as part of the above federal permits.

[12] The anticipated permits for the Moffat System Improvement Project are: a Clean Water Act Section 404 permit from the U.S. Army Corps of Engineers; license amendment by FERC; Section (4) conditions and special use permit from the U.S. Forest Service; 401 certification from the Colorado Water Quality Control Division; and Boulder County 1041 permit, if one is required.

[13] 40 C.F.R. 131.20 provides that each State must specify appropriate water uses to be achieved and protected. The classification of the waters must take into consideration the use and value of water for public water supplies, protection and propagation of fish, shellfish and wildlife, recreation in and on the water, agricultural, industrial, and other purposes including navigation. In no case shall a State adopt waste transport or waste assimilation as a designated use for any waters of the United States.

4. *TEMPERATURE* (Segments 4 through 7):

The Resource Guides for temperature are the CDPHE stream temperature water quality standards for Daily Maximum (DM) and Maximum Weekly Average Temperature (MWAT) for the portion of the stream segment that CDPHE has designated COUCUC03 (Mainstem of the Colorado River from the outlet of Granby Reservoir to the confluence with the Roaring Fork River) that is within Wild and Scenic Segments 4 through 7.[14]

D. Refinement of Provisional Resource Guides.

The provisional Resource Guides will be evaluated and may be adjusted as a result of defined data collection, monitoring efforts, and technical review as part of the 3-to-5 year study effort described in the Monitoring Plan in Part V. It is anticipated that information such as that developed in Phase 3 of the Grand County Stream Management Plan, Colorado Parks and Wildlife (CPW) studies to develop a proposed ISF, and estimations of future water availability by stakeholders, etc. will be used to help finalize these Resource Guides during this period.

At the end of the provisional period: (1) final Resource Guides will be adopted by unanimous consent; or (2) absent unanimous consent, the provisional guides would persist until such time as they are changed/finalized in the future by unanimous consent; or (3) if an Interest Group withdraws, the then existing guides would become permanently fixed for purposes of continuation of the Plan (pursuant to Section VI.K.).

E. Existing Water Rights.

The SG members recognize that existing water rights, including absolute and decreed conditional water rights in existence as of the date of adoption of the Plan (existing water rights), have been exercised or may be exercised in the Colorado River basin in the future at times when the river flows in Segments 4 through 7 are both inside and outside the flow guide ranges. The SG members agree that the flow guides herein have been negotiated as one source of information among others for informing SG discussions under the Plan, but the implementation of the Plan shall

---

[14] 40 C.F.R. 131.20 provides that each State must specify appropriate water uses to be achieved and protected. The classification of the waters must take into consideration the use and value of water for public water supplies, protection and propagation of fish, shellfish and wildlife, recreation in and on the water, agricultural, industrial, and other purposes including navigation. In no case shall a State adopt waste transport or waste assimilation as a designated use for any waters of the United States.

not affect the legal operation of water rights pursuant to state law. Nothing in the Plan shall be deemed or construed to create any obligation on any SG member to operate facilities or exercise water rights in any particular manner. However, nothing herein shall be interpreted to override the provisions of Section VII regarding the opt-in of new projects. Likewise nothing in the Plan shall be deemed or construed to preclude any SG member from participating in any water rights litigation.

F. Eagle River MOU Project.

The 1997 Eagle River MOU between the Cities of Aurora and Colorado Springs, the Colorado River Water Conservation District, the Vail Consortium consisting of the Eagle River Water and Sanitation District, Upper Eagle Regional Water Authority, and Vail Associates, Inc. ("Vail Consortium"), and Cyprus Climax Metals Co., provides for the development of the Eagle River MOU Joint Use Water Project (ERMOU Project) as a phased joint-use project to provide water supply for East Slope and West Slope water users. The ERMOU Project has been cooperatively configured to avoid or minimize environmental concerns and will be constructed as an alternative to the federally permitted Homestake II Project. Successful implementation of the ERMOU Project is important to meet the current and future water needs of both East Slope and West Slope ERMOU parties.

The SG has discussed how to address the ERMOU Project in the SG Plan. Consistent with the intent of the SG to develop a Plan to balance the permanent protection of the ORVs, certainty for the stakeholders, water project yield, and flexibility for water users, the ERMOU Project is recognized in the SG Plan.

Aurora, Colorado Springs, the Eagle Park Reservoir Company, and the Vail Consortium support the SG Plan as the preferred management plan alternative and will continue to participate in good faith in the SG subject to the following:

1. The Guiding Principles shall continue to guide the development and implementation of the SG Plan;

2. The SG supports the neutral deferral of a suitability determination by the BLM and USFS in accordance with the Guiding Principles;

3. The modeling or other assumptions underlying the Segment 7 Resource guides or other implementing documents for the SG Plan

will incorporate the depletions from the ERMOU Project, which will not exceed an annual average of 30,000 acre feet;

4. During the provisional period, the SG will continue to evaluate voluntary "cooperative measures" that could be implemented for Segment 7, and will consider in good faith how such cooperative measures are consistent with the ORV protection goals of the SG Plan; and

5. During the provisional period, the SG will continue to evaluate the effects of completion of the MOU Project within Segment 7, and will consider in good faith whether such effects advance the ORV protection goals of the SG Plan.

IV. MEASURES TO ENSURE PROTECTION OF ORVs

This Plan adopts the following tiered system for implementation of management measures for the protection of the ORVs.

Tier 1 Implementation of Long-Term Protection Measures. These measures, described in Section IV.A. below, are supported by the Stakeholder Group and will be pursued pursuant to identified Milestones in Attachment A to this Plan.

Tier 2 Implementation of additional Cooperative Measures. These will complement the Tier 1 measures. These may serve to maintain or enhance the ORVs, assist in achieving provisional or final Resource Guides, and/or address a Material Change in Circumstances. Section IV.B. of this Plan mandates a specific process to ensure timely and periodic consideration of data pertaining to the ORV Indicators and Resource Guides and to assess the need and available opportunities for implementing additional measures.

Tier 3 SG Elevation Process. This Plan incorporates an elevation and evaluation process by the Stakeholder Group for purposes of addressing unresolved concerns of SG members material to implementation of the Plan or the status of the ORVs. That elevation process is summarized in Section IV.C. below.

Tier 4 Termination of Plan. The Plan provides that the SG may terminate this Plan in accordance with Section VI.J.4. subsequent to

completion of the dispute resolution procedures specified in that section.

A. **Tier 1** Long-Term Protection Measures.

These are measures that are expected to provide significant protection of the ORVs, unless a Material Change in Circumstances occurs.

The Long-Term Protection Measures are summarized below. The Long-Term Protection Measures will be pursued in accordance with the Milestones in Attachment A.

1. *Appropriation of CWCB instream flow right*: The Stakeholder Group has expressed support for a CWCB ISF water right or water rights for base flows in the subject stream segments. An ISF water right can protect stream flows between two points on a stream from future water rights appropriations in accordance with the State's prior appropriation system. ISF water rights are held exclusively by the CWCB for minimum stream flows to preserve the natural environment to a reasonable degree, and are adjudicated and administered within the State's water right priority system.

2. *Delivery of water to a downstream demand*: Water released from storage or otherwise made available from upstream sources can be delivered to downstream demands. Such deliveries can be "shepherded" (i.e., protected) through the subject stream segments. A primary example is the release of water from Green Mountain Reservoir pursuant to the 1984 Green Mountain Reservoir Operating Policy for delivery to irrigation demands in the Grand Valley near Grand Junction.

3. *Existing senior water rights*: The Shoshone and Cameo groups of senior water rights generally control the administrative call within the Colorado River Basin. These water rights are located downstream of the subject stream reaches; therefore, an administrative call during dry or average conditions by these water rights can curtail diversions from upstream junior water rights or require the release of water from storage to replace those junior diversions. This administrative call generally results in stream flow through the subject stream segments in amounts greater than would exist in the absence of the administrative call.

4. *Upper Colorado River Endangered Species Program*: This is an existing mechanism by which water is released or bypassed from upstream reservoirs for the benefit of the endangered fish species

in the Grand Valley on a temporary basis. The water deliveries are protected through the subject stream segments downstream through the 15-Mile Reach of the Colorado River. During peak runoff, bypasses from upstream reservoirs can provide peak flushing flows through the subject stream segments. During dry periods in late summer or early fall, releases from upstream storage to supplement low flows in the 15-Mile Reach can significantly supplement flows in the subject stream segments.

Material Change in Circumstances: The Plan includes mechanisms to address a Material Change in Circumstances that could impact the effectiveness of these long-term measures in protecting the ORVs. These are included as part of the detailed Milestones in Part II of Attachment A to this Plan.

B. **Tier 2** Cooperative Measures.

As a complement to the Long-Term Protection Measures, the following voluntary Cooperative Measures strategies will be implemented under the terms of this Plan.

1. The Stakeholder Group commits to rigorously explore potential Cooperative Measures that would achieve provisional or final ORV Indicators and/or Resource Guides pursuant to the procedures specified in this Section.

2. Cooperative Measures will take into account the predicted nature of the hydrologic year (i.e., wettest, wet typical, dry typical or driest) as defined below.

   It is anticipated that the SG will use forecasts of April through July undepleted (aka natural) flows at Kremmling and Dotsero to guide cooperative efforts for Segments 4-6 and Segment 7, respectively. The forecasts are provided by the Colorado Basin River Forecast Center (CBRFC) early in the months of January, February, March, April, May and June. The forecasted year type may be different than the actual year type. In conjunction with the CBRFC forecasts, the SG will use the following table to predict the year type:

For Segments 4, 5, and 6

Year Type	April – July Kremmling Undepleted Flow
Wettest 25% Year	More than 1,007,000 AF
Wet Typical Year	812,500 – 1,007,000 AF
Dry Typical Year	607,000 – 812,500 AF
Driest 25% Year	Less than 607,000 AF

For Segment 7

Year Type	April – July Dotsero Undepleted Flow
Wettest 25% Year	More than 1,757,500 AF
Wet Typical Year	1,362,500 – 1,757,500 AF
Dry Typical Year	1,007,000 – 1,362,500 AF
Driest 25% Year	Less than 1,007,000 AF

SG discussions shall also be informed by and take into consideration other factors, including external conditions such as those related to any extended drought, fire, climate change, or other conditions outside the control of the Plan.

3. The Stakeholder Group or a subcommittee appointed by the SG will meet quarterly, or more frequently as determined necessary, to assure a timely and periodic assessment of the need for, focus of, and available opportunities for implementation of these Cooperative Measures. A record will be kept of the concepts discussed at these meetings. Progress in implementing Cooperative Measures shall be an agenda item on the meetings of the Stakeholder Group.

4. It is recognized that the availability of certain Cooperative Measures will be opportunistic in nature, and that certain measures may be implemented without full coordination of the Stakeholder Group. In that event, they shall be reported on at the next ensuing meeting of the Stakeholder Group or its subcommittee.

5. Cooperative Measures will respect the priority system and the operations of water right holders, and will take into account impacts of implementation of the Cooperative Measures on other segments of the Colorado River and its tributaries. It is understood that under the SG Plan, Cooperative Measures that would impair water providers' ability to meet their water supply commitments will not be undertaken, in accordance with the Guiding Principles.

6. It is recognized that it may not be possible to implement Cooperative Measures in every year.

7. Possible Cooperative Measures may include but are not necessarily limited to:

   a. *Acquisition of water rights for ISF purposes*.

      The CWCB could enter into an agreement with a water user under which it would acquire water, water rights or an interest in water to use to preserve or improve the natural environment to a reasonable degree through the reaches of the river subject to this Plan. The CWCB could explore the potential for securing instream flows for large seasonal or flushing flows under its acquisition authority. Depending on the conditions of the agreement, such acquisition could result in long-term protection of flows in higher amounts than the new ISF appropriation made under Section IV.A.1. The SG and the CWCB are continuing to explore options for protection of flows pursuant to such voluntary arrangements. Because attempting to decree an ISF water right for higher flows could slow down the new ISF water right appropriation process pursuant to Section IV.A.1., the protection of higher flows could be achieved via a water acquisition implemented through a separate water right decree.

   b. *Strategic timing of reservoir releases to meet winter storage elevations*.

      Several major reservoirs upstream of the stream segments have winter season storage target levels that require the release of previously stored water in anticipation of spring runoff. The coordinated timing/scheduling of late summer and early fall reservoir releases to meet annual reservoir target elevations can help to satisfy late season flow demands. Such measures would take into account needs and effects during other seasons.

c. *Storage and subsequent release of historical consumptive use and return flows*.

The Stakeholder Group will not encourage the dry-up of agricultural land. However, as development occurs in the area, some agricultural land and associated water rights will be taken out of production. On an "if and when/excess capacity" basis, the historical consumptive use and, in some cases, the historical return flow of the water rights can be placed into storage in upstream reservoirs for later release for a variety of purposes (both consumptive and non-consumptive). The timing of such releases may benefit the ORVs. Potential examples of such arrangements include the Red Top Valley Ditch, the Vail Ditch, and the Moser/Water Trust transaction.

d. *Use of Windy Gap system*.

Depending on the hydrology, operations, agreements, and other circumstances, the Municipal Subdistrict may be able to allow the use of excess capacity in the Windy Gap system for the diversion and storage of water for the benefit of the ORVs. For example, favorable circumstances existed in 2008 through 2010 which allowed Grand County to reimburse the Municipal Subdistrict for the pumping costs to pump as much as 5,000 acre feet of Windy Gap water into Granby Reservoir. Pursuant to contract, the Windy Gap water was then released downstream between August and October for consumptive uses in the Grand Valley, benefitting in-channel resources enroute.

e. *Spring peak enhancement*.

Spring flushing flows could be enhanced through the coordinated bypass of reservoir inflow during the spring runoff. Close coordination and cooperation with the State Engineer's Office to protect the annual fill of reservoirs would help to implement this strategy.

f. *Cooperative flow management*.

Voluntary flow management programs provide a water management tool that can be used for maintaining and enhancing flow-related values within a given stream reach, while meeting downstream demands such as those for the endangered fish species, through the collaborative operation of water facilities and other cooperative efforts.

g. *Water Rights Acquisition.*

The SG could explore opportunities to acquire water rights for the purpose of maintaining and enhancing flow-related values in Segments 4 through 7, provided any acquisition is on a willing seller/willing buyer basis and the SG agrees to not encourage dry-up of agricultural lands.

C. **Tier 3** Stakeholder Group Elevation Process.

Any stakeholder may elevate an issue to the Stakeholder Group for purposes of addressing unresolved concerns material to implementation of the Plan or to the status of the ORVs. Prior to elevation, that concern shall be summarized in writing, together with an explanation of any "competing views" on the issue and the efforts to date to resolve the matter. Data pertinent to the Stakeholder Group's deliberations shall be summarized or compiled. Elevation shall be triggered by submitting a written request, accompanied by the above materials, for the Stakeholder Group to convene a meeting (or add an agenda item to a previously set meeting). The Stakeholder Group shall address such issue in accordance with its Governance protocols in Part VI.

D. **Tier 4** Plan Termination.

1. The SG may terminate this Plan pursuant to Section VI.J. following completion of the non-binding dispute resolution procedures specified in that section. Formal notification of such termination will be provided to BLM and USFS which details the issues, relevant data, and steps undertaken in efforts to address the concerns which led to termination of the Plan.

2. It is the intent of this Plan that termination of the Plan or any modification of the Plan by BLM and/or USFS would not by itself constitute grounds for reopening of federal authorizations or funding for new projects predating BLM and USFS approval of this Plan, or for reopening of federal authorizations or funding for other projects that include and are in compliance with terms, conditions or mitigation measures protective of the ORVs independent from the operation of the Plan.

V. MONITORING PLAN

A. Monitoring Plan.

The purpose of this Monitoring Plan is to establish a protocol to monitor ORV Indicators and Resource Guides to assist in implementation of the SG Plan. The Provisional Period Monitoring Plan is provided in Attachment D. Data and information generated from this Provisional Period Monitoring Plan will be used in the following manner:

1. *Provisional Period Monitoring Plan*: During the 3-to-5 year provisional period, participants will collect and analyze data specified in the Monitoring Plan to monitor, evaluate, and revise if necessary the provisional ORV Indicators and Resource Guides to assist in implementation of the SG Plan. Data gathered during the provisional period will also help characterize existing conditions for many parameters.

2. *Long-Term Monitoring Plan*: The SG will use the results from the Provisional Period Monitoring Plan to develop final ORV Indicators and Resource Guides. The Provisional Period Monitoring Plan will be revised, if necessary, to prescribe monitoring measures for the ORV Indicators and Resource Guides under the Long-Term Monitoring Plan to assist in implementation of the Plan.

3. *Reporting*: The Stakeholder Group will gather the data prescribed in the Monitoring Plan and prepare an annual Monitoring Report for the Stakeholder Group (including the BLM and the USFS).

4. *Funding*: Funding needed for the Monitoring Plan, including data gathering and analysis, will be provided through the Stakeholder Group's funding mechanisms provided in Part VIII.

B. Provisional Monitoring Parameters.

ORV INDICATORS	ORV RESOURCE GUIDES
Recreational Fishing:	**Recreational Fishing**:
- Quality Trout	- Flow guides
- Biomass	- Flushing Flow
- Species Diversity	
- Total Fishing Effort	
- Catch/Unit Effort	**Recreational Floatboating**:
	- Usable Days
Recreational Floatboating:	
- Narrative during provisional period	**Water Quality:**
	- CDPHE existing water quality standards for cold water aquatic life and recreation uses
	Temperature:
	- CDPHE existing water quality standards for temperature

VI. GOVERNANCE

During the provisional period, the stakeholders will develop either (a) a comprehensive Memorandum of Understanding among the participating stakeholders (or other form of agreement); (b) a formal legal entity (e.g., corporation, joint venture, partnership, etc.); or (c) both, that will govern the overall administration of the Plan.

A. Governance Committee. The SG will conduct its business and make decisions through the SG Governance Committee (GC).

B. Non-Delegable Responsibilities. It is recognized that the signatories to this Plan may have statutory or other organizationally established responsibilities that cannot be delegated. This cooperative Plan is not intended to abrogate any signatory's non-delegable responsibilities.

C. Purposes of the GC. The purposes of the GC include, but are not necessarily limited to, the following:

1. Implement the Plan.
2. Make management decisions under the Plan.
3. Conduct annual reporting to the BLM and USFS.
4. Finalize ORV Indicators and Resource Guides.
5. Make financial decisions.
6. Establish rules and bylaws.
7. Hold meetings open to the public.

8. Seek funding.
9. Coordinate with other entities gathering data, studies, information, or conducting cooperative efforts.
10. Elect officers.
11. Establish committees.
12. Approve budgets and expenses.
13. Conduct monitoring and research efforts.
14. Review ORV Indicators and Resource Guides.
15. Evaluate protection of ORVs in accordance with the Plan.
16. Coordinate with water users to recommend and learn about cooperative efforts to include in annual report.
17. Recommend and fund efforts to protect and enhance ORVs.
18. Evaluate whether Material Changes in Circumstances exist as defined under the Plan and recommend strategies to address Material Changes in Circumstances.
19. Discuss new projects and new members.
20. Amend the Plan, as necessary, pursuant to procedures under the Plan.
21. Pursue agreements with state and federal entities to further goals of the Plan.

D. Representation. The GC should reflect a fair representation of different interests and expertise.

1. Voting Committee Members. There shall be a total of six Interest Groups consisting of three GC members from each Interest Group. The Interest Groups[15] shall consist of the following:

    a. West Slope Water Conservancy/Conservation Districts and Landowners/Water Users.
    b. Local Government.
    c. Trans-Mountain Diverters.
    d. Conservation/Environmental/Fishing.
    e. Recreational Floatboating.
    f. State Interests (e.g., CWCB, CPW, and State or Division Engineer).

2. Ex Officio members. The SG requests that BLM and USFS personnel serve as *ex officio* non-voting members of the GC.

3. Charter/Protocol. Each Interest Group will establish a "charter/protocol" that sets forth the process and procedure for

[15] It is anticipated that the Eagle River entities (Vail Associates, Inc., Upper Eagle Regional Water Authority, Eagle River Water and Sanitation District, and Eagle Park Reservoir Company) will be included within Interest Group category 1.a or 1.b above.

inclusion in the Interest Group and for the selection of its representatives. The protocols for Interest Groups 1.d and 1.e above shall include a procedure for designating the representative to the Review Committee for those two Interest Groups pursuant to Section VI.J.4.b.

4. Alternates. For each primary representative chosen, an alternate will also be designated to cover the contingency that the primary representative may not be available. In the absence of the primary representative, the alternate will have full GC Voting Committee member status.

5. Terms. For initial appointments, each Interest Group will appoint one GC member to a one-year term, the second to a two-year term, and the third to a three-year term. Subsequent terms for each appointment will be for full three-year terms.

6. Replacement. A GC member or alternate may be replaced by the respective Interest Group in accordance with its charter/protocol.

7. Indemnity – TBD prior to effective date of Plan.

8. Officers. The GC will appoint a Chair and Vice-Chair, who shall serve in the Chair's absence, for the purpose of organizing and supervising meetings. The GC shall appoint a Secretary, who need not be a member of the GC, to prepare minutes and to maintain the official records for the GC. Officers shall serve one-year terms. Officers that are members of the GC shall have full voting rights.

E. Meetings of the GC.

1. *Annual Meeting*. The GC shall have an annual meeting that shall occur in March each year, or as otherwise determined by the GC. The agenda for the annual meeting shall include election of officers, a review of the bylaws, and reports on the status of the SG's annual activities and finances. Written notice of the annual meeting stating the place, day and time of the meeting, along with the meeting agenda, shall be delivered to GC members not less than 14 nor more than 60 days before the date of the annual meeting.

2. *Regular Meetings*. Regular meetings of the GC shall occur at least quarterly, unless otherwise determined by the members. The day, time, and location of the next regular meeting shall be scheduled before the end of the current regular meeting, whenever possible. Written notice of the next regular meeting stating the place, day,

and time of the meeting, along with the meeting agenda, shall be delivered to GC members not less than 14 nor more than 30 days before the date of any meeting.

3. *Special Meetings*. Special meetings shall be called as soon as practicable by the Chair upon the request of five or more GC members; provided, however, that if the purpose for calling the special meeting is to determine whether impairment or a significant risk of impairment exists to the ORVs then (a) the special meeting may be called upon the request of any one GC member, and (b) shall be held no later than 15 days from the initial GC member request. The special meeting request will provide a suggested date, time, and place of meeting, along with a proposed agenda of items to be discussed. Members shall be notified at least four days prior to a special meeting.

4. *Meeting Notice*.

   a. Written notice stating the place, day and time of the meeting along with the meeting agenda shall be delivered either personally, by mail, or by e-mail, at the direction of the Chair, to each GC member (and alternates). Written notice shall be delivered personally or by e-mail for any special meetings that are called.

   b. Notice must be delivered on or before established deadlines contained herein for annual, regular, or special meetings. If mailed, such notice shall be deemed to be delivered as to any GC member (or alternate) after being deposited in the United States mail, addressed to the GC member at its address as it appears on in the records for the GC, with postage thereon prepaid. If e-mailed, such notice shall be deemed delivered as to any GC member (or alternate) on the day of such e-mail transmission. Such electronic transmission may be corroborated by a printout showing the electronic address from which transmitted, the electronic address to which transmitted, the date, and the time of such transmission.

5. *Open Meetings and Public Participation.*

   a. All annual, regular, and special meetings of the GC shall be open to the public. The GC shall maintain an agenda item during each regular or special meeting devoted to written and oral public comment.

b. Reasonable public notice of the time and place designated for all annual, regular, and special meetings shall be posted in public locations approved by the GC. At a minimum, public notice for regular and special meetings will be posted at approved locations in Grand, Summit, Eagle, and Garfield Counties and via an e-mail distribution list to interested stakeholders. The GC may also provide public notice for meetings using an approved internet website and/or postings in widely distributed newspapers (e.g., Denver Post, Summit Daily News, etc.). Such notices shall remain posted through the date of the meeting, and shall be changed in the event that the time or place of such regular meetings is changed.

6. *Meeting Location.*

a. Regular and special meetings shall be held at a time and in a place to be designated by the GC. Meetings will generally be held in Grand, Summit, Eagle, or Garfield Counties. Meeting rooms shall have reasonable teleconferencing capability to meet the participation needs of any GC member.

b. The GC may approve meetings to be held in other locations, as circumstances warrant, provided that adequate notice is provided to GC members and the public.

7. *Meeting Agenda*.

a. Agenda Formulation. Agenda items for annual or regular meetings should be submitted to the Chair within a reasonable time prior to the next scheduled meeting.

b. Amendment of Agenda. The agenda for any meeting may be amended the day of the meeting by the GC through the voting procedures set forth below.

8. *Telephonic/Electronic Participation*. GC members may participate in and hold a meeting by means of conference telephone, video teleconference, webinar, or similar communications equipment. Participation in such a meeting by the methods described above shall constitute attendance and presence in person at such meeting.

F. Quorum Required.

1. All business of the SG shall be conducted at meetings of the GC at which a quorum is present.

2. A quorum consists of at least 12 of the 18 GC members reflecting at least 5 of the 6 Interest Groups.

3. No proxies are allowed.

4. If a quorum is not present at any meeting, the GC members shall continue the meeting to a date and time certain not later than 15 days from the original meeting.

G. SG Decisions Made by Consensus.

1. The preference and goal of the SG is that the GC make consensus decisions based on give and take among members, with each participant:

   a. listening carefully to the views of others;
   b. attempting to verbalize the needs of an Interest Group with which they might disagree; and
   c. proposing solutions and decisions that accommodate all or most of the Interest Groups.

H. Voting.

1. The unanimous consent of all Interest Groups present at a meeting is required for the approval of any measure considered by the GC, except as provided in Paragraph VI.J.4., below. Unanimous consent is the general rule and will be required for, among other things, any amendment to the Plan and any changes to the ORV Indicators and Resource Guides.

2. Each Interest Group receives one vote on each measure.

3. Within the respective Interest Groups, the affirmative vote of those representatives attending the meeting, as set forth in the Table below, is required to approve/disapprove any measure.

VOTING WITHIN INTEREST GROUPS	
Number of Interest Group GC Members Present at Meeting	Affirmative Votes required to pass Measure within Interest Group
3	2 of 3
2	2 of 2
1	1

4. No GC vote can commit the rights, authorities, resources, finances, or operations of any SG member without that member's approval.

5. Votes of the GC shall be recorded by the Secretary in the minutes of the SG, regardless of whether the measure is approved. Dissenting votes within individual Interest Groups shall be noted in the minutes.

I. Failure to Reach Consensus.

1. Any Interest Group may request that a dissenting Interest Group provide a written summary regarding the disputed issue within 10 days. The written summary shall set forth the issue, explain the competing views, and identify options that may be available to resolve the disagreement.

2. At the request of any Interest Group following provision of a written summary, the GC shall revisit the issue and the specific proposal at the next GC meeting.

3. After the actions in paragraphs VI.I.1. and VI.I.2. are undertaken, and upon the request of any Interest Group, the GC may by unanimous vote determine that the unresolved concern should be addressed in accordance with the provisions of paragraph VI.J.4. below. In evaluating the matter, the GC shall seek and take into consideration the views of the appropriate federal agency(ies) (BLM and/or USFS) through their participation as non-voting members of the SG. The SG deliberations shall also be informed by and take into consideration other relevant factors, including external conditions such as those related to any extended drought, fire, climate change, or other conditions outside the control of the Plan.

4. A written summary on measures that fail to achieve consensus after the actions in paragraphs VI.I.1. and VI.I.2. are undertaken shall be included in the SG's annual report to BLM and USFS. The written summary may include majority and minority reports.

J. GC Consideration of Long-Term Protection Measures, ORV Impairment, Significant Risk of Impairment, and Matters Referred by Consensus.

1. Failure to meet a Milestone.

If final decrees for CWCB instream flow applications in Cases No. 11CW159, 11CW160, and 11CW161 are not entered by the date anticipated in Attachment A, and assuming the Plan is effective, the GC will discuss the cause of the delay[16]. The GC will determine whether the delay causes any material adverse impact to the purpose of the Long-Term Protection Measures. If, by unanimous consent, the GC determines that a material adverse impact is found, the GC will determine the appropriate management activities to reasonably mitigate the material adverse impact. If the GC is unable to reach consensus on how to mitigate the material adverse impact, the GC will follow the Governance procedures in Paragraph VI.J.4(4) below.

2. Material Change in Circumstance.

Any member of the GC may assert a Material Change in Circumstance, as defined in the Definitions Section, in the implementation of one of the Long-Term Protection Measures by submitting a written request for the GC to convene a meeting (or add an agenda item to a previously set meeting) pursuant to the procedures in Section IV.C. of the Plan. The GC will determine whether a Material Change in Circumstances exists. If the GC determines by unanimous consent that a Material Change in Circumstance exists, it will then decide how to address the material change. If the GC is unable to reach consensus on how to address the material change, the GC will follow the procedures in Paragraph VI.J.4(4) below.

3. Significant Risk of Impairment.

If, during any meeting called in part for the purpose of determining whether a significant risk of impairment exists (as contemplated in the Definitions Section and Section IV.C. of the Plan), the GC cannot reach unanimous consensus on a determination of that matter, the GC shall immediately follow the procedures set forth in paragraph VI.J.4, below.

[16] The Task List in Attachment B describes the stakeholder response in the event of failure to meet this Milestone prior to the effective date of the Plan.

4. Procedures for Mediation.

The following actions shall be taken by the GC upon (1) the vote of at least five Interest Groups that there is a significant risk of impairment to an ORV; (2) the data affirmatively demonstrating that an ORV has been impaired by virtue of an ORV Indicator not being met pursuant to the criteria established in the SG Plan, absent a vote of at least five Interest Groups that further action is not warranted at that time; (3) a unanimous consensus decision of the GC made following the procedures contemplated by paragraph VI.I.3, above; or (4) the failure of the GC to reach consensus on how to address a missed Milestone or a Material Change in Circumstance:

a. Absent a unanimous vote to skip mediation, the issue will be referred to a mediator to facilitate consideration of non-binding options toward resolution for a period of 45 days to further efforts to reach consensus on the disputed issue.

b. Within 30 days of the termination of the mediation process (or a unanimous vote to skip the mediation process), the disputed issue will be referred to a Review Committee. The Review Committee will consist of: a member of the Board of Directors of the Colorado River Water Conservation District, a member of the Board of Directors of either NCWCD or DWB, the Director of the Colorado Department of Natural Resources, and a member of the Board of Directors of a conservation or recreation Interest Group member. The Review Committee shall meet to consider the disputed issue and shall provide non-binding guidance to the GC within 15 days of the date of referral.

c. Subsequent to the Review Committee's guidance to the GC, and upon the request of any Interest Group, the GC may terminate the SG's Plan upon the affirmative vote of at least five Interest Groups. Any such GC vote regarding termination of the SG Plan shall occur no later than 90 days following the meeting referred to in paragraph VI.J.4.b., above. Should the Plan not terminate, the underlying causes for the vote shall be made an agenda item for the next regular or special called meeting, at which time appropriate follow-up actions shall be determined.

d. The GC may agree to shorten or lengthen the timeframes provided above by consensus, upon the good faith request of any GC member. An example of a good faith request may be to allow additional time for the internal study or technical/scientific review of an alleged significant risk or to shorten the applicable timeframes when reasonable evidence exists of an existing or imminent substantial risk to an ORV.

K. Withdrawal from the Plan.

Each stakeholder reserves its right to withdraw from participation in the Plan at any time.

1. Withdrawal Procedure: Before withdrawing from the Plan, a stakeholder or Interest Group shall provide written notice to the Governance Committee, at which time the Committee shall call a special meeting for the purposes of discussing the reasons for withdrawal and potential alternatives.

2. Effect:

a. Withdrawal from the Plan by one Interest Group or individual stakeholder(s) does not terminate the Plan. However, subsequent to any withdrawal, the remaining SG may choose to take action to terminate the Plan.

b. Withdrawal of an Interest Group from the Plan will result in the automatic adoption of the ORV Indicators and Resource Guides in effect at the time of the Interest Group's withdrawal as permanent for purposes of the Plan, unless otherwise agreed to by the withdrawing Interest Group.

c. Following the withdrawal of one Interest Group, Section VI.F.2. of the Plan shall automatically be revised to read as follows: "A quorum consists of at least 10 of the 15 GC members, reflecting all 5 of the Interest Groups." The voting requirements under the Plan shall stay the same.

d. Withdrawal of more than one Interest Group will terminate the Plan.

L. Reimbursement of Funds.

In the event of withdrawal by a single Interest Group or individual stakeholder (the Withdrawer), the Withdrawer shall not be entitled to a refund of any annual dues that support the Plan activities and shall make any contributions required to be paid to the Plan for costs which have been obligated prior to the effective date of the withdrawal. The Withdrawer will be reimbursed for monies then remaining out of the original monies contributed to an Endowment Fund (except as otherwise provided by the terms of any contract or permit), but with no consideration for accrued interest associated with such contribution to the Endowment Fund. The remaining Interest Groups shall amend the Plan as necessary to reflect changes in the cost and revenue allocations.

In the event the Plan is terminated in accordance with Sections K.2.a. and K.2.d., any unexpended and uncommitted funds shall be distributed proportionately to those Interest Groups remaining in the Plan at the time of termination based on each party's percentage share of the original contribution.

VII. NEW PROJECTS

A. This section applies to new projects or facilities that require federal authorization, funding, or assistance (regardless of whether any water rights to be exercised by the new project pre-date the Plan), including changes to existing projects undergoing federal permitting or requesting federal funding or other federal assistance.

B. Proponents of new projects may choose to include ("opt-in") the project in the Plan as provided below.

To opt-in a new project, the proponent shall:

1. Inform the SG of the proposed project and provide pertinent information in a timely manner sufficient to allow the SG to provide written comments on the proposed project within any applicable public comment period. The SG will review the proposed project and will consider the impact of the proposed project on the ORVs in Segments 4 through 7 with consideration of the provisions of VII.B.2. and VII.B.3., below. The SG will provide timely SG comments and recommendations thereon to the permitting agencies upon unanimous consent of the SG. Individual

stakeholders may submit separate comments on an opt-in project's impacts to ORVs in Segments 4 through 7 provided they have first attempted to develop consensus comments and recommendations inclusive of their views as a member of the SG. However, this requirement shall not apply to the State.

2. Formally endorse the Plan and commit to participate in the Cooperative Measures procedures in Section IV.B. and the Funding provisions in Part VIII; and

3. Formally commit to meet either subparagraph a. or b. below:

    a. Demonstrate that project operations will not unreasonably diminish the ORVs; or

    b. Demonstrate that project operations will be subject to mitigation to avoid unreasonably diminishing the ORVs.

Satisfaction of the criteria set forth in paragraph VII.B.3., above, shall be determined by the permitting or authorizing agency(ies) through the agencies' standard approval procedures. The Resource Guides are not intended to be used by agencies or entities as the criterion for evaluating a project's effects on the ORVs, regardless of whether the project has or has not opted-in to the Plan. If a SG member uses or promotes the guides for evaluating project effects or as permitting criterion during current or future project permitting, any Interest Group may terminate the Plan following consultation with the full SG. This requirement does not preclude individual stakeholders from submitting comments regarding compliance with State regulatory standards applicable to aspects of a project separate from the ORVs. Moreover, nothing herein shall be interpreted to preclude or limit the use of any data regardless of whether such data has been used in the negotiation of the Resource Guides.

The SG intends that permitting agencies will conduct their own independent assessment of a project's impacts to the ORVs, if any. Membership as a stakeholder is not intended to be used as criterion for determining whether a project proponent has addressed potential ORV impacts, if any, of a proposed project; nor shall it be used as a component of any demonstration that project operations will not unreasonably diminish the ORVs (except as may otherwise be agreed between the project proponent and the SG).

After permit issuance, the SG will not oppose or administratively or judicially challenge an opted-in new project on the basis of project impacts to ORVs in Segments 4 through 7, and any individual stakeholder seeking to do so shall be required to withdraw from participation in the SG Plan prior to taking such action. An opt-in project proponent seeking to challenge a permit decision or permit conditions related to project impacts to ORVs in Segments 4 through 7 shall likewise be required to withdraw from participation in the SG Plan prior to taking such action. Subsequent participation in the SG Plan by the withdrawing stakeholder shall require unanimous approval of the SG. It is the SG's intent that withdrawal of a stakeholder from the Plan pursuant to this paragraph shall not trigger reconsideration of any prior agency determinations with regard to that stakeholder's own project effects on ORVs unless participation in the Plan is a condition of that project's permit. The exercise of State or local government statutorily mandated review or approval authorities with respect to a proposed opt-in project shall not constitute an opposition or challenge warranting that entity's withdrawal from participation in the SG Plan pursuant to this paragraph. Nothing in the Plan shall be deemed or construed to preclude any SG member from participating in any water rights litigation.

C. Additional Incentives for Opt-in

The SG will consider further incentives for a project proponent to opt-in to the Plan on a case-by-case basis.

VIII. FUNDING

A. Endowment Fund.

1. *Creation of an Endowment Fund*. Within three years after the effective date of the Plan, the SG will seek to create an endowment fund of at least $1.5 million, which will also be called the corpus. It is the goal of the SG that each member shall make a financial contribution to the endowment fund, in an amount that takes into consideration each member's financial ability to contribute. Awards or grants from governmental and private entities can be accepted as part of a member's contribution to the endowment fund. The endowment fund shall be created and expended consistent with the requirements to qualify and maintain status as a 501(c)(3) entity. The SG's intent is to preserve the corpus to be used for protecting and enhancing ORVs, rather than for administrative and routine

operation costs, which will be funded by other mechanisms described below.

2. *Trustee Appointment*. Within three years after the effective date of the Plan, the GC will appoint a trustee for the endowment fund. The trustee shall have all the necessary powers within the law to invest, maintain and manage the endowment fund. These powers shall include accepting donations, applying for grants, bequests, loans, or undertaking other financial transactions to maintain or enhance the endowment fund. Powers also include contracting with banks or other depositories for the funds and lawfully depositing and withdrawing money from the fund. In addition, the trustee shall be responsible for ensuring that all distributions are in accordance with the restrictions placed on endowment contributions.

   a. The GC shall adopt a Statement of Investment Policy and Objectives (Statement) in order to establish a clear understanding on the part of the GC and the trustee of the investment objectives and guidelines for the endowment fund. The Statement will also provide the GC a basis for evaluation of the trustee's performance.

   b. The Statement might provide that the primary investment goal is the preservation of the principal after taking into account inflation. A secondary objective could be to earn the highest possible rate of return consistent with prudent standards for preservation of capital.

3. *Endowment Fund Spending*. The GC may allocate funds to projects or other associated efforts which, in its view, will further the preservation, protection, or enhancement of the ORVs. If a primary goal of the investment is to preserve the principal, the GC may decide to have a goal to limit the spending, to the extent it can, to just the interest earned. The GC may instruct the trustee to contract with any receiving entity for the completion of projects or other associated efforts, including requirements for escrows, inspection, bonding, collateral, or other guarantees of project or associated effort completion. Such efforts may require the Trust to hire staff, purchase or rent facilities, equipment, or other property, and contract for goods and services necessary to further its purposes.

Purpose of Endowment Fund. The purpose of the endowment fund is to provide supplemental resources to protect and enhance the ORVs in the Colorado River between Kremmling and the confluence of No Name Creek also known as BLM Segments 4 through 7. Funding is limited to the ORVs identified in those respective segments described in Part II of this Plan.

4. *Specific Limitations on Use of Endowment Funds*. In addition to the general restrictions on the use of funds described below, the following specific limitations will apply to the use of the endowment funds.

   a. *Protection of Corpus*. The GC shall at all times endeavor to maintain the corpus of the endowment. However, it is recognized that opportunities may arise where the benefits of using some portion of the corpus significantly outweigh its diminishment. Specifically, where the opportunity exists to match in-kind or financial contributions on a one-to-one or greater basis for a project or program meeting the allocation guidelines, the GC shall be empowered to authorize expenditure of no more than 15% of the corpus during any fiscal year. Such expenditure shall require the unanimous consent of all Interest Groups. Any funds expended under this provision shall be credited towards the endowment contribution requirements.

   b. *Administrative Costs*. No more than 15% of expenditures within any calendar year shall be used for administrative costs. This limitation does not apply to non-discretionary expenses such as responding to IRS audits or litigation, financing, repairs or reimbursements caused by accident, unanticipated damage and acts of God.

   c. *Not for Operations and Maintenance*. The GC shall generally restrict its expenditures to projects and associated efforts that further the protection and enhancement of the ORVs within BLM Segments 4 through 7. Generally, expenditures should not be made for ongoing operations and maintenance of such projects.

B. Funding Assessment. In addition to other funding sources, the Plan will establish and rely on memberships to help fund administrative and operating costs and associated efforts under the Plan. The GC shall maintain a list, updated at least annually, of such members. The GC shall issue to every participating member of the Plan a letter of membership that will evidence that member's participation in the Plan. Membership

participation shall be open to any person, natural or corporate, upon contribution to the endowment fund and payment of appropriate assessments so long as the participant "opts in" in accordance with Part VII of this Plan.

1. *Classes of Membership*. Members of the Plan will be issued a letter of membership based on the member's classification as determined by the GC. Each member shall be included in only one of the following classes, which conform to the Interest Groups and have equal voting rights:

    a. West Slope Water Conservancy/Conservation Districts and Landowners/Water Users.
    b. Local Government.
    c. Trans-Mountain Diverters.
    d. Conservation/Environmental/Fishing.
    e. Recreational Floatboating.
    f. State Interests (e.g., CWCB, CPW, and State or Division Engineer).

2. *Assessments*. Annual assessments will be levied to each Interest Group in amounts sufficient in total to meet the administrative and operating costs and any debt service requirements as identified by the GC. The first year after the effective date of the Plan, the SG anticipates an assessment of $10,000 levied to each Interest Group. Assessments are expected to vary in accordance with actual costs, and will be established by the GC on an annual basis.[17]

    Nonpayment of annual assessments shall be cause (with ameliorating circumstances being taken into account) for an Interest Group to lose its voting privileges during the period of non-payment.

3. *In-kind contributions*. In-kind contributions from stakeholders may be accepted as part of a member's contribution to the annual assessment.

4. *Unspent funds*. At the end of each fiscal year, unspent operating funds in excess of $50,000 may be re-allocated to the Endowment Fund, as determined by the GC.

[17] Assessments to governmental entities would be subject to annual appropriation.

C. Funding from Grants. The SG will actively seek grants from federal, state, local and private entities to fund projects and efforts that enhance and protect the ORVs. The use of funds from these grants will comply with underlying specifications and requirements of those grants.

D. Leverage of Funding with BLM. In addition to the funding described above in Sections VIII.A.-C., the SG will cooperate and coordinate with the BLM to leverage funds through the BLM's Challenge Cost Share program, the BLM's Recreation Resource Management program, and other similar types of BLM programs to be used on specific projects that protect and enhance the ORVs.

E. State of Colorado Wild and Scenic Rivers Fund. In addition to the funding described above in Sections VIII.A.-D., the SG will request funds from the Wild and Scenic Rivers Fund created as part of Senate Bill 09-125, codified in C.R.S. § 37-60-122.3. The request for funds will be made in accordance with the underlying legislation and the criteria/guidelines for these funds called the *Terms and Conditions Developed by the Colorado Water Conservation Board for the Allocation of Funds from the Wild and Scenic Alternatives Fund*, approved at the CWCB meeting January 26-27, 2010.

F. General Limitations on Use of Funds.

1. *GC Control*. The GC shall control all use of the funds, and all restrictions herein apply to the GC.

2. *Effect on ORVs*. Grants, loans or other disbursements shall be made only for protection, preservation, or enhancement of the ORVs within BLM Segments 4 through 7.

3. *No Political Spending*. No funds shall be used for any political purpose, including but not limited to contribution to political parties or causes, contributions to or promotion of candidates for public office, publication or contribution to flyers, brochures or other printed materials supporting issues or candidates, lobbying, or contributing to materials to be used for lobbying.

4. *No Opposition to Water Development*. No funds shall be used to directly challenge or oppose water development or water operations.

5. *Consideration of All ORVs*. When considering funding a project, the GC shall weigh the harms and benefits to all ORVs. Funds shall not be used for a project that would unduly harm one ORV to benefit another.

6. *Public Meetings*. The GC shall grant funding only in meetings open to the public. Notice of public meetings will be provided in accordance with Section VI.E. of this Plan.

7. *Public Benefit*. The GC shall grant funding only for projects and associated efforts that are accessible to and/or benefit the public. No funds shall create improvements on private property that would significantly enhance the value of the property unless the property is leased to a public entity and the improvement serves the public purpose of that entity.

G. Distribution of Assets Upon Dissolution. Upon dissolution or final liquidation of the SG or any successor entity created by the SG, all of its assets remaining after payment or provision for all its liabilities shall be paid over or transferred to a corporation or governmental entity established to fulfill the same purposes (in whole or in part) for which [the SG entity] was established. If no such entity is created for that purpose, the assets may be distributed or conveyed to one or more governmental units within the meaning of Section 170 (b)(1)(A)(v) of the Internal Revenue Code or to Colorado Parks and Wildlife for the benefit of wildlife habitat within or without the State of Colorado, or if such a transfer is not possible or practical, the assets may be distributed to and among one or more exempt organizations described in Section 501(c)(3) of the Internal Revenue Code for exclusively public purposes. The organizations or governmental units to receive such property, and their respective shares and interests, shall be determined by the GC. Any such assets not disposed of shall be disposed of by the appropriate court of the county in which the principal office of the SG or any successor entity created by the SG is then located exclusively for such purposes or to such organization or organizations as said court shall determine are organized and operated exclusively for exempt purposes.

IX. AGENCY COORDINATION

A. Coordination with BLM and the USFS.

1. Coordination between BLM, USFS, and the SG is important to the successful implementation of the SG Plan. The SG proposes that BLM and the USFS become non-voting members of the SG's Governance Committee and fully participate in the Committee's activities.

2. The Governance Committee will provide an annual report to BLM and USFS summarizing efforts and activities related to implementation of the Plan including, but not limited to, status and results of monitoring efforts, status of ORV Indicators, Cooperative Measures, funding, and other pertinent information.

3. The Governance Committee recommends that the BLM and USFS provide notification to the GC of any federal activity that may affect Segments 4 through 7 of the Colorado River.

4. The Governance Committee will notify BLM and the USFS within 30 days if monitoring indicates that an ORV Indicator has not been met.

B. Interagency Coordination.

1. Coordination with and the cooperation of other federal agencies whose decisions may affect the ORVs is important. The SG proposes the development of an MOU between BLM and the USFS and other federal agencies, including but not limited to the U.S. Army Corps of Engineers, the Bureau of Reclamation, the U.S. Fish and Wildlife Service, and the Federal Energy Regulatory Commission, which describes how their actions will relate to the SG Plan.

2. Elements of the MOU should include, but not be limited to, acknowledgment of the SG Plan as the management alternative adopted by BLM and the USFS for Segments 4 through 7 of the Colorado River; data sharing; notification of federal agency activity that may affect these segments; recognition that the Resource Guides are to be used solely for purposes internal to operation of the Plan; and appropriate coordination and consultation procedures.

LIST OF ATTACHMENTS

Attachment A: Milestones for Implementation of Tier 1 Long-Term Protection Measures and Mechanisms for addressing Changed Circumstances

Attachment B: Time Line and Task List

Attachment C: Existing Flow Conditions

Attachment D: Provisional Period Monitoring Plan

Attachment A

Milestones for Implementation of Tier 1 Long-Term Protection Measures, and Mechanisms for Addressing Changed Circumstances in Long-Term Protection Measures

I. Milestones for Implementation of Tier 1 Long-Term Protection Measures.

A. *Measure 1*: Appropriation of a CWCB Instream Flow(s). Refer to section IV.A.1. of the Plan.

1. The SG will make a written recommendation for appropriation of instream flow(s) (ISF) to the CWCB on or prior to April 15, 2011. The SG's recommendation will include results of the most recent data collection available[18].

2. CWCB will declare its intent to appropriate ISF(s) prior to May 31, 2011, which initiates the notice and comment procedure under Rule 5 of the Rules Concerning the Colorado Instream Flow and Natural Lake Level Program. The SG will participate in the process to support an ISF appropriation(s) that is(are) consistent with the SG's recommendation to the CWCB[19].

3. CWCB will file a water court application to adjudicate an instream flow(s), on or prior to December 31, 2011. This date will set the administrative priority of the instream flow with respect to junior water rights[20].

4. Entry of final decrees for CWCB's instream flow applications should occur prior to December 31, 2015. Individual participants in the SG will consider participating in the CWCB ISF adjudication process in support of the CWCB's instream flow applications.

B. *Measure 2*: Delivery of water to downstream demands. Refer to section IV.A.2. of the Plan.

1. This is an existing feature of Colorado's stream administration and

[18] The SG made a written recommendation for appropriation of instream flows to the CWCB on June 30, 2011, which recommendation included results of the most recent data collection available.

[19] CWCB declared its intent to appropriate ISFs on July 12, 2011, which initiated the notice and comment procedure under Rule 5 of the Rules Concerning the Colorado Instream Flow and Natural Lake Level Program.

[20] CWCB filed water court applications in Cases No. 11CW159, 11CW160, and 11CW161 ("CWCB's instream flow applications") to adjudicate instream flows, on November 30, 2011.

operations on the Colorado River that delivers previously stored water through the subject stream segments to downstream demands. No milestones are necessary to implement this existing Long-Term Protection Measure.

C. *Measure 3*: Existing water rights administration. Refer to section IV.A.3. of the Plan.

1. This is an existing feature of Colorado's stream administration and operations on the Colorado River that operates to curtail diversions (or require the replacement of such diversions) from upstream junior water users to provide water through the subject stream segments for delivery to downstream senior water rights. No milestones are necessary to implement this existing Long-Term Protection Measure.

D. *Measure 4*: Delivery of water to the 15-Mile Reach in the Grand Valley pursuant to the Upper Colorado River Recovery Program. Refer to section IV.A.4. of the Plan.

1. This is an existing mechanism by which water is delivered from upstream reservoirs for the benefit of the endangered fish species in the Grand Valley on a temporary basis. The water deliveries are protected through the subject stream segments downstream through the 15-Mile Reach of the Colorado River. The SG recognizes that negotiations are currently proceeding in a separate forum to develop alternative sources of supply for the water users' portion (10,825 acre feet) of water delivered to the endangered fish. The water users' portion has historically averaged (1998 – 2008) approximately 9.1% of the total amount of water delivered to the fish, and 12.8% of the water delivered to the fish from sources above Kremmling (Table A.1.). The SG recognizes that a portion of the water users' obligation likely will cease to be delivered from points above Kremmling, and instead will be made from sources of water downstream of Segments 4 through 7. Significant releases of water to the endangered fish can be expected to continue to be made from Green Mountain Reservoir pursuant to the Recovery Program and the operation of the Green Mountain Reservoir Rule Curve established in the Orchard Mesa Check Decree, Case No. 91CW247, Water Division 5. No milestones are necessary to implement this existing Long-Term Protection Measure.

II. Mechanisms for Addressing Changed Circumstances in Long-Term Protection Measures

A. Examples of Changed Circumstances that Trigger Action of the SG.

1. *Measure 1*: Examples of a Material Change in Circumstances include, but are not limited to: the CWCB's appropriation of an ISF that is not consistent with the SG's recommendation to the CWCB; a significant new water right appropriation upstream of or within the subject stream reaches that is senior to the CWCB's anticipated ISF(s); the CWCB's determination to abandon its instream flow water right or to allow the inundation of part of the instream flow right; or an administrative or judicial reduction of the instream flow right.

2. *Measure 2*: Examples of a Material Change in Circumstances include, but are not limited to, a change in the operating procedures by which previously stored water is released from Green Mountain Reservoir under the 1984 Operating Policy and the terms of the Orchard Mesa Check Decree, Case No. 91CW247, Water Division 5.

3. *Measure 3*: Examples of a Material Change in Circumstances include, but are not limited to, a reduction, elimination, or other significant change from historical practice in the operation of the administrative call of the Shoshone Power Right, except for (1) the changes from historical practice expressly set forth in the Agreement Concerning Reduction of Shoshone Call between Xcel Energy and the Denver Water Board, which has a term from January 1, 2007 to February 28, 2032 (2007 Shoshone Agreement); and (2) any longer period of relaxation pursuant to paragraph 5 of the 2007 Shoshone Agreement agreed to between the Denver Water Board and the Colorado River Water Conservation District. Other examples of a Material Change in Circumstance would be an abandonment, material reduction, or material change in the manner of operation of the Cameo group of water rights.

4. *Measure 4*: As discussed above, the SG expects a non-material change in the methods by which water will be delivered to the endangered fish in the 15-Mile Reach. Examples of a Material Change in Circumstances related to implementation of Measure 4 include, but are not limited to: (A) the currently-proposed 5,412.5 acre-feet of Granby Reservoir releases are no longer provided; (B) the first enlargement of Wolford Mountain Reservoir (decreed in

Case No. 95CW281, Water Division No. 5, is no longer available for release for delivery to the 15-Mile Reach for endangered fish species purposes; or (C) the mechanism for the release of Historic Users Pool “Surplus” water as provided in the Orchard Mesa Check Decree, Case No. 91CW247, Water Division 5 is no longer available.

TABLE A.1.
ANNUAL SUMMARY OF HISTORICAL RECOVERY PROGRAM RELEASES (Acre Feet)

	RESERVOIR RELEASES TO 15 MILE REACH (Acre Feet)												
	FISH POOL RELEASES					DISCRETIONARY RELEASES							
Year	Green Mtn HUP Surplus	Ruedi Fish Pools	Wolford Water Users	Wolford USFWS Pool	Williams Fk Reservoir Water Users	Green Mtn Reservoir	Wolford Mtn Reservoir	Dillon Reservoir	Williams Fk Reservoir	Granby Reservoir	Willow Ck Reservoir	TOTAL	
1998	31,736	20,803	0	6,000	0	0	5,516	0	0	0	0	64,055	
1999	35,564	20,418	0	4,939	0	0	0	11,479	1,825	26,914	3,382	104,521	
2000	47,187	19,064	5,409	6,000	3,858	0	0	0	0	0	0	81,518	
2001	34,657	21,345	5,413	3,078	5,369	0	0	0	0	0	0	69,862	
2002	0	10,975	0	300	3,757	0	0	0	0	0	0	15,032	
2003	47,526	20,434	0	286	3,757	0	0	0	0	0	0	72,003	
2004	119	15,981	0	0	2,678	0	0	0	0	0	0	18,778	
2005	31,200	17,163	1,000	0	3,814	0	0	0	0	0	0	53,177	
2006	25,358	19,680	5,413	5,233	5,412	0	0	0	0	0	0	61,096	
2007	32,745	14,273	4,339	0	2,394	0	2,500	0	0	0	0	56,251	
2008	61,433	20,423	5,413	3,189	5,367	0	1,829	0	0	0	0	97,654	
Mean (98 - 08)	31,593	18,233	2,453	2,639	3,310	0	895	1,044	166	2,447	307	63,086	
Water Users (98 - 08)			2,453		3,310							5,763	9.1%

IF HISTORICAL DISCRETIONARY RELEASES ARE CONSIDERED AND ASSUMED TO CONTINUE

Historical Releases above Kremmling													
Total Releases	31,593	N/A	2,453	2,639	3,310	0	895	1,044	166	2,447	307	44,853	
Water Users Portion			2,453		3,310							5,763	12.8%
Estimated Future Releases above Kremmling													
Total Releases	31,593	N/A	0	2,639	0	0	895	1,044	166	7,859	307	44,502	
Water Users Portion										5,412		5,412	12.2%
REDUCTION IN TOTAL DELIVERIES ABOVE KREMMLING =												351	0.8%

IF HISTORICAL DISCRETIONARY RELEASES ARE ASSUMED TO NOT CONTINUE

Historical Releases above Kremmling													
Total Releases	31,593	N/A	2,453	2,639	3,310	0	0	0	0	0	0	39,995	
Water Users Portion			2,453		3,310							5,763	14.4%
Estimated Future Releases above Kremmling													
Total Releases	31,593	N/A	0	2,639	0	0	0	0	0	5,412	0	39,644	
Water Users Portion										5,412		5,412	13.7%
REDUCTION IN TOTAL DELIVERIES ABOVE KREMMLING =												351	0.9%

Attachment B

Timeline and Task List

1. Period Prior to Submittal of an Endorsed Plan.

   A. SG to come to resolution on amount of recommended ISF by April 15, 2011 or come to alternative resolution on how the CWCB process will proceed prior to endorsement of Plan.

   B. SG to finalize language for definition of year-types for inclusion in Plan based on conceptual agreement to use Colorado Basin River Forecast Center forecasts of undepleted flow to predict the year type prior to the recreation season for informing the upcoming year's discussion about Cooperative Measures, and to use measured/depleted flows at the end of the wild and scenic year for evaluation of post-recreation season comparison to the boating Resource Guides.

   C. SG to consider whether to include more detailed description of simulated future flows.

   D. Prior to endorsement on April 30, 2011, the SG intends that any contact with press about this Plan should be handled through Rob Buirgy, Project Manager; or the BLM/USFS.

2. Period Following Submittal of an Endorsed Plan until Effective Date (i.e., before BLM/USFS approve the Plan as the alternative in the ROD).

   A. Decisions made in this period are all by unanimous consensus of all stakeholders, continuing the current process of negotiation and compromise.

   B. Provide formal SG Endorsement of Plan to BLM/USFS no later than April 30, 2011.

   C. Begin monitoring:
      (1) Gather data collected by others (e.g., CPW fish biomass).
      (2) SG fund and gather data (e.g., conduct creel surveys, recreation surveys) if SG unanimously agrees to funding of such efforts.
      (3) Evaluate monitoring data compared to provisional Resource Guides and provisional ORV Indicators.
      (4) Prepare Annual Monitoring Report.

D. No SG Plan funding assessments (Section VIII.B.2.) to be levied during this period.[21]

E. Stakeholders will engage in a good faith effort toward reaching agreement on final Resource Guides and ORV Indicators; outline studies and data collection to be done in the provisional period. By unanimous consensus among all stakeholders, ORV Indicators and Resource Guides could be finalized during this period and would become effective upon the effective date of the Plan.

F. Explore Cooperative Measures in accordance with the process set forth in the Plan.

G. Conduct discussions and make written recommendation to CWCB for the base flow in-stream flow pursuant to C.R.S. §37-92-102 in accordance with Section IV.A.1. of the Plan.

If final decrees for the CWCB instream flow applications are not entered by the date anticipated in Attachment A, and the Plan has not become effective, the stakeholders will discuss the cause of the delay. The stakeholders will determine whether the delay causes any material adverse impact to the purpose of the Long-Term Protection Measures. If it is determined by unanimous consent of all stakeholders that a material adverse impact exists, the stakeholders may decide to implement management activities to reasonably mitigate the material adverse impact.

H. Continue discussions on commitments to the Plan on behalf of the Windy Gap Firming Enterprise, Northern Water and Denver Water pursuant to Section III.C.2.c. of the Plan (Poison Pill).

I. Hold full SG meetings (quarterly or semiannually) and prepare annual report/update; make any changes/refinements to the Plan agreed upon by all stakeholders.

J. Develop MOU among SG members for provisional period of Plan. A long-term MOU or legal entity would be entered into subsequent to sunset of the Poison Pill.

K. Begin discussions and review relevant data to determine the extent to which channel maintenance flows may be incorporated into the Plan.

---

[21] Prior to expiration of the period for exercise of the Poison Pill, members of the SG would continue to contribute annual funding to the SG Plan, but shall not be required to contribute endowment funding under the Plan. The Homestake Partners will also only contribute annual (not endowment) funding to the SG Plan unless or until the ERMOU Project is “opted in” as a new project.

L. By unanimous consensus of all stakeholders, other tasks can be performed as needed.

3. BLM/USFS Adoption of Plan without Material Changes – Plan becomes Effective

A. Provisional Period: First 3-to-5 years of Plan Implementation

(1) Within 3 years or sooner, develop final Resource Guides and ORV Indicators by unanimous consent (6/6) of Interest Groups.

(2) Execute MOU among SG members for provisional period of Plan. A long-term MOU or legal entity would be entered into subsequent to sunset of the Poison Pill. Develop long-term MOU.

(3) Interest Groups develop protocol for selection of representatives and procedure for inclusion, and designate alternates and appoint members.

(4) GC appoints Chair, Vice Chair and Secretary.

(5) Within 3 years after Plan is effective, create an endowment fund and appoint trustee (per Section VIII.A. of the Plan).

(6) Begin Provisional Period Monitoring Plan (per Section V and Attachment D of Plan):

a. Gather data collected by others (e.g., CPW fish biomass).
b. SG fund and gather data (e.g., conduct creel surveys, recreation surveys).
c. Evaluate monitoring data compared to provisional Resource Guides and provisional ORV Indicators.
d. Prepare Annual Monitoring Report.

(7) Study the extent to which channel maintenance flows may be incorporated into the Plan.

(8) Resolve Project permit issues; notify BLM/USFS if Plan is withdrawn or has continued support, and modify Plan to confirm that Projects fall under Reopener Clause of Plan (Section IV.D.2.).

(9) Implement Tier 1 Long-Term Protection Measures (per Section IV.A. and Attachment A of the Plan).

(10) Implement voluntary Tier 2 Cooperative Measures process (per Section IV.B. of the Plan) and hold quarterly meetings (or more frequently, as determined necessary) to assess need for, focus of, and availability of Cooperative Measures (per Section IV.B.3.).

(11) Hold SG meetings (annual, regular, and special) (per Section VI.E.).

(12) Perform other tasks determined by unanimous consensus of the SG.

B. At End of Provisional Period

Implement SG Plan, including, but not limited to:

(1) Revise Plan for final Resource Guides (potentially including implementation criteria) and ORV Indicators.

(2) Go through Mediation protocol if final Resource Guides, Indicators and potential implementation criteria are not unanimously agreed upon.

(3) Revisit recommendation to defer a determination of suitability per the Guiding Principle.

(4) Using results from the provisional period monitoring, develop and implement Long-Term Monitoring Plan (per Section V.A.2.).

(5) Execute long-term MOU among stakeholders or legal entity.

(6) Continue Tier 1 Long-Term Protection Measures.

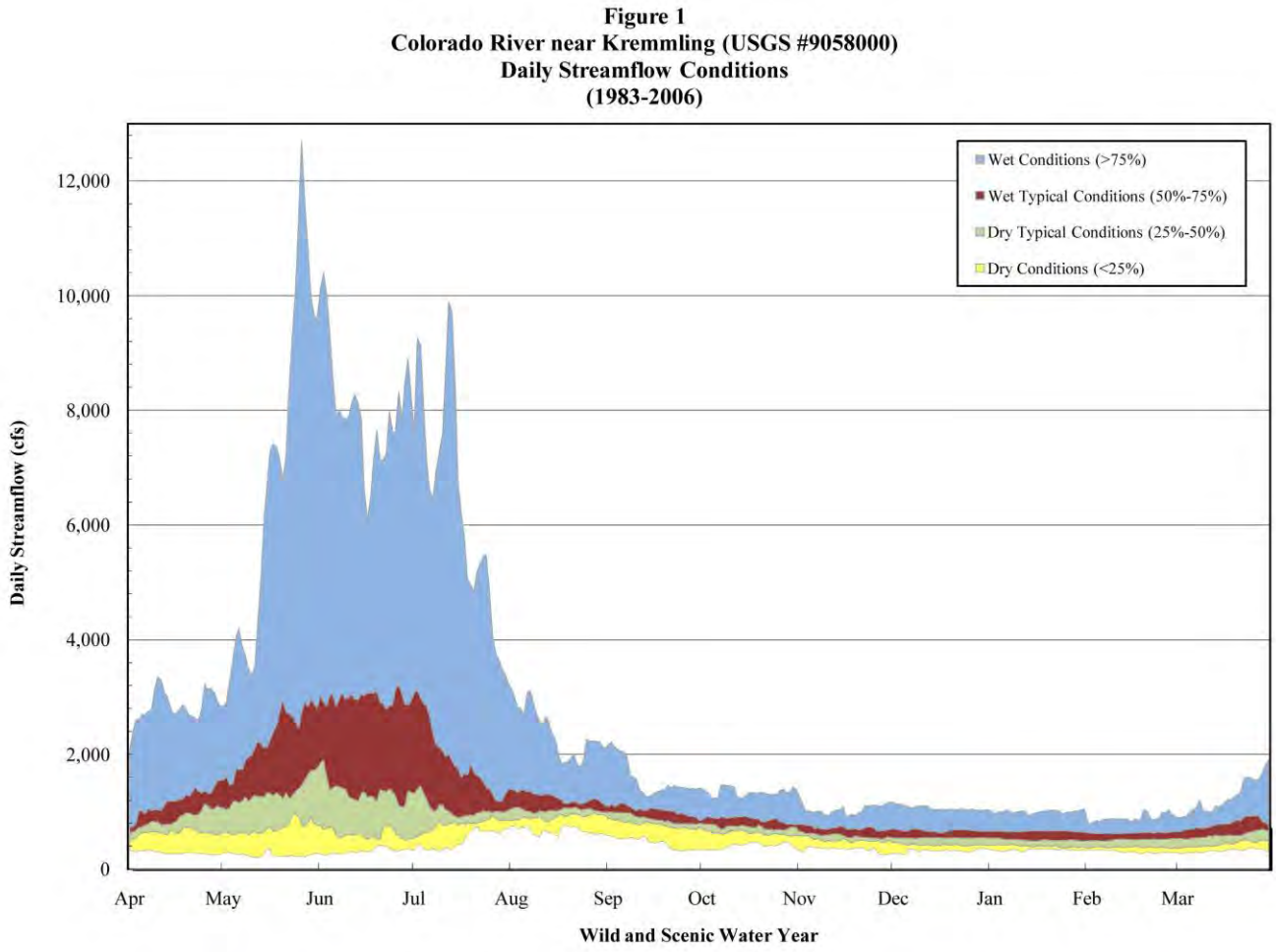
(7) Continue with voluntary Tier 2 Cooperative Measures process.

(8) Continue holding SG meetings (annual, regular, and special).

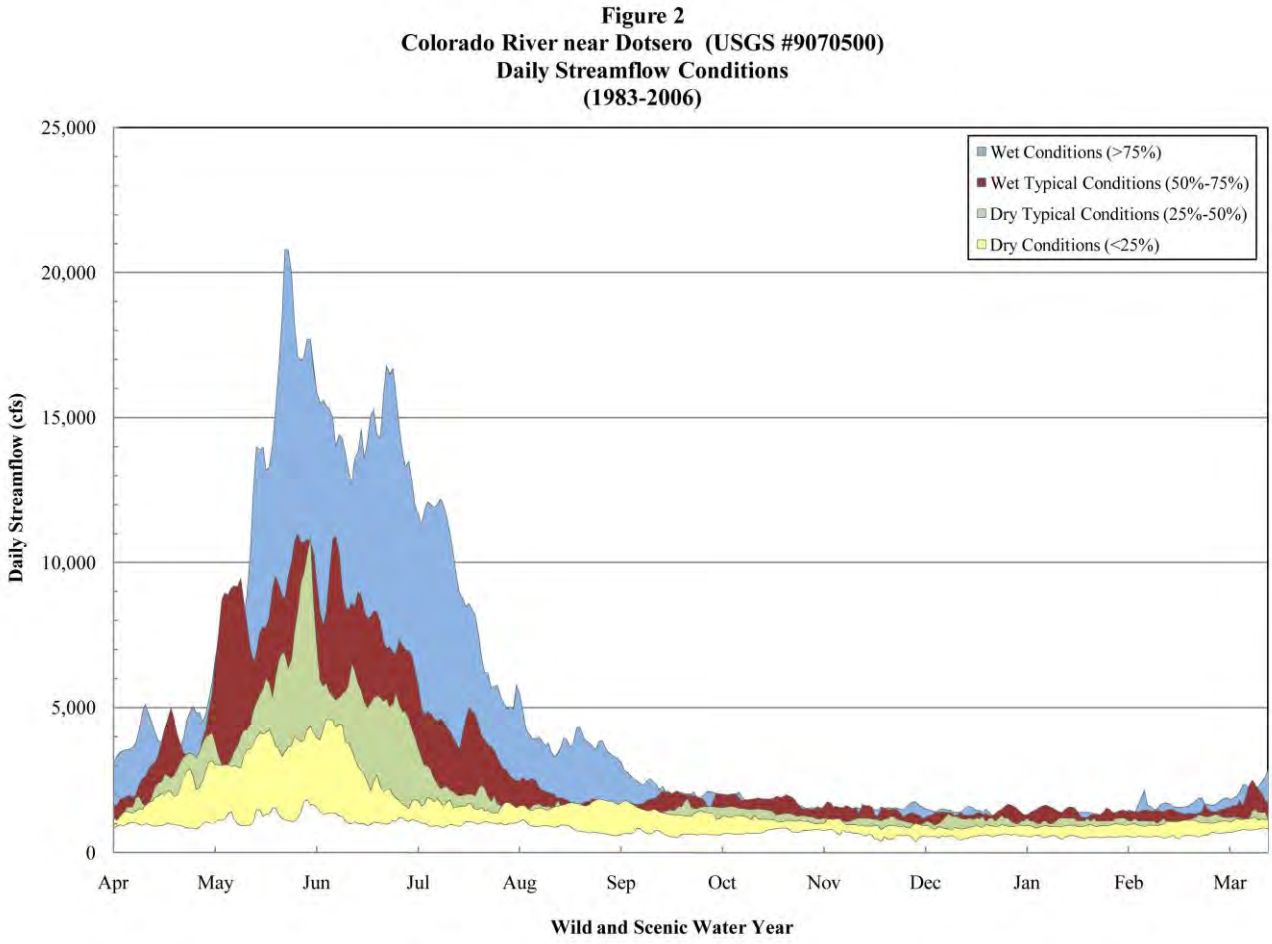
(9) Perform other tasks determined by unanimous consensus of the SG.

Attachment C

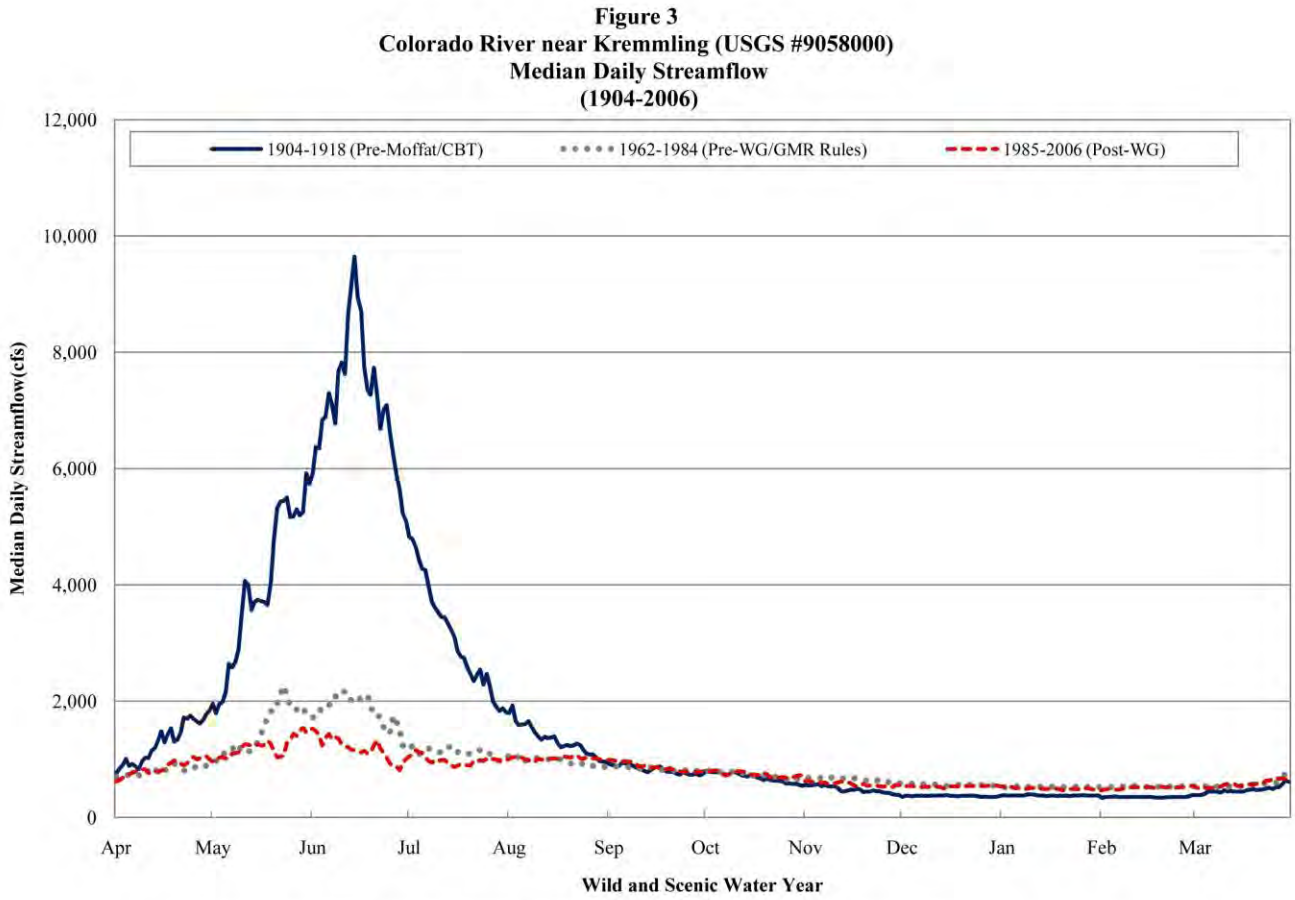
Existing Flow Conditions: Colorado River near Kremmling



Existing Flow Conditions: Colorado River near Dotsero



Existing Flow Conditions: Colorado River near Kremmling



Note: Colorado River near Kremmling streamflow data is not available from 1919 to 1961 and 1971.

Attachment D

Provisional Period Monitoring Plan

ORV INDICATORS

Recreational Fishing – *Quality Trout* = 24 fish over 14" per acre. Note: Current levels of Quality Trout, Biomass, and Species Diversity were collected by CPW personnel in 2008.[22] The CPW plans to collect additional fishery data within BLM Segment 5 every other year.

Sample site selection:
Sample collection:
- Where
- Who
- Frequency

Sample analysis:
Data management outliers, housing:
Data analysis:
Funding:

Recreational Fishing – *Biomass* = 2008 data collected by CPW showed 90 lbs. per acre.[23]

Sample site selection:
Sample collection:
- Where
- Who
- Frequency

Sample analysis:
Data management outliers, housing:
Data analysis:
Funding:

Recreational Fishing – *Species Diversity* = 14 species of fish.

Sample site selection:
Sample collection:
- Where
- Who

[22] CPW data collected in 2010 showed 46 fish over 14" per acre.

[23] CPW data collected in 2010 showed 121 lbs. per acre.

Frequency
Sample analysis:
Data management outliers, housing:
Data analysis:
Funding:

Recreational Fishing – *Trout Fishing Effort* = N/A. Note: A creel census will be required to quantify Total Fishing Effort and Catch/Unit Effort. The current estimated annual cost of the creel census will be approximately $25,000. CPW has no current plans to conduct a creel census within BLM Segments 4, 5, or 6 of the Colorado River; therefore, this cost, and supervision of the creel census, will likely be the responsibility of the Stakeholder Group.

Sample site selection:
Sample collection:
Where
Who
Frequency
Sample analysis:
Data management outliers, housing:
Data analysis:
Funding:

Recreational Fishing – *Catch/Unit Effort* = N/A.

Sample site selection:
Sample collection:
Where
Who
Frequency
Sample analysis:
Data management outliers, housing:
Data analysis:
Funding:

Recreational Floatboating

Sample site selection: During the Provisional Period the Stakeholder Group has defined a narrative Recreational Floatboating ORV indicator.
Sample collection:
Where
Who
Frequency
Sample analysis:
Data management outliers, housing:

Data analysis:
Funding:

ORV RESOURCE GUIDES

Recreational Fishing – *Flow Guides* = (Insert Provisional Flow Guide Table when final).

Sample site selection: The Stakeholder Group has identified the USGS stream flow gage at Kremmling as the appropriate flow measuring device to monitor the Fishing Resource Guides for Segments 4, 5 and 6.
Sample collection:
Where: USGS gage 09058000 Colorado River near Kremmling.
Who: USGS.
Frequency: per USGS.
Sample analysis: USGS or Not Applicable.
Data management outliers, housing: USGS.
Data analysis: The Stakeholder Group will use USGS flow data to compare with the Resource Guide 5-year running average review described in Section III.C.1.
Funding:

Water Quality

Sample site selection: Utilize the Colorado Water Quality Control Division (WQCD) Triennial Review Process for compliance with water quality standards protective of aquatic life and recreational uses.[24]
Sample collection: No new water quality sampling is proposed for this effort. The WQCD utilizes most sources of data made available to them to make their assessment of water quality. Typically this assessment is based on the most recent 5 to 8 years of data.
Where
Who
Frequency
Sample analysis: Not applicable.
Data management: The WQCD's template for summarizing water quality conditions is descriptive and adequate for the Stakeholder Group's purposes.

[24] 40 C.F.R. 131.20 provides that each State must specify appropriate water uses to be achieved and protected. The classification of the waters must take into consideration the use and value of water for public water supplies, protection and propagation of fish, shellfish and wildlife, recreation in and on the water, agricultural, industrial, and other purposes including navigation. In no case shall a State adopt waste transport or waste assimilation as a designated use for any waters of the United States.

This document is available to the general public. The 2013 WQCD assessment should be compared with the previous assessment done in 2008.
Data analysis: If degradation of water quality is reported by the WQCD the reported exceedances of water quality standards may be evaluated by the Stakeholder Group. For purposes of the Monitoring Report, the Stakeholder Group should report:

- Was the exceedance for a standard protective of aquatic life or recreation use?
- Were the data indicating exceedance of standards collected from the reach of interest to the SG?

Existing Conditions: Existing Conditions for water quality are characterized by the WQCD 4-10-08 summary of Upper Colorado River Segment 03 developed for the Triennial Review of WQCC Regulation #33 (See Exhibit 1).
Funding:

Temperature

Sample site selection: During the Provisional Period, temperature monitoring[25] will be conducted on the mainstem of the Colorado River through the use of temperature loggers located at:

- Colorado River at Dotsero (SG site).
- Colorado River at State Bridge (SG site); a logger is also placed at this location about 5 meters above the river for ambient air temperature.
- Colorado River at Pumphouse (BLM site WS-CO-002).
- Colorado River at Hwy 9 Bridge (DWB site WS-CO-004).

Sample collection: Tidbit or HOBO loggers, deployed in the stream current and protected in PVC pipe with holes.

Where: Detailed descriptions of locations including photos are recorded. *(see TU example, would be included as attachment to these monitoring protocols.)*

Who: Deployment and collection of data loggers has been done by staff from the River District, NWCCOG and TU.

Frequency: Deploy temperature loggers after peak runoff, approximately late July, and maintain through early fall. Temperature loggers are set to record at 15-minute intervals.

Sample analysis: Down load data from logger directly to Excel spreadsheets.
Data management: Currently the River District is holding this data.
Data analysis: Spreadsheet is developed that allows for computation of MWAT and DM statistic. Daily air temperature and streamflows should be plotted with

[25] 40 C.F.R. 131.20 provides that each State must specify appropriate water uses to be achieved and protected. The classification of the waters must take into consideration the use and value of water for public water supplies, protection and propagation of fish, shellfish and wildlife, recreation in and on the water, agricultural, industrial, and other purposes including navigation. In no case shall a State adopt waste transport or waste assimilation as a designated use for any waters of the United States.

MWAT and DM for data records that approach or exceed these standards for assessment of the role of these two parameters on stream temperature.
Existing Conditions: Existing temperature conditions for the Colorado River from Kremmling to Glenwood Springs were evaluated as part of the WQCC Rulemaking for Regulation #93 (303d list) in 2009. Based on available representative data, no exceedances of stream temperature standards were found for this portion of the river.
Funding:

Recreational Floatboating – *Usable Days* = (Insert Provisional Usable Days Table when final)

Sample site selection: The Stakeholder Group has identified the USGS stream flow gage at Kremmling as the appropriate flow measuring device to monitor Recreational Floatboating Resource Guides for Segments 4, 5 and 6, and the USGS gage at Dotsero for Segment 7.
Sample collection: USGS
Where: USGS gage 09058000 Colorado River near Kremmling (Segments 4, 5 and 6); USGS gage 09070500 Colorado River near Dotsero (Segment 7).
Who: USGS
Frequency: per USGS
Sample analysis: NA.
Data management outliers, housing: USGS.
Data analysis: The Stakeholder Group will analyze data for comparison with the provisional Resource Guide.
Funding:

Exhibit 1 to Provisional Period Monitoring Plan

Upper Colorado River Basin Regulation No. 33 Triennial Rulemaking Rationale 4-10-08

Segment WBID: *COUCUC03*

Segment Description: 3. Mainstem of the Colorado River from the outlet of Lake Granby to the confluence of the Roaring Fork River.

Designation: Reviewable

Classifications: Aquatic Life Cold 1
Recreation ~~1a~~ E
Water Supply
Agriculture

Stream Length: 134.4 miles

Proposed Changes 2008: Basin-wide changes: Delete f. coli standards, change As(ac)=50(Trec) to As(ac)=340, add As(ch)=0.02(Trec), and add a temperature standard of cold stream tier II. Add a sculpin-based zinc standard.

Water Quality Data – COUCUC03

	Colorado River blw Lake Granby		
Parameter	**TVS**	**NCWCD/RW/ USGS/WQCD** All Sites 2001-2007	**n**
pH, s.u.	6.5-9.0	7.86-8.53	349
D.O., mg/L	6	7.95	317
Hardness*, mg/L	NA	109.6	339
E. coli, #/100 mL	126	3	120
As-D**, µg/L	0.02	**0.36**	106
Cd-D, µg/L	0.45	0.00	221
Cu-D, µg/L	9.68	1.30	247
Fe-D, µg/L	300	171	215
Fe-Trec, µg/L	1000	215	189
Pb-D, µg/L	2.78	0.00	156
Mn-D, µg/L	50.0	**60.1**	209
Se-D, µg/L	4.60	0.13	167
Ag-D, µg/L	0.09	0.00	80
Zn-D, µg/L	128.4	6.7	192
U-D**, µg/L	30	1.00	44
NH_3, mg/L	TVS	0.030	199
NO_5, mg/L	10	0.023	139
SO_4, mg/L	250	54.6	187

* Hardness measured as $CaCO_3$ mg/L

** Standard is Trec

Rationale for Changes 2008: The deletion of f. coli, and changes to recreation nomenclature, arsenic standards, TVS cadmium standards, and TVS zinc standards are basin-wide changes that correspond with decisions made by the Commission in the June 2005 Basic Standards Rulemaking Hearing (31.44). The Commission changed the recreation use nomenclature so that Recreation 1a waters are now Recreation E (31.44 G.). A sculpin-based zinc standard was added because CPW records indicate that mottled sculpin are present in this segment and hardness drops below 113 mg/l (31.44 J.). Temperature standards were added to correspond with decisions made by the Commission in the January 2007 Rulemaking Hearing (31.45). Colorado Parks and Wildlife (CPW) records indicate that cold stream tier II fish are present in this segment. Temperature data from the most recent 7 years from all available stations in the segment were compared to the fish-based temperature standards to assess the attainability of those standards (see tables below). Sufficient temperature data (minimum 3 evenly spaced samples per day) were not available to assess attainment of the MWAT, so only the attainability of the DM standard was assessed.
This assessment indicates that the cold stream tier II DM standards are attainable.

Aquatic Life: CPW records indicate brown and rainbow trout; northern pike; roundtail chub; mountain whitefish; speckled and longnose dace; mottled sculpin; and bluehead, flannelmouth, longnose, mountain, and white suckers are present in the mainstem Colorado.

Recreation: This segment is intensively used for rafting and kayaking.

Water Supply: The Town of Hot Sulphur Springs diverts water from the Colorado River for its municipal water supply. Hot Sulphur Springs Resort draws from an alluvial well.

Agriculture: Livestock operations have been and continue to be active in the Upper Colorado River basin, although fewer such operations remain as ranchland is converted to urban land use. Crops in the upper basin are limited to irrigated and non-irrigated hay. Farther downriver alfalfa, and spring and winter wheat are cultivated.

Point Sources: Domestic wastewater treatment facilities operated by the Town of Hot Sulphur Springs, Ouray Ranch, Colorado Parks and Wildlife (Windy Gap Reservoir Visitor's Center), and the Colorado Department of Transportation (Grizzly Creek and Hanging Lake Rest Areas and Bair Ranch) discharge to this segment. The Town of Hot Sulphur Springs also operates a water treatment plant that discharges filter backwash. Rayners Trailer Court discharges to alluvial groundwater. Glenwood Hot Springs, Rock Gardens Campground, Pitkin Iron Corporation (Redstone well), and Shorefox Subdivision also discharge to this segment.

Water Quality: Water quality data were collected in this segment by WQCD, USGS, Northern Colorado Water Conservancy District, and River Watch (RW). WQCD collected samples at Colorado River near Dotsero (WQCD #46), Colorado River upstream of Roaring Fork River (WQCD #12100), Colorado River upstream of State Bridge at Highway 131 (WQCD #12103), Colorado River below Granby Reservoir at Highway 34 (WQCD #12105), and North Fork Colorado River at Highway 34 (WQCD #12106). USGS collected samples at Colorado River below Lake Granby, CO (USGS # 9019000), Colorado River near Granby, CO (USGS # 9019500), Colorado River at Windy Gap, near Granby, CO (USGS # 9034250), Colorado River near Kremmling, CO (USGS # 9058000), Colorado River near Dotsero, CO (USGS # 9070500), Colorado River above Glenwood Springs, CO (USGS # 9071750), Colorado River at Bond, CO (USGS # 395306106415601). Northern Colorado Water Conservancy District collected samples at the Colorado River above Fraser River Confluence (CR-WGU). River Watch collected samples at Colorado River at Hot Sulphur Springs (RW #203), Colorado River at Windy Gap (RW #543), and Colorado River at Pedestrian Bridge (RW #46).

Exceedances: In Colorado River below Granby Reservoir at Highway 34 (WQCD #12105) there was an exceedance of the acute dissolved cadmium, dissolved copper and dissolved zinc standards, North Fork Colorado River at Highway 34 (WQCD #12106) there was an exceedance of the acute dissolved copper standard, Colorado River below Lake Granby, CO (USGS # 9019000) there was an exceedance of the chronic dissolved zinc sculpin standard and chronic total recoverable arsenic standard, Colorado River at Windy Gap, near Granby, CO (USGS # 9034250) there was an exceedance of the maximum pH standard, chronic dissolved manganese standard, and chronic total recoverable arsenic standard, at the Colorado River near Kremmling, CO (USGS # 9058000) there was an exceedance of the chronic dissolved manganese standard and chronic total recoverable arsenic standard, and in Colorado River above Fraser River Confluence (CR-WGU) there was an exceedance of the chronic dissolved manganese standard.

Appendix J: BLM Standards for Public Land Health and Guidelines for Livestock Grazing Management in Colorado

Introduction

In response to public concern about management of livestock grazing on western public lands, the BLM developed regulations for livestock grazing administration. This process, which was characterized by the preparation of an Environmental Impact Statement (EIS) and extensive public involvement, resulted in new livestock grazing regulations that became effective August 21, 1995.

One of the requirements of the regulations was that each BLM State Director, in consultation with the Resource Advisory Councils (RACs) in that State, would develop standards for public land health and guidelines for livestock grazing management. The BLM Standards for Public Land Health and Guidelines for Livestock Grazing Management in Colorado (BLM 1997a) were approved by the Secretary of the Interior on February 3, 1997.

Standards for Public Land Health

Standards describe conditions necessary to sustain public land health, and relate to all uses of the public lands. Standards are applied on a landscape scale and relate to the potential of the landscape. These include

Standard 1 –

Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, land form, and geologic processes. Adequate soil infiltration and permeability allows for the accumulation of soil moisture necessary for optimal plant growth and vigor, and minimizes surface runoff.

Indicators:

- Expression of rills, soil pedestals is minimal.
- Evidence of actively-eroding gullies (incised channels) is minimal.
- Canopy and ground cover are appropriate.
- There is litter accumulating in place, and is not sorted by normal overland water flow.
- There is appropriate organic matter in soil.
- There is diversity of plant species with a variety of root depths.
- Upland swales have vegetation cover or density greater than that of adjacent uplands.
- There are vigorous, desirable plants.

Standard 2 –

Riparian systems associated with both running and standing water function properly, and have the ability to recover from major disturbance (such as fire, severe grazing, or 100-year floods). Riparian vegetation

captures sediment, and provides forage, habitat and bio-diversity. Water quality is improved or maintained. Stable soils store and release water slowly.

Indicators:

- Vegetation is dominated by an appropriate mix of native or desirable introduced species.
- Vigorous, desirable plants are present.
- There is vegetation with diverse age class structure, appropriate vertical structure, and adequate composition, cover, and density.
- Streambank vegetation is present, and is comprised of species and communities that have root systems capable of withstanding high streamflow events.
- Plant species present indicate maintenance of riparian moisture characteristics.
- Stream is in balance with the water and sediment being supplied by the watershed (there is no headcutting, no excessive erosion or deposition).
- Vegetation and free water indicate high water tables.
- Vegetation colonizes point bars with a range of age classes and successional stages.
- An active floodplain is present.
- Residual floodplain vegetation is available to capture and retain sediment and dissipate flood energies.
- Stream channels with size and meander pattern appropriate for the stream's position in the landscape, and parent materials.
- Woody debris contributes to the character of the stream channel morphology.

Standard 3 –

Healthy, productive plant and animal communities of native and other desirable species are maintained at viable population levels commensurate with the species and habitat's potential. Plants and animals at both the community and population level are productive, resilient, diverse, vigorous, and able to reproduce and sustain natural fluctuations, and ecological processes.

Indicators:

- Noxious weeds and undesirable species are minimal in the overall plant community.
- Native plant and animal communities are spatially distributed across the landscape with a density, composition, and frequency of species suitable to ensure reproductive capability and sustainability.
- Plants and animals are present in mixed-age classes sufficient to sustain recruitment and mortality fluctuations.
- Landscapes exhibit connectivity of habitat or presence of corridors to prevent habitat fragmentation.
- Photosynthetic activity is evident throughout the growing season.
- Diversity and density of plant and animal species are in balance with habitat/landscape potential and exhibit resilience to human activities.
- Appropriate plant litter accumulates and is evenly distributed across the landscape.
- Landscapes composed of several plant communities that may be in a variety of successional stages and patterns.

Standard 4 –

Special Status, Threatened and Endangered Species (Federal and State), and other plants and animals officially designated by the BLM, and their habitats, are maintained or enhanced by sustaining healthy, native plant and animal communities.

Indicators:

- All the indicators associated with the plant and animal communities standard apply.
- There are stable, and increasing, populations of endemic and protected species in suitable habitat.
- Suitable habitat is available for recovery of endemic and protected species.

Standard 5 –

The water quality of all water bodies, including groundwater where applicable, located on, or influenced by, BLM-managed public lands will achieve or exceed the Water Quality Standards established by the State of Colorado. Water Quality Standards for surface water and groundwater include the designated beneficial uses, numeric criteria, narrative criteria, and anti-degradation requirements set forth under State law, as found in 5 CCR 1002-8, as required by Section 303(c) of the Clean Water Act (CWA).

Indicators:

- Appropriate populations of macroinvertabrates, vertebrates, and algae are present.
- Surface water and groundwater only contain substances (such as sediment, scum, floating debris, odor, heavy metal precipitates on channel substrate) attributable to humans within the amounts, concentrations, or combinations as directed by the Water Quality Standards established by the State of Colorado (5 CCR 1002-8).

Guidelines for Livestock Grazing Management

Guidelines are the management tools, methods, strategies, and techniques such as Best Management Practices (BMPs), designed to maintain or achieve healthy public lands as defined by the Standards. Currently, the only guidelines for BLM Colorado that have been developed in concert with the RACs are Livestock Grazing Management Guidelines.

Guideline 1 –

Grazing management practices promote plant health by providing for one or more of the following:

- periodic rest or deferment from grazing during critical growth periods;
- adequate recovery and regrowth periods; and/or
- opportunity for seed dissemination and seedling establishment.

Guideline 2 –

Grazing management practices address the kind, numbers, and class of livestock, season, duration, distribution, frequency and intensity of grazing use and livestock health.

Guideline 3 –

Grazing management practices maintain sufficient residual vegetation on both upland and riparian sites to protect the soil from wind and water erosion, to assist in maintaining appropriate soil infiltration and

permeability, and to buffer temperature extremes. In riparian areas, vegetation dissipates energy, captures sediment, recharges groundwater, and contributes to stream stability.

Guideline 4 –

Native plant species and natural revegetation are emphasized in the support of sustaining ecological functions and site integrity. Where reseeding is required, on land treatment efforts, emphasis will be placed on using native plant species. Seeding of non-native plant species will be considered based upon local goals, native seed availability and cost, persistence of non-native plants and annuals and noxious weeds on the site, and composition of non-natives in the seed mix.

Guideline 5 –

Range improvement projects are designed consistent with overall ecological functions and processes with minimum adverse impacts to other resources or uses of riparian/wetland and upland sites.

Guideline 6 –

Grazing management will occur in a manner that does not encourage the establishment or spread of noxious weeds. In addition to mechanical, chemical, and biological methods of weed control, livestock may be used, where feasible, as a tool to inhibit or stop the spread of noxious weeds.

Guideline 7 –

Natural occurrences such as fire, drought, flooding, and prescribed land treatments should be combined with livestock management practices in order to move toward the sustainability of biological diversity across the landscape. This includes the maintenance, restoration, or enhancement of habitat to promote and assist the recovery and conservation of Threatened, Endangered, or other Special Status Species, by helping to provide natural vegetation patterns, a mosaic of successional stages, and vegetation corridors, and thus minimizing habitat fragmentation.

Guideline 8 –

Colorado BMPs, and other scientifically developed practices that enhance land and water quality, should be used in the development of Activity Plans prepared for land use.

Appendix K: Special Recreation Permit Evaluation Criteria

Table of Contents

Introduction 1
SRP Proposal Evaluation 3
Pre-Application Consultation 4
Application Process 4
Classifying Permit Proposals 5
Classification Evaluation Factors 5
Soils and Vegetation 5
Associated Features (such as Cultural, Paleontological, Visual, and Wildlife Resources) 5
Potential Environmental Impacts 5
Size of Area 5
Exclusive Use Area 5
Duration of Use 6
Anticipated Number of Participants/Vehicles 6
Competitive Event 6
Mechanical Equipment Required 6
BLM Monitoring and Inspection Requirements 6
Permit Application Review Criteria 7
SRPs for Organized Groups 8
Group Size Criteria 8
Organized Groups -- Letter of Agreement 10

Introduction

Under the authority of Federal Lands Recreation Enhancement Act (REA) of 2004, the BLM uses the Recreation Permitting System in order to satisfy recreational demand within allowable use levels in an equitable, safe, and enjoyable manner while, at the same time, minimizing adverse resource impacts and user conflicts.

The BLM recreation permits authorize the use of public lands and/or related waters for specified purposes. The use of public lands and/or related waters is a privilege subject to the terms and conditions of the permits. The BLM Special Recreation Permits (SRPs) are the basis for the BLM's Recreation Fee Program, and are used to implement REA's Standard Amenity, Expanded Amenity, and Special Recreation Permit Fees (BLM 2006). SRPs are issued in order to authorize specified, and often time-restricted, recreational uses of the public lands and related waters. SRPs are a tool for:

- authorizing specific types of recreational activities;
- managing recreation use;
- reducing user conflicts;
- protecting natural and cultural resources;
- informing users;
- achieving the goals and objectives of the Field Office's Recreation Program;
- gathering use information; and
- obtaining a fair return for commercial and certain other uses of BLM-managed public lands (BLM 2006).

In accordance with 43 CFR 2932, the following activities require SRPs:

- **Commercial Use --** Commercial use is defined as recreational use of the public lands, and related waters, for business or financial gain (financial gain includes gratuities, donations, gifts, bartering, etc.). Commercial use is also characterized in situations where a duty of care or expectation of safety is owed participants by service providers as a result of compensation. It may also be characterized by public advertising for participants (BLM 2006).

  Use by scientific, educational, and/or therapeutic institutions or non-profit organizations are considered commercial when the above criteria are met, and are subject to permit requirements when the above conditions exist. Non-profit status of any group or organization does not, in itself, determine whether an event or activity arranged by such a group or organization is non-commercial. Profit-making organizations are automatically classified as commercial, even if that part of their activity covered by the permit is not profit making. (Examples of commercial activities include fund-raising activities, Outfitters and Guides, college back-packing course for credit, Jeep tours, horse trail and wagon train rides, and cattle drives, etc.)

- **Competitive Use --** Competitive use means any organized, sanctioned, or structured use, event, or activity on public lands in which two or more contestants compete, and where either of the following elements apply:
  - participants register, enter, or complete an application for the event; or
  - a predetermined course or area is designated.

  One or more individuals contesting an established record (such as speed or endurance) are also considered to be a competitive use. (Examples of competitive events include OHV races, horse

endurance rides, mountain bike races, rodeos, poker runs, orienteering, land speed records, and Eco-Challenge events.) Competitive events may also be commercial.

- **Vending --** Vendor permits are temporary, short-term, non-exclusive, revocable authorizations to sell goods or services on public lands in conjunction with a recreation activity. Vendor permits do not authorize permanent structures, and do not grant preferential rights for renewal or any possessory interests in real property on the public lands or related waters. The Authorized Officer places stipulations on the SRP in order to provide for the health and safety of visitors, and for the protection of natural resources.
- **Special Area Use --** Permits may be required for individual (private, non-commercial) recreation use in Special Areas. Special Areas are areas officially designated by statute or Secretarial order, including components of the National Trails System; the National Wild and Scenic Rivers System; the National Wilderness System; National Conservation Areas; National Monuments; National Recreation Areas; areas covered by joint agreement between the BLM and the State Government, as provided for in Title II of the Sikes Act (16 USC 670a); or areas where the Authorized Officer determines that the resources require special management and control measures for their protection and a permit system for individual use would achieve management objectives. (Requirements for Special Areas can be found in 43 CFR 2932.5.) Special Areas can be designated by the State Director through Supplementary Rules (43 CFR 2932.3).
- **Organized Group Activity and Event Use --** Organized group or event permits are intended for group outdoor recreation activities or events that are neither commercial nor competitive. The Authorized Officer determines when a permit is required based upon planning decisions, resource concerns, potential user conflicts, or public health and safety issues. A group is loosely defined as more than one person participating in a recreation activity or event. The threshold, if any, must be determined for each area (for example, 10 people in a sensitive riparian area may constitute an organized group, but a less sensitive upland area may be able to handle 200 people without the need for special management) (BLM 2006). (Examples of groups or events that may require a permit include a large scout campout, a fraternity activity, a large family reunion held at a BLM recreation site or participating in recreation activities on public lands, reenactments, or a dual sport event.)

The BLM can issue SRPs for non-commercial use in certain special areas, including river, backcountry, and camping areas. Most SRPs issued by the KFO are related to river outfitting and upland hunting. Within the Planning Area, very few permanent camps/facilities are authorized on BLM-managed public lands (because most camps are on private lands).

SRP Proposal Evaluation

All commercial, competitive, and organized group SRP proposals will be evaluated on a case-by-case basis, and their approval or disapproval will be at the discretion of the Authorized Officer. All SRPs are considered undertakings under the National Environmental Policy Act of 1969 (NEPA). Permit approval is

dependent upon conformance with all applicable land use planning documents, and with environmental review in accordance with the NEPA. All existing permits will be analyzed for conformance with the Approved Resource Management Plan (Approved RMP) and Record of Decision (ROD).

In order to provide good customer service, reduce unnecessary submissions of applications, and ensure consistent consideration of permit proposals, all new SRP proposals will be evaluated using the process described below.

Pre-Application Consultation

A Pre-application Consultation will be used in order to determine: whether, and what kind of, SRP is necessary; whether the Field Office is accepting applications for that activity or area; and whether enough information is available in the Proposal to determine whether it meets, or can be modified in order to meet, the Approved RMP/ROD.

In order to determine if applications are being accepted, a carrying capacity will be conducted for certain activities (when budget allows); and/or for areas where there is a high SRP demand; and/or where current conflicts and management issues have been identified and documented. Unless circumstances change, carrying capacity will be re-evaluated and documented every 2 years. (This could include areas where there are current conflicts, as described below.) Among other factors, proposals will also be evaluated to determine whether the proposal is consistent with recreation objectives; whether the opportunity is already available under an existing permit; whether there is adequate market competition; and whether the proposal would create conflict with the public and/or existing permitted activities. For those activities or areas where SRP applications are not being accepted, if conditions change, the public will be notified through a Prospectus regarding when SRP applications will be accepted for the identified activity or area. Applications will be evaluated using the application review criteria described below. No Waiting Lists will be kept.

As part of the Pre-application Consultation, permit proposals will be classified in order to determine if the Proposal conforms to the Approved RMP/ROD. If a Proposal is in conformance, and there is, at a minimum, 180 days until the proposed use, the applicant will be asked to fill out all the required SRP application package requirements, and to pay applicable fees.

Application Process

The Authorized Officer will evaluate the application using the “Permit Application Review Criteria” described below. The criteria include specific objectives identified in the Approved RMP/ROD for both Extensive Recreation Management Areas (ERMAs) and for Special Recreation Management Areas (SRMAs). The issuance, or denial, of SRPs will be made in accordance with these criteria.

All permit administration will be done in accordance with the NEPA; BLM Manual: H-2930-1 (Recreation Permit Administration); BLM Colorado State SRP Handbook; and all associated SRP Instruction Memorandums (IMs) and Information Bulletins (IBs).

- Additional implementation guidance will be completed, and will provide applicants with specific information including, but not limited to:
- application deadlines;
- timelines for processing;
- application package requirements;
- fees;
- use reporting requirements; and
- penalties.

Classifying Permit Proposals

Classification Evaluation Factors

Sensitivity of the Site and Features Associated with Expected Uses and Impacts

Soils and Vegetation

- **Low --** Site and associated features demonstrate resilience and resistance to anticipated activity.
- **Moderate --** Site and associated features demonstrate some ability to resist/recover from impacts.
- **High --** Site and associated features demonstrate limited ability to resist/recover from impacts.

Associated Features (such as Cultural, Paleontological, Visual, and Wildlife Resources)

- **None --** No associated features.
- **Moderate --** Some associated features present; existing protection is adequate,
- **High --** Resource conflict exists at the site.

Potential Environmental Impacts

- **Low --** Impacts of a temporary nature and surface disturbance of less than 1 acre.
- **Moderate --** Impacts lasting less than 1 year; surface disturbance of less than 5 acres.
- **High --** Impacts lasting more than 1 year; surface disturbance of more than 5 acres.

Size of Area

- **Small --** Less than 5 acres.
- **Medium --** From 5 to 40 acres.
- **Large --** Larger than 40 acres.

Exclusive Use Area

- **No --** Exclusive use of any area will not be required, or will be less than 4 hours in duration.
- **Yes --** An area of exclusive use will be required for more than 4 hours.

Duration of Use

- **Short --** 1 day or less.
- **Moderate --** From 2 to 6 days.
- **Long --** Longer than 6 days.

Anticipated Number of Participants/Vehicles

- **Low --** Fewer than 25 people; fewer than 25 vehicles.
- **Medium --** From 25 to 100 people; from 25 to 50 vehicles.
- **High --** More than 100 people; more than 50 vehicles.

Competitive Event

- **Yes --** The event or activity is competitive in nature.
- **No --** The event or activity is non-competitive in nature.

Mechanical Equipment Required

- **Yes --** Vehicles or other mechanized equipment will be required in support of activity.
- **No --** No vehicles or other mechanized equipment will be required in support of activity.

BLM Monitoring and Inspection Requirements

- **None --** No significant pre- and/or post-permit oversight activities required.
- **Low --** Pre- and/or post-permit activities require less than 8 hours of BLM oversight.
- **High --** Pre- and/or post-permit activities require more than 8 hours of BLM oversight.

Table M- 1 Permit Classification

Evaluation Factors	Permit Class			
	I	II	III*	IV*
Soils and Vegetation	Low	Low/Moderate	Moderate	High
Associated Features	None	None/Moderate	Moderate	High
Environmental Impacts	Low	Low/Moderate	Moderate	High
Size	Small	Medium	Medium	Large
Exclusive Use	No	No	No	Yes
Duration	Short	Short/Moderate	Moderate	Long
Participants	Low	Low/Medium	Medium	High
Competitive	No	No	Yes	Yes
Mechanical Equipment	No	Yes or No	Yes	Yes
Monitoring and Inspection	None	None/Low	Low	High
Examples	Group camping; guided hunting; organized groups; guided horseback rides	Commercial river rafting and fishing; motorized tours on BLM-managed	Non-competitive motorized events; non-motorized competitive events	Festivals; motorized competitive events

Evaluation Factors	Permit Class			
	I	II	III*	IV*
		public roads		

* Class III and IV events are more likely to require cost recovery, due to the probability of the events needing more than 50 hours of BLM staff time for permit administration.

Permit Application Review Criteria

Permit Proposals described in Business and in Operating Plans will be evaluated using the criteria described below. These criteria offer an objective framework for SRP application evaluation. Any, or all, of the criteria will be evaluated in order for the Authorized Officer to authorize or deny a permit (subject to potential modifications).

- **Compliance History --** Applicant must be in compliance, and have a history of compliance, with all applicable local, State, and Federal regulations. Applicant, or their Authorized Representative, must not have been convicted of a local, State, or Federal violation in connection with the proposed operations or activities within the previous 3 years.
- **Safety and Safety History --** Applicant must have demonstrated a history of providing an acceptable level of safety for clients and affected publics.
- **Consistency with Planning Documents --** Proposals will be evaluated for consistency with current planning documents, including, but not limited to, the Approved RMP/ROD. All proposals associated with a Wilderness Study Area (WSA) must be consistent with the BLM's Manual 6330, Management of BLM Wilderness Study Areas (BLM 2012f).
- **Conflicts --** Permits will not be issued in areas where conflicts currently exist between existing permittees; or between permittees and the public or landowners. Valid conflicts include:
    - overlapping use areas where the same type of use is currently permitted;
    - limited public land ownership and/or related access;
    - camps; location, number, and distance between camps;
    - types of activities permitted;
    - overcrowding and/or use levels during specific time periods, supporting infrastructure at capacity;
    - enforcement/compliance problems exist;
    - improper conduct by permittee or employees; and/or
    - unacceptable resource impacts.
- **Diversity of Services --** Applicants must demonstrate that their proposal enhances the diversity of recreational opportunities available for visitors, and that the services are needed by the public.
- **Low Percentage of BLM Public Lands --** Applications may be refused where public lands comprise a low percentage of the total area, and recreational management goals are being met.

- **Adjoining Lands and Joints Permits --** Preference will not be given to applicants who own or lease private lands adjacent to BLM-managed public lands. Preference will not be given permittees that have a joint permit issued by another land management agency office.

These criteria are a means to analyze applications and to offset potential problems. Many complex issues are best addressed through an ongoing effort between the permittees and the BLM.

If the proposal meets the application review criteria, the appropriate NEPA document will then be completed. Permits may be denied as a result of issues identified during the environmental analysis process. Any stipulations identified during the environmental analysis process will be included on approved permits.

SRPs for Organized Groups

There are no BLM or Statewide thresholds, based upon group size, that dictate whether or not an organized group permit is required. Such thresholds, or other criteria for organized group permits, are established through the land use planning process.

Organized groups, gathering at a single location for more than 2 hours, having more than the following group size, will be required to contact the BLM prior to their event in order for the agency to determine if an SRP will be required.

Group Size Criteria

- **In WSAs --** Fewer than 12 people.
- **In all other areas --** More than 24 people, unless and until an individual SRMA Plan prescribes a different group size.

After reviewing the activity and location with the organizers, the BLM will determine whether or not an SRP is required. If an SRP is not required, the BLM may document this determination in the form of a Letter of Agreement (see below). The factors the BLM uses in order to determine whether a permit is required are shown on the following matrix:

Criteria	SRP Not Required	SRP Required	Deny as Proposed
Is the activity recreational in nature?	If the use is not recreational, it may require "lands" permit or no permit.		
Is the use appropriate to the site? Is there a management concern for cultural or natural resources, or for facilities on public land?	Yes, the site is very conducive to the proposed use; is provided for in planning.	Site is appropriate for group size and activity; not specifically provided for in planning.	No, site is not appropriate for use as proposed; does not conform with recreation planning goals; violates Recreation Opportunity Spectrum (ROS) Class or experience prescriptions.
Does the activity further recreation	Yes.	Yes.	No.

Criteria	SRP Not Required	SRP Required	Deny as Proposed
program goals and objectives?			
Is monitoring needed?	Nothing beyond 1 simple site visit.	Monitoring beyond a 1-time site visit required.	Long-term monitoring of 1 or more resources required.
Are there health and/or safety concerns?	No.	Concerns for event participants and/or for other public land users.	Unmitigated, high risk to human health and safety; unreasonable risk, especially to non-participants.
Is bonding desirable in order to cover reclamation, or damage to government property and/or resources?	No.	Bonding desirable or required.	
Is insurance desirable in order to protect the government from claims by group participants or third parties?	No, liability exposure is negligible.	Insurance is desirable due to possible claims for personal injury or property damage.	
Are special services required (such as Law Enforcement, fire protection, exclusive use of public lands, reserved sites etc.)?	No.	Yes.	

Organized Groups -- Letter of Agreement

The BLM enjoys great discretion in determining when an organized group needs an SRP. When organized group use is taking place in an area that is appropriate, and there are no major concerns over the activity, the BLM may consider the preparation of a Letter of Agreement in order to cover the activity.

A Letter of Agreement is:

- documentation of the BLM's determination that an SRP is not required;
- an opportunity for the organized group to better plan their activity in a manner that does not require permit issuance and oversight;
- documentation that the organized group contacted, and worked with, the BLM in planning their activity;
- opportunity to obtain information about the activity and obtain visitor use statistics;
- opportunity to resolve conflicts with other authorized users of the BLM-managed public lands; and
- opportunity for the organized group to better understand BLM concerns for resources, and appropriate use of public land.

A Letter of Agreement is not:

- an authorization to use BLM-managed public lands;
- an enforceable document. If the group fails to adhere to the agreement, the BLM has no recourse. However, the group will then be a candidate for an SRP in relation to future activities (because SRP terms and conditions are binding and enforceable). Law enforcement action may be taken if the group violates law or regulation.

The following is an example of a Letter of Agreement. This example may be modified in order to account for specific management situations. In no case should the Letter of Agreement be construed as an authorization to use BLM-managed public lands. If an authorization is needed, an SRP or a Recreation Use Permit (for developed sites only) will be required.

EXAMPLE

LETTER OF AGREEMENT

FOR ORGANIZED GROUP RECREATION USE

BETWEEN

FIELD MANAGER

KREMMLING FIELD OFFICE

BUREAU OF LAND MANAGEMENT

AND

Boy Scouts of America TROOP 100

Welcome to the BLM-managed public lands! We hope you enjoy your visit.

The Bureau of Land Management (BLM) is responsible for the balanced management of your public lands and resources. Management is based upon the principles of multiple use and sustained yield, a combination of uses that takes into account the long-term needs of future generations for renewable and non-renewable resources. These resources include recreation, range, timber, minerals, watershed, fish and wildlife, wilderness, and natural, scenic, scientific, and cultural values.

Special Recreation Permits (SRPs) may be required for organized groups using public lands. The criteria used in order to determine if an SRP is necessary include: concern for health and safety, need to properly manage lands and resources, and need to coordinate with other public land users. Based upon our evaluation of your planned activity, such a permit does not appear to be necessary:

Type of Activity: Boy Scouts of America (BSA) District Camporee. Camping, day loop hikes.

Place: Hidden Splendor

Date and Time: August 23 – 24, 2008

Number of People: 200

Activity Contact Person: J. Audubon Woodlore Phone: (999) 999-9999

BLM Contact Person: Ira Planner Phone: (970) 724-3000

Certain actions are necessary in order to have a safe and successful outing with a minimum impact to the environment:

1. All sites are filled on a "first come, first served" basis. Plan ahead to ensure that your group can secure a spot without interfering with other visitors.
2. Avoid building new fire rings. **USE A FIRE PAN** to eliminate scars on the soil. **NO GATHERING OF WOOD** for campfires is allowed. Burn wood to ashes and douse with water, making sure that your fire is **DEAD OUT** and that the area is restored to a natural condition before leaving. If you are a vehicle-based camp, haul out all charcoal and ash from your fire pan.
3. Proper disposal of human waste is critical. At your activity, this will be accomplished by: **PROVIDING TEMPORARY TOILET FACILITIES OR USING TOILETS AT THE CAMPGROUND.** One toilet for every 25 persons attending will be required at all sites serviced by vehicle.
4. Help us clean up public lands by **REMOVE ALL TRASH**. Picking up trash left by less thoughtful people helps maintain the scenic beauty of your public lands.
5. If any directional signs are erected as part of this activity, they must be removed at the completion of the activity.
6. Natural hazards and phenomenon could be encountered that present risks to the participants. Participants must be advised of hazards that might be encountered and risks associated with the activity.
7. Nothing in this agreement shall be construed to imply permission to build any structure or conduct any activity not specifically named.
8. Disorderly, or otherwise objectionable, conduct (such as harassment of wildlife, livestock, or other lawful users of public land) will not be tolerated, and could be the basis for denial of similar agreements in the future.
9. Precautions must be made in order to protect natural resource values, cultural or historic objects, aesthetic values, and any facilities on BLM-managed public lands.
10. If there is any question concerning regulations on BLM-managed public lands, please contact our office immediately.
11. This agreement is not an authorization to use BLM-managed public lands. Failure to abide by all activity parameters in this agreement may result in permits being required for future activities.

_____ _____

Activity Organizer Signature Date

_____ _____

Field Manager Date

Appendix L: Description of Recreation Resources

Table of Contents

North Sand Hills Special Recreation Management Area....13
Supporting Information....13
Important Values of the SRMA....13
Recreation Demand....13
The General Types of Visitors to be Served....13
Ability to Manage Recreation Resources....13
Recreation Management Zone (RMZ) 1 Open Sand Dunes....13
RMZ Outcome Objective....13
Proposed Recreation Setting Characteristics (RSCs)....14
Proposed Physical RSCs....14
Proposed Social RSCs....14
Proposed Operational RSCs....14
Supporting Management Action and Allowable Use Decisions....15
Comprehensive Trails and Travel Management:....15
Camping:....15
Shooting:....15
Lands and Realty:....15
Locatable Minerals and other Realty Actions:....15
Mineral Material (salable) Disposal:....15
Mineral Leasing:....15
Conditions of Approval for Surface-Disturbing Activities:....15
Visual Resource Management:....16
Special Recreation Permits:....16
Implementation Actions Included in the Land Use Plan....16
Comprehensive Trails and Travel Management:....16
Subsequent Implementation-level Planning Guidance....16
Administration....16

Information 17
Monitoring 17
Recreation Management Zone (RMZ) 2 Camping Area and Adjacent Trails 17
RMZ Outcome Objective 18
Proposed Recreation Setting Characteristics (RSCs) 18
Proposed Physical RSCs 18
Proposed Social RSCs 18
Proposed Operational RSCs 18
Supporting Management Action and Allowable Use Decisions 19
Comprehensive Trails and Travel Management 19
Camping 19
Shooting 19
Lands and Realty 19
Locatable Minerals and other Realty Actions 19
Mineral Material (salable) Disposal 19
Mineral Leasing 19
Conditions of Approval for Surface-Disturbing Activities 19
Visual Resource Management: 20
Special Recreation Permits: 20
Implementation Actions Included in the Land Use Plan 20
Comprehensive Trails and Travel Management 20
Subsequent Implementation-level Planning Guidance 20
Management 20
Administration 20
Information 21
Monitoring 21
Strawberry Special Recreation Management Area 22
Supporting Information 22
Important Values of the SRMA 22
Recreation Demand 22
The General Types of Visitors to be Served 22
Ability to Manage Recreation Resources 22

Recreation Management Zone (RMZ) 1 22
RMZ Outcome Objective 22
Proposed Recreation Setting Characteristics (RSCs) 23
Proposed Physical RSCs 23
Proposed Social RSCs 23
Proposed Operational RSCs 23
Supporting Management Action and Allowable Use Decisions 23
Comprehensive Trails and Travel Management 23
Camping 24
Shooting 24
Lands and Realty 24
Locatable Minerals and other Realty Actions 24
Mineral Material (salable) Disposal 24
Mineral Leasing 24
Conditions of Approval for Surface-Disturbing Activities 24
Forest Management 24
Visual Resource Management 25
Special Recreation Permits 25
Implementation Actions Included in the Land Use Plan 25
Comprehensive Trails and Travel Management 25
Subsequent Implementation-level Planning Guidance 25
Management 25
Administration 25
Information 26
Monitoring 26
Recreation Management Zone (RMZ) 2 26
Proposed Recreation Setting Characteristics (RSCs) 27
Proposed Physical RSCs 27
Proposed Social RSCs 27
Proposed Operational RSCs 27
Supporting Management Action and Allowable Use Decisions 27
Comprehensive Trails and Travel Management 27

Camping....28
Shooting....28
Lands and Realty....28
Stipulations and Conditions of Approval for Oil and Gas Leasing and Other Surface-Disturbing Activities....28
Forest Management....28
Visual Resource Management....28
Special Recreation Permits....29
Comprehensive Trails and Travel Management....29
Subsequent Implementation-level Planning Guidance....29
Management....29
Administration....29
Information....29
Monitoring....30
Upper Colorado River Special Recreation Management Area....31
Supporting Information....31
Important Values of the SRMA....31
Recreation Demand....31
The General Types of Visitors to be Served....31
Ability to Manage Recreation Resources....31
Recreation Management Zone (RMZ) 1 – Parshall to Kremmling....31
RMZ Outcome Objective....31
Proposed Recreation Setting Characteristics (RSCs)....32
Proposed Physical RSCs....32
Proposed Social RSCs....32
Proposed Operational RSCs....33
Supporting Management Action and Allowable Use Decisions....33
Camping....33
Shooting....33
Comprehensive Trails and Travel Management....33
Lands and Realty....33
Locatable Minerals and other Realty Actions....33
Mineral Material (salable) Disposal....34

Mineral Leasing 34
Conditions of Approval for Surface-Disturbing Activities 34
Visual Resource Management 34
Special Recreation Permits 34
Implementation Actions Included in the Land Use Plan 34
Comprehensive Trails and Travel Management 34
Subsequent Implementation-level Planning Guidance 34
Management 34
Administration 34
Information and Education 35
Monitoring 35
Recreation Management Zone (RMZ) 2 – Gore Canyon 35
RMZ Outcome Objective 35
Proposed Recreation Setting Characteristics (RSCs) 36
Proposed Physical RSCs 36
Proposed Social RSCs 36
Proposed Operational RSCs 36
Supporting Management Action and Allowable Use Decisions 37
Camping 37
Shooting 37
Comprehensive Trails and Travel Management 37
Lands and Realty 37
Locatable Minerals and other Realty Actions 37
Mineral Material (salable) Disposal 37
Mineral Leasing 37
Conditions of Approval for Surface-Disturbing Activities: 37
Visual Resource Management: 38
Special Recreation Permits 38
Implementation Actions Included in the Land Use Plan 38
Comprehensive Trails and Travel Management 38
Subsequent Implementation-level Planning Guidance 38
Management 38

Administration 39
Information and Education 39
Monitoring 39
Recreation Management Zone (RMZ) 3 – Pumphouse to State Bridge 39
RMZ Outcome Objective 39
Proposed Recreation Setting Characteristics (RSCs) 40
Proposed Physical RSCs 40
Proposed Social RSCs 40
Proposed Operational RSCs 40
Supporting Management Action and Allowable Use Decisions 41
Camping 41
Shooting 41
Comprehensive Trails and Travel Management: 41
Lands and Realty 41
Locatable Minerals and other Realty Actions 41
Mineral Material (salable) Disposal 41
Mineral Leasing 41
Conditions of Approval for Surface-Disturbing Activities 42
Visual Resource Management 42
Special Recreation Permits 42
Implementation Actions Included in the Land Use Plan 42
Comprehensive Trails and Travel Management 42
Subsequent Implementation-level Planning Guidance 42
Management 42
Administration 43
Information and Education 43
Monitoring 43
Recreation Management Zone (RMZ) 4 – Yarmony Jeep Trail 44
RMZ Outcome Objective 44
Proposed Physical RSCs 44
Naturalness 44
Visitor Facilities 44

Proposed Social RSCs 44
Contacts (avg.) 44
Group Size (avg.) 44
Evidence of Use 44
Proposed Operational RSCs: 45
Access (types of travel) 45
Visitor Services/Info 45
Management Controls 45
Supporting Management Action and Allowable Use Decisions 45
Camping 45
Shooting 45
Comprehensive Trails and Travel Management 45
Lands and Realty: 45
Locatable Minerals and other Realty Actions 45
Mineral Material (salable) Disposal 45
Mineral Leasing 45
Conditions of Approval for Surface-Disturbing Activities 45
Visual Resource Management 45
Special Recreation Permits 45
Implementation Actions Included in the Land Use Plan 46
Comprehensive Trails and Travel Management 46
Subsequent Implementation-level Planning Guidance 46
Management 46
Administration 46
Information 46
Monitoring 47
Recreation Management Zone (RMZ) 5 – Gore Canyon Ranch 47
RMZ Outcome Objective 47
Proposed Physical RSCs 47
Naturalness 47
Visitor Facilities 47
Proposed Social RSCs 47

Contacts (avg.) 47
Evidence of Use 48
Proposed Operational RSCs 48
Access (types of travel) 48
Visitor Services/Info 48
Management Controls 48
Supporting Management Action and Allowable Use Decisions 48
Camping 48
Shooting 48
Comprehensive Trails and Travel Management 48
Lands and Realty 48
Locatable Minerals and other Realty Actions 48
Mineral Material (salable) Disposal 48
Mineral Leasing 49
Conditions of Approval for Surface-Disturbing Activities 49
Visual Resource Management 49
Special Recreation Permits 49
Implementation Actions Included in the Land Use Plan 49
Comprehensive Trails and Travel Management: 49
Subsequent Implementation-level Planning Guidance 49
Management 49
Administration 49
Information 50
Monitoring 50
Wolford Special Recreation Management Area 51
Supporting Information 51
Important Values of the SRMA 51
Recreation Demand 51
The General Types of Visitors to be Served 51
Ability to Manage Recreation Resources 51
Recreation Management Zone (RMZ) 1 51
Proposed Recreation Setting Characteristics (RSCs) 52

Proposed Physical RSCs 52
Proposed Social RSCs 52
Proposed Operational RSCs 52
Supporting Management Action and Allowable Use Decisions 52
Comprehensive Trails and Travel Management 52
Camping 52
Shooting 53
Lands and Realty 53
Stipulations and Conditions of Approval for Oil and Gas Leasing and Other Surface-Disturbing Activities 53
Visual Resource Management 53
Special Recreation Permits 53
Implementation Actions Included in the Land Use Plan 54
Comprehensive Trails and Travel Management 54
Subsequent Implementation-level Planning Guidance 54
Management 54
Administration 54
Information 55
Monitoring 55
Recreation Management Zone (RMZ) 2 55
RMZ Outcome Objective 55
Proposed Recreation Setting Characteristics (RSCs) 56
Proposed Physical RSCs 56
Proposed Social RSCs 56
Proposed Operational RSCs 56
Supporting Management Action and Allowable Use Decisions 56
Comprehensive Trails and Travel Management 56
Camping 57
Lands and Realty: 57
Stipulations and Conditions of Approval for Oil and Gas Leasing and Other Surface-Disturbing Activities 57
Visual Resource Management 57
Special Recreation Permits 57
Implementation Actions Included in the Land Use Plan 57

Comprehensive Trails and Travel Management 58
Subsequent Implementation-level Planning Guidance 58
Management 58
Administration 58
Information 58
Monitoring 59
Recreation Management Zone (RMZ) 3 59
RMZ Outcome Objective: 59
Proposed Recreation Setting Characteristics (RSCs) 60
Proposed Physical RSCs 60
Proposed Social RSCs 60
Proposed Operational RSCs 60
Supporting Management Action and Allowable Use Decisions 60
Camping 60
Comprehensive Trails and Travel Management: 60
Special Recreation Permits 60
Lands and Realty 61
Stipulations and Conditions of Approval for Oil and Gas Leasing and Other Surface-Disturbing Activities 61
Visual Resource Management 61
Implementation Actions Included in the Land Use Plan 61
Comprehensive Trails and Travel Management 61
Subsequent Implementation-level Planning Guidance 61
Management 61
Administration 62
Information 62
Monitoring 62
Headwaters Extensive Recreation Management Area 64
ERMA Objective 64
Supporting Management Action and Allowable Use Decisions 64
Camping 64
Comprehensive Trails and Travel Management 64
Special Recreation Permits 64

Lands and Realty 64
Stipulations and Conditions of Approval for Oil and Gas Leasing and Other Surface-Disturbing Activities ...64
Visual Resource Management 65
Implementation Actions Included in the Land Use Plan 65
Comprehensive Trails and Travel Management 65
Subsequent Implementation-level Planning Guidance 65
Management 65
Administration 65
Information 66
Monitoring 66
Recreation Setting Character Condition Matrix 67
PHYSICAL – QUALITIES OF THE LANDSCAPE 67
SOCIAL – QUALITIES ASSOCIATED WITH USE 67
OPERATIONAL – CONDITIONS CREATED BY MANAGEMENT AND CONTROLS OVER RECREATION USE 67

Table N- 1 Summary Table of SRMAs and ERMAs

Recreation Management Areas	Acres
Headwaters ERMA	13, 798 acres
North Sand Hills SRMA	1,450 acres
Strawberry SRMA	7,856 acres
Upper Colorado River (West of Hwy 9) SRMA	14,219 acres
Upper Colorado River (East of Hwy 9) SRMA	807 acres
Wolford SRMA	25,657 acres
Lands Not Designated as Recreation Management Areas (i.e. Non-RMAs)	314,073 acres
Total ERMA Acres	13,798
Total SRMA Acres	49,989
Percent of Field Office as ERMA	4%
Percent of Field Office as SRMA	13%

North Sand Hills Special Recreation Management Area

Supporting Information

Important Values of the SRMA

- Public lands at the North Sand Hill are valued for the naturally occurring sand dunes. A significant portion of the dunes were identified as a research natural area and subsequently an Instant Study Area, managed under Manual 6330, Management of BLM Wilderness Study Areas (BLM 2012f). The current recreation value is the opportunity for open-dune OHV riding. The local community of Walden values the tourism economy associated with the area.

Recreation Demand

- The primary visitors are a mix of Colorado residents and visitors from surrounding states.

The General Types of Visitors to be Served

- The visitor segment is identified as open-sand OHV enthusiasts.

Ability to Manage Recreation Resources

- The recreation infrastructure is not currently meeting the demand of the area. There are four vault toilets, three on BLM lands and one on adjacent Colorado State Land Board Land. A developed campground with eleven sites was constructed on BLM, with one site being a designated group site equivalent to three sites. Additional infrastructure will be needed (designated camping areas, additional toilet facilities, and resource protection fencing). Adjacent non-BLM lands are owned privately or by the State of Colorado. The effectiveness of managing recreation resources over the long-term will depend on having: (a) an assurance that gateway communities (businesses, chambers, tourism organizations and local governments) will market the SRMA responsibility and accurately; (b) a commitment that local users/ partners are available to provide on-the-ground support; (c) sufficient funding and staff to implement the planning decisions and the necessary site specific implementation actions; and (d) there would be a management commitment from the State of Colorado.

Recreation Management Zone (RMZ) 1 Open Sand Dunes

RMZ Outcome Objective

By the year 2019, manage the zone to provide visitors the opportunity to engage in Open Sand Dune OHV riding recreation, providing no less than 75% of responding visitors and affected community residents and service providers report at least a “moderate” realization of these benefits. (i.e., on a probability scale where 1=not at all, 2=somewhat, 3=moderate, 4=total realization).

Activities	Experiences	Benefits
Open Sand OHV riding (motorized sand dune activities)	Experiencing adventure and excitement Testing my equipment Being with others that enjoy the same thing I do	**Personal:** Improved outdoor recreational skills Greater personal enrichment through involvement with other people **Community/Social:** Greater community involvement in recreation and other land use decisions **Economic:** Improved local economic stability Increased employment and tax revenue

Proposed Recreation Setting Characteristics (RSCs)

Proposed Physical RSCs

- Remoteness (approx. distance from routes): Manage primarily as Middle Country. Except for maintained access roads and ROW's.
- Naturalness: Manage primarily as Middle Country. Naturally appearing landscape except for obvious access roads and resource protective facilities; maintain existing landscape.
- Visitor Facilities: Manage primarily as Back Country to Middle Country. Develop additional facilities and trails that meet visitor needs and protect resources.

Proposed Social RSCs

- Group Size (avg.): Manage primarily as Middle Country to Front Country. Manage for a season average of 12-15 people per group outside of parking areas.
- Evidence of Use: Manage primarily as Middle Country to Front Country. Rehab and reduce signs of use by non-targeted visitors and areas not designated as "Open".

Proposed Operational RSCs

- Access (types of travel allowed): Manage primarily as Middle Country. All travel within the zone will be open to motorized vehicles except when seasonally closed to motorized use.
- Visitor Services/Info: Manage Primarily as Middle Country to Front Country. Basic information on-site; occasional staff contact and assistance.
- Management Controls: Manage primarily as Front Country. Rules, regulations and ethics clearly posted. Use restrictions, limitations and/or closures may be implemented. Education and Enforcement utilized to reduce conflicts, hazards and resource damage.

Supporting Management **Action and Allowable Use Decisions**

Comprehensive Trails and Travel Management:

- Designate the area as *Limited to Designated (*All modes and types of travel, except foot and horse travel will be limited to designated routes and trails).
- Designate the open sand, excluding areas with vegetation, as Open to Motorized and Mechanical Travel.
- Motorized travel will be limited to designated routes that existed at the time the Instant Study Area was designated, to the open sand dune area and are compatible with the objectives of the North Sand Hills ACEC to protect the Boat-shaped Bugseed *Corispermum navicula*.
- Close all motorized travel in the zone from December 15 to April 15.

Camping:

- Close the North Sand Hills Instant Study Area to overnight camping.
- Access to Campsites: Allow motorized travel or mechanical transport, or both, up to 300 feet from designated motorized routes or mechanical transport routes for direct access to dispersed campsites provided that:
    - No resource damage occurs;
    - no new routes are created; and
    - such access is not otherwise prohibited by the BLM Field Manager.

Shooting:

- Close the zone to target shooting. (Refer to recreational target shooting in Recreation section of Chapter 2, Table 2-2, and map in Appendix A.)

Lands and Realty:

- ROW avoidance areas to include developed recreation sites.
- Retain SRMAs and developed recreational sites for long-term management.

Locatable Minerals and other Realty Actions:

- Petition for withdrawal to the Secretary of the Interior the SRMA from settlement, sale, location or entry under the general land laws, including the mining laws.

Mineral Material (salable) Disposal:

- The SRMA and developed recreation sites will be closed to mineral material disposal.

Mineral Leasing:

- All federal mineral estate within SRMA will be closed to mineral leasing.

Conditions of Approval for Surface-Disturbing Activities:

- Apply COAs (Appendix D) in the SRMA for the protection of the recreation outcomes and the prescribed recreation setting character conditions.

Visual Resource Management:

- Manage the SRMA under VRM class II objectives unless otherwise managed as VRM Class I.

Special Recreation Permits:

- Issue commercial outfitting and organized group Class I - IV permits that are consistent with zone objectives (AU) (Appendix M).
- Designate the SRMA as a 'Special Area' for the purpose of initiating a permit system for private users to achieve zone objectives and setting prescriptions as needed (MA).

Implementation Actions Included in the Land Use Plan

Comprehensive Trails and Travel Management:

- Designate individual routes as open or closed.
- On open routes, designate type and mode of travel allowed.

Subsequent Implementation-level Planning Guidance
(Note: The following actions are provided to help guide RMA management, administration, information, and monitoring).

- Management Develop a Recreational Activity Plan through supporting management actions and allowable uses that supports outcome objectives.
- If congressional action releases the area from ISA designation then manage the area to meet the SRMA zone objectives and RSC's through the identified Supporting Management Action and Allowable Use Decisions, Implementation Actions and Implementation-level Planning Guidance.
- Work with stakeholders and adjoining land-management agencies to complete an analysis to determine environmentally-acceptable carrying capacities of the SRMA during high-use holiday periods.
- Develop the necessary facilities to achieve zone objectives and ensure public health and safety (parking areas, loading and unloading areas, toilets, information panels, etc.) while protecting sensitive resources.
- Build the necessary barriers to protect vegetation, water and cultural resources.
- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* RMA management to achieve zone objectives.

Administration

- Pursue agreements with Jackson County and Colorado Parks and Wildlife to implement a revenue-sharing fee system to provide necessary Emergency Management Services (EMS), additional law enforcement and support services required to achieve zone objectives.
- Pursue agreements with Jackson County to provide necessary EMS and additional law enforcement required to achieve zone objectives.
- Pursue agreements with North Sand Hills stakeholders.
- Pursue an agreement with interested OHV organizations to leverage funding, secure volunteer help, and promote sustainable conditions of use. (e.g., OHV Clubs, American Sand Association, Colorado Off Highway Vehicle Coalition, etc.).As one part of a comprehensive funding strategy to support recreation sites and services, the BLM (with partner support) may charge fees for standard or expanded amenity recreation sites and services. Standard or expanded amenity fees are defined in the Federal Lands Recreation Enhancement Act (FLREA).
- Coordinate with CPW regarding seasonal and emergency closures for wildlife.

Information

- Provide stewardship education/interpretation to help promote responsible motorized recreation (Tread Lightly/Stay the Trail)
- Provide stewardship education/interpretation on the Boat-shaped Bugseed *Corispermum navicula.*
- Provide RMZ map at on-site locations that includes information about opportunities, conditions of use, and shows private and public ownership.
- Work with local chambers of commerce, tourism groups and businesses to provide definitive recreation information (i.e., accurate recreation information, user ethics, and use/user expectations) as opposed to promotional marketing.

Monitoring

- Develop a monitoring plan to monitor the Instant Study Area to ensure compliance with Manual 6330, Management of BLM Wilderness Study Areas (BLM 2012f).
- Monitor recreation setting conditions through on-site patrols from May through September.
- Monitor outcome attainment and preferences through customer assessments (on or off site/focus group interviews or visitor studies) on five-year intervals.
- If monitoring indicates management objectives are not being met, the KFO, with stakeholder involvement, will adjust management to achieve objectives.
- When possible, use volunteers to help with on-site monitoring.

Recreation Management Zone (RMZ) 2 Camping Area and Adjacent Trails

RMZ Outcome Objective

By the year 2019, manage the zone to provide visitors the opportunity to engage in Camping and OHV trail riding recreation, providing no less than 75% of responding visitors and affected community residents and service providers report at least a "moderate" realization of these benefits. (i.e., on a probability scale where 1=not at all, 2=somewhat, 3=moderate, 4=total realization).

Participants in visitor assessments report an average 4.0 realization of the targeted outcomes listed below. (4.0 on a probability scale where: 1 = Not at all realized to 5 = totally realized).

Activities	**Experiences**	**Benefits**
☐ Camping ☐ OHV trail riding	☐ Experiencing adventure and excitement ☐ Testing my equipment ☐ Enjoying closeness to family and friends	**Personal:** ☐ Improved outdoor recreational skills ☐ Improve relationships with my family and friends ☐ Enhanced sense of personal freedom **Community/Social:** ☐ Greater community involvement in recreation and other land use decisions **Economic:** ☐ Improved local economic stability ☐ Increased employment and tax revenue

Proposed Recreation Setting Characteristics (RSCs)

Proposed Physical RSCs

- Remoteness (approx. distance from routes): Manage primarily as Middle Country. Except for maintained access roads and ROW's.
- Naturalness: Manage primarily as Middle Country to Front Country. Naturally appearing landscape except for obvious access roads facilities and existing powerline; maintain existing landscape.
- Visitor Facilities: Manage primarily as Front Country to Rural. Develop additional facilities and trails that meet visitor needs and protect resources. Trail development should incorporate native materials except when resource protection is necessary.

Proposed Social RSCs

- Group Size (avg.): Manage primarily as Middle Country to Front Country. Manage for a season average of 12-15 people per group outside of camping or parking areas.
- Evidence of Use: Manage primarily as Middle Country to Front Country. Rehab and reduce signs of use by non-targeted visitors.

Proposed Operational RSCs

- Access (types of travel allowed): Manage primarily as Middle Country. All travel within the zone will be open to motorized travel except when seasonally closed to motorized use.
- Visitor Services/Info: Manage Primarily as Middle Country to Front Country. Basic information on-site; occasional to periodic staff contact and assistance.
- Management Controls: Manage primarily as Front Country. Rules, regulations and ethics clearly posted. Use restrictions, limitations and/or closures may be implemented.

Supporting Management Action and Allowable Use Decisions

Comprehensive Trails and Travel Management

- Designate the area as *Limited to Designated (*All modes and types of travel, except foot and horse travel, will be limited to designated routes and trails).
- Motorized travel will be limited to designated routes that existed at the time the Instant Study Area was designated and to the open sand dunes and are compatible with the objectives of the North Sand Hills ACEC to protect the Boat-shaped Bugseed *Corispermum navicula*.
- Close all motorized routes in the zone from December 15 to April 15

Camping

- Close the North Sand Hills Instant Study Area to overnight camping.
- Camping areas/sites may be designated outside of the Instant Study Area to effectively manage the recreation resource while protecting the natural and cultural resources.

Shooting

- Close the zone to target shooting. (Refer to recreational target shooting in Recreation section of Chapter 2, Table 2-2, and map in Appendix A.)

Lands and Realty

- ROW avoidance areas to include developed recreation sites.
- Retain SRMAs and developed recreational sites for long-term management.

Locatable Minerals and other Realty Actions

- Petition for withdrawal to the Secretary of the Interior from settlement, sale, location or entry under the general land laws, including the mining laws.

Mineral Material (salable) Disposal

- The SRMA and developed recreation sites will be closed to mineral material disposal.

Mineral Leasing

- All federal mineral estate within SRMAs will be closed to mineral leasing.

Conditions of Approval for Surface-Disturbing Activities

- Apply COA restrictions (Appendix D) in the SRMA for the protection of the recreation outcomes and the prescribed recreation setting character conditions.

Visual Resource Management:

- Manage the SRMA under VRM class II objectives unless otherwise managed as VRM Class I.

Special Recreation Permits:

- Issue commercial outfitting and organized group Class I - IV permits that are consistent with zone objectives (AU) (Appendix M). No competitive event permits will be issued.

- Designate the SRMA as a 'Special Area' for the purpose of initiating a permit system for private users to achieve zone objectives and setting prescriptions as needed (MA).

Implementation Actions Included in the Land Use Plan

Comprehensive Trails and Travel Management

- Designate individual routes as open or closed.

- On open routes, designate type and mode of travel allowed.

Subsequent Implementation-level Planning Guidance

Note: The following actions are provided to help guide RMA management, administration, information, and monitoring.

Management

- Develop a Recreational Activity Plan through supporting management actions and allowable uses that supports outcome objectives.

- If congressional action releases the area from ISA designation then manage the area to meet the SRMA zone objectives and RSC's through the identified Supporting Management Action and Allowable Use Decisions, Implementation Actions and Implementation-level Planning Guidance.

- Work with stakeholders to complete a capacity analysis to determine carrying capacities for the SRMA.

- Develop or expand campground(s) and/or develop a plan to designate campsites that achieves zone objectives and protects natural and cultural resources.

- Develop a trail plan that maintains the existing density of trail miles per square mile, connects to the Colorado State Forest trail system, meets zone objectives, and is consistent with the Criteria for the Placement of Trails (Appendix P).

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* management actions to achieve zone objectives.

Administration

- Pursue agreements with Jackson County and Colorado Parks and Wildlife to implement a revenue-sharing fee system to provide necessary EMS, additional law enforcement and support services required to achieve zone objectives.
- Pursue agreements with Jackson County to provide necessary EMS and additional law enforcement required to achieve zone objectives.
- Pursue agreements with North Sand Hills stakeholders.
- Pursue an agreement with interested OHV organizations to leverage funding, secure volunteer help, and promote sustainable conditions of use. (e.g., OHV Clubs, American Sand Association, Colorado Off Highway Vehicle Coalition, etc.).
- As one part of a comprehensive funding strategy to support recreation sites and services, the BLM (with partner support) may charge fees for standard or expanded amenity recreation sites and services. Standard or expanded amenity fees are defined in the Federal Lands Recreation Enhancement Act (FLREA).
- Coordinate with CPW regarding seasonal and emergency closures for wildlife.

Information

- Provide stewardship education/interpretation to help promote responsible motorized recreation (Tread Lightly/Stay the Trail).
- Provide stewardship education/interpretation on the Boat-shaped Bugseed *Corispermum navicula.*
- Provide RMZ map at on-site locations that includes information about opportunities, conditions of use, and shows private and public ownership.
- Work with local chambers of commerce, tourism groups and businesses to provide definitive recreation information (i.e., accurate recreation information, user ethics, and use/user expectations) as opposed to promotional marketing.

Monitoring

- Develop a monitoring plan to monitor the Instant Study Area to ensure compliance with Manual 6330, Management of BLM Wilderness Study Areas (BLM 2012f).
- Monitor recreation setting conditions through on-site patrols from May through September.
- Monitor outcome attainment and preferences through customer assessments (on-site/focus group interviews or visitor studies) on five-year intervals.
- If monitoring indicates management objectives are not being met, the KFO, with stakeholder involvement, will adjust management to achieve objectives
- When possible, use volunteers to help with on-site monitoring.

Strawberry Special Recreation Management Area

Supporting Information

Important Values of the SRMA

- Public lands in the Strawberry SRMA are valued for their easy access and close proximity to the communities of Tabernash, Fraser, and Granby. Residents of east Grand County enjoy a variety of close-to-home recreation opportunities in the area.

Recreation Demand

- Outside of the big game hunting seasons, the primary visitors are the residents of east Grand County.

The General Types of Visitors to be Served

- The visitor segment is identified as hikers, anglers, campers, and hunters.

Ability to Manage Recreation Resources

- Some of the recreation infrastructure is in place (information kiosks, trailheads, signage, resource protection fencing). The existing trail system was primarily created by users and was not designed for sustainable trail riding. Adjacent US Forest Service lands are managed as closed to motorized recreation. A significant commitment of additional resources will be required to complete implementation.

Recreation Management Zone (RMZ) 1

RMZ Outcome Objective

By the year 2019, manage the zone to provide visitors the opportunity to engage in non-motorized and non-mechanical recreational opportunities, providing no less than 75% of responding visitors and affected community residents and service providers report at least a "moderate" realization of these benefits. (i.e., on a probability scale where 1=not at all, 2=somewhat, 3=moderate, 4=total realization).

Activities	**Experiences**	**Benefits**
Fishing Hiking Trail running Wildlife Viewing Non-Motorized snow sports	Enjoying the areas wildlife, scenery, views and esthetics Enjoying having easy access to natural landscapes To escape crowds of people	**Personal:** Closer relationship to the natural world Better sense of place within my community Greater freedom from urban living **Community/Social:** Greater community involvement in recreation and other land use decisions **Environmental:** Improved care for community aesthetics Increased awareness and protection of natural landscapes **Economic:**

		Increased desirability as a place to live or retire

Proposed Recreation Setting Characteristics (RSCs)

Proposed Physical RSCs

- Remoteness (approx. distance from routes): Manage primarily as Back Country to Middle Country. Make the area more remote by limiting motorized access.
- Naturalness: Manage primarily as Back Country to Middle Country. Naturally appearing landscape except for obvious access roads and forest management; maintain natural landscape wherever possible.
- Visitor Facilities: Manage primarily as Back Country to Middle Country. Develop trailheads with parking areas; develop non-motorized trails.

Proposed Social RSCs

- Contacts (avg.): Manage primarily as Back Country to Middle Country. Manage for a season average of 7-10 encounters outside parking areas.
- Group Size (avg.): Manage primarily as Back Country. Manage for a season average of 4-6 people per group outside of parking areas.
- Evidence of Use: Manage primarily as Middle Country. Rehab and reduce signs of use by non-targeted visitors.

Proposed Operational RSCs

- Access (types of travel allowed): Manage primarily as Primitive. All travel within the zone will be closed to motorized and mechanical travel (except main access routes or trails designed and developed for disabled access).
- Visitor Services/Info: Manage primarily as Back Country to Middle Country. Basic information on-site; occasional staff contact and assistance.
- Management Controls: Manage primarily as Middle Country to Front Country. Rules, regulations and ethics clearly posted. Use restrictions, limitations and/or closures may be implemented.

Supporting Management Action and Allowable Use Decisions

Comprehensive Trails and Travel Management

- Designate the area as *Limited to Designated (*All modes and types of travel, except foot and horse travel and authorized over-the-snow vehicles, will be limited to designated routes and trails).
- Close the Behler Creek Road from Labor Day to June 1.
- Close the Hurd Peak and Strawberry Roads to motorized travel (including snowmobiles and over-the -snow motorized vehicles) from December 15 to June 1.

Camping

- Close the Fraser River Access and Hurd Peak parking areas to overnight camping.
- Access to Campsites: Allow motorized travel or mechanical transport, or both, up to 300 feet from designated motorized routes or mechanical transport routes for direct access to dispersed campsites provided that:
    - No resource damage occurs;
    - no new routes are created; and
    - such access is not otherwise prohibited by the BLM Field Manager.

Shooting

- Close the southern part of the zone to target shooting (AU). (Refer to recreational target shooting in Recreation section of Chapter 2, Table 2-2, and map in Appendix A.)

Lands and Realty

- ROW avoidance areas to include developed recreation sites.
- Retain SRMAs and developed recreational sites for long-term management.

Locatable Minerals and other Realty Actions

- Petition for withdrawal to the Secretary of the Interior from settlement, sale, location or entry under the general land laws, including the mining laws.

Mineral Material (salable) Disposal

- The SRMA and developed recreation sites will be closed to mineral material disposal.

Mineral Leasing

- All federal mineral estate within SRMAs will be closed to mineral leasing.

Conditions of Approval for Surface-Disturbing Activities

- COA restrictions (Appendix D) in the SRMA for the protection of the recreation outcomes and the prescribed recreation setting character conditions.

Forest Management

- Forest management projects will occur within the SRMA. During project planning and design recreation setting characteristics will be protected wherever possible; however in some cases,

recreation setting characteristics may be modified within a project area to meet forest management and public health and safety objectives.

Visual Resource Management

- Manage the SRMA under VRM class II objectives, class III where forest resources are present.

Special Recreation Permits

- Issue commercial and organized group Class I & II permits that are consistent with zone objectives. Do not issue competitive event permits (see Appendix M).

Implementation Actions Included in the Land Use Plan

Comprehensive Trails and Travel Management

- Designate individual routes as open or closed.
- On open routes, designate type and mode of travel allowed.

Subsequent Implementation-level Planning Guidance

Note: The following actions are provided to help guide RMA management, administration, information, and monitoring.

Management

- Develop a Recreational Activity Plan through supporting management actions and allowable uses that supports outcome objectives
- Develop a trail plan that meets zone objectives and is consistent with the Criteria for Placement of Trails (Appendix P).
- Develop minimum necessary parking areas, access routes and information boards.
- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* management actions and allowable uses that achieve zone objectives.

Administration

- Pursue agreements with community-based non-motorized trail users to develop a trail plan that meets zone objectives.
- Pursue an agreement with a working advisory group from the Fraser Valley and Granby community that will work with BLM on management issues.
- Pursue agreements with CPW to enhance wildlife habitat.
- Coordinate with CPW regarding seasonal and emergency closures for wildlife.
- As one part of a comprehensive funding strategy to support recreation sites and services, the BLM (with partner support) may charge fees for standard or expanded amenity recreation sites and services.

Standard or expanded amenity fees are defined in the Federal Lands Recreation Enhancement Act (FLREA).

Information

- Provide stewardship education/interpretation to help promote natural resource protection.
- Provide RMZ map at on-site locations that includes information about opportunities, conditions of use, and shows private and public ownership.
- Work with local chambers of commerce, tourism groups and businesses to provide definitive recreation information (i.e., accurate recreation information, user ethics, and use/user expectations) as opposed to promotional marketing.

Monitoring

- Monitor recreation setting conditions through on-site patrols throughout the year.
- Monitor outcome attainment and preferences through customer assessments (on-site/focus group interviews or visitor studies) on five-year intervals.
- If monitoring indicates management objectives are not being met, the KFO, with stakeholder involvement, will adjust management to achieve objectives.
- When possible, use volunteers to help with on-site monitoring.

Recreation Management Zone (RMZ) 2

RMZ Outcome Objective

By the year 2019, manage the zone to provide visitors the opportunity to engage in non-motorized recreational opportunities, providing no less than 75% of responding visitors and affected community residents and service providers report at least a "moderate" realization of these benefits. (i.e., on a probability scale where 1=not at all, 2=somewhat, 3=moderate, 4=total realization).

Participants in visitor assessments report an average 4.0 realization of the targeted outcomes listed below. (4.0 on a probability scale where: 1 = Not at all realized to 5 = totally realized).

Activities	**Experiences**	**Benefits**
Hiking Trail running Mountain Biking Wildlife Viewing Non-Motorized snow sports	Enjoying the areas wildlife, scenery, views and esthetics Enjoying having easy access to natural landscapes Getting needed physical exercise Releasing or reducing some built-up mental tensions	**Personal:** Better sense of place within my community Improved physical fitness and health maintenance Restored mind from unwanted stress **Community/Social:** Greater community involvement in recreation and other land use decisions

		Environmental: Improved care for community aesthetics Increased awareness and protection of natural landscapes **Economic:** Increased desirability as a place to live or retire

Proposed Recreation Setting Characteristics (RSCs)

Proposed Physical RSCs

- Remoteness (approx. distance from routes): Manage primarily as Middle Country. Make the area more remote by limiting motorized access.
- Naturalness: Manage primarily as Front Country. Allow a moderate level of change to the naturalness of the SRMA zone for forest management. Maintain natural landscape wherever possible.
- Visitor Facilities: Manage primarily as Middle Country. Develop trailheads with parking areas; develop non-motorized single-track trails.

Proposed Social RSCs

- Contacts (avg.): Manage primarily as Middle Country. Manage for a season average of 7-104 encounters outside parking areas.
- Group Size (avg.): Manage primarily as Back Country. Manage for a season average of 4-6 people per group outside of parking areas.
- Evidence of Use: Manage primarily as Middle Country. Rehab and reduce signs of use by non-targeted visitors.

Proposed Operational RSCs

- Access (types of travel allowed): Manage primarily as Back Country. All travel within the zone will be closed to motorized travel (except main access routes).
- Visitor Services/Info: Manage primarily as Middle Country. Basic information on-site; occasional staff contact and assistance.
- Management Controls: Manage primarily as Middle Country to Front Country. Rules, regulations and ethics clearly posted. Use restrictions, limitations and/or closures may be implemented.

Supporting Management Action and Allowable Use Decisions

Comprehensive Trails and Travel Management

- Designate the area as *Limited to Designated (*All modes and types of travel, except foot and horse travel and authorized over-the-snow vehicles, will be limited to designated routes and trails).
- Close the Behler Creek Road from Labor Day to June 1.
- Close the Hurd Peak and Strawberry Roads to motorized travel (including snowmobiles and over-the-snow motorized vehicles) between December 1 and June 1.

Camping

- Close the Fraser River Access and Hurd Peak parking areas to overnight camping.
- Access to Campsites: Allow motorized travel or mechanical transport, or both, up to 300 feet from designated motorized routes or mechanical transport routes for direct access to dispersed campsites provided that:
    - No resource damage occurs;
    - no new routes are created; and
    - such access is not otherwise prohibited by the BLM Field Manager.

Shooting

- Close the southern part of the zone to target shooting (AU). (Refer to recreational target shooting in Recreation section of Chapter 2, Table 2-2, and map in Appendix A).

Lands and Realty

- ROW avoidance areas to include developed recreation sites.
- Retain SRMAs and developed recreational sites for long-term management.

Stipulations and Conditions of Approval for Oil and Gas Leasing and Other Surface-Disturbing Activities

- To protect recreational setting character, recreation activity opportunities, and visitor health and safety in areas of high recreational value and/or significant recreational activity, apply CSU and/or COA restrictions (Appendices B&D) within the SRMA.
- To protect federal investment in facilities, provide for recreation use, and protect the viewshed from the facility, apply CSU and/or COA restrictions (Appendices B&D) on developed recreation sites, trails, trailheads, and interpretive sites.

Forest Management

- Forest management projects will occur within the SRMA. During project planning and design recreation setting characteristics will be protected wherever possible; however in some cases, recreation setting characteristics may be modified within a project area to meet forest management and public health and safety objectives.

Visual Resource Management

- Manage the SRMA under VRM class III objectives where forest resources are present, otherwise manage as class II.

Special Recreation Permits

- Issue commercial and organized group Class I & II permits that are consistent with zone objectives. Do not issue competitive event permits (Appendix M).

Implementation Actions Included in the Land Use Plan

Comprehensive Trails and Travel Management

- Designate individual routes as open or closed.
- On open routes, designate type and mode of travel allowed.

Subsequent Implementation-level Planning Guidance

Note: The following actions are provided to help guide RMA management, administration, information, and monitoring.

Management

- Develop a Recreational Activity Plan through supporting management actions and allowable uses that supports outcome objectives.
- Develop a trail plan that meets zone objectives and is consistent with the Criteria for Placement of Trails (Appendix P).
- Develop minimum necessary parking areas and information boards.
- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* management actions and allowable uses that achieve zone objectives.

Administration

- Pursue agreements with community-based trail users to develop a trail plan that meets zone objectives.
- Pursue an agreement with a working advisory group from the Fraser Valley and Granby community that will work with BLM on management issues.
- Pursue agreements with CPW to enhance wildlife habitat.
- Coordinate with CPW regarding seasonal and emergency closures for wildlife.
- As one part of a comprehensive funding strategy to support recreation sites and services, the BLM (with partner support) may charge fees for standard or expanded amenity recreation sites and services. Standard or expanded amenity fees are defined in the Federal Lands Recreation Enhancement Act (FLREA).

Information

- Provide stewardship education/interpretation to help promote natural resource protection.
- Provide RMZ map at on-site locations that includes information about opportunities, conditions of use, and shows private and public ownership.
- Work with local chambers of commerce, tourism groups and businesses to provide definitive recreation information (i.e., accurate recreation information, user ethics, and use/user expectations) as opposed to promotional marketing.

Monitoring

- Monitor recreation setting conditions through on-site patrols throughout the year.
- Monitor outcome attainment and preferences through customer assessments (on-site/focus group interviews or visitor studies) on five-year intervals or as funding allows.
- If monitoring indicates management objectives are not being met, the KFO, with stakeholder involvement, will adjust management to achieve objectives.
- When possible, use volunteers to help with on-site monitoring.

Upper Colorado River Special Recreation Management Area

Supporting Information

Important Values of the SRMA

- Public lands along the Colorado River corridor offer visitors outstanding opportunities for float boating, trout fishing, and scenic driving. This corridor attracts visitors both within and beyond the region. Adjacent destination tourism markets in Grand, Summit, Eagle, and Routt Counties currently market the recreational opportunities.

Recreation Demand

- The primary visitors are a mix of Colorado residents and visitors to regional resort areas.

The General Types of Visitors to be Served

- The visitor segment is identified as scenic tourists, rafters, kayakers and trout anglers in all recreation management zones.

Ability to Manage Recreation Resources

- The recreation infrastructure (e.g. river access, parking areas, campgrounds and restrooms) are created and meeting current demand. Recreation use may increase, requiring the expansion of some recreational facilities especially parking areas, campgrounds and boat launches. Additional BLM funding might be needed to support on-the-ground BLM staff and maintenance of facilities. The effectiveness of managing recreation resources over the long-term will depend on having: (a) an assurance that gateway communities (businesses, chambers, tourism organizations and local governments) will market the SRMA responsibility and accurately; (b) a commitment that local users/ partners are available to provide on-the-ground support; (c) sufficient funding and staff to implement the planning decisions and the necessary site specific implementation actions; and (d) there are adequate flows in the river to support the targeted activities.

Recreation Management Zone (RMZ) 1 – Parshall to Kremmling

RMZ Outcome Objective

By the year 2019, manage the zone to provide able bodied and visitors with disabilities the opportunity to engage in river and wildlife related recreation, providing no less than 75% of responding visitors and affected community residents and service providers report at least a “moderate” realization of these benefits. (i.e., on a probability scale where 1=not at all, 2=somewhat, 3=moderate, 4=total realization).

Activities	Experiences	Benefits
Wade fishing Scenic Touring Wildlife Viewing	Escaping everyday responsibilities for a while Enjoying the area's wildlife, scenery and views Enjoying time with family/friends	**Personal:** Greater freedom from urban living Closer relationship with the natural world **Community:** Strengthening ties with family/friends **Environmental:** Increased awareness and protection of natural landscapes and wildlife Greater protection of fish, wildlife, and plant habitat from growth, development, and public use impacts **Economic:** Increased stability to local-regional economy

Proposed Recreation Setting Characteristics (RSCs)

Proposed Physical RSCs

Remoteness

- Remoteness (less than ½ mile from paved roads and railroad tracks) Manage primarily as Middle Country to Front County.

Naturalness

- Manage primarily as Middle Country to Front Country. The level of change to the characteristic natural landscape is low. Any modifications (e.g. ROWs, fences, ponds) are not visually obvious or evident.

Visitor Facilities:

- Manage primarily as Middle Country. Maintain current access roads and parking areas; maintain and improve river access trails; develop and maintain additional facilities (e.g., toilet facilities, information kiosk. etc.) if necessary for resource protection.

Proposed Social RSCs

Contacts (avg.)

- Manage primarily as Back Country to Middle Country. Participants will encounter a season average 6-10 encounters/day outside parking areas.

Group Size (avg.)

- Manage primarily as Back Country to Middle Country. Participants will encounter a season average 4-8 people per group outside of parking areas.

Evidence of Use

- Manage primarily as Back Country to Middle Country. Sounds of other people occasionally heard. Small localized areas of vegetation alteration and compacted/bare soils are found along access trails and parking areas. Inappropriate recreation use is rehabilitated.

Proposed Operational RSCs

Access (types of travel)

- Reduce/limit motorized routes.

Visitor Services/Info

- Basic information on-site; occasional staff contact and assistance.

Management Controls

- Rules, regulations and ethics clearly posted. Use restrictions, limitations and/or closures may be implemented.

Supporting Management Action and Allowable Use Decisions

Camping

- Close all fishing access sites to overnight camping.
- Access to Campsites: Allow motorized travel or mechanical transport, or both, up to 300 feet from designated motorized routes or mechanical transport routes for direct access to dispersed campsites provided that:
    - No resource damage occurs;
    - no new routes are created; and
    - such access is not otherwise prohibited by the BLM Field Manager.

Shooting

- Close the area within 0.25-mile of the river and the fishing accesses to target shooting. (Refer to recreational target shooting in Recreation section of Chapter 2, Table 2-2, and map in Appendix A.)

Comprehensive Trails and Travel Management

- Designate the area as *Limited to Designated (*All modes and types of travel, except foot and horse travel and authorized over-the-snow vehicles, will be limited to designated routes and trails).

Lands and Realty

- ROW avoidance areas to include developed recreation sites.
- Retain SRMAs and developed recreational sites for long-term management.

Locatable Minerals and other Realty Actions

- Petition for withdrawal to the Secretary of the Interior the following areas from settlement, sale, location or entry under the general land laws, including the mining laws.

Mineral Material (salable) Disposal

- The SRMA and developed recreation sites will be closed to mineral material disposal.

Mineral Leasing

- All federal mineral estate within SRMAs will be closed to mineral leasing.

Conditions of Approval for Surface-Disturbing Activities

- Apply COA restrictions (Appendix D) in the SRMA for the protection of the recreation outcomes and the prescribed recreation setting character conditions.

Visual Resource Management

- Manage the SRMA under VRM class II objectives.

Special Recreation Permits

- Issue Class I & II special recreation permits that are consistent with zone objectives (Appendix M).
- Designate the zone as a 'Special Area' for the purpose of initiating a permit system for private users to achieve zone objectives and setting prescriptions as needed (MA).

Implementation Actions Included in the Land Use Plan

Comprehensive Trails and Travel Management

- Designate individual routes as open or closed.
- On open routes, designate type and mode of travel allowed.

Subsequent Implementation-level Planning Guidance

Note: The following actions are provided to help guide RMA management, administration, information, and monitoring.

Management

- Develop a Recreational Activity Plan through supporting management actions and allowable uses that supports outcome objectives.
- Develop the necessary trail system to provide visitor access to fishing sites within the zone (MA).
- Develop the necessary river access facilities (parking areas, toilet facilities, etc.) to ensure health and safety.
- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of designing-implementing-monitoring-evaluating-adjusting management actions to achieve zone objectives.
- Use vegetation treatments to enhance naturalness in the physical setting. (Including mechanical treatments, prescribed fire, commercial timber harvest, noxious weed treatments.)

Administration

- Continue partnership with Colorado Headwaters National Scenic Byway committee to develop and implement an interpretive plan for the scenic byway.
- Pursue agreements with Trout Unlimited and Colorado Parks and Wildlife to develop a partnership to leverage funding, improve fish habitat and conduct monitoring.
- As one part of a comprehensive funding strategy to support recreation sites and services, the BLM (with partner support) may charge fees for standard or expanded amenity recreation sites and services. Standard or expanded amenity fees are defined in the Federal Lands Recreation Enhancement Act (FLREA).

Information and Education

- Provide stewardship education/interpretation to help preserve the water quality, fisheries, and riparian areas.
- Provide RMZ map at on-site locations that includes information about opportunities, conditions of use, and shows private and public ownership.
- Work with local chambers of commerce, tourism boards and commercial businesses to develop accurate information regarding targeted recreation opportunities.

Monitoring

- 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 RSCs annually during the primary use season of June through September.
- If monitoring indicates management objectives are not being met, the KFO, with stakeholder involvement, will adjust management to achieve objectives.

Recreation Management Zone (RMZ) 2 – Gore Canyon

RMZ Outcome Objective

By the year 2019, manage the zone to provide visitors the opportunity to engage in river related recreation, providing no less than 75% of responding visitors and affected community residents and service providers report at least a “moderate” realization of these benefits. (i.e., on a probability scale where 1=not at all, 2=somewhat, 3=moderate, 4=total realization).

Activities	**Experiences**	**Benefits**
Wade fishing Whitewater rafting Whitewater kayaking	Enjoying frequent access to outdoor physical activity Experiencing the natural surroundings Experiencing adventure and excitement	**Personal:** Enhanced sense of personal freedom Improved physical fitness and health maintenance **Community:** Lifestyle improvement or maintenance Greater community ownership and

		stewardship of natural resources **Environmental:** Greater protection of fish, wildlife, and plant habitat from growth, development, and public use impacts. Preservation of this special landscape character **Economic:** Increased local tourism revenue

Proposed Recreation Setting Characteristics (RSCs)

Proposed Physical RSCs

Remoteness

- Remoteness (approx. distance from routes): Manage primarily as Back Country to Middle Country. Make the area more remote by limiting motorized access.

Naturalness

- Maintain the existing landscape (rural/agrarian landscape with minimum development along the river through Gore Canyon).

Visitor Facilities

- Maintained and marked river access trails; improved parking, toilet facilities and boat slide.

Proposed Social RSCs

Contacts (avg.)

- Manage for a season average of 6-10 encounters on the river.

Group Size (avg.)

- Manage for a season average of 18-25 people per group on the river.

Evidence of Use

- Sounds of other people occasionally heard. Small localized areas of vegetation alteration and compacted/bare soils are found along access trails and parking areas. Inappropriate recreation use is rehabilitated.

Proposed Operational RSCs

Access (types of travel)

- Reduce/limit motorized routes.

Visitor Services/Info

- Information about activities and Gore Canyon at the confluence site; personnel occasionally on-site.

Management Controls

- Rules, regulations and ethics clearly posted. Use restrictions, permits, limitations and/or closures may be implemented.

Supporting Management Action and Allowable Use Decisions

Camping

- Close the Confluence Recreation Site to overnight camping.
- Access to Campsites: Allow motorized travel or mechanical transport, or both, up to 300 feet from designated motorized routes or mechanical transport routes for direct access to dispersed campsites provided that:
    - No resource damage occurs;
    - no new routes are created; and
    - such access is not otherwise prohibited by the BLM Field Manager.

Shooting

- Close the area within 0.25-mile of the river, the Confluence Recreation Site and Inspiration Point to target shooting. (Refer to recreational target shooting in Recreation section of Chapter 2, Table 2-2, and map in Appendix A.)

Comprehensive Trails and Travel Management

- Designate the area as *Limited to Designated (*All modes and types of travel, except foot and horse travel and authorized over-the-snow vehicles, will be limited to designated routes and trails).
- Close all roads and trails that access the river to motorized and mechanical use except road to Warm Springs, designate as mechanical.
- Close the river to motorized travel.

Lands and Realty

- ROW avoidance areas to include developed recreation sites.
- Retain SRMAs and developed recreational sites for long-term management.

Locatable Minerals and other Realty Actions

- Petition for withdrawal to the Secretary of the Interior the following areas from settlement, sale, location or entry under the general land laws, including the mining laws.

Mineral Material (salable) Disposal

- The SRMA and developed recreation sites will be closed to mineral material disposal.

Mineral Leasing

- All federal mineral estate within SRMAs will be closed to mineral leasing.

Conditions of Approval for Surface-Disturbing Activities:

- Apply COA restrictions (Appendix D) in the SRMA for the protection of the recreation outcomes and the prescribed recreation setting character conditions.

Visual Resource Management:

- Manage the SRMA under VRM class II objectives.

Special Recreation Permits

Proposed:

- Within the zone issue Class I, II, & III permits that are consistent with zone objectives (Appendix M).
- Limit Class III event permits to two events per year with a maximum of 200 participants (not including spectators) per event.
- Designate the zone as a 'Special Area' for the purpose of initiating a permit system for private users to achieve zone objectives and setting prescriptions as needed (MA).
- Among other factors, permit proposals will be evaluated to determine whether the proposal is consistent with recreation objectives; whether the opportunity is already available under an existing permit; whether there is adequate market competition; and whether the proposal will create conflict with the public and/or existing permitted activities.

Implementation Actions Included in the Land Use Plan

Comprehensive Trails and Travel Management

- Designate individual routes as open or closed.
- On open routes, designate type and mode of travel allowed.

Subsequent Implementation-level Planning Guidance

Note: The following actions are provided to help guide RMA management, administration, information, and monitoring.

Management

- Develop a Recreational Activity Plan through supporting management actions and allowable uses that supports outcome objectives.
- Work with stakeholders to complete a capacity analysis to determine carry capacities and group size limits.
- Use findings of capacity analysis to consider expanding authorized locations and activities for river-related SRPs. (This would include river support services; e.g. shuttles, rentals, etc.) Develop the necessary trail system to provide visitor access to Gore Canyon.
- Develop the necessary river access facilities (parking areas, toilet facilities, etc.) to ensure health and safety.
- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* management actions to achieve zone objectives.
- Use vegetation treatments to enhance naturalness in the physical setting. (Including mechanical treatments, prescribed fire, commercial timber harvest, noxious weed treatments.)

Administration

- Purse an agreement with railroad to resolve access issues adjacent to rapids in Gore Canyon.
- Establish and partner with an on-going working group of interested parties (private & commercial) to work with and advise BLM on issues within the zone.
- Purse agreements with Trout Unlimited and Colorado Parks and Wildlife to develop a partnership to leverage funding, improve fish habitat and conduct monitoring.
- As one part of a comprehensive funding strategy to support recreation sites and services, the BLM (with partner support) may charge fees for standard or expanded amenity recreation sites and services. Standard or expanded amenity fees are defined in the Federal Lands Recreation Enhancement Act (FLREA).

Information and Education

- Provide stewardship education/interpretation to help preserve the water quality, fisheries, and riparian areas.
- Provide RMZ map at on-site locations that includes information about opportunities, conditions of use, and shows private and public ownership.
- Work with local chambers of commerce, tourism boards and commercial businesses to develop accurate information regarding targeted recreation opportunities.

Monitoring

- 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 RSCs annually during the primary use season of June through September.

- If monitoring indicates management objectives are not being met, the KFO, with stakeholder involvement, will adjust management to achieve objectives.

Recreation Management Zone (RMZ) 3 – Pumphouse to State Bridge

RMZ Outcome Objective

By the year 2019, manage the zone to provide able bodied and visitors with disabilities the opportunity to engage in river related recreation, providing no less than 75% of responding visitors and affected community residents and service providers report at least a “moderate” realization of these benefits. (i.e., on a probability scale where 1=not at all, 2=somewhat, 3=moderate, 4=total realization).

Activities	**Experiences**	**Benefits**
Camping Fishing Floatboating Kayaking Hiking	Enjoying frequent access to outdoor physical activity Experiencing the natural surroundings Enjoying the area’s wildlife, scenery and views Enjoying time with family/friends	**Personal:** Living a more outdoor-oriented lifestyle Closer relationship with the natural world Developing stronger ties with family and friends **Community:** Greater community involvement in recreation and other land use decisions

		Environmental:
		  Increased awareness and protection of natural landscapes
		  Increased stewardship and protection of river corridor
		
		Economic:
		  Increased local tourism revenue
		  Increased stability to local-regional economy

Proposed Recreation Setting Characteristics (RSCs)

Proposed Physical RSCs

Remoteness

- Remoteness (approx. distance from routes): Manage primarily as Front County to Rural. Make the area more remote by limiting motorized access.

Naturalness

- Natural landscape has few modifications in harmony with surroundings and not visually obvious.

Visitor Facilities

- Maintain improved facilities (campground, toilets, boat ramps, and parking areas), occasional interpretive displays at river access points.

- Develop and maintain additional facilities within the river corridor (e.g. fire rings and picnic tables).

Proposed Social RSCs

Contacts (avg.)

- Manage for a season average of 11 - 20 encounters on the river.

Group Size (avg.)

- Manage for a season average of 11 - 20 people per group on the river.

Evidence of Use

- Sounds of other people occasionally heard. Small localized areas of vegetation alteration and compacted/bare soils are found along access trails, campsites and parking areas. Inappropriate recreation use is rehabilitated.

Proposed Operational RSCs

Access (types of travel)

- Reduce/limit motorized routes.

Visitor Services/Info:

- Information describing opportunities on-site and frequent staff contact and assistance.

Management Controls

- Rules, regulations and ethics clearly posted. Use restrictions, permits, limitations and/or closures may be implemented.

Supporting Management Action and Allowable Use Decisions

Camping

- Require portable toilet systems and fire pans for all overnight camping within 500 feet of the river.
- Close the area around the Yarmony Pit House to overnight camping.
- Access to Campsites: Allow motorized travel or mechanical transport, or both, up to 300 feet from designated motorized routes or mechanical transport routes for direct access to dispersed campsites provided that:
    - No resource damage occurs;
    - no new routes are created; and
    - such access is not otherwise prohibited by the BLM Field Manager.

Shooting

- Close the area within 0.25-mile of the river to target shooting. (Refer to recreational target shooting in Recreation section of Chapter 2, Table 2-2, and map in Appendix A.)

Comprehensive Trails and Travel Management:

- Designate the area as *Limited to Designated (*All modes and types of travel, except foot and horse travel and authorized over-the-snow vehicles, will be limited to designated routes and trails).
- Close all roads and trails that access the river to motorized and mechanized use.
- Close the river to motorized travel.

Lands and Realty

- ROW avoidance areas to include developed recreation sites.
- Retain SRMAs and developed recreational sites for long-term management.

Locatable Minerals and other Realty Actions

- Petition for withdrawal to the Secretary of the Interior the following areas from settlement, sale, location or entry under the general land laws, including the mining laws.

Mineral Material (salable) Disposal

- The SRMA and developed recreation sites will be closed to mineral material disposal.

Mineral Leasing

- All federal mineral estate within SRMAs will be closed to mineral leasing.

Conditions of Approval for Surface-Disturbing Activities

- Apply COA restrictions (Appendix D) in the SRMA for the protection of the recreation outcomes and the prescribed recreation setting character conditions.

Visual Resource Management

- Manage the SRMA under VRM class II objectives.

Special Recreation Permits

Proposed:

- Within the zone issue Class I, II, & III permits that are consistent with zone objectives (Appendix M).
- Limit Class III event permits to two events per year with a maximum of 200 participants per event.
- Designate the zone as a 'Special Area' for the purpose of initiating a permit system for private users to achieve zone objectives and setting prescriptions as needed (MA).
- To the extent the social setting characteristics and natural resource conditions are being met, expand authorized locations and activities to river-related permits on demand. (This would include river support services; e.g. shuttles, rentals, etc.)
- Among other factors, permit proposals will be evaluated to determine whether the proposal is consistent with recreation objectives; whether the opportunity is already available under an existing permit; whether there is adequate market competition; and whether the proposal would create conflict with the public and/or existing permitted activities.

Implementation Actions Included in the Land Use Plan

Comprehensive Trails and Travel Management

- Designate individual routes as open or closed.
- On open routes, designate type and mode of travel allowed.

Subsequent Implementation-level Planning Guidance

Note: The following actions are provided to help guide RMA management, administration, information, and monitoring.

Management

- Develop a Recreational Activity Plan through supporting management actions and allowable uses that supports outcome objectives.
- Work with stakeholders to complete a capacity analysis to determine carry capacities and group size limits.

- Use findings of capacity analysis to consider expanding authorized locations and activities for river-related SRPs. (This would include river support services; e.g. shuttles, rentals, etc.) Develop the necessary trail system to provide visitor access to the river and interpretive sites.

- Develop the necessary river access facilities (parking areas, toilet facilities, etc.) to ensure health and safety.

- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* management actions to achieve zone objectives.

- Use vegetation treatments to enhance naturalness in the physical setting. (Including mechanical treatments, prescribed fire, commercial timber harvest, noxious weed treatments.)

Administration

- Establish and partner with an on-going working group of interested parties (private & commercial) to work with and advise BLM on issues within the zone.

- Purse agreements with Trout Unlimited and Colorado Parks and Wildlife to develop a partnership to leverage funding, improve fish habitat and conduct monitoring.

- Pursue agreements with universities and heritage organizations to survey, inventory, interpret and monitor heritage resources.

- As one part of a comprehensive funding strategy to support recreation sites and services, the BLM (with partner support) may charge fees for standard or expanded amenity recreation sites and services. Standard or expanded amenity fees are defined in the Federal Lands Recreation Enhancement Act (FLREA).

Information and Education

- Provide stewardship education/interpretation to help preserve the water quality, fisheries, and riparian areas

- Provide RMZ map at on-site locations that includes information about opportunities, conditions of use, and shows private and public ownership.

- Work with local chambers of commerce, tourism boards and commercial businesses to develop accurate information regarding targeted recreation opportunities.

Monitoring

- 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 RSCs annually during the primary use season of June through September.

- If monitoring indicates management objectives are not being met, the KFO, with stakeholder involvement, will adjust management to achieve objectives.

Recreation Management Zone (RMZ) 4 – Yarmony Jeep Trail

RMZ Outcome Objective

By the year 2019, manage the zone to provide visitors the opportunity to engage in extreme OHV recreation, providing no less than 75% of responding visitors and affected community residents and service providers report at least a "moderate" realization of these benefits. (i.e., on a probability scale where 1=not at all, 2=somewhat, 3=moderate, 4=total realization).

Activities	**Experiences**	**Benefits**
Extreme Jeeping	Testing equipment and skills Enjoying time with families and friends	**Personal:** Improved skills for outdoor enjoyment Stronger ties with family and friends **Community:** Greater family bonding **Environmental:** Greater community ownership and stewardship of park, recreation, and natural resources **Economic:** Increased local tourism revenue

Proposed Physical RSCs

Naturalness

- Remoteness (approx. distance from routes): Manage primarily as Front County.

Visitor Facilities

- Manage primarily as Back Country to Middle Country. Develop additional facilities if necessary for resource protection.

Proposed Social RSCs

Contacts (avg.)

- Manage for a season average of 7-10 encounters off the Trough Road.

Group Size (avg.)

- Manage for a season average of 13-17 people per group off the Trough Road.

Evidence of Use

- Sounds of other people occasionally heard. Small localized areas of vegetation alteration and compacted/bare soils are found along trails and parking areas. Inappropriate recreation use is rehabilitated.

Proposed Operational RSCs:

Access (types of travel)

- Developed trails for off-road jeeping.

Visitor Services/Info

- Information on jeep trail on-site; personnel occasionally on site for assistance.

Management Controls

- Rules, regulations and ethics clearly posted. Use restrictions, permits, limitations and/or closures may be implemented.

Supporting Management Action and Allowable Use Decisions

Camping

- Close the zone to overnight camping.

Shooting

- Close the area within 0.25-mile of the river to target shooting. (Refer to recreational target shooting in Recreation section of Chapter 2, Table 2-2, and map in Appendix A.)

Comprehensive Trails and Travel Management

- Designate the area as *Limited to Designated (*All modes and types of travel, except foot and horse travel and authorized over-the-snow vehicles, will be limited to designated routes and trails).

Lands and Realty:

- ROW avoidance areas to include developed recreation sites.
- Retain SRMAs and developed recreational sites for long-term management.

Locatable Minerals and other Realty Actions

- Petition for withdrawal to the Secretary of the Interior the following areas from settlement, sale, location or entry under the general land laws, including the mining laws.

Mineral Material (salable) Disposal

- The SRMA and developed recreation sites will be closed to mineral material disposal.

Mineral Leasing

- All federal mineral estate within SRMAs will be closed to mineral leasing.

Conditions of Approval for Surface-Disturbing Activities

- Apply COA restrictions (Appendix D) in the SRMA for the protection of the recreation outcomes and the prescribed recreation setting character conditions.

Visual Resource Management

- Manage the SRMA under VRM class II objectives.

Special Recreation Permits

- Within the zone issue Class I organized group permits (no commercial permits) that are consistent with zone objectives.
- Designate the zone as a 'Special Area' for the purpose of initiating a permit system for private users to achieve zone objectives and setting prescriptions as needed (MA).

Implementation Actions Included in the Land Use Plan

Comprehensive Trails and Travel Management

- Designate individual routes as open or closed.
- On open routes, designate type and mode of travel allowed.

Subsequent Implementation-level Planning Guidance

Note: The following actions are provided to help guide RMA management, administration, information, and monitoring.

Management

- Develop a Recreational Activity Plan through supporting management actions and allowable uses that supports outcome objectives.
- Design and construct a sustainable extreme jeep trail.
- Develop the minimum necessary support facilities for trail users (parking areas, toilet facilities).
- Use vegetation treatments to enhance naturalness in the physical setting. (Including mechanical treatments, prescribed fire, commercial timber harvest, noxious weed treatments.)
- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* management actions to achieve zone objectives.

Administration

- Enter an agreement with commercial shops and volunteers that will adopt the jeep trail for construction, maintenance and monitoring.
- As one part of a comprehensive funding strategy to support recreation sites and services, the BLM (with partner support) may charge fees for standard or expanded amenity recreation sites and services. Standard or expanded amenity fees are defined in the Federal Lands Recreation Enhancement Act (FLREA).

Information

- Provide stewardship education/interpretation to help promote responsible motorized recreation (Tread Lightly/Stay the Trail).
- Provide RMZ map at on-site locations that includes information about opportunities, conditions of use, and shows private and public ownership.

- Work with local chambers of commerce, tourism boards and commercial businesses to develop accurate information regarding targeted recreation opportunities.

Monitoring

- 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 RSCs annually during the primary use season of June through September.

- If monitoring indicates management objectives are not being met, the KFO, with stakeholder involvement, will adjust management to achieve objectives.

Recreation Management Zone (RMZ) 5 – Gore Canyon Ranch

RMZ Outcome Objective

By the year 2019, manage the zone to provide able bodied and disabled visitors the opportunity to engage in river and wildlife related education and recreation, providing no less than 75% of responding visitors and affected community residents and service providers report at least a "moderate" realization of these benefits. (i.e., on a probability scale where 1=not at all, 2=somewhat, 3=moderate, 4=total realization).

Activities	**Experiences**	**Benefits**
Wildlife viewing Hiking Fishing	Learning more about the area's past and its resources Contributing to the sustainable management of the area Enjoying nature and the natural surroundings Enjoying time with families and friends	**Personal:** Improved knowledge of natural and cultural resources Stronger ties with family and friends **Community:** Enhanced education opportunities **Environmental:** Greater community ownership and stewardship of park, recreation, and natural/cultural resources

Proposed Physical RSCs

Naturalness

- Remoteness (approx. distance from routes): Manage primarily as Front County.

Visitor Facilities

- Improved facilities (parking, accessible trails, interpretive signs and displays, toilets).

Proposed Social RSCs

Contacts (avg.)

- Manage for a season average of 7-10 encounters outside the parking areas

Evidence of Use

- Sounds of other people occasionally heard. Small localized areas of vegetation alteration and compacted/bare soils are found along trails and parking areas. Inappropriate recreation use is rehabilitated.

Proposed Operational RSCs

Access (types of travel)

- Non-motorized outside parking areas.

Visitor Services/Info

- Information trails on-site; Interpretation panels of cultural and natural resources on-site; personnel occasionally on site for assistance.

Management Controls

- Rules, regulations and ethics clearly posted. Use restrictions, permits, limitations and/or closures may be implemented.

Supporting Management Action and Allowable Use Decisions

Camping

- Close the zone to overnight camping.

Shooting

- Close the zone to target shooting. (Refer to recreational target shooting in Recreation section of Chapter 2, Table 2-2, and map in Appendix A.)

Comprehensive Trails and Travel Management

- Designate the area as *Limited to Designated (*All modes and types of travel, except foot and horse travel and authorized over-the-snow vehicles, will be limited to designated routes and trails).

- Close all roads and trails that access the river to motorized and mechanical use unless otherwise designated.

Lands and Realty

- ROW avoidance areas to include developed recreation sites.

- Retain SRMAs and developed recreational sites for long-term management.

Locatable Minerals and other Realty Actions

- Petition for withdrawal to the Secretary of the Interior the following areas from settlement, sale, location or entry under the general land laws, including the mining laws.

Mineral Material (salable) Disposal

- The SRMA and developed recreation sites will be closed to mineral material disposal.

Mineral Leasing

- All federal mineral estate within SRMAs will be closed to mineral leasing.

Conditions of Approval for Surface-Disturbing Activities

- Apply COA restrictions (Appendix D) in the SRMA for the protection of the recreation outcomes and the prescribed recreation setting character conditions.

Visual Resource Management

- Manage the SRMA under VRM class II objectives.

Special Recreation Permits

- Within the zone issue Class I and II permits that are consistent with zone objectives.
- Designate the zone as a 'Special Area' for the purpose of initiating a permit system for private users to achieve zone objectives and setting prescriptions as needed (MA).

Implementation Actions Included in the Land Use Plan

Comprehensive Trails and Travel Management:

- Designate individual routes as open or closed.
- On open routes, designate type and mode of travel allowed.

Subsequent Implementation-level Planning Guidance

Note: The following actions are provided to help guide RMA management, administration, information, and monitoring.

Management

- Develop a Recreational Activity Plan through supporting management actions and allowable uses that supports outcome objectives.
- Restore and enhance wildlife habitat in the zone.
- Design and construct an accessible trail system.
- Develop an interpretive trail system with connectivity to Zone 3.
- Develop the minimum necessary support facilities for users (parking areas, toilet facilities, interpretive signs).
- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* management actions to achieve zone objectives.

Administration

- Pursue agreements with habitat restoration and management groups to improve wildlife habitat (e.g. Ducks Unlimited, Colorado Parks and Wildlife).

- Pursue agreements with education groups to provide learning opportunities (e.g. school districts, outdoor education programs).

- As one part of a comprehensive funding strategy to support recreation sites and services, the BLM (with partner support) may charge fees for standard or expanded amenity recreation sites and services. Standard or expanded amenity fees are defined in the Federal Lands Recreation Enhancement Act (FLREA).

Information

- Provide stewardship education/interpretation to help enhance visitor understanding of natural and cultural resources.

- Provide RMZ map at on-site locations that includes information about opportunities, conditions of use, and shows private and public ownership.

- Work with local chambers of commerce, tourism boards and commercial businesses to develop accurate information regarding targeted recreation opportunities.

Monitoring

- 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 RSCs annually during the primary use season of June through September.

- If monitoring indicates management objectives are not being met, the KFO, with stakeholder involvement, will adjust management to achieve objectives.

Wolford Special Recreation Management Area

Supporting Information

Important Values of the SRMA

- The area offers close to town recreation opportunities in a natural setting.

Recreation Demand

 The primary visitors are a mix of local, regional, and state-wide residents.

The General Types of Visitors to be Served

 The visitor segment is identified as OHV trail riding enthusiasts.

Ability to Manage Recreation Resources

- The majority of the existing trail system was created by local OHV riders. The trails were not designed for sustainable trail riding. There are currently information kiosks at major access points. There are no developed staging areas or facilities at the major access points. A major investment would be required by the BLM to complete implementation.

Recreation Management Zone (RMZ) 1

RMZ Outcome Objective

By the year 2019, manage the zone to provide visitors the opportunity to engage in OHV riding recreation, providing no less than 75% of responding visitors and affected community residents and service providers report at least a "moderate" realization of these benefits. (i.e., on a probability scale where 1=not at all, 2=somewhat, 3=moderate, 4=total realization).

Activities	**Experiences**	**Benefits**
ATV riding Jeeping Motorcycle riding	Developing skills and abilities Enjoying time with family and friends	**Personal:** Improved outdoor recreation skills Greater personal enrichment from involvement with family and friends **Community/Social:** Improved functioning of individuals, families and communities **Environmental:** Increased awareness and protection of natural landscapes **Economic:** Improved employment opportunities and tax revenue Increased local tourism revenue

Proposed Recreation Setting Characteristics (RSCs)

Proposed Physical RSCs

- Remoteness (approx. distance from routes): Manage primarily as Middle Country to Front Country. Modify roads and trails as needed to mitigate resource impacts while developing a stacked loop trail system meeting the Subsequent Implementation-level Planning Guidance for the zone.
- Naturalness: Manage primarily as Middle Country to Front Country. Allow a moderate level of change to the naturalness of the SRMA.
- Visitor Facilities: Manage primarily as Middle Country to Front Country. Develop additional facilities and trails that meet visitor needs and protect resources.

Proposed Social RSCs

- Contacts (avg.): Manage primarily as Middle Country. Manage for a season average of 20-25 encounters outside parking areas.
- Group Size (avg.): Manage primarily as Middle Country. Manage for a season average of 5-10 people per group outside of parking areas.
- Evidence of Use: Manage primarily as Middle Country to Front Country. Rehab and reduce signs of use by non-targeted visitors.

Proposed Operational RSCs

- Access (types of travel allowed): Manage primarily as Middle Country. Develop new motorized trails.
- Visitor Services/Info: Manage Primarily as Middle Country to Front Country. Basic information on-site; occasional to periodic staff contact and assistance.
- Management Controls: Manage primarily as Front Country. Rules, regulations and ethics clearly posted. Use restrictions, limitations and/or closures may be implemented.

Supporting Management Action and Allowable Use Decisions

Comprehensive Trails and Travel Management

- Designate the area as *Limited to Designated (*All modes and types of travel, except foot and horse travel and authorized over-the-snow vehicles, will be limited to designated routes and trails).
- Designate the Wolford Play Area as “open” to motorized use.
- Close Wolford Mountain single-track trail September 15 to June1.
- December 15 to April 15 motorized travel is limited to snowmobiles and authorized over-the-snow vehicles on Grand CR 224, Grand CR 25.

Camping

- Close the OHV play area and the Sidewinder Trail parking area to overnight camping.
- Access to Campsites: Allow motorized travel or mechanical transport, or both, up to 50 feet from designated or mechanical transport routes for direct access to dispersed campsites provided that:
    - No resource damage occurs;
    - no new routes are created; and
    - such access is not otherwise prohibited by the BLM Field Manager.

Shooting

- Close the southern part of the zone to target shooting. (Refer to recreational target shooting in Recreation section of Chapter 2, Table 2-2, and map in Appendix A.)

Lands and Realty

- ROW avoidance areas to include developed recreation sites.
- Retain SRMAs and developed recreational sites for long-term management.

Stipulations and Conditions of Approval for Oil and Gas Leasing and Other Surface-Disturbing Activities

- To protect recreational setting character, recreation activity opportunities, and visitor health and safety in areas of high recreational value and/or significant recreational activity, apply CSU and/or COA restrictions (Appendices B&D) within the SRMA.
- To protect federal investment in facilities, provide for recreation use, and protect the viewshed from the facility, apply CSU and/or COA restrictions (Appendices B&D) on developed recreation sites, trails, trailheads, and interpretive sites.

Visual Resource Management

- Manage the SRMA zone under VRM class II and III objectives.

Special Recreation Permits

- Issue commercial, competitive, and organized group Class I - IV permits that are consistent with zone objectives (Appendix M).
- Competitive dirt bike events will be authorized on ATV and primitive roads.
- Competitive mountain bike events will be allowed on single track, ATV and primitive roads.
- Competitive ATV events will be limited to primitive roads.
- Competitive and organized groups will be limited to 6 events per season with up to 100 participants (not including spectators) per event.
- No competitive events or commercial outfitting will be permitted on the Sidewinder Extreme Jeep Trail.

- Designate the SRMA as a 'Special Area' for the purpose of initiating a permit system for private users to achieve zone objectives and setting prescriptions as needed (MA).

Implementation Actions Included in the Land Use Plan

Comprehensive Trails and Travel Management

- Designate individual routes as open or closed.
- On open routes, designate type and mode of travel allowed.

Subsequent Implementation-level Planning Guidance

Note: The following actions are provided to help guide RMA management, administration, information, and monitoring.

Management

- Develop a Recreational Activity Plan through supporting management actions and allowable uses that supports outcome objectives.
- Develop a *stacked-loop trail system** that is consistent with Criteria for Placement of Trails (Appendix P) and achieves zone objectives.
- *See Off-Highway Motorcycle and ATV Trails: Guidelines for Design, Construction, Maintenance and User Satisfaction 2nd edition and Managing Mountain Biking: IMBA' Guide to Providing Great Riding
- Maintain a trail density no greater than 12 miles of trails per square mile in the southern part of the zone decreasing to 7 miles of trail per square mile in the northern part of the zone. Increase the overall average number of miles of recreation trails per square mile within the zone from the existing 4.7 miles to 6 miles.
- Develop the necessary facilities to accommodate motorized trail riders. (staging areas, toilet facilities, etc.)
- Design and construct a skills development park in the open OHV area.
- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* management actions to achieve zone objectives.

Administration

- Pursue agreements with local motorized trail users to leverage funding, secure volunteer help, and promote sustainable conditions of use.
- As one part of a comprehensive funding strategy to support recreation sites and services, the BLM (with partner support) may charge fees for standard or expanded amenity recreation sites and services. Standard or expanded amenity fees are defined in the Federal Lands Recreation Enhancement Act (FLREA).

- Coordinate with CPW regarding seasonal and emergency closures for wildlife.

Information

- Provide stewardship education/interpretation to help promote responsible motorized recreation (Tread Lightly/Stay the Trail).
- Provide RMZ map at on-site locations that includes information about opportunities, conditions of use, and shows private and public ownership.
- Work with local chambers of commerce, tourism groups and businesses to provide definitive recreation information (i.e., accurate recreation information, user ethics, and use/user expectations) as opposed to promotional marketing.
- Partner with local OHV organizations and the local schools to develop and implement an education program that promotes sustainable conditions of use.

Monitoring

- Monitor recreation setting conditions through on-site patrols throughout the year.
- Monitor outcome attainment and preferences through customer assessments (on-site/focus group interviews or visitor studies) on five-year intervals.
- If monitoring indicates management objectives are not being met, the KFO, with stakeholder involvement, will adjust management to achieve objectives.
- When possible, use volunteers to help with on-site monitoring.

Recreation Management Zone (RMZ) 2

RMZ Outcome Objective

By the year 2019, manage the zone to provide visitors the opportunity to engage in OHV riding recreation, providing no less than 75% of responding visitors and affected community residents and service providers report at least a "moderate" realization of these benefits. (i.e., on a probability scale where 1=not at all, 2=somewhat, 3=moderate, 4=total realization).

Activities	**Experiences**	**Benefits**
☐ ATV riding ☐ Motorcycle riding	☐ Experiencing adventure and excitement ☐ Getting some needed physical exercise	**Personal:** ☐ Improved outdoor recreation skills ☐ Improved physical fitness ☐ Restored mind from unwanted stress **Community/Social:** ☐ Greater community involvement with recreation and other land use decisions **Environmental:** ☐ Increased awareness and protection of

		natural landscapes **Economic:** Improved employment opportunities and tax revenue Increased local tourism revenue

Proposed Recreation Setting Characteristics (RSCs)

Proposed Physical RSCs

- Remoteness (approx. distance from routes): Manage primarily as Middle Country to Front Country. Modify roads and trails as needed to mitigate resource impacts while developing a stacked loop trail system meeting the Subsequent Implementation-level Planning Guidance for the zone.
- Naturalness: Manage primarily as Middle Country to Front Country. Allow a moderate level of change to the naturalness of the SRMA.
- Visitor Facilities: Manage primarily as Middle Country. Maintain current access roads; Develop additional parking/unloading areas and trails. Develop additional facilities and trails that meet visitor needs and protect resources.

Proposed Social RSCs

- Contacts (avg.): Manage primarily as Middle Country. Manage for a season average of 10-15 encounters outside parking areas.
- Group Size (avg.): Manage primarily as Back Country to Middle Country. Manage for a season average of 3-7 people per group outside of parking areas.
- Evidence of Use: Manage primarily as Middle Country to Front Country. Rehab and reduce signs of use by non-targeted visitors.

Proposed Operational RSCs

- Access (types of travel allowed): Manage primarily as Middle Country. Develop new motorized trails.
- Visitor Services/Info: Manage primarily as Middle Country. Basic information on-site; occasional staff contact and assistance.
- Management Controls: Manage primarily as Front Country. Rules, regulations and ethics clearly posted. Use restrictions, limitations and/or closures may be implemented.

Supporting Management Action and Allowable Use Decisions

Comprehensive Trails and Travel Management

- Designate the area as *Limited to Designated (*All modes and types of travel, except foot and horse travel and authorized over-the-snow vehicles, will be limited to designated routes and trails).

- December 15 to April 15 motorized travel is limited to snowmobiles and authorized over-the-snow vehicles on CR 26, CR 25, CR 2, as identified in Wolford Travel Management Plan.

Camping

- Close the Cretaceous Ammonite site and the Red Desert Overlook to overnight camping.

- Access to Campsites: Allow motorized travel or mechanical transport, or both, up to 50 feet from designated or mechanical transport routes for direct access to dispersed campsites provided that:
    - No resource damage occurs;
    - no new routes are created; and
    - such access is not otherwise prohibited by the BLM Field Manager.

Lands and Realty:

- ROW avoidance areas to include developed recreation sites.

- Retain SRMAs and developed recreational sites for long-term management.

Stipulations and Conditions of Approval for Oil and Gas Leasing and Other Surface-Disturbing Activities

- To protect recreational setting character, recreation activity opportunities, and visitor health and safety in areas of high recreational value and/or significant recreational activity, apply CSU and/or COA restrictions (Appendices B&D) within the SRMA.

- To protect federal investment in facilities, provide for recreation use, and protect the viewshed from the facility, apply CSU and/or COA restrictions (Appendices B&D) on developed recreation sites, trails, trailheads, and interpretive sites.

Visual Resource Management

- Manage the SRMA zone under VRM class III objectives.

Special Recreation Permits

- Issue commercial and organized group Class I – III permits that are consistent with zone objective (See Appendix M).

- Competitive mountain bike events will be allowed on single track, ATV trails and primitive roads.

- Limit competitive and organized group permits to 2 events per season with up to 100 participants (not including spectators) per event.

- Designate the SRMA as a 'Special Area' for the purpose of initiating a permit system for private users to achieve zone objectives and setting prescriptions as needed (MA).

Implementation Actions Included in the Land Use Plan

Comprehensive Trails and Travel Management

- Designate individual routes as open or closed.
- On open routes, designate type and mode of travel allowed.

Subsequent Implementation-level Planning Guidance

Note: The following actions are provided to help guide RMA management, administration, information, and monitoring.

Management

- Develop a Recreational Activity Plan through supporting management actions and allowable uses that supports outcome objectives.
- Develop a *stacked-loop trail system** that is consistent with Criteria for Placement of Trails (Appendix P) and achieves zone objectives.
- *See Off-Highway Motorcycle and ATV Trails: Guidelines for Design, Construction, Maintenance and User Satisfaction 2nd edition and Managing Mountain Biking: IMBA' Guide to Providing Great Riding
- Maintain a trail density no greater than 6 miles of trails per square mile in the southern part of the zone decreasing to 4 miles of trail per square mile in the northern part of the zone. Increase the overall average number of miles of recreation trails per square mile within the zone from the existing 2 miles to 5 miles.
- Develop the necessary facilities to accommodate motorized trail riders - (parking areas, loading & unloading areas, toilet facilities, etc.).
- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of *designing-implementing-monitoring-evaluating-adjusting* management actions to achieve zone objectives.

Administration

- Pursue agreements with local motorized trail users to leverage funding, secure volunteer help, and promote sustainable conditions of use.
- As one part of a comprehensive funding strategy to support recreation sites and services, the BLM (with partner support) may charge fees for standard or expanded amenity recreation sites and services. Standard or expanded amenity fees are defined in the Federal Lands Recreation Enhancement Act (FLREA).
- Coordinate with CPW regarding seasonal and emergency closures for wildlife.

Information

- Provide stewardship education/interpretation to help promote responsible motorized recreation (Tread Lightly/Stay the Trail).

- Provide RMZ map at on-site locations that includes information about opportunities, conditions of use, and shows private and public ownership.
- Work with local chambers of commerce, tourism groups and businesses to provide definitive recreation information (i.e., accurate recreation information, user ethics, and use/user expectations) as opposed to promotional marketing.
- Partner with local OHV organizations and the local schools to develop and implement an education program that promotes sustainable conditions of use.

Monitoring

- Monitor recreation setting conditions through on-site patrols throughout the year.
- Monitor outcome attainment and preferences through customer assessments (on-site/focus group interviews or visitor studies) on five-year intervals.
- If monitoring indicates management objectives are not being met, the KFO, with stakeholder involvement, will adjust management to achieve objectives.
- When possible, use volunteers to help with on-site monitoring.

Recreation Management Zone (RMZ) 3

RMZ Outcome Objective:

By the year 2019, manage the zone to provide visitors the freedom to participate in a variety of non-motorized recreation opportunities, providing no less than 75% of responding visitors and affected community residents and service providers report at least a "moderate" realization of these benefits. (i.e., on a probability scale where 1=not at all, 2=somewhat, 3=moderate, 4=total realization).

Activities	**Experiences**	**Benefits**
Fishing Hiking Mountain Biking Scenic Viewing	Contributing to the sustainable management of the area Enjoying nature and the natural surroundings Enjoying time with families and friends	**Personal:** Improved outdoor recreation skills Improved physical fitness Restored mind from unwanted stress **Community/Social:** Greater community ownership and stewardship of natural resources **Environmental:** Increased awareness and protection of natural landscapes **Economic:** Improved employment opportunities and tax revenue Increased local tourism revenue

Proposed Recreation Setting Characteristics (RSCs)

Proposed Physical RSCs

- Remoteness (approx. distance from routes): Manage primarily as Front Country. Modify roads and trails as needed to mitigate resource impacts while developing a stacked loop trail system meeting the Subsequent Implementation-level Planning Guidance for the zone.

- Naturalness: Manage primarily as Middle Country to Front Country. Allow a low level of change to the naturalness of the SRMA zone.

- Visitor Facilities: Manage primarily as Middle Country. Develop facilities and trails that meet visitor needs and protect resources.

Proposed Social RSCs

- Contacts (avg.): Manage primarily as Middle Country. Manage for a season average of 7-14 encounters outside parking areas.

- Group Size (avg.): Manage primarily as Back Country to Middle Country. Manage for a season average of 4-12 people per group outside of parking areas.

- Evidence of Use: Manage primarily as Front Country. Rehab and reduce signs of use by non-targeted visitors.

Proposed Operational RSCs

- Access (types of travel allowed): Manage primarily as Front Country. Modify trails as needed to mitigate resource impacts.

- Visitor Services/Info: Manage Primarily as Middle Country. Basic information and maps on-site; occasional staff presence for contacts and assistance.

- Management Controls: Manage primarily as Front Country. Rules, regulations and ethics clearly posted. Use restrictions, limitations and/or closures may be implemented.

Supporting Management Action and Allowable Use Decisions

Camping

- Close BLM lands within the zone to overnight camping.

Comprehensive Trails and Travel Management:

- Designate the area as *Limited to Designated (*All modes and types of travel, except foot and horse travel and authorized over-the-snow vehicles, will be limited to designated routes and trails).

- Close the southern portion of the zone along the Cliff Road to motorized travel between December 15 and April 15.

Special Recreation Permits

- Issue commercial, competitive, and organized group Class I - III permits for a wide variety of uses, that are consistent with natural and cultural resource objectives, and within budgetary/workload constraints. (Refer to Appendix M).
- Competitive mountain bike events will be allowed on single track, ATV and primitive roads.
- Competitive and organized group permits will be limited to 200 participants (not including spectators) per event.
- Designate the SRMA as a 'Special Area' for the purpose of initiating a permit system for private users to achieve zone objectives and setting prescriptions as needed (MA).

Lands and Realty

- ROW avoidance areas to include developed recreation sites.
- Retain SRMAs and developed recreational sites for long-term management.

Stipulations and Conditions of Approval for Oil and Gas Leasing and Other Surface-Disturbing Activities

- To protect recreational setting character, recreation activity opportunities, and visitor health and safety in areas of high recreational value and/or significant recreational activity, apply CSU and/or COA restrictions (Appendices B&D) within the SRMA.
- To protect federal investment in facilities, provide for recreation use, and protect the viewshed from the facility, apply CSU and/or COA restrictions (Appendices B&D) on developed recreation sites, trails,
- trailheads, and interpretive sites.

Visual Resource Management

- Manage the SRMA zone under VRM class II and III objectives.

Implementation Actions Included in the Land Use Plan

Comprehensive Trails and Travel Management

- Designate individual routes as open or closed.
- On open routes, designate type and mode of travel allowed.

Subsequent Implementation-level Planning Guidance

Note: The following actions are provided to help guide RMA management, administration, information, and monitoring.

Management

- Develop a Recreational Activity Plan through supporting management actions and allowable uses that supports outcome objectives.

- Develop new recreation facilities (e.g., trails, trailheads, restrooms) to effectively address recreation activity demand created by growing communities and recreation-tourism that is consistent with Criteria for Placement of Trails (Appendix P) and achieves zone objectives.
- *See Managing Mountain Biking: IMBA' Guide to Providing Great Riding
- Connect/reroute routes to make loop opportunities as necessary.
- Re-route/repair unsustainable and eroding routes.
- Close and rehabilitate routes not included in route system.
- Reduce trespass onto non-BLM administered lands. This could involve connecting trails to make loops, closing/restoring routes, and appropriate signing.
- Install signage to identify trails.
- With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of designing-implementing-monitoring-evaluating-adjusting management actions to achieve zone objectives.

Administration

- Pursue agreements with non-motorized trail users to leverage funding, secure volunteer help, and promote sustainable conditions of use.
- As one part of a comprehensive funding strategy to support recreation sites and services, the BLM (with partner support) may charge fees for standard or expanded amenity recreation sites and services. Standard or expanded amenity fees are defined in the Federal Lands Recreation Enhancement Act (FLREA).
- Coordinate with CPW regarding seasonal and emergency closures for wildlife.

Information

- Provide stewardship education/information to help promote the responsible recreation and sustainable use of natural resources.
- Provide RMZ map at on-site locations that includes information about opportunities, conditions of use, and shows private and public ownership.
- Work with local chambers of commerce, tourism groups and businesses to provide definitive recreation information (i.e., accurate recreation information, user ethics, and use/user expectations) as opposed to promotional marketing.
- Partner with local non-motorized organizations and the local schools to develop and implement an education program that promotes sustainable conditions of use.

Monitoring

- Monitor recreation setting conditions through on-site patrols throughout the year.
- Monitor outcome attainment and preferences through customer assessments (on-site/focus group interviews or visitor studies) on five-year intervals.
- If monitoring indicates management objectives are not being met, the KFO, with stakeholder involvement, will adjust management to achieve objectives.
- When possible, use volunteers to help with on-site monitoring.

Headwaters Extensive Recreation Management Area

ERMA Objective

Through the life of the plan the Headwaters ERMA offers visitors the freedom to participate in a variety of non-motorized recreation activities..

Supporting Management Action and Allowable Use Decisions

Camping

- Close the Jacques Road Parking area to overnight camping.
- Close dispersed camping ½ mile along Kinney Creek Road (1/4 mile either side of road). Overnight camping is limited to designated dispersed campsites.
- Access to Campsites: Allow motorized travel or mechanical transport, or both, up to 300 feet from designated motorized routes or mechanical transport routes for direct access to dispersed campsites provided that:
    - No resource damage occurs;
    - no new routed are created; and
    - such access is not otherwise prohibited by the BLM Field Manager.

Comprehensive Trails and Travel Management

- Designate the area as *Limited to Designated (*All modes and types of travel, except foot and horse travel and authorized over-the-snow vehicles, will be limited to designated routes and trails).
- Close the Kinney Creek Spur Roads and McQuery Creek Road from Labor Day to June 1.
- Close the ERMA to motorized travel between December 15 and May 15. (Exception: motorized travel is limited to snowmobiles and authorized over-the-snow vehicles.)

Special Recreation Permits

- Only issue Class I special recreation permits for a wide variety of uses, that are consistent with natural and cultural resource objectives, and within budgetary/workload constraints. (Refer to Appendix M.).

Lands and Realty

- ROW avoidance areas to include developed recreation sites.

Stipulations and Conditions of Approval for Oil and Gas Leasing and Other Surface-Disturbing Activities

- To protect recreational setting character, recreation activity opportunities, and visitor health and safety in areas of high recreational value and/or significant recreational activity, apply CSU and/or COA restrictions (Appendices B&D) within the ERMA.

- To protect federal investment in facilities, provide for recreation use, and protect the viewshed from the facility, apply CSU and/or COA restrictions (Appendices B&D) on developed recreation sites, trails, trailheads, and interpretive sites.

Visual Resource Management

- Manage the area within the ERMA that includes timber resources under VRM Class III objectives. Manage the remainder of the ERMA under VRM Class II objectives.

Implementation Actions Included in the Land Use Plan

Comprehensive Trails and Travel Management

- Designate individual routes as open or closed.
- On open routes, designate type and mode of travel allowed.

Subsequent Implementation-level Planning Guidance

Note: The following actions are provided to help guide RMA management, administration, information, and monitoring.

Management

- Develop a Recreational Activity Plan through supporting management actions and allowable uses that supports outcome objectives.
- Develop new recreation facilities (e.g., trails, trailheads, restrooms) to effectively address recreation activity demand created by growing communities and recreation-tourism if: 1) the proposal is consistent with interdisciplinary land use plan objectives; and 2) sufficient funding and long-term management commitments are secured from managing partners.
- Connect/reroute routes to make loop opportunities as necessary to meet visitor needs and protect resources.
- Re-route/repair unsustainable and eroding routes.
- Close and rehabilitate routes not included in route system.
- Reduce trespass onto adjacent private property. This could involve connecting trails to make loops, closing/restoring routes, and appropriate signing.
- Install signage to identify trails and allowable uses. With stakeholder involvement, apply adaptive management (e.g., Limits of Acceptable Change) which focuses on a cycle of
- designing-implementing-monitoring-evaluating-adjusting management actions to achieve zone objectives.

Administration

- Coordinate with CPW regarding seasonal and emergency closures for wildlife.

Information

- Provide stewardship education/information to help promote the sustainable use of natural resources.
- Create a basic map of trails and private and public ownership. Provide maps at on-site locations.
- Work with local chambers of commerce, tourism groups and businesses to provide definitive recreation information (i.e., accurate recreation information, user ethics, and use/user expectations) as opposed to promotional marketing.

Monitoring

- Monitor visitor use, visitor health and safety, resource conditions, and the physical qualities of the landscape with the help of recreation-tourism partnerships (e.g., towns, user groups, recreation-tourism organizations, outfitters, CPW, etc.).
- If monitoring indicates management objectives are not being met, the KFO, with stakeholder involvement, will adjust management to achieve objectives.

Recreation Setting Character Condition Matrix

PHYSICAL – QUALITIES OF THE LANDSCAPE

	Primitive Classification	*Back Country Classification*	*Middle Country Classification*	*Front Country Classification*	*Rural Classification*	*Urban Classification*
Remoteness (approx. distance from routes)	More than ½ mile from any kind of a man-made trail	More than ½ mile from any kind of a man-made ATV or full-sized vehicle route	More than ½ mile from improved gravel roads	More than ½ mile from paved roads and railroad tracks.	More than ½ mile from municipal streets or roads within towns or cities.	Municipal street and roads within towns or cities.
Naturalness (landscape texture form, line, color)	Undisturbed natural landscape.	Natural landscape with any modifications in harmony with surroundings 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.
Visitor Facilities	No structures. Foot/horse 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 laundry, restaurants, and groceries.

SOCIAL – QUALITIES ASSOCIATED WITH USE

	Primitive Classification	*Back Country Classification*	*Middle Country Classification*	*Front Country Classification*	*Rural Classification*	*Urban Classification*
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 en route	15-29 encounters/day off travel routes (e.g., campgrounds) and 30 or more encounters/day in route.	People seem to be generally everywhere.	Busy place with other people constantly in view.
Group Size (average - other than you own)	Fewer than or equal to 3 people per group.	4-6 people per group.	7-12 people per group	13-25 people per group.	26-50 people per group.	Greater than 50 people per group.
Evidence of Use	No alteration 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.

OPERATIONAL – CONDITIONS CREATED BY MANAGEMENT AND CONTROLS OVER RECREATION USE

	Primitive Classification	*Back Country Classification*	*Middle Country Classification*	*Front Country Classification*	*Rural Classification*	*Urban Classification*
Access (types of travel allowed)	All travel is restricted to foot and horse travel.	Mountain bikes and perhaps other mechanized use, but all is non-motorized.	Four-wheel drives, all-terrain vehicles, dirt bikes, or snowmobiles in addition to non-motorized, mechanized use.	Two-wheel drive vehicles predominant, but also four wheel drives and non-motorized, mechanized use.	Ordinary highway auto and truck traffic is characteristic.	Wide variety of street vehicles and highway traffic is ever-present.

	Primitive Classification	*Back Country Classification*	*Middle Country Classification*	*Front Country Classification*	*Rural Classification*	*Urban Classification*
Visitor Services (and info)	None is available. Staff rarely present.	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 & activities, staff periodically present (e.g. weekdays & 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 visitor regulations or ethics signing on-site. No 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, limitations 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

NOTE: This matrix can be customized to meet particular planning needs: 1) classes can be added, split, or merged; 2) characteristics can be added or deleted; 3) class names can be changed; and 4) the text can be modified. However, the concept of a spectrum must remain intact.